SECTION BRC
BRAKE CONTROL SYSTEM

CONTENTS

ADAPTIVE BRAKE (ABR)

PRECAUTION 25

PRECAUTIONS 25
- Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER" 25
- Precautions for Removing Battery Terminal 25
- Precaution for Brake System 26
- Precaution for Harness Repair 27

PREPARATION 28

PREPARATION 28
- Commercial Service Tools 28
- Lubricant or/and Sealant 28

SYSTEM DESCRIPTION 29

COMPONENT PARTS 29
- Component Parts Location 29
- Electronic Stability Program Control Unit 31
- Axle RPM Sensor and Sensor Rotor 32
- Brake light switch 32
- Brake Vacuum Sensor 32
- Front Right Brake Wear Sensor 33

SYSTEM 34
- System Description 34
- Circuit Diagram 44
- Fail-Safe 44

WARNING/INDICATOR/CHIME LIST 45
- WARNING/INDICATOR/CHIME LIST : Warning Lamp/Indicator Lamp 45

INFORMATION DISPLAY (COMBINATION METER) 45
- INFORMATION DISPLAY (COMBINATION METER) : Brake Control Display 45

OPERATION 48

VDC 48
- VDC : Menu Displayed by Pressing Each Switch....48

DIAGNOSIS SYSTEM (ELECTRONIC STABILITY PROGRAM CONTROL UNIT) 49
- CONSULT Function 49

DIAGNOSIS SYSTEM (BCM) 52
- CONSULT Function (BCM) 52

ECU DIAGNOSIS INFORMATION 58

ELECTRONIC STABILITY PROGRAM CONTROL UNIT 58
- Reference Value 58
- Fail-safe 59
- DTC Index 59

BCM 74
- List of ECU Reference 74

WIRING DIAGRAM 75

BRAKE CONTROL SYSTEM 75
- Wiring Diagram 75

BASIC INSPECTION 84

ADDITIONAL SERVICE WHEN REPLACING ELECTRONIC STABILITY PROGRAM CONTROL UNIT 84
- Description 84
- Work Procedure 84

CONFIGURATION (ELECTRONIC STABILITY PROGRAM CONTROL UNIT) 85
- Description 85
- Work Procedure 85

CALIBRATION OF ACCELERATION SENSOR 86
- Description 86

Work Procedure 86

VIN REGISTRATION 87
Description 87
Work Procedure 87

DTC/CIRCUIT DIAGNOSIS 88

B23B3 BRAKE WEAR SENSOR 88
DTC Description 88
Diagnosis Procedure 88

C0000 CONTROL UNIT 90
DTC Description 90
Diagnosis Procedure 90

C0001 CONTROL UNIT 91
DTC Description 91
Diagnosis Procedure 91

C0002 CONTROL UNIT 92
DTC Description 92
Diagnosis Procedure 92

C0003 CONTROL UNIT 93
DTC Description 93
Diagnosis Procedure 93

C0004 CONTROL UNIT 94
DTC Description 94
Diagnosis Procedure 94

C0005 CONTROL UNIT 95
DTC Description 95
Diagnosis Procedure 95

C0006 CONTROL UNIT 97
DTC Description 97
Diagnosis Procedure 97

C0007 CONTROL UNIT 99
DTC Description 99
Diagnosis Procedure 99

C0008 CONTROL UNIT 101
DTC Description 101
Diagnosis Procedure 101

C0009 CONTROL UNIT 102
DTC Description 102
Diagnosis Procedure 102

C000A CONTROL UNIT 103
DTC Description 103
Diagnosis Procedure 103

C000B CONTROL UNIT 104
DTC Description 104
Diagnosis Procedure 104

C000C CONTROL UNIT 105
DTC Description 105
Diagnosis Procedure 105

C000D CONTROL UNIT 106
DTC Description 106
Diagnosis Procedure 106

C000E CONTROL UNIT 107
DTC Description 107
Diagnosis Procedure 107

C000F CONTROL UNIT 108
DTC Description 108
Diagnosis Procedure 108

C0010 CONTROL UNIT 109
DTC Description 109
Diagnosis Procedure 109

C0011 CONTROL UNIT 110
DTC Description 110
Diagnosis Procedure 110

C0012 CONTROL UNIT 111
DTC Description 111
Diagnosis Procedure 111

C0024 CONTROL UNIT 112
DTC Description 112
Diagnosis Procedure 112

C002B CONTROL UNIT 114
DTC Description 114
Diagnosis Procedure 114

C002C CONTROL UNIT 115
DTC Description 115
Diagnosis Procedure 115

C002D CONTROL UNIT 116
DTC Description 116
Diagnosis Procedure 116

C002E CONTROL UNIT 117
DTC Description 117
Diagnosis Procedure 117

C0030 CONTROL UNIT 118
DTC Description 118
Diagnosis Procedure 118

C0031 CONTROL UNIT 119
DTC Description 119
Diagnosis Procedure 119

C0032 CONTROL UNIT 120
DTC Description 120
Diagnosis Procedure 120

C0033 CONTROL UNIT 121
DTC Description 121
Diagnosis Procedure 121

C0034 CONTROL UNIT 122
DTC Description 122

Diagnosis Procedure 122

C0035 CONTROL UNIT 123
DTC Description 123
Diagnosis Procedure 123

C0036 CONTROL UNIT 124
DTC Description 124
Diagnosis Procedure 124

C0037 CONTROL UNIT 125
DTC Description 125
Diagnosis Procedure 125

C0038 CONTROL UNIT 126
DTC Description 126
Diagnosis Procedure 126

C003A CONTROL UNIT 127
DTC Description 127
Diagnosis Procedure 127

C003B CONTROL UNIT 128
DTC Description 128
Diagnosis Procedure 128

C003D CONTROL UNIT 129
DTC Description 129
Diagnosis Procedure 129

C003E CONTROL UNIT 130
DTC Description 130
Diagnosis Procedure 130

C003F CONTROL UNIT 131
DTC Description 131
Diagnosis Procedure 131

C0040 CONTROL UNIT 132
DTC Description 132
Diagnosis Procedure 132

C0041 CONTROL UNIT 133
DTC Description 133
Diagnosis Procedure 133

C0042 CONTROL UNIT 134
DTC Description 134
Diagnosis Procedure 134

C0043 CONTROL UNIT 136
DTC Description 136
Diagnosis Procedure 136

C0044 CONTROL UNIT 138
DTC Description 138
Diagnosis Procedure 138

C0045 CONTROL UNIT 140
DTC Description 140
Diagnosis Procedure 140

C0046 CONTROL UNIT 142
DTC Description 142
Diagnosis Procedure 142

C0048 CONTROL UNIT 144
DTC Description 144
Diagnosis Procedure 144

C0049 CONTROL UNIT 146
DTC Description 146
Diagnosis Procedure 146

C004A CONTROL UNIT 147
DTC Description 147
Diagnosis Procedure 147

C004B CONTROL UNIT 148
DTC Description 148
Diagnosis Procedure 148

C004D CONTROL UNIT 150
DTC Description 150
Diagnosis Procedure 150

C0071 BRAKE LIGHT SWITCH 152
DTC Description 152
Diagnosis Procedure 152

C0073 BRAKE LIGHT SWITCH 154
DTC Description 154
Diagnosis Procedure 154

C0075 BRAKE LIGHT SWITCH 156
DTC Description 156
Diagnosis Procedure 156

C0076 BRAKE LIGHT SWITCH 159
DTC Description 159
Diagnosis Procedure 159

C0077 BRAKE LIGHT SWITCH 161
DTC Description 161
Diagnosis Procedure 161

C0078 BRAKE LIGHT SWITCH 163
DTC Description 163
Diagnosis Procedure 163
Component Inspection 166

C0080 DISC ROTOR 167
DTC Description 167
Diagnosis Procedure 167

C0081 DISC ROTOR 168
DTC Description 168
Diagnosis Procedure 168

C00B0 STEERING ANGLE SENSOR SYSTEM 169
DTC Description 169
Diagnosis Procedure 169

C00B1 AXLE RPM SENSOR 171

DTC Description 171
Diagnosis Procedure 171

C00B2 CONTROL UNIT 173
DTC Description 173
Diagnosis Procedure 173

C00C0 ACCELERATION SENSOR 174
DTC Description 174
Diagnosis Procedure 174

C00C1 ACCELERATION SENSOR 176
DTC Description 176
Diagnosis Procedure 176

C00C2 ROTATION RATE SENSOR 177
DTC Description 177
Diagnosis Procedure 177

C00C3 ROTATION RATE SENSOR 179
DTC Description 179
Diagnosis Procedure 179

C00C4 ROTATION RATE SENSOR 181
DTC Description 181
Diagnosis Procedure 181

C00C5 ROTATION RATE SENSOR 183
DTC Description 183
Diagnosis Procedure 183

C00C6 ACCELERATION SENSOR 185
DTC Description 185
Diagnosis Procedure 185

C00C9 ROTATION RATE SENSOR 186
DTC Description 186
Diagnosis Procedure 186

C00CA ROTATION RATE SENSOR 188
DTC Description 188
Diagnosis Procedure 188

C00CB ACCELERATION SENSOR 190
DTC Description 190
Diagnosis Procedure 190

C00CC ROTATION RATE SENSOR 191
DTC Description 191
Diagnosis Procedure 191

C00CD ROTATION RATE SENSOR 193
DTC Description 193
Diagnosis Procedure 193

C00D0 CONTROL UNIT 195
DTC Description 195
Diagnosis Procedure 195

C0100 POWER SUPPLY CIRCUIT 197
DTC Description 197
Diagnosis Procedure 197

C0105 POWER SUPPLY CIRCUIT 198
DTC Description 198
Diagnosis Procedure 198

C0106 VALVE RELAY/VALVE 199
DTC Description 199
Diagnosis Procedure 199

C0111 POWER SUPPLY CIRCUIT 201
DTC Description 201
Diagnosis Procedure 201

C0112 POWER SUPPLY CIRCUIT 202
DTC Description 202
Diagnosis Procedure 202

C0114 CONTROL UNIT 204
DTC Description 204
Diagnosis Procedure 204

C0116 CONTROL UNIT 205
DTC Description 205
Diagnosis Procedure 205

C0117 CONTROL UNIT 206
DTC Description 206
Diagnosis Procedure 206

C0120 POWER SUPPLY CIRCUIT 208
DTC Description 208
Diagnosis Procedure 208

C0130 PRESSURE SENSOR (FRONT LEFT)..210
DTC Description 210
Diagnosis Procedure 210

C0131 PRESSURE SENSOR (FRONT LEFT)..212
DTC Description 212
Diagnosis Procedure 212

C0133 PRESSURE SENSOR (FRONT LEFT)..214
DTC Description 214
Diagnosis Procedure 214

C0134 CONTROL UNIT 216
DTC Description 216
Diagnosis Procedure 216

C0140 PRESSURE SENSOR (FRONT RIGHT) 217
DTC Description 217
Diagnosis Procedure 217

C0142 PRESSURE SENSOR (FRONT RIGHT) 218
DTC Description 218
Diagnosis Procedure 218

C0143 PRESSURE SENSOR (FRONT RIGHT) 220
DTC Description 220
Diagnosis Procedure 220

C0144 CONTROL UNIT 222
DTC Description 222
Diagnosis Procedure 222

C0150 PRESSURE SENSOR (MASTER CYLINDER) 223
DTC Description 223
Diagnosis Procedure 223

C0151 PRESSURE SENSOR (MASTER CYLINDER) 225
DTC Description 225
Diagnosis Procedure 225

C0152 PRESSURE SENSOR (MASTER CYLINDER) 227
DTC Description 227
Diagnosis Procedure 227

C0160 PRESSURE SENSOR (REAR LEFT) .. 229
DTC Description 229
Diagnosis Procedure 229

C0161 PRESSURE SENSOR (REAR LEFT) .. 231
DTC Description 231
Diagnosis Procedure 231

C0163 PRESSURE SENSOR (REAR LEFT) .. 233
DTC Description 233
Diagnosis Procedure 233

C0164 CONTROL UNIT 235
DTC Description 235
Diagnosis Procedure 235

C0170 MAIN SHIFTER SHAFT POSITION SENSOR 237
DTC Description 237
Diagnosis Procedure 237

C0171 MAIN SHIFTER SHAFT POSITION SENSOR 238
DTC Description 238
Diagnosis Procedure 238

C0180 AXLE RPM SENSOR 239
DTC Description 239
Diagnosis Procedure 239

C0181 AXLE RPM SENSOR 241
DTC Description 241
Diagnosis Procedure 241

C0185 AXLE RPM SENSOR 243
DTC Description 243
Diagnosis Procedure 243

C0191 MOTOR RELAY 244
DTC Description 244
Diagnosis Procedure 244

C0195 RETURN PUMP 245
DTC Description 245
Diagnosis Procedure 245

C0196 RETURN PUMP 246
DTC Description 246
Diagnosis Procedure 246

C0197 RETURN PUMP 247
DTC Description 247
Diagnosis Procedure 247

C0198 RETURN PUMP 249
DTC Description 249
Diagnosis Procedure 249

C019C CONTROL UNIT 250
DTC Description 250
Diagnosis Procedure 250

C019D RETURN PUMP 251
DTC Description 251
Diagnosis Procedure 251

C019E RETURN PUMP 252
DTC Description 252
Diagnosis Procedure 252

C019F RETURN PUMP 253
DTC Description 253
Diagnosis Procedure 253

C01A0 RETURN PUMP 255
DTC Description 255
Diagnosis Procedure 255

C01A1 RETURN PUMP 256
DTC Description 256
Diagnosis Procedure 256

C01A2 RETURN PUMP 258
DTC Description 258
Diagnosis Procedure 258

C01A3 RETURN PUMP 260
DTC Description 260
Diagnosis Procedure 260

C01A4 RETURN PUMP 262
DTC Description 262
Diagnosis Procedure 262

C01A5 RETURN PUMP 264
DTC Description 264
Diagnosis Procedure 264

C01A6 RETURN PUMP 266
DTC Description 266
Diagnosis Procedure 266

C01A7 RETURN PUMP 268
DTC Description 268
Diagnosis Procedure 268

C01A8 RETURN PUMP 270
DTC Description 270
Diagnosis Procedure 270

C01A9 MOTOR RELAY 272
DTC Description 272
Diagnosis Procedure 272

C01AA RETURN PUMP 274
DTC Description 274
Diagnosis Procedure 274

C01AB RETURN PUMP 276
DTC Description 276
Diagnosis Procedure 276

C01C0 BRAKE VACUUM SENSOR 278
DTC Description 278
Diagnosis Procedure 278

C01C1 BRAKE VACUUM SENSOR 280
DTC Description 280
Diagnosis Procedure 280

C01C2 BRAKE VACUUM SENSOR 282
DTC Description 282
Diagnosis Procedure 282

C01C3 BRAKE VACUUM SENSOR 285
DTC Description 285
Diagnosis Procedure 285

C01C4 BRAKE VACUUM SENSOR 288
DTC Description 288
Diagnosis Procedure 288

C01C5 BRAKE VACUUM SENSOR 289
DTC Description 289
Diagnosis Procedure 289

C01C6 CONTROL UNIT 290
DTC Description 290
Diagnosis Procedure 290

C01D0 VALVE RELAY 291
DTC Description 291
Diagnosis Procedure 291

C01D1 VALVE RELAY 293
DTC Description 293
Diagnosis Procedure 293

C01D2 VALVE RELAY 295
DTC Description 295
Diagnosis Procedure 295

C01D3 VALVE RELAY 297
DTC Description 297
Diagnosis Procedure 297

C01D4 VALVE RELAY 299
DTC Description 299
Diagnosis Procedure 299

C01D5 VALVE RELAY 301
DTC Description 301
Diagnosis Procedure 301

C01D6 VALVE RELAY 303
DTC Description 303
Diagnosis Procedure 303

C01D7 VALVE RELAY 304
DTC Description 304
Diagnosis Procedure 304

C01F0 CONTROL UNIT 306
DTC Description 306
Diagnosis Procedure 306

C0200 ACCELERATION SENSOR 308
DTC Description 308
Diagnosis Procedure 308

C0201 ACCELERATION SENSOR 310
DTC Description 310
Diagnosis Procedure 310

C0220 CAN COMMUNICATION 312
DTC Description 312
Diagnosis Procedure 312

C0221 CAN COMMUNICATION 314
DTC Description 314
Diagnosis Procedure 314

C0224 CAN COMMUNICATION 316
DTC Description 316
Diagnosis Procedure 316

C0225 CAN COMMUNICATION 317
DTC Description 317
Diagnosis Procedure 317

C0240 EXHAUST VALVE (FRONT LEFT) 318
DTC Description 318
Diagnosis Procedure 318

C0241 EXHAUST VALVE (FRONT LEFT) 319
DTC Description 319
Diagnosis Procedure 319

C0242 EXHAUST VALVE (FRONT LEFT) 320
DTC Description 320
Diagnosis Procedure 320

C0243 EXHAUST VALVE (FRONT LEFT) 321
DTC Description 321
Diagnosis Procedure 321

C0244 EXHAUST VALVE (FRONT LEFT) 322
DTC Description 322
Diagnosis Procedure 322

C0245 EXHAUST VALVE (FRONT LEFT) 323

DTC Description 323
Diagnosis Procedure 323

C0246 EXHAUST VALVE (FRONT LEFT) 324
DTC Description 324
Diagnosis Procedure 324

C0250 EXHAUST VALVE (FRONT RIGHT) ... 325
DTC Description 325
Diagnosis Procedure 325

C0251 EXHAUST VALVE (FRONT RIGHT) ... 326
DTC Description 326
Diagnosis Procedure 326

C0252 EXHAUST VALVE (FRONT RIGHT) ... 327
DTC Description 327
Diagnosis Procedure 327

C0253 EXHAUST VALVE (FRONT RIGHT) ... 328
DTC Description 328
Diagnosis Procedure 328

C0254 EXHAUST VALVE (FRONT RIGHT) ... 329
DTC Description 329
Diagnosis Procedure 329

C0255 EXHAUST VALVE (FRONT RIGHT) ... 330
DTC Description 330
Diagnosis Procedure 330

C0256 EXHAUST VALVE (FRONT RIGHT) ... 331
DTC Description 331
Diagnosis Procedure 331

C0260 EXHAUST VALVE (REAR LEFT) 332
DTC Description 332
Diagnosis Procedure 332

C0261 EXHAUST VALVE (REAR LEFT) 333
DTC Description 333
Diagnosis Procedure 333

C0262 EXHAUST VALVE (REAR LEFT) 334
DTC Description 334
Diagnosis Procedure 334

C0263 EXHAUST VALVE (REAR LEFT) 335
DTC Description 335
Diagnosis Procedure 335

C0264 EXHAUST VALVE (REAR LEFT) 336
DTC Description 336
Diagnosis Procedure 336

C0265 EXHAUST VALVE (REAR LEFT) 337
DTC Description 337
Diagnosis Procedure 337

C0266 EXHAUST VALVE (REAR LEFT) 338
DTC Description 338
Diagnosis Procedure 338

C0270 YAW RATE SENSOR 339
DTC Description 339
Diagnosis Procedure 339

C0271 EXHAUST VALVE (REAR RIGHT) 341
DTC Description 341
Diagnosis Procedure 341

C0272 EXHAUST VALVE (REAR RIGHT) 342
DTC Description 342
Diagnosis Procedure 342

C0273 EXHAUST VALVE (REAR RIGHT) 343
DTC Description 343
Diagnosis Procedure 343

C0274 EXHAUST VALVE (REAR RIGHT) 344
DTC Description 344
Diagnosis Procedure 344

C0275 EXHAUST VALVE (REAR RIGHT) 345
DTC Description 345
Diagnosis Procedure 345

C0276 EXHAUST VALVE (REAR RIGHT) 346
DTC Description 346
Diagnosis Procedure 346

C0280 ADMISSION VALVE (FRONT LEFT) .. 347
DTC Description 347
Diagnosis Procedure 347

C0281 ADMISSION VALVE (FRONT LEFT) .. 348
DTC Description 348
Diagnosis Procedure 348

C0282 ADMISSION VALVE (FRONT LEFT) .. 349
DTC Description 349
Diagnosis Procedure 349

C0283 ADMISSION VALVE (FRONT LEFT) .. 350
DTC Description 350
Diagnosis Procedure 350

C0284 ADMISSION VALVE (FRONT LEFT) .. 351
DTC Description 351
Diagnosis Procedure 351

C0286 ADMISSION VALVE (FRONT LEFT) .. 352
DTC Description 352
Diagnosis Procedure 352

C0287 ADMISSION VALVE (FRONT LEFT) .. 353
DTC Description 353
Diagnosis Procedure 353

C0289 ADMISSION VALVE (FRONT LEFT) .. 354
DTC Description 354
Diagnosis Procedure 354

C0290 ADMISSION VALVE (FRONT RIGHT). 355
DTC Description 355

Diagnosis Procedure 355

C0291 ADMISSION VALVE (FRONT RIGHT). 356
DTC Description 356
Diagnosis Procedure 356

C0292 ADMISSION VALVE (FRONT RIGHT). 357
DTC Description 357
Diagnosis Procedure 357

C0293 ADMISSION VALVE (FRONT RIGHT). 358
DTC Description 358
Diagnosis Procedure 358

C0294 ADMISSION VALVE (FRONT RIGHT). 359
DTC Description 359
Diagnosis Procedure 359

C0296 ADMISSION VALVE (FRONT RIGHT). 360
DTC Description 360
Diagnosis Procedure 360

C0297 ADMISSION VALVE (FRONT RIGHT). 361
DTC Description 361
Diagnosis Procedure 361

C0298 ADMISSION VALVE (FRONT RIGHT). 362
DTC Description 362
Diagnosis Procedure 362

C02A0 ADMISSION VALVE (REAR LEFT) ... 363
DTC Description 363
Diagnosis Procedure 363

C02A1 ADMISSION VALVE (REAR LEFT) ... 364
DTC Description 364
Diagnosis Procedure 364

C02A2 ADMISSION VALVE (REAR LEFT) ... 365
DTC Description 365
Diagnosis Procedure 365

C02A3 ADMISSION VALVE (REAR LEFT) ... 366
DTC Description 366
Diagnosis Procedure 366

C02A4 ADMISSION VALVE (REAR LEFT) ... 367
DTC Description 367
Diagnosis Procedure 367

C02A6 ADMISSION VALVE (REAR LEFT) ... 368
DTC Description 368
Diagnosis Procedure 368

C02A7 ADMISSION VALVE (REAR LEFT) ... 369
DTC Description 369
Diagnosis Procedure 369

C02A8 ADMISSION VALVE (REAR LEFT) ... 370
DTC Description 370
Diagnosis Procedure 370

C02B0 ADMISSION VALVE (REAR RIGHT) . 371
DTC Description 371
Diagnosis Procedure 371

C02B1 ADMISSION VALVE (REAR RIGHT) ..372
DTC Description 372
Diagnosis Procedure 372

C02B2 ADMISSION VALVE (REAR RIGHT) ..373
DTC Description 373
Diagnosis Procedure 373

C02B3 ADMISSION VALVE (REAR RIGHT) ..374
DTC Description 374
Diagnosis Procedure 374

C02B4 ADMISSION VALVE (REAR RIGHT) ..375
DTC Description 375
Diagnosis Procedure 375

C02B6 ADMISSION VALVE (REAR RIGHT) ..376
DTC Description 376
Diagnosis Procedure 376

C02B7 ADMISSION VALVE (REAR RIGHT) ..377
DTC Description 377
Diagnosis Procedure 377

C02B8 ADMISSION VALVE (REAR RIGHT) ..378
DTC Description 378
Diagnosis Procedure 378

C02C0 VALVE DRIVER 379
DTC Description 379
Diagnosis Procedure 379

C02C1 VALVE 380
DTC Description 380
Diagnosis Procedure 380

C02C2 VALVE 381
DTC Description 381
Diagnosis Procedure 381

C02C3 VALVE 382
DTC Description 382
Diagnosis Procedure 382

C02C5 VALVE DRIVER 383
DTC Description 383
Diagnosis Procedure 383

C02C6 VALVE DRIVER 384
DTC Description 384
Diagnosis Procedure 384

C02C7 VALVE DRIVER 385
DTC Description 385
Diagnosis Procedure 385

C02C8 VALVE DRIVER 386
DTC Description 386
Diagnosis Procedure 386

C02C9 VALVE DRIVER 387
DTC Description 387
Diagnosis Procedure 387

C02CA VALVE DRIVER 388
DTC Description 388
Diagnosis Procedure 388

C02CB VALVE DRIVER 389
DTC Description 389
Diagnosis Procedure 389

C02CC VALVE DRIVER 390
DTC Description 390
Diagnosis Procedure 390

C02CD VALVE 391
DTC Description 391
Diagnosis Procedure 391

C02CE VALVE 392
DTC Description 392
Diagnosis Procedure 392

C02CF VALVE DRIVER 393
DTC Description 393
Diagnosis Procedure 393

C02D0 HIGH PRESSURE VALVE 1 394
DTC Description 394
Diagnosis Procedure 394

C02D1 HIGH PRESSURE VALVE 1 395
DTC Description 395
Diagnosis Procedure 395

C02D2 HIGH PRESSURE VALVE 1 396
DTC Description 396
Diagnosis Procedure 396

C02D3 HIGH PRESSURE VALVE 1 397
DTC Description 397
Diagnosis Procedure 397

C02D4 HIGH PRESSURE VALVE 1 399
DTC Description 399
Diagnosis Procedure 399

C02D5 HIGH PRESSURE VALVE 1 400
DTC Description 400
Diagnosis Procedure 400

C02D6 HIGH PRESSURE VALVE 1 401
DTC Description 401
Diagnosis Procedure 401

C02D7 HIGH PRESSURE VALVE 1 402
DTC Description 402
Diagnosis Procedure 402

C02E0 HIGH PRESSURE VALVE 2 403
DTC Description 403
Diagnosis Procedure 403

C02E1 HIGH PRESSURE VALVE 2 404
DTC Description 404
Diagnosis Procedure 404

C02E2 HIGH PRESSURE VALVE2 405
DTC Description 405
Diagnosis Procedure 405

C02E3 HIGH PRESSURE VALVE 2 406
DTC Description 406
Diagnosis Procedure 406

C02E4 HIGH PRESSURE VALVE 2 408
DTC Description 408
Diagnosis Procedure 408

C02E5 HIGH PRESSURE VALVE 2 409
DTC Description 409
Diagnosis Procedure 409

C02E6 HIGH PRESSURE VALVE 2 410
DTC Description 410
Diagnosis Procedure 410

C02E7 HIGH PRESSURE VALVE 2 411
DTC Description 411
Diagnosis Procedure 411

C02F0 SWITCHING VALVE 1 412
DTC Description 412
Diagnosis Procedure 412

C02F1 SWITCHING VALVE 1 413
DTC Description 413
Diagnosis Procedure 413

C02F2 SWITCHING VALVE 1 414
DTC Description 414
Diagnosis Procedure 414

C02F3 SWITCHING VALVE 1 415
DTC Description 415
Diagnosis Procedure 415

C02F4 SWITCHING VALVE 1 417
DTC Description 417
Diagnosis Procedure 417

C02F5 SWITCHING VALVE 1 418
DTC Description 418
Diagnosis Procedure 418

C02F6 SWITCHING VALVE 1 419
DTC Description 419
Diagnosis Procedure 419

C02F7 SWITCHING VALVE 1 421
DTC Description 421
Diagnosis Procedure 421

C02F8 SWITCHING VALVE 1 422

DTC Description 422
Diagnosis Procedure 422

C0300 SWITCHING VALVE 2 423
DTC Description 423
Diagnosis Procedure 423

C0301 SWITCHING VALVE 2 424
DTC Description 424
Diagnosis Procedure 424

C0302 SWITCHING VALVE 2 425
DTC Description 425
Diagnosis Procedure 425

C0303 SWITCHING VALVE 2 426
DTC Description 426
Diagnosis Procedure 426

C0304 SWITCHING VALVE 2 428
DTC Description 428
Diagnosis Procedure 428

C0305 SWITCHING VALVE 2 429
DTC Description 429
Diagnosis Procedure 429

C0306 SWITCHING VALVE 2 431
DTC Description 431
Diagnosis Procedure 431

C0307 SWITCHING VALVE 2 432
DTC Description 432
Diagnosis Procedure 432

C0308 SWITCHING VALVE 2 433
DTC Description 433
Diagnosis Procedure 433

C0310 CONTROL UNIT 434
DTC Description 434
Diagnosis Procedure 434

C0311 CONTROL UNIT 436
DTC Description 436
Diagnosis Procedure 436

C0313 CONTROL UNIT 437
DTC Description 437
Diagnosis Procedure 437

C0314 AXLE RPM SENSOR 438
DTC Description 438
Diagnosis Procedure 438

C0315 POWER SUPPLY CIRCUIT 440
DTC Description 440
Diagnosis Procedure 440

C0320 YAW RATE SENSOR 442
DTC Description 442
Diagnosis Procedure 442

C0321 YAW RATE SENSOR 443
DTC Description 443
Diagnosis Procedure 443

C0323 YAW RATE SENSOR 444
DTC Description 444
Diagnosis Procedure 444

C0325 YAW RATE SENSOR 445
DTC Description 445
Diagnosis Procedure 445

C0326 YAW RATE SENSOR 446
DTC Description 446
Diagnosis Procedure 446

C0327 YAW RATE SENSOR 448
DTC Description 448
Diagnosis Procedure 448

C0328 YAW RATE SENSOR 450
DTC Description 450
Diagnosis Procedure 450

C0329 YAW RATE SENSOR 452
DTC Description 452
Diagnosis Procedure 453

C032A YAW RATE SENSOR 454
DTC Description 454
Diagnosis Procedure 454

C032B YAW RATE SENSOR 456
DTC Description 456
Diagnosis Procedure 456

C032C YAW RATE SENSOR 458
DTC Description 458
Diagnosis Procedure 458

C032D YAW RATE SENSOR 460
DTC Description 460
Diagnosis Procedure 460

C032E YAW RATE SENSOR 462
DTC Description 462
Diagnosis Procedure 462

C0330 LONGITUDINAL ACCELERATION SENSOR 464
DTC Description 464
Diagnosis Procedure 464

C0331 LONGITUDINAL ACCELERATION SENSOR 466
DTC Description 466
Diagnosis Procedure 466

C0332 LONGITUDINAL ACCELERATION SENSOR 468
DTC Description 468
Diagnosis Procedure 468

C0333 LONGITUDINAL ACCELERATION SENSOR 470
DTC Description 470
Diagnosis Procedure 470

C0334 LONGITUDINAL ACCELERATION SENSOR 472
DTC Description 472
Diagnosis Procedure 472

C0340 LATERAL ACCELERATION SENSOR. 474
DTC Description 474
Diagnosis Procedure 475

C0341 LATERAL ACCELERATION SENSOR. 476
DTC Description 476
Diagnosis Procedure 476

C0342 LATERAL ACCELERATION SENSOR. 477
DTC Description 477
Diagnosis Procedure 478

C0343 LATERAL ACCELERATION SENSOR. 479
DTC Description 479
Diagnosis Procedure 479

C0344 LATERAL ACCELERATION SENSOR. 481
DTC Description 481
Diagnosis Procedure 481

C0350 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM 482
DTC Description 482
Diagnosis Procedure 482

C0351 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM 483
DTC Description 483
Diagnosis Procedure 483

C0352 FRONT RIGHT DOOR SYSTEM 484
DTC Description 484
Diagnosis Procedure 484

C0353 FRONT LEFT DOOR SYSTEM 485
DTC Description 485
Diagnosis Procedure 485

C0354 BACK DOOR SYSTEM 486
DTC Description 486
Diagnosis Procedure 486

C0356 TRANSMISSION SYSTEM 487
DTC Description 487
Diagnosis Procedure 487

C0360 ENGINE SYSTEM 488
DTC Description 488
Diagnosis Procedure 488

C0361 ENGINE SYSTEM 489
DTC Description 489
Diagnosis Procedure 489

C0370 TRANSMISSION SYSTEM 490
DTC Description 490
Diagnosis Procedure 490

C0375 ENGINE SYSTEM 491
DTC Description 491
Diagnosis Procedure 491

C0380 ENGINE SYSTEM 492
DTC Description 492
Diagnosis Procedure 492

C0381 ENGINE SYSTEM 493
DTC Description 493
Diagnosis Procedure 493

C0382 ENGINE SYSTEM 494
DTC Description 494
Diagnosis Procedure 494

C0383 ENGINE SYSTEM 495
DTC Description 495
Diagnosis Procedure 495

C0384 ENGINE SYSTEM 497
DTC Description 497
Diagnosis Procedure 497

C0385 ENGINE SYSTEM 498
DTC Description 498
Diagnosis Procedure 498

C0390 ENGINE SYSTEM 499
DTC Description 499
Diagnosis Procedure 499

C0391 ENGINE SYSTEM 500
DTC Description 500
Diagnosis Procedure 500

C0392 ENGINE SYSTEM 501
DTC Description 501
Diagnosis Procedure 501

C0393 ENGINE SYSTEM 502
DTC Description 502
Diagnosis Procedure 502

C0394 ENGINE SYSTEM 503
DTC Description 503
Diagnosis Procedure 503

C03A0 ENGINE SYSTEM 504
DTC Description 504
Diagnosis Procedure 504

C03A1 ENGINE SYSTEM 505
DTC Description 505
Diagnosis Procedure 505

C03A2 ENGINE SYSTEM 506

DTC Description 506
Diagnosis Procedure 506

C03A3 ENGINE SYSTEM 507
DTC Description 507
Diagnosis Procedure 507

C03A4 ENGINE SYSTEM 508
DTC Description 508
Diagnosis Procedure 508

C03A5 ENGINE SYSTEM 510
DTC Description 510
Diagnosis Procedure 510

C03A6 ENGINE SYSTEM 512
DTC Description 512
Diagnosis Procedure 512

C03B0 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM 514
DTC Description 514
Diagnosis Procedure 514

C03B1 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM 515
DTC Description 515
Diagnosis Procedure 515

C03B2 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM 516
DTC Description 516
Diagnosis Procedure 516

C03B3 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM 517
DTC Description 517
Diagnosis Procedure 517

C03C0 ELECTRIC PARKING BRAKE SYSTEM 518
DTC Description 518
Diagnosis Procedure 518

C03C1 ELECTRIC PARKING BRAKE SYSTEM 519
DTC Description 519
Diagnosis Procedure 519

C03C2 ELECTRIC PARKING BRAKE SYSTEM 520
DTC Description 520
Diagnosis Procedure 520

C03C3 ELECTRIC PARKING BRAKE SYSTEM 521
DTC Description 521
Diagnosis Procedure 521

C03C4 ELECTRIC PARKING BRAKE SYSTEM 522
DTC Description 522
Diagnosis Procedure 522

C03D0 COMBINATION METER SYSTEM 523
DTC Description 523
Diagnosis Procedure 523

C03D1 COMBINATION METER SYSTEM 524
DTC Description 524
Diagnosis Procedure 524

C03E0 COMBINATION METER SYSTEM 525
DTC Description 525
Diagnosis Procedure 525

C03E1 COMBINATION METER SYSTEM 526
DTC Description 526
Diagnosis Procedure 526

C03E2 COMBINATION METER SYSTEM 527
DTC Description 527
Diagnosis Procedure 527

C03E3 COMBINATION METER SYSTEM 528
DTC Description 528
Diagnosis Procedure 528

C03E4 COMBINATION METER SYSTEM 529
DTC Description 529
Diagnosis Procedure 529

C03F0 COMBINATION METER SYSTEM 530
DTC Description 530
Diagnosis Procedure 530

C03F1 COMBINATION METER SYSTEM 531
DTC Description 531
Diagnosis Procedure 531

C03F2 COMBINATION METER SYSTEM 532
DTC Description 532
Diagnosis Procedure 532

C0400 STEERING COLUMN CONTROL MODULE SYSTEM 533
DTC Description 533
Diagnosis Procedure 533

C0401 STEERING COLUMN CONTROL MODULE SYSTEM 534
DTC Description 534
Diagnosis Procedure 534

C0403 STEERING COLUMN CONTROL MODULE SYSTEM 535
DTC Description 535
Diagnosis Procedure 535

C0404 STEERING COLUMN CONTROL MODULE SYSTEM 536
DTC Description 536
Diagnosis Procedure 536

C0410 AXLE RPM SENSOR 537
DTC Description 537
Diagnosis Procedure 537

C0420 AXLE RPM SENSOR 539
DTC Description 539
Diagnosis Procedure 539

C0430 AXLE RPM SENSOR 541
DTC Description 541
Diagnosis Procedure 541

C0451 STEERING ANGLE SENSOR SYSTEM 543
DTC Description 543
Diagnosis Procedure 543

C0452 STEERING ANGLE SENSOR SYSTEM 545
DTC Description 545
Diagnosis Procedure 545

C0453 STEERING ANGLE SENSOR SYSTEM 547
DTC Description 547
Diagnosis Procedure 547

C0454 STEERING ANGLE SENSOR SYSTEM 549
DTC Description 549
Diagnosis Procedure 549

C0456 STEERING ANGLE SENSOR SYSTEM 551
DTC Description 551
Diagnosis Procedure 551

C0457 STEERING ANGLE SENSOR SYSTEM 553
DTC Description 553
Diagnosis Procedure 554

C045A STEERING ANGLE SENSOR SYSTEM 555
DTC Description 555
Diagnosis Procedure 555

C045B STEERING ANGLE SENSOR SYSTEM 557
DTC Description 557
Diagnosis Procedure 558

C0460 FRONT LEFT AXLE RPM SENSOR ... 559
DTC Description 559
Diagnosis Procedure 559

C0470 FRONT RIGHT AXLE RPM SENSOR .. 561
DTC Description 561
Diagnosis Procedure 561

C0480 REAR LEFT AXLE RPM SENSOR 563
DTC Description 563
Diagnosis Procedure 563

C0490 REAR RIGHT AXLE RPM SENSOR ... 565
DTC Description 565
Diagnosis Procedure 565

C04A0 FRONT LEFT AXLE RPM SENSOR .. 567
DTC Description 567
Diagnosis Procedure 567

C04A1 FRONT LEFT AXLE RPM SENSOR .. 569
DTC Description 569
Diagnosis Procedure 569

C04A2 FRONT LEFT AXLE RPM SENSOR .. 571
DTC Description 571
Diagnosis Procedure 571

C04A3 FRONT LEFT AXLE RPM SENSOR .. 573
DTC Description 573
Diagnosis Procedure 573

C04A4 FRONT LEFT AXLE RPM SENSOR .. 575
DTC Description 575
Diagnosis Procedure 575

C04A6 FRONT LEFT AXLE RPM SENSOR .. 576
DTC Description 576
Diagnosis Procedure 576

C04A7 FRONT LEFT AXLE RPM SENSOR .. 578
DTC Description 578
Diagnosis Procedure 578

C04AA FRONT LEFT AXLE RPM SENSOR .. 580
DTC Description 580
Diagnosis Procedure 580

C04AB FRONT LEFT AXLE RPM SENSOR .. 582
DTC Description 582
Diagnosis Procedure 582

C04AC FRONT LEFT AXLE RPM SENSOR .. 584
DTC Description 584
Diagnosis Procedure 584

C04AD FRONT LEFT AXLE RPM SENSOR .. 586
DTC Description 586
Diagnosis Procedure 586

C04AE FRONT LEFT AXLE RPM SENSOR .. 588
DTC Description 588
Diagnosis Procedure 588

C04AF FRONT LEFT AXLE RPM SENSOR .. 590
DTC Description 590
Diagnosis Procedure 590

C04B0 FRONT LEFT AXLE RPM SENSOR .. 592
DTC Description 592
Diagnosis Procedure 592

C04B1 FRONT LEFT AXLE RPM SENSOR .. 594
DTC Description 594
Diagnosis Procedure 594

C04B3 FRONT LEFT AXLE RPM SENSOR .. 596
DTC Description 596
Diagnosis Procedure 596

C04B4 FRONT LEFT AXLE RPM SENSOR .. 598
DTC Description 598
Diagnosis Procedure 598

C04B5 FRONT LEFT AXLE RPM SENSOR .. 600
DTC Description 600
Diagnosis Procedure 600

C04C0 FRONT RIGHT AXLE RPM SENSOR. 602
DTC Description 602
Diagnosis Procedure 602

C04C1 FRONT RIGHT AXLE RPM SENSOR. 604
DTC Description 604
Diagnosis Procedure 604

C04C2 FRONT RIGHT AXLE RPM SENSOR. 606
DTC Description 606
Diagnosis Procedure 606

C04C3 FRONT RIGHT AXLE RPM SENSOR. 608
DTC Description 608
Diagnosis Procedure 608

C04C4 FRONT RIGHT AXLE RPM SENSOR. 610
DTC Description 610
Diagnosis Procedure 610

C04C6 FRONT RIGHT AXLE RPM SENSOR. 611
DTC Description 611
Diagnosis Procedure 611

C04C7 FRONT RIGHT AXLE RPM SENSOR. 613
DTC Description 613
Diagnosis Procedure 613

C04CA FRONT RIGHT AXLE RPM SENSOR. 615
DTC Description 615
Diagnosis Procedure 615

C04CB FRONT RIGHT AXLE RPM SENSOR. 617
DTC Description 617
Diagnosis Procedure 618

C04CC FRONT RIGHT AXLE RPM SENSOR. 619
DTC Description 619
Diagnosis Procedure 619

C04CD FRONT RIGHT AXLE RPM SENSOR. 621
DTC Description 621
Diagnosis Procedure 621

C04CE FRONT RIGHT AXLE RPM SENSOR. 623
DTC Description 623
Diagnosis Procedure 623

C04CF FRONT RIGHT AXLE RPM SENSOR.. 625
DTC Description 625
Diagnosis Procedure 625

C04D0 FRONT RIGHT AXLE RPM SENSOR.. 627
DTC Description 627
Diagnosis Procedure 627

C04D1 FRONT RIGHT AXLE RPM SENSOR.. 629
DTC Description 629
Diagnosis Procedure 629

C04D3 FRONT RIGHT AXLE RPM SENSOR.. 631
DTC Description 631
Diagnosis Procedure 631

C04D4 FRONT RIGHT AXLE RPM SENSOR.. 633
DTC Description 633
Diagnosis Procedure 633

C04D5 FRONT RIGHT AXLE RPM SENSOR.. 635
DTC Description 635
Diagnosis Procedure 635

C04E0 REAR LEFT AXLE RPM SENSOR 637
DTC Description 637
Diagnosis Procedure 637

C04E1 REAR LEFT AXLE RPM SENSOR 639
DTC Description 639
Diagnosis Procedure 639

C04E2 REAR LEFT AXLE RPM SENSOR 641
DTC Description 641
Diagnosis Procedure 641

C04E3 REAR LEFT AXLE RPM SENSOR 643
DTC Description 643
Diagnosis Procedure 643

C04E4 REAR LEFT AXLE RPM SENSOR 645
DTC Description 645
Diagnosis Procedure 645

C04E6 REAR LEFT AXLE RPM SENSOR 646
DTC Description 646
Diagnosis Procedure 646

C04E7 REAR LEFT AXLE RPM SENSOR 648
DTC Description 648
Diagnosis Procedure 648

C04EA REAR LEFT AXLE RPM SENSOR 650
DTC Description 650
Diagnosis Procedure 650

C04EB REAR LEFT AXLE RPM SENSOR 652
DTC Description 652
Diagnosis Procedure 653

C04EC REAR LEFT AXLE RPM SENSOR 654

DTC Description 654
Diagnosis Procedure 654

C04ED REAR LEFT AXLE RPM SENSOR 656
DTC Description 656
Diagnosis Procedure 656

C04EE REAR LEFT AXLE RPM SENSOR 658
DTC Description 658
Diagnosis Procedure 658

C04EF REAR LEFT AXLE RPM SENSOR 660
DTC Description 660
Diagnosis Procedure 660

C04F0 REAR LEFT AXLE RPM SENSOR 662
DTC Description 662
Diagnosis Procedure 662

C04F1 REAR LEFT AXLE RPM SENSOR 664
DTC Description 664
Diagnosis Procedure 664

C04F3 REAR LEFT AXLE RPM SENSOR 666
DTC Description 666
Diagnosis Procedure 666

C04F4 REAR LEFT AXLE RPM SENSOR 668
DTC Description 668
Diagnosis Procedure 668

C04F5 REAR LEFT AXLE RPM SENSOR 670
DTC Description 670
Diagnosis Procedure 670

C0500 REAR RIGHT AXLE RPM SENSOR ... 672
DTC Description 672
Diagnosis Procedure 672

C0501 REAR RIGHT AXLE RPM SENSOR ... 674
DTC Description 674
Diagnosis Procedure 674

C0502 REAR RIGHT AXLE RPM SENSOR ... 676
DTC Description 676
Diagnosis Procedure 676

C0503 REAR RIGHT AXLE RPM SENSOR ... 678
DTC Description 678
Diagnosis Procedure 678

C0504 REAR RIGHT AXLE RPM SENSOR ... 680
DTC Description 680
Diagnosis Procedure 680

C0506 REAR RIGHT AXLE RPM SENSOR ... 681
DTC Description 681
Diagnosis Procedure 681

C0507 REAR RIGHT AXLE RPM SENSOR ... 683
DTC Description 683
Diagnosis Procedure 683

C050A REAR RIGHT AXLE RPM SENSOR .. 685
DTC Description 685
Diagnosis Procedure 685

C050B REAR RIGHT AXLE RPM SENSOR .. 687
DTC Description 687
Diagnosis Procedure 688

C050C REAR RIGHT AXLE RPM SENSOR .. 689
DTC Description 689
Diagnosis Procedure 689

C050D REAR RIGHT AXLE RPM SENSOR .. 691
DTC Description 691
Diagnosis Procedure 691

C050E REAR RIGHT AXLE RPM SENSOR ... 693
DTC Description 693
Diagnosis Procedure 693

C050F REAR RIGHT AXLE RPM SENSOR ... 695
DTC Description 695
Diagnosis Procedure 695

C0510 REAR RIGHT AXLE RPM SENSOR ... 697
DTC Description 697
Diagnosis Procedure 697

C0511 REAR RIGHT AXLE RPM SENSOR ... 699
DTC Description 699
Diagnosis Procedure 699

C0513 REAR RIGHT AXLE RPM SENSOR ... 701
DTC Description 701
Diagnosis Procedure 701

C0514 REAR RIGHT AXLE RPM SENSOR ... 703
DTC Description 703
Diagnosis Procedure 703

C0540 ELECTRIC SHIFT SELECTOR SYSTEM 705
DTC Description 705
Diagnosis Procedure 705

C0541 ELECTRIC SHIFT SELECTOR SYSTEM 706
DTC Description 706
Diagnosis Procedure 706

C0542 ELECTRIC SHIFT SELECTOR SYSTEM 707
DTC Description 707
Diagnosis Procedure 707

C0543 ENGINE SYSTEM 708
DTC Description 708
Diagnosis Procedure 708

C0560 ENGINE SYSTEM 709
DTC Description 709
Diagnosis Procedure 709

C0561 ENGINE SYSTEM 710
DTC Description 710
Diagnosis Procedure 710

C0570 COMBINATION METER SYSTEM 711
DTC Description 711
Diagnosis Procedure 711

C0571 COMBINATION METER SYSTEM 712
DTC Description 712
Diagnosis Procedure 712

C0572 COMBINATION METER SYSTEM 713
DTC Description 713
Diagnosis Procedure 713

C0573 COMBINATION METER SYSTEM 714
DTC Description 714
Diagnosis Procedure 714

C0580 COMBINATION METER SYSTEM 715
DTC Description 715
Diagnosis Procedure 715

C0581 COMBINATION METER SYSTEM 716
DTC Description 716
Diagnosis Procedure 716

C0582 COMBINATION METER SYSTEM 717
DTC Description 717
Diagnosis Procedure 717

C05C0 AIR BAG DIAGNOSIS SENSOR UNIT SYSTEM 718
DTC Description 718
Diagnosis Procedure 718

C05C1 AIR BAG DIAGNOSIS SENSOR UNIT SYSTEM 719
DTC Description 719
Diagnosis Procedure 719

C05C2 DRIVER SEAT BUCKLE SWITCH SYSTEM 720
DTC Description 720
Diagnosis Procedure 720

C05D0 ICC SENSOR/DISTANCE SENSOR SYSTEM 721
DTC Description 721
Diagnosis Procedure 721

C05D1 ICC SENSOR/DISTANCE SENSOR SYSTEM 723
DTC Description 723
Diagnosis Procedure 723

C05D2 ICC SENSOR/DISTANCE SENSOR SYSTEM 725
DTC Description 725
Diagnosis Procedure 725

C05D3 ICC SENSOR/DISTANCE SENSOR SYSTEM 727
DTC Description 727
Diagnosis Procedure 727

C05D4 ICC SENSOR/DISTANCE SENSOR SYSTEM 729
DTC Description 729
Diagnosis Procedure 729

C05E0 ICC SENSOR/DISTANCE SENSOR SYSTEM 731
DTC Description 731
Diagnosis Procedure 731

C05E1 ICC SENSOR/DISTANCE SENSOR SYSTEM 733
DTC Description 733
Diagnosis Procedure 733

C05F0 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM 735
DTC Description 735
Diagnosis Procedure 735

C05F1 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM 736
DTC Description 736
Diagnosis Procedure 736

C05F3 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM 737
DTC Description 737
Diagnosis Procedure 737

C05F6 REAR RIGHT AXLE RPM SENSOR ...738
DTC Description 738
Diagnosis Procedure 738

C0600 STEERING COLUMN CONTROL MODULE SYSTEM 740
DTC Description 740
Diagnosis Procedure 740

C0601 STEERING COLUMN CONTROL MODULE SYSTEM 741
DTC Description 741
Diagnosis Procedure 741

C0610 STEERING COLUMN CONTROL MODULE SYSTEM 742
DTC Description 742
Diagnosis Procedure 742

C0611 STEERING COLUMN CONTROL MODULE SYSTEM 743
DTC Description 743
Diagnosis Procedure 743

C0612 STEERING COLUMN CONTROL MODULE SYSTEM 744

DTC Description 744
Diagnosis Procedure 744

C0613 STEERING COLUMN CONTROL MODULE SYSTEM 745
DTC Description 745
Diagnosis Procedure 745

C0614 STANDSTILL CONTROL (SSC) 746
DTC Description 746
Diagnosis Procedure 746

C0630 STEERING CONTROL SYSTEM 747
DTC Description 747
Diagnosis Procedure 747

C0631 STEERING CONTROL SYSTEM 748
DTC Description 748
Diagnosis Procedure 748

C0632 STEERING CONTROL SYSTEM 749
DTC Description 749
Diagnosis Procedure 749

C0633 STEERING CONTROL SYSTEM 750
DTC Description 750
Diagnosis Procedure 750

C0640 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM 751
DTC Description 751
Diagnosis Procedure 751

C0641 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM 752
DTC Description 752
Diagnosis Procedure 752

C0642 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM 753
DTC Description 753
Diagnosis Procedure 753

C0650 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM 754
DTC Description 754
Diagnosis Procedure 754

C0651 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM 755
DTC Description 755
Diagnosis Procedure 755

C0652 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM 756
DTC Description 756
Diagnosis Procedure 756

C0656 COMBINATION METER SYSTEM 757
DTC Description 757
Diagnosis Procedure 757

C0660 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM 758
DTC Description 758
Diagnosis Procedure 758

C0661 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM 759
DTC Description 759
Diagnosis Procedure 759

C0662 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM 760
DTC Description 760
Diagnosis Procedure 760

C0663 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM 761
DTC Description 761
Diagnosis Procedure 761

C0664 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM 762
DTC Description 762
Diagnosis Procedure 762

C0665 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM 763
DTC Description 763
Diagnosis Procedure 763

C0670 BCM SYSTEM 764
DTC Description 764
Diagnosis Procedure 764

C0671 BCM SYSTEM 765
DTC Description 765
Diagnosis Procedure 765

C0672 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM 766
DTC Description 766
Diagnosis Procedure 766

C0690 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM 767
DTC Description 767
Diagnosis Procedure 767

C0691 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM 768
DTC Description 768
Diagnosis Procedure 768

C06A0 ENGINE/TRANSMISSION SYSTEM .. 769
DTC Description 769
Diagnosis Procedure 769

C06A1 ENGINE/TRANSMISSION SYSTEM .. 770
DTC Description 770
Diagnosis Procedure 770

C06A3 ENGINE/TRANSMISSION SYSTEM .. 772
DTC Description 772
Diagnosis Procedure 772

C06A5 ENGINE/4WD SYSTEM 773
DTC Description 773
Diagnosis Procedure 773

C06A6 ENGINE/4WD SYSTEM 774
DTC Description 774
Diagnosis Procedure 774

C06AA SONAR CONTROL UNIT SYSTEM ... 776
DTC Description 776
Diagnosis Procedure 776

C06AB SONAR CONTROL UNIT SYSTEM ... 777
DTC Description 777
Diagnosis Procedure 777

C06AC SONAR CONTROL UNIT SYSTEM ... 778
DTC Description 778
Diagnosis Procedure 778

C06AD SONAR CONTROL UNIT SYSTEM ... 779
DTC Description 779
Diagnosis Procedure 779

C06AE SONAR CONTROL UNIT SYSTEM ... 780
DTC Description 780
Diagnosis Procedure 780

C06AF SONAR CONTROL UNIT SYSTEM ... 781
DTC Description 781
Diagnosis Procedure 781

C06B0 ACCELERATION SENSOR 782
DTC Description 782
Diagnosis Procedure 782

C06B1 ACCELERATION SENSOR 783
DTC Description 783
Diagnosis Procedure 783

C06B2 ACCELERATION SENSOR 784
DTC Description 784
Diagnosis Procedure 784

C06B3 ACCELERATION SENSOR 786
DTC Description 786
Diagnosis Procedure 786

C06B4 ACCELERATION SENSOR 787
DTC Description 787
Diagnosis Procedure 787

C06B5 ACCELERATION SENSOR 789
DTC Description 789
Diagnosis Procedure 789

C06B6 ACCELERATION SENSOR 790
DTC Description 790
Diagnosis Procedure 790

C06B7 ACCELERATION SENSOR 791
DTC Description 791
Diagnosis Procedure 791

C06B8 ACCELERATION SENSOR 792
DTC Description 792
Diagnosis Procedure 792

C06B9 ACCELERATION SENSOR 794
DTC Description 794
Diagnosis Procedure 794

C06BA ACCELERATION SENSOR 796
DTC Description 796
Diagnosis Procedure 796

C06BB ACCELERATION SENSOR 797
DTC Description 797
Diagnosis Procedure 797

C06BC ACCELERATION SENSOR 798
DTC Description 798
Diagnosis Procedure 798

C06BD ACCELERATION SENSOR 799
DTC Description 799
Diagnosis Procedure 799

C06BE ACCELERATION SENSOR 800
DTC Description 800
Diagnosis Procedure 800

C06BF ACCELERATION SENSOR 801
DTC Description 801
Diagnosis Procedure 801

C06C0 ACCELERATION SENSOR 802
DTC Description 802
Diagnosis Procedure 802

C06C1 ACCELERATION SENSOR 803
DTC Description 803
Diagnosis Procedure 803

C06D0 YAW RATE SENSOR 804
DTC Description 804
Diagnosis Procedure 804

C06D1 YAW RATE SENSOR 805
DTC Description 805
Diagnosis Procedure 805

C06D2 YAW RATE SENSOR 806
DTC Description 806
Diagnosis Procedure 806

C06D3 YAW RATE SENSOR 807
DTC Description 807
Diagnosis Procedure 807

C06D4 YAW RATE SENSOR 808

DTC Description 808
Diagnosis Procedure 808

C06D5 YAW RATE SENSOR 810
DTC Description 810
Diagnosis Procedure 810

C06D6 YAW RATE SENSOR 811
DTC Description 811
Diagnosis Procedure 811

C06E0 YAW RATE SENSOR 812
DTC Description 812
Diagnosis Procedure 812

C06E1 YAW RATE SENSOR/ACCELERATION SENSOR 813
DTC Description 813
Diagnosis Procedure 813

C06E2 ACCELERATION SENSOR 814
DTC Description 814
Diagnosis Procedure 814

C06F0 STEERING ANGLE SENSOR SYSTEM 815
DTC Description 815
Diagnosis Procedure 815

C06F1 COMBINATION METER SYSTEM 816
DTC Description 816
Diagnosis Procedure 816

C06F2 COMBINATION METER SYSTEM 817
DTC Description 817
Diagnosis Procedure 817

C06F3 RAIN/LIGHT SENSOR 818
DTC Description 818
Diagnosis Procedure 819

C0730 BRAKE FLUID LEAKAGE 820
DTC Description 820
Diagnosis Procedure 820

C0731 TRANSMISSION SYSTEM 821
DTC Description 821
Diagnosis Procedure 821

C0732 ELECTRIC SHIFT SELECTOR SYSTEM 823
DTC Description 823
Diagnosis Procedure 823

C0733 BATTERY SYSTEM 825
DTC Description 825
Diagnosis Procedure 825

C0734 EXCEEDED MAXIMUM HOLDING TIME 827
DTC Description 827
Diagnosis Procedure 827

C0735 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM 828
DTC Description 828
Diagnosis Procedure 828

C0736 COMBINATION METER SYSTEM 830
DTC Description 830
Diagnosis Procedure 830

C0739 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM 832
DTC Description 832
Diagnosis Procedure 832

C073A ELECTRIC SHIFT SELECTOR SYSTEM 834
DTC Description 834
Diagnosis Procedure 834

C073B ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM 836
DTC Description 836
Diagnosis Procedure 836

C073C BRAKE FLUID LEAKAGE 837
DTC Description 837
Diagnosis Procedure 837

C073D TRANSMISSION SYSTEM 838
DTC Description 838
Diagnosis Procedure 838

C0741 CONTROL UNIT 840
DTC Description 840
Diagnosis Procedure 840

C0742 CONTROL UNIT 841
DTC Description 841
Diagnosis Procedure 841

C0743 CONTROL UNIT 842
DTC Description 842
Diagnosis Procedure 842

C0744 CAN COMMUNICATION 843
DTC Description 843
Diagnosis Procedure 843

C0745 CONTROL UNIT 844
DTC Description 844
Diagnosis Procedure 844

C0746 CONTROL UNIT 845
DTC Description 845
Diagnosis Procedure 845

C0747 CONTROL UNIT 846
DTC Description 846
Diagnosis Procedure 846

C0748 CONTROL UNIT 847
DTC Description 847

Diagnosis Procedure 847

C0749 CONTROL UNIT 848
DTC Description 848
Diagnosis Procedure 848

C074B CONTROL UNIT 849
DTC Description 849
Diagnosis Procedure 849

C0751 SWITCHING VALVE 850
DTC Description 850
Diagnosis Procedure 850

C0765 ICC SENSOR/DISTANCE SENSOR SYSTEM 851
DTC Description 851
Diagnosis Procedure 851

C0766 ICC SENSOR/DISTANCE SENSOR SYSTEM 853
DTC Description 853
Diagnosis Procedure 853

C0767 ICC SENSOR/DISTANCE SENSOR SYSTEM 855
DTC Description 855
Diagnosis Procedure 855

C0769 ICC SENSOR/DISTANCE SENSOR SYSTEM 857
DTC Description 857
Diagnosis Procedure 857

C076A ICC SENSOR/DISTANCE SENSOR SYSTEM 859
DTC Description 859
Diagnosis Procedure 859

C076B ICC SENSOR/DISTANCE SENSOR SYSTEM 861
DTC Description 861
Diagnosis Procedure 861

C0810 ICC SENSOR/DISTANCE SENSOR SYSTEM 863
DTC Description 863
Diagnosis Procedure 863

C0811 ICC SENSOR/DISTANCE SENSOR SYSTEM 865
DTC Description 865
Diagnosis Procedure 865

C0820 DOOR (DRIVER SIDE) SYSTEM 867
DTC Description 867
Diagnosis Procedure 867

C0830 ICC SENSOR/DISTANCE SENSOR SYSTEM 868
DTC Description 868
Diagnosis Procedure 868

C0831 ICC SENSOR/DISTANCE SENSOR SYSTEM 869
DTC Description 869
Diagnosis Procedure 869

C0832 ICC SENSOR/DISTANCE SENSOR SYSTEM 870
DTC Description 870
Diagnosis Procedure 870

C0833 ICC SENSOR/DISTANCE SENSOR SYSTEM 871
DTC Description 871
Diagnosis Procedure 871

C0834 ICC SENSOR/DISTANCE SENSOR SYSTEM 872
DTC Description 872
Diagnosis Procedure 872

C0835 ICC SENSOR/DISTANCE SENSOR SYSTEM 873
DTC Description 873
Diagnosis Procedure 873

C0840 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM 874
DTC Description 874
Diagnosis Procedure 874

C0841 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM 875
DTC Description 875
Diagnosis Procedure 875

C0950 AXLE RPM SENSOR 876
DTC Description 876
Diagnosis Procedure 876

C0951 AXLE RPM SENSOR 878
DTC Description 878
Diagnosis Procedure 878

C0960 VALVE 880
DTC Description 880
Diagnosis Procedure 880

C0961 VALVE DRIVER 881
DTC Description 881
Diagnosis Procedure 881

C0962 VALVE 882
DTC Description 882
Diagnosis Procedure 882

C0963 VALVE DRIVER 883
DTC Description 883
Diagnosis Procedure 883

C0971 ELECTRIC PARKING BRAKE SYSTEM 884
DTC Description 884
Diagnosis Procedure 884

C0972 ELECTRIC PARKING BRAKE SYSTEM 885
DTC Description 885
Diagnosis Procedure 885

C0973 ELECTRIC PARKING BRAKE SYSTEM 886
DTC Description 886
Diagnosis Procedure 886

C0990 BRAKE FLUID LEAKAGE 887
DTC Description 887
Diagnosis Procedure 887

C0991 BRAKE FLUID LEAKAGE 888
DTC Description 888
Diagnosis Procedure 888

C09A0 ATTENTION ASSIST 889
DTC Description 889
Diagnosis Procedure 889

C09A1 LINEAR REGULATOR 891
DTC Description 891
Diagnosis Procedure 891

C0A00 BATTERY SYSTEM 893
DTC Description 893
Diagnosis Procedure 893

C0A01 BATTERY SYSTEM 894
DTC Description 894
Diagnosis Procedure 894

C0A02 BATTERY SYSTEM 895
DTC Description 895
Diagnosis Procedure 895

C0A03 BCM SYSTEM 896
DTC Description 896
Diagnosis Procedure 896

C0A04 ELECTRIC SHIFT SELECTOR SYSTEM 897
DTC Description 897
Diagnosis Procedure 897

C0A05 COMBINATION METER SYSTEM 898
DTC Description 898
Diagnosis Procedure 898

C0A06 BCM SYSTEM 899
DTC Description 899
Diagnosis Procedure 899

C0A07 BCM SYSTEM 900
DTC Description 900
Diagnosis Procedure 900

C0A08 BCM SYSTEM 901
DTC Description 901
Diagnosis Procedure 901

C0A09 BCM SYSTEM 903
DTC Description 903
Diagnosis Procedure 903

C0A0A BCM SYSTEM 905
DTC Description 905
Diagnosis Procedure 905

C0A0B ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM 906
DTC Description 906
Diagnosis Procedure 906

C0A30 EXCEEDED MAXIMUM HOLDING TIME 907
DTC Description 907
Diagnosis Procedure 907

C2060 DYNAMOMETER MODE 908
DTC Description 908
Diagnosis Procedure 908

C3201 ENGINE SYSTEM 909
DTC Description 909
Diagnosis Procedure 909

C3209 ENGINE SYSTEM 910
DTC Description 910
Diagnosis Procedure 910

C3212 ENGINE SYSTEM 911
DTC Description 911
Diagnosis Procedure 911

C3220 ENGINE SYSTEM 912
DTC Description 912
Diagnosis Procedure 912

C3221 ENGINE SYSTEM 913
DTC Description 913
Diagnosis Procedure 913

C3235 COMBINATION METER SYSTEM 914
DTC Description 914
Diagnosis Procedure 914

C3250 STEERING COLUMN CONTROL MODULE SYSTEM 915
DTC Description 915
Diagnosis Procedure 915

C3254 STEERING COLUMN CONTROL MODULE SYSTEM 916
DTC Description 916
Diagnosis Procedure 916

C3256 STEERING COLUMN CONTROL MODULE SYSTEM 917
DTC Description 917
Diagnosis Procedure 917

C3260 CONTROL UNIT 918
DTC Description 918
Diagnosis Procedure 918

C3261 CONTROL UNIT 919
DTC Description 919
Diagnosis Procedure 919

C3263 ENGINE SYSTEM 921
DTC Description 921
Diagnosis Procedure 921

C3275 CONTROL UNIT 922
DTC Description 922
Diagnosis Procedure 922

C3285 ENGINE SYSTEM 924
DTC Description 924
Diagnosis Procedure 924

C3289 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM 925
DTC Description 925
Diagnosis Procedure 925

C328A ELECTRIC PARKING BRAKE SYSTEM 926
DTC Description 926
Diagnosis Procedure 926

C3295 CONTROL UNIT 927
DTC Description 927
Diagnosis Procedure 927

C3296 CONTROL UNIT 929
DTC Description 929
Diagnosis Procedure 929

C3297 CONTROL UNIT 931
DTC Description 931
Diagnosis Procedure 931

C3298 CONTROL UNIT 933
DTC Description 933
Diagnosis Procedure 933

C3299 CONTROL UNIT 935
DTC Description 935
Diagnosis Procedure 935

C329B CONTROL UNIT 937
DTC Description 937
Diagnosis Procedure 937

C3334 ICC SENSOR/DISTANCE SENSOR SYSTEM 939
DTC Description 939
Diagnosis Procedure 939

C3340 ICC SENSOR/DISTANCE SENSOR SYSTEM 940
DTC Description 940
Diagnosis Procedure 940

C3341 ICC SENSOR/DISTANCE SENSOR SYSTEM 941
DTC Description 941
Diagnosis Procedure 941

C3342 ICC SENSOR/DISTANCE SENSOR SYSTEM 942
DTC Description 942
Diagnosis Procedure 942

C3343 ICC SENSOR/DISTANCE SENSOR SYSTEM 943
DTC Description 943
Diagnosis Procedure 943

C3344 ICC SENSOR/DISTANCE SENSOR SYSTEM 944
DTC Description 944
Diagnosis Procedure 944

C3345 ICC SENSOR/DISTANCE SENSOR SYSTEM 945
DTC Description 945
Diagnosis Procedure 945

C3346 ICC SENSOR/DISTANCE SENSOR SYSTEM 946
DTC Description 946
Diagnosis Procedure 946

C3347 ICC SENSOR/DISTANCE SENSOR SYSTEM 947
DTC Description 947
Diagnosis Procedure 947

C3348 ICC SENSOR/DISTANCE SENSOR SYSTEM 948
DTC Description 948
Diagnosis Procedure 948

C3349 ICC SENSOR/DISTANCE SENSOR SYSTEM 949
DTC Description 949
Diagnosis Procedure 949

C334A ICC SENSOR/DISTANCE SENSOR SYSTEM 950
DTC Description 950
Diagnosis Procedure 950

C334C ICC SENSOR/DISTANCE SENSOR SYSTEM 951
DTC Description 951
Diagnosis Procedure 951

C3385 ICC SENSOR/DISTANCE SENSOR SYSTEM 952
DTC Description 952
Diagnosis Procedure 952

C3386 ICC SENSOR/DISTANCE SENSOR SYSTEM 953
DTC Description 953
Diagnosis Procedure 953

C3500 SONAR CONTROL UNIT SYSTEM 954
DTC Description 954
Diagnosis Procedure 954

C3600 TRAILER VIBRATION DAMPING FUNCTION 955
DTC Description 955
Diagnosis Procedure 955

C3601 VEHICLE DYNAMICS CONTROL (VDC) FUNCTION 957
DTC Description 957
Diagnosis Procedure 957

C3604 YAW MOMENT INTERFACE FUNCTION 959
DTC Description 959
Diagnosis Procedure 959

C3605 HYDRAULICAL BRAKE ASSISTANT FUNCTION 961
DTC Description 961
Diagnosis Procedure 961

C3606 ANTI-LOCK BRAKING SYSTEM (ABS) FUNCTION 963
DTC Description 963
Diagnosis Procedure 963

POWER SUPPLY AND GROUND CIRCUIT 965
Diagnosis Procedure 965

REMOVAL AND INSTALLATION 967

WHEEL SENSOR 967

FRONT AXLE RPM SENSOR 967
FRONT AXLE RPM SENSOR : Exploded View 967
FRONT AXLE RPM SENSOR : Removal and Installation 968

REAR AXLE RPM SENSOR 969
REAR AXLE RPM SENSOR : Exploded View 969
REAR AXLE RPM SENSOR : Removal and Installation 969

SENSOR ROTOR 971

FRONT SENSOR ROTOR 971
FRONT SENSOR ROTOR : Removal and Installation 971

REAR SENSOR ROTOR 971
REAR SENSOR ROTOR : Removal and Installation 971

TRACTION SYSTEM HYDRAULIC UNIT 972
Exploded View 972
Removal and Installation 972
Adjustment 974

ELECTRONIC STABILITY PROGRAM CONTROL UNIT 975
Exploded View 975
Removal and Installation 975
Adjustment 977

FORWARD EMERGENCY BRAKING

PRECAUTION 978

PRECAUTIONS 978
Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER" 978
Precautions for Removing Battery Terminal 978

PREPARATION 980

PREPARATION 980
Special Service Tools 980

SYSTEM DESCRIPTION 981

COMPONENT PARTS 981
Component Parts Location 981
ICC Sensor 982

SYSTEM 984
System Description 984
Circuit Diagram 988

WARNING/INDICATOR/CHIME LIST 988
WARNING/INDICATOR/CHIME LIST : Warning Lamp/Indicator Lamp 988

INFORMATION DISPLAY (COMBINATION METER) 988
INFORMATION DISPLAY (COMBINATION METER) : Warning/Indicator (On Information Display) 988

OPERATION 990
Switch Name and Function 990
Menu Displayed by Pressing Each Switch 990

HANDLING PRECAUTION 992
Precautions for Forward Emergency Braking (FEB) 992

DIAGNOSIS SYSTEM (ICC SENSOR) 993
CONSULT Function (ICC Sensor) 993

ECU DIAGNOSIS INFORMATION 995

ICC SENSOR 995
Reference Value 995
DTC Index 996

WIRING DIAGRAM 1003

FORWARD EMERGENCY BRAKING 1003
Wiring Diagram 1003

BASIC INSPECTION 1007

DIAGNOSIS AND REPAIR WORK FLOW 1007
Work Flow 1007

ADDITIONAL SERVICE WHEN REPLACING ICC SENSOR 1008
Description 1008
Work Procedure 1008

REMOVAL AND INSTALLATION 1009

ICC SENSOR 1009
Exploded View 1009
Removal and Installation 1009

PRECAUTION

PRECAUTIONS

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:0000000013569096

Risk of injury

There is a risk of injury caused by parts becoming projectiles if uncontrolled deployment of air bag or seat belt pre-tensioner occurs, or by storing air bag with the deployment side facing downwards. When scrapping air bag or seat belt pre-tensioner by means of controlled deployment, there is also a danger present if a sufficiently safe distance is not maintained, or if opening using cutting torches or other cutting tools, or due to smelting or if parts that are not yet triggered are exposed to a blaze or a smoldering fire at landfills.

Safety instructions/precautions

- Removed air bag must always be stored with deployment side facing up.
- Acquisition, transportation, storage, testing and assembly work should only be performed or supervised by properly trained personnel.
- Install air bag or seat belt pre-tensioner immediately following retrieval from storage.
- Air bag and seat belt pre-tensioner must be protected from flying sparks, open fires and temperature exceeding 100°C (212°F).
- Never transport air bag and seat belt pre-tensioner in the passenger compartment. Store them securely in the luggage room of the vehicle in their original replacement part packaging and secure them so that they cannot slip around.
- Never allow air bag and seat belt pre-tensioner to come into contact with grease, oil, or cleaning agents.
- Perform system tests using approved testing equipment only, and only when the units are properly installed and the vehicle is unoccupied.
- Before the initial hookup of the battery or an external power supply, the ignition must be switched on and the vehicle unoccupied.
- Air bag and seat belt pre-tensioner that fall from a height of more than 0.5 m must be replaced.
- When scrapping by means of controlled deployment of air bag and seat belt pre-tensioner, a safe distance of at least 10 m must be maintained.
- Before starting work on air bag and seat belt pre-tensioner and work on components that are connected to air bag and seat belt pre-tensioner or require and intervention in their electric circuit (e.g. when removing the steering wheel):
- Disconnect any external power sources (e.g. charger).
- Disconnect and insulate ground line of battery
- Before starting bodywork in combination with welding or retrofitting, during which work is performed on uninsulated, current-carrying lines or require an intervention in their electric circuit (e.g. when removing the steering wheel):
- Disconnect any external power sources (e.g. charger).
- Disconnect and insulate ground line of battery.
- During welding, disconnect plug connection and from control unit of air bag.
- When the air bag deploys, the pyrofuse activates and the power source from the battery is disconnected. This prevents possible fires caused by electric leakage after an accident occurs.

Precautions for Removing Battery Terminal

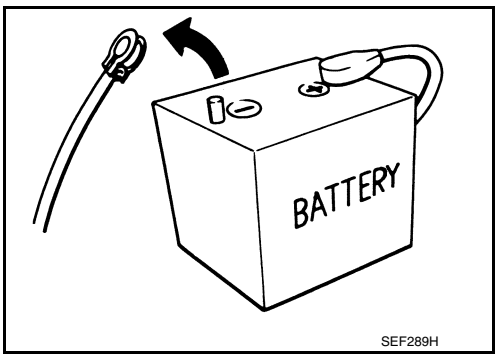
INFOID:0000000013569097

When disconnecting the battery terminal, pay attention to the following.

- Always use a 12V battery as power source.
- Never disconnect battery terminal while engine is running.

- When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.
- For vehicles with the engine listed below, remove the battery terminal after a lapse of the specified time:

BR08DE	: 4 minutes	YD25DDTi	: 2 minutes
D4D engine	: 20 minutes	YS23DDT	: 4 minutes
HRA2DDT	: 12 minutes	YS23DDTT	: 4 minutes
K9K engine	: 4 minutes	ZD30DDTi	: 60 seconds
M9R engine	: 4 minutes	ZD30DDTT	: 60 seconds
R9M engine	: 4 minutes		
V9X engine	: 4 minutes		



NOTE:
ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.

- After high-load driving, if the vehicle is equipped with the V9X engine, turn the ignition switch OFF and wait for at least 15 minutes to remove the battery terminal.

NOTE:
- Turbocharger cooling pump may operate in a few minutes after the ignition switch is turned OFF.
- Example of high-load driving
  - Driving for 30 minutes or more at 140 km/h (86 MPH) or more.
  - Driving for 30 minutes or more on a steep slope.

- For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch.

NOTE:
If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.

- After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.

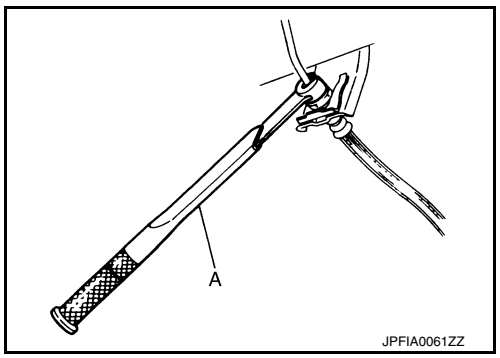
NOTE:
The removal of 12V battery may cause a DTC detection error.

Precaution for Brake System

INFOID:0000000013569098

WARNING:
- **Since dust covering the front and rear brakes has an affect on human body, the dust must be removed with a dust collector. Never splatter the dust with an air blow gun.**
- **Risk of injury. Skin or eye injuries may result when handling hot or glowing objects. Wear protective gloves, protective clothing and safety glasses, if necessary.**
- Brake fluid use refer to MA-12, "FOR NORTH AMERICA : Fluids and Lubricants" (FOR NORTH AMERICA) or MA-13, "FOR MEXICO : Fluids and Lubricants" (FOR MEXICO).
- Never reuse drained brake fluid.
- When performing maintenance and repair work on the brake system, it must be ensured that no mineral oil, lubricating grease or similar substances enter the brake system.
- New brake fluid must be used as a flushing and cleaning agent for the cylinders, the lines and the reservoir tank of the hydraulic braking system.
- Never spill or splash brake fluid on painted surfaces. Brake fluid may seriously damage paint. Wipe it off immediately and wash with water if it gets on a painted surface. For brake component parts, never wash them with water.
- Always confirm the specified tightening torque when installing the brake pipes.
- After pressing the brake pedal more deeply or harder than normal driving, such as air bleeding, check each item of brake pedal.
- Always clean with new brake fluid when cleaning the master cylinder, brake caliper and other components.
- Never use mineral oils such as gasoline or light oil to clean. They may damage rubber parts and cause improper operation.
- Always loosen the brake tube flare nut with a flare nut wrench.

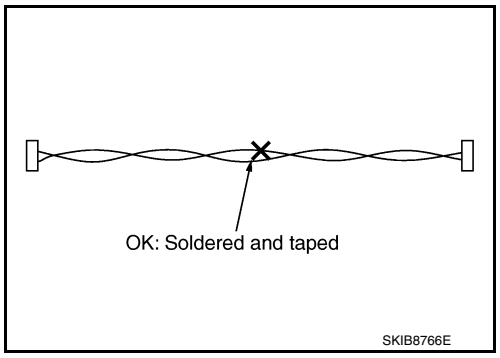
- Tighten the brake tube flare nut to the specified torque with a flare nut torque wrench (A).
- Turn the ignition switch OFF and disconnect the electronic stability program control unit harness connector or the battery negative terminal before performing the work.
- Check that no brake fluid leakage is present after replacing the parts.



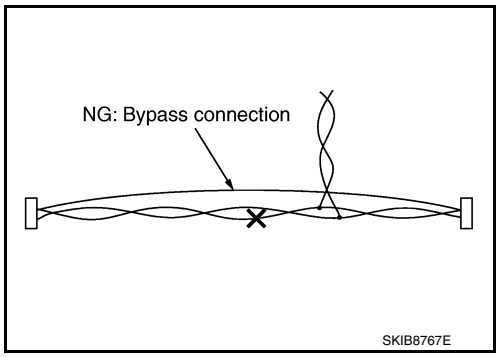
Precaution for Harness Repair

INFOID:0000000013569099

- Solder the repair part, and wrap it with tape. [Twisted wire fray must be 110 mm (4.33 in) or less.]



- Never bypass the repair point with wire. (If it is bypassed, the turnout point cannot be separated and the twisted wire characteristics are lost.)

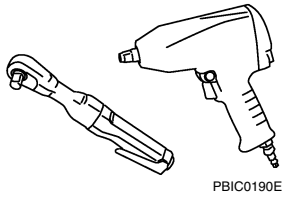


PREPARATION

PREPARATION

Commercial Service Tools

INFOID:0000000013644364

Tool name	Description
Power tool  PBIC0190E	Loosening bolts and nuts

Lubricant or/and Sealant

INFOID:0000000013569100

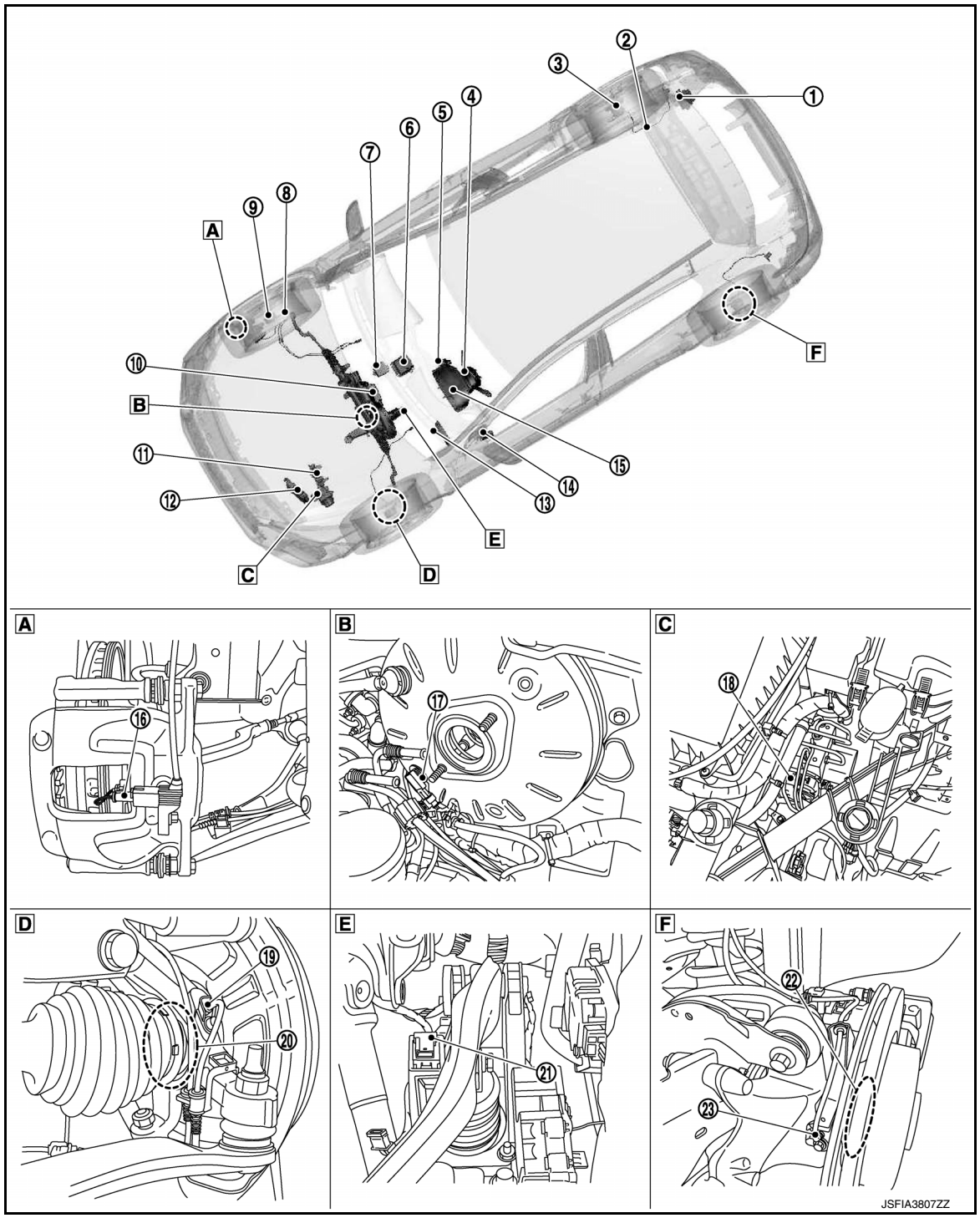
Name	Description	Note
Assembly cleaner	• Electronic stability program control unit harness connector • Electronic stability program control unit • brake tube • Traction system hydraulic unit	(Adolf Würth GmbH & Co.KG), or equivalent

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000013569101



A	Right front brake pad	B	Brake booster	C	Inside engine room (LH side)
D	Steering knuckle (LH)	E	Brake pedal	F	Rear axle housing (LH)

No.	Component parts	Function
①	Electric parking brake control module	Mainly transmits the following signals to electronic stability program control unit via CAN communication. • Electric parking brake switch status signal • Electric parking brake status signal Mainly receives the following signals from electronic stability program control unit via CAN communication. • Electric parking brake request signal Refer to PB-7, "Component Parts Location" for detailed installation location.
②	Right rear axle rpm sensor	Refer to BRC-32, "Axle RPM Sensor and Sensor Rotor"
③	Right rear sensor rotor	
④	Steering column control module	Mainly transmits the following signals to electronic stability program control unit via CAN communication. • Steering angle signal • Cruise control lever signal Mainly transmits the following signals to combination meter via CAN communication.*1 • Steering switch signal Refer to BCS-9, "STEERING COLUMN CONTROL SYSTEM : Component Parts Location" for detailed installation location.
⑤	Electronic ignition switch control unit	Mainly transmits the each signal to each control unit via CAN communication. • Ignition switch ON signal Refer to PCS-5, "Component Parts Location" for detailed installation location.
⑥	Air bag diagnosis sensor unit	Mainly transmits the following signals to electronic stability program control unit via CAN communication. • Drivers seat belt buckle switch signal Refer to SRC-8, "Component Parts Location" for detailed installation location.
⑦	Sonar control unit	Mainly transmits the following signals to electronic stability program control unit via CAN communication.*2 • Brake torque request signal Refer to SN-6, "Component Parts Location" for detailed installation location.
⑧	Right front axle rpm sensor	Refer to BRC-32, "Axle RPM Sensor and Sensor Rotor"
⑨	Right front sensor rotor	
⑩	EPS control unit	Mainly transmits the following signals to electronic stability program control unit via CAN communication.*2 • Steering assist status signal Mainly receives the following signals from electronic stability program control unit via CAN communication.*2 • Steering assist request signal Refer to STC-5, "Component Parts Location" for detailed installation location.
⑪	TCM	Mainly transmits the following signals to electronic stability program control unit via CAN communication.*3 • Shift position signal Mainly receives the following signals from electronic stability program control unit via CAN communication.*3 • Down shift request signal Refer to TM-17, "Component Parts Location" for detailed installation location.
⑫	ECM	Mainly transmits the following signals to electronic stability program control unit via CAN communication. • Accelerator pedal position signal • Drive train operation signal • Engine running signal Mainly receives the following signals from electronic stability program control unit via CAN communication. • Brake operation signal • Engine torque down request signal Refer to EC-27, "Component Parts Location" for detailed installation location.

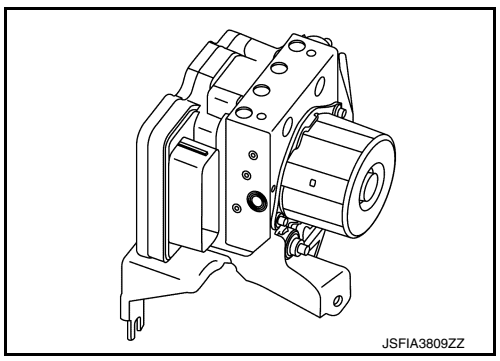
No.	Component parts	Function
⑬	BCM	Mainly transmits the following signals to electronic stability program control unit via CAN communication.*2 • Wiper status signal Mainly receives the following signals from electronic stability program control unit via CAN communication.*2 • Brake lamp request signal Mainly transmits the following signals to electronic stability program control unit. • Standstill control (SSC) status signal • Brake pedal signal Refer to BCS-8, "BODY CONTROL SYSTEM : Component Parts Location" for detailed installation location.
⑭	Left front door control unit	Mainly transmits the following signals to electronic stability program control unit via CAN communication.*2 • Door switch status signal Refer to DLK-10, "DOOR LOCK SYSTEM : Component Parts Location" for detailed installation location.
⑮	Combination meter	Mainly transmits the following signals to electronic stability program control unit via CAN communication.*2 • Dynamometer mode status signal Mainly receives the following signals from electronic stability program control unit via CAN communication.*2 • Wheel speed signal • Meter display signal • Brake warning lamp signal • ABS warning lamp signal • VDC warning lamp signal • VDC OFF indicator lamp signal Mainly receives the following signals from steering column control module via CAN communication.*1 • Steering switch signal
⑯	Right front brake wear sensor	Refer to BRC-33, "Front Right Brake Wear Sensor"
⑰	Brake vacuum sensor	Refer to BRC-32, "Brake Vacuum Sensor"
⑱	Electric stability program control unit	Refer to BRC-31, "Electronic Stability Program Control Unit"
⑲	Left front axle rpm sensor	Refer to BRC-32, "Axle RPM Sensor and Sensor Rotor"
⑳	Left front sensor rotor	
㉑	Brake light switch	Refer to BRC-32, "Brake light switch"
㉒	Rear LH axle rpm sensor	Refer to BRC-32, "Axle RPM Sensor and Sensor Rotor"
㉓	Rear LH sensor rotor	

*1: Via electronic stability program control unit and electronic ignition switch control unit
*2: Via electronic ignition switch control unit
*3: Via ECM

Electronic Stability Program Control Unit

INFOID:0000000013569102

Electronic stability program control unit is installed to traction system hydraulic unit and comprehensively controls adaptive brake system.

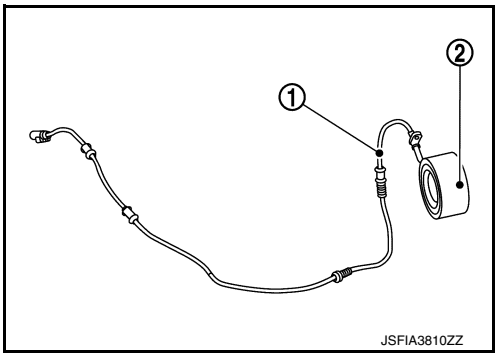

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Axle RPM Sensor and Sensor Rotor

INFOID:0000000013569103

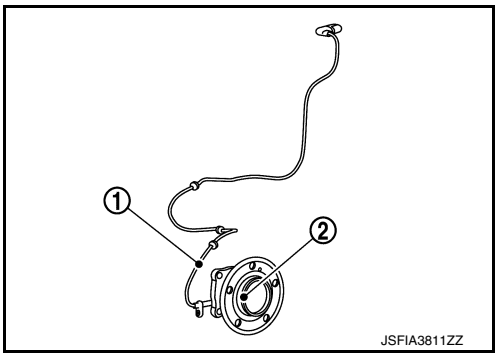
FRONT

- Axle rpm sensor ① of front wheel is installed on steering knuckle.
- Sensor rotor of front wheel is integrated in front wheel bearing ②.
- Each wheel speed signal is transmitted to electronic stability program control unit.



REAR

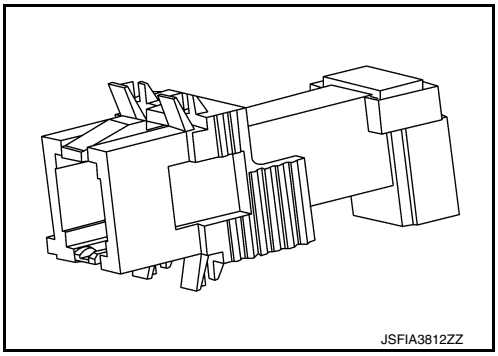
- Axle rpm sensor ① of rear wheel is installed on axle housing.
- Sensor rotor of rear wheel is integrated in front wheel hub assembly ②.
- Each wheel speed signal is transmitted to electronic stability program control unit.



Brake light switch

INFOID:0000000013569104

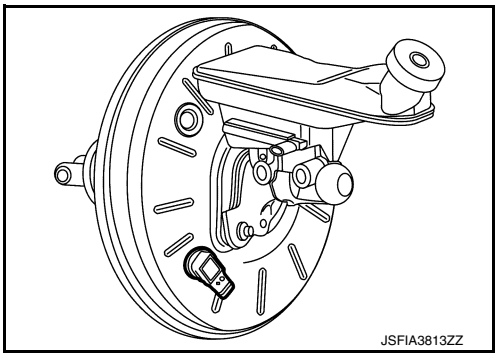
Detects the operation status of brake pedal and transmits converted electric signal to electronic stability program control unit.



Brake Vacuum Sensor

INFOID:0000000013569105

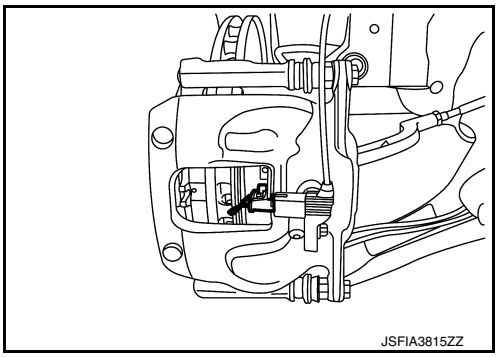
Detects the vacuum in brake booster and transmits converted electric signal to electronic stability program control unit.



Front Right Brake Wear Sensor

INFOID:0000000013569106

Detects the wear limit of right front brake pad and transmits converted electric signal from BCM to combination meter via CAN communication.



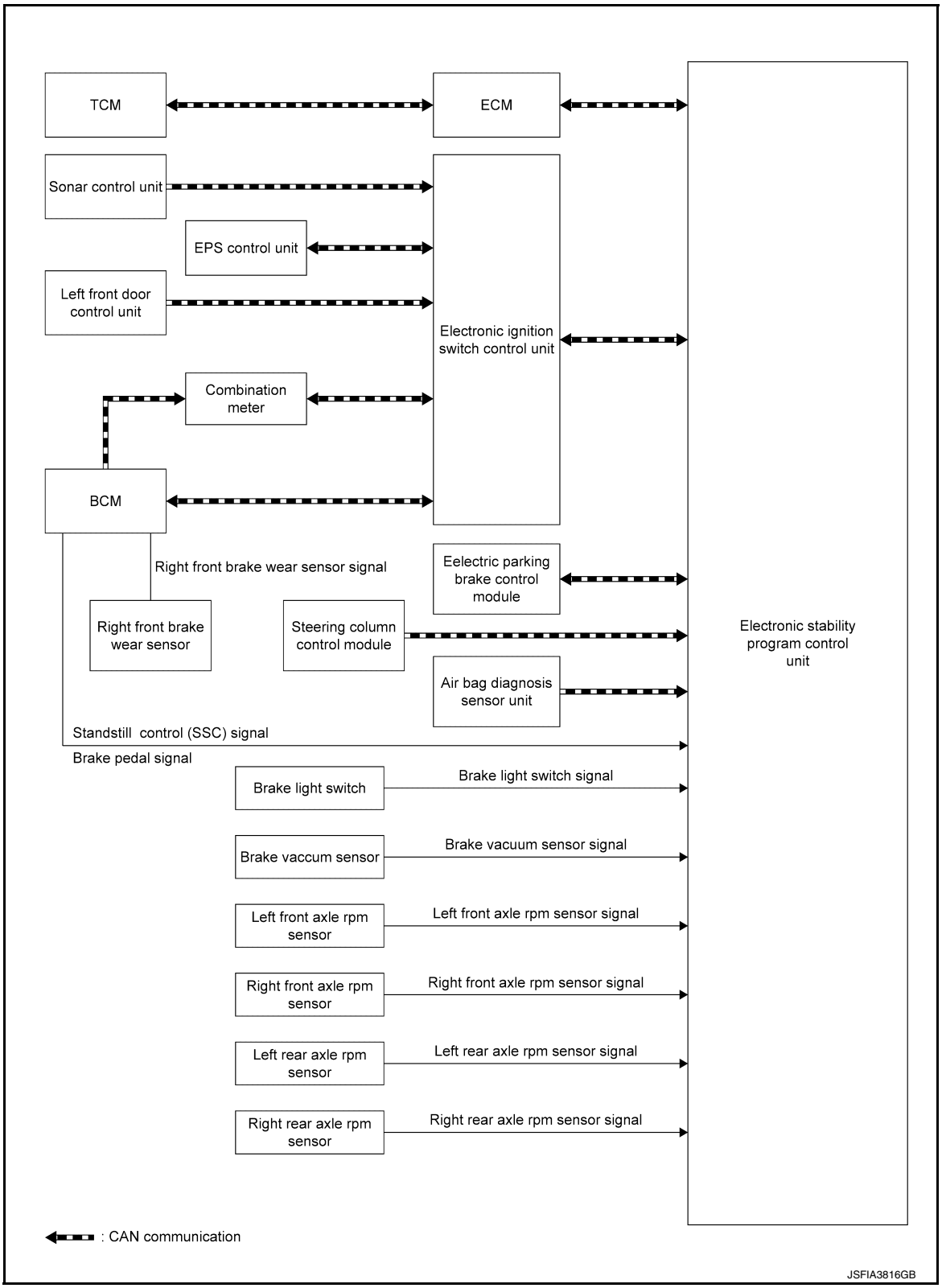
SYSTEM

System Description

INFOID:0000000013569107

- Adaptive brake assists the driver in dangerous situations which occur suddenly, and thus enhances active safety. To do so, the electronic stability program control unit evaluates the data from the following components in order to detect the current driving situation:
- Left front axle rpm sensor
- Right front axle rpm sensor
- Left rear axle rpm sensor
- Right rear axle rpm sensor
- Steering angle sensor
- Brake lights switch
- Brake vacuum sensor
- The electronic stability program control unit is located in the front left of the engine room.
- The electronic stability program control unit contains the control for the following systems:
- Vehicle dynamics control (VDC)
- Standstill control (SSC)
- Electronic brake force distribution (EBD)
- Emission test, roller dynamometer mode
- Anti-lock braking system (ABS)
- Acceleration skid control (ASR), traction control system (TCS)
- Brake assist system (BAS) (without ICC)
- Brake assist system PLUS (BAS PLUS) (with ICC)
- Hill start assist
- Dry braking
- Precharging, depending on accelerator pedal actuation
- Precharging, depending on lateral acceleration
- Extended traction control
- HOLD function (with ICC)
- Steering assistance
- System malfunction display function
- The electronic stability program control unit has the following tasks:
- Reading in of signals
- Evaluation of input factors
- Actuation of components
- Reading in of signals
- Direct line
- CAN communication
- Evaluation of input factors
- The input factors that have been read in are evaluated by the integrated microprocessor and the affected components are then actuated.

SYSTEM DIAGRAM



INPUT SIGNAL AND OUTPUT SIGNAL

Major signal transmission between each unit via communication lines is shown in the following table.

Component	Signal description
ECM	Mainly transmits the following signals to electronic stability program control unit via CAN communication. • Accelerator pedal position signal • Drive train operation signal • Engine running signal Mainly receives the following signals from electronic stability program control unit via CAN communication. • Brake operation signal • Engine torque down request signal
TCM	Mainly transmits the following signals to electronic stability program control unit via CAN communication.*1 • Shift position signal Mainly receives the following signals from electronic stability program control unit via CAN communication.*1 • Down shift request signal
Electronic ignition switch control unit	Mainly transmits the each signal to each control unit via CAN communication. • Ignition switch ON signal
Sonar control unit	Mainly transmits the following signals to electronic stability program control unit via CAN communication.*2 • Brake torque request signal
EPS control unit	Mainly transmits the following signals to electronic stability program control unit via CAN communication.*2 • Steering assist status signal Mainly receives the following signals from electronic stability program control unit via CAN communication.*2 • Steering assist request signal
Left front door control unit	Mainly transmits the following signals to electronic stability program control unit via CAN communication.*2 • Door switch status signal
Combination meter	Mainly transmits the following signals to electronic stability program control unit via CAN communication.*2 • Dynamometer mode status signal Mainly receives the following signals from electronic stability program control unit via CAN communication.*2 • Wheel speed signal • Meter display signal • Brake warning lamp signal • ABS warning lamp signal • VDC warning lamp signal • VDC OFF indicator lamp signal Mainly receives the following signals from steering column control module via CAN communication.*3 • Steering switch signal
BCM	Mainly transmits the following signals to electronic stability program control unit via CAN communication.*2 • Wiper status signal Mainly receives the following signals from electronic stability program control unit via CAN communication.*2 • Brake lamp request signal Mainly transmits the following signals to electronic stability program control unit. • Standstill control (SSC) status signal • Brake pedal signal
Steering column control module	Mainly transmits the following signals to electronic stability program control unit via CAN communication. • Steering angle signal • Cruise control lever signal Mainly transmits the following signals to combination meter via CAN communication.*3 • Steering switch signal

Component	Signal description
Electric parking brake control module	Mainly transmits the following signals to electronic stability program control unit via CAN communication. • Electric parking brake switch status signal • Electric parking brake status signal Mainly receives the following signals from electronic stability program control unit via CAN communication. • Electric parking brake request signal
Air bag diagnosis sensor unit	Mainly transmits the following signals to electronic stability program control unit via CAN communication. • Drivers seat belt buckle switch signal

*1: Via ECM
*2: Via electronic ignition switch control unit
*3: Via electronic stability program control unit and electronic ignition switch control unit

FUNCTION DESCRIPTION

VEHICLE DYNAMICS CONTROL (VDC)
- VDC prevents the vehicle from breaking away when oversteering or understeering.
- It ensures that the vehicle does not deviate from the course specified by the driver (within physical limits).
- Brake forces are produced selectively at the individual wheels to correct any deviations.
- Furthermore, reduction of the drive torque takes place in order to increase driving stability.
- The electronic stability program control unit processes the following measured quantities to determine the vehicle behavior:
  - Yaw velocity
  - Steering angle
  - Brake pressure
  - Engine torque
  - Transmission stage
  - Lateral acceleration
  - Wheel speed
- Differentiation is made between the following intervention types:

Intervention in the case of oversteer
- If the vehicle begins to oversteer, brake pressure is built up at the outer front wheel.
- The resulting reduction in lateral force at the outer front wheel generates a yawing moment which counteracts the tendency of the vehicle to rotate inward.
- The vehicle speed decreases as a result of the brake force at the front wheel, which also enhances stability.

Intervention in the case of understeer
- If the vehicle understeers, the maximum possible lateral force at the front axle has been exceeded.
- In other words, the vehicle pushes via the front axle to the outer edge of the curve.
- The resulting instability is counteracted by means of a reduction in drive torque and the following brake interventions at up to 3 wheels:
  - Brake pressure buildup at inside rear wheel (stage 1)
  - Stage 1 and in addition brake pressure buildup at outside rear wheel (stage 2)
  - Stage 2 and in addition brake pressure buildup at inside front wheel (stage 3)
- Depending on the brake force, a torque is generated which causes the vehicle to rotate inward with a simultaneous reduction in speed.
- This has a considerable stabilizing effect. The electronic stability program control unit sends a signal to reduce the drive torque over the CAN communication to the ECM, which then reduces the engine power accordingly.
- A pending shift operation is suppressed for the duration of control intervention.
- To do so, the electronic stability program control unit sends a signal over the CAN communication to the ECM, which forwards the information over the CAN communication to the TCM. The latter control unit suppresses the shift operation.

STANDSTILL CONTROL (SSC)
- The standstill control monitors the braking driver assistance systems ICC and HOLD function below a speed of 3 km/h (1.8 MPH) until the vehicle has come to a safe standstill. Within this vehicle speed range, the SSC is responsible for the transfer to a safe state when a securing event occurs.

- When the vehicle is at a safe standstill, the rolling monitoring function of the SSC is requested by the driver assistance systems.
- If vehicle rolling is detected, the brake pressure is increased until the vehicle is stationary again. In the case of vehicles equipped with adaptive brake system (with ICC), a leakage compensation is also active during the safe standstill.
- If the brake pressure measured by means of the circuit pressure sensors drops relative to the specified pressure request of the SSC, the specified pressure of the SSC is restored by means of an active pressure buildup.
- Securing the vehicle by means of the SSC is necessary if the following events occur:

- Driver is detected as absent (the driver door is open and the driver belt buckle is not fastened)
- Engine OFF, unless the engine has been switched off by the ECO start/stop function
- Undervoltage and overvoltage in on-board electrical system
- Request relevant to vehicle safety (e.g. ICC)
- CAN communication and VDC malfunction that lead to a temporary deactivation
- SSC monitoring events that result in temporary or permanent deactivation
- Defined hydraulic hold period of 10 min has expired

Door contact plausibility check

- The plausibility check detects any malfunction along the signal path from the left front door rotary tumbler switch or the right front door rotary tumbler switch (depending on the global country coding for right-hand and left-hand drive vehicle), read in by the left front door control unit or right front door control unit and over the CAN communication with the electronic ignition switch control unit interface to the electronic stability program control unit.
- If, as the result of an electrical or mechanical malfunction, “Driver door closed” is detected by mistake although the driver door is open, this is detected by the door contact plausibility check in the SSC and a corresponding malfunction is stored in the electronic stability program control unit.

SSC deactivation

- Deactivation of the SSC is signaled internally in the electronic stability program control unit and externally over the CAN communication.
- Activation of the driver assistance systems is no longer possible. Securing of the vehicle is additionally requested immediately if the SSC is deactivated and a driver assistance system is active.

Sliding

- When the vehicle is stationary, the SSC monitors whether the vehicle is sliding.
- Activation of the driver assistance systems is not permitted during this time.
- The active driver assistance systems must deactivate when the brake pedal is depressed and the vehicle is sliding.

Securing vehicle

- The vehicle is secured by the comfort securing system of the electric parking brake, which is prompted to lock by the SSC.
- For this purpose, the electronic stability program control unit sends a signal via the CAN communication to the electric parking brake control unit.
- The vehicle is secured after the locking request has been implemented and the feedback signal to confirm that the service brake is applied has been sent from the electric parking brake control unit to the electronic stability program control unit.
- The existing brake pressure at the wheels is reduced and the SSC becomes inactive.
- If the close request is not implemented by the electric parking brake within a defined time or the electric parking brake signals a system malfunction to the SSC, the electric parking brake is detected as being malfunction and the safety strategy becomes active.

ELECTRONIC BRAKE FORCE DISTRIBUTION (EBD)

- EBD provides assistance when the driver applies medium force to the brake pedal.
- EBD prevents overbraking of the rear axle and increases vehicle stability when braking in a curve by reducing the pressure at the rear wheel on the inside of the curve or increasing it at the front wheel on the outside of the curve as required.
- The side slip angle (angle between vehicle longitudinal axis and direction of movement of the vehicle's center of gravity) is calculated using the yaw rate (speed of vehicle rotation about vertical axis).
- The yaw rate, the lateral acceleration and the turning angle of the front wheels (calculated from the steering wheel angle) can be used to determine the lateral forces on the wheels.
- The longitudinal forces on the wheels are calculated using the engine torque, transmission shift stage and brake pressure at each wheel.

- If the measured yaw rate does not match the specified value or if the determined side slip angle is too large, the electronic stability program control unit generates a signal for brake force buildup or reduction for the relevant wheel.
- The resulting forces stabilize the vehicle.

EMISSION TEST, ROLLER DYNAMOMETER MODE
- For vehicle test purposes, the adaptive brake can be set to dynamometer test mode if the workshop menu is activated via the combination meter and the engine is then started.
- VDC, ABS and ASR are then switched to passive.
- The VDC warning lamp and the ABS warning lamp in the combination meter turn ON.
- In addition, a message is displayed in the information display of the combination meter.

ANTI-LOCKING SYSTEM (ABS)
- ABS prevents the wheels locking when braking and as a result maintains the steerability and directional stability and road adhesion during the vehicle deceleration.
- If a locking wheel is detected by the electronic stability program control unit on the basis of the signals from the axle rpm sensors, the brake pressure is reduced at the appropriate wheel until the wheel begins to turn again.

ACCELERATION SKID CONTROL (ASR), TRACTION CONTROL SYSTEM (TCS)
- ASR and TCS prevent the tire from spinning when driving.
- ASR and TCS also serve to provide improved directional stability and road adhesion for increased traction potential over the entire vehicle speed range.
- Spinning of the tire is detected by the electronic stability program control unit using the signals from the axle rpm sensors.
- Wheel spinning is countered by reduction of the drive torque.
- For this purpose, the electronic stability program control unit sends a signal requesting a reduction in drive torque via the CAN communication to the ECM which then reduces the engine power accordingly.
- A check is continuously performed to establish whether the drive torque specified by the driver via the accelerator pedal sensor can be permitted again, e.g. due to an improvement in road surface adhesion.
- The drive torque is transmitted to the opposite, stable drive wheel by means of intervention by the brake system on the spinning wheel.

BRAKE ASSIST SYSTEM (BAS) (WITHOUT ICC)
- BAS detects emergency braking situations from rapid actuation of the brake pedal and, if necessary, increases the brake pressure in order to achieve the maximum possible deceleration.
- For this purpose, the electronic stability program control unit evaluates the increase in pressure in the brake system and initiates an emergency stop if a certain triggering threshold is exceeded.

BRAKE ASSIST SYSTEM PLUS (BAS PLUS) (WITH ICC)
- BAS Plus increases the brake pressure depending on the speed of the brake pedal operation and the distance of the vehicle driving in front.

HILL START ASSIST
- Additional function requirements for the hill start assist
- Vehicle not secured with electric parking brake
- Incline detected with vehicle at standstill
- When starting off, the hill start assist prevents the vehicle from rolling back opposite the travel direction of the engaged gear range during the time it takes for the driver to change from the brake pedal to the accelerator pedal.
- The function is released automatically if, when the vehicle is stationary, an uphill or downhill gradient which would cause the vehicle to roll opposite the travel direction of the engaged gear range is detected by the electronic stability program control unit.
- The electronic stability program control unit also directly reads in the brake lights switch signal and thereby detects the status of the brake pedal.
- The electric parking brake control unit sends the status of the electric parking brake via the CAN communication to the electronic stability program control unit.
- The brake pressure applied by the driver is maintained in the brake system by the traction system hydraulic unit.
- Following release of the brake pedal and detection of a start-off request, reduction of the brake pressure is controlled by means of torque balancing system.
- This system takes into consideration the incline output torque, the total braking torque and the available drive torque.

- When the start-off torque is high enough, the hill start assist is deactivated and the vehicle starts off without rolling in the undesired direction of travel.
- If the driver does not depress the brake pedal, the pressure in the brake system is reduced after 1 second.
- The hill start assist is terminated immediately if:
- The engine is switched off, unless the engine is switched off by the ECO start/stop function.
- The driver terminates the pulling away procedure by fully releasing the accelerator pedal.
- A forward/reverse gear change is performed.
- On vehicles with automatic transmission a gear change is made the target parking position. to selector lever position “N”.
- The electric parking brake is applied.
- The vehicle is slipping.
- The hill start assist does not function, if:
- The vehicle is driven off on a level road or on a downhill gradient.
- On vehicles with automatic transmission the transmission is in selector lever position “N”.
- The electric parking brake is applied.
- VDC is malfunctioning.
- The vehicle is slipping.

DRY BRAKING

- Additional function requirements dry braking:
- No brake intervention by a driver assistance system
- Speed: 50 km/h (31 MPH) or more
- Windshield wiper system switched on
- The status of the windshield wiper system is sent by the BCM over the CAN communication with the interface for the electronic ignition switch control unit to the electronic stability program control unit.
- The dry braking function enhances the performance of the brakes in wet driving conditions. The brake pads are applied cyclically for 1 second with a brake pressure of approx. 150 kPa (1.5 bar, 1.5 kg/cm^2, 22 psi) to remove the film of water from the brake disk rotor. This improves the response time of the brake.

PRECHARGING, DEPENDING ON ACCELERATOR PEDAL ACTUATION

- Upon detection of a possible emergency braking situation, the brake pads are brought into contact with the brake disk rotors.
- The clearance between the brake pad and brake disk is thus compensated before the driver operates the brake.
- The response time of the brake is improved and a shorter braking distance is achieved.
- Emergency braking is detected on the basis of the release gradient of the accelerator pedal.
- If a rapid release of the accelerator pedal is detected, the system assumes that the driver intends to brake.
- The function is activated and a brake pressure of approx. 200 kPa (2 bar, 2 kg/cm^2, 29 psi) is requested.
- In order to adapt the calculated triggering threshold of the release gradient to the driver behavior, a learning algorithm is implemented which places the driver in the category “normal driver” or “hectic driver” on the basis of the average rate at which the accelerator pedal is released.

PRECHARGING, DEPENDING ON LATERAL ACCELERATION

- During dynamic cornering, the brake pads are brought into contact with the front axle brake disk rotors.
- This closes the air gap between the brake pad and brake disk rotor in order to achieve the required braking power at the corresponding wheel as quickly as possible in the event of VDC intervention by the brake system.

EXTENDED TRACTION CONTROL

- The extended traction control function reduces the tendency of the vehicle to understeer during acceleration after fast cornering.
- This is achieved by a braking torque being applied to the inner front wheel.
- If a maximum braking torque for the front wheel is reached or the front wheel slips as a result of the applied braking torque, the calculated excess braking torque is fed to the inner rear wheel.
- The desired vehicle yawing moment which the driver specifies by means of the steering angle is thus achieved.
- Benefits of extended traction control:
- The engine torque remains in the upper range
- The vehicle speed can increase during cornering
- The steering wheel angle requirement is considerably less and smoother

HOLD FUNCTION

- The HOLD function assists the driver during waiting times in traffic or when starting off on a hill.

- The HOLD function is activated by briefly and quickly depressing the brake pedal when the vehicle is stationary.
- Successful activation of the HOLD function is indicated in a status line in the combination meter.
- The HOLD function can be activated if:
- The vehicle is stationary
- The seat belt is fastened or the driver door is closed.
- On vehicles with automatic transmission, the selector lever is not in position “P”.
- The engine is running or has been switched off by the ECO start/stop function.
- ICC is not active.
- The electric parking brake is not applied or it is in the process of being applied.
- There is no shutoff in the standstill control.
- The vehicle is not sliding.
- If the driver releases the brake pedal, an incline-dependent hold pressure is set and maintained until the driver quickly depresses the brake pedal again or drives off.
- Pressure reduction when starting off is performed by the standstill control depending on the respective situation.
- The HOLD function is deactivated automatically if:
- The accelerator pedal is depressed (except with automatic transmission in position “N”).
- On vehicles with automatic transmission, the selector lever is in position “P”.
- The brake pedal is depressed again with a certain pressure until the “HOLD” status line disappears in the combination meter.
- The electric parking brake is applied.
- ICC is activated.
- The brake pedal is depressed and the vehicle is sliding.
- If the HOLD function is activated and the driver wants to leave the vehicle, removal of the ignition key from the electronic ignition switch control unit is prevented.
- An acoustic and warning buzzer will be issued through the combination meter.

STEER ASSIST

- Steer assist is intended to help the driver achieve the optimal steering characteristics in critical situations.
- Steer assist is provided with the aid of the electric power steering control unit and electronic stability program control unit.
- The following functions are performed here:
- Driver support or stabilization through countersteering of a vehicle with oversteer
- Driver support for braking on varying road surfaces
- The current vehicle status is sensed by the electronic stability program control unit.
- When required, the “Steer Assist request” is sent over the CAN communication with the interface for the electronic ignition switch control unit to the EPS control unit.
- The EPS control unit actuates the EPS actuator correspondingly.
- With semi-automatic parking space entry and semi-automatic parking space exit, the electronic stability program control unit receives the required braking torque from the sonar control unit over the CAN communication and actuates the traction system hydraulic unit directly. The vehicle is braked. The vehicle is braked to stop at the required maneuvering points as well as an in the target parking position.

SYSTEM MALFUNCTION DISPLAY FUNCTION

- The driver is informed about the system status and about malfunction by the following displays:
- ABS warning lamp
- Brake warning lamp
- VDC warning lamp
- Messages in information display
- If the electronic stability program control unit malfunction, basic braking without ABS is always available.
- The status of the brake fluid level switch is read in by the BCM and sent via the CAN communication to the combination meter.

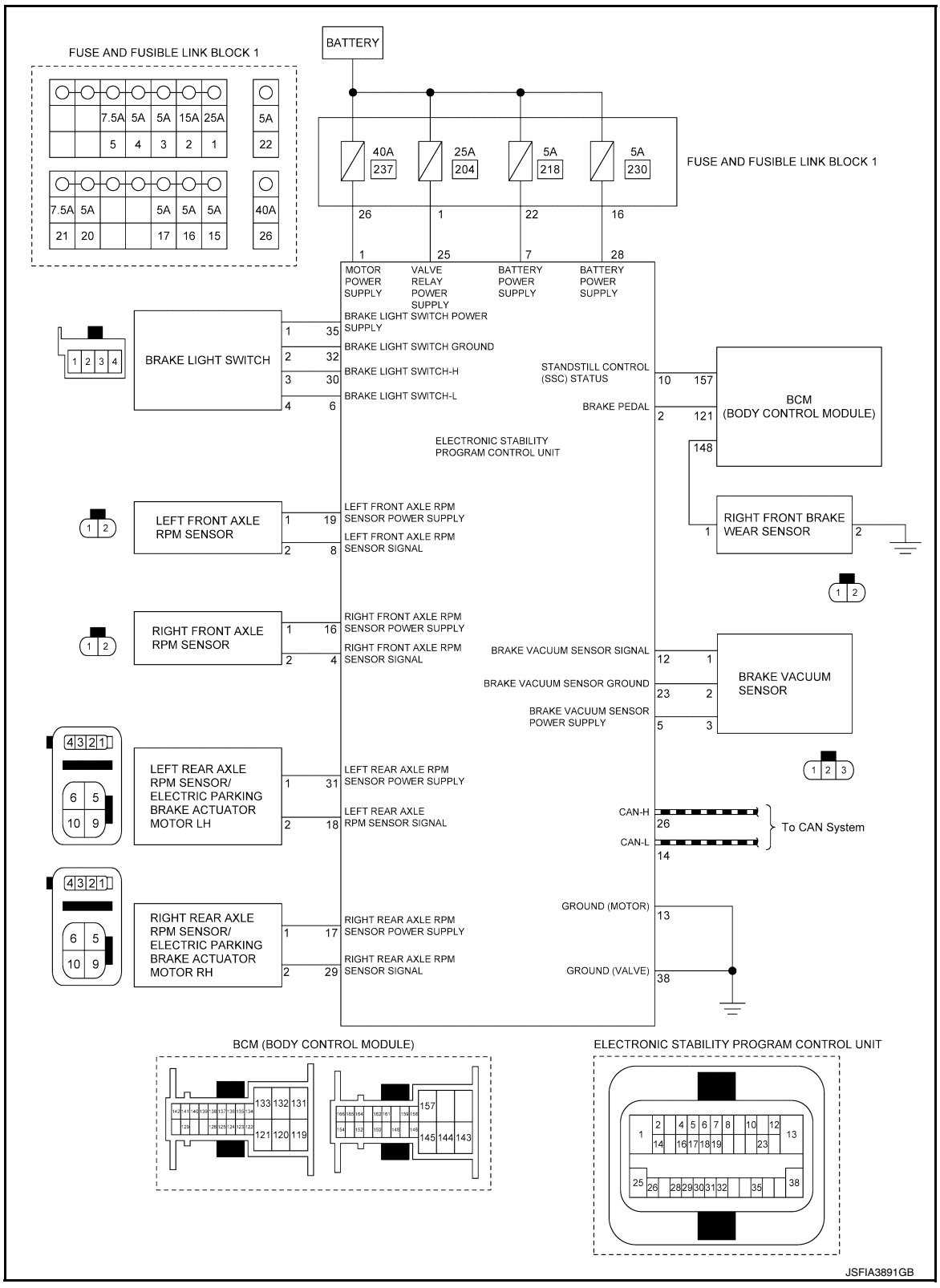
CONDITION FOR TURN ON THE WARNING LAMP, THE INDICATOR LAMP, BUZZER AND INFORMATION DISPLAY

Condition (status)	Brake warning lamp	ABS warning lamp	VDC warning lamp	VDC OFF indicator lamp	Buzzer (combination meter)	Information display
ABS, VDC, BAS, HOLD function and hill start assist function are temporarily unavailable	OFF	ON	ON	ON	OFF	 JSNIA9608ZZ “currently unavailable See Owner’s Manual”
ABS, VDC, BAS, HOLD function and hill start assist are not available due to a malfunction	ON	ON	ON	ON	OFF	 JSNIA9608ZZ “inoperative See Owner’s Manual”
VDC, BAS, HOLD function and hill start assist function are temporarily unavailable	OFF	OFF	ON	ON	OFF	 JSNIA9609ZZ “currently unavailable See Owner’s Manual”
VDC, BAS, HOLD function and hill start assist are not available due to a malfunction	OFF	OFF	ON	ON	OFF	 JSNIA9609ZZ “inoperative See Owner’s Manual”
EBD, ABS, VDC, BAS, HOLD function and hill start assist are not available due to a malfunction	OFF	ON	ON	ON	OFF	 JSNIA9610ZZ “inoperative See Owner’s Manual”

Condition (status)	Brake warning lamp	ABS warning lamp	VDC warning lamp	VDC OFF indicator lamp	Buzzer (combination meter)	Information display
Brake fluid is less than the specified level (brake fluid level switch ON)	ON	OFF	OFF	OFF	ON	 JSNIA9612ZZ “Check brake fluid level”
Brake pads/linings have reached their wear limit	OFF	OFF	OFF	OFF	OFF	 JSNIA9613ZZ “Check brake pad wear”
HOLD function is deactivated (The vehicle is skidding or when the brake pedal is firmly depressed, an activation condition is not fulfilled.)	OFF	OFF	OFF	OFF	ON	**HOLD** JSNIA9628ZZ “Off”
VDC function is OFF	OFF	OFF	OFF	ON	OFF	—
VDC or traction control has intervened because there is a risk of skidding or at least one wheel has started to spin.	OFF	OFF	Flash	ON	OFF	—

Circuit Diagram

INFOID:0000000013569108



Fail-Safe

INFOID:0000000013744962

- The brake warning lamp, ABS warning lamp, VDC warning lamp and/or VDC OFF indicator lamp turns ON or blinks when a malfunction with the adaptive brake system occurs.

- The each function of adaptive brake cannot be activated when adaptive brake system is malfunction. It restricts each function of adaptive brake activation.
- The each function of adaptive brake cannot be activated when electronic stability program control unit is malfunction. It restricts each function of adaptive brake activation.

WARNING/INDICATOR/CHIME LIST

WARNING/INDICATOR/CHIME LIST : Warning Lamp/Indicator Lamp

INFOID:0000000013569110

Name	Design	Layout/Function
ABS warning lamp		For layout: Refer to MWI-8, "METER SYSTEM : Design". For function: Refer to MWI-20, "WARNING LAMPS/INDICATOR LAMPS : ABS Warning Lamp".
Brake warning lamp		For layout: Refer to MWI-8, "METER SYSTEM : Design". For function: Refer to MWI-20, "WARNING LAMPS/INDICATOR LAMPS : Brake Warning Lamp".
VDC warning lamp		For layout: Refer to MWI-8, "METER SYSTEM : Design". For function: Refer to MWI-35, "WARNING LAMPS/INDICATOR LAMPS : VDC Warning Lamp".
VDC OFF indicator lamp		For layout: Refer to MWI-8, "METER SYSTEM : Design". For function: Refer to MWI-34, "WARNING LAMPS/INDICATOR LAMPS : VDC OFF Indicator Lamp".

INFORMATION DISPLAY (COMBINATION METER)

INFORMATION DISPLAY (COMBINATION METER) : Brake Control Display

INFOID:0000000013569111

DESIGN/PURPOSE

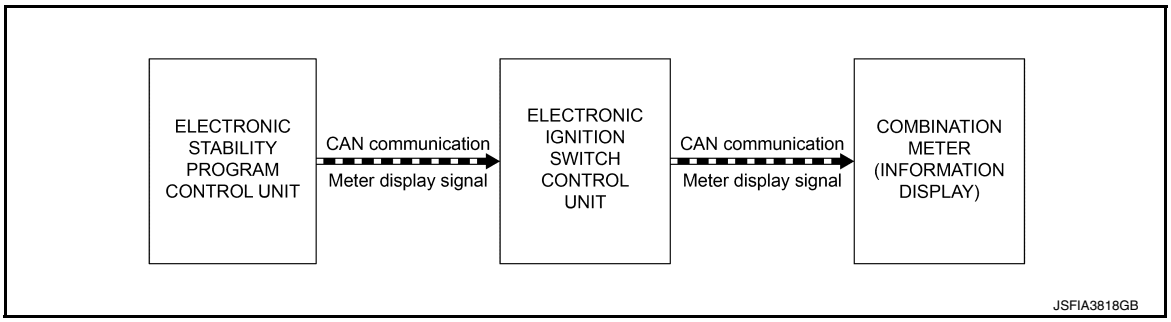
- The design and message is displayed on the information display when adaptive brake system detected the system malfunction.
- Each adaptive brake system information is displayed on the information display.

Design and Message

Design	Warning Message	Description
 JSNIA9608ZZ	currently unavailable See Owner's Manual	ABS, VDC, BAS, HOLD function and hill start assist function are temporarily unavailable
 JSNIA9608ZZ	inoperative See Owner's Manual	ABS, VDC, BAS, HOLD function and hill start assist are not available due to a malfunction

Design	Warning Message	Description
 JSNIA9609ZZ	currently unavailable See Owner's Manual	VDC, BAS, HOLD function and hill start assist function are temporarily unavailable
 JSNIA9609ZZ	inoperative See Owner's Manual	VDC, BAS, HOLD function and hill start assist are not available due to a malfunction
EBD   JSNIA9610ZZ	inoperative See Owner's Manual	EBD, ABS, VDC, BAS, HOLD function and hill start assist are not available due to a malfunction
 JSNIA9612ZZ	Check brake fluid level	Brake fluid is less than the specified level (brake fluid level switch ON)
 JSNIA9613ZZ	Check brake pad wear	Brake pads/linings have reached their wear limit
HOLD JSNIA9628ZZ	—	HOLD function is deactivated
	Off	HOLD function is deactivated (The vehicle is skidding or when the brake pedal is firmly depressed, an activation condition is not fulfilled.)

SYSTEM DIAGRAM



SIGNAL PATH

- The electronic stability program control unit transmits a meter display signal to the combination meter through electronic ignition switch control unit via CAN communication.
- The combination meter shows the display on the information display, according to the signal.

WARNING/INDICATOR OPERATING CONDITION

Warning

When all of the following conditions are satisfied

- Ignition switch is ON
- Adaptive brake system (each function) malfunction is detected. Refer to BRC-59, "DTC Index".

Operating

- VDC or HOLD function: Refer to BRC-34, "System Description".

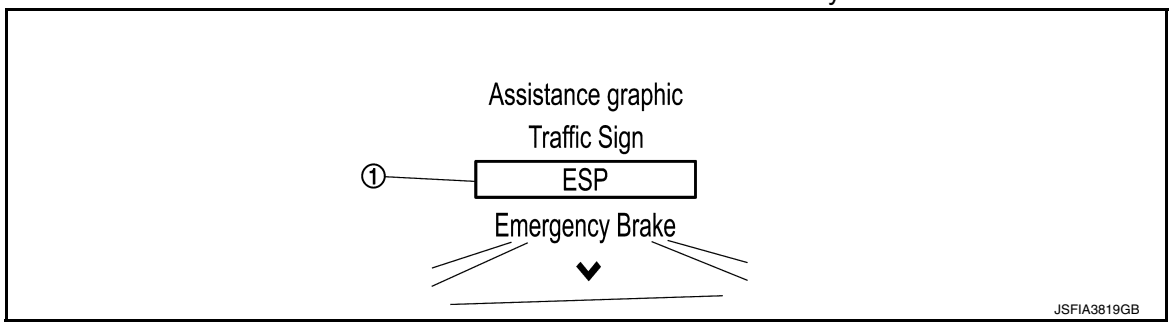
OPERATION

VDC

VDC : Menu Displayed by Pressing Each Switch

INFOID:0000000013569112

NOTE:
Both “VDC” and “ESP” are used in this manual. These indicate the same system.



No.	Switch name	Description
①	Vehicle dynamics control (VDC) setting screen (Assist menu of information display)	The setting of vehicle dynamics control (VDC) function can be switched ON and OFF.

DIAGNOSIS SYSTEM (ELECTRONIC STABILITY PROGRAM CONTROL UNIT)

CONSULT Function

INFOID:0000000013569113

APPLICATION ITEMS

CONSULT can display each diagnostic item using the diagnostic test modes as follows.

Mode	Function description
ECU identification	Parts number of electronic stability program control unit can be read.
Self Diagnostic Result	Self-diagnostic results and freeze frame data can be read and erased quickly.*
DATA MONITOR	Input/Output data in the electronic stability program control unit can be read.
ACTIVE TEST	Diagnostic Test Mode in which CONSULT drives some actuators apart from the electronic stability program control unit and also shifts some parameters in a specified range.
Work support	Components can be quickly and accurately adjusted.
Re/programming, Configuration	Automatically write the vehicle specification when replacing electronic stability program control unit.

*: The following diagnosis information is erased by erasing.

- DTC
- Freeze frame data (FFD)

ECU IDENTIFICATION

Electronic stability program control unit part number can be read.

SELF DIAGNOSTIC RESULT

Refer to BRC-59, "DTC Index".

When “CRNT” is displayed on self-diagnosis result,
- The system is presently malfunctioning.

When “PAST” is displayed on self-diagnosis result,
- System malfunction in the past is detected, but the system is presently normal.

Freeze frame data (FFD)

Item name	Indication/Unit	Display item
Frequency Counter	NOT AVLBL / DEFAULT/255 or more occurrences of err	The frequency counter is defined as the total number of times the DTC status has transitioned from “stored - not active” to “active”.
Ignition cycle counter	—	Indicates the number of consecutive operation cycles recorded since a DTC first became stored - not active and is no longer an active DTC. This information is needed for Self-healing functionality.
Voltage supply of control unit last occurrence	V	Displays voltage supply at electronic stability program control unit last occurrence.
Wheel speed at left front axle last occurrence	km/h	Displays wheel speed at left front axle last occurrence.
Rotation direction (FL axle rpm sen) last occurrence	FORWARD/BACKWARD	Displays rotation direction (FL axle rpm sensor) last occurrence.
Wheel speed at right front axle last occurrence	km/h	Displays wheel speed at right front axle last occurrence.
Rotation direction (FR axle rpm sen) last occurrence	FORWARD/BACKWARD	Displays rotation direction (FR axle rpm sensor) last occurrence.
Wheel speed at left rear axle last occurrence	km/h	Displays wheel speed at left rear axle last occurrence.

Item name	Indication/Unit	Display item
Wheel speed at right rear axle last occurrence	km/h	Displays wheel speed at right rear axle last occurrence.
Steering wheel angle last occurrence	°	Displays steering wheel angle last occurrence.
Longitudinal acceleration last occurrence	m/s^2	Displays longitudinal acceleration last occurrence.
Lateral acceleration last occurrence	m/s^2	Displays lateral acceleration last occurrence.
Rotational speed last occurrence	°/s	Displays rotational speed last occurrence.
Brake pressure last occurrence	bar	Displays brake pressure last occurrence.
Brake pressure at left front wheel last occurrence	bar	Displays brake pressure at left front wheel last occurrence.
Brake pressure at left rear wheel last occurrence	bar	Displays brake pressure at left rear wheel last occurence.
Position of accelerator pedal last occurrence	%	Displays position of accelerator pedal last occurrence.
ABS last occurrence	NOT ACT/ACTIVE	Displays ABS last occurrence.
ASR last occurrence	NOT ACT/ACTIVE	Displays ASR last occurrence.
MSR last occurrence	NOT ACT/ACTIVE	Displays MSR last occurrence.
EBV last occurrence	NOT ACT/ACTIVE	Displays EBV last occurrence.
ESP last occurrence	NOT ACT/ACTIVE	Displays VDC last occurrence.
HSA last occurrence	NOT ACT/ACTIVE	Displays HSA last occurrence.
HBA last occurrence	NOT ACT/ACTIVE	Displays HBA last occurrence.
HOLD last occurrence	Yes/No	Displays HOLD last occurrence.
Brake light switch last occurrence	Yes/No	Displays brake light switch last occurrence.
ESP OFF last occurrence	Yes/No	Displays VDC OFF last occurrence.
Clutch pedal last occurrence	NOT ACT/Activated	Displays clutch pedal last occurrence.
SSK last occurrence	Yes/No	Displays SSK last occurrence.
Selector lever in P position last occurrence	Yes/No	Displays selector lever in P position last occurrence.
Actual gear last occurrence	N/1/2/3/4/5/6/7/8/9/R3/R/R2/P/Power free/Gear shift abortion/SNV	Displays actual gear last occurrence.
Selector lever position last occurrence	Reserved/D/N/R/P/PLUS/MINUS/N·D/R·N/P·R/SNV	Displays selector lever position last occurrence.
Undervoltage last occurrence	Yes/No	Displays under voltage last occurrence.

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

×: Applicable

Item [Indication/Unit]		Description
Wheel speed at left front axle	[km/h]	Displays wheel speed at left front axle.
Wheel speed at right front axle	[km/h]	Displays wheel speed at right front axle.
Wheel speed at left rear axle	[km/h]	Displays wheel speed at left rear axle.
Wheel speed at right rear axle	[km/h]	Displays wheel speed at right rear axle.
Air gap Reserve RL	[NOT OK/OK]	Displays air gap reserve rear left brake.
Air gap Reserve RR	[NOT OK/OK]	Displays air gap reserve rear right brake.
Longitudinal Acceleration	[m/s^2]	Displays longitudinal acceleration.

Item [Indication/Unit]		Description
Lateral Acceleration	[m/s^2]	Displays lateral acceleration.
Turn rate	[°/s]	Displays turn rate.
Steering wheel angle	[°]	Displays steering wheel angle.
Brake pressure	[bar]	Displays brake pressure.
Brake pressure at FL wheel	[bar]	Displays brake pressure at front left brake.
Brake pressure at RL wheel	[bar]	Displays brake pressure at rear left brake.
Supply voltage solenoid valves	[V]	Displays supply voltage solenoid valves.
Supply voltage of return pump	[V]	Displays supply voltage of return pump.
Supply voltage of control unit	[V]	Displays supply voltage of control unit.
VACUUM SENSOR	[mbar]	Displays vacuum status.
Status of brake vacuum sensor	[VALID/INVALID]	Displays status of brake vacuum sensor.
Signal high of brake light SW	[On/OFF]	Displays signal high of brake light switch.
Signal low of brake light SW	[On/OFF]	Displays signal low of brake light switch.
PARKING BRAKE	[On/OFF]	Displays status of parking brake.
Status of switch ESP Off	[Yes/No]	Displays status of switch VDC Off.
Outlet Valve Left Rear	[On/OFF]	Displays status of outlet valve left rear.
PUMP	[On/OFF]	Displays pump status.
Acceleration sensor calibration	[Yes/No]	Displays acceleration sensor calibration.

ACTIVE TEST

Active test item	Description
Check power supply of solenoid valves	Controls power supply of solenoid valves.
Defragment memory	Controls defragment memory.
Check power supply of high press and return flow pump	Controls power supply of high press and return flow pump.
Rear left pressure regulating valve pressure release	Controls left pressure regulating valve pressure release.

WORK SUPPORT

Conditions	Description
VIN REGISTRATION	Registration of the vehicle identification number.
Calibration of acceleration sensor	Perform acceleration sensor calibration.

RE/PROGRAMMING, CONFIGURATION

Refer to BRC-86, "Description".

DIAGNOSIS SYSTEM (BCM)

CONSULT Function (BCM)

INFOID:0000000013569114

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
Work Support	Changes the setting for each function
Self Diagnostic Result	Displays the diagnosis results judged by BCM
Data Monitor	The BCM input/output signals are displayed
Ecu Identification	The BCM part number is displayed
Active Test	The signals used to activate each device are forcibly supplied from BCM
Configuration	Writes the vehicle specification when replacing BCM

SELF DIAGNOSTIC RESULT

Refer to BCS-51, "DTC Index".

WORK SUPPORT

Monitor Item	Description
Replace decoupling relay	Reset the counter of decoupling relay
Replace eco start stop function add battery	Reset the counter of sub battery relay
Deactivate production run	—

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor Item	Description
Rear map lamp switch	—
Map lamp switch (FL)	—
FR PERSONAL LAMP	—
Lamp state 1.SR left	—
Lamp state 1.SR right	—
Vehicle tilt cancel switch	—
Intruder cancel switch	—
Info button	—
Info button	—
Telematics switch	—
AUTO LIGHT SW	—
Sunroof/sunshade switch	—
REAR LEFT	—
REAR RIGHT	—
WIND LIFT RLY CONT HIGH	—
WIND LIFT RLY CONT DEEP	—
SUPPLY BATTERY 1	Display the status of power supply
SUPPLY BATTERY 2	Display the status of power supply
SUPPLY BATTERY 3	Display the status of power supply

Monitor Item	Description
SUPPLY BATTERY 4	Display the status of power supply
SUPPLY BATTERY 5	Display the status of power supply
FUEL LEVEL SEN 1 REF	Display the status of fuel level sensor
FUEL LEVEL SEN 2 REF	Display the status of fuel level sensor
HIGH BEAM RIGHT	Display the status of high beam right
HIGH BEAM LEFT	Display the status of high beam left
TURN SIGNAL FRONT RIGHT	Display the status of turn signal front right
TURN SIGNAL FRONT LEFT	Display the status of turn signal front right
PARKING LAMP FRONT RIGHT	Display the status of parking lamp front right
PARKING LAMP FRONT LEFT	Display the status of parking lamp front left
SIDEMARKER FRONT RIGHT	—
SIDEMARKER FRONT LEFT	—
DTRL RIGHT	Display the status of daytime running lamp right
DTRL LEFT	Display the status of daytime running lamp left
PARKING LAMP 2 FR RIGHT	—
PARKING LAMP 2 FR LEFT	—
FOG LAMP RIGHT	Display the status of front fog lamp right
FOG LAMP LEFT	Display the status of front fog lamp left
STOP TAIL LAMP 2 RIGHT	—
STOP TAIL LAMP 2 LEFT	—
STOP TAIL LAMP 1 RIGHT	—
STOP TAIL LAMP 1 LEFT	—
TURN SIGNAL REAR RIGHT	—
TURN SIGNAL REAR LEFT	—
LICENSE PLATE LAMP RIGHT	Display the status of license plate lamp right
LICENSE PLATE LAMP LEFT	Display the status of license plate lamp left
BACK-UP LAMP LEFT	Display the status of back-up lamp left
BACK-UP LAMP RIGHT	Display the status of back-up lamp left
FOG LAMP	Display the status of rear fog lamp
TAIL LAMP RIGHT	Display the status of tail lamp right
TAIL LAMP LEFT	Display the status of tail lamp left
Ambient lamp (blue)	—
START / STOP FUNC ADD BAT	Display the status of sub battery
STAGE OF WIND WIPER	Display the status of front wiper
WIND WIPER IN REST POS	Display the status of front wiper position
STATUS OF CIRCUIT 15X	—
CIRCUIT 15	Display the status of ignition switch power supply
CIRCUIT 15R1 RELAY	Display the status of terminal relay (15R1)
CIRC 15R2 POW OUTLET RLY	Display the status of terminal relay (15R2)
SYMBOL ILLUMINATION	—
OUTSIDE TEMP READING	Display outside temperature
COOLANT LEVEL	Display the status of coolant level
WASHER FLUID LEVEL	Display the status of washer fluid level
BRAKE FLUID LEVEL	Display the status of brake fluid level

Monitor Item	Description
FRONT BRAKE LININGS	—
LH ENG HOOD CONTACT SW	—
RH ENG HOOD CONTACT SW	—
LH RR DR ROTARY TUMB SW	—
RH RR DR ROTARY TUMB SW	—
FUEL FILLER FLAP	Display the status of fuel filler lid
TK LID EMERGENCY OP SW	—
LEFT PARKING LAMP	—
RIGHT PARKING LAMP	—
FRONT FOG LAMP BUTTON	Display the status of front fog lamp switch
REAR FOG LAMP BUTTON	Display the status of rear fog lamp switch
AUTO ON/OFF DRIVING LIGHT	—
EXT LT SW IN POS MNL DR LT	—
NIGHT VIEW ASSIST BUTTON	—
STANDING LIGHTS	—
VOLTAGE AT CIRCUIT 30G	Display the status of power supply via latching terminal relay 30g
START / STOP FUNC ADD BAT	—
START / STOP FUNC ADD BAT	—
BATTERY	Display the voltage of battery
BATTERY	Display the current of battery
BATTERY	Display the temperature of battery
INT RESIST	—
ENG STP INHIBI: OBD EL SYS	—
ENG STP INHIBI: LIN ERROR	—
ENG STP INHIBI: DIAGNOSIS	—
ENG STP INHIBI: AMBIENT	—
ENG STP INHIBI: BATTERY	—
RH FUEL LEVEL IND SENSOR	—
LH FUEL LEVEL IND SENSOR	—
REAR WINDOW WIPER RELAY	Display the status of rear wiper relay
TRUNK LAMP	Display the status of luggage room lamp
DOOR HANDLE ILL (RR DOOR)	—
AMBI ILL (IP AND RR DOOR)	—
FOOT LAMP	Display the status of foot lamp
LH FR ILL DOOR SILL MOLD	—
RH FR ILL DOOR SILL MOLD	—
TRUNK LAMP	Display the status of back door lamp
DOOR HANDLE ILL (RR DOOR)	—
AMBI ILL (IP AND RR DOOR)	—
FOOT LAMP	Display the status of foot lamp
LH FR ILL DOOR SILL MOLD	—
RH FR ILL DOOR SILL MOLD	—
SPRAY NOZZ HOSE HEATER	Display the status of spray nozzle hose heater
WIND WASHER SYSTEM PUMP	Display the status of front washer pump

Monitor Item	Description
WIND WASH PUMP: RR WIND	Display the status of rear washer pump
Headlamp washer pump	—
HEADLAMP CLEAN SYS PUMP	—
HORN RELAY	Display the status of horn relay
LICENSE PLATE LAMP	Display the status of license plate lamp
BRAKE / TAILLIGHT 1 LEFT	—
BRAKE / TAILLIGHT 1 RIGHT	—
BRAKE / TAILLIGHT 2 LEFT	—
BRAKE / TAILLIGHT 2 RIGHT	—
CENTER BRAKE LAMP	Display the status of high mounted stop lamp
RUN BOARD COURTE LT LH	—
RUN BOARD COURTE LT RH	—
SIDEMARKER FL	—
SIDEMARKER FR	—
TAIL LAMP LEFT	Display the status of tail lamp left
TAIL LAMP RIGHT	Display the status of tail lamp right
BACK-UP LAMP LEFT	—
BACK-UP LAMP RIGHT	—
FOG LAMP	—
FRONT FOG LAMP LEFT	—
FRONT FOG LAMP RIGHT	—
TURN SIGNAL RL	—
TURN SIGNAL RR	—
TURN SIGNAL FL	—
TURN SIGNAL FR	—
DTRL LEFT	—
DTRL RIGHT	—
LOW BEAM LEFT	—
LOW BEAM RIGHT	—
HIGH BEAMS / IR-RAD LEFT	—
HIGH BEAMS / IR-RAD RIGHT	—
STANDING LIGHT 1 LEFT	—
STANDING LIGHT 1 RIGHT	—
STAND LT 2 / TURN SIG 2 LH	—
STAND LT 2 / TURN SIG 2 RH	—
STOP LAMP	—
CIRCUIT 30G RELAY	Display the status of latching terminal relay 30g
DECOUPLING RELAY	Display the status of decoupling relay
IOD RELAY EARLY COUNTER	—
CIRCUIT 30G RELAY	Display the counter of latching terminal relay 30g
IOD LOW VOLT COUNTER	—
DECOUPLING RELAY	Display the counter of decoupling relay
START/STOP FUNC BAT RLY	Display the counter of sub battery relay
Light sensor present	—

Monitor Item	Description
TUNNEL SENSOR	—
INTERIOR ILLUMINATION	—
LOW BEAM SW	—
RAIN SENSOR	—
LIGHT SENSOR	—
Electrical charge throughput	—
LIFTGATE CENT LCK MOTOR	—
LIFTGATE EXTERNAL OP SW	—
LIFTGATE ROTARY TUMB SW	—

ACTIVE TEST

Monitor Item	Description
Check left front turn signal lamp	—
Check eco start stop function additional battery relay	This function able to check sub battery relay
Check right front turn signal lamp	—
Check right rear turn signal lamp	—
Check left rear turn signal lamp	—
Check right daytime running light headlamp	—
Check left daytime running light headlamp	—
Left front lamp unit	—
Centre brake lamp	This function able to check high mounted stop lamp
LICENSE PLATE LAMPS	This function able to check license plate lamps
Left rear fog lamp	This function able to check left rear fog lamp
Windshield washer system pump	This function able to check front wiper washer
Headlamp clean system pump	—
Resetting reading of frequency counter	This function able to reset the counter of latching terminal relay 30g, decoupling relay and sub battery relay
Tank cap central locking actuator	This function able to check fuel filler flap
Side marker lamp	—
Inner left rear lamp unit	This function able to check left rear combination lamp (back door side)
Left rear power window	This function able to check left rear power window
Right rear lamp unit	This function able to check right rear combination lamp (body side)
Front turn signal lamp	This function able to check front turn signal lamp
ERASE ALARM SOURCES	—
Circuit 30G relay	This function able to check latching terminal relay 30g
Rear fuse box	This function able to check injection relay, terminal relay (15R1), terminal relay (15R2) and rear wiper relay
Engine compartment fuse and relay module	This function able to check injection relay, fanfare relay, front wiper HI/LO relay and front wiper relay
Symbol illumination	—
Activate demo mode of exterior lamp	—
REAR DOORS	This function able to check rear door
Liftgate central locking motor	—
Right rear power window	This function able to check right rear power window
Running board courtesy light	—

Monitor Item	Description
Trunk lid emergency opening switch	—
Illuminated door sill moldings	—
Right front lamp unit	—
Left rear lamp unit	This function able to check left rear combination lamp (body side)
Footwell lamp	This function able to check foot lamp
Backup Lamp	This function able to check back-up lamp
Trunk lamp	—
Spray nozzle hose heater	This function able to check spray nozzle hose heater
Inner right rear lamp unit	This function able to check right rear combination lamp (back door side)
Daytime running light	This function able to check daytime running lamp
WINDSCREEN WIPER	This function able to check front wiper and rear wiper
Eighth to last data record	—
Fifth from last data record	—
Fourth from last data record	—
Last data record	—
Ninth to last data record	—
Second from last data record	—
Seventh to last data record	—
Sixth to last data record	—
Tenth to last data record	—
Third from last data record	—
Front fog lamp	This function able to check front fog lamp
Door handle illumination rear doors	—
Ambiance illumination of rear door	—
Interior Lamp	—
Mirror lamps of sun visors	—
Reading lamp actuation	—
Rear lamp actuation	—
Check component M10 5 RL door power window motor	—
Check component M10 6 RR door power window motor	—
Left rear power window actual value	—
Right rear power window actual value	—
CONFIRMATION OF BATTERY CHANGE	—
OUTPUT FOR THE WIPER ARM HOSE HEATER RELAY HAS A MALFUNCTION	—

ECU DIAGNOSIS INFORMATION

ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Reference Value

INFOID:0000000013569115

CONSULT DATA MONITOR STANDARD VALUE

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor item	Condition	Reference values in normal operation
Wheel speed at left front axle	Vehicle stopped	0.00 km/h (MPH)
	When driving*	Nearly matches the speedometer display (within ±10%)
Wheel speed at right front axle	Vehicle stopped	0.00 km/h (MPH)
	When driving*	Nearly matches the speedometer display (within ±10%)
Wheel speed at left rear axle	Vehicle stopped	0.00 km/h (MPH)
	When driving*	Nearly matches the speedometer display (within ±10%)
Wheel speed at right rear axle	Vehicle stopped	0.00 km/h (MPH)
	When driving*	Nearly matches the speedometer display (within ±10%)
Air gap Reserve RL	—	NOT OK
	—	OK
Air gap Reserve RR	—	NOT OK
	—	OK
Longitudinal Acceleration	Vehicle stopped	Approx. 0 m/s^2
	When during acceleration/deceleration	Changes according to the longitudinal acceleration/deceleration
Lateral Acceleration	Vehicle stopped	Approx. 0 m/s^2
	When left/right turn	Changes according to the left/right turn
Turn rate	Vehicle stopped	Approx. 0 °/s
	When left/right turn	Changes according to the left/right turn
Steering wheel angle	When vehicle driving straight	Approx. 0 °
	When steering wheel is steered to LH/RH	Changes according to the steered to LH/RH
Brake pressure	When brake pedal is not depressed	Approx. 0 bar
	When brake pedal is depressed	Pressure increase according to brake pedal effort
Brake pressure at FL wheel	When brake pedal is not depressed	Approx. 0 bar
	When brake pedal is depressed	Pressure increase according to brake pedal effort
Brake pressure at RL wheel	When brake pedal is not depressed	Approx. 0 bar
	When brake pedal is depressed	Pressure increase according to brake pedal effort
Supply voltage solenoid valves	Ignition switch ON	—
Supply voltage of return pump	Ignition switch ON	—
Supply voltage of control unit	Ignition switch ON	—

Monitor item	Condition	Reference values in normal operation
VACUUM SENSOR	Engine running	—
	Engine stopped	—
Status of brake vacuum sensor	Engine running	VALID
	Engine stopped	INVALID
Signal high of brake light SW	When brake pedal is depressed	On
	When brake pedal is not depressed	OFF
Signal low of brake light SW	When brake pedal is depressed	On
	When brake pedal is not depressed	OFF
PARKING BRAKE	When electric parking brake is active	On
	When electric parking brake is released	OFF
Status of switch ESP Off	When VDC function is OFF	Yes
	When VDC function is ON	No
Outlet Valve Left Rear	Active	On
	Inactive	OFF
PUMP	Active	On
	Inactive	OFF
Acceleration sensor calibration	During calibration	Yes
	Not caribration	No

*: Confirm tire pressure is standard value.

Fail-safe

INFOID:0000000013569116

- The brake warning lamp, ABS warning lamp, VDC warning lamp and/or VDC OFF indicator lamp turns ON or blinks when a malfunction with the adaptive brake system occurs.
- The each function of adaptive brake cannot be activated when adaptive brake system is malfunction. It restricts each function of adaptive brake activation.
- The each function of adaptive brake cannot be activated when electronic stability program control unit is malfunction. It restricts each function of adaptive brake activation.

DTC Index

INFOID:0000000013569117

DTC		Items (CONSULT screen terms)		Reference
C0000	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-90, "DTC Description"
C0001	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-91, "DTC Description"
C0002	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-92, "DTC Description"
C0003	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-93, "DTC Description"
C0004	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-94, "DTC Description"
C0005	00	Reprogram ESP control unit	NO SUBTYPE INFORMATION	BRC-95, "DTC Description"
C0006	00	Reprogram ESP control unit	NO SUBTYPE INFORMATION	BRC-97, "DTC Description"
C0007	00	Reprogram ESP control unit	NO SUBTYPE INFORMATION	BRC-99, "DTC Description"
C0008	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-101, "DTC Description"
C0009	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-102, "DTC Description"
C000A	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-103, "DTC Description"
C000B	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-104, "DTC Description"
C000C	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-105, "DTC Description"
C000D	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-106, "DTC Description"
C000E	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-107, "DTC Description"

DTC		Items (CONSULT screen terms)		Reference
C000F	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-108, "DTC Description"
C0010	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-109, "DTC Description"
C0011	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-110, "DTC Description"
C0012	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-111, "DTC Description"
C0024	00	Reprogram ESP control unit	NO SUBTYPE INFORMATION	BRC-112, "DTC Description"
C002B	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-114, "DTC Description"
C002C	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-115, "DTC Description"
C002D	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-116, "DTC Description"
C002E	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-117, "DTC Description"
C0030	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-118, "DTC Description"
C0031	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-119, "DTC Description"
C0032	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-120, "DTC Description"
C0033	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-121, "DTC Description"
C0034	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-122, "DTC Description"
C0035	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-123, "DTC Description"
C0036	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-124, "DTC Description"
C0037	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-125, "DTC Description"
C0038	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-126, "DTC Description"
C003A	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-127, "DTC Description"
C003B	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-128, "DTC Description"
C003D	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-129, "DTC Description"
C003E	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-130, "DTC Description"
C003F	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-131, "DTC Description"
C0040	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-132, "DTC Description"
C0041	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-133, "DTC Description"
C0042	00	BR pedal posi sen circuit A (subfault)	NO SUBTYPE INFORMATION	BRC-134, "DTC Description"
C0043	00	Reprogram ESP control unit	NO SUBTYPE INFORMATION	BRC-136, "DTC Description"
C0044	00	Reprogram ESP control unit	NO SUBTYPE INFORMATION	BRC-138, "DTC Description"
C0045	00	Reprogram ESP control unit	NO SUBTYPE INFORMATION	BRC-140, "DTC Description"
C0046	00	Brake pressure sensor A/B (subfault)	NO SUBTYPE INFORMATION	BRC-142, "DTC Description"
C0048	00	Reprogram ESP control unit	NO SUBTYPE INFORMATION	BRC-144, "DTC Description"
C0049	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-146, "DTC Description"
C004A	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-147, "DTC Description"
C004B	00	Reprogram ESP control unit	NO SUBTYPE INFORMATION	BRC-148, "DTC Description"
C004D	00	Reprogram ESP control unit	NO SUBTYPE INFORMATION	BRC-150, "DTC Description"
C0071	00	2/4 wheel drive status input (subfault)	NO SUBTYPE INFORMATION	BRC-152, "DTC Description"
C0073	00	2/4 wheel drive status input (subfault)	NO SUBTYPE INFORMATION	BRC-154, "DTC Description"
C0075	00	2/4 wheel drive status input (subfault)	NO SUBTYPE INFORMATION	BRC-156, "DTC Description"
C0076	00	PWM for traction control (subfault)	NO SUBTYPE INFORMATION	BRC-159, "DTC Description"
C0077	00	2/4 wheel drive status input (subfault)	NO SUBTYPE INFORMATION	BRC-161, "DTC Description"
C0078	00	Brake light switch	NO SUBTYPE INFORMATION	BRC-163, "DTC Description"
C0080	00	Overheating protection ESP C/U	NO SUBTYPE INFORMATION	BRC-167, "DTC Description"
C0081	00	ABS malfunction Indicator (subfalt)	NO SUBTYPE INFORMATION	BRC-168, "DTC Description"
C00B0	00	Implausible ESP control	NO SUBTYPE INFORMATION	BRC-169, "DTC Description"

DTC		Items (CONSULT screen terms)		Reference
C00B1	00	Rpm sensor supply implausible value	NO SUBTYPE INFORMATION	BRC-171, "DTC Description"
C00B2	00	Behavior of ABS control is implausible	NO SUBTYPE INFORMATION	BRC-173, "DTC Description"
C00C0	00	ESP C/U transmits malfunction signal	NO SUBTYPE INFORMATION	BRC-174, "DTC Description"
C00C1	00	Internal ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-176, "DTC Description"
C00C2	00	ESP C/U transmits malfunction signal	NO SUBTYPE INFORMATION	BRC-177, "DTC Description"
C00C3	00	ESP C/U transmits malfunction signal	NO SUBTYPE INFORMATION	BRC-179, "DTC Description"
C00C4	00	ESP C/U transmits malfunction signal	NO SUBTYPE INFORMATION	BRC-181, "DTC Description"
C00C5	00	ESP C/U transmits malfunction signal	NO SUBTYPE INFORMATION	BRC-183, "DTC Description"
C00C6	00	Internal ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-185, "DTC Description"
C00C9	00	ESP C/U transmits malfunction signal	NO SUBTYPE INFORMATION	BRC-186, "DTC Description"
C00CA	00	ESP C/U transmits malfunction signal	NO SUBTYPE INFORMATION	BRC-188, "DTC Description"
C00CB	00	Internal ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-190, "DTC Description"
C00CC	00	ESP C/U transmits malfunction signal	NO SUBTYPE INFORMATION	BRC-191, "DTC Description"
C00CD	00	ESP C/U transmits malfunction signal	NO SUBTYPE INFORMATION	BRC-193, "DTC Description"
C00D0	00	Reprogram ESP control unit	NO SUBTYPE INFORMATION	BRC-195, "DTC Description"
C0100	00	ESP C/U detected under voltage	NO SUBTYPE INFORMATION	BRC-197, "DTC Description"
C0105	00	ESP C/U detected under voltage	NO SUBTYPE INFORMATION	BRC-198, "DTC Description"
C0106	00	Voltage supply of valve is malfunction	NO SUBTYPE INFORMATION	BRC-199, "DTC Description"
C0111	00	ESP C/U detected under voltage	NO SUBTYPE INFORMATION	BRC-201, "DTC Description"
C0112	00	ESP C/U detected over voltage	NO SUBTYPE INFORMATION	BRC-202, "DTC Description"
C0114	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-204, "DTC Description"
C0116	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-205, "DTC Description"
C0117	00	Reprogram ESP control unit	NO SUBTYPE INFORMATION	BRC-206, "DTC Description"
C0120	00	ESP C/U detected over voltage	NO SUBTYPE INFORMATION	BRC-208, "DTC Description"
C0130	00	FL pressure sensor	NO SUBTYPE INFORMATION	BRC-210, "DTC Description"
C0131	00	FL pressure sensor	NO SUBTYPE INFORMATION	BRC-212, "DTC Description"
C0133	00	FL pressure sensor	NO SUBTYPE INFORMATION	BRC-214, "DTC Description"
C0134	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-216, "DTC Description"
C0140	00	FR pressure sensor	NO SUBTYPE INFORMATION	BRC-217, "DTC Description"
C0142	00	FR pressure sensor	NO SUBTYPE INFORMATION	BRC-218, "DTC Description"
C0143	00	FR pressure sensor	NO SUBTYPE INFORMATION	BRC-220, "DTC Description"
C0144	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-222, "DTC Description"
C0150	00	Front pressure sensor	NO SUBTYPE INFORMATION	BRC-223, "DTC Description"
C0151	00	Front pressure sensor	NO SUBTYPE INFORMATION	BRC-225, "DTC Description"
C0152	00	Front pressure sensor	NO SUBTYPE INFORMATION	BRC-227, "DTC Description"
C0160	00	RL pressure sensor	NO SUBTYPE INFORMATION	BRC-229, "DTC Description"
C0161	00	RL pressure sensor	NO SUBTYPE INFORMATION	BRC-231, "DTC Description"
C0163	00	RL pressure sensor	NO SUBTYPE INFORMATION	BRC-233, "DTC Description"
C0164	00	RR pressure sensor	NO SUBTYPE INFORMATION	BRC-235, "DTC Description"
C0170	00	Main shifter shaft position sensor	NO SUBTYPE INFORMATION	BRC-237, "DTC Description"
C0171	00	Main shifter shaft position sensor	NO SUBTYPE INFORMATION	BRC-238, "DTC Description"
C0180	00	Rpm sensor supply implausible value	NO SUBTYPE INFORMATION	BRC-239, "DTC Description"
C0181	00	Rpm sensor supply implausible value	NO SUBTYPE INFORMATION	BRC-241, "DTC Description"
C0185	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-243, "DTC Description"

DTC		Items (CONSULT screen terms)		Reference
C0191	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-244, "DTC Description"
C0195	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-245, "DTC Description"
C0196	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-246, "DTC Description"
C0197	00	Hi press and return pump incomplete	NO SUBTYPE INFORMATION	BRC-247, "DTC Description"
C0198	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-249, "DTC Description"
C019C	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-250, "DTC Description"
C019D	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-251, "DTC Description"
C019E	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-252, "DTC Description"
C019F	00	Power supply system	NO SUBTYPE INFORMATION	BRC-253, "DTC Description"
C01A0	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-255, "DTC Description"
C01A1	00	Hi press and return pump incomplete	NO SUBTYPE INFORMATION	BRC-256, "DTC Description"
C01A2	00	Power supply system	NO SUBTYPE INFORMATION	BRC-258, "DTC Description"
C01A3	00	Hi press and return pump incomplete	NO SUBTYPE INFORMATION	BRC-260, "DTC Description"
C01A4	00	Hi press and return pump incomplete	NO SUBTYPE INFORMATION	BRC-262, "DTC Description"
C01A5	00	Hi press and return pump incomplete	NO SUBTYPE INFORMATION	BRC-264, "DTC Description"
C01A6	00	Hi press and return pump incomplete	NO SUBTYPE INFORMATION	BRC-266, "DTC Description"
C01A7	00	Hi press and return pump incomplete	NO SUBTYPE INFORMATION	BRC-268, "DTC Description"
C01A8	00	Reprogram ESP control unit	NO SUBTYPE INFORMATION	BRC-270, "DTC Description"
C01A9	00	Power supply system	NO SUBTYPE INFORMATION	BRC-272, "DTC Description"
C01AA	00	Hi press and return pump incomplete	NO SUBTYPE INFORMATION	BRC-274, "DTC Description"
C01AB	00	Hi press and return pump incomplete	NO SUBTYPE INFORMATION	BRC-276, "DTC Description"
C01C0	00	Brake vacuum sensor	NO SUBTYPE INFORMATION	BRC-278, "DTC Description"
C01C1	00	Brake vacuum sensor power supply	NO SUBTYPE INFORMATION	BRC-280, "DTC Description"
C01C2	00	Brake vacuum sensor	NO SUBTYPE INFORMATION	BRC-282, "DTC Description"
C01C3	00	Brake vacuum sensor	NO SUBTYPE INFORMATION	BRC-285, "DTC Description"
C01C4	00	Vacuum system is not leaktight	NO SUBTYPE INFORMATION	BRC-288, "DTC Description"
C01C5	00	Vacuum system is not leaktight	NO SUBTYPE INFORMATION	BRC-289, "DTC Description"
C01C6	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-290, "DTC Description"
C01D0	00	Voltage supply of valve is malfunction	NO SUBTYPE INFORMATION	BRC-291, "DTC Description"
C01D1	00	Voltage supply of valve is malfunction	NO SUBTYPE INFORMATION	BRC-293, "DTC Description"
C01D2	00	Voltage supply of valve is malfunction	NO SUBTYPE INFORMATION	BRC-295, "DTC Description"
C01D3	00	Voltage supply of valve is malfunction	NO SUBTYPE INFORMATION	BRC-297, "DTC Description"
C01D4	00	Voltage supply of valve is malfunction	NO SUBTYPE INFORMATION	BRC-299, "DTC Description"
C01D5	00	Voltage supply of valve is malfunction	NO SUBTYPE INFORMATION	BRC-301, "DTC Description"
C01D6	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-303, "DTC Description"
C01D7	00	Voltage supply of valve is malfunction	NO SUBTYPE INFORMATION	BRC-304, "DTC Description"
C01F0	00	Reprogram ESP control unit	NO SUBTYPE INFORMATION	BRC-306, "DTC Description"
C0200	00	Accelerator sensor malfunction signal	NO SUBTYPE INFORMATION	BRC-308, "DTC Description"
C0201	00	Accelerator sensor malfunction signal	NO SUBTYPE INFORMATION	BRC-310, "DTC Description"
C0220	00	CAN communication circuit	NO SUBTYPE INFORMATION	BRC-312, "DTC Description"
C0221	00	CAN communication circuit	NO SUBTYPE INFORMATION	BRC-314, "DTC Description"
C0224	00	CAN communication circuit	NO SUBTYPE INFORMATION	BRC-316, "DTC Description"
C0225	00	CAN communication circuit	NO SUBTYPE INFORMATION	BRC-317, "DTC Description"
C0240	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-318, "DTC Description"

DTC		Items (CONSULT screen terms)		Reference
C0241	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-319, "DTC Description"
C0242	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-320, "DTC Description"
C0243	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-321, "DTC Description"
C0244	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-322, "DTC Description"
C0245	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-323, "DTC Description"
C0246	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-324, "DTC Description"
C0250	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-325, "DTC Description"
C0251	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-326, "DTC Description"
C0252	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-327, "DTC Description"
C0253	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-328, "DTC Description"
C0254	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-329, "DTC Description"
C0255	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-330, "DTC Description"
C0256	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-331, "DTC Description"
C0260	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-332, "DTC Description"
C0261	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-333, "DTC Description"
C0262	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-334, "DTC Description"
C0263	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-335, "DTC Description"
C0264	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-336, "DTC Description"
C0265	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-337, "DTC Description"
C0266	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-338, "DTC Description"
C0270	00	Installation posi yaw rate sen incorrect	NO SUBTYPE INFORMATION	BRC-339, "DTC Description"
C0271	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-341, "DTC Description"
C0272	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-342, "DTC Description"
C0273	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-343, "DTC Description"
C0274	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-344, "DTC Description"
C0275	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-345, "DTC Description"
C0276	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-346, "DTC Description"
C0280	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-347, "DTC Description"
C0281	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-348, "DTC Description"
C0282	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-349, "DTC Description"
C0283	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-350, "DTC Description"
C0284	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-351, "DTC Description"
C0286	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-352, "DTC Description"
C0287	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-353, "DTC Description"
C0289	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-354, "DTC Description"
C0290	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-355, "DTC Description"
C0291	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-356, "DTC Description"
C0292	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-357, "DTC Description"
C0293	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-358, "DTC Description"
C0294	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-359, "DTC Description"
C0296	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-360, "DTC Description"
C0297	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-361, "DTC Description"
C0298	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-362, "DTC Description"
C02A0	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-363, "DTC Description"

DTC		Items (CONSULT screen terms)		Reference
C02A1	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-364, "DTC Description"
C02A2	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-365, "DTC Description"
C02A3	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-366, "DTC Description"
C02A4	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-367, "DTC Description"
C02A6	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-368, "DTC Description"
C02A7	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-369, "DTC Description"
C02A8	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-370, "DTC Description"
C02B0	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-371, "DTC Description"
C02B1	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-372, "DTC Description"
C02B2	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-373, "DTC Description"
C02B3	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-374, "DTC Description"
C02B4	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-375, "DTC Description"
C02B6	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-376, "DTC Description"
C02B7	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-377, "DTC Description"
C02B8	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-378, "DTC Description"
C02C0	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-379, "DTC Description"
C02C1	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-380, "DTC Description"
C02C2	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-381, "DTC Description"
C02C3	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-382, "DTC Description"
C02C5	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-383, "DTC Description"
C02C6	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-384, "DTC Description"
C02C7	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-385, "DTC Description"
C02C8	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-386, "DTC Description"
C02C9	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-387, "DTC Description"
C02CA	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-388, "DTC Description"
C02CB	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-389, "DTC Description"
C02CC	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-390, "DTC Description"
C02CD	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-391, "DTC Description"
C02CE	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-392, "DTC Description"
C02CF	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-393, "DTC Description"
C02D0	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-394, "DTC Description"
C02D1	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-395, "DTC Description"
C02D2	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-396, "DTC Description"
C02D3	00	Internal malfunction in ESP C/U	NO SUBTYPE INFORMATION	BRC-397, "DTC Description"
C02D4	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-399, "DTC Description"
C02D5	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-400, "DTC Description"
C02D6	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-401, "DTC Description"
C02D7	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-402, "DTC Description"
C02E0	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-403, "DTC Description"
C02E1	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-404, "DTC Description"
C02E2	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-405, "DTC Description"
C02E3	00	Internal malfunction in ESP C/U	NO SUBTYPE INFORMATION	BRC-406, "DTC Description"
C02E4	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-408, "DTC Description"
C02E5	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-409, "DTC Description"

DTC		Items (CONSULT screen terms)		Reference
C02E6	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-410, "DTC Description"
C02E7	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-411, "DTC Description"
C02F0	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-412, "DTC Description"
C02F1	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-413, "DTC Description"
C02F2	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-414, "DTC Description"
C02F3	00	Internal malfunction in ESP C/U	NO SUBTYPE INFORMATION	BRC-415, "DTC Description"
C02F4	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-417, "DTC Description"
C02F5	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-418, "DTC Description"
C02F6	00	Voltage supply of valve is malfunction	NO SUBTYPE INFORMATION	BRC-419, "DTC Description"
C02F7	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-421, "DTC Description"
C02F8	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-422, "DTC Description"
C0300	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-423, "DTC Description"
C0301	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-424, "DTC Description"
C0302	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-425, "DTC Description"
C0303	00	Voltage supply of valve is malfunction	NO SUBTYPE INFORMATION	BRC-426, "DTC Description"
C0304	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-428, "DTC Description"
C0305	00	Voltage supply of valve is malfunction	NO SUBTYPE INFORMATION	BRC-429, "DTC Description"
C0306	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-431, "DTC Description"
C0307	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-432, "DTC Description"
C0308	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-433, "DTC Description"
C0310	00	Reprogram ESP control unit	NO SUBTYPE INFORMATION	BRC-434, "DTC Description"
C0311	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-436, "DTC Description"
C0313	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-437, "DTC Description"
C0314	00	Rpm sensor supply implausible value	NO SUBTYPE INFORMATION	BRC-438, "DTC Description"
C0315	00	Power supply of rpm sensor is malf	NO SUBTYPE INFORMATION	BRC-440, "DTC Description"
C0320	00	Yaw rate sensor	NO SUBTYPE INFORMATION	BRC-442, "DTC Description"
C0321	00	Yaw rate sensor	NO SUBTYPE INFORMATION	BRC-443, "DTC Description"
C0323	00	Yaw rate sensor	NO SUBTYPE INFORMATION	BRC-444, "DTC Description"
C0325	00	Yaw rate sensor	NO SUBTYPE INFORMATION	BRC-445, "DTC Description"
C0326	00	Yaw rate sensor	NO SUBTYPE INFORMATION	BRC-446, "DTC Description"
C0327	00	Installation posi yaw rate sen incorrect	NO SUBTYPE INFORMATION	BRC-448, "DTC Description"
C0328	00	Yaw rate sensor	NO SUBTYPE INFORMATION	BRC-450, "DTC Description"
C0329	00	Yaw rate sensor	NO SUBTYPE INFORMATION	BRC-452, "DTC Description"
C032A	00	Yaw rate sensor	NO SUBTYPE INFORMATION	BRC-454, "DTC Description"
C032B	00	Yaw rate sensor	NO SUBTYPE INFORMATION	BRC-456, "DTC Description"
C032C	00	Yaw rate sensor	NO SUBTYPE INFORMATION	BRC-458, "DTC Description"
C032D	00	Yaw rate sensor	NO SUBTYPE INFORMATION	BRC-460, "DTC Description"
C032E	00	Yaw rate sensor	NO SUBTYPE INFORMATION	BRC-462, "DTC Description"
C0330	00	Yaw rate sensor	NO SUBTYPE INFORMATION	BRC-464, "DTC Description"
C0331	00	Yaw rate sensor	NO SUBTYPE INFORMATION	BRC-466, "DTC Description"
C0332	00	Yaw rate sensor	NO SUBTYPE INFORMATION	BRC-468, "DTC Description"
C0333	00	Yaw rate sensor	NO SUBTYPE INFORMATION	BRC-470, "DTC Description"
C0334	00	Installation position of ESP is incorrect	NO SUBTYPE INFORMATION	BRC-472, "DTC Description"
C0340	00	Yaw rate sensor	NO SUBTYPE INFORMATION	BRC-474, "DTC Description"

DTC		Items (CONSULT screen terms)		Reference
C0341	00	Yaw rate sensor	NO SUBTYPE INFORMATION	BRC-476, "DTC Description"
C0342	00	Yaw rate sensor	NO SUBTYPE INFORMATION	BRC-477, "DTC Description"
C0343	00	Yaw rate sensor	NO SUBTYPE INFORMATION	BRC-479, "DTC Description"
C0344	00	Yaw rate sensor	NO SUBTYPE INFORMATION	BRC-481, "DTC Description"
C0350	00	CAN message E-IGN lock C/U	NO SUBTYPE INFORMATION	BRC-482, "DTC Description"
C0351	00	No CAN message E-IGN lock C/U	NO SUBTYPE INFORMATION	BRC-483, "DTC Description"
C0352	00	CAN message DCU RF door	NO SUBTYPE INFORMATION	BRC-484, "DTC Description"
C0353	00	CAN message DCU FL door	NO SUBTYPE INFORMATION	BRC-485, "DTC Description"
C0354	00	CAN message SAM C/U	NO SUBTYPE INFORMATION	BRC-486, "DTC Description"
C0356	00	CAN message ECM	NO SUBTYPE INFORMATION	BRC-487, "DTC Description"
C0360	00	CAN message ECM	NO SUBTYPE INFORMATION	BRC-488, "DTC Description"
C0361	00	No CAN message ECM	NO SUBTYPE INFORMATION	BRC-489, "DTC Description"
C0370	00	CAN message TCM	NO SUBTYPE INFORMATION	BRC-490, "DTC Description"
C0375	00	CAN message TCM	NO SUBTYPE INFORMATION	BRC-491, "DTC Description"
C0380	00	CAN message ECM	NO SUBTYPE INFORMATION	BRC-492, "DTC Description"
C0381	00	No CAN message ECM	NO SUBTYPE INFORMATION	BRC-493, "DTC Description"
C0382	00	CAN message ECM	NO SUBTYPE INFORMATION	BRC-494, "DTC Description"
C0383	00	CAN message ECM	NO SUBTYPE INFORMATION	BRC-495, "DTC Description"
C0384	00	CAN message ECM	NO SUBTYPE INFORMATION	BRC-497, "DTC Description"
C0385	00	Signal from ECM is implausible	NO SUBTYPE INFORMATION	BRC-498, "DTC Description"
C0390	00	CAN message ECM	NO SUBTYPE INFORMATION	BRC-499, "DTC Description"
C0391	00	No CAN message ECM	NO SUBTYPE INFORMATION	BRC-500, "DTC Description"
C0392	00	CAN message ECM	NO SUBTYPE INFORMATION	BRC-501, "DTC Description"
C0393	00	CAN message ECM	NO SUBTYPE INFORMATION	BRC-502, "DTC Description"
C0394	00	CAN message ECM	NO SUBTYPE INFORMATION	BRC-503, "DTC Description"
C03A0	00	CAN message ECM	NO SUBTYPE INFORMATION	BRC-504, "DTC Description"
C03A1	00	No CAN message ECM	NO SUBTYPE INFORMATION	BRC-505, "DTC Description"
C03A2	00	CAN message ECM	NO SUBTYPE INFORMATION	BRC-506, "DTC Description"
C03A3	00	CAN message ECM	NO SUBTYPE INFORMATION	BRC-507, "DTC Description"
C03A4	00	CAN message ECM	NO SUBTYPE INFORMATION	BRC-508, "DTC Description"
C03A5	00	CAN message ECM	NO SUBTYPE INFORMATION	BRC-510, "DTC Description"
C03A6	00	CAN message ECM	NO SUBTYPE INFORMATION	BRC-512, "DTC Description"
C03B0	00	CAN message E-IGN lock C/U	NO SUBTYPE INFORMATION	BRC-514, "DTC Description"
C03B1	00	No CAN message E-IGN lock C/U	NO SUBTYPE INFORMATION	BRC-515, "DTC Description"
C03B2	00	CAN message E-IGN lock C/U	NO SUBTYPE INFORMATION	BRC-516, "DTC Description"
C03B3	00	No CAN message E-IGN lock C/U	NO SUBTYPE INFORMATION	BRC-517, "DTC Description"
C03C0	00	CAN message EPKB C/U	NO SUBTYPE INFORMATION	BRC-518, "DTC Description"
C03C1	00	No CAN signal received from E-PKB	NO SUBTYPE INFORMATION	BRC-519, "DTC Description"
C03C2	00	CAN message EPKB C/U	NO SUBTYPE INFORMATION	BRC-520, "DTC Description"
C03C3	00	No CAN signal received from E-PKB	NO SUBTYPE INFORMATION	BRC-521, "DTC Description"
C03C4	00	CAN message EPKB C/U	NO SUBTYPE INFORMATION	BRC-522, "DTC Description"
C03D0	00	Invalid data received from IPCCM	NO SUBTYPE INFORMATION	BRC-523, "DTC Description"
C03D1	00	No CAN sig received from comb meter	NO SUBTYPE INFORMATION	BRC-524, "DTC Description"
C03E0	00	Invalid data received from IPCCM	NO SUBTYPE INFORMATION	BRC-525, "DTC Description"

DTC		Items (CONSULT screen terms)		Reference
C03E1	00	No CAN sig received from comb meter	NO SUBTYPE INFORMATION	BRC-526, "DTC Description"
C03E2	00	Invalid data received from IPCCM	NO SUBTYPE INFORMATION	BRC-527, "DTC Description"
C03E3	00	Invalid data received from IPCCM	NO SUBTYPE INFORMATION	BRC-528, "DTC Description"
C03E4	00	Invalid data received from IPCCM	NO SUBTYPE INFORMATION	BRC-529, "DTC Description"
C03F0	00	Invalid data received from IPCCM	NO SUBTYPE INFORMATION	BRC-530, "DTC Description"
C03F1	00	No CAN sig received from comb meter	NO SUBTYPE INFORMATION	BRC-531, "DTC Description"
C03F2	00	Invalid data received from IPCCM	NO SUBTYPE INFORMATION	BRC-532, "DTC Description"
C0400	00	Invalid data received from SCCM	NO SUBTYPE INFORMATION	BRC-533, "DTC Description"
C0401	00	COMMUNICATION ERROR (INVALID)	NO SUBTYPE INFORMATION	BRC-534, "DTC Description"
C0403	00	Invalid data received from SCCM	NO SUBTYPE INFORMATION	BRC-535, "DTC Description"
C0404	00	Invalid data received from SCCM	NO SUBTYPE INFORMATION	BRC-536, "DTC Description"
C0410	00	Rpm sen delivering incorrect direction	NO SUBTYPE INFORMATION	BRC-537, "DTC Description"
C0420	00	Front axle rpm sensor	NO SUBTYPE INFORMATION	BRC-539, "DTC Description"
C0430	00	Rear axle rpm sensor	NO SUBTYPE INFORMATION	BRC-541, "DTC Description"
C0451	00	Internal malf steering angle sensor	NO SUBTYPE INFORMATION	BRC-543, "DTC Description"
C0452	00	Internal malf steering angle sensor	NO SUBTYPE INFORMATION	BRC-545, "DTC Description"
C0453	00	Internal malf steering angle sensor	NO SUBTYPE INFORMATION	BRC-547, "DTC Description"
C0454	00	Internal malf steering angle sensor	NO SUBTYPE INFORMATION	BRC-549, "DTC Description"
C0456	00	Internal malf steering angle sensor	NO SUBTYPE INFORMATION	BRC-551, "DTC Description"
C0457	00	Internal malf steering angle sensor	NO SUBTYPE INFORMATION	BRC-553, "DTC Description"
C045A	00	Internal malf steering angle sensor	NO SUBTYPE INFORMATION	BRC-555, "DTC Description"
C045B	00	Internal malf steering angle sensor	NO SUBTYPE INFORMATION	BRC-557, "DTC Description"
C0460	00	FL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-559, "DTC Description"
C0470	00	FR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-561, "DTC Description"
C0480	00	RL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-563, "DTC Description"
C0490	00	RR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-565, "DTC Description"
C04A0	00	FL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-567, "DTC Description"
C04A1	00	FL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-569, "DTC Description"
C04A2	00	FL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-571, "DTC Description"
C04A3	00	FL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-573, "DTC Description"
C04A4	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-575, "DTC Description"
C04A6	00	FL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-576, "DTC Description"
C04A7	00	FL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-578, "DTC Description"
C04AA	00	FL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-580, "DTC Description"
C04AB	00	FL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-582, "DTC Description"
C04AC	00	FL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-584, "DTC Description"
C04AD	00	FL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-586, "DTC Description"
C04AE	00	FL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-588, "DTC Description"
C04AF	00	FL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-590, "DTC Description"
C04B0	00	FL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-592, "DTC Description"
C04B1	00	FL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-594, "DTC Description"
C04B3	00	FL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-596, "DTC Description"
C04B4	00	FL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-598, "DTC Description"
C04B5	00	FL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-600, "DTC Description"

DTC		Items (CONSULT screen terms)		Reference
C04C0	00	FR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-602, "DTC Description"
C04C1	00	FR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-604, "DTC Description"
C04C2	00	FR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-606, "DTC Description"
C04C3	00	FR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-608, "DTC Description"
C04C4	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-610, "DTC Description"
C04C6	00	FR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-611, "DTC Description"
C04C7	00	FR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-613, "DTC Description"
C04CA	00	FR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-615, "DTC Description"
C04CB	00	FR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-617, "DTC Description"
C04CC	00	FR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-619, "DTC Description"
C04CD	00	FR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-621, "DTC Description"
C04CE	00	FR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-623, "DTC Description"
C04CF	00	FR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-625, "DTC Description"
C04D0	00	FR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-627, "DTC Description"
C04D1	00	FR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-629, "DTC Description"
C04D3	00	FR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-631, "DTC Description"
C04D4	00	FR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-633, "DTC Description"
C04D5	00	FR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-635, "DTC Description"
C04E0	00	RL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-637, "DTC Description"
C04E1	00	RL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-639, "DTC Description"
C04E2	00	RL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-641, "DTC Description"
C04E3	00	RL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-643, "DTC Description"
C04E4	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-645, "DTC Description"
C04E6	00	RL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-646, "DTC Description"
C04E7	00	RL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-648, "DTC Description"
C04EA	00	RL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-650, "DTC Description"
C04EB	00	RL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-652, "DTC Description"
C04EC	00	RL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-654, "DTC Description"
C04ED	00	RL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-656, "DTC Description"
C04EE	00	RL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-658, "DTC Description"
C04EF	00	RL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-660, "DTC Description"
C04F0	00	RL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-662, "DTC Description"
C04F1	00	RL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-664, "DTC Description"
C04F3	00	RL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-666, "DTC Description"
C04F4	00	RL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-668, "DTC Description"
C04F5	00	RL axle rpm sensor	NO SUBTYPE INFORMATION	BRC-670, "DTC Description"
C0500	00	RR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-672, "DTC Description"
C0501	00	RR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-674, "DTC Description"
C0502	00	RR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-676, "DTC Description"
C0503	00	RR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-678, "DTC Description"
C0504	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-680, "DTC Description"
C0506	00	RR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-681, "DTC Description"
C0507	00	RR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-683, "DTC Description"
C050A	00	RR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-685, "DTC Description"

DTC		Items (CONSULT screen terms)		Reference
C050B	00	RR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-687, "DTC Description"
C050C	00	RR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-689, "DTC Description"
C050D	00	RR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-691, "DTC Description"
C050E	00	RR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-693, "DTC Description"
C050F	00	RR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-695, "DTC Description"
C0510	00	RR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-697, "DTC Description"
C0511	00	RR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-699, "DTC Description"
C0513	00	RR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-701, "DTC Description"
C0514	00	RR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-703, "DTC Description"
C0540	00	CAN message shift module	NO SUBTYPE INFORMATION	BRC-705, "DTC Description"
C0541	00	No CAN message shift module	NO SUBTYPE INFORMATION	BRC-706, "DTC Description"
C0542	00	CAN message shift module	NO SUBTYPE INFORMATION	BRC-707, "DTC Description"
C0543	00	Signal from ECM is implausible	NO SUBTYPE INFORMATION	BRC-708, "DTC Description"
C0560	00	CAN message ECM	NO SUBTYPE INFORMATION	BRC-709, "DTC Description"
C0561	00	No CAN message ECM	NO SUBTYPE INFORMATION	BRC-710, "DTC Description"
C0570	00	Invalid data received from IPCCM	NO SUBTYPE INFORMATION	BRC-711, "DTC Description"
C0571	00	No CAN sig received from comb meter	NO SUBTYPE INFORMATION	BRC-712, "DTC Description"
C0572	00	Invalid data received from IPCCM	NO SUBTYPE INFORMATION	BRC-713, "DTC Description"
C0573	00	No CAN sig received from comb meter	NO SUBTYPE INFORMATION	BRC-714, "DTC Description"
C0580	00	Invalid data received from IPCCM	NO SUBTYPE INFORMATION	BRC-715, "DTC Description"
C0581	00	No CAN sig received from comb meter	NO SUBTYPE INFORMATION	BRC-716, "DTC Description"
C0582	00	Invalid data received from IPCCM	NO SUBTYPE INFORMATION	BRC-717, "DTC Description"
C05C0	00	CAN message supplemental restraint	NO SUBTYPE INFORMATION	BRC-718, "DTC Description"
C05C1	00	No CAN message SRS C/U	NO SUBTYPE INFORMATION	BRC-719, "DTC Description"
C05C2	00	CAN message supplemental restraint	NO SUBTYPE INFORMATION	BRC-720, "DTC Description"
C05D0	00	CAN comm CPA/distronic C/U	NO SUBTYPE INFORMATION	BRC-721, "DTC Description"
C05D1	00	No CAN message CPA/distronic C/U	NO SUBTYPE INFORMATION	BRC-723, "DTC Description"
C05D2	00	Sig from CPA/distronic C/U implausible	NO SUBTYPE INFORMATION	BRC-725, "DTC Description"
C05D3	00	Sig from CPA/distronic C/U implausible	NO SUBTYPE INFORMATION	BRC-727, "DTC Description"
C05D4	00	Sig from CPA/distronic C/U implausible	NO SUBTYPE INFORMATION	BRC-729, "DTC Description"
C05E0	00	CAN comm CPA/distronic C/U	NO SUBTYPE INFORMATION	BRC-731, "DTC Description"
C05E1	00	No CAN message CPA/distronic C/U	NO SUBTYPE INFORMATION	BRC-733, "DTC Description"
C05F0	00	CAN message E-IGN lock C/U	NO SUBTYPE INFORMATION	BRC-735, "DTC Description"
C05F1	00	No CAN message E-IGN lock C/U	NO SUBTYPE INFORMATION	BRC-736, "DTC Description"
C05F3	00	CAN message E-IGN lock C/U	NO SUBTYPE INFORMATION	BRC-737, "DTC Description"
C05F6	00	RR axle rpm sensor	NO SUBTYPE INFORMATION	BRC-738, "DTC Description"
C0600	00	Invalid data received from SCCM	NO SUBTYPE INFORMATION	BRC-740, "DTC Description"
C0601	00	COMMUNICATION ERROR (INVALID)	NO SUBTYPE INFORMATION	BRC-741, "DTC Description"
C0610	00	Invalid data received from SCCM	NO SUBTYPE INFORMATION	BRC-742, "DTC Description"
C0611	00	COMMUNICATION ERROR (INVALID)	NO SUBTYPE INFORMATION	BRC-743, "DTC Description"
C0612	00	COMMUNICATION ERROR (INVALID)	NO SUBTYPE INFORMATION	BRC-744, "DTC Description"
C0613	00	COMMUNICATION ERROR (INVALID)	NO SUBTYPE INFORMATION	BRC-745, "DTC Description"
C0614	00	Software of EPS C/U is incompatible	NO SUBTYPE INFORMATION	BRC-746, "DTC Description"
C0630	00	CAN message EPS C/U	NO SUBTYPE INFORMATION	BRC-747, "DTC Description"

DTC		Items (CONSULT screen terms)		Reference
C0631	00	No CAN message EPS C/U	NO SUBTYPE INFORMATION	BRC-748, "DTC Description"
C0632	00	Signal from ESP C/U is implausible	NO SUBTYPE INFORMATION	BRC-749, "DTC Description"
C0633	00	Signal from ESP C/U is implausible	NO SUBTYPE INFORMATION	BRC-750, "DTC Description"
C0640	00	CAN message E-IGN lock C/U	NO SUBTYPE INFORMATION	BRC-751, "DTC Description"
C0641	00	No CAN message E-IGN lock C/U	NO SUBTYPE INFORMATION	BRC-752, "DTC Description"
C0642	00	COMMUNICATION ERROR (INVALID)	NO SUBTYPE INFORMATION	BRC-753, "DTC Description"
C0650	00	CAN message E-IGN lock C/U	NO SUBTYPE INFORMATION	BRC-754, "DTC Description"
C0651	00	No CAN message E-IGN lock C/U	NO SUBTYPE INFORMATION	BRC-755, "DTC Description"
C0652	00	COMMUNICATION ERROR (INVALID)	NO SUBTYPE INFORMATION	BRC-756, "DTC Description"
C0656	00	CAN signal (meter) is implausible	NO SUBTYPE INFORMATION	BRC-757, "DTC Description"
C0660	00	CAN message E-IGN lock C/U	NO SUBTYPE INFORMATION	BRC-758, "DTC Description"
C0661	00	No CAN message E-IGN lock C/U	NO SUBTYPE INFORMATION	BRC-759, "DTC Description"
C0662	00	COMMUNICATION ERROR (INVALID)	NO SUBTYPE INFORMATION	BRC-760, "DTC Description"
C0663	00	COMMUNICATION ERROR (INVALID)	NO SUBTYPE INFORMATION	BRC-761, "DTC Description"
C0664	00	COMMUNICATION ERROR (INVALID)	NO SUBTYPE INFORMATION	BRC-762, "DTC Description"
C0665	00	COMMUNICATION ERROR (INVALID)	NO SUBTYPE INFORMATION	BRC-763, "DTC Description"
C0670	00	CAN message SAM C/U	NO SUBTYPE INFORMATION	BRC-764, "DTC Description"
C0671	00	No CAN message SAM C/U	NO SUBTYPE INFORMATION	BRC-765, "DTC Description"
C0672	00	CAN message E-IGN lock C/U	NO SUBTYPE INFORMATION	BRC-766, "DTC Description"
C0690	00	CAN message E-IGN lock C/U	NO SUBTYPE INFORMATION	BRC-767, "DTC Description"
C0691	00	No CAN message E-IGN lock C/U	NO SUBTYPE INFORMATION	BRC-768, "DTC Description"
C06A0	00	CAN message ECM	NO SUBTYPE INFORMATION	BRC-769, "DTC Description"
C06A1	00	No CAN message ECM	NO SUBTYPE INFORMATION	BRC-770, "DTC Description"
C06A3	00	CAN message ECM	NO SUBTYPE INFORMATION	BRC-772, "DTC Description"
C06A5	00	CAN message ECM	NO SUBTYPE INFORMATION	BRC-773, "DTC Description"
C06A6	00	No CAN message ECM	NO SUBTYPE INFORMATION	BRC-774, "DTC Description"
C06AA	00	CAN signal from E-PKB is malf	NO SUBTYPE INFORMATION	BRC-776, "DTC Description"
C06AB	00	No CAN sig received from parking sys	NO SUBTYPE INFORMATION	BRC-777, "DTC Description"
C06AC	00	Signal from PKB C/U is implausible	NO SUBTYPE INFORMATION	BRC-778, "DTC Description"
C06AD	00	Signal from PKB C/U is implausible	NO SUBTYPE INFORMATION	BRC-779, "DTC Description"
C06AE	00	Signal from PKB C/U is implausible	NO SUBTYPE INFORMATION	BRC-780, "DTC Description"
C06AF	00	Signal from PKB C/U is implausible	NO SUBTYPE INFORMATION	BRC-781, "DTC Description"
C06B0	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-782, "DTC Description"
C06B1	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-783, "DTC Description"
C06B2	00	Internal malfunction in ESP C/U	NO SUBTYPE INFORMATION	BRC-784, "DTC Description"
C06B3	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-786, "DTC Description"
C06B4	00	Internal malfunction in ESP C/U	NO SUBTYPE INFORMATION	BRC-787, "DTC Description"
C06B5	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-789, "DTC Description"
C06B6	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-790, "DTC Description"
C06B7	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-791, "DTC Description"
C06B8	00	Internal malfunction in ESP C/U	NO SUBTYPE INFORMATION	BRC-792, "DTC Description"
C06B9	00	Internal malfunction in ESP C/U	NO SUBTYPE INFORMATION	BRC-794, "DTC Description"
C06BA	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-796, "DTC Description"
C06BB	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-797, "DTC Description"

DTC		Items (CONSULT screen terms)		Reference
C06BC	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-798, "DTC Description"
C06BD	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-799, "DTC Description"
C06BE	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-800, "DTC Description"
C06BF	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-801, "DTC Description"
C06C0	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-802, "DTC Description"
C06C1	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-803, "DTC Description"
C06D0	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-804, "DTC Description"
C06D1	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-805, "DTC Description"
C06D2	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-806, "DTC Description"
C06D3	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-807, "DTC Description"
C06D4	00	Internal malfunction in ESP C/U	NO SUBTYPE INFORMATION	BRC-808, "DTC Description"
C06D5	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-810, "DTC Description"
C06D6	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-811, "DTC Description"
C06E0	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-812, "DTC Description"
C06E1	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-813, "DTC Description"
C06E2	00	Accele sensor is not calibrated	NO SUBTYPE INFORMATION	BRC-814, "DTC Description"
C06F0	00	Internal malf steering angle sensor	NO SUBTYPE INFORMATION	BRC-815, "DTC Description"
C06F1	00	Signal from combi meter is implausible	NO SUBTYPE INFORMATION	BRC-816, "DTC Description"
C06F2	00	Check for correct time	NO SUBTYPE INFORMATION	BRC-817, "DTC Description"
C06F3	00	Check for correct time	NO SUBTYPE INFORMATION	BRC-818, "DTC Description"
C0730	00	Check brake system for leaks	NO SUBTYPE INFORMATION	BRC-820, "DTC Description"
C0731	00	No CAN message shift module	NO SUBTYPE INFORMATION	BRC-821, "DTC Description"
C0732	00	Signal from shift module is implausible	NO SUBTYPE INFORMATION	BRC-823, "DTC Description"
C0733	00	Additional battery is malfunction	NO SUBTYPE INFORMATION	BRC-825, "DTC Description"
C0734	00	ESP control unit	NO SUBTYPE INFORMATION	BRC-827, "DTC Description"
C0735	00	Configuration of E-IGN lock C/U	NO SUBTYPE INFORMATION	BRC-828, "DTC Description"
C0736	00	Configuration of combination meter	NO SUBTYPE INFORMATION	BRC-830, "DTC Description"
C0739	00	Configuration of E-IGN lock C/U	NO SUBTYPE INFORMATION	BRC-832, "DTC Description"
C073A	00	Signal from shift module is implausible	NO SUBTYPE INFORMATION	BRC-834, "DTC Description"
C073B	00	CAN message E-IGN lock C/U	NO SUBTYPE INFORMATION	BRC-836, "DTC Description"
C073C	00	Hold function	NO SUBTYPE INFORMATION	BRC-836, "DTC Description"
C073D	00	Signal from shift module is implausible	NO SUBTYPE INFORMATION	BRC-838, "DTC Description"
C0741	00	VIN stored in ESP C/U is different	NO SUBTYPE INFORMATION	BRC-840, "DTC Description"
C0742	00	VIN stored in ESP C/U is different	NO SUBTYPE INFORMATION	BRC-841, "DTC Description"
C0743	00	Variant coding	NO SUBTYPE INFORMATION	BRC-842, "DTC Description"
C0744	00	INTERNAL CONTROL MODULE	NO SUBTYPE INFORMATION	BRC-843, "DTC Description"
C0745	00	Configuration of ESP control unit	NO SUBTYPE INFORMATION	BRC-844, "DTC Description"
C0746	00	Configuration of ESP control unit	NO SUBTYPE INFORMATION	BRC-845, "DTC Description"
C0747	00	Configuration of ESP control unit	NO SUBTYPE INFORMATION	BRC-846, "DTC Description"
C0748	00	Configuration of ESP control unit	NO SUBTYPE INFORMATION	BRC-847, "DTC Description"
C0479	00	Configuration of ESP control unit	NO SUBTYPE INFORMATION	BRC-848, "DTC Description"
C074B	00	Configuration of ESP control unit	NO SUBTYPE INFORMATION	BRC-849, "DTC Description"
C0751	00	ESP control unit	NO SUBTYPE INFORMATION	BRC-850, "DTC Description"
C0765	00	CAN comm CPA/distronic C/U	NO SUBTYPE INFORMATION	BRC-851, "DTC Description"

DTC		Items (CONSULT screen terms)		Reference
C0766	00	No CAN message CPA/distronic C/U	NO SUBTYPE INFORMATION	BRC-853, "DTC Description"
C0767	00	Sig from CPA/distronic C/U implausible	NO SUBTYPE INFORMATION	BRC-855, "DTC Description"
C0769	00	Sig from CPA/distronic C/U implausible	NO SUBTYPE INFORMATION	BRC-857, "DTC Description"
C076A	00	Sig from CPA/distronic C/U implausible	NO SUBTYPE INFORMATION	BRC-859, "DTC Description"
C076B	00	Sig from CPA/distronic C/U implausible	NO SUBTYPE INFORMATION	BRC-861, "DTC Description"
C0810	00	CAN comm CPA/distronic C/U	NO SUBTYPE INFORMATION	BRC-863, "DTC Description"
C0811	00	No CAN message CPA/distronic C/U	NO SUBTYPE INFORMATION	BRC-865, "DTC Description"
C0820	00	Driver door contact	NO SUBTYPE INFORMATION	BRC-867, "DTC Description"
C0830	00	Read malfunction memory of CPA C/U	NO SUBTYPE INFORMATION	BRC-868, "DTC Description"
C0831	00	Read malfunction memory of CPA C/U	NO SUBTYPE INFORMATION	BRC-869, "DTC Description"
C0832	00	Read malfunction memory of CPA C/U	NO SUBTYPE INFORMATION	BRC-870, "DTC Description"
C0833	00	Read malfunction memory of CPA C/U	NO SUBTYPE INFORMATION	BRC-871, "DTC Description"
C0834	00	Read malfunction memory of CPA C/U	NO SUBTYPE INFORMATION	BRC-872, "DTC Description"
C0835	00	Read malfunction memory of CPA C/U	NO SUBTYPE INFORMATION	BRC-873, "DTC Description"
C0840	00	No CAN message E-IGN lock C/U	NO SUBTYPE INFORMATION	BRC-874, "DTC Description"
C0841	00	No CAN message E-IGN lock C/U	NO SUBTYPE INFORMATION	BRC-875, "DTC Description"
C0950	00	Implausible values of rpm sensors	NO SUBTYPE INFORMATION	BRC-876, "DTC Description"
C0951	00	Implausible values of rpm sensors	NO SUBTYPE INFORMATION	BRC-878, "DTC Description"
C0960	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-880, "DTC Description"
C0961	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-881, "DTC Description"
C0962	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-882, "DTC Description"
C0963	00	ESP control unit is incomplete	NO SUBTYPE INFORMATION	BRC-883, "DTC Description"
C0971	00	Signal from EPKB C/U is implausible	NO SUBTYPE INFORMATION	BRC-884, "DTC Description"
C0972	00	Signal from EPKB C/U is implausible	NO SUBTYPE INFORMATION	BRC-885, "DTC Description"
C0973	00	CAN message EPKB C/U	NO SUBTYPE INFORMATION	BRC-886, "DTC Description"
C0990	00	Check brake system for leaks	NO SUBTYPE INFORMATION	BRC-887, "DTC Description"
C0991	00	Check brake system for leaks	NO SUBTYPE INFORMATION	BRC-888, "DTC Description"
C09A0	00	Reprogram ESP control unit	NO SUBTYPE INFORMATION	BRC-889, "DTC Description"
C09A1	00	Reprogram ESP control unit	NO SUBTYPE INFORMATION	BRC-891, "DTC Description"
C0A00	00	Charge level of battery is not OK	NO SUBTYPE INFORMATION	BRC-893, "DTC Description"
C0A01	00	Charge level of battery is not OK	NO SUBTYPE INFORMATION	BRC-894, "DTC Description"
C0A02	00	Charge level of battery is not OK	NO SUBTYPE INFORMATION	BRC-895, "DTC Description"
C0A03	00	Charge level of battery is not OK	NO SUBTYPE INFORMATION	BRC-896, "DTC Description"
C0A04	00	Signal from TCM is implausible	NO SUBTYPE INFORMATION	BRC-897, "DTC Description"
C0A05	00	Invalid data received from IPCCM	NO SUBTYPE INFORMATION	BRC-898, "DTC Description"
C0A06	00	Combination meter	NO SUBTYPE INFORMATION	BRC-899, "DTC Description"
C0A07	00	No CAN message SAM C/U	NO SUBTYPE INFORMATION	BRC-900, "DTC Description"
C0A08	00	Check line between ESP and SAM	NO SUBTYPE INFORMATION	BRC-901, "DTC Description"
C0A09	00	Check line between ESP and SAM	NO SUBTYPE INFORMATION	BRC-903, "DTC Description"
C0A0A	00	Signal from SAM C/U is implausible	NO SUBTYPE INFORMATION	BRC-905, "DTC Description"
C0A0B	00	CAN message SAM C/U	NO SUBTYPE INFORMATION	BRC-906, "DTC Description"
C0A30	00	Timeout of HOLD function	NO SUBTYPE INFORMATION	BRC-907, "DTC Description"
C2060	00	Output dynamometer mode is active	NO SUBTYPE INFORMATION	BRC-908, "DTC Description"
C3201	00	No CAN message ECM	NO SUBTYPE INFORMATION	BRC-909, "DTC Description"

DTC		Items (CONSULT screen terms)		Reference
C3209	00	Signal from ECM is implausible	NO SUBTYPE INFORMATION	BRC-910, "DTC Description"
C3212	00	Signal from ECM is implausible	NO SUBTYPE INFORMATION	BRC-911, "DTC Description"
C3220	00	Signal from ECM is implausible	NO SUBTYPE INFORMATION	BRC-912, "DTC Description"
C3221	00	Signal from ECM is implausible	NO SUBTYPE INFORMATION	BRC-913, "DTC Description"
C3235	00	No CAN sig received from comb meter	NO SUBTYPE INFORMATION	BRC-914, "DTC Description"
C3250	00	COMMUNICATION ERROR (INVALID)	NO SUBTYPE INFORMATION	BRC-915, "DTC Description"
C3254	00	CAN message multifunction camera	NO SUBTYPE INFORMATION	BRC-916, "DTC Description"
C3256	00	COMMUNICATION ERROR (INVALID)	NO SUBTYPE INFORMATION	BRC-917, "DTC Description"
C3260	00	Configuration of ESP control unit	NO SUBTYPE INFORMATION	BRC-918, "DTC Description"
C3261	00	2/4 wheel drive status input (subfault)	NO SUBTYPE INFORMATION	BRC-919, "DTC Description"
C3263	00	Signal from ECM is implausible	NO SUBTYPE INFORMATION	BRC-921, "DTC Description"
C3275	00	Software of EPS C/U is incompatible	NO SUBTYPE INFORMATION	BRC-922, "DTC Description"
C3285	00	Signal from ECM is implausible	NO SUBTYPE INFORMATION	BRC-924, "DTC Description"
C3289	00	CAN message E-IGN lock C/U	NO SUBTYPE INFORMATION	BRC-925, "DTC Description"
C328A	00	Signal from EPKB C/U is implausible	NO SUBTYPE INFORMATION	BRC-926, "DTC Description"
C3295	00	Software of EPS C/U is incompatible	NO SUBTYPE INFORMATION	BRC-927, "DTC Description"
C3296	00	Software of EPS C/U is incompatible	NO SUBTYPE INFORMATION	BRC-929, "DTC Description"
C3297	00	Software of EPS C/U is incompatible	NO SUBTYPE INFORMATION	BRC-931, "DTC Description"
C3298	00	Software of EPS C/U is incompatible	NO SUBTYPE INFORMATION	BRC-933, "DTC Description"
C3299	00	Software of EPS C/U is incompatible	NO SUBTYPE INFORMATION	BRC-935, "DTC Description"
C329B	00	Software of EPS C/U is incompatible	NO SUBTYPE INFORMATION	BRC-937, "DTC Description"
C3334	00	Software version of CPA C/U is old	NO SUBTYPE INFORMATION	BRC-939, "DTC Description"
C3340	00	Software version of CPA C/U is old	NO SUBTYPE INFORMATION	BRC-940, "DTC Description"
C3341	00	Software version of CPA C/U is old	NO SUBTYPE INFORMATION	BRC-941, "DTC Description"
C3342	00	Software version of CPA C/U is old	NO SUBTYPE INFORMATION	BRC-942, "DTC Description"
C3343	00	Software version of CPA C/U is old	NO SUBTYPE INFORMATION	BRC-943, "DTC Description"
C3344	00	Software version of CPA C/U is old	NO SUBTYPE INFORMATION	BRC-944, "DTC Description"
C3345	00	Software version of CPA C/U is old	NO SUBTYPE INFORMATION	BRC-945, "DTC Description"
C3346	00	Software version of CPA C/U is old	NO SUBTYPE INFORMATION	BRC-946, "DTC Description"
C3347	00	Software version of CPA C/U is old	NO SUBTYPE INFORMATION	BRC-947, "DTC Description"
C3348	00	Software version of CPA C/U is old	NO SUBTYPE INFORMATION	BRC-948, "DTC Description"
C3349	00	Software version of CPA C/U is old	NO SUBTYPE INFORMATION	BRC-949, "DTC Description"
C334A	00	Software version of CPA C/U is old	NO SUBTYPE INFORMATION	BRC-950, "DTC Description"
C334C	00	Software version of CPA C/U is old	NO SUBTYPE INFORMATION	BRC-951, "DTC Description"
C3385	00	Software version of CPA C/U is old	NO SUBTYPE INFORMATION	BRC-952, "DTC Description"
C3386	00	Software version of CPA C/U is old	NO SUBTYPE INFORMATION	BRC-953, "DTC Description"
C3500	00	Signal from PKB C/U is implausible	NO SUBTYPE INFORMATION	BRC-954, "DTC Description"
C3600	00	ESP control	NO SUBTYPE INFORMATION	BRC-955, "DTC Description"
C3601	00	ESP control	NO SUBTYPE INFORMATION	BRC-957, "DTC Description"
C3604	00	ESP control	NO SUBTYPE INFORMATION	BRC-959, "DTC Description"
C3605	00	BAS control	NO SUBTYPE INFORMATION	BRC-961, "DTC Description"
C3606	00	ABS control	NO SUBTYPE INFORMATION	BRC-963, "DTC Description"

BCM

List of ECU Reference

INFOID:0000000013569118

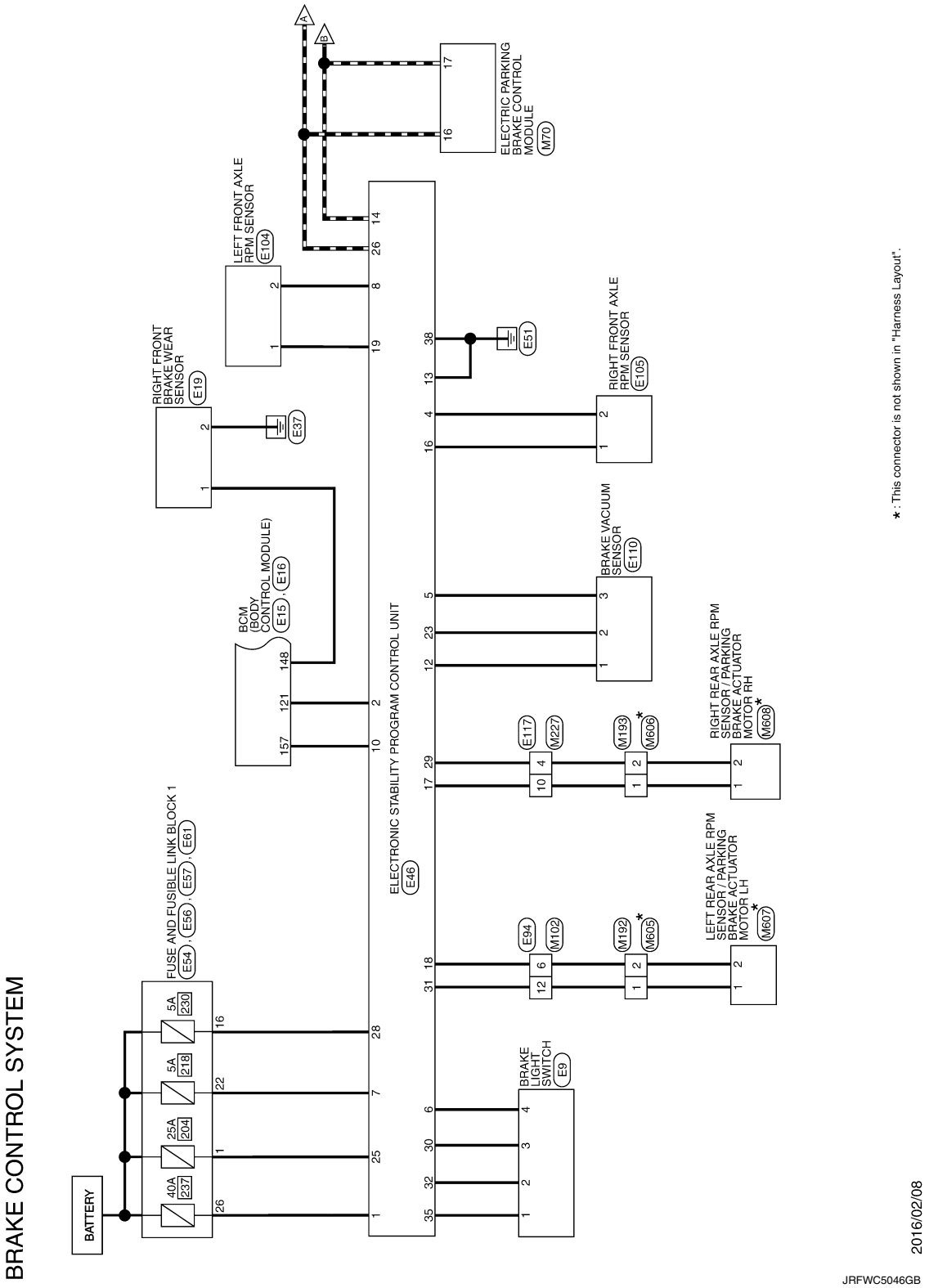
ECU name	Refer to
BCM	BCS-32, "Reference Value"
	BCS-50, "Fail-safe"
	BCS-51, "DTC Index"

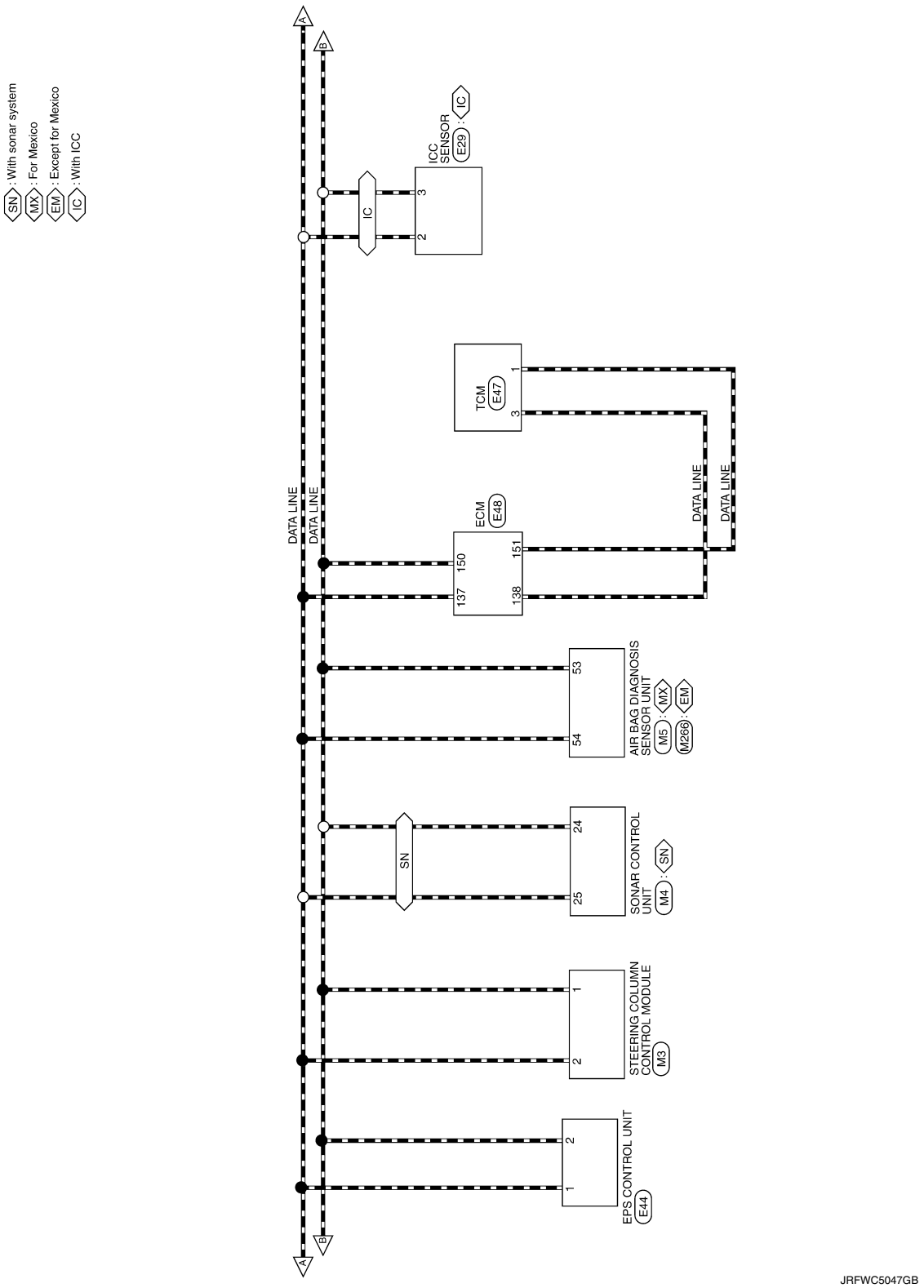
WIRING DIAGRAM

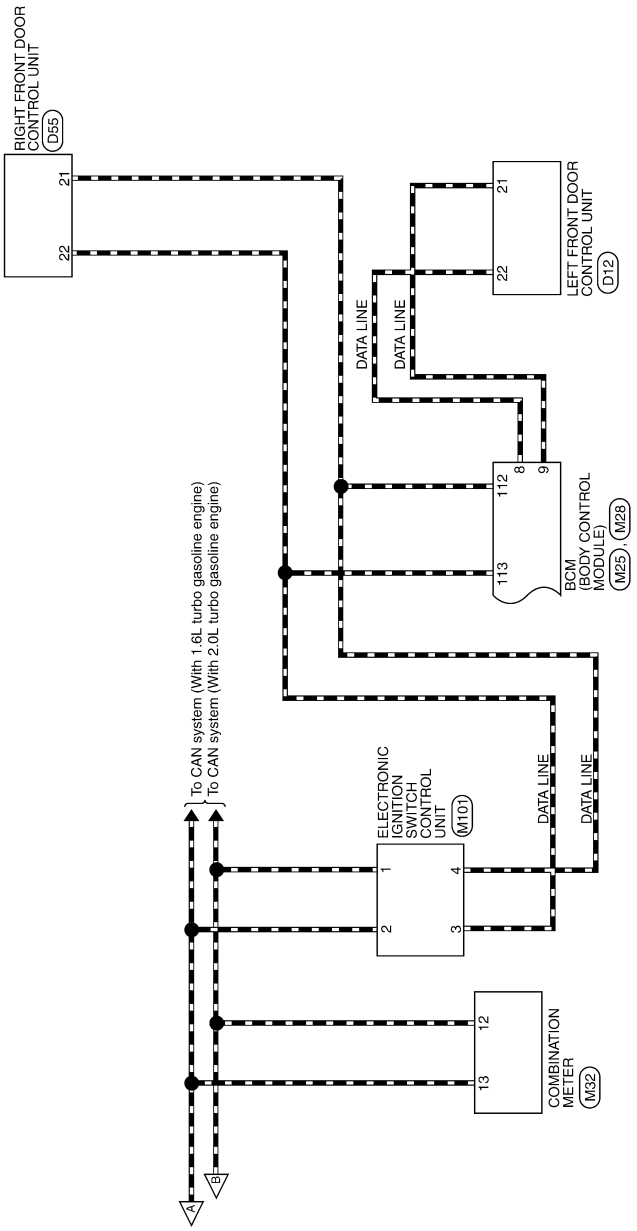
BRAKE CONTROL SYSTEM

Wiring Diagram

INFOID:0000000013569119




SN : With sonar system
MX : For Mexico
EM : Except for Mexico
IC : With ICC
A
B
ICC SENSOR E29 : IC
IC
3
2
TCM E47
1
3
DATA LINE
DATA LINE
DATA LINE
DATA LINE
ECM E48
150
137
151
138
AIR BAG DIAGNOSIS SENSOR UNIT M5 : MX M286 : EM
53
54
SONAR CONTROL UNIT M4 : SN
SN
24
25
STEERING COLUMN CONTROL MODULE M3
1
2
EPS CONTROL UNIT E44
2
1
JRFWC5047GB



JRFWC5048GB

BRAKE CONTROL SYSTEM

Connector No.	D12
Connector Name	LEFT FRONT DOOR CONTROL UNIT
Connector Type	MB_A0025406281

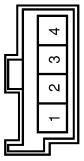


Terminal No.	Color Of Wire	Signal Name [Specification]
21	BR	BODY CAN 2-L
22	R	BODY CAN 2-H
23	L	ROTARY CATCH SIGNAL
24	BR	GROUND
25	R	BATTERY POWER SUPPLY

Connector No.	D55
Connector Name	RIGHT FRONT DOOR CONTROL UNIT
Connector Type	MB_A0025406281

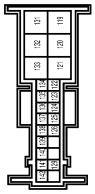
Terminal No.	Color Of Wire	Signal Name [Specification]
21	BR	BODY CAN 1-L
22	R	BODY CAN 1-H
24	BR	GROUND
25	R	BATTERY POWER SUPPLY

Connector No.	E9
Connector Name	BRAKE LIGHT SWITCH
Connector Type	MB_A0325459828



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	L	-
3	V	-
4	B	-

Connector No.	E15
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	MB_A1665400081



Terminal No.	Color Of Wire	Signal Name [Specification]
119	V	RR WASHER CONT
120	GR	FR WASHER CONT
121	W	BRAKE PEDAL
122	Y	SPARY NOZZLE HOSE HEATER POWER SUPPLY
123	G	INJECTION RELAY CONT
124	BR	HOOD SWITCH STATUS 1
125	B	KL15 MOTORST
126	GR	PARKING LAMP LH
129	G	FRONT WIPER STOP POSITION
131	Y	FRONT FOG LAMP LH
132	O	HIGH BEAM LH
133	L	LOW BEAM RH [With halogen lamp]
133	Y	LOW BEAM RH [With LED lamp]
134	BR	WASHER LEVEL SW GND
135	P	HORN CONT
136	R	FR WIPER RELAY CONT
137	V	FR WIPER HI/LO RELAY CONT
138	G	BRAKE FLUID LEVEL SW SIG
139	L	WASHER LEVEL SW SIG
140	Y	HOOD SWITCH STATUS 2
141	R	WARM START
142	V	FRONT TURN SIGNAL LH

Connector No.	E16
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	MB_A1665400181



Terminal No.	Color Of Wire	Signal Name [Specification]
143	Y	FRONT FOG LAMP RH
144	W	HIGH BEAM RH
145	GR	LOW BEAM LH
146	P	FRONT TURN SIGNAL RH
148	V	FR BRAKE WEAR SENSOR RH
150	GR	PARKING LAMP RH
152	L	LIN (BAT SENSOR)
154	Y	HEADLAMP AIMING RH
157	O	SSK STAT
158	R	COOLANT LEVEL SW SIG
159	BR	COOLANT LEVEL SW GND
161	P	AMBIENT SENSOR GND
162	G	AMBIENT SENSOR SIG
164	O	BRAKE FLUID LEVEL SW GND
165	V	HEADLAMP AIMING LH
166	R	DECOUPLING RELAY CONT

Connector No.	E19
Connector Name	RIGHT FRONT BRAKE WEAR SENSOR
Connector Type	MB_A1685400181

Terminal No.	Color Of Wire	Signal Name [Specification]
1	V	-
2	BR	-

Connector No.	E29
Connector Name	ICC SENSOR
Connector Type	MB_A2105404581

Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	GROUND
2	W	CAN-H
3	G	CAN-L
8	B	BATTERY POWER SUPPLY

JRFWC5049GB

BRAKE CONTROL SYSTEM

Connector No.	E44
Connector Name	EPS CONTROL UNIT
Connector Type	MB_A0065401981

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	CAN-H
2	G	CAN-L

Connector No.	E46
Connector Name	ELECTRONIC STABILITY PROGRAM CONTROL UNIT
Connector Type	MB_A2465400581

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	MOTOR POWER SUPPLY
2	W	BRAKE PEDAL
4	P	RIGHT FRONT AXLE RPM SENSOR SIGNAL
5	GR	BRAKE VACUUM SENSOR POWER SUPPLY
6	B	BRAKE LIGHT SWITCH-L
7	R	BATTERY POWER SUPPLY
8	Y	LFET FRONT AXLE RPM SENSOR SIGNAL
10	O	STANDSTILL CONTROL (SSC) STATUS
12	P	BRAKE VACUUM SENSOR SIGNAL
13	BR	GROUND (MOTOR)
14	G	CAN-L
16	B	RIGHT FRONT AXLE RPM SENSOR POWER SUPPLY
17	Y	RIGHT REAR AXLE RPM SENSOR POWER SUPPLY
18	BR	LFET REAR AXLE RPM SENSOR SIGNAL
19	W	LFET FRONT AXLE RPM SENSOR POWER SUPPLY
23	B	BRAKE VACUUM SENSOR GROUND
25	P	VALVE RELAY POWER SUPPLY
26	W	CAN-H
28	R	BATTERY POWER SUPPLY
29	P	RIGHT REAR AXLE RPM SENSOR SIGNAL
30	V	BRAKE LIGHT SWITCH-H
31	GR	LFET REAR AXLE RPM SENSOR POWER SUPPLY
32	L	BRAKE LIGHT SWITCH GROUND
35	R	BRAKE LIGHT SWITCH POWER SUPPLY
38	B	GROUND (VALVE)

Connector No.	E47
Connector Name	TCM
Connector Type	MB_A2465450026

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	CAN-L
2	V	NOT P
3	GR	CAN-H
5	W	BATTERY POWER SUPPLY

Connector No.	E48
Connector Name	ECM
Connector Type	MB_A0075406981

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
97	R	POWER SUPPLY (ECM)
98	BR	ECM GROUND
99	V	POWER SUPPLY (ECM)
100	BR	ECM GROUND
101	R	POWER SUPPLY (ECM)
102	B	ECM GROUND
103	L	COOLING FAN CONTROL SIGNAL
104	R	SENSOR POWER SUPPLY (ACCELERATOR PEDAL POSITION SENSOR 1)
105	G	SENSOR POWER SUPPLY (ACCELERATOR PEDAL POSITION SENSOR 2)
106	BR	SENSOR GROUND (ACCELERATOR PEDAL POSITION SENSOR1)
111	B	IGNITION SIGNAL
112	Y	POWER SUPPLY (BATTERY)
116	W	STARTER RELAY-L
119	GR	SENSOR GROUND (ACCELERATOR PEDAL POSITION SENSOR 2)
120	O	SENSOR GROUND
122	R	HOT START SIGNAL
123	GR	MOTOR RELAY CONTROL SIGNAL
127	O	FUEL PUMP ON SIGNAL
132	G	ACCELERATOR PEDAL POSITION SENSOR 1
136	Y	POWERTRAIN SENSOR CAN-H
137	W	CAN-H
138	GR	POWERTRAIN CAN-H
141	B	WATER PUMP RELAY CONTROL SIGNAL
145	W	ACCELERATOR PEDAL POSITION SENSOR 2
146	G	FUEL TANK PRESSURE SENSOR
147	L	CRASH SIGNAL
148	W	STARTER RELAY-H
149	B	POWERTRAIN SENSOR CAN-L
150	G	CAN-L
151	L	POWERTRAIN CAN-L
152	V	EVAP CANISTER VENT CONTROL VALVE
153	BR	EVAP PURGE CONTROL VALVE

Connector No.	E54
Connector Name	FUSE AND FUSIBLE LINK BLOCK 1
Connector Type	MB_A0055459701

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	-
2	B	-

Connector No.	E56
Connector Name	FUSE AND FUSIBLE LINK BLOCK 1
Connector Type	MB_A0065450001

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
15	G	-
16	R	-
17	P	-

Connector No.	E57
Connector Name	FUSE AND FUSIBLE LINK BLOCK 1
Connector Type	MB_A0065450401

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
22	R	-

JRFWC5050GB

BRAKE CONTROL SYSTEM

Connector No.	E61
Connector Name	FUSE AND FUSIBLE LINK BLOCK 1
Connector Type	MB_A0065452701

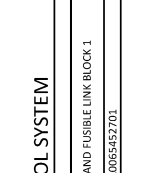
H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
26	R	-

Connector No.	E94
Connector Name	WIRE TO WIRE
Connector Type	MB_A2205459928

H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
1	V	-
2	GR	-
3	L	-
4	W	-
6	BR	-
7	L	-
9	P	-
10	Y	-
12	GR	-
13	O	-
14	P	-

Connector No.	E104
Connector Name	LEFT FRONT AXLE RPM SENSOR
Connector Type	MB_A2105402081

H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	Y	-

Connector No.	E105
Connector Name	RIGHT FRONT AXLE RPM SENSOR
Connector Type	MB_A2105402081

H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	P	-

Connector No.	E110
Connector Name	BRAKE VACCUM SENSOR
Connector Type	MB_A0225452426

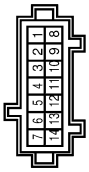
H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	-
2	B	-
3	GR	-

Connector No.	E117
Connector Name	WIRE TO WIRE
Connector Type	MB_A2205459928

H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	-
2	V	-
3	R	-
4	P	-
5	GR	-
6	L	-
7	G	-
8	O	-
10	Y	-
11	W	-
12	B	-
13	R	-
14	V	-

Connector No.	M3
Connector Name	STEERING COLUMN CONTROL MODULE
Connector Type	MB_A2045401281

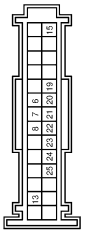
H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	CAN-L (CHASIS)
2	W	CAN-H (CHASIS)
3	BR	GND
4	R	KL30G
6	R	KL30
7	BR	GND
8	L	AB1+
9	Y	AB1-
10	V	AB2+
11	G	AB2-

Connector No.	M4
Connector Name	SONAR CONTROL UNIT
Connector Type	MB_A0015403081

H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
6	L	CORNER SENSAR SIGNAL REAR LH
7	R	CENTER SENSAR SIGNAL REAR RH
8	Y	SIDE SENSAR SIGNAL REAR RH
13	BR	GROUND
15	R	BATTERY POWER SUPPLY
19	BR	REAR SENSOR POWER SUPPLY
20	V	SIDE SENSAR SIGNAL REAR LH
21	W	CENTER SENSAR SIGNAL REAR LH
22	Y	CORNER SENSAR SIGNAL REAR RH
23	B	REAR SENSOR GROUND

JRFWC5051GB

BRAKE CONTROL SYSTEM

24	G	CAN-L
25	W	CAN-H

Connector No.	M5
Connector Name	AIR BAG DIAGNOSIS SENSOR UNIT
Connector Type	MB_A0095405681

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	BUMPER SENSOR RH GROUND
2	W	BUMPER SENSOR RH SIGNAL
3	B	BUMPER SENSOR LH SIGNAL
4	W	BUMPER SENSOR LH GROUND
9	L/G	POP-UP ENGINE HOOD ACTUATOR RH (-)
10	BR/B	POP-UP ENGINE HOOD ACTUATOR RH (+)
11	O	POP-UP ENGINE HOOD ACTUATOR LH (+)
12	BR/W	POP-UP ENGINE HOOD ACTUATOR LH (-)
37	V	FUSE(-)
38	W	FUSE(+)
40	Y	OCCUPANT LIN SIGNAL
41	V/G	RPRH(+)
42	BR/Y	RPRH(-)
43	BR/Y	RPLH(-)
44	V/G	RPLH(+)
45	B	REAR BUCKLE SWITCH RH(-)
46	G	REAR BUCKLE SWITCH RH(+)
47	B	REAR BUCKLE SWITCH CENTER(-)
48	G	REAR BUCKLE SWITCH CENTER(+)
49	B	REAR BUCKLE SWITCH RH(-)
50	G	REAR BUCKLE SWITCH RH(+)
51	Y	AIR BAG SIGNAL
52	P	AIR BAG SIGNAL
53	G	CAN-L
54	W	CAN-H
57	R	B-SATELITE LH(+)
58	B	B-SATELITE LH(-)
59	BR	B-SATELITE RH(-)
60	L	B-SATELITE RH(+)
61	BR	FRONT DOOR SATELLITE RH(-)
62	G	FRONT DOOR SATELLITE RH(+)
63	B	FRONT DOOR SATELLITE LH(+)
64	BR	FRONT DOOR SATELLITE LH(-)
67	W	REAR DOOR SATELLITE RH(-)
68	B	REAR DOOR SATELLITE RH(+)
69	R	REAR DOOR SATELLITE LH(+)
70	W	REAR DOOR SATELLITE LH(-)
71	Y	BUCKLE SWITCH AS(+)
72	O	BUCKLE SWITCH AS(-)
73	Y	BUCKLE SWITCH DR(+)
74	O	BUCKLE SWITCH DR(-)
75	V/G	CLH(+)
76	BR/Y	CLH(-)
77	W/BR	CRH(+)
78	R/V	CRH(-)
85	P	CZS RH(-)
86	W	CZS RH(+)
87	BR	CZS LH(-)
88	L	CZS LH(+)
89	O	SAB AS(-)
90	Y	SAB AS(+)
93	Y	SAB DR(+)
94	O	SAB DR(-)
95	BR	FPRH(-)
96	L/W	FPRH(+)
97	G	FPLH(+)
98	V	FPLH(-)
100	BR	GND
101	BR	GND
103	Y	KL15R
104	G	KL30

Connector No.	M25
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	MB_A0075405081

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	ROTARY LIGHT SW GND
2	O	ROTARY LIGHT SW (PU/PR/TAIL)
3	R	ROTARY LIGHT SW (AUTO/LOW)
4	G	ROTARY LIGHT SW (FR FOG)
5	Y	-
7	GR	SWITCH INDICATOR
8	R	CAN-H (BODY 2)
9	BR	CAN-L (BODY 2)
12	O	LIN (BS)
14	G	FOOT LAMP

Connector No.	M28
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	MB_A1665400481

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
67	V	BACK DOOR UNLOCK
69	GR	STOP LAMP (BODY RH)
70	B	REAR TURN SIGNAL LH
71	GR	BACK-UP LAMP RH
72	Y	LICENSE PLATE LAMP RH
73	L	RR POWER WINDOW SW RH UP
74	B	RR POWER WINDOW SW RH DOWN
75	L	RR POWER WINDOW SW RH GND
76	GR	HALL SENSOR RH POWER SUPPLY
77	R	SUB BAT-
78	B	TERMINAL RELAY 15R1 CONT
80	B	REAR WIPER RELAY CONT
82	GR	TAIL LAMP (BODY LH)
83	P	TERMINAL RELAY 15R2 CONT
85	B	TAIL LAMP (BK LH)
87	R	BAT (VIA LATCHING TERMINAL RELAY 30G)
89	O	HALL SENSOR RH GND
90	V	HALL SENSOR RH SIGNAL
91	P	FUEL LEVEL SENSOR GND
92	L	FUEL LEVEL SENSOR
93	GR	FUEL LEVEL SENSOR
94	Y	FUEL FILLER LID STATUS
97	G	LATCHING TERMINAL RELAY 30G CONT 1
98	B	LATCHING TERMINAL RELAY 30G GND 1
99	W	LATCHING TERMINAL RELAY 30G GND 2
100	V	LATCHING TERMINAL RELAY 30G CONT 2
101	Y	REAR DOOR INSIDE HANDLE LAMP CONT
102	GR	AMBIENT LAMP CONT
103	V	SUB BAT RELAY CONT
105	G	RR DOOR LH UNLOCK
106	W	FUEL FILLER LID UNLOCK
107	L	RR DOOR LH LOCK
108	R	SUB BAT+
109	O	LIN (ROOF)
112	BR	CAN-L (BODY 1)
113	R	CAN-H (BODY 1)
114	B	INJECTION RELAY CONT

Connector No.	M32
Connector Name	COMBINATION METER
Connector Type	MB_A0525452726

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	GROUND
4	R	BATTERY POWER SUPPLY
12	GR	CAN-L
13	W	CAN-H
17	BR	CAN-L
18	R	CAN-H

Connector No.	M70
Connector Name	ELECTRIC PARKING BRAKE CONTROL MODULE
Connector Type	MB_A0085409281

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
9	G	ELECTRIC PARKING BRAKE SWITCH 1
10	P	ELECTRIC PARKING BRAKE SWITCH 2
12	R	MOTOR RH (+)
13	W	MOTOR POWER SUPPLY (RH)

JRFWC5052GB

BRAKE CONTROL SYSTEM

14	R	MOTOR LH (+)
15	R	MOTOR POWER SUPPLY (LH)
16	W	CAN-H
17	G	CAN-L
18	O	ELECTRIC PARKING BRAKE SWITCH 3
19	G	ELECTRIC PARKING BRAKE SWITCH 4
22	B	POWER SUPPLY
27	Y	MOTOR RH (-)
28	BR	GROUND (MOTOR RH)
29	V	MOTOR LH (-)
30	BR	GROUND (MOTOR LH)

Connector No.	M101
Connector Name	ELECTRONIC IGNITION SWITCH CONTROL UNIT
Connector Type	MB_A0265458426

H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	CHASSIS CAN-L
2	W	CHASSIS CAN-H
3	R	BODY CAN 1-H
4	BR	BODY CAN 1-L
6	W	STEERING LOCK OPERATION
9	GR	REMOTE KEYLESS
10	W	POWER SUPPLY
11	BR	DIAGNOSTIC CAN-L
12	L	DIAGNOSTIC CAN-H

Connector No.	M102
Connector Name	WIRE TO WIRE
Connector Type	MB_A0365458728

H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	-
2	V	-
3	Y	-
4	BR	-
6	BR	-
7	W	-
9	W	-
10	L	-
12	GR	-
13	L	-
14	P	-

Connector No.	M192
Connector Name	WIRE TO WIRE
Connector Type	MB_A2465450326

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	-
2	BR	-
9	V	-
10	R	-

Connector No.	M193
Connector Name	WIRE TO WIRE
Connector Type	MB_A2465450326

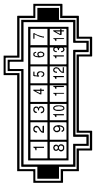
H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	BR	-
9	Y	-
10	R	-

Connector No.	M227
Connector Name	WIRE TO WIRE
Connector Type	MB_A0365458728

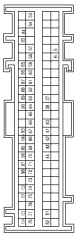
H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	-
2	V	-
3	R	-
4	BR	-
5	BR	-
6	L	-
7	G	-
8	O	-
10	W	-
11	P	-
12	B	-
13	R	-
14	V	-

Connector No.	M266
Connector Name	AIR BAG DIAGNOSIS SENSOR UNIT
Connector Type	MB_A0105404681

H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
5	B	ACTIVE VENT PS(-)
6	Y	ACTIVE VENT PS(+)
37	V	FUSE-
38	W	FUSE+
40	Y	OCCUPANT LIN SIGNAL
41	V/G	RPRH(+)
42	BR/Y	RPRH(-)
43	BR/Y	RPLH(-)
44	V/G	RPLH(+)
51	Y	AIR BAG SIGNAL
52	P	AIR BAG SIGNAL
53	G	CAN-L
54	W	CAN-H
57	R	B-SATELITE LH(+)
58	B	B-SATELITE LH(-)
59	BR	B-SATELITE RH(-)
60	L	B-SATELITE RH(+)
61	BR	FRONT DOOR SATELLITE RH(-)
62	G	FRONT DOOR SATELLITE RH(+)
63	B	FRONT DOOR SATELLITE LH(+)
64	BR	FRONT DOOR SATELLITE LH(-)
65	G	SEAT POS PS(+)
66	BR	SEAT POS PS(-)
67	W	REAR DOOR SATELLITE RH(-)
68	B	REAR DOOR SATELLITE RH(+)
69	R	REAR DOOR SATELLITE LH(+)
70	W	REAR DOOR SATELLITE LH(-)
71	Y	BUCKLE_SWITCH_PS+
72	O	BUCKLE_SWITCH_PS-
73	Y	BUCKLE_SWITCH_DR+
74	O	BUCKLE_SWITCH_DR-
75	V/G	CLH(+)
76	BR/Y	CLH(-)
77	W/BR	CRH(+)
78	R/V	CRH(-)
81	R	FORCE LIMITER PS(-)

JRFWC5053GB

BRAKE CONTROL SYSTEM

82	B	FORCE LIMITER PS(+)
85	P	CZS RH(-)
86	W	CZS RH(+)
87	BR	CZS LH(-)
88	L	CZS LH(+)
89	O	SAB AS(-)
90	Y	SAB AS(+)
93	Y	SAB DR(+)
94	O	SAB DR(-)
95	BR	FPRH(-)
96	L/W	FPRH(+)
97	G	FPLH(+)
98	V	FPLH(-)
100	BR	GND
101	BR	GND
103	Y	KI.15R
104	G	KI.30

Connector No.	M605
Connector Name	WIRE TO WIRE
Connector Type	MB_A2465450326-X

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	-
2	BR	-
9	-	-
10	-	-

Connector No.	M606
Connector Name	WIRE TO WIRE
Connector Type	MB_A2465450326-X

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	BR	-
9	-	-
10	-	-

Connector No.	M607
Connector Name	LEFT REAR AXLE RPM SENSOR / PARKING BRAKE ACTUATOR MOTOR LH
Connector Type	MB_A2465450326

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	-	-
2	-	-
9	-	-
10	-	-

Connector No.	M608
Connector Name	RIGHT REAR AXLE RPM SENSOR / PARKING BRAKE ACTUATOR MOTOR RH
Connector Type	MB_A2465450326

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	-	-
2	-	-
9	-	-
10	-	-

JRFWC5054GB

BASIC INSPECTION

ADDITIONAL SERVICE WHEN REPLACING ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Description

INFOID:0000000013569120

AFTER REPLACEMENT

After replacing electronic stability program control unit, the following items must be performed;

- Write Configuration
- Calibration of acceleration sensor
- VIN REGISTRATION

For work procedure, refer to BRC-84, "Work Procedure".

Work Procedure

INFOID:0000000013569121

1. REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

>> GO TO 2.

2. WRITING VEHICLE SPECIFICATION

Perform the configuration. Refer to BRC-85, "Description".

>> GO TO 3.

3. CALIBRATION OF ACCELERATION SENSOR

Perform the calibration of acceleration sensor. Refer to BRC-86, "Description".

>> GO TO 4.

4. PERFORM VIN REGISTRATION

Perform the VIN REGISTRATION. Refer to BRC-87, "Description".

>> GO TO 5.

5. CHECK ALL ECU SELF-DIAGNOSIS RESULTS

1. Erase all ECU self-diagnosis results using CONSULT.
2. Turn the ignition switch OFF.
3. Turn the ignition switch ON and wait for 2 seconds or more.
4. Check that all ECU self-diagnosis results have no DTC.

>> WORK END

CONFIGURATION (ELECTRONIC STABILITY PROGRAM CONTROL UNIT)

Description

INFOID:0000000013569122

Vehicle specification needs to be written with CONSULT because it is not written after replacing the electronic stability program control unit.
The configuration requires network connection. CONSULT connects to network and then it downloads the configuration data from the server. Then CONSULT writes the vehicle specification to the electronic stability program control unit.
Refer to BRC-85, "Work Procedure".
NOTE:
For details the network connection and operation, refer to “CONSULT Operation Manual”.
The configuration no need to “save” configuration data from the electronic stability program control unit.The configuration data is always generated freshly at the server and then downloaded to the CONSULT.
CAUTION:
Follow the instructions listed below.
- **Complete the procedure of “Read / Write Configuration” in order.**
- **If incorrect “Read / Write Configuration”, incidents might occur.**
- **Never perform “Read / Write Configuration” except for new electronic stability program control unit.**

Work Procedure

INFOID:0000000013569123

1.WRITING VEHICLE SPECIFICATION

Ⓜ CONSULT Configuration
Perform “WRITE CONFIGURATION” for CONTROL UNIT according to “CONSULT Operation Manual”.
NOTE:
- Log in the network according to CONSULT guidance.
- For details the network connection and operation, refer to “CONSULT Operation Manual”.

>> WORK END

CALIBRATION OF ACCELERATION SENSOR

Description

INFOID:0000000013569124

CAUTION:
Always perform the calibration of acceleration sensor before driving when the following operation is performed. Refer to BRC-86, "Work Procedure".

×: Required —: Not required

Procedure	Calibration of acceleration sensor
Replacing electronic stability program control unit	×

Work Procedure

INFOID:0000000013569125

CAUTION:
When the following operations are performed, always use CONSULT. (It cannot be performed by any means other than CONSULT.)

1.CHECK THE VEHICLE STATUS

The vehicle must be on a level surface.

Do want to start calibration?

YES >> GO TO 2.
NO >> WORK END

2.PERFORM CALIBRATION

With CONSULT
1. Select “ABS”, “WORK SUPPORT”, “Calibration of acceleration sensor” in this order.
2. Touch “START”.

>> WORK END

VIN REGISTRATION

Description

INFOID:0000000013569126

After replacing electronic stability program control unit, must be perform Vehicle Identification Number (VIN) Registration. Refer to BRC-87, "Work Procedure".

Work Procedure

INFOID:0000000013569127

1.CHECK VEHICLE IDENTIFICATION NUMBER (VIN)

Check the VIN of the vehicle and note it. Refer to GI-52, "Information About Identification or Model Code".

>> GO TO 2.

2.PERFORM VIN REGISTRATION

With CONSULT

1. Turn ignition switch ON.
2. Select “ABS”, “WORK SUPPORT”, and “VIN REGISTRATION” according to this order.
3. Enter the VIN.
4. Touch “START”.

>> WORK END

DTC/CIRCUIT DIAGNOSIS

B23B3 BRAKE WEAR SENSOR

DTC Description

INFOID:0000000013569128

NOTE:
This DTC is detected in BCM side.

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
B23B3	13	Front brake pad wear sensor [Front brake pad wear sensor]	[CIRCUIT OPEN]	Diagnosis condition	Release of the global error storage, function released, operation voltage in range on, no start attempt.
				Signal (terminal)	Brake wear sensor
				Threshold	At the input for the right front brake wear sensor there is no low level (ground) pending.
				Diagnosis delay time	0.5 seconds

POSSIBLE CAUSE
- The front right brake pad has reached the wear limit.
- Open circuit between the right front brake wear sensor

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT
1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “BCM”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “BCM”.

Is DTC “B23B3” detected?

YES >> Proceed to BRC-88, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569129

NOTE:
This DTC is detected BCM.

1.CHECK RIGHT BRAKE WEAR SENSOR

Check the right front brake wear sensor.

Is there an open circuit?

YES >> Replace right brake wear sensor. Refer to BR-38, "BRAKE CALIPER ASSEMBLY : Removal and Installation".
NO >> GO TO 2.

2.CHECK RIGHT FRONT BRAKE PAD

Check the right front brake pad.

Is inspection result normal?

YES >> GO TO 3.
NO >> Replace brake pad. Refer to BR-38, "BRAKE CALIPER ASSEMBLY : Removal and Installation".

3.CHECK RIGHT BRAKE WEAR SENSOR CIRCUIT (1)

1. Detach plug from right front brake wear sensor.
2. Insert jumper on disconnected plug connection of right front brake wear sensor.
3. Check the continuity between right front wear sensor harness connector and ground.

Right front brake wear sensor		—	Continuity
Connector	Terminal		
E19	1	Ground	Existed

>> GO TO 4.

4.CHECK RIGHT BRAKE WEAR SENSOR CIRCUIT (2)

1. Remove jumper at plug connection of right front brake wear sensor.
2. Check the continuity between right front wear sensor harness connector and ground.

Right front brake wear sensor		—	Continuity
Connector	Terminal		
E19	1	Ground	Not existed

Is inspection result normal?

YES >> GO TO 5.
NO >> Replace right brake wear sensor. Refer to BR-38, "BRAKE CALIPER ASSEMBLY : Removal and Installation".

5.CHECK RIGHT BRAKE WEAR SENSOR CIRCUIT (3)

Check the continuity between BCM harness connector and right front brake wear sensor harness connector.

BCM		Right front brake wear sensor		Continuity
Connector	Terminal	Connector	Terminal	
E16	148	E19	1	Existed

Is inspection result normal?

YES >> GO TO 6.
NO >> Repair/replace harness, connector or terminal.

6.CHECK RIGHT BRAKE WEAR SENSOR GROUND CIRCUIT

Check the continuity between right front brake wear sensor harness connector and ground.

Right front brake wear sensor		—	Continuity
Connector	Terminal		
E19	2	Ground	Not existed

Is inspection result normal?

NO >> Repair/replace harness, connector or terminal.
YES >> INSPECTION END

C0000 CONTROL UNIT

DTC Description

INFOID:0000000013569130

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0000	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Checksum test is malfunction).
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0000” detected?

YES >> Proceed to BRC-90, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569131

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0001 CONTROL UNIT

DTC Description

INFOID:0000000013569132

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0001	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Micro controller hardware is malfunction). An error is set immediately during the initialization and during ongoing operation.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0001” detected?

YES >> Proceed to BRC-91, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569133

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0002 CONTROL UNIT

DTC Description

INFOID:0000000013569134

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0002	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Abort or data memory read error or commands are not plausible). An error is set immediately during the initialization and during ongoing operation.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0002” detected?

YES >> Proceed to BRC-92, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569135

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0003 CONTROL UNIT

DTC Description

INFOID:0000000013569136

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0003	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Signal error). An error is set immediately during the initialization and during ongoing operation.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0003” detected?

YES >> Proceed to BRC-93, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569137

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0004 CONTROL UNIT

DTC Description

INFOID:0000000013569138

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0004	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Micro controller RAM or RAM bus or address decor function malfunction. An error is set immediately during the initialization and during ongoing operation.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0004” detected?

YES >> Proceed to BRC-94, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569139

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0005 CONTROL UNIT

DTC Description

INFOID:0000000013569140

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0005	00	Reprogram ESP control unit [Reprogram Control unit (Electronic Stability Program control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Memory range is too small). An error is set immediately during the initialization and during ongoing operation. The error is set if the malfunction detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0005” detected?

YES >> Proceed to BRC-95, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569141

1.PERFORM CONFIGURATION

With CONSULT

Perform configuration. Refer to BRC-85, "Description"

>> GO TO 2.

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0005” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C0006 CONTROL UNIT

DTC Description

INFOID:0000000013569142

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0006	00	Reprogram ESP control unit [Reprogram Control unit (Electronic Stability Program control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Transmitted signal to the microprocessor invalid). An error is set immediately during the initialization and during ongoing operation.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0006” detected?

YES >> Proceed to BRC-97, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569143

1.PERFORM CONFIGURATION

With CONSULT

Perform configuration. Refer to BRC-85, "Description"

>> GO TO 2.

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0006” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C0007 CONTROL UNIT

DTC Description

INFOID:0000000013569144

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0007	00	Reprogram ESP control unit [Reprogram Control unit (Electronic Stability Program control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Command processing is beyond the cycle time). An error is set immediately during the initialization and during ongoing operation.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0007” detected?

YES >> Proceed to BRC-99, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569145

1.PERFORM CONFIGURATION

With CONSULT

Perform configuration. Refer to BRC-85, "Description"

>> GO TO 2.

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0007” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C0008 CONTROL UNIT

DTC Description

INFOID:0000000013569146

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0008	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Command not available). An error is set immediately during the initialization and during ongoing operation.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0008” detected?

YES >> Proceed to BRC-101, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569147

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0009 CONTROL UNIT

DTC Description

INFOID:0000000013569148

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0009	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (In the startup phase during the Fail-safe logic test is a Not maskable interrupt occurred). An error is set immediately during the startup phase and during ongoing operation.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0009” detected?

YES >> Proceed to BRC-102, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569149

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C000A CONTROL UNIT

DTC Description

INFOID:0000000013569150

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C000A	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Malfunction memory hardware initialization). An error is set immediately during the startup phase and during ongoing operation.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON
6. Perform self-diagnosis for “ABS”.

Is DTC “C000A” detected?

YES >> Proceed to BRC-103, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569151

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C000B CONTROL UNIT

DTC Description

INFOID:0000000013569152

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C000B	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (micro controller RAM or RAM test is malfunction). An error is set immediately during the startup phase and during ongoing operation.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C000B” detected?

YES >> Proceed to BRC-104, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569153

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C000C CONTROL UNIT

DTC Description

INFOID:0000000013569154

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C000C	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Micro controller hardware is malfunction). An error is set immediately during the initialization and during ongoing operation.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C000C” detected?

YES >> Proceed to BRC-105, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569155

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C000D CONTROL UNIT

DTC Description

INFOID:0000000013569156

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C000D	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Central processing unit comparison error). An error is set immediately during the startup phase and during ongoing operation.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C000D” detected?

YES >> Proceed to BRC-106, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569157

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C000E CONTROL UNIT

DTC Description

INFOID:0000000013569158

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C000E	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Hardware is malfunction). An error is set immediately during the initialization and during ongoing operation.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C000E” detected?

YES >> Proceed to BRC-107, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569159

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C000F CONTROL UNIT

DTC Description

INFOID:0000000013569160

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C000F	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction [Transmission (RAM addressing) is malfunction]. An error is set immediately during the initialization and during ongoing operation.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C000F” detected?

YES >> Proceed to BRC-108, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569161

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0010 CONTROL UNIT

DTC Description

INFOID:0000000013569162

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0010	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Transmission is malfunction). An error is set immediately during the initialization and during ongoing operation.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0010” detected?

YES >> Proceed to BRC-109, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569163

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0011 CONTROL UNIT

DTC Description

INFOID:0000000013569164

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0011	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction [Transmission (status) is malfunction]. An error is set immediately during the initialization and during ongoing operation.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0011” detected?

YES >> Proceed to BRC-110, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569165

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0012 CONTROL UNIT

DTC Description

INFOID:0000000013569166

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0012	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Transmission has not been finished). An error is set immediately during the initialization and during ongoing operation.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0012” detected?

YES >> Proceed to BRC-111, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569167

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0024 CONTROL UNIT

DTC Description

INFOID:0000000013569168

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0024	00	Reprogram ESP control unit [Reprogram Control unit (Electronic Stability Program control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (System overload by too many commands). An error is set immediately during the initialization and during ongoing operation.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0024” detected?

YES >> Proceed to BRC-112, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569169

1.PERFORM CONFIGURATION

With CONSULT

Perform configuration. Refer to BRC-85, "Description"

>> GO TO 2.

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Turn the ignition switch OFF.

NOTE:
Wait at least 10 seconds after turning ignition switch OFF.

2. Turn the ignition switch ON.

NOTE:
Wait at least 10 seconds after turning ignition switch ON.

3. Perform self-diagnosis for “ABS”.

Is DTC “C0024” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C002B CONTROL UNIT

DTC Description

INFOID:0000000013569170

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C002B	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Voltage comparison test is malfunction). The error is set during the startup phase. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C002B” detected?

YES >> Proceed to BRC-114, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569171

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C002C CONTROL UNIT

DTC Description

INFOID:0000000013569172

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C002C	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction. The error is set during the startup phase. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C002C” detected?

YES >> Proceed to BRC-115, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569173

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C002D CONTROL UNIT

DTC Description

INFOID:0000000013569174

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C002D	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction. The error is set during a given cycle. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C002D” detected?

YES >> Proceed to BRC-116, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569175

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C002E CONTROL UNIT

DTC Description

INFOID:0000000013569176

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C002E	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction. The error is set during a given cycle. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C002E” detected?

YES >> Proceed to BRC-117, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569177

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0030 CONTROL UNIT

DTC Description

INFOID:0000000013569178

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0030	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction [EEPROM hardware is malfunction (access error)]. An error is set during the initialization.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0030” detected?

YES >> Proceed to BRC-118, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569179

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0031 CONTROL UNIT

DTC Description

INFOID:0000000013569180

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0031	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Hardware configuration does not match the software configuration from the axle rpm sensor output). After the axle rpm sensor test and during operation, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	120 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0031” detected?

YES >> Proceed to BRC-119, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569181

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0032 CONTROL UNIT

DTC Description

INFOID:0000000013569182

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0032	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Error counter is not increased). The error is set during the Fail-safe logic test initialization. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0032” detected?

YES >> Proceed to BRC-120, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569183

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0033 CONTROL UNIT

DTC Description

INFOID:0000000013569184

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0033	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Watchdog counter incorrect). The error is set during the Fail-safe logic test initialization. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0033” detected?

YES >> Proceed to BRC-121, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569185

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0034 CONTROL UNIT

DTC Description

INFOID:0000000013569186

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0034	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Watchdog status incorrect). The error is set during the Fail-safe logic test initialization. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0034” detected?

YES >> Proceed to BRC-122, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569187

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0035 CONTROL UNIT

DTC Description

INFOID:0000000013569188

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0035	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Watchdog command processing is beyond the defined time slot). The error is set after the Fail-safe logic test. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0035” detected?

YES >> Proceed to BRC-123, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569189

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0036 CONTROL UNIT

DTC Description

INFOID:0000000013569190

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0036	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Watchdog counter is malfunction). The error is set after the Fail-safe logic test.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0036” detected?

YES >> Proceed to BRC-124, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569191

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0037 CONTROL UNIT

DTC Description

INFOID:0000000013569192

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0037	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Watchdog counter is malfunction). The error is set after the Fail-safe logic test.
				Diagnosis delay time	50 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0037” detected?

YES >> Proceed to BRC-125, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569193

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0038 CONTROL UNIT

DTC Description

INFOID:0000000013569194

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0038	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Valve relay is not switched OFF by the watchdog). The error is set during the Fail-safe logic test initialization. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0038” detected?

YES >> Proceed to BRC-126, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569195

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C003A CONTROL UNIT

DTC Description

INFOID:0000000013569196

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C003A	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Valve relay is not switched OFF using the serial interface command processing). The error is set during the Fail-safe logic test initialization. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C003A” detected?

YES >> Proceed to BRC-127, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569197

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C003B CONTROL UNIT

DTC Description

INFOID:0000000013569198

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C003B	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Hydraulic enable signal is not switched ON or OFF). The error is set during the Fail-safe logic test initialization. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C003B” detected?

YES >> Proceed to BRC-128, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569199

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C003D CONTROL UNIT

DTC Description

INFOID:0000000013569200

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C003D	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Conversion is not possible). An error is set immediately during the initialization and during ongoing operation. The error is set if the error detection time is exceeded.
				Diagnosis delay time	50 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C003D” detected?

YES >> Proceed to BRC-129, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569201

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C003E CONTROL UNIT

DTC Description

INFOID:0000000013569202

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C003E	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (micro controller RAM is malfunction). An error is set immediately during the initialization and during ongoing operation.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C003E” detected?

YES >> Proceed to BRC-130, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569203

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C003F CONTROL UNIT

DTC Description

INFOID:0000000013569204

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C003F	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Conversion is not possible). An error is set immediately during the initialization and during ongoing operation. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C003F” detected?

YES >> Proceed to BRC-131, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569205

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0040 CONTROL UNIT

DTC Description

INFOID:0000000013569206

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0040	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Allowed band gap is beyond the valid range). An error is set immediately during the initialization and during ongoing operation.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0040” detected?

YES >> Proceed to BRC-132, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569207

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0041 CONTROL UNIT

DTC Description

INFOID:0000000013569208

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0041	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Self-test error at the Analog/Digital converter-Pin). An error is set immediately during the initialization and during ongoing operation. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0041” detected?

YES >> Proceed to BRC-133, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569209

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0042 CONTROL UNIT

DTC Description

INFOID:0000000013569210

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0042	00	BR pedal posi sen circuit A (subfault) [Overheating of component (High-pressure and return flow pump)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Return pump: If during the diagnosis of the return pump for a defined time (t above 30 seconds), an error is set due to a long overheated pump motor and valve control (pump motor and high-pressure valve 1 and switching valve 1 or pump motor and high-pressure valve 2 and switching valve 2 are activated). The error is set if the error detection time is exceeded.
				Diagnosis delay time	30000 ms

POSSIBLE CAUSE

- Programming of the pump motor or valve control timings are wrong.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0042” detected?

YES >> Proceed to BRC-134, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569211

1.PERFORM CONFIGURATION

With CONSULT

Perform configuration. Refer to BRC-85, "Description"

>> GO TO 2.

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0042” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C0043 CONTROL UNIT

DTC Description

INFOID:0000000013569212

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0043	00	Reprogram ESP control unit [Reprogram Control unit (Electronic Stability Program control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability Program control unit is malfunction (Hardware configuration does not match with the software configuration of the speed sensor mode). An error is set immediately during the initialization and during ongoing operation. The error is set if the error detection time is exceeded.
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0043” detected?

YES >> Proceed to BRC-136, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569213

1.PERFORM CONFIGURATION

With CONSULT

Perform configuration. Refer to BRC-85, "Description"

>> GO TO 2.

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0043” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C0044 CONTROL UNIT

DTC Description

INFOID:0000000013569214

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0044	00	Reprogram ESP control unit [Reprogram Control unit (Electronic Stability Program control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability Program control unit is malfunction (Persistent data management: EEPROM format incorrect) or reprogramming with incompatible software. An error is set during the initialization.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0044” detected?

YES >> Proceed to BRC-138, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569215

1.PERFORM CONFIGURATION

With CONSULT

Perform configuration. Refer to BRC-85, "Description"

>> GO TO 2.

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0044” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C0045 CONTROL UNIT

DTC Description

INFOID:0000000013569216

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0045	00	Reprogram ESP control unit [Reprogram Control unit (Electronic Stability Program control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability Program control unit is malfunction [Persistent data management: EEPROM contents not compatible (customer ID)] or reprogramming with incompatible software. An error is set immediately during the initialization.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0045” detected?

YES >> Proceed to BRC-140, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569217

1.PERFORM CONFIGURATION

With CONSULT
Perform configuration. Refer to BRC-85, "Description"

>> GO TO 2.

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0045” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C0046 CONTROL UNIT

DTC Description

INFOID:0000000013569218

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0046	00	Brake pressure sensor A/B (subfault) [Error in flash memory]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability Program control unit is malfunction (EEPROM memory overflow) or reprogramming with incompatible software. An error is set immediately during the initialization.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0046” detected?

YES >> Proceed to BRC-142, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569219

1.ERASE SELF-DIAGNOSIS RESULT (1)

With CONSULT

Erase self-diagnosis result for “ABS”.

Is the self-diagnosis result erased?

YES >> GO TO 2.
NO >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

2.PERFORM CALIBRATION OF ACCELERATION SENSOR

CAUTION:
- **The electronic stability program control unit is inoperative.**
- **Electronic stability program control unit must be programmed.**

With CONSULT
1. Select “ABS”, “WORK SUPPORT”, “Calibration of acceleration sensor” in this order.
2. Touch “Start”

CAUTION:
Electronic stability program control unit cannot be commissioned.

>> GO TO 3.

3. ERASE SELF-DIAGNOSIS RESULT (2)

With CONSULT
1. Erase self-diagnosis result for “ABS”.
2. Perform self-diagnosis for “ABS”.

Is DTC “C0046” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C0048 CONTROL UNIT

DTC Description

INFOID:0000000013569220

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0048	00	Reprogram ESP control unit [Reprogram Control unit (Electronic Stability Program control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability Program control unit is malfunction (EEPROM contents incompatible) or reprogramming with incompatible software. An error is set immediately during the initialization.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0048” detected?

YES >> Proceed to BRC-144, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569221

1.PERFORM CONFIGURATION

With CONSULT

Perform configuration. Refer to BRC-85, "Description"

>> GO TO 2.

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0048” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C0049 CONTROL UNIT

DTC Description

INFOID:0000000013569222

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0049	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction. An error is set immediately during the initialization and during ongoing operation. The error is set if the error detection time is exceeded.
				Diagnosis delay time	200 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0049” detected?

YES >> Proceed to BRC-146, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569223

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C004A CONTROL UNIT

DTC Description

INFOID:0000000013569224

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C004A	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction. The error is set during the startup phase. The error is set if the error detection time is exceeded
				Diagnosis delay time	200 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C004A” detected?

YES >> Proceed to BRC-147, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569225

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C004B CONTROL UNIT

DTC Description

INFOID:0000000013569226

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C004B	00	Reprogram ESP control unit [Reprogram Control unit (Electronic Stability Program control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Hardware components are not supported by the software). The error is set during a given cycle. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C004B” detected?

YES >> Proceed to BRC-148, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569227

1.PERFORM CONFIGURATION

With CONSULT

Perform configuration. Refer to BRC-85, "Description"

>> GO TO 2.

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C004B” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C004D CONTROL UNIT

DTC Description

INFOID:0000000013569228

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C004D	00	Reprogram ESP control unit [Reprogram Control unit (Electronic Stability Program control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability Program control unit is malfunction. An error is set immediately during the initialization and during ongoing operation. The error is set if the error detection time is exceeded.
				Diagnosis delay time	200 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C004D” detected?

YES >> Proceed to BRC-150, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569229

1.PERFORM CONFIGURATION

With CONSULT

Perform configuration. Refer to BRC-85, "Description"

>> GO TO 2.

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C004D” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C0071 BRAKE LIGHT SWITCH

DTC Description

INFOID:0000000013569230

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0071	00	2/4 wheel drive status input (subfault) [The signal of component (Brake light switch) is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Press the brake pedal with the inlet pressure 8,000 kPa (80 bar, 81.6 kg/cm^2, 1,160 psi) or more
				Signal (terminal)	Brake light switch
				Threshold	If the inlet pressure is above 8,000 kPa (80 bar, 81.6 kg/cm^2, 1,160 psi) and no brake light switch signal is set, an error is set. The error is set if the error detection time is exceeded
				Diagnosis delay time	1000 ms

POSSIBLE CAUSE

- Brake light switch installation is malfunction (brake light switch not properly secured or not properly connected or out of adjustment).
- Brake light switch is malfunction.
- Pressure sensor is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Press the brake pedal with the inlet pressure 8,000 kPa (80 bar, 81.6 kg/cm^2, 1,160 psi) or more.
   NOTE:
   Do not press again.
7. Perform self-diagnosis for “ABS”.

Is DTC “C0071” detected?

YES >> Proceed to BRC-152, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569231

1.PRECAUTION

After performing this procedure, perform the following steps to erase stored DTC:

- **Turn ignition switch OFF.**

- **Turn ignition switch ON.**
- **Fully depress the brake pedal to operate the brake light switch.**
- **Erase DTC.**

>> GO TO 2.

2. COMPONENT FUNCTION CHECK

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR”.
3. Select the following items:

- Signal high of brake light SW
- Signal low of brake light SW
- Brake pressure

4. Check that the actual value of “Signal high of brake light SW” and “Signal low of brake light SW” change when the brake pedal is operated.
5. Check that the actual value “Brake pressure” changes when the brake pedal is operated.

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 3.

3. CHECK INSTALLATION CONDITION OF BRAKE LIGHT SWITCH

1. Check that the brake light switch is installed correctly.
2. Check attachment and linkage of brake pedal for play.

Is the inspection result normal?

YES >> Replace brake light switch. Refer to BR-17, "Exploded View".
NO >> Repair or replace error-detected parts.

C0073 BRAKE LIGHT SWITCH

DTC Description

INFOID:0000000013569232

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0073	00	2/4 wheel drive status input (subfault) [The signal of component (Brake light switch) is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Press the brake pedal with the inlet pressure 8,000 kPa (80 bar, 81.6 kg/cm^2, 1,160 psi) or more
				Signal (terminal)	Brake light switch
				Threshold	When the inlet pressure after braking has increased to above 1,000 kPa (10 bar, 1.02 kg/cm^2, 145 psi), while the brake light switch signal is set on the software side, without the actual brake light switch signal is set and the pump motor is not activated, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	1000 ms

POSSIBLE CAUSE

- Brake light switch installation is malfunction (brake light switch not properly secured or not properly connected or out of adjustment).
- Brake light switch is malfunction.
- Pressure sensor is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Press the brake pedal with the inlet pressure 8,000 kPa (80 bar, 81.6 kg/cm^2, 1,160 psi) or more.
   NOTE:
   Do not press again.
7. Perform self-diagnosis for “ABS”.

Is DTC “C0073” detected?

YES >> Proceed to BRC-154, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569233

1.PRECAUTION

After performing this procedure, perform the following steps to erase stored DTC:
- **Turn ignition switch OFF.**
- **Turn ignition switch ON.**
- **Fully depress the brake pedal to operate the brake light switch.**
- **Erase DTC.**

>> GO TO 2.

2.COMPONENT FUNCTION CHECK

With CONSULT
1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR”.
3. Select the following items:
- Signal high of brake light SW
- Signal low of brake light SW
- Brake pressure
4. Check that the actual value of “Signal high of brake light SW” and “Signal low of brake light SW” change when the brake pedal is operated.
5. Check that the actual value “Brake pressure” changes when the brake pedal is operated.

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 3.

3.CHECK INSTALLATION CONDITION OF BRAKE LIGHT SWITCH

1. Check that the brake light switch is installed correctly.
2. Check attachment and linkage of brake pedal for play.

Is the inspection result normal?

YES >> Replace brake light switch. Refer to BR-17, "Exploded View".
NO >> Repair or replace error-detected parts.

C0075 BRAKE LIGHT SWITCH

DTC Description

INFOID:0000000013569234

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0075	00	2/4 wheel drive status input (subfault) [The signal of component (Brake light switch) is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Press the brake pedal for 1 second or more
				Signal (terminal)	Brake light switch
				Threshold	When the signal line of the brake light switch high or low or the power supply line or the brake light control line has an open circuit or a short circuit to ground or positive, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- Signal line brake light switch high or low or power supply line or brake light control line has an interruption or has a short circuit to ground or positive.
- Brake light switch is not connected correctly.
- Brake light switch is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Press the brake pedal for 1 second or more.
4. Release brake pedal.
5. Perform self-diagnosis for “ABS”.

Is DTC “C0075” detected?

YES >> Proceed to BRC-156, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569235

1.PRECAUTION

After performing this procedure, perform the following steps to erase stored DTC:

- **Turn ignition switch OFF.**
- **Turn ignition switch ON.**
- **Fully depress the brake pedal to operate the brake light switch.**
- **Erase DTC.**

>> GO TO 2.

2.COMPONENT FUNCTION CHECK

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR”.
3. Select the following items:
- Signal high of brake light SW
- Signal low of brake light SW
4. Check the actual value of each items under the following conditions:

Monitor item	Condition	Value
Signal high of brake light SW	Brake pedal: Fully released	Off
	Brake pedal: Depressed	On
Signal low of brake light SW	Brake pedal: Fully released	Off
	Brake pedal: Depressed	On

Without CONSULT
1. Turn ignition switch ON.
2. Check the voltage between brake light switch harness connector and ground under the following conditions:

Brake light switch			Condition	Voltage (Approx.)
Connector	+	-		
	Terminal			
E9	3	2	Brake pedal: Fully released	Less than 2 V
			Brake pedal: Depressed	More than 10 V
	4		Brake pedal: Fully released	Less than 2 V
			Brake pedal: Depressed	More than 10 V

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 3.

3. CHECK BRAKE LIGHT SWITCH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and brake light switch harness connector.
3. Check the continuity between electronic stability program control unit harness connector and brake light switch harness connector.

Electronic stability program control unit		Brake light switch		Continuity
Connector	Terminal	Connector	Terminal	
E46	6	E9	4	Existed
	30		3	
	32		2	
	35		1	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace error-detected parts.

4. CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT

Check electronic stability program control unit power supply and ground circuit. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Replace brake light switch. Refer to BR-17, "Exploded View".
NO >> Repair or replace error-detected parts.

C0076 BRAKE LIGHT SWITCH

DTC Description

INFOID:0000000013569236

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0076	00	PWM for traction control (subfault) [component (Brake light switch) is malfunction or its power supply has an open circuit or short circuit]	NO SUBTYPE INFORMATION]	Diagnosis condition	Press the brake pedal with the inlet pressure 8,000 kPa (80 bar, 81.6 kg/cm^2, 1,160 psi) or more
				Signal (terminal)	Brake light signal
				Threshold	If the brake light switch (signal) is permanently connected [brake pedal is not actuated and accelerator pedal is actuated (brake light switch erroneously connected), or may be the brake pedal and accelerator pedal are simultaneously actuated (two pedal driver)], an error is set. The error is set if the error detection time is exceeded
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Brake light switch installation is malfunction (brake light switch not properly secured or not properly connected or out of adjustment).
- Brake light switch line has a short circuit to positive.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Start the engine
3. Press the brake pedal with the inlet pressure 8,000 kPa (80 bar, 81.6 kg/cm^2, 1,160 psi) or more.
4. Release brake pedal.
5. Perform self-diagnosis for “ABS”.

Is DTC “C0076” detected?

YES >> Proceed to BRC-159, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569237

1.PRECAUTION

After performing this procedure, perform the following steps to erase stored DTC:

- **Turn ignition switch OFF.**
- **Turn ignition switch ON.**
- **Fully depress the brake pedal to operate the brake light switch.**
- **Erase DTC.**

>> GO TO 2.

2.CHECK INSTALLATION CONDITION OF BRAKE LIGHT SWITCH

1. Check that the brake light switch is installed correctly.
2. Check attachment and linkage of brake pedal for play.
3. Check that the retainer is normal.
4. Check that the brake pedal operates normally.

Is the inspection result normal?

YES >> Replace brake light switch. Refer to BR-17, "Exploded View".
NO >> Repair or replace error-detected parts.

C0077 BRAKE LIGHT SWITCH

DTC Description

INFOID:0000000013569238

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0077	00	2/4 wheel drive status input (subfault) [The signal of component (Brake light switch) is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Press the brake pedal with the inlet pressure 8,000 kPa (80 bar, 81.6 kg/cm^2, 1,160 psi) or more
				Signal (terminal)	Brake light switch
				Threshold	If the pressure sensor signal (pressure sensor circuit master brake cylinder) to the brake light switch status is not plausible, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- Brake light switch installation is malfunction (brake light switch not properly secured or not properly connected or out of adjustment).
- Brake light switch is malfunction.
- Pressure sensor is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Press the brake pedal with the inlet pressure 8,000 kPa (80 bar, 81.6 kg/cm^2, 1,160 psi) or more.
   NOTE:
   Do not press again.
7. Perform self-diagnosis for “ABS”.

Is DTC “C0077” detected?

YES >> Proceed to BRC-161, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569239

1.PRECAUTION

After performing this procedure, perform the following steps to erase stored DTC:

- **Turn ignition switch OFF.**

- **Turn ignition switch ON.**
- **Fully depress the brake pedal to operate the brake light switch.**
- **Erase DTC.**

>> GO TO 2.

2.COMPONENT FUNCTION CHECK

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR”.
3. Select the following items:

- Signal high of brake light SW
- Signal low of brake light SW
- Brake pressure

4. Check that the actual value of “Signal high of brake light SW” and “Signal low of brake light SW” change when the brake pedal is operated.
5. Check that the actual value “Brake pressure” changes when the brake pedal is operated.

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 3.

3.CHECK INSTALLATION CONDITION OF BRAKE LIGHT SWITCH

1. Check that the brake light switch is installed correctly.
2. Check attachment and linkage of brake pedal for play.

Is the inspection result normal?

YES >> Replace brake light switch. Refer to BR-17, "Exploded View".
NO >> Repair or replace error-detected parts.

C0078 BRAKE LIGHT SWITCH

DTC Description

INFOID:0000000013569240

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0078	00	Brake light switch [The power supply of component (Brake light switch) has undervoltage]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Brake light switch
				Threshold	If the power supply of the brake light switch for a defined period reaches a voltage value e.g. U below 5.5 V will set an error. The error is set if the error detection time is exceeded
				Diagnosis delay time	450 ms

POSSIBLE CAUSE

- Protection of voltage supply malfunction.
- The power supply line has a open circuit.
- Connection of the ground (body) or the contact points (plug connections) are corroded (voltage drop).
- Battery unload or loading capacity is too low.
- Hardware error in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
4. Perform self-diagnosis for “ABS”.

Is DTC “C0078” detected?

YES >> Proceed to BRC-163, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569241

1.CHECK DATA MONITOR

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR”.
3. Select the following items:

- Signal high of brake light SW
- Signal low of brake light SW

4. Check the actual value of each items under the following conditions:

Monitor item	Condition	Value
Signal high of brake light SW	Brake pedal: Fully released	Off
	Brake pedal: Depressed	On
Signal low of brake light SW	Brake pedal: Fully released	Off
	Brake pedal: Depressed	On

Is the inspection result normal?

YES >> GO TO 2.
NO >> GO TO 4.

2.CHECK TERMINAL (1)

1. Turn the ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and then check the electronic stability program control unit pin terminals for damage or loose connection with harness connector.
3. Disconnect brake light switch harness connector and check brake light switch pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair / replace harness, connector or terminal.

3.ERASE THE DTC MEMORY (1)

1. Connect electronic stability program control unit harness connector.
2. Connect brake light switch harness connector.
3. Turn the ignition switch ON.
4. Operate brake pedal.
5. Erase the DTC memory after processing all the DTC codes.

>> INSPECTION END

4.CHECK BRAKE LIGHT SWITCH SIGNAL CIRCUIT (1)

1. Turn the ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector.
3. Connect socket box to electronic stability program control unit.
4. Turn the ignition switch ON.
5. Check the voltage between electronic stability program control unit harness connector and ground.

+		−	Condition	Voltage
Electronic stability program control unit				
Connector	Terminal			
E46	6	Ground	Operate brake pedal.	Higher than 10 V
	30		Do not operate brake pedal.	Lower than 2 V

Is the measured value OK?

YES >> GO TO 5.
NO >> GO TO 7.

5.CHECK TERMINAL (2)

1. Turn the ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and then check the electronic stability program control unit pin terminals for damage or loose connection with harness connector.
3. Disconnect brake light switch harness connector and check brake light switch pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> GO TO 6.
NO >> Repair / replace harness, connector or terminal.

6. ERASE THE DTC MEMORY (2)

1. Connect electronic stability program control unit harness connector and brake light switch harness connector.
2. Turn the ignition switch ON.
3. Operate brake pedal.
4. Erase the DTC memory after processing all the DTC codes.

>> INSPECTION END

7. CHECK BRAKE LIGHT SWITCH SIGNAL CIRCUIT (2)

1. Turn the ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector.
3. Disconnect brake light switch harness connector.
4. Check the continuity electronic stability program control unit harness connector and brake light switch harness connector.

Electronic stability program control unit		Brake light switch		Continuity
Connector	Terminal	Connector	Terminal	
E46	6	E9	4	Existed
	30		3	

5. Check the continuity electronic stability program control unit harness connector and ground.

Electronic stability program control unit		–	Continuity
Connector	Terminal		
E46	6	Ground	Not existed
	30		

Is the inspection result normal?

YES >> GO TO 8.
NO >> Repair / replace harness, connector or terminal.

8. CHECK BRAKE LIGHT SWITCH POWER SUPPLY CIRCUIT (1)

1. Turn the ignition switch OFF.
2. Connect electronic stability program control unit harness connector.
3. Connect brake light switch harness connector.
4. Turn the ignition switch ON.
5. Check the voltage between brake light switch harness connector and ground.

+		–	Voltage
Brake light switch			
Connector	Terminal		
E9	1	Ground	Higher than 10 V

Is the measured value OK?

YES >> GO TO 9.
NO >> GO TO 10.

9. CHECK BRAKE LIGHT SWITCH GROUND CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector.
3. Disconnect brake light switch harness connector.
4. Check the continuity electronic stability program control unit harness connector and brake light switch harness connector.

Electronic stability program control unit		Brake light switch		Continuity
Connector	Terminal	Connector	Terminal	
E46	32	E9	2	Existed

5. Check the continuity electronic stability program control unit harness connector and ground.

Electronic stability program control unit		–	Continuity
Connector	Terminal		
E46	32	Ground	Not existed

Is the inspection result normal?

YES >> Replace brake light switch.
NO >> Repair / replace harness, connector or terminal.

10. CHECK BRAKE LIGHT SWITCH POWER SUPPLY CIRCUIT (2)

1. Turn the ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector.
3. Disconnect brake light switch harness connector.
4. Check the continuity electronic stability program control unit harness connector and brake light switch harness connector.

Electronic stability program control unit		Brake light switch		Continuity
Connector	Terminal	Connector	Terminal	
E46	35	E9	1	Existed

5. Check the continuity electronic stability program control unit harness connector and ground.

Electronic stability program control unit		–	Continuity
Connector	Terminal		
E46	35	Ground	Not existed

Is the inspection result normal?

YES >> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".
NO >> Repair / replace harness, connector or terminal.

Component Inspection

INFOID:0000000013569242

1. CHECK BRAKE LIGHT SWITCH

1. Turn the ignition switch OFF.
2. Disconnect brake light switch harness connector.
3. Check the continuity when brake light switch is operated.

Brake light switch	Condition	Continuity
Terminal		
3 – 4	When brake light switch is released (When brake pedal is depressed)	Existed
	When brake light switch is pressed (When brake pedal is released)	Not existed

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace brake light switch. Refer to BR-17, "Exploded View".

C0080 DISC ROTOR

DTC Description

INFOID:0000000013569243

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0080	00	Overheating protection ESP C/U [Function 'Overheating protection' is deactivated in Control unit (Electronic Stability Program control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the brake discs temperature model function in the EEPROM is disabled, an error (event) is set immediately.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Brake discs temperature model function in the EEPROM deactivated.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 30 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0080” detected?

YES >> Proceed to BRC-167, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569244

1.ERASE THE DTC MEMORY

Erase the DTC memory.

>> INSPECTION END

C0081 DISC ROTOR

DTC Description

INFOID:0000000013569245

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0081	00	ABS malfunction Indicator (subfalt) [Monitoring of brake temperature]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If an active brake intervention has occurred while overheating at least at one brake disc, an error (event) is set.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Active braking intervention at the same overheating at least one brake.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 30 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0081” detected?

YES >> Proceed to BRC-168, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569246

1.ERASE THE DTC MEMORY

Erase the DTC memory.

>> INSPECTION END

C00B0 STEERING ANGLE SENSOR SYSTEM

DTC Description

INFOID:0000000013569247

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C00B0	00	Implausible ESP control [Implausible ESP control]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at slow trip (slalom) and then 70 km/h (44 MPH) or more
				Signal (terminal)	—
				Threshold	If the vehicle reference speed is less or more than 100 km/h (63 MPH), while implausible signals from the yaw rate sensor (yaw rate / lateral acceleration) or steering angle sensor occur, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Firstly the error of the yaw rate sensor (not permanently correct signal) or secondly of the lateral acceleration sensor or the steering angle sensor (not permanently correct signals) is detected.
- Software error.
- Axis geometry was changed by accident or vehicle modifications.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at slow trip (slalom) and then 70 km/h (44 MPH) or more.
7. Perform self-diagnosis for “ABS”.

Is DTC “C00B0” detected?

YES >> Proceed to BRC-169, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569248

1.CHECK DATA MONITOR

With CONSULT

1. Drive the vehicle forward at approx. 5 km/h (3 MPH).
2. Stop the vehicle.

3. Select “ABS”, “DATA MONITOR” and “Steering wheel angle” according to this order.
4. Check the value is in the following range.

Monitor item	Standard value
Steering wheel angle	(–8°) – 8°

Is the inspection result normal?

YES >> GO TO 2.
NO >> Check the steering geometry and correct if necessary. GO TO 2.

2.PERFORM SELF-DIAGNOSIS FOR STEERING COLUMN CONTROL MODULE

With CONSULT
Perform self-diagnosis for “SCCM”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-61, "DTC Index".
NO >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C00B1 AXLE RPM SENSOR

DTC Description

INFOID:0000000013569249

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C00B1	00	Rpm sensor supply implausible value [One or more rpm sensors supply implausible values]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Axle rpm sensor
				Threshold	If the ABS system is permanently active, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	60000 ms

POSSIBLE CAUSE

- Axle rpm sensor cable has an interruption.
- Axle rpm sensor or multipole wheel loosely attached.
- Multipole wheel dirty or damaged (air gap too big) or end-magnetized (undetected N / S pole).
- Tire or rim not permitted.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 30 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C00B1” detected?

YES >> Proceed to BRC-171, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569250

1.CHECK COMPONENT

Check the following items:

- Wheels or tires for wear and size.
- Tire air pressure
- The rear axle gear ratio is correct.
- A multipole ring is dirty or damaged.
- Check multipole ring for tight seating, correct installation and mechanical damage.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace error-detected parts.

C00B2 CONTROL UNIT

DTC Description

INFOID:0000000013569251

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C00B2	00	Behavior of ABS control is implausible [The behavior of the ABS control is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Suspected of implausible ABS control behavior or electronic stability program spin behavior). An error is set immediately during the initialization and during ongoing operation. The error is set if the error detection time is exceeded.
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- Aquaplaning, slippery subgrade, Software or Hardware error.
- Hardware error: alloyed out valve relay and valve error. (Short circuit in coil of a valve coil. Malfunction valve driver. Line error like short circuit or break out in the electronic stability program control unit).
- Duration of the magnetic valve control too long or magnetic valve voltage out of the valid range.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C00B2” detected?

YES >> Proceed to BRC-173, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569252

1.ERASE SELF-DIAGNOSIS RESULT

With CONSULT
Erase self-diagnosis result for “ABS”.

>> INSPECTION END

C00C0 ACCELERATION SENSOR

DTC Description

INFOID:0000000013569253

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C00C0	00	ESP C/U transmits malfunction signal [An internal component of Control unit (Electronic Stability Program control unit) transmits a malfunction signal]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the acceleration sensor (integrated) detects multiple sporadic malfunction then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	200 ms

POSSIBLE CAUSE

- Check the environment influence of the acceleration sensor [high frequency collisions. Holder or traction system hydraulic unit incorrect attached. Parts are not attached].
- Acceleration sensor malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C00C0” detected?

YES >> Proceed to BRC-174, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569254

1.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT INSTALLATION POSITION

Check the electronic stability program control unit installation position. Refer to BRC-975, "Removal and Installation".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Install the electronic stability program control unit again. Refer to BRC-975, "Removal and Installation".

2.PERFORM SELF-DIAGNOSIS

With CONSULT
1. Erase self-diagnosis result for “ABS”.
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
4. Perform self-diagnosis for “ABS”.

Is DTC “C00C0” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C00C1 ACCELERATION SENSOR

DTC Description

INFOID:0000000013569255

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C00C1	00	Internal ESP control unit is incomplete [An internal component of Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the acceleration sensor (integrated) detects an cycle time error an error is set immediately.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Acceleration sensor malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C00C1” detected?

YES >> Proceed to BRC-176, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569256

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C00C2 ROTATION RATE SENSOR

DTC Description

INFOID:0000000013569257

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C00C2	00	ESP C/U transmits malfunction signal [An internal component of Control unit (Electronic Stability Program control unit) transmits a malfunction signal]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the yaw rate sensor (integrated) detects multiple sporadic malfunction then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	142 ms

POSSIBLE CAUSE

- Check the environment influence for the yaw rate sensor [high frequency collisions. Holder or traction system hydraulic unit incorrect attached. Parts are not attached].
- Yaw rate sensor malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C00C2” detected?

YES >> Proceed to BRC-177, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569258

1.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT INSTALLATION POSITION

Check the electronic stability program control unit installation position. Refer to BRC-975, "Removal and Installation".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Install the electronic stability program control unit again. Refer to BRC-975, "Removal and Installation".

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Erase self-diagnosis result for “ABS”.
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
4. Perform self-diagnosis for “ABS”.

Is DTC “C00C2” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C00C3 ROTATION RATE SENSOR

DTC Description

INFOID:0000000013569259

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C00C3	00	ESP C/U transmits malfunction signal [An internal component of Control unit (Electronic Stability Program control unit) transmits a malfunction signal]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	
				Threshold	If the yaw rate sensor (integrated) detects multiple sporadic malfunction then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	143 ms

POSSIBLE CAUSE

- Check the environment influence for the yaw rate sensor [high frequency collisions. Holder or traction system hydraulic unit incorrect attached. Parts are not attached].
- Yaw rate sensor malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C00C3” detected?

YES >> Proceed to BRC-179, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569260

1.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT INSTALLATION POSITION

Check the electronic stability program control unit installation position. Refer to BRC-975, "Removal and Installation".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Install the electronic stability program control unit again. Refer to BRC-975, "Removal and Installation".

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Erase self-diagnosis result for “ABS”.
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
4. Perform self-diagnosis for “ABS”.

Is DTC “C00C3” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C00C4 ROTATION RATE SENSOR

DTC Description

INFOID:0000000013569261

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C00C4	00	ESP C/U transmits malfunction signal [An internal component of Control unit (Electronic Stability Program control unit) transmits a malfunction signal]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the yaw rate sensor (integrated) detects multiple sporadic malfunction then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	144 ms

POSSIBLE CAUSE

- Check the environment influence for the yaw rate sensor [high frequency collisions. Holder or traction system hydraulic unit incorrect attached. Parts are not attached].
- Yaw rate sensor malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C00C4” detected?

YES >> Proceed to BRC-181, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569262

1.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT INSTALLATION POSITION

Check the electronic stability program control unit installation position. Refer to BRC-975, "Removal and Installation".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Install the electronic stability program control unit again. Refer to BRC-975, "Removal and Installation".

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Erase self-diagnosis result for “ABS”.
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
4. Perform self-diagnosis for “ABS”.

Is DTC “C00C4” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C00C5 ROTATION RATE SENSOR

DTC Description

INFOID:0000000013569263

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C00C5	00	ESP C/U transmits malfunction signal [An internal component of Control unit (Electronic Stability Program control unit) transmits a malfunction signal]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the yaw rate sensor (integrated) detects multiple sporadic malfunction then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	145 ms

POSSIBLE CAUSE

- Check the environment influence for the yaw rate sensor (high frequency collisions. Holder or traction system hydraulic unit incorrect attached. Parts are not attached).
- Yaw rate sensor malfunction (Hardware).sions

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C00C5” detected?

YES >> Proceed to BRC-183, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569264

1.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT INSTALLATION POSITION

Check the electronic stability program control unit installation position. Refer to BRC-975, "Removal and Installation".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Install the electronic stability program control unit again. Refer to BRC-975, "Removal and Installation".

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Erase self-diagnosis result for “ABS”.
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
4. Perform self-diagnosis for “ABS”.

Is DTC “C00C5” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C00C6 ACCELERATION SENSOR

DTC Description

INFOID:0000000013569265

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C00C6	00	Internal ESP control unit is incomplete [An internal component of Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the acceleration sensor (integrated) detects an initialization time out error or an communication error then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Acceleration sensor or micro controller malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C00C6” detected?

YES >> Proceed to BRC-185, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569266

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C00C9 ROTATION RATE SENSOR

DTC Description

INFOID:0000000013569267

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C00C9	00	ESP C/U transmits malfunction signal [An internal component of Control unit (Electronic Stability Program control unit) transmits a malfunction signal]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the yaw rate sensor (integrated) detects multiple sporadic malfunction then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	146 ms

POSSIBLE CAUSE

- Check the environment influence for the yaw rate sensor [high frequency collisions. Holder or traction system hydraulic unit incorrect attached. Parts are not attached].
- Yaw rate sensor malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C00C9” detected?

YES >> Proceed to BRC-186, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569268

1.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT INSTALLATION POSITION

Check the electronic stability program control unit installation position. Refer to BRC-975, "Removal and Installation".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Install the electronic stability program control unit again. Refer to BRC-975, "Removal and Installation".

2.PERFORM SELF-DIAGNOSIS

With CONSULT
1. Erase self-diagnosis result for “ABS”.
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
4. Perform self-diagnosis for “ABS”.

Is DTC “C00C9” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C00CA ROTATION RATE SENSOR

DTC Description

INFOID:0000000013569269

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C00CA	00	ESP C/U transmits malfunction signal [An internal component of Control unit (Electronic Stability Program control unit) transmits a malfunction signal]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the yaw rate sensor (integrated) detects multiple sporadic malfunction then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	147 ms

POSSIBLE CAUSE

- Check the environment influence for the yaw rate sensor [high frequency collisions. Holder or traction system hydraulic unit incorrect attached. Parts are not attached].
- Yaw rate sensor malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C00CA” detected?

YES >> Proceed to BRC-188, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569270

1.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT INSTALLATION POSITION

Check the electronic stability program control unit installation position. Refer to BRC-975, "Removal and Installation".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Install the electronic stability program control unit again. Refer to BRC-975, "Removal and Installation".

2.PERFORM SELF-DIAGNOSIS

With CONSULT
1. Erase self-diagnosis result for “ABS”.
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
4. Perform self-diagnosis for “ABS”.

Is DTC “C00CA” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C00CB ACCELERATION SENSOR

DTC Description

INFOID:0000000013569271

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C00CB	0	Internal ESP control unit is incomplete [An internal component of Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the acceleration sensor (integrated) detects a communication error then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Acceleration sensor or micro controller malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C00CB” detected?

YES >> Proceed to BRC-190, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569272

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C00CC ROTATION RATE SENSOR

DTC Description

INFOID:0000000013569273

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C00CC	00	ESP C/U transmits malfunction signal [An internal component of Control unit (Electronic Stability Program control unit) transmits a malfunction signal]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the yaw rate sensor (integrated) detects multiple sporadic malfunction then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	148 ms

POSSIBLE CAUSE

- Check the environment influence for the yaw rate sensor [high frequency collisions. Holder or traction system hydraulic unit incorrect attached. Parts are not attached)]
- Yaw rate sensor malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C00CC” detected?

YES >> Proceed to BRC-191, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569274

1.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT INSTALLATION POSITION

Check the electronic stability program control unit installation position. Refer to BRC-975, "Removal and Installation".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Install the electronic stability program control unit again. Refer to BRC-975, "Removal and Installation".

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Erase self-diagnosis result for “ABS”.
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
4. Perform self-diagnosis for “ABS”.

Is DTC “C00CC” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C00CD ROTATION RATE SENSOR

DTC Description

INFOID:0000000013569275

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C00CD	00	ESP C/U transmits malfunction signal [An internal component of Control unit (Electronic Stability Program control unit) transmits a malfunction signal]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the yaw rate sensor (integrated) detects multiple sporadic malfunction then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	140 ms

POSSIBLE CAUSE

- Check the environment influence for the yaw rate sensor [high frequency collisions. Holder or traction system hydraulic unit incorrect attached. Parts are not attached].
- Yaw rate sensor malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C00CD” detected?

YES >> Proceed to BRC-193, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569276

1.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT INSTALLATION POSITION

Check the electronic stability program control unit installation position. Refer to BRC-975, "Removal and Installation".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Install the electronic stability program control unit again. Refer to BRC-975, "Removal and Installation".

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Erase self-diagnosis result for “ABS”.
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
4. Perform self-diagnosis for “ABS”.

Is DTC “C00CD” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C00D0 CONTROL UNIT

DTC Description

INFOID:0000000013569277

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C00D0	00	Reprogram ESP control unit [Reprogram Control unit (Electronic Stability Program control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the history data (flat tire rolling alert) in the EEPROM are invalid, an error (event) is set. The error (event) is set after the initialization (10 seconds delay after ignition).
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software error: History data (flat tire rolling alert) invalid
- Hardware error: EEPROM is malfunction

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C00D0” detected?

YES >> Proceed to BRC-195, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569278

1.PERFORM CONFIGURATION

With CONSULT
Perform configuration. Refer to BRC-85, "Description"

>> GO TO 2.

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C00D0” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C0100 POWER SUPPLY CIRCUIT

DTC Description

INFOID:0000000013569279

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0100	00	ESP C/U detected under voltage [Control unit (Electronic Stability Program control unit) has detected an undervoltage]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Power supply
				Threshold	If the power supply reaches a voltage value e.g. above 9.6 V for a defined time, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	1000 ms

POSSIBLE CAUSE

- Fuse is malfunction.
- Power supply line has an interruption.
- Connection of the ground line (body) or the contact points (connectors) are corroded (voltage drop).
- Battery discharged or insufficient load capacity.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0100” detected?

YES >> Proceed to BRC-197, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569280

1.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT

Check electronic stability program control unit power supply and ground circuit. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace error-detected parts.

C0105 POWER SUPPLY CIRCUIT

DTC Description

INFOID:0000000013569281

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0105	00	ESP C/U detected under voltage [Control unit (Electronic Stability Program control unit) has detected an undervoltage]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Power supply
				Threshold	If the power supply reaches a voltage value e.g. U below 6.9 V for a defined time, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	1000 ms

POSSIBLE CAUSE

- Fuse is malfunction.
- Power supply line has an interruption.
- Connection of the ground line (body) or the contact points (connectors) are corroded (voltage drop).
- Battery discharged or insufficient load capacity.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0105” detected?

YES >> Proceed to BRC-198, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569282

1.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT

Check electronic stability program control unit power supply and ground circuit. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace error-detected parts.

C0106 VALVE RELAY/VALVE

DTC Description

INFOID:0000000013569283

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0106	00	Voltage supply of valve is malfunction [The voltage supply of the valves is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 30 km/h (19 MPH) or more for 20 seconds or more
				Signal (terminal)	—
				Threshold	If the power supply is not sufficiently available due to a high transition resistance (contacts or leads) or the power supply line has an interrupt, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Protection of voltage supply malfunction.
- The power supply line has a open circuit.
- Connection of the ground (body) or the contact points (plug connections) are corroded (voltage drop).
- Battery unload or loading capacity is too low.
- Hardware error in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
2. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
3. Drive the vehicle at 30 km/h (19 MPH) or more for 20 seconds or more.
4. Stop the vehicle.
5. Perform self-diagnosis for “ABS”.

Is DTC “C0106” detected?

YES >> Proceed to BRC-199, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569284

1.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT

Check electronic stability program control unit power supply and ground circuit. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace error-detected parts.

C0111 POWER SUPPLY CIRCUIT

DTC Description

INFOID:0000000013569285

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0111	00	ESP C/U detected under voltage [Control unit (Electronic Stability Program control unit) has detected an undervoltage]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Power supply
				Threshold	If the power supply reaches a value below a defined voltage value for a defined time, an error is set. The under voltage value can be set in a voltage range of 7.5 V to 9.5 V. The error is set if the error detection time is exceeded.
				Diagnosis delay time	67 ms

POSSIBLE CAUSE

- Protection of voltage supply malfunction.
- The power supply line has a open circuit.
- Connection of the ground (body) or the contact points (plug connections) are corroded (voltage drop).
- Battery unload or loading capacity is too low.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 30 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
4. Perform self-diagnosis for “ABS”.

Is DTC “C0111” detected?

YES >> Proceed to BRC-201, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569286

1.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT

Check electronic stability program control unit power supply and ground circuit. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace error-detected parts.

C0112 POWER SUPPLY CIRCUIT

DTC Description

INFOID:0000000013569287

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0112	00	ESP C/U detected over voltage [Control unit (Electronic Stability Program control unit) has detected an overvoltage]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Power supply
				Threshold	If the power supply reaches a value above a defined voltage value for a defined time, an error is set. The over voltage value can be set in a voltage range of 17 V to 19 V. The error is set if the error detection time is exceeded.
				Diagnosis delay time	67 ms

POSSIBLE CAUSE

- Vehicle electrical system has an over voltage (e.g. generator, regulator is malfunction) or external voltage is applied to the vehicle electrical system induces (e.g. voltage-to end, inverter etc.).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0112” detected?

YES >> Proceed to BRC-202, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569288

1.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT

NOTE:

- This DTC indicates an overvoltage of power supply. When this DTC is detected, regulator and alternator must be checked.
- If there is no customer complaint, the DTC can be erased.
- If jump start is performed with excessive voltage battery, this DTC may be detected.

Check electronic stability program control unit power supply and ground circuit. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace error-detected parts.

C0114 CONTROL UNIT

DTC Description

INFOID:0000000013569289

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0114	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction [CAN Controller (RAM) is malfunction]. An error is set immediately during the initialization and during ongoing operation. The error is set if the error detection time is exceeded.
				Diagnosis delay time	10 ms

POSSIBLE CAUSE

- Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 30 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0114” detected?

YES >> Proceed to BRC-204, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569290

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0116 CONTROL UNIT

DTC Description

INFOID:0000000013569291

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0116	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction [Communications time out error (access on CAN controller is malfunction)]. An error is set immediately during the initialization and during ongoing operation. The error is set if the error detection time is exceeded.
				Diagnosis delay time	10 ms

POSSIBLE CAUSE

- Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 30 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0116” detected?

YES >> Proceed to BRC-205, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569292

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0117 CONTROL UNIT

DTC Description

INFOID:0000000013569293

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0117	00	Reprogram ESP control unit [Reprogram Control unit (Electronic Stability Program control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Human machine interface: If the display is invalid [Command not found (invalid status)], an error is set.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 30 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0117” detected?

YES >> Proceed to BRC-206, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569294

1.PERFORM CONFIGURATION

With CONSULT

Perform configuration. Refer to BRC-85, "Description"

>> GO TO 2.

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Turn the ignition switch OFF.
   NOTE:

Wait at least 10 seconds after turning ignition switch OFF.
2. Turn the ignition switch ON.
NOTE:
Wait at least 10 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0117” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".
NO >> INSPECTION END

C0120 POWER SUPPLY CIRCUIT

DTC Description

INFOID:0000000013569295

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0120	00	ESP C/U detected over voltage [Control unit (Electronic Stability Program control unit) has detected an overvoltage]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Power supply
				Threshold	If the power supply reaches a voltage value e.g. U above 16.5 V for a defined time, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	1000 ms

POSSIBLE CAUSE

- Vehicle electrical system has an over voltage (e.g. generator, regulator is malfunction) or external voltage is applied to the vehicle electrical system induces (e.g. voltage-to end, inverter etc.).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0120” detected?

YES >> Proceed to BRC-208, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569296

1.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT

NOTE:

- This DTC indicates an overvoltage of power supply. When this DTC is detected, regulator and alternator must be checked.
- If there is no customer complaint, the DTC can be erased.
- If jump start is performed with excessive voltage battery, this DTC may be detected.

Check electronic stability program control unit power supply and ground circuit. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace error-detected parts.

C0130 PRESSURE SENSOR (FRONT LEFT)

DTC Description

INFOID:0000000013569297

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0130	00	FL pressure sensor [Component (Left front pressure sensor) has an internal malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Pressure sensor front left: If the output voltage of the pressure sensor is outside the valid range, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Pressure sensor supply signal (contact poor in the electronic stability program control unit) has transition resistance (oxidation).
- Pressure sensor is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0130” detected?

YES >> Proceed to BRC-210, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569298

1.CHECK THE ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY

Check the electronic stability program control unit power supply. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace power supply circuit.

2.PERFORM SELF-DIAGNOSIS

With CONSULT
1. Erase self-diagnosis result for “ABS”.
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
4. Perform self-diagnosis for “ABS”.

Is DTC “C0130” detected?

YES >> Replace the traction system hydraulic unit. Refer to BRC-972, "Removal and Installation".
NO >> INSPECTION END

C0131 PRESSURE SENSOR (FRONT LEFT)

DTC Description

INFOID:0000000013569299

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0131	00	FL pressure sensor [Component (Left front pressure sensor) has an internal malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle (straight) at 20 km/h (13 MPH) or more for 40 seconds or more
				Signal (terminal)	—
				Threshold	Pressure sensor front left: If the offset value from the pressure sensor is beyond the valid range from ±1,000 kPa (10 bar, 10.2 kg/cm^2, 145 psi).
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Pressure sensor (zero positioning) is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle (straight) at 20 km/h (13 MPH) or more for 40 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0131” detected?

YES >> Proceed to BRC-212, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569300

1.CHECK THE ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY

Check the electronic stability program control unit power supply. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace power supply circuit.

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Erase self-diagnosis result for “ABS”.
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
4. Drive the vehicle (straight) at 20 km/h (13 MPH) or more for 40 seconds or more.
5. Stop the vehicle.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0131” detected?

YES >> Replace the traction system hydraulic unit. Refer to BRC-972, "Removal and Installation".
NO >> INSPECTION END

C0133 PRESSURE SENSOR (FRONT LEFT)

DTC Description

INFOID:0000000013569301

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0133	00	FL pressure sensor [Component (Left front pressure sensor) has an internal malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at between 10 km/h (7 MPH) and 15 km/h (10 MPH) for 2 minutes or more
				Signal (terminal)	—
				Threshold	Pressure sensor front left: If the value after the test pulse comparison of the pressure sensor is by more than ±10 % different compared to the stored value in the EEPROM.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Pressure sensor cables (contact poor in the electronic stability program control unit) has transition resistance (oxidation).
- Pressure sensor is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at between 10 km/h (7 MPH) and 15 km/h (10 MPH) for 2 minutes or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0133” detected?

YES >> Proceed to BRC-214, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569302

1.CHECK THE ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY

Check the electronic stability program control unit power supply. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace power supply circuit.

2.PERFORM SELF-DIAGNOSIS

With CONSULT
1. Erase self-diagnosis result for “ABS”.
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
4. Drive the vehicle at between 10 km/h (7 MPH) and 15 km/h (10 MPH) for 2 minutes or more.
5. Stop the vehicle.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0133” detected?

YES >> Replace the traction system hydraulic unit. Refer to BRC-972, "Removal and Installation".
NO >> INSPECTION END

C0134 CONTROL UNIT

DTC Description

INFOID:0000000013569303

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0134	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Self-test error at the pressure sensor front left pin). An error is set immediately during the initialization and during ongoing operation. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0134” detected?

YES >> Proceed to BRC-216, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569304

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0140 PRESSURE SENSOR (FRONT RIGHT)

DTC Description

INFOID:0000000013569305

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0140	00	FR pressure sensor [Component (Right front pressure sensor) has an internal malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more
				Signal (terminal)	—
				Threshold	If the offset value from the pressure sensor front right is beyond the valid range from ±1,000 kPa (10 bar, 102 kg/cm^2, 145 psi), an error is set immediately.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Pressure sensor (zero positioning) is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 60 km/h (38 MPH) or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0140” detected?

YES >> Proceed to BRC-217, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569306

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0142 PRESSURE SENSOR (FRONT RIGHT)

DTC Description

INFOID:0000000013569307

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0142	00	FR pressure sensor [Component (Right front pressure sensor) has an internal malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at between 10 km/h (7 MPH) and 15 km/h (10 MPH) for 2 minutes or more
				Signal (terminal)	—
				Threshold	If the value after the test pulse comparison of the pressure sensor front right is by more than ±10 % different compared to the stored value in the EEPROM.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Pressure sensor cables (contact poor in the electronic stability program control unit) has transition resistance (oxidation).
- Pressure sensor is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at between 10 km/h (7 MPH) and 15 km/h (10 MPH) for 2 minutes or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0142” detected?

YES >> Proceed to BRC-218, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569308

1.CHECK THE ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY

Check the electronic stability program control unit power supply. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace power supply circuit.

2.PERFORM SELF-DIAGNOSIS

With CONSULT
1. Erase self-diagnosis result for “ABS”.
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
4. Drive the vehicle at between 10 km/h (7 MPH) and 15 km/h (10 MPH) for 2 minutes or more.
5. Stop the vehicle.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0142” detected?

YES >> Replace the traction system hydraulic unit. Refer to BRC-972, "Removal and Installation".
NO >> INSPECTION END

C0143 PRESSURE SENSOR (FRONT RIGHT)

DTC Description

INFOID:0000000013569309

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0143	00	FR pressure sensor [Component (Right front pressure sensor) has an internal malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the output voltage of the pressure sensor front right is outside the valid range, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Pressure sensor supply signal (contact poor in the electronic stability program control unit) has transition resistance (oxidation).
- Pressure sensor is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0143” detected?

YES >> Proceed to BRC-220, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569310

1.CHECK THE ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY

Check the electronic stability program control unit power supply. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace power supply circuit.

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Erase self-diagnosis result for “ABS”.
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
4. Perform self-diagnosis for “ABS”.

Is DTC “C0143” detected?

YES >> Replace the traction system hydraulic unit. Refer to BRC-972, "Removal and Installation".
NO >> INSPECTION END

C0144 CONTROL UNIT

DTC Description

INFOID:0000000013569311

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0144	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Self-test error at the pressure sensor front left pin). An error is set immediately during the initialization and during ongoing operation. The error is set if the error detection time is exceeded
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0144” detected?

YES >> Proceed to BRC-222, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569312

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0150 PRESSURE SENSOR (MASTER CYLINDER)

DTC Description

INFOID:0000000013569313

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0150	00	Front pressure sensor [Component (Front axle brake pressure sensor) has an internal malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the output voltage of the pressure sensor master cylinder MC1 is outside the valid range, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Pressure sensor supply signal (contact poor in the electronic stability program control unit) has transition resistance (oxidation).
- Pressure sensor is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0150” detected?

YES >> Proceed to BRC-223, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569314

1.CHECK THE ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY

Check the electronic stability program control unit power supply. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace power supply circuit.

2.PERFORM SELF-DIAGNOSIS

With CONSULT
1. Erase self-diagnosis result for “ABS”.
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
4. Perform self-diagnosis for “ABS”.

Is DTC “C0150” detected?

YES >> Replace the traction system hydraulic unit. Refer to BRC-972, "Removal and Installation".
NO >> INSPECTION END

C0151 PRESSURE SENSOR (MASTER CYLINDER)

DTC Description

INFOID:0000000013569315

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0151	00	Front pressure sensor [Component (Front axle brake pressure sensor) has an internal malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more
				Signal (terminal)	—
				Threshold	If the offset value from the pressure sensor master cylinder MC1 is beyond the valid range from ±1,000 kPa (10 bar, 10.2 kg/cm^2, 145 psi), an error is set immediately.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Pressure sensor (zero positioning) is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 60 km/h (38 MPH) or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0151” detected?

YES >> Proceed to BRC-225, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569316

1.CHECK THE ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY

Check the electronic stability program control unit power supply. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace power supply circuit.

2.PERFORM SELF-DIAGNOSIS

With CONSULT
1. Erase self-diagnosis result for “ABS”.
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
4. Drive the vehicle at 60 km/h (38 MPH) or more.
5. Stop the vehicle.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0151” detected?

YES >> Replace the traction system hydraulic unit. Refer to BRC-972, "Removal and Installation".
NO >> INSPECTION END

C0152 PRESSURE SENSOR (MASTER CYLINDER)

DTC Description

INFOID:0000000013569317

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0152	00	Front pressure sensor [Component (Front axle brake pressure sensor) has an internal malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at between 10 km/h (7 MPH) and 15 km/h (10 MPH) for 2 minutes or more
				Signal (terminal)	—
				Threshold	If the value after the test pulse comparison of the pressure sensor master cylinder 1 is by more than ±10 % different compared to the stored value in the EEPROM.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Pressure sensor cables (contact poor in the electronic stability program control unit) has transition resistance (oxidation).
- Pressure sensor is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at between 10 km/h (7 MPH) and 15 km/h (10 MPH) for 2 minutes or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0152” detected?

YES >> Proceed to BRC-227, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569318

1.CHECK THE ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY

Check the electronic stability program control unit power supply. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace power supply circuit.

2.PERFORM SELF-DIAGNOSIS

With CONSULT
1. Erase self-diagnosis result for “ABS”.
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
4. Drive the vehicle at between 10 km/h (7 MPH) and 15 km/h (10 MPH) for 2 minutes or more.
5. Stop the vehicle.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0152” detected?

YES >> Replace the traction system hydraulic unit. Refer to BRC-972, "Removal and Installation".
NO >> INSPECTION END

C0160 PRESSURE SENSOR (REAR LEFT)

DTC Description

INFOID:0000000013569319

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0160	00	RL pressure sensor [Component (Left rear pressure sensor) has an internal malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the output voltage of the pressure sensor rear left is outside the valid range, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Pressure sensor supply signal (contact poor in the electronic stability program control unit) has transition resistance (oxidation).
- Pressure sensor is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0160” detected?

YES >> Proceed to BRC-229, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569320

1.CHECK THE ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY

Check the electronic stability program control unit power supply. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace power supply circuit.

2.PERFORM SELF-DIAGNOSIS

With CONSULT
1. Erase self-diagnosis result for “ABS”.
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
4. Perform self-diagnosis for “ABS”.

Is DTC “C0160” detected?

YES >> Replace the traction system hydraulic unit. Refer to BRC-972, "Removal and Installation".
NO >> INSPECTION END

C0161 PRESSURE SENSOR (REAR LEFT)

DTC Description

INFOID:0000000013569321

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0161	00	RL pressure sensor [Component (Left rear pressure sensor) has an internal malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more
				Signal (terminal)	—
				Threshold	If the offset value from the pressure sensor rear left is beyond the valid range from ±1,000 kPa (10 bar, 102 kg/cm^2, 145 psi), an error is set immediately.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Pressure sensor (zero positioning) is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 60 km/h (38 MPH) or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0161” detected?

YES >> Proceed to BRC-231, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569322

1.CHECK THE ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY

Check the electronic stability program control unit power supply. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace power supply circuit.

2.PERFORM SELF-DIAGNOSIS

With CONSULT
1. Erase self-diagnosis result for “ABS”.
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
4. Drive the vehicle at 60 km/h (38 MPH) or more.
5. Stop the vehicle.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0161” detected?

YES >> Replace the traction system hydraulic unit. Refer to BRC-972, "Removal and Installation".
NO >> INSPECTION END

C0163 PRESSURE SENSOR (REAR LEFT)

DTC Description

INFOID:0000000013569323

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0163	00	RL pressure sensor [Component (Left rear pressure sensor) has an internal malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at between 10 km/h (7 MPH) and 15 km/h (10 MPH) for 2 minutes or more
				Signal (terminal)	—
				Threshold	If the value after the test pulse comparison of the pressure sensor rear left is by more than ±10 % different compared to the stored value in the EEPROM.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Pressure sensor cables (contact poor in the electronic stability program control unit) has transition resistance (oxidation).
- Pressure sensor is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at between 10 km/h (7 MPH) and 15 km/h (10 MPH) for 2 minutes or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0163” detected?

YES >> Proceed to BRC-233, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569324

1.CHECK THE ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY

Check the electronic stability program control unit power supply. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace power supply circuit.

2.PERFORM SELF-DIAGNOSIS

With CONSULT
1. Erase self-diagnosis result for “ABS”.
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
4. Drive the vehicle at between 10 km/h (7 MPH) and 15 km/h (10 MPH) for 2 minutes or more.
5. Stop the vehicle.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0163” detected?

YES >> Replace the traction system hydraulic unit. Refer to BRC-972, "Removal and Installation".
NO >> INSPECTION END

C0164 CONTROL UNIT

DTC Description

INFOID:0000000013569325

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0164	00	RR pressure sensor [Component (Right rear pressure sensor) has an internal malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Self-test error at the pressure sensor front left pin). An error is set immediately during the initialization and during ongoing operation. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0164” detected?

YES >> Proceed to BRC-235, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569326

1.CHECK THE ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY

Check the electronic stability program control unit power supply. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace power supply circuit.

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Erase self-diagnosis result for “ABS”.

2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
4. Perform self-diagnosis for “ABS”.

Is DTC “C0164” detected?

YES >> Replace the traction system hydraulic unit. Refer to BRC-972, "Removal and Installation".
NO >> INSPECTION END

C0170 MAIN SHIFTER SHAFT POSITION SENSOR

DTC Description

INFOID:0000000013569327

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0170	00	Main shifter shaft position sensor [The signal line of component (Manual transmission main shifter shaft position sensor) has a short circuit to ground]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Reverse gear
				Threshold	The backward movement of the vehicle is determined by the reverse signal by comparing steering angle and yaw rate to each other, or the active axle rpm sensor (if available) are evaluated. When the vehicle moves back and a specific engine torque is available and the reverse signal is indicating that the reverse gear is permanently disabled, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Reverse switch conduit has an interruption or short circuit to ground or positive.
- Reverse switch is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 30 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
4. Perform self-diagnosis for “ABS”.

Is DTC “C0170” detected?

YES >> Proceed to BRC-237, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569328

1.CHECK “SELF-DIAGNOSTIC RESULT OF ECM

With CONSULT

Check “Self-diagnostic result” of “ENGINE”.

Is any DTC detected?

YES >> Perform trouble diagnosis for detected DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C0171 MAIN SHIFTER SHAFT POSITION SENSOR

DTC Description

INFOID:0000000013569329

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0171	00	Main shifter shaft position sensor [The signal line of component (Manual transmission main shifter shaft position sensor) has a short circuit to positive]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Reverse gear
				Threshold	When the vehicle speed (not depending on the vehicle motion) is above a specified threshold for a defined time and the reverse signal indicates that the reverse gear is permanently enabled, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Reverse switch conduit has an interruption or short circuit to ground or positive.
- Reverse switch is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 30 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
4. Perform self-diagnosis for “ABS”.

Is DTC “C0171” detected?

YES >> Proceed to BRC-238, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569330

1.CHECK “SELF-DIAGNOSTIC RESULT OF ECM

With CONSULT

Check “Self-diagnostic result” of “ENGINE”.

Is any DTC detected?

YES >> Perform trouble diagnosis for detected DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C0180 AXLE RPM SENSOR

DTC Description

INFOID:0000000013569331

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0180	00	Rpm sensor supply implausible value [One or more rpm sensors supply implausible values]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Axle rpm sensor
				Threshold	If the monitoring does not detect plausible conditions, a suspected error is set. If at least three suspected errors are set at the same time, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Axle rpm sensor cable has an interruption.
- Axle rpm sensor or multipole wheel loosely attached.
- Multipole wheel dirty or damaged (air gap too big) or end-magnetized (undetected N / S pole).
- Tire or rim not permitted.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 30 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0180” detected?

YES >> Proceed to BRC-239, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569332

1.CHECK COMPONENT

Check the following items:

- Wheels or tires for wear and size.
- Tire air pressure
- The rear axle gear ratio is correct.
- A multipole ring is dirty or damaged.

• Check multipole ring for tight seating, correct installation and mechanical damage.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace error-detected parts.

C0181 AXLE RPM SENSOR

DTC Description

INFOID:0000000013569333

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0181	00	Rpm sensor supply implausible value [One or more rpm sensors supply implausible values]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Axle rpm sensor
				Threshold	If not plausible high frequencies or slip values or dynamic signals or malfunction signals are detected then an error is set. If three to four errors (different wheels) are set, an error is set immediately.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Axle rpm sensor cable has an interruption.
- Axle rpm sensor or pulse wheel or multipole wheel loosely attached.
- Pulse wheel dirty or damaged (missing cog or air gap too big). Multipole wheel dirty or damaged (air gap too big) or end-magnetized (undetected N / S pole).
- Tire or rim not permitted.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 30 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0181” detected?

YES >> Proceed to BRC-241, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569334

1.CHECK COMPONENT

Check the following items:

- Wheels or tires for wear and size.
- Tire air pressure
- The rear axle gear ratio is correct.

- A multipole ring is dirty or damaged.
- Check multipole ring for tight seating, correct installation and mechanical damage.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace error-detected parts.

C0185 AXLE RPM SENSOR

DTC Description

INFOID:0000000013569335

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0185	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the power supply of at least one axle rpm sensor has a short circuit to positive, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	3500 ms

POSSIBLE CAUSE

- Short circuit to positive.
- Hardware error in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0185” detected?

YES-1 >> Proceed to BRC-243, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569336

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0191 MOTOR RELAY

DTC Description

INFOID:0000000013569337

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0191	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction. The error is set during the startup phase. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 30 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0191” detected?

YES-1 >> Proceed to BRC-244, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569338

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0195 RETURN PUMP

DTC Description

INFOID:0000000013569339

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0195	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more
				Signal (terminal)	—
				Threshold	Return pump: If during status monitoring of the motor relay (voltage comparator) has a short circuit (pump motor is actuated) then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	60 ms

POSSIBLE CAUSE

- Hardware error in the electronic stability program control unit: Motor relay is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0195” detected?

YES-1 >> Proceed to BRC-245, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569340

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0196 RETURN PUMP

DTC Description

INFOID:0000000013569341

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0196	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more
				Signal (terminal)	—
				Threshold	If during status monitoring of the motor relay (voltage comparator) has a short circuit (pump motor is actuated) then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	60 ms

POSSIBLE CAUSE

- Hardware error in the electronic stability program control unit: Motor relay is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0196” detected?

YES-1 >> Proceed to BRC-246, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569342

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0197 RETURN PUMP

DTC Description

INFOID:0000000013569343

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0197	00	Hi press and return pump incomplete [Component (High-pressure and return flow pump) is malfunction or its power supply has an open circuit or short circuit]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the generated pump motor voltage is above a specified voltage value for a defined time (pump motor is not actuated) or the pump motor cables are interrupted or the motor relay has a short circuit, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	1000 ms

POSSIBLE CAUSE

- Hardware error in the electronic stability program control unit: Motor relay has a short circuit (alloyed).
- The power supply line or ground line has a short circuit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0197” detected?

YES >> Proceed to BRC-247, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569344

1.PERFORM ACTIVE TEST

With CONSULT

1. Turn the ignition switch ON.
2. Select “ABS”, “ACTIVE TEST”, “Check power supply of solenoid valves” in this order.
3. Touch “Start”
4. Check the voltage.

Voltage : 11 – 15.5 V

5. Touch “END”

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> GO TO 2.

2. CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY

Check the electronic stability program control unit power supply. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> Repair/replace harness, connector or fuse.

C0198 RETURN PUMP

DTC Description

INFOID:0000000013569345

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0198	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more
				Signal (terminal)	—
				Threshold	If during the pump motor test, the generated pump motor voltage is not sufficiently available (pump motor is actuated), an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Hardware error in the electronic stability program control unit: Analog/Digital converter is malfunction.
- Pump motor is blocked.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0198” detected?

YES >> Proceed to BRC-249, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569346

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C019C CONTROL UNIT

DTC Description

INFOID:0000000013569347

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C019C	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction. The error is set during the startup phase. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 30 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 30 seconds after start the engine.
6. Perform self-diagnosis for “ABS”.

Is DTC “C019C” detected?

YES >> Proceed to BRC-250, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569348

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C019D RETURN PUMP

DTC Description

INFOID:0000000013569349

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C019D	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Activation of the motor relay pull-up-switch (resistance) is not possible). The error is set during the startup phase. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 30 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 30 seconds after start the engine.
6. Perform self-diagnosis for “ABS”.

Is DTC “C019D” detected?

YES >> Proceed to BRC-251, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569350

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C019E RETURN PUMP

DTC Description

INFOID:0000000013569351

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C019E	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If during the gate test and the hydraulic shutdown test of the motor relay [motor relay is driven very often and short (pump motor is not actuated)] and then the hydraulic shut-off is activated and the microprocessor determines (voltage monitoring) that the motor relay remains activated (status: on), an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Hardware error in the electronic stability program control unit: Motor relay is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Perform self-diagnosis for “ABS”.

Is DTC “C019E” detected?

YES >> Proceed to BRC-252, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569352

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C019F RETURN PUMP

DTC Description

INFOID:0000000013569353

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C019F	00	Power supply system [The power supply of component (High-pressure and return flow pump) has an electrical malfunction or open circuit]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If during the gate test and the motor relay is actuated [motor relay is driven very often and short (pump motor is not actuated)] and the microprocessor determines (voltage monitoring) that the motor relay is not activated (status: OFF), an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Hardware error: Motor relay is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 30 seconds after turning ignition switch OFF.
3. Start the engine.
   NOTE:
   Wait at least 30 seconds after start the engine.
4. Perform self-diagnosis for “ABS”.

Is DTC “C019F” detected?

YES >> Proceed to BRC-253, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569354

1.PERFORM ACTIVE TEST

With CONSULT

1. Turn the ignition switch ON.
2. Select “ABS”, “ACTIVE TEST”, “Check power supply of solenoid valves” in this order.
3. Touch “Start”
4. Check the voltage.

Voltage : 11 – 15.5 V

5. Touch “END”

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> GO TO 2.

2. CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY

Check the electronic stability program control unit power supply. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> Repair/replace harness, connector or fuse.

C01A0 RETURN PUMP

DTC Description

INFOID:0000000013569355

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C01A0	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 30 km/h (19 MPH) or more for 20 seconds or more
				Signal (terminal)	—
				Threshold	If the measured voltage of the pump motor (RPM), the applied DC voltage at the motor is increased by about 1 V, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	480 ms

POSSIBLE CAUSE

- Hardware error in the electronic stability program control unit: Motor relay is malfunction (alloyed).
- Sample and Hold circuit is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 30 km/h (19 MPH) or more for 20 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C01A0” detected?

YES >> Proceed to BRC-255, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569356

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C01A1 RETURN PUMP

DTC Description

INFOID:0000000013569357

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C01A1	00	Hi press and return pump incomplete [Component (High-pressure and return flow pump) is malfunction or its power supply has an open circuit or short circuit]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 30 km/h (19 MPH) or more for 20 seconds or more
				Signal (terminal)	—
				Threshold	If the modeled voltage of the pump motor (RPM) is over 0.4 V and the measured one is below 0.4 V (pump motor is actuated), an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	480 ms

POSSIBLE CAUSE

- Hardware error in the traction system hydraulic unit: Pump motor is malfunction (mechanical jamming achor or worn brushes).
- The power supply line or ground line has a transition resistance.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 30 km/h (19 MPH) or more for 20 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C01A1” detected?

YES >> Proceed to BRC-256, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569358

1.PERFORM ACTIVE TEST

With CONSULT

1. Turn the ignition switch ON.
2. Select “ABS”, “ACTIVE TEST”, “Check power supply of solenoid valves” in this order.

3. Touch “Start”
4. Check the voltage.

Voltage : 11 – 15.5 V

5. Touch “END”

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".
NO >> GO TO 2.

2.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY

Check the electronic stability program control unit power supply. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".
NO >> Repair/replace harness, connector or fuse.

C01A2 RETURN PUMP

DTC Description

INFOID:0000000013569359

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C01A2	00	Power supply system [The power supply of component (High-pressure and return flow pump) has an electrical malfunction or open circuit]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If during the drain test of the motor relay, the power supply is under a specified voltage value for a defined time or the power supply line has an interruption, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	200 ms

POSSIBLE CAUSE

- Fuse is malfunction.
- Power supply line has an interruption.
- Connection of the ground line (body) or the contact points (connectors) are corroded (voltage drop).
- Battery discharged or insufficient load capacity.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 30 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 30 seconds after start the engine.
6. Perform self-diagnosis for “ABS”.

Is DTC “C01A2” detected?

YES >> Proceed to BRC-258, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569360

1.PERFORM ACTIVE TEST

With CONSULT

1. Turn the ignition switch ON.
2. Select “ABS”, “ACTIVE TEST”, “Check power supply of solenoid valves” in this order.
3. Touch “Start”
4. Check the voltage.

Voltage : 11 – 15.5 V

5. Touch “END”

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> GO TO 2.

2. CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY

Check the electronic stability program control unit power supply. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> Repair/replace harness, connector or fuse.

C01A3 RETURN PUMP

DTC Description

INFOID:0000000013569361

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C01A3	00	Hi press and return pump incomplete [Component (High-pressure and return flow pump) is malfunction or its power supply has an open circuit or short circuit]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the power supply is below a specified voltage value for a defined time (voltage supply has an under voltage) will set an error. The error is set if the error detection time is exceeded.
				Diagnosis delay time	10 ms

POSSIBLE CAUSE

- Connection of the ground line (body) or the contact points (connectors) are corroded (voltage drop).
- Battery discharged or insufficient load capacity.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 30 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
4. Perform self-diagnosis for “ABS”.

Is DTC “C01A3” detected?

YES >> Proceed to BRC-260, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569362

1.PERFORM ACTIVE TEST

With CONSULT

1. Turn the ignition switch ON.
2. Select “ABS”, “ACTIVE TEST”, “Check power supply of solenoid valves” in this order.
3. Touch “Start”
4. Check the voltage.

Voltage : 11 – 15.5 V

5. Touch “END”

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> GO TO 2.

2.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY

Check the electronic stability program control unit power supply. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> Repair/replace harness, connector or fuse.

C01A4 RETURN PUMP

DTC Description

INFOID:0000000013569363

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C01A4	00	Hi press and return pump incomplete [Component (High-pressure and return flow pump) is malfunction or its power supply has an open circuit or short circuit]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the measured motor voltages during the zero positioning calibration are beyond the valid range (return pump calibration not successful), an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Measured motor voltages during the zero location calibration beyond the valid range (return pump calibration not successful).
- Hardware error: Electric motor path is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Turn the ignition switch OFF.
   NOTE:
   Wait at least 30 seconds after turning ignition switch OFF.
2. Start the engine.
   NOTE:
   Wait at least 30 seconds after start the engine.
3. Perform self-diagnosis for “ABS”.

Is DTC “C01A4” detected?

YES >> Proceed to BRC-262, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569364

1.PERFORM ACTIVE TEST

With CONSULT

1. Turn the ignition switch ON.
2. Select “ABS”, “ACTIVE TEST”, “Check power supply of solenoid valves” in this order.
3. Touch “Start”
4. Check the voltage.

Voltage : 11 – 15.5 V

5. Touch “END”

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> GO TO 2.

2.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY

Check the electronic stability program control unit power supply. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> Repair/replace harness, connector or fuse.

C01A5 RETURN PUMP

DTC Description

INFOID:0000000013569365

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C01A5	00	Hi press and return pump incomplete [Component (High-pressure and return flow pump) is malfunction or its power supply has an open circuit or short circuit]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the measured motor voltages during the engine test path are beyond the valid range (return pump engine test is not successful), an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Measured motor voltages during the zero location calibration beyond the valid range (return pump calibration not successful).
- Hardware error: Electric motor path is malfunction (motor interruption, motor free wheeling diode, motor relay is malfunction).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Turn the ignition switch OFF.
   NOTE:
   Wait at least 30 seconds after turning ignition switch OFF.
2. Start the engine.
   NOTE:
   Wait at least 30 seconds after start the engine.
3. Perform self-diagnosis for “ABS”.

Is DTC “C01A5” detected?

YES >> Proceed to BRC-264, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569366

1.PERFORM ACTIVE TEST

With CONSULT

1. Turn the ignition switch ON.
2. Select “ABS”, “ACTIVE TEST”, “Check power supply of solenoid valves” in this order.
3. Touch “Start”
4. Check the voltage.

Voltage : 11 – 15.5 V

5. Touch “END”

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> GO TO 2.

2. CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY

Check the electronic stability program control unit power supply. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> Repair/replace harness, connector or fuse.

C01A6 RETURN PUMP

DTC Description

INFOID:0000000013569367

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C01A6	00	Hi press and return pump incomplete [Component (High-pressure and return flow pump) is malfunction or its power supply has an open circuit or short circuit]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the voltage comparison test between the analog and digital power supply is malfunction, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Hardware error: Analog / Digital converter or return pump is malfunction

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Turn the ignition switch OFF.
   NOTE:
   Wait at least 30 seconds after turning ignition switch OFF.
2. Start the engine.
   NOTE:
   Wait at least 30 seconds after start the engine.
3. Perform self-diagnosis for “ABS”.

Is DTC “C01A6” detected?

YES >> Proceed to BRC-266, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569368

1.PERFORM ACTIVE TEST

With CONSULT

1. Turn the ignition switch ON.
2. Select “ABS”, “ACTIVE TEST”, “Check power supply of solenoid valves” in this order.
3. Touch “Start”
4. Check the voltage.

Voltage : 11 – 15.5 V

5. Touch “END”

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> GO TO 2.

2. CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY

Check the electronic stability program control unit power supply. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> Repair/replace harness, connector or fuse.

C01A7 RETURN PUMP

DTC Description

INFOID:0000000013569369

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C01A7	00	Hi press and return pump incomplete [Component (High-pressure and return flow pump) is malfunction or its power supply has an open circuit or short circuit]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (19 MPH) or more
				Signal (terminal)	—
				Threshold	If the voltage comparison between the analog and digital motor voltage is beyond the valid range (pump motor is actuated), an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	40 ms

POSSIBLE CAUSE

- Hardware error: Analog / Digital converter or return pump is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
2. Drive the vehicle at 60 km/h (19 MPH) or more.
3. Stop the vehicle.
4. Perform self-diagnosis for “ABS”.

Is DTC “C01A7” detected?

YES >> Proceed to BRC-268, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569370

1.PERFORM ACTIVE TEST

With CONSULT

1. Turn the ignition switch ON.
2. Select “ABS”, “ACTIVE TEST”, “Check power supply of solenoid valves” in this order.
3. Touch “Start”
4. Check the voltage.

Voltage : 11 – 15.5 V

5. Touch “END”

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> GO TO 2.

2. CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY

Check the electronic stability program control unit power supply. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> Repair/replace harness, connector or fuse.

C01A8 RETURN PUMP

DTC Description

INFOID:0000000013569371

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C01A8	00	Reprogram ESP control unit [Reprogram Control unit (Electronic Stability Program control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (EEPROM contents incorrect or data can not be read). An error is set immediately during the startup phase and during ongoing operation.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software error: Software version from return pumps ASIC is not supported.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C01A8” detected?

YES >> Proceed to BRC-270, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569372

1.PERFORM CONFIGURATION

With CONSULT

Perform configuration. Refer to BRC-85, "Description"

>> GO TO 2.

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C01A8” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C01A9 MOTOR RELAY

DTC Description

INFOID:0000000013569373

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C01A9	00	Power supply system [The power supply of component (High-pressure and return flow pump) has an electrical malfunction or open circuit]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the power supply reaches a voltage value below 2.6 V for a defined time or the power supply line has an interruption, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Fuse is malfunction.
- Power supply line has an interruption.
- Connection of the ground line (body) or the contact points (connectors) are corroded (voltage drop).
- Battery discharged or insufficient load capacity.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C01A9” detected?

YES >> Proceed to BRC-272, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569374

1.PERFORM ACTIVE TEST

With CONSULT

1. Turn the ignition switch ON.
2. Select “ABS”, “ACTIVE TEST”, “Check power supply of solenoid valves” in this order.
3. Touch “Start”
4. Check the voltage.

Voltage : 11 – 15.5 V

5. Touch “END”

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> GO TO 2.

2. CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY

Check the electronic stability program control unit power supply. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> Repair/replace harness, connector or fuse.

C01AA RETURN PUMP

DTC Description

INFOID:0000000013569375

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C01AA	00	Hi press and return pump incomplete [Component (High-pressure and return flow pump) is malfunction or its power supply has an open circuit or short circuit]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more
				Signal (terminal)	—
				Threshold	If the power supply is below a specified voltage value for a defined time (voltage supply compared with power supply) or the power supply cable has an increased contact resistance (pump motor is actuated), an error is set. The error is set if the error detection time is exceeded
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Protection of voltage supply malfunction. The power supply line has a open circuit. Connection of the ground (body) or the contact points (plug connections) are corroded (voltage drop).
- Battery unload or loading capacity is too low.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
2. Drive the vehicle at 60 km/h (38 MPH) or more.
3. Stop the vehicle.
4. Perform self-diagnosis for “ABS”.

Is DTC “C01AA” detected?

YES >> Proceed to BRC-274, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569376

1.PERFORM ACTIVE TEST

With CONSULT

1. Turn the ignition switch ON.
2. Select “ABS”, “ACTIVE TEST”, “Check power supply of solenoid valves” in this order.
3. Touch “Start”
4. Check the voltage.

Voltage : 11 – 15.5 V

5. Touch “END”

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> GO TO 2.

2. CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY

Check the electronic stability program control unit power supply. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> Repair/replace harness, connector or fuse.

C01AB RETURN PUMP

DTC Description

INFOID:0000000013569377

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C01AB	00	Hi press and return pump incomplete [Component (High-pressure and return flow pump) is malfunction or its power supply has an open circuit or short circuit]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 30 km/h (19 MPH) or more for 20 seconds or more
				Signal (terminal)	—
				Threshold	If the power supply of the signal processing controller (sigma delta modulator) is below a specified voltage value for a defined time (under voltage), while the return pump calibration or the motor path test is not successful then an error is set. The error is set if the error detection time is exceeded
				Diagnosis delay time	0

POSSIBLE CAUSE

- Connection of the ground line (body) or the contact points (connectors) are corroded (voltage drop).
- Battery discharged or insufficient load capacity.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
2. Drive the vehicle at 30 km/h (19 MPH) or more for 20 seconds or more.
3. Stop the vehicle.
4. Perform self-diagnosis for “ABS”.

Is DTC “C01AB” detected?

YES >> Proceed to BRC-276, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569378

1.PERFORM ACTIVE TEST

With CONSULT

1. Turn the ignition switch ON.
2. Select “ABS”, “ACTIVE TEST”, “Check power supply of solenoid valves” in this order.
3. Touch “Start”
4. Check the voltage.

Voltage : 11 – 15.5 V

5. Touch “END”

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> GO TO 2.

2. CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY

Check the electronic stability program control unit power supply. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> Repair/replace harness, connector or fuse.

C01C0 BRAKE VACUUM SENSOR

DTC Description

INFOID:0000000013569379

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C01C0	00	Brake vacuum sensor [Component (Brake vacuum sensor) has detected an undervoltage]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Brake vacuum sensor
				Threshold	If the power supply reaches a voltage value e.g. U below 7.6V for a defined time and the power supply of the vacuum sensor has a voltage value U below 4.81V, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	120 ms

POSSIBLE CAUSE

- Power supply line has an interruption.
- Connection of the ground line (body) or the contact points (plug connections) are corroded (voltage drop).
- Battery discharged or insufficient load capacity.
- Hardware error in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
4. Perform self-diagnosis for “ABS”.

Is DTC “C01C0” detected?

YES >> Proceed to BRC-278, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569380

1.PERFORM ACTIVE TEST

With CONSULT

1. Check that the battery is charged enough.
2. Turn the ignition switch ON.
3. On CONSULT screen, select “ABS” >> “ACTIVE TEST” >> “Check power supply of high press and return flow pump”.
4. Perform the test by following the constructions on the CONSULT display.
5. Check that the value of monitor item “Supply voltage of return pump” is between 11 V and 15.5 V.

NOTE:
The maximum actuation duration is 5 seconds. The actuation is then ended automatically.

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 2.

2. CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY AND GROUND

Check the electronic stability program control unit power supply and ground circuit. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace error-detected parts.

C01C1 BRAKE VACUUM SENSOR

DTC Description

INFOID:0000000013569381

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C01C1	00	Brake vacuum sensor power supply [The power supply of component (Brake vacuum sensor) has an electrical malfunction or open circuit]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Brake vacuum sensor
				Threshold	If the power supply of the brake vacuum sensor has an short circuit to ground or positive, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	120 ms

POSSIBLE CAUSE

- Power supply of the brake vacuum sensor has a short circuit to ground or positive.
- Hardware error in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
4. Perform self-diagnosis for “ABS”.

Is DTC “C01C1” detected?

YES >> Proceed to BRC-280, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569382

1.COMPONENT FUNCTION CHECK

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR” >> “VACUUM SENSOR”.
3. Check that the actual value “VACUUM SENSOR” changes when the brake pedal is operated.

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 2.

2.CHECK BRAKE VACUUM SENSOR POWER SUPPLY

1. Turn ignition switch OFF.
2. Disconnect brake vacuum sensor harness connector.
3. Turn ignition switch ON.
4. Check the voltage between brake vacuum sensor harness connector and ground.

+		-	Voltage
Brake vacuum sensor			
Connector	Terminal		
E110	3	Ground	4.75 – 5.25 V

Is the inspection result normal?

YES >> GO TO 5.
NO >> GO TO 3.

3. CHECK BRAKE VACUUM SENSOR POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector.
3. Check the continuity between electronic stability program control unit harness connector and brake vacuum sensor harness connector.

+		-		Continuity
Electronic stability program control unit		Brake vacuum sensor		
Connector	Terminal	Connector	Terminal	
E46	5	E110	3	Existed

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace error-detected parts.

4. CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT

Check electronic stability program control unit power supply and ground circuit. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace error-detected parts.

5. CHECK BRAKE VACUUM SENSOR CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector.
3. Check the continuity between electronic stability program control unit harness connector and brake vacuum sensor harness connector.

+		-		Continuity
Electronic stability program control unit		Brake vacuum sensor		
Connector	Terminal	Connector	Terminal	
E46	12	E110	1	Existed
	23		2	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> Replace brake vacuum sensor. Refer to BR-29, "Exploded View".
NO >> Repair or replace error-detected parts.

C01C2 BRAKE VACUUM SENSOR

DTC Description

INFOID:0000000013569383

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C01C2	00	Brake vacuum sensor [The power supply or the signal line of component (Brake vacuum sensor) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Brake vacuum sensor
				Threshold	If the signal line has an interruption or a short circuit to ground or to the power supple of the brake vacuum sensor or The error is set if the error detection time is exceeded.
				Diagnosis delay time	200 ms

POSSIBLE CAUSE

- Signal line has an interruption or has an short circuit to ground or to the power supply of the brake vacuum sensor.
- Power supply line has an interruption.
- Hardware error in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
4. Perform self-diagnosis for “ABS”.

Is DTC “C01C2” detected?

YES >> Proceed to BRC-282, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569384

1.COMPONENT FUNCTION CHECK

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR” >> “VACUUM SENSOR”.
3. Check that the actual value “VACUUM SENSOR” changes when the brake pedal is operated.

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 2.

2.CHECK BRAKE VACUUM SENSOR POWER SUPPLY

1. Turn ignition switch OFF.
2. Disconnect brake vacuum sensor harness connector.
3. Turn ignition switch ON.
4. Check the voltage between brake vacuum sensor harness connector and ground.

+		-	Voltage
Brake vacuum sensor			
Connector	Terminal		
E110	3	Ground	4.75 – 5.25 V

Is the inspection result normal?

YES >> GO TO 5.
NO >> GO TO 3.

3.CHECK BRAKE VACUUM SENSOR POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector.
3. Check the continuity between electronic stability program control unit harness connector and brake vacuum sensor harness connector.

+		-		Continuity
Electronic stability program control unit		Brake vacuum sensor		
Connector	Terminal	Connector	Terminal	
E46	5	E110	3	Existed

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace error-detected parts.

4.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT

Check electronic stability program control unit power supply and ground circuit. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace error-detected parts.

5.CHECK BRAKE VACUUM SENSOR CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector.
3. Check the continuity between electronic stability program control unit harness connector and brake vacuum sensor harness connector.

+		-		Continuity
Electronic stability program control unit		Brake vacuum sensor		
Connector	Terminal	Connector	Terminal	
E46	12	E110	1	Existed
	23		2	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> Replace brake vacuum sensor. Refer to BR-29, "Exploded View".
NO >> Repair or replace error-detected parts.

C01C3 BRAKE VACUUM SENSOR

DTC Description

INFOID:0000000013569385

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C01C3	00	Brake vacuum sensor [Component (Brake vacuum sensor) is transmitting a malfunction signal]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Brake vacuum sensor
				Threshold	If the vacuum value during a braking operation does not correspond to the inlet pressure (vacuum sensor signal not plausible), an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Brake vacuum sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Press the brake pedal with the inlet pressure 80 bar or more.
   NOTE:
   Do not press again.
7. Perform self-diagnosis for “ABS”.

Is DTC “C01C3” detected?

YES >> Proceed to BRC-285, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569386

1.COMPONENT FUNCTION CHECK

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR” >> “VACUUM SENSOR”.
3. Check that the actual value “VACUUM SENSOR” changes when the brake pedal is operated.

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 2.

2.CHECK BRAKE VACUUM SENSOR POWER SUPPLY

1. Turn ignition switch OFF.
2. Disconnect brake vacuum sensor harness connector.
3. Turn ignition switch ON.
4. Check the voltage between brake vacuum sensor harness connector and ground.

+		-	Voltage
Brake vacuum sensor			
Connector	Terminal		
E110	3	Ground	4.75 – 5.25 V

Is the inspection result normal?

YES >> GO TO 5.
NO >> GO TO 3.

3.CHECK BRAKE VACUUM SENSOR POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector.
3. Check the continuity between electronic stability program control unit harness connector and brake vacuum sensor harness connector.

+		-		Continuity
Electronic stability program control unit		Brake vacuum sensor		
Connector	Terminal	Connector	Terminal	
E46	5	E110	3	Existed

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace error-detected parts.

4.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT

Check electronic stability program control unit power supply and ground circuit. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace error-detected parts.

5.CHECK BRAKE VACUUM SENSOR CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector.
3. Check the continuity between electronic stability program control unit harness connector and brake vacuum sensor harness connector.

+		-		Continuity
Electronic stability program control unit		Brake vacuum sensor		
Connector	Terminal	Connector	Terminal	
E46	12	E110	1	Existed
	23		2	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> Replace brake vacuum sensor. Refer to BR-29, "Exploded View".
NO >> Repair or replace error-detected parts.

C01C4 BRAKE VACUUM SENSOR

DTC Description

INFOID:0000000013569387

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C01C4	00	Vacuum system is not leaktight [The vacuum system is not leaktight]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Brake vacuum sensor
				Threshold	If the brake vacuum sensor detects a too low vacuum (vacuum threshold exceeded) and the hydraulic power gain error compensation is not enabled, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Brake booster or connecting parts installation is malfunction (incorrect attached).
- Brake booster or booster connection hose damaged.
- Brake booster malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 30 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C01C4” detected?

YES >> Proceed to BRC-288, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569388

1.CHECK VACUUM SYSTEM

1. Visually check the vacuum hoses and piping for clogging, cracks or improper connection.
2. Perform vacuum test on brake booster. Refer to BR-13, "Inspection".

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace error-detected parts.

C01C5 BRAKE VACUUM SENSOR

DTC Description

INFOID:0000000013569389

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C01C5	00	Vacuum system is not leaktight [The vacuum system is not leaktight]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Brake vacuum sensor
				Threshold	If the brake vacuum sensor detects a too low vacuum (vacuum threshold exceeded), an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Brake booster or connecting parts installation is malfunction (incorrect attached).
- Brake booster or booster connection hose damaged.
- Brake booster malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 30 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C01C5” detected?

YES >> Proceed to BRC-289, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569390

1.CHECK VACUUM SYSTEM

1. Visually check the vacuum hoses and piping for clogging, cracks or improper connection.
2. Perform vacuum test on brake booster. Refer to BR-13, "Inspection".

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace error-detected parts.

C01C6 CONTROL UNIT

DTC Description

INFOID:0000000013569391

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C01C6	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Self-test error at the vacuum sensor (front chamber) pin or at the power supply 5 V pin. An error is set immediately during the initialization and during ongoing operation. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch N.
6. Perform self-diagnosis for “ABS”.

Is DTC “C01C6” detected?

YES-1 >> Proceed to BRC-290, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569392

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C01D0 VALVE RELAY

DTC Description

INFOID:0000000013569393

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C01D0	00	Voltage supply of valve is malfunction [The voltage supply of the valves is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the valve voltage during the monitoring (voltage comparison between the valve voltage and the power supply) or the output value from the valve driver has a short circuit to ground, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	40 ms

POSSIBLE CAUSE

- Fuse blown.
- Hardware error in the electronic stability program control unit: Valve relay malfunction (Circuit malfunction).
- Valve driver malfunction.
- Short circuit of the valve voltage to ground.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Perform self-diagnosis for “ABS”.

Is DTC “C01D0” detected?

YES >> Proceed to BRC-291, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569394

1.PERFORM ACTIVE TEST

With CONSULT

1. Turn the ignition switch ON.
2. Select “ABS”, “ACTIVE TEST”, “Check power supply of solenoid valves” in this order.
3. Touch “Start”

4. Check the voltage.

Voltage : 11 – 15.5 V

5. Touch “END”

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> GO TO 2.

2.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY

Check the electronic stability program control unit power supply. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> Repair/replace harness, connector or fuse.

C01D1 VALVE RELAY

DTC Description

INFOID:0000000013569395

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C01D1	00	Voltage supply of valve is malfunction [The voltage supply of the valves is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the valve voltage during the monitoring (voltage comparison between the valve voltage and the power supply) or the output value from the valve driver has a high-impedance short circuit to ground, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	200 ms

POSSIBLE CAUSE

- Fuse blown.
- Hardware error in the electronic stability program control unit: Valve relay malfunction (Alloyed semiconductors.
- Circuit malfunction.
- Valve driver malfunction.
- Short circuit of the valve voltage to ground.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Perform self-diagnosis for “ABS”.

Is DTC “C01D1” detected?

YES >> Proceed to BRC-293, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569396

1.PERFORM ACTIVE TEST

With CONSULT

1. Turn the ignition switch ON.

2. Select “ABS”, “ACTIVE TEST”, “Check power supply of solenoid valves” in this order.
3. Touch “Start”
4. Check the voltage.

Voltage : 11 – 15.5 V

5. Touch “END”

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> GO TO 2.

2.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY

Check the electronic stability program control unit power supply. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> Repair/replace harness, connector or fuse.

C01D2 VALVE RELAY

DTC Description

INFOID:0000000013569397

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C01D2	00	Voltage supply of valve is malfunction [The voltage supply of the valves is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the power supply reaches a voltage value below 2.6 V for a defined time or the power supply line has an interruption, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Fuse is malfunction.
- Power supply line has an interruption.
- Connection of the ground line (body) or the contact points (connectors) are corroded (voltage drop).
- Battery discharged or insufficient load capacity.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Perform self-diagnosis for “ABS”.

Is DTC “C01D2” detected?

YES >> Proceed to BRC-295, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569398

1.PERFORM ACTIVE TEST

With CONSULT

1. Turn the ignition switch ON.
2. Select “ABS”, “ACTIVE TEST”, “Check power supply of solenoid valves” in this order.
3. Touch “Start”
4. Check the voltage.

Voltage : 11 – 15.5 V

5. Touch “END”

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> GO TO 2.

2. CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY

Check the electronic stability program control unit power supply. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> Repair/replace harness, connector or fuse.

C01D3 VALVE RELAY

DTC Description

INFOID:0000000013569399

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C01D3	00	Voltage supply of valve is malfunction [The voltage supply of the valves is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the valve relay is actuated (valve relay gate drive) and the microprocessor notes that the valve relay is not actuated (voltage comparison between the valve voltage and the power supply. Valve voltage is not available) or the valve monitoring detects an incorrect valve relay feedback, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Fuse blown.
- Hardware error in the electronic stability program control unit: Valve relay malfunction (Circuit malfunction).
- Valve voltage and equivalent to the power supply not available.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Perform self-diagnosis for “ABS”.

Is DTC “C01D3” detected?

YES >> Proceed to BRC-297, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569400

1.PERFORM ACTIVE TEST

With CONSULT

1. Turn the ignition switch ON.
2. Select “ABS”, “ACTIVE TEST”, “Check power supply of solenoid valves” in this order.
3. Touch “Start”

4. Check the voltage.

Voltage : 11 – 15.5 V

5. Touch “END”

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> GO TO 2.

2.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY

Check the electronic stability program control unit power supply. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> Repair/replace harness, connector or fuse.

C01D4 VALVE RELAY

DTC Description

INFOID:0000000013569401

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C01D4	00	Voltage supply of valve is malfunction [The voltage supply of the valves is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the valve relay during the valve relay gate test due to an incorrect valve relay status (valve relay gate drive), or an incorrect valve voltage (voltage comparison between valve voltage and the power supply. Valve voltage is below a defined voltage value) is not switched on then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	25 ms

POSSIBLE CAUSE

- Fuse blown. Hardware error in the electronic stability program control unit: Valve relay malfunction (Circuit malfunction).
- Valve voltage and equivalent to the power supply too low.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Perform self-diagnosis for “ABS”.

Is DTC “C01D4” detected?

YES >> Proceed to BRC-299, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569402

1.PERFORM ACTIVE TEST

With CONSULT

1. Turn the ignition switch ON.
2. Select “ABS”, “ACTIVE TEST”, “Check power supply of solenoid valves” in this order.
3. Touch “Start”

4. Check the voltage.

Voltage : 11 – 15.5 V

5. Touch “END”

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> GO TO 2.

2.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY

Check the electronic stability program control unit power supply. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> Repair/replace harness, connector or fuse.

C01D5 VALVE RELAY

DTC Description

INFOID:0000000013569403

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C01D5	00	Voltage supply of valve is malfunction [The voltage supply of the valves is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the valve relay is actuated (valve relay gate drive) and the microprocessor notes that the valve relay is not actuated (voltage comparison between the valve voltage and the power supply. Valve voltage is not available) or the valve monitoring detects an incorrect valve relay feedback, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Fuse blown. Hardware error in the electronic stability program control unit: Valve relay malfunction (Circuit malfunction).
- Valve voltage and equivalent to the power supply not available.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Perform self-diagnosis for “ABS”.

Is DTC “C01D5” detected?

YES >> Proceed to BRC-301, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569404

1.PERFORM ACTIVE TEST

With CONSULT

1. Turn the ignition switch ON.
2. Select “ABS”, “ACTIVE TEST”, “Check power supply of solenoid valves” in this order.
3. Touch “Start”

4. Check the voltage.

Voltage : 11 – 15.5 V

5. Touch “END”

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> GO TO 2.

2.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY

Check the electronic stability program control unit power supply. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> Repair/replace harness, connector or fuse.

C01D6 VALVE RELAY

DTC Description

INFOID:0000000013569405

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C01D6	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the valve relay during the valve relay gate test due to an incorrect valve relay status (valve relay gate drive), or an incorrect valve voltage (voltage comparison between valve voltage and the power supply. Valve voltage is below a defined voltage value) or a short circuit of the valve voltage to the power supply is not switched OFF then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	200 ms

POSSIBLE CAUSE

- Hardware error in the electronic stability program control unit: Valve relay malfunction (Alloyed semiconductors. Circuit malfunction).
- Short circuit of the valve voltage to the power supply.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch N.
6. Perform self-diagnosis for “ABS”.

Is DTC “C01D6” detected?

YES-1 >> Proceed to BRC-303, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569406

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C01D7 VALVE RELAY

DTC Description

INFOID:0000000013569407

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C01D7	00	Voltage supply of valve is malfunction [The voltage supply of the valves is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	—
				Signal (terminal)	—
				Threshold	—
				Diagnosis delay time	—

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT
1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Perform self-diagnosis for “ABS”.

Is DTC “C01D7” detected?

YES >> Proceed to BRC-304, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569408

1.PERFORM ACTIVE TEST

With CONSULT
1. Turn the ignition switch ON.
2. Select “ABS”, “ACTIVE TEST”, “Check power supply of solenoid valves” in this order.
3. Touch “Start”
4. Check the voltage.

Voltage : 11 – 15.5 V

5. Touch “END”

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> GO TO 2.

2. CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY

Check the electronic stability program control unit power supply. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> Repair/replace harness, connector or fuse.

C01F0 CONTROL UNIT

DTC Description

INFOID:0000000013569409

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C01F0	00	Reprogram ESP control unit [Reprogram Control unit (Electronic Stability Program control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	
				Threshold	Electronic stability program control unit is malfunction (Software version from the electronic stability program control unit matches the software version from the development electronic stability program control unit). An error is set immediately during the startup phase and during ongoing operation.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C01F0” detected?

YES >> Proceed to BRC-306, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569410

1.PERFORM CONFIGURATION

With CONSULT

Perform configuration. Refer to BRC-85, "Description"

>> GO TO 2.

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C011F0” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C0200 ACCELERATION SENSOR

DTC Description

INFOID:0000000013569411

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0200	00	Accelerator sensor malfunction signal [Component 'Acceleration sensor' is transmitting a malfunction signal]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Acceleration sensor (integrated): If the acceleration is more than 15 m/s^2 then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Installation of the acceleration sensor is malfunction (electronic stability program control unit tilted or twisted or incorrect attached).
- Check the environment influence of the acceleration sensor (Parts not attached). Internal acceleration sensor error (electronics / mechanics).
- Acceleration sensor is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0200” detected?

YES >> Proceed to BRC-308, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569412

1.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT INSTALLATION POSITION

Check the electronic stability program control unit installation position. Refer to BRC-975, "Removal and Installation".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Install the electronic stability program control unit again. Refer to BRC-975, "Removal and Installation".

2.PERFORM SELF-DIAGNOSIS

With CONSULT
1. Erase self-diagnosis result for “ABS”.
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
4. Perform self-diagnosis for “ABS”.

Is DTC “C0200” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C0201 ACCELERATION SENSOR

DTC Description

INFOID:0000000013569413

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0201	00	Accelerator sensor malfunction signal [Component 'Acceleration sensor' is transmitting a malfunction signal]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Acceleration sensor (integrated): If the acceleration is more than 15m/s^2 then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Installation of the acceleration sensor is malfunction (electronic stability program control unit tilted or twisted or incorrect attached).
- Check the environment influence of the acceleration sensor (Parts not attached). Internal acceleration sensor error (electronics / mechanics).
- Acceleration sensor is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0201” detected?

YES >> Proceed to BRC-310, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569414

1.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT INSTALLATION POSITION

Check the electronic stability program control unit installation position. Refer to BRC-975, "Removal and Installation".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Install the electronic stability program control unit again. Refer to BRC-975, "Removal and Installation".

2.PERFORM SELF-DIAGNOSIS

With CONSULT
1. Erase self-diagnosis result for “ABS”.
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
4. Perform self-diagnosis for “ABS”.

Is DTC “C0201” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C0220 CAN COMMUNICATION

DTC Description

INFOID:0000000013569415

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0220	00	CAN communication circuit [The CAN lines have a short circuit to each other]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the CAN communication lines CAN-H and CAN-L have a short circuit to each other or the CAN communication lines CAN-H has a short circuit to positive or CAN communication is disturbed then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- CAN communication line CAN-H and CAN-L have a short circuit to each other or CAN communication line CAN-H has a short circuit to positive.
- CAN communication termination resistor is incorrect.
- Signal level permanently dominant or recessive.
- Electronic stability program control unit

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0220” detected?

YES >> Proceed to BRC-312, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569416

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> Repair or replace the malfunctioning parts.

C0221 CAN COMMUNICATION

DTC Description

INFOID:0000000013569417

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0221	00	CAN communication circuit [The CAN lines have a short circuit to each other]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the CAN communication lines CAN-H and CAN-L have a short circuit to each other or the CAN communication line CAN-H has a short circuit to positive or CAN communication is disturbed then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	5 seconds or more

POSSIBLE CAUSE

- CAN communication line CAN-H and CAN-L have a short circuit to each other or CAN communication line CAN-H has a short circuit to positive.
- CAN communication termination resistor is incorrect.
- Signal level permanently dominant or recessive.
- Electronic stability program control unit

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0221” detected?

YES >> Proceed to BRC-314, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569418

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> Repair or replace the malfunctioning parts.

C0224 CAN COMMUNICATION

DTC Description

INFOID:0000000013569419

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0224	00	CAN communication circuit [The CAN line has an open circuit]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the CAN communication lines CAN-H or CAN-L has an interruption or the CAN communication is disturbed then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- CAN communication line CAN-H or CAN-L has an interruption.
- CAN communication termination resistor is incorrect.
- Signal level permanently dominant or recessive.
- Electronic stability program control unit

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0224” detected?

YES >> Proceed to BRC-316, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569420

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C0225 CAN COMMUNICATION

DTC Description

INFOID:0000000013569421

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0225	00	CAN communication circuit [The CAN line has an open circuit]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the CAN communication lines CAN-H or CAN-L has an interruption or the CAN communication is disturbed then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- CAN communication line CAN-H or CAN-L has an interruption.
- CAN communication termination resistor is incorrect.
- Signal level permanently dominant or recessive.
- Electronic stability program control unit

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0225” detected?

YES >> Proceed to BRC-317, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569422

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C0240 EXHAUST VALVE (FRONT LEFT)

DTC Description

INFOID:0000000013569423

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0240	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Exhaust valve front left: If an error enable register from the valve driver exists then an error is set after three error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0240” detected?

YES >> Proceed to BRC-318, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569424

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0241 EXHAUST VALVE (FRONT LEFT)

DTC Description

INFOID:0000000013569425

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0241	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Exhaust valve front left: When a short circuit between two valves or a valve spool malfunction exists then an error is set after three error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver malfunction.
- Temperature too high.
- Line malfunction in the electronic stability program control unit.
- Valve path too low or too high impedance.
- Valve has a short circuit to another valve.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0241” detected?

YES >> Proceed to BRC-319, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569426

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0242 EXHAUST VALVE (FRONT LEFT)

DTC Description

INFOID:0000000013569427

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0242	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Exhaust valve front left: If the valve resistance is beyond the valid range, an error is set after three erroneous measurements. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Valve resistance incorrect.
- Hardware error.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0242” detected?

YES >> Proceed to BRC-320, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569428

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0243 EXHAUST VALVE (FRONT LEFT)

DTC Description

INFOID:0000000013569429

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0243	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Exhaust valve front left: If the internal hardware feedback from the valve driver is malfunction, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver malfunction.
- Temperature too high.
- Line malfunction in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0243” detected?

YES >> Proceed to BRC-321, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569430

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0244 EXHAUST VALVE (FRONT LEFT)

DTC Description

INFOID:0000000013569431

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0244	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Exhaust valve front left: When the software valve driver output value from the valve driver does not match the hardware valve driver output value, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0244” detected?

YES >> Proceed to BRC-322, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569432

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0245 EXHAUST VALVE (FRONT LEFT)

DTC Description

INFOID:0000000013569433

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0245	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	——
				Threshold	Exhaust valve front left: If the comparison between the measured pulse width modulated voltage signal from the valve driver and the pulse width modulated reference signal is malfunction, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	50 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0245” detected?

YES >> Proceed to BRC-323, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569434

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0246 EXHAUST VALVE (FRONT LEFT)

DTC Description

INFOID:0000000013569435

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0246	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Exhaust valve front left: When a malfunction current exists within or beyond the valve driver, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Short circuit or low impedance bypass between the valve and ground.
- Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0246” detected?

YES >> Proceed to BRC-324, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569436

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0250 EXHAUST VALVE (FRONT RIGHT)

DTC Description

INFOID:0000000013569437

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0250	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Exhaust valve front right: If an error enable register from the valve driver exists then an error is set after three error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0250” detected?

YES >> Proceed to BRC-325, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569438

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0251 EXHAUST VALVE (FRONT RIGHT)

DTC Description

INFOID:0000000013569439

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0251	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Exhaust valve front right: When a short circuit between two valves or a valve spool malfunction exists then an error is set after three error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver malfunction.
- Temperature too high.
- Line malfunction in the electronic stability program control unit.
- Valve path too low or too high impedance.
- Valve has a short circuit to another valve.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0251” detected?

YES >> Proceed to BRC-326, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569440

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0252 EXHAUST VALVE (FRONT RIGHT)

DTC Description

INFOID:0000000013569441

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0252	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Exhaust valve front right: If the valve resistance is beyond the valid range, an error is set after three erroneous measurements. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Valve resistance incorrect.
- Hardware error.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0252” detected?

YES >> Proceed to BRC-327, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569442

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0253 EXHAUST VALVE (FRONT RIGHT)

DTC Description

INFOID:0000000013569443

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0253	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Exhaust valve front right: If the internal hardware feedback from the valve driver is malfunction, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver malfunction.
- Temperature too high.
- Line malfunction in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0253” detected?

YES >> Proceed to BRC-328, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569444

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0254 EXHAUST VALVE (FRONT RIGHT)

DTC Description

INFOID:0000000013569445

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0254	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Exhaust valve front right: When the software valve driver output value from the valve driver does not match the hardware valve driver output value, an error is set after six error detections. The error is set if the error detection time is exceeded
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0254” detected?

YES >> Proceed to BRC-329, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569446

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0255 EXHAUST VALVE (FRONT RIGHT)

DTC Description

INFOID:0000000013569447

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0255	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON.
				Signal (terminal)	—
				Threshold	Exhaust valve front right: If the comparison between the measured pulse width modulated voltage signal from the valve driver and the pulse width modulated reference signal is malfunction, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	50 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0255” detected?

YES >> Proceed to BRC-330, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569448

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0256 EXHAUST VALVE (FRONT RIGHT)

DTC Description

INFOID:0000000013569449

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0256	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Exhaust valve front right: When a malfunction current exists within or beyond the valve driver, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Short circuit or low impedance bypass between the valve and ground.
- Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0256” detected?

YES >> Proceed to BRC-331, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569450

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0260 EXHAUST VALVE (REAR LEFT)

DTC Description

INFOID:0000000013569451

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0260	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Exhaust valve rear left: If an error enable register from the valve driver exists then an error is set after three error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0260” detected?

YES >> Proceed to BRC-332, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569452

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0261 EXHAUST VALVE (REAR LEFT)

DTC Description

INFOID:0000000013569453

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0261	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Exhaust valve rear left: When a short circuit between two valves or a valve spool malfunction exists then an error is set after three error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver malfunction.
- Temperature too high.
- Line malfunction in the electronic stability program control unit.
- Valve path too low or too high impedance.
- Valve has a short circuit to another valve.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0261” detected?

YES >> Proceed to BRC-333, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569454

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0262 EXHAUST VALVE (REAR LEFT)

DTC Description

INFOID:0000000013569455

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0262	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Exhaust valve rear left: If the valve resistance is beyond the valid range, an error is set after three erroneous measurements. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Valve resistance incorrect.
- Hardware error.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0262” detected?

YES >> Proceed to BRC-334, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569456

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0263 EXHAUST VALVE (REAR LEFT)

DTC Description

INFOID:0000000013569457

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0263	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Exhaust valve rear left: If the internal hardware feedback from the valve driver is malfunction, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver malfunction.
- Temperature too high.
- Line malfunction in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
4. Perform self-diagnosis for “ABS”.

Is DTC “C0263” detected?

YES >> Proceed to BRC-335, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569458

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0264 EXHAUST VALVE (REAR LEFT)

DTC Description

INFOID:0000000013569459

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0264	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Exhaust valve rear left: When the software valve driver output value from the valve driver does not match the hardware valve driver output value, an error is set after six error detections. The error is set if the error detection time is exceeded
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0264” detected?

YES >> Proceed to BRC-336, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569460

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0265 EXHAUST VALVE (REAR LEFT)

DTC Description

INFOID:0000000013569461

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0265	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Exhaust valve rear left: If the comparison between the measured pulse width modulated voltage signal from the valve driver and the pulse width modulated reference signal is malfunction, an error is set after six error detections. The error is set if the error detection time is exceeded
				Diagnosis delay time	50 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0265” detected?

YES >> Proceed to BRC-337, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569462

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0266 EXHAUST VALVE (REAR LEFT)

DTC Description

INFOID:0000000013569463

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0266	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Exhaust valve rear left: When a malfunction current exists within or beyond the valve driver, an error is set after six error detections. The error is set if the error detection time is exceeded
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Short circuit or low impedance bypass between the valve and ground. Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0266” detected?

YES >> Proceed to BRC-338, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569464

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0270 YAW RATE SENSOR

DTC Description

INFOID:0000000013569465

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0270	00	Installation posi yaw rate sen incorrect [The installation position of component (Yaw rate sensor for lateral and longitudinal acceleration) is incorrect]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 70 km/h (44 MPH) or more
				Signal (terminal)	—
				Threshold	Yaw rate sensor: The offset monitoring calculates the offset value from the yaw rate sensor 2 by using the corrected yaw rate signal from the yaw rate sensor 1. If an offset value of more than 5.25 degrees / s is detected, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Installation of the yaw rate sensor is malfunction (yaw rate sensor tilted or twisted or incorrect attached).
- Check the environment influence of the yaw rate sensor (Parts not attached).
- Internal yaw rate sensor error (electronics / mechanics).
- Yaw rate sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 70 km/h (44 MPH) or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0270” detected?

YES >> Proceed to BRC-339, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569466

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0271 EXHAUST VALVE (REAR RIGHT)

DTC Description

INFOID:0000000013569467

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0271	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Exhaust valve rear right: When a short circuit between two valves or a valve spool malfunction exists then an error is set after three error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver malfunction.
- Temperature too high.
- Line malfunction in the electronic stability program control unit.
- Valve path too low or too high impedance.
- Valve has a short circuit to another valve.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0271” detected?

YES >> Proceed to BRC-341, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569468

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0272 EXHAUST VALVE (REAR RIGHT)

DTC Description

INFOID:0000000013569469

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0272	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Exhaust valve rear right: If the valve resistance is beyond the valid range, an error is set after three erroneous measurements. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Valve resistance incorrect.
- Hardware error.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0272” detected?

YES >> Proceed to BRC-342, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569470

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0273 EXHAUST VALVE (REAR RIGHT)

DTC Description

INFOID:0000000013569471

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0273	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Exhaust valve rear right: If the internal hardware feedback from the valve driver is malfunction, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver malfunction.
- Temperature too high.
- Line malfunction in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
4. Perform self-diagnosis for “ABS”.

Is DTC “C0273” detected?

YES >> Proceed to BRC-343, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569472

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0274 EXHAUST VALVE (REAR RIGHT)

DTC Description

INFOID:0000000013569473

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0274	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Exhaust valve rear right: When the software valve driver output value from the valve driver does not match the hardware valve driver output value, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0274” detected?

YES >> Proceed to BRC-344, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569474

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0275 EXHAUST VALVE (REAR RIGHT)

DTC Description

INFOID:0000000013569475

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0275	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Exhaust valve rear right: If the comparison between the measured pulse width modulated voltage signal from the valve driver and the pulse width modulated reference signal is malfunction, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	50 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0275” detected?

YES >> Proceed to BRC-345, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569476

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0276 EXHAUST VALVE (REAR RIGHT)

DTC Description

INFOID:0000000013569477

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0276	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Exhaust valve rear right: When a malfunction current exists within or beyond the valve driver, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Short circuit or low impedance bypass between the valve and ground.
- Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0276” detected?

YES >> Proceed to BRC-346, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569478

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0280 ADMISSION VALVE (FRONT LEFT)

DTC Description

INFOID:0000000013569479

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0280	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Admission valve front left: If an error enable register from the valve driver exists then an error is set after three error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0280” detected?

YES >> Proceed to BRC-347, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569480

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0281 ADMISSION VALVE (FRONT LEFT)

DTC Description

INFOID:0000000013569481

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0281	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	
				Threshold	Admission valve front left: When a short circuit between two valves or a valve spool malfunction exists then an error is set after three error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver malfunction.
- Temperature too high.
- Line malfunction in the electronic stability program control unit.
- Valve path too low or too high impedance.
- Valve has a short circuit to another valve.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0281” detected?

YES >> Proceed to BRC-348, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569482

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0282 ADMISSION VALVE (FRONT LEFT)

DTC Description

INFOID:0000000013569483

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0282	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Admission valve front left: If the valve resistance is beyond the valid range, an error is set after three erroneous measurements. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Valve resistance incorrect.
- Hardware error.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0282” detected?

YES >> Proceed to BRC-349, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569484

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0283 ADMISSION VALVE (FRONT LEFT)

DTC Description

INFOID:0000000013569485

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0283	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Admission valve front left: If the internal hardware feedback from the valve driver is malfunction, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver malfunction.
- Temperature too high.
- Line malfunction in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
4. Perform self-diagnosis for “ABS”.

Is DTC “C0283” detected?

YES >> Proceed to BRC-350, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569486

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0284 ADMISSION VALVE (FRONT LEFT)

DTC Description

INFOID:0000000013569487

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0284	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Admission valve front left: When the software valve driver output value from the valve driver does not match the hardware valve driver output value, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0284” detected?

YES >> Proceed to BRC-351, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569488

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0286 ADMISSION VALVE (FRONT LEFT)

DTC Description

INFOID:0000000013569489

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0286	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Admission valve front left: If the comparison between the measured pulse width modulated voltage signal from the valve driver and the pulse width modulated reference signal is malfunction, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	50 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0286” detected?

YES >> Proceed to BRC-352, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569490

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0287 ADMISSION VALVE (FRONT LEFT)

DTC Description

INFOID:0000000013569491

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0287	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Admission valve front left: When a malfunction current exists within or beyond the valve driver, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Short circuit or low impedance bypass between the valve and ground.
- Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0287” detected?

YES >> Proceed to BRC-353, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569492

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0289 ADMISSION VALVE (FRONT LEFT)

DTC Description

INFOID:0000000013569493

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0289	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Admission valve front left: If the free-wheeling valve from the valve driver can not be connected or an incorrect activation status is returned, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Valve driver control or valve feedback error.
- Bond demolition.
- Short circuit.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0289” detected?

YES >> Proceed to BRC-354, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569494

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0290 ADMISSION VALVE (FRONT RIGHT)

DTC Description

INFOID:0000000013569495

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0290	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Admission valve front right: If an error enable register from the valve driver exists then an error is set after three error detections. The error is set if the error detection time is exceeded
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0290” detected?

YES >> Proceed to BRC-355, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569496

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0291 ADMISSION VALVE (FRONT RIGHT)

DTC Description

INFOID:0000000013569497

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0291	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Admission valve front right: If the valve resistance is beyond the valid range, an error is set after three erroneous measurements. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Valve resistance incorrect.
- Hardware error.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0291” detected?

YES >> Proceed to BRC-356, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569498

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0292 ADMISSION VALVE (FRONT RIGHT)

DTC Description

INFOID:0000000013569499

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0292	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Admission valve front right: If the valve resistance is beyond the valid range, an error is set after three erroneous measurements. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Valve resistance incorrect.
- Hardware error.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0292” detected?

YES >> Proceed to BRC-357, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569500

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0293 ADMISSION VALVE (FRONT RIGHT)

DTC Description

INFOID:0000000013569501

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0293	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Admission valve front right: If the internal hardware feedback from the valve driver is malfunction, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver malfunction.
- Temperature too high.
- Line malfunction in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
4. Perform self-diagnosis for “ABS”.

Is DTC “C0293” detected?

YES >> Proceed to BRC-358, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569502

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0294 ADMISSION VALVE (FRONT RIGHT)

DTC Description

INFOID:0000000013569503

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0294	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Admission valve front right: When the software valve driver output value from the valve driver does not match the hardware valve driver output value, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver (Gate) alloyed
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0294” detected?

YES >> Proceed to BRC-359, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569504

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0296 ADMISSION VALVE (FRONT RIGHT)

DTC Description

INFOID:0000000013569505

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0296	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Admission valve front right: If the comparison between the measured pulse width modulated voltage signal from the valve driver and the pulse width modulated reference signal is malfunction, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	50 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0296” detected?

YES >> Proceed to BRC-360, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569506

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0297 ADMISSION VALVE (FRONT RIGHT)

DTC Description

INFOID:0000000013569507

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0297	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Admission valve front right: When a malfunction current exists within or beyond the valve driver, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Short circuit or low impedance bypass between the valve and ground.
- Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0297” detected?

YES >> Proceed to BRC-361, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569508

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0298 ADMISSION VALVE (FRONT RIGHT)

DTC Description

INFOID:0000000013569509

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0298	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Admission valve front right: If the free-wheeling valve from the valve driver can not be connected or an incorrect activation status is returned, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Valve driver control or valve feedback error.
- Bond demolition.
- Short circuit.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0298” detected?

YES >> Proceed to BRC-362, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569510

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02A0 ADMISSION VALVE (REAR LEFT)

DTC Description

INFOID:0000000013569511

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C02A0	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Admission valve rear left: If an error enable register from the valve driver exists then an error is set after three error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02A0” detected?

YES >> Proceed to BRC-363, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569512

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02A1 ADMISSION VALVE (REAR LEFT)

DTC Description

INFOID:0000000013569513

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C02A1	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Admission valve rear left: When a short circuit between two valves or a valve spool malfunction exists then an error is set after three error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver malfunction.
- Temperature too high.
- Line malfunction in the electronic stability program control unit.
- Valve path too low or too high impedance.
- Valve has a short circuit to another valve.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02A1” detected?

YES >> Proceed to BRC-364, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569514

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02A2 ADMISSION VALVE (REAR LEFT)

DTC Description

INFOID:0000000013569515

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C02A2	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Admission valve rear left: If the valve resistance is beyond the valid range, an error is set after three erroneous measurements. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Valve resistance incorrect.
- Hardware error.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02A2” detected?

YES >> Proceed to BRC-365, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569516

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02A3 ADMISSION VALVE (REAR LEFT)

DTC Description

INFOID:0000000013569517

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C02A3	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Admission valve rear left: If the internal hardware feedback from the valve driver is malfunction, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver malfunction.
- Temperature too high.
- Line malfunction in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
4. Perform self-diagnosis for “ABS”.

Is DTC “C02A3” detected?

YES >> Proceed to BRC-366, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569518

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02A4 ADMISSION VALVE (REAR LEFT)

DTC Description

INFOID:0000000013569519

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C02A4	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Admission valve rear left: When the software valve driver output value from the valve driver does not match the hardware valve driver output value, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02A4” detected?

YES >> Proceed to BRC-367, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569520

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02A6 ADMISSION VALVE (REAR LEFT)

DTC Description

INFOID:0000000013569521

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C02A6	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Admission valve rear left: If the comparison between the measured pulse width modulated voltage signal from the valve driver and the pulse width modulated reference signal is malfunction, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	50 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02A6” detected?

YES >> Proceed to BRC-368, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569522

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02A7 ADMISSION VALVE (REAR LEFT)

DTC Description

INFOID:0000000013569523

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C02A7	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Admission valve rear left: When a malfunction current exists within or beyond the valve driver, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Short circuit or low impedance bypass between the valve and ground.
- Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02A7” detected?

YES >> Proceed to BRC-369, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569524

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02A8 ADMISSION VALVE (REAR LEFT)

DTC Description

INFOID:0000000013569525

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C02A8	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Admission valve rear left: If the free-wheeling valve from the valve driver can not be connected or an incorrect activation status is returned, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Valve driver control or valve feedback error.
- Bond demolition.
- Short circuit.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02A8” detected?

YES >> Proceed to BRC-370, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569526

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02B0 ADMISSION VALVE (REAR RIGHT)

DTC Description

INFOID:0000000013569527

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C02B0	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Admission valve rear right: If an error enable register from the valve driver exists then an error is set after three error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02B0” detected?

YES >> Proceed to BRC-371, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569528

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02B1 ADMISSION VALVE (REAR RIGHT)

DTC Description

INFOID:0000000013569529

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C02B1	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Admission valve rear right: When a short circuit between two valves or a valve spool malfunction exists then an error is set after three error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver malfunction.
- Temperature too high.
- Line malfunction in the electronic stability program control unit.
- Valve path too low or too high impedance.
- Valve has a short circuit to another valve.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02B1” detected?

YES >> Proceed to BRC-372, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569530

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02B2 ADMISSION VALVE (REAR RIGHT)

DTC Description

INFOID:0000000013569531

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C02B2	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Admission valve rear right: If the valve resistance is beyond the valid range, an error is set after three erroneous measurements. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Valve resistance incorrect.
- Hardware error.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02B2” detected?

YES >> Proceed to BRC-373, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569532

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02B3 ADMISSION VALVE (REAR RIGHT)

DTC Description

INFOID:0000000013569533

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C02B3	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Admission valve rear right: If the internal hardware feedback from the valve driver is malfunction, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver malfunction.
- Temperature too high.
- Line malfunction in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
4. Perform self-diagnosis for “ABS”.

Is DTC “C02B3” detected?

YES >> Proceed to BRC-374, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569534

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02B4 ADMISSION VALVE (REAR RIGHT)

DTC Description

INFOID:0000000013569535

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C02B4	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Admission valve rear right: When the software valve driver output value from the valve driver does not match the hardware valve driver output value, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02B4” detected?

YES >> Proceed to BRC-375, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569536

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02B6 ADMISSION VALVE (REAR RIGHT)

DTC Description

INFOID:0000000013569537

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C02B6	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Admission valve rear right: If the comparison between the measured pulse width modulated voltage signal from the valve driver and the pulse width modulated reference signal is malfunction, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	50 ms

POSSIBLE CAUSE

- Valve current too low or too high
- Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02B6” detected?

YES >> Proceed to BRC-376, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569538

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02B7 ADMISSION VALVE (REAR RIGHT)

DTC Description

INFOID:0000000013569539

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C02B7	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Admission valve rear right: When a malfunction current exists within or beyond the valve driver, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Short circuit or low impedance bypass between the valve and ground. Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02B7” detected?

YES >> Proceed to BRC-377, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569540

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02B8 ADMISSION VALVE (REAR RIGHT)

DTC Description

INFOID:0000000013569541

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C02B8	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Admission valve rear right: If the free-wheeling valve from the valve driver can not be connected or an incorrect activation status is returned, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Valve driver control or valve feedback error.
- Bond demolition. Short circuit.
- Valve driver malfunction

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02B8” detected?

YES >> Proceed to BRC-378, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569542

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02C0 VALVE DRIVER

DTC Description

INFOID:0000000013569543

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C02C0	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Valve driver: Internal parity error occurred). During the internal hardware monitoring and during the operation, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02C0” detected?

YES >> Proceed to BRC-379, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569544

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02C1 VALVE

DTC Description

INFOID:0000000013569545

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C02C1	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Valves: When the pulse width modulated activation signal check from the valves is permanently switched on then an error is set. The error is set if the error detection time is exceeded
				Diagnosis delay time	5 ms

POSSIBLE CAUSE

- Hardware error in the electronic stability program control unit: Valve driver control or valve feedback error.
- Bond demolition.
- Short circuit.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02C1” detected?

YES >> Proceed to BRC-380, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569546

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02C2 VALVE

DTC Description

INFOID:0000000013569547

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C02C2	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Valves: If the valves (intake valve or exhaust valve) is overheating due to the long control for a defined time (intake valve: t above 110 seconds. exhaust valve: t above 10 seconds) then an error is set. The error is set if the error detection time is exceeded
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Programming of valve control times is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02C2” detected?

YES >> Proceed to BRC-381, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569548

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02C3 VALVE

DTC Description

INFOID:0000000013569549

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C02C3	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Valves: When the valve freewheel function from the valve driver is permanently switched on then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- Hardware error in the electronic stability program control unit: Valve driver control or valve feedback error.
- Bond demolition.
- Short circuit.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02C3” detected?

YES >> Proceed to BRC-382, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569550

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02C5 VALVE DRIVER

DTC Description

INFOID:0000000013569551

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C02C5	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Valve driver: Malfunction current of the valve voltage after power supply). An error is set during the valve resistor measurement. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Hardware error in the electronic stability program control unit: Valve relay malfunction (Alloyed semiconductors. Circuit malfunction).
- Short circuit of the valve voltage to the power supply.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02C5” detected?

YES >> Proceed to BRC-383, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569552

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02C6 VALVE DRIVER

DTC Description

INFOID:0000000013569553

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C02C6	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction. An error is set during the silent valve driver test. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02C6” detected?

YES >> Proceed to BRC-384, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569554

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02C7 VALVE DRIVER

DTC Description

INFOID:0000000013569555

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C02C7	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction. An error is set during the internal hardware monitoring and in ongoing operation. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02C7” detected?

YES >> Proceed to BRC-385, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569556

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02C8 VALVE DRIVER

DTC Description

INFOID:0000000013569557

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C02C8	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction. An error is set during the internal hardware monitoring and in ongoing operation. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02C8” detected?

YES >> Proceed to BRC-386, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569558

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02C9 VALVE DRIVER

DTC Description

INFOID:0000000013569559

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C02C9	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction. An error is set during the internal hardware monitoring and in ongoing operation. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02C9” detected?

YES >> Proceed to BRC-387, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569560

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02CA VALVE DRIVER

DTC Description

INFOID:0000000013569561

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C02CA	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Valve driver: Configuration bits of the registers are not written correctly). An error is set after the system startup phase. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02CA” detected?

YES >> Proceed to BRC-388, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569562

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02CB VALVE DRIVER

DTC Description

INFOID:0000000013569563

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C02CB	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Valve driver: Current control error). An error is set during the Built in self test. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02CB” detected?

YES >> Proceed to BRC-389, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569564

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02CC VALVE DRIVER

DTC Description

INFOID:0000000013569565

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C02CC	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Valve driver: Configuration of the exhaust valves are malfunction). An error is set during the hardware monitoring and in ongoing operation. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02CC” detected?

YES >> Proceed to BRC-390, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569566

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02CD VALVE

DTC Description

INFOID:0000000013569567

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C02CD	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	When the valve reference resistor can not be read (EEPROM) an error is immediately set.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Hardware error in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02CD” detected?

YES >> Proceed to BRC-391, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569568

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02CE VALVE

DTC Description

INFOID:0000000013569569

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C02CE	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the comparison between the measured valve resistance and the valve reference resistance stored in the EEPROM is malfunction, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Hardware error in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02CE” detected?

YES >> Proceed to BRC-392, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569570

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02CF VALVE DRIVER

DTC Description

INFOID:0000000013569571

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C02CF	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Valve driver: micro controller data transmission error). An error is set during the internal hardware monitoring and in ongoing operation. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02CF” detected?

YES >> Proceed to BRC-393, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569572

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02D0 HIGH PRESSURE VALVE 1

DTC Description

INFOID:0000000013569573

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C02D0	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	High-pressure valve 1: If an error enable register from the valve driver exists then an error is set after three error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02D0” detected?

YES >> Proceed to BRC-394, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569574

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02D1 HIGH PRESSURE VALVE 1

DTC Description

INFOID:0000000013569575

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C02D1	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	High-pressure valve 1: When a short circuit between two valves or a valve spool malfunction exists then an error is set after three error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver malfunction.
- Temperature too high.
- Line malfunction in the electronic stability program control unit.
- Valve path too low or too high impedance.
- Valve has a short circuit to another valve.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02D1” detected?

YES >> Proceed to BRC-395, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569576

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02D2 HIGH PRESSURE VALVE 1

DTC Description

INFOID:0000000013569577

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C02D2	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	High-pressure valve 1: If the valve resistance is beyond the valid range, an error is set after three erroneous measurements. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Valve resistance incorrect.
- Hardware error.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02D2” detected?

YES >> Proceed to BRC-396, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569578

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02D3 HIGH PRESSURE VALVE 1

DTC Description

INFOID:0000000013569579

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C02D3	00	Internal malfunction in ESP C/U [There is an internal malfunction in Control unit (Electronic Stability Program control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	High-pressure valve 1: If the internal hardware feedback from the valve driver is malfunction, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver malfunction.
- Temperature too high.
- Line malfunction in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02D3” detected?

YES >> Proceed to BRC-397, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569580

1.PERFORM CONFIGURATION

With CONSULT

Perform configuration. Refer to BRC-85, "Description"

>> GO TO 2.

2.PERFORM SELF-DIAGNOSIS

With CONSULT
1. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C02D3” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C02D4 HIGH PRESSURE VALVE 1

DTC Description

INFOID:0000000013569581

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C02D4	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	High-pressure valve 1: When the software valve driver output value from the valve driver does not match the hardware valve driver output value, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02D4” detected?

YES >> Proceed to BRC-399, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569582

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02D5 HIGH PRESSURE VALVE 1

DTC Description

INFOID:0000000013569583

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C02D5	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	High-pressure valve 1: If the comparison between the measured pulse width modulated voltage signal from the valve driver and the pulse width modulated reference signal is malfunction, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	50 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02D5” detected?

YES >> Proceed to BRC-400, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569584

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02D6 HIGH PRESSURE VALVE 1

DTC Description

INFOID:0000000013569585

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C02D6	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	High-pressure valve 1: When a malfunction current exists within or beyond the valve driver, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Short circuit or low impedance bypass between the valve and ground.
- Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02D6” detected?

YES >> Proceed to BRC-401, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569586

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02D7 HIGH PRESSURE VALVE 1

DTC Description

INFOID:0000000013569587

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C02D7	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	High-pressure valve 1: If the free-wheeling valve from the valve driver can not be connected or an incorrect activation status is returned, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Valve driver control or valve feedback error.
- Bond demolition.
- Short circuit.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02D7” detected?

YES >> Proceed to BRC-402, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569588

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02E0 HIGH PRESSURE VALVE 2

DTC Description

INFOID:0000000013569589

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C02E0	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	High-pressure valve 2: If an error enable register from the valve driver exists then an error is set after three error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02E0” detected?

YES >> Proceed to BRC-403, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569590

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02E1 HIGH PRESSURE VALVE 2

DTC Description

INFOID:0000000013569591

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C02E1	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	High-pressure valve 2: When a short circuit between two valves or a valve spool malfunction exists then an error is set after three error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver malfunction.
- Temperature too high.
- Line malfunction in the electronic stability program control unit.
- Valve path too low or too high impedance.
- Valve has a short circuit to another valve.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02E1” detected?

YES >> Proceed to BRC-404, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569592

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02E2 HIGH PRESSURE VALVE2

DTC Description

INFOID:0000000013569593

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C02E2	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	High-pressure valve 2: If the valve resistance is beyond the valid range, an error is set after three erroneous measurements. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Valve resistance incorrect.
- Hardware error.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02E2” detected?

YES >> Proceed to BRC-405, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569594

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02E3 HIGH PRESSURE VALVE 2

DTC Description

INFOID:0000000013569595

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C02E3	00	Internal malfunction in ESP C/U [There is an internal malfunction in Control unit (Electronic Stability Program control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	High-pressure valve 2: If the internal hardware feedback from the valve driver is malfunction, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver malfunction.
- Temperature too high
- Line malfunction in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02E3” detected?

YES >> Proceed to BRC-406, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569596

1.PERFORM CONFIGURATION

With CONSULT

Perform configuration. Refer to BRC-85, "Description"

>> GO TO 2.

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C02E3” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C02E4 HIGH PRESSURE VALVE 2

DTC Description

INFOID:0000000013569597

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C02E4	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	High-pressure valve 2: When the software valve driver output value from the valve driver does not match the hardware valve driver output value, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02E4” detected?

YES >> Proceed to BRC-408, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569598

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02E5 HIGH PRESSURE VALVE 2

DTC Description

INFOID:0000000013569599

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C02E5	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	High-pressure valve 2: If the comparison between the measured pulse width modulated voltage signal from the valve driver and the pulse width modulated reference signal is malfunction, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	50 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02E5” detected?

YES >> Proceed to BRC-409, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569600

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02E6 HIGH PRESSURE VALVE 2

DTC Description

INFOID:0000000013569601

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C02E6	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	High-pressure valve 2: When a malfunction current exists within or beyond the valve driver, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Short circuit or low impedance bypass between the valve and ground.
- Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02E6” detected?

YES >> Proceed to BRC-410, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569602

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02E7 HIGH PRESSURE VALVE 2

DTC Description

INFOID:0000000013569603

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C02E7	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	High-pressure valve 2: If the free-wheeling valve from the valve driver can not be connected or an incorrect activation status is returned, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Valve driver control or valve feedback error.
- Bond demolition.
- Short circuit.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02E7” detected?

YES >> Proceed to BRC-411, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569604

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02F0 SWITCHING VALVE 1

DTC Description

INFOID:0000000013569605

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C02F0	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Switching valve 1: If an error enable register from the valve driver exists then an error is set after three error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02F0” detected?

YES >> Proceed to BRC-412, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569606

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02F1 SWITCHING VALVE 1

DTC Description

INFOID:0000000013569607

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C02F1	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Switching valve 1: When a short circuit between two valves or a valve spool malfunction exists then an error is set after three error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver malfunction.
- Temperature too high.
- Line malfunction in the electronic stability program control unit.
- Valve path too low or too high impedance.
- Valve has a short circuit to another valve.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02F1” detected?

YES >> Proceed to BRC-413, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569608

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02F2 SWITCHING VALVE 1

DTC Description

INFOID:0000000013569609

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C02F2	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Switching valve 1: If the valve resistance is beyond the valid range, an error is set after three erroneous measurements. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Valve resistance incorrect.
- Hardware error.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02F2” detected?

YES >> Proceed to BRC-414, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569610

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02F3 SWITCHING VALVE 1

DTC Description

INFOID:0000000013569611

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C02F3	00	Internal malfunction in ESP C/U [There is an internal malfunction in Control unit (Electronic Stability Program control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Switching valve 1: If the internal hardware feedback from the valve driver is malfunction, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver malfunction.
- Temperature too high.
- Line malfunction in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02F3” detected?

YES >> Proceed to BRC-415, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569612

1.PERFORM CONFIGURATION

With CONSULT

Perform configuration. Refer to BRC-85, "Description"

>> GO TO 2.

2.PERFORM SELF-DIAGNOSIS

With CONSULT
1. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C02F3” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C02F4 SWITCHING VALVE 1

DTC Description

INFOID:0000000013569613

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C02F4	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Switching valve 1: When the software valve driver output value from the valve driver does not match the hardware valve driver output value, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02F4” detected?

YES >> Proceed to BRC-417, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569614

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02F5 SWITCHING VALVE 1

DTC Description

INFOID:0000000013569615

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C02F5	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 30 km/h (19 MPH) or more for 10 seconds or more
				Signal (terminal)	—
				Threshold	Switching valve 1: If the current regulated control valve (current comparison) from the valve driver is malfunction, an error is set after three error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	25 ms

POSSIBLE CAUSE

- Duration of the valve control too long or valve voltage is beyond the valid range.
- Valve driver malfunction.
- Too low or too high impedance valves e.g. due to bad valve contacts or coil valve short circuit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 30 km/h (19 MPH) or more for 10 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C02F5” detected?

YES >> Proceed to BRC-418, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569616

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02F6 SWITCHING VALVE 1

DTC Description

INFOID:0000000013569617

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C02F6	00	Voltage supply of valve is malfunction [The voltage supply of the valves is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the comparison between the measured pulse width modulated voltage signal from the valve driver and the pulse width modulated reference signal is malfunction, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	50 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02F6” detected?

YES >> Proceed to BRC-419, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569618

1.PERFORM ACTIVE TEST

With CONSULT

1. Turn the ignition switch ON.
2. Select “ABS”, “ACTIVE TEST”, “Check power supply of solenoid valves” in this order.
3. Touch “Start”
4. Check the voltage.

Voltage : 11 – 15.5 V

5. Touch “END”

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> GO TO 2.

2. CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY

Check the electronic stability program control unit power supply. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> Repair/replace harness, connector or fuse.

C02F7 SWITCHING VALVE 1

DTC Description

INFOID:0000000013569619

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C02F7	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Switching valve 1: When a malfunction current exists within or beyond the valve driver, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Short circuit or low impedance bypass between the valve and ground.
- Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02F7” detected?

YES >> Proceed to BRC-421, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569620

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C02F8 SWITCHING VALVE 1

DTC Description

INFOID:0000000013569621

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C02F8	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Switching valve 1: If the free-wheeling valve from the valve driver can not be connected or an incorrect activation status is returned, an error is set. The error is set if the error detection time is exceeded
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Valve driver control or valve feedback error.
- Bond demolition.
- Short circuit.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C02F8” detected?

YES >> Proceed to BRC-422, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569622

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0300 SWITCHING VALVE 2

DTC Description

INFOID:0000000013569623

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0300	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Switching valve 2: If an error enable register from the valve driver exists then an error is set after three error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0300” detected?

YES >> Proceed to BRC-423, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569624

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0301 SWITCHING VALVE 2

DTC Description

INFOID:0000000013569625

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0301	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Switching valve 2: When a short circuit between two valves or a valve spool malfunction exists then an error is set after three error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver malfunction.
- Temperature too high.
- Line malfunction in the electronic stability program control unit.
- Valve path too low or too high impedance.
- Valve has a short circuit to another valve

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0301” detected?

YES >> Proceed to BRC-424, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569626

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0302 SWITCHING VALVE 2

DTC Description

INFOID:0000000013569627

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0302	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Switching valve 2: If the valve resistance is beyond the valid range, an error is set after three erroneous measurements. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Valve resistance incorrect.
- Hardware error.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0302” detected?

YES >> Proceed to BRC-425, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569628

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0303 SWITCHING VALVE 2

DTC Description

INFOID:0000000013569629

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0303	00	Voltage supply of valve is malfunction [The voltage supply of the valves is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the internal hardware feedback from the valve driver is malfunction, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver malfunction.
- Temperature too high.
- Line malfunction in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0303” detected?

YES >> Proceed to BRC-426, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569630

1.PERFORM ACTIVE TEST

With CONSULT

1. Turn the ignition switch ON.
2. Select “ABS”, “ACTIVE TEST”, “Check power supply of solenoid valves” in this order.
3. Touch “Start”
4. Check the voltage.

Voltage : 11 – 15.5 V

5. Touch “END”

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> GO TO 2.

2. CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY

Check the electronic stability program control unit power supply. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> Repair/replace harness, connector or fuse.

C0304 SWITCHING VALVE 2

DTC Description

INFOID:0000000013569631

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0304	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Switching valve 2: When the software valve driver output value from the valve driver does not match the hardware valve driver output value, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0304” detected?

YES >> Proceed to BRC-428, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569632

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0305 SWITCHING VALVE 2

DTC Description

INFOID:0000000013569633

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0305	00	Voltage supply of valve is malfunction [The voltage supply of the valves is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 30 km/h (19MPH) or more for 10 seconds or more
				Signal (terminal)	—
				Threshold	Switching valve 2: If the current regulated control valve (current comparison) from the valve driver is malfunction, an error is set after three error detections. The error is set if the error detection time is exceeded
				Diagnosis delay time	25 ms

POSSIBLE CAUSE

- Duration of the valve control too long or valve voltage is beyond the valid range.
- Valve driver malfunction.
- Too low or too high impedance valves e.g. due to bad valve contacts or coil valve short circuit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 30 km/h (19MPH) or more for 10 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0305” detected?

YES >> Proceed to BRC-429, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569634

1.PERFORM ACTIVE TEST

With CONSULT

1. Turn the ignition switch ON.
2. Select “ABS”, “ACTIVE TEST”, “Check power supply of solenoid valves” in this order.
3. Touch “Start”

4. Check the voltage.

Voltage : 11 – 15.5 V

5. Touch “END”

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> GO TO 2.

2.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY

Check the electronic stability program control unit power supply. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check the harness and connectors between fuse and fusible link block 1 and electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

NO >> Repair/replace harness, connector or fuse.

C0306 SWITCHING VALVE 2

DTC Description

INFOID:0000000013569635

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0306	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Switching valve 2: If the comparison between the measured pulse width modulated voltage signal from the valve driver and the pulse width modulated reference signal is malfunction, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	50 ms

POSSIBLE CAUSE

- Valve current too low or too high.
- Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0306” detected?

YES >> Proceed to BRC-431, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569636

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0307 SWITCHING VALVE 2

DTC Description

INFOID:0000000013569637

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0307	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Switching valve 2: When a malfunction current exists within or beyond the valve driver, an error is set after six error detections. The error is set if the error detection time is exceeded.
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Short circuit or low impedance bypass between the valve and ground.
- Valve driver (Gate) alloyed.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0307” detected?

YES >> Proceed to BRC-432, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569638

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0308 SWITCHING VALVE 2

DTC Description

INFOID:0000000013569639

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0308	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Switching valve 2: If the free-wheeling valve from the valve driver can not be connected or an incorrect activation status is returned, an error is set. The error is set if the error detection time is exceeded
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Valve driver control or valve feedback error.
- Bond demolition.
- Short circuit.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0308” detected?

YES >> Proceed to BRC-433, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569640

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0310 CONTROL UNIT

DTC Description

INFOID:0000000013569641

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0310	00	Reprogram ESP control unit [Reprogram Control unit (Electronic Stability Program control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Reference signal (frequency) from the Multi-IC incorrect). An error is set after the reset. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0310” detected?

YES >> Proceed to BRC-434, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569642

1.PERFORM CONFIGURATION

With CONSULT

Perform configuration. Refer to BRC-85, "Description"

>> GO TO 2.

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0310” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C0311 CONTROL UNIT

DTC Description

INFOID:0000000013569643

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0311	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 10 km/h (7 MPH) or more for 2.5 seconds or more
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Transmission (speed sensor signals) is malfunction). An error is set after the axle rpm sensor test and in ongoing operation. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 10 km/h (7 MPH) or more for 2.5 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0311” detected?

YES >> Proceed to BRC-436, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569644

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0313 CONTROL UNIT

DTC Description

INFOID:0000000013569645

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0313	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Hardware axle rpm sensor test is malfunction). An error is set during the axle rpm sensor test. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0313” detected?

YES >> Proceed to BRC-437, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569646

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0314 AXLE RPM SENSOR

DTC Description

INFOID:0000000013569647

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0314	00	Rpm sensor supply implausible value [One or more rpm sensors supply implausible values]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more
				Signal (terminal)	Axle rpm sensor
				Threshold	If the speed difference between the minimum and maximum wheel speed based on the maximum wheel speed is greater than 5%, an error is set if the malfunction wheel is not always the same. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Axle rpm sensor line has an interruption or has a short circuit to ground or positive.
- Axle rpm sensor or multipole wheel are loosely attached.
- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).
- Tire or rim not permitted.
- Axle rpm sensor malfunction.
- Hardware error in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0314” detected?

YES >> Proceed to BRC-438, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569648

1.CHECK COMPONENT

Check the following items:
- Wheels or tires for wear and size.
- Tire air pressure
- The rear axle gear ratio is correct.
- A multipole ring is dirty or damaged.
- Check multipole ring for tight seating, correct installation and mechanical damage.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace error-detected parts.

C0315 POWER SUPPLY CIRCUIT

DTC Description

INFOID:0000000013569649

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0315	00	Power supply of rpm sensor is malf [The power supply of the rpm sensors is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Power supply
				Threshold	If the power supply of the axle rpm sensor is below a specified voltage value for a defined time, an error is set. The under voltage value can be set in a voltage range of 4.7 V to 6.7 V. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Fuse blown.
- Power supply line has an interruption.
- Connection of the ground line (body) or the contact points (plug connections) are corroded (voltage drop).
- Battery discharged or insufficient load capacity.
- Hardware error in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0315” detected?

YES >> Proceed to BRC-440, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569650

1.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT

Check electronic stability program control unit power supply and ground circuit. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace error-detected parts.

C0320 YAW RATE SENSOR

DTC Description

INFOID:0000000013569651

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0320	00	Yaw rate sensor [The signal 'Yaw rate' of component (Yaw rate sensor for lateral and longitudinal acceleration) is outside the permissible range]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 20 km/h (13MPH) or more
				Signal (terminal)	—
				Threshold	Yaw rate sensor (integrated): If the yaw rate during the stable running is more than 94.75 degrees / s, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Installation of the yaw rate sensor is malfunction (yaw rate sensor tilted or twisted or incorrect attached).
- Check the environment influence of the yaw rate sensor (Parts not attached).
- Internal yaw rate sensor error (electronics / mechanics).
- Yaw rate sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 20 km/h (13 MPH) or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0320” detected?

YES >> Proceed to BRC-442, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569652

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0321 YAW RATE SENSOR

DTC Description

INFOID:0000000013569653

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0321	00	Yaw rate sensor [The signal 'Yaw rate' of component (Yaw rate sensor for lateral and longitudinal acceleration) is outside the permissible range]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 20 km/h (13 MPH) or more
				Signal (terminal)	—
				Threshold	Yaw rate sensor (integrated): If the yaw rate is more than 30 degrees / s at rest, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Installation of the yaw rate sensor is malfunction (yaw rate sensor tilted or twisted or incorrect attached).
- Check the environment influence of the yaw rate sensor (Parts not attached).
- Internal yaw rate sensor error (electronics / mechanics).
- Yaw rate sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 20 km/h (13 MPH) or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0321” detected?

YES >> Proceed to BRC-443, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569654

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0323 YAW RATE SENSOR

DTC Description

INFOID:0000000013569655

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0323	00	Yaw rate sensor [The signal 'Yaw rate' of component (Yaw rate sensor for lateral and longitudinal acceleration) is outside the permissible range]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 20 km/h (13 MPH) or more
				Signal (terminal)	—
				Threshold	Yaw rate sensor (integrated): If the yaw rate is more than 10 to 23 degrees / s / 20 ms (depending on driving style), an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Installation of the yaw rate sensor is malfunction (yaw rate sensor tilted or twisted or incorrect attached).
- Check the environment influence of the yaw rate sensor (Parts not attached).
- Internal yaw rate sensor error (electronics / mechanics).
- Yaw rate sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 20 km/h (13 MPH) or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0323” detected?

YES >> Proceed to BRC-444, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569656

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0325 YAW RATE SENSOR

DTC Description

INFOID:0000000013569657

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0325	00	Yaw rate sensor [The signal 'Yaw rate' of component (Yaw rate sensor for lateral and longitudinal acceleration) is outside the permissible range]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 20 km/h (13 MPH) or more
				Signal (terminal)	—
				Threshold	Yaw rate sensor (integrated): If the yaw rate sensor detects a sensitivity yaw rate error then an error is set (high dynamics). The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Installation of the yaw rate sensor is malfunction (yaw rate sensor tilted or twisted or incorrect attached).
- Check the environment influence auf yaw rate sensor (Parts not attached).
- Internal yaw rate sensor error (electronics / mechanics).
- Yaw rate sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 20 km/h (13 MPH) or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0325” detected?

YES >> Proceed to BRC-445, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569658

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0326 YAW RATE SENSOR

DTC Description

INFOID:0000000013569659

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0326	00	Yaw rate sensor [Signal 'Yaw rate' of component (Yaw rate sensor for lateral and longitudinal acceleration) is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 20 km/h (13 MPH) or more
				Signal (terminal)	—
				Threshold	Yaw rate sensor (integrated): When a estimated yaw rate sensitivity of more than 25% is calculated by the comparison between the actual yaw rate signal and the model-based signals from the steering angle and the axle rpm sensor, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Installation of the yaw rate sensor is malfunction (yaw rate sensor tilted or twisted or incorrect attached).
- Check the environment influence of the yaw rate sensor (Parts not attached).
- Internal yaw rate sensor error (electronics / mechanics).
- Yaw rate sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

Ⓟ With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 20 km/h (13 MPH) or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0326” detected?

YES >> Proceed to BRC-446, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569660

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0327 YAW RATE SENSOR

DTC Description

INFOID:0000000013569661

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0327	00	Installation posi yaw rate sen incorrect [The installation position of component (Yaw rate sensor for lateral and longitudinal acceleration) is incorrect]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at slow trip (slalom) and then drive the vehicle at 70 km/h (44 MPH) or more
				Signal (terminal)	—
				Threshold	Yaw rate sensor (integrated): The measured yaw rate and the model-based yaw rate is calculated from the steering angle, which are compared to each other. During the trip, both signals must have the same sign. If opposite signs are detected then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Installation of the yaw rate sensor is malfunction (yaw rate sensor tilted or twisted or incorrect attached).
- Check the environment influence of the yaw rate sensor (Parts not attached).
- Internal yaw rate sensor error (electronics / mechanics).
- Yaw rate sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at slow trip (slalom) and then drive the vehicle at 70 km/h (44 MPH) or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0327” detected?

YES >> Proceed to BRC-448, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569662

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0328 YAW RATE SENSOR

DTC Description

INFOID:0000000013569663

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0328	00	Yaw rate sensor [Signal 'Yaw rate' of component (Yaw rate sensor for lateral and longitudinal acceleration) is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 20 km/h (13 MPH) or more
				Signal (terminal)	—
				Threshold	Yaw rate sensor (integrated): If the comparison of the actual offset compensated yaw rate and the model-based yaw rate, which are calculated from the signals of the rotation rate / steering angle / lateral acceleration and yaw rate, of more than 2.5 degrees / s occurs. an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Installation of the yaw rate sensor is malfunction (yaw rate sensor tilted or twisted or incorrect attached).
- Check the environment influence of the yaw rate sensor (Parts not attached).
- Internal yaw rate sensor error (electronics / mechanics).
- Yaw rate sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 20 km/h (13 MPH) or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0328” detected?

YES >> Proceed to BRC-450, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569664

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0329 YAW RATE SENSOR

DTC Description

INFOID:0000000013569665

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0329	00	Yaw rate sensor [Signal 'Yaw rate' of component (Yaw rate sensor for lateral and longitudinal acceleration) is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 20 km/h (13 MPH) or more
				Signal (terminal)	—
				Threshold	Yaw rate sensor (integrated): If the difference between the model-based yaw rate and the measured steering angle sensor signal is caused by an error of the yaw rate sensor, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Installation of the yaw rate sensor is malfunction (yaw rate sensor tilted or twisted or incorrect attached).
- Check the environment influence of the yaw rate sensor (Parts not attached).
- Internal yaw rate sensor error (electronics / mechanics).
- Yaw rate sensor malfunction. Installation of the steering angle sensor is malfunction (Steering angle sensor slips (column) or twisted or incorrect attached).
- Steering angle sensor is not calibrated. Internal steering angle sensor error (electronics / mechanics).
- Axis geometry was modified by accident or vehicle modifications.
- Steering angle sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 20 km/h (13 MPH) or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0329” detected?

YES >> Proceed to BRC-453, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569666

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C032A YAW RATE SENSOR

DTC Description

INFOID:0000000013569667

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C032A	00	Yaw rate sensor [Signal 'Yaw rate' of component (Yaw rate sensor for lateral and longitudinal acceleration) is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 20 km/h (13 MPH) or more
				Signal (terminal)	—
				Threshold	Yaw rate sensor (integrated): The yaw rate offset is determined by a filtered yaw rate signal at a standstill. If the offset value is confirmed during the ride then after the next standstill and the following driving the vehicle, if the offset value is more than 5.25 degrees / s, an error is set. The error is set if the error detection time is exceeded
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Installation of the yaw rate sensor is malfunction (yaw rate sensor tilted or twisted or incorrect attached).
- Check the environment influence of the yaw rate sensor (Parts not attached).
- Internal yaw rate sensor error (electronics / mechanics).
- Yaw rate sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 20 km/h (13 MPH) or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C032A” detected?

YES >> Proceed to BRC-454, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569668

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C032B YAW RATE SENSOR

DTC Description

INFOID:0000000013569669

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C032B	00	Yaw rate sensor [Signal 'Yaw rate' of component (Yaw rate sensor for lateral and longitudinal acceleration) is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 20 km/h (13 MPH) or more
				Signal (terminal)	—
				Threshold	Yaw rate sensor (integrated): The yaw rate offset is calculated through a strong filtered deviation between the actual yaw rate signal and the model-based yaw rate, which are determined from the yaw rate signals / steering angle / lateral acceleration and axle rpm sensor. If an offset value of more than 7.5 degrees / s is detected, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	

POSSIBLE CAUSE

- Installation of the yaw rate sensor is malfunction (yaw rate sensor tilted or twisted or incorrect attached).
- Check the environment influence of the yaw rate sensor (Parts not attached).
- Internal yaw rate sensor error (electronics / mechanics).
- Yaw rate sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 20 km/h (13 MPH) or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C032B” detected?

YES >> Proceed to BRC-456, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569670

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C032C YAW RATE SENSOR

DTC Description

INFOID:0000000013569671

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C032C	00	Yaw rate sensor [Signal 'Yaw rate' of component (Yaw rate sensor for lateral and longitudinal acceleration) is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 20 km/h (13 MPH) or more
				Signal (terminal)	—
				Threshold	Yaw rate sensor (integrated): The yaw rate offset is calculated through a weak filtered deviation between the actual yaw rate signal and the model-based yaw rate, which are determined from the yaw rate signals / steering angle / lateral acceleration and axle rpm sensor. If an offset value of more than 7.5 degrees / s is detected, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Installation of the yaw rate sensor is malfunction (yaw rate sensor tilted or twisted or incorrect attached).
- Check the environment influence of the yaw rate sensor (Parts not attached).
- Internal yaw rate sensor error (electronics / mechanics).
- Yaw rate sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 20 km/h (13 MPH) or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C032C” detected?

YES >> Proceed to BRC-458, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569672

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C032D YAW RATE SENSOR

DTC Description

INFOID:0000000013569673

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C032D	00	Yaw rate sensor [Signal 'Yaw rate' of component (Yaw rate sensor for lateral and longitudinal acceleration) is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 20 km/h (13 MPH) or more
				Signal (terminal)	—
				Threshold	Yaw rate sensor (integrated): The yaw rate offset is calculated through a weak filtered deviation between the actual yaw rate signal and the model-based yaw rate, which are determined from the yaw rate signals / steering angle / lateral acceleration and axle rpm sensor. If an offset value of more than 15 degrees / s is detected, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Installation of the yaw rate sensor is malfunction (yaw rate sensor tilted or twisted or incorrect attached).
- Check the environment influence of the yaw rate sensor (Parts not attached).
- Internal yaw rate sensor error (electronics / mechanics).
- Yaw rate sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 20 km/h (13 MPH) or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C032D” detected?

YES >> Proceed to BRC-460, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569674

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C032E YAW RATE SENSOR

DTC Description

INFOID:0000000013569675

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C032E	00	Yaw rate sensor [Signal 'Yaw rate' of component (Yaw rate sensor for lateral and longitudinal acceleration) is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 20 km/h (13 MPH) or more
				Signal (terminal)	—
				Threshold	Yaw rate sensor (integrated): If the comparison of the actual offset compensated yaw rate and the model-based yaw rate, which are calculated from the signals of the rotation rate / steering angle / lateral acceleration and axle rpm sensor yaw rate, of more than 2.5 to 5 degrees / s occurs. an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Installation of the yaw rate sensor is malfunction (yaw rate sensor tilted or twisted or incorrect attached).
- Check the environment influence of the yaw rate sensor (Parts not attached).
- Internal yaw rate sensor error (electronics / mechanics).
- Yaw rate sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 20 km/h (13 MPH) or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C032E” detected?

YES >> Proceed to BRC-462, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569676

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0330 LONGITUDINAL ACCELERATION SENSOR

DTC Description

INFOID:0000000013569677

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0330	00	Yaw rate sensor [Signal 'Longitudinal acceleration' of component (Yaw rate sensor for lateral and longitudinal acceleration) is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more
				Signal (terminal)	—
				Threshold	Longitudinal acceleration sensor (integrated): If accelerations of more than 1.5 m / s^2 occurs, by comparison while driving between the measured and calculated longitudinal acceleration (vehicle speed) then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Installation of the longitudinal acceleration sensor is malfunction (longitudinal acceleration sensor tilted or twisted or incorrect attached).
- Check the environment influence of the longitudinal acceleration sensor (Parts not attached).
- Internal longitudinal acceleration sensor error (electronics / mechanics).
- Longitudinal acceleration sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0330” detected?

YES >> Proceed to BRC-464, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569678

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0331 LONGITUDINAL ACCELERATION SENSOR

DTC Description

INFOID:0000000013569679

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0331	00	Yaw rate sensor [Signal 'Longitudinal acceleration' of component (Yaw rate sensor for lateral and longitudinal acceleration) is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at slow trip (slalom) and then drive the vehicle70 km/h (44 MPH) or more
				Signal (terminal)	—
				Threshold	Longitudinal acceleration sensor (integrated): If longitudinal accelerations of more than 4m / s2 occurs during the non-braked ride, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	20000 ms

POSSIBLE CAUSE

- Installation of the longitudinal acceleration sensor is malfunction (longitudinal acceleration sensor tilted or twisted or incorrect attached).
- Check the environment influence of the longitudinal acceleration sensor (Parts not attached).
- Internal longitudinal acceleration sensor error (electronics / mechanics).
- Longitudinal acceleration sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at slow trip (slalom) and then drive the vehicle70 km/h (44 MPH) or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0331” detected?

YES >> Proceed to BRC-466, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569680

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0332 LONGITUDINAL ACCELERATION SENSOR

DTC Description

INFOID:0000000013569681

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0332	00	Yaw rate sensor [Signal 'Longitudinal acceleration' of component (Yaw rate sensor for lateral and longitudinal acceleration) is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle 5 km (3.1 mile) or more
				Signal (terminal)	—
				Threshold	Longitudinal acceleration sensor (integrated): The longitudinal acceleration offset is determined for a long time by a filtering of the measured longitudinal acceleration signal during normal driving. If the offset value is more than 2.5 m /s2 is detected, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	40 ms

POSSIBLE CAUSE

- Installation of the longitudinal acceleration sensor is malfunction (longitudinal acceleration sensor tilted or twisted or incorrect attached).
- Check the environment influence of the longitudinal acceleration sensor (Parts not attached).
- Internal longitudinal acceleration sensor error (electronics / mechanics).
- Longitudinal acceleration sensor malfunction

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle 5 km (3.1 mile) or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0332” detected?

YES >> Proceed to BRC-468, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569682

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0333 LONGITUDINAL ACCELERATION SENSOR

DTC Description

INFOID:0000000013569683

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0333	00	Yaw rate sensor [Signal 'Longitudinal acceleration' of component (Yaw rate sensor for lateral and longitudinal acceleration) is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at slow trip (slalom) and then 70 km/h (44 MPH) or more
				Signal (terminal)	—
				Threshold	Longitudinal acceleration sensor (integrated): If accelerations of more than 3.5 m / s^2 occurs, by the comparison between the measured and calculated longitudinal acceleration (vehicle speed) during normal driving, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Installation of the longitudinal acceleration sensor is malfunction (longitudinal acceleration sensor tilted or twisted or incorrect attached).
- Check the environment influence of the longitudinal acceleration sensor (Parts not attached).
- Internal longitudinal acceleration sensor error (electronics / mechanics).
- Longitudinal acceleration sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at slow trip (slalom) and then 70 km/h (44 MPH) or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0333” detected?

YES >> Proceed to BRC-470, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569684

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0334 LONGITUDINAL ACCELERATION SENSOR

DTC Description

INFOID:0000000013569685

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0334	00	Installation position of ESP is incorrect [The installation position of component (Electronic Stability Program control unit) is incorrect]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle 5 km (3.1 mile) or more
				Signal (terminal)	—
				Threshold	Longitudinal acceleration sensor (integrated): If the electronic stability program control unit is not installed correctly (offset value in longitudinal acceleration signal) after an accident, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Installation of the longitudinal acceleration sensor is malfunction (electronic stability program control unit tilted or twisted or incorrect attached).
- Longitudinal acceleration sensor is not calibrated.
- Check the environment influence of the longitudinal acceleration sensor (Parts not attached).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle 5 km (3.1 mile) or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0334” detected?

YES >> Proceed to BRC-472, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569686

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0340 LATERAL ACCELERATION SENSOR

DTC Description

INFOID:0000000013569687

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0340	00	Yaw rate sensor [Signal 'Lateral acceleration' of component (Yaw rate sensor for lateral and longitudinal acceleration) is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at slow trip (slalom) and then 70 km/h (44 MPH) or more
				Signal (terminal)	—
				Threshold	Lateral acceleration sensor (integrated): If acceleration of more than 2.5 m / s^2 occurs by the comparison between the actual lateral acceleration and the model-based acceleration rate, which are calculated from the signals of the yaw rate / steering angle / lateral acceleration and axle rpm sensors, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Installation of the lateral acceleration sensor is malfunction (lateral acceleration sensor tilted or twisted or incorrect attached).
- Check the environment influence of the lateral acceleration sensor (Parts not attached).
- Internal lateral acceleration sensor error (electronics / mechanics).
- Lateral acceleration sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at slow trip (slalom) and then 70 km/h (44 MPH) or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0340” detected?

YES >> Proceed to BRC-475, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569688

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0341 LATERAL ACCELERATION SENSOR

DTC Description

INFOID:0000000013569689

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0341	00	Yaw rate sensor [Signal 'Lateral acceleration' of component (Yaw rate sensor for lateral and longitudinal acceleration) is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at slow trip (slalom) and then 70 km/h (44 MPH) or more
				Signal (terminal)	—
				Threshold	Lateral acceleration sensor (integrated): If the measured lateral acceleration is more than 7 m / s2 at rest, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Installation of the lateral acceleration sensor is malfunction (lateral acceleration sensor tilted or twisted or incorrect attached).
- Check the environment influence of the lateral acceleration sensor (Parts not attached).
- Internal lateral acceleration sensor error (electronics / mechanics).
- Lateral acceleration sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at slow trip (slalom) and then 70 km/h (44 MPH) or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0341” detected?

YES >> Proceed to BRC-476, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569690

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0342 LATERAL ACCELERATION SENSOR

DTC Description

INFOID:0000000013569691

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0342	00	Yaw rate sensor [Signal 'Lateral acceleration' of component (Yaw rate sensor for lateral and longitudinal acceleration) is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at slow trip (slalom) and then 70 km/h (44 MPH) or more
				Signal (terminal)	—
				Threshold	Lateral acceleration sensor (integrated): If acceleration of more than 2.5 m / s^2 occurs by the comparison between the actual lateral acceleration and the model-based acceleration rate, which are calculated from the signals of the yaw rate / steering angle / lateral acceleration and axle rpm sensors, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Installation of the lateral acceleration sensor is malfunction (lateral acceleration sensor tilted or twisted or incorrect attached).
- Check the environment influence of the lateral acceleration sensor (Parts not attached).
- Internal lateral acceleration sensor error (electronics / mechanics).
- Lateral acceleration sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at slow trip (slalom) and then 70 km/h (44 MPH) or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0342” detected?

YES >> Proceed to BRC-478, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569692

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0343 LATERAL ACCELERATION SENSOR

DTC Description

INFOID:0000000013569693

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0343	00	Yaw rate sensor [Signal 'Lateral acceleration' of component (Yaw rate sensor for lateral and longitudinal acceleration) is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle 5 km (3.1 mile) or more
				Signal (terminal)	—
				Threshold	Lateral acceleration sensor (integrated): The lateral acceleration offset is determined for a long time by a filtering of the measured lateral acceleration signal during normal driving (straight). If an offset value of more than 2.25 m / s2 occurs then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Installation of the lateral acceleration sensor is malfunction (lateral acceleration sensor tilted or twisted or incorrect attached).
- Check the environment influence of the lateral acceleration sensor (Parts not attached).
- Internal lateral acceleration sensor error (electronics / mechanics).
- Lateral acceleration sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle 5 km (3.1 mile) or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0343” detected?

YES >> Proceed to BRC-479, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569694

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0344 LATERAL ACCELERATION SENSOR

DTC Description

INFOID:0000000013569695

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0344	00	Yaw rate sensor [Signal 'Lateral acceleration' of component (Yaw rate sensor for lateral and longitudinal acceleration) is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle 5 km (3.1 mile) or more
				Signal (terminal)	—
				Threshold	Lateral acceleration sensor (integrated): If the electronic stability program control unit is not installed correctly (offset value in the lateral acceleration signal) after an accident, an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Installation of the lateral acceleration sensor is malfunction (electronic stability program control unit tilted or twisted or incorrect attached).
- Lateral acceleration sensor is not calibrated.
- Check the environment influence of the lateral acceleration sensor (Parts not attached).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle 5 km (3.1 mile) or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0344” detected?

YES >> Proceed to BRC-481, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569696

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0350 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013569697

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0350	00	CAN message E-IGN lock C/U [The CAN message from control unit (Electronic ignition lock control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the message from the electronic ignition switch control unit is incorrect (wrong message length) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- Data corrupt error of the message from the electronic ignition switch control unit (message length incorrect).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0350” detected?

YES >> Proceed to BRC-482, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569698

1.PERFORM SELF-DIAGNOSIS FOR ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch control unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C0351 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013569699

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0351	00	No CAN message E-IGN lock C/U [No CAN message was received from control unit (Electronic ignition lock control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the message from the electronic ignition switch control unit is not received then an error is set. This error is set, when the malfunction detection time is exceeded
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- Electronic ignition switch control unit

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0351” detected?

YES >> Proceed to BRC-483, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569700

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electronic ignition switch control unit. Refer to PCS-47, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C0352 FRONT RIGHT DOOR SYSTEM

DTC Description

INFOID:0000000013569701

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0352	00	CAN message DCU RF door [The CAN message from control unit (DCU Right front door) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal rotary latch door front right state from electronic ignition switch control unit is invalid (signal value is malfunction) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	1500 ms

POSSIBLE CAUSE

- Signal rotary latch door front right state from front right door control unit invalid (signal value is malfunction).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0352” detected?

YES >> Proceed to BRC-484, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569702

1.PERFORM SELF-DIAGNOSIS FOR RIGHT FRONT DOOR CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Right front door control unit”. Refer to DLK-35, "CONSULT Function (Right Front Door Control Unit)".

Is DTC detected?

YES >> Check the DTC. Refer to DLK-70, "DTC Index".
NO >> INSPECTION END

C0353 FRONT LEFT DOOR SYSTEM

DTC Description

INFOID:0000000013569703

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0353	00	CAN message DCU FL door [The CAN message from control unit (DCU Left front door) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal rotary latch door front left state from the electronic ignition switch control unit is invalid (signal value is malfunction) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	1500 ms

POSSIBLE CAUSE

- Signal rotary latch door front left state from front left door control unit invalid (signal value is malfunction).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0353” detected?

YES >> Proceed to BRC-485, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569704

1.PERFORM SELF-DIAGNOSIS FOR LEFT FRONT DOOR CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Left front door control unit”. Refer to DLK-31, "CONSULT Function (Left Front Door Control Unit)".

Is DTC detected?

YES >> Check the DTC. Refer to DLK-60, "DTC Index".
NO >> INSPECTION END

C0354 BACK DOOR SYSTEM

DTC Description

INFOID:0000000013569705

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0354	00	CAN message SAM C/U [The CAN message from control unit (SAM control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal Deck lid rotary latch state from the BCM is invalid (signal value is malfunction) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	1500 ms

POSSIBLE CAUSE

- Signal deck lid rotary latch state from body BCM invalid (signal value is malfunction).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0354” detected?

YES >> Proceed to BRC-486, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569706

1.PERFORM SELF-DIAGNOSIS FOR BCM

With CONSULT

Perform self-diagnosis for “BCM”. Refer to BCS-24, "CONSULT Function (BCM)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-51, "DTC Index".
NO >> INSPECTION END

C0356 TRANSMISSION SYSTEM

DTC Description

INFOID:0000000013569707

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0356	00	CAN message ECM [The CAN message from control unit (Engine) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal reverse gear switch gear from TCM is invalid (signal value is malfunction) then an error is set. This error is set, when the malfunction detection time is exceeded [Note for malfunction detection time in the service comments column).
				Diagnosis delay time	1500 ms

POSSIBLE CAUSE

- Signal gear switch (Loaded lever: reverse gear position) from TCM invalid (signal value is malfunction).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 30 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
4. Perform self-diagnosis for “ABS”.

Is DTC “C0356” detected?

YES >> Proceed to BRC-487, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569708

1.PERFORM SELF-DIAGNOSIS FOR TCM

With CONSULT

Perform self-diagnosis for “TRANSMISSION”. Refer to TM-36, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to TM-45, "DTC Index".
NO >> INSPECTION END

C0360 ENGINE SYSTEM

DTC Description

INFOID:0000000013569709

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0360	00	CAN message ECM [The CAN message from control unit (Engine) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the message from ECM is incorrect (message length incorrect) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- Data corrupt error of the message from ECM (message length incorrect).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0360” detected?

YES >> Proceed to BRC-488, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569710

1.PERFORM SELF-DIAGNOSIS FOR ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C0361 ENGINE SYSTEM

DTC Description

INFOID:0000000013569711

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0361	00	No CAN message ECM [No CAN message was received from control unit 'Engine']	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the message from ECM is not received then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- ECM

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0361” detected?

YES >> Proceed to BRC-489, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569712

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the ECM. Refer to EC-963, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C0370 TRANSMISSION SYSTEM

DTC Description

INFOID:0000000013569713

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0370	00	CAN message TCM [The CAN message from control unit (Transmission) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the message (TCM) from ECM is incorrect (message length or message counter or checksum incorrect) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- Data corrupt error of the message (TCM) from ECM (message length or message counter or checksum incorrect).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0370” detected?

YES >> Proceed to BRC-490, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569714

1.PERFORM SELF-DIAGNOSIS FOR TCM

With CONSULT

Perform self-diagnosis for “TRANSMISSION”. Refer to TM-36, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to TM-45, "DTC Index".
NO >> INSPECTION END

C0375 ENGINE SYSTEM

DTC Description

INFOID:0000000013569715

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0375	00	CAN message TCM [The CAN message from control unit (Transmission) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal Transmission crankshaft torque loss from ECM is invalid (signal value is malfunction) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- Signal Transmission crankshaft torque loss from TCM/ gear invalid (signal value is malfunction).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0375” detected?

YES >> Proceed to BRC-491, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569716

1.PERFORM SELF-DIAGNOSIS FOR TCM

With CONSULT

Perform self-diagnosis for “TRANSMISSION”. Refer to TM-36, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to TM-45, "DTC Index".
NO >> INSPECTION END

C0380 ENGINE SYSTEM

DTC Description

INFOID:0000000013569717

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0380	00	CAN message ECM [The CAN message from control unit (Engine) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the message from ECM is incorrect (message length or message counter or checksum incorrect) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- Data corrupt error of the message from ECM (message length or message counter or checksum incorrect).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0380” detected?

YES >> Proceed to BRC-492, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569718

1.PERFORM SELF-DIAGNOSIS FOR ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C0381 ENGINE SYSTEM

DTC Description

INFOID:0000000013569719

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0381	00	No CAN message ECM [No CAN message was received from control unit 'Engine']	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the message from ECM is not received then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- ECM

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0381” detected?

YES >> Proceed to BRC-493, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569720

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the ECM. Refer to EC-963, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C0382 ENGINE SYSTEM

DTC Description

INFOID:0000000013569721

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0382	00	CAN message ECM [The CAN message from control unit (Engine) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal Selected engine torque air scarf from ECM is invalid (signal value is beyond the valid range) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- Signal selected engine torque air scarf from ECM invalid (signal value is beyond the valid range).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0382” detected?

YES >> Proceed to BRC-494, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569722

1.PERFORM SELF-DIAGNOSIS FOR ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C0383 ENGINE SYSTEM

DTC Description

INFOID:0000000013569723

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0383	00	CAN message ECM [The CAN message from control unit 'Engine' is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the signal enable engine torque request brake control from ECM is invalid then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- Accelerator pedal position sensor
- ECM

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0383” detected?

YES >> Proceed to BRC-495, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569724

1.PERFORM SELF-DIAGNOSIS FOR ECM

With CONSULT

1. Turn the ignition switch ON.
2. Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is any DTC detected?

YES >> Perform trouble diagnosis for the detected DTC. Refer to EC-142, "DTC Index".
NO >> GO TO 2.

2.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the ECM. Refer to EC-963, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C0384 ENGINE SYSTEM

DTC Description

INFOID:0000000013569725

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0384	00	CAN message ECM [The CAN message from control unit (Engine) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal Selected engine torque driver from ECM is invalid (signal value is malfunction) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- Signal selected engine torque driver from ECM invalid (signal value is malfunction).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0384” detected?

YES >> Proceed to BRC-497, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569726

1.PERFORM SELF-DIAGNOSIS FOR ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C0385 ENGINE SYSTEM

DTC Description

INFOID:0000000013569727

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0385	00	Signal from ECM is implausible [One or more signals sent from control unit (Engine) via the CAN bus is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal brake moment request from motor ECU is invalid (signal value is malfunction or beyond the valid range) then an error is set. This error is set, when the malfunction detection time is exceeded [Note for malfunction detection time in the service comments column).
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- Component (Partner ECU / sensor) is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 30 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
4. Perform self-diagnosis for “ABS”.

Is DTC “C0385” detected?

YES >> Proceed to BRC-498, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569728

1.PERFORM SELF-DIAGNOSIS FOR ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C0390 ENGINE SYSTEM

DTC Description

INFOID:0000000013569729

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0390	00	CAN message ECM [The CAN message from control unit (Engine) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the message from ECM is incorrect (message length or message counter or checksum incorrect) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- Data corrupt error of the message from ECM (message length or message counter or checksum incorrect).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0390” detected?

YES >> Proceed to BRC-499, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569730

1.PERFORM SELF-DIAGNOSIS FOR ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C0391 ENGINE SYSTEM

DTC Description

INFOID:0000000013569731

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0391	00	No CAN message ECM [No CAN message was received from control unit 'Engine']	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the message from ECM is not received then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- ECM

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0391” detected?

YES >> Proceed to BRC-500, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569732

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the ECM. Refer to EC-963, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C0392 ENGINE SYSTEM

DTC Description

INFOID:0000000013569733

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0392	00	CAN message ECM [The CAN message from control unit (Engine) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal Actual static engine torque from ECM is invalid (signal value is beyond the valid range) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- Signal Actual static engine torque from ECM invalid (signal value is beyond the valid range).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0392” detected?

YES >> Proceed to BRC-501, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569734

1.PERFORM SELF-DIAGNOSIS FOR ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C0393 ENGINE SYSTEM

DTC Description

INFOID:0000000013569735

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0393	00	CAN message ECM [The CAN message from control unit (Engine) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal Actual maximum engine torque from ECM is invalid (signal value is malfunction) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- Signal Actual maximum engine torque from ECM invalid (signal value is malfunction).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0393” detected?

YES >> Proceed to BRC-502, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569736

1.PERFORM SELF-DIAGNOSIS FOR ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function"

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C0394 ENGINE SYSTEM

DTC Description

INFOID:0000000013569737

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0394	00	CAN message ECM [The CAN message from control unit (Engine) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal Actual minimum engine torque from ECM is invalid (signal value is beyond the valid range) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- Signal Actual minimum engine torque from ECM invalid (signal value is beyond the valid range).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0394” detected?

YES >> Proceed to BRC-503, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569738

1.PERFORM SELF-DIAGNOSIS FOR ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function"

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C03A0 ENGINE SYSTEM

DTC Description

INFOID:0000000013569739

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C03A0	00	CAN message ECM [The CAN message from control unit (Engine) is malfunction]	NO SUBTYPE INFORMATION	Diagnosis condition	ignition switch ON
				Signal (terminal)	—
				Threshold	If the message from ECM is incorrect (message length or message counter or checksum incorrect) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- Data corrupt error of the message from ECM (message length or message counter or checksum incorrect).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C03A0” detected?

YES >> Proceed to BRC-504, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569740

1.PERFORM SELF-DIAGNOSIS FOR ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C03A1 ENGINE SYSTEM

DTC Description

INFOID:0000000013569741

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C03A1	00	No CAN message ECM [No CAN message was received from control unit 'Engine']	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	If the message from ECM is not received then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- ECM

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C03A1” detected?

YES >> Proceed to BRC-505, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569742

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the ECM. Refer to EC-963, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C03A2 ENGINE SYSTEM

DTC Description

INFOID:0000000013569743

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C03A2	00	CAN message ECM [The CAN message from control unit (Engine) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal Actual engine rpm from ECM is invalid (signal value is beyond the valid range) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- Signal Actual engine rpm from ECM invalid (signal value is beyond the valid range).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C03A2” detected?

YES >> Proceed to BRC-506, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569744

1.PERFORM SELF-DIAGNOSIS FOR ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C03A3 ENGINE SYSTEM

DTC Description

INFOID:0000000013569745

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C03A3	00	CAN message ECM [The CAN message from control unit (Engine) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal Actual engine run state from ECM is invalid (signal value is beyond the valid range) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- Signal Actual engine run state from ECM invalid (signal value is beyond the valid range).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C03A3” detected?

YES >> Proceed to BRC-507, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569746

1.PERFORM SELF-DIAGNOSIS FOR ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C03A4 ENGINE SYSTEM

DTC Description

INFOID:0000000013569747

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C03A4	00	CAN message ECM [The CAN message from control unit 'Engine' is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the signal accelerator pedal position sensor malfunction from ECM is invalid then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- Accelerator pedal position sensor
- ECM

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C03A4” detected?

YES >> Proceed to BRC-508, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569748

1.PERFORM SELF-DIAGNOSIS FOR ECM

With CONSULT

1. Turn the ignition switch ON.
2. Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is any DTC detected?

YES >> Perform trouble diagnosis for the detected DTC. Refer to EC-142, "DTC Index".
NO >> GO TO 2.

2.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the ECM. Refer to EC-963, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C03A5 ENGINE SYSTEM

DTC Description

INFOID:0000000013569749

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C03A5	00	CAN message ECM [The CAN message from control unit 'Engine' is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the signal accelerator pedal position from ECM is invalid then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- Accelerator pedal position sensor
- ECM

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C03A5” detected?

YES >> Proceed to BRC-510, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569750

1.PERFORM SELF-DIAGNOSIS FOR ECM

With CONSULT

1. Turn the ignition switch ON.
2. Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is any DTC detected?

YES >> Perfrom trouble diagnosis for the detected DTC. Refer to EC-142, "DTC Index".
NO >> GO TO 2.

2.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the ECM. Refer to EC-963, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C03A6 ENGINE SYSTEM

DTC Description

INFOID:0000000013569751

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C03A6	00	CAN message ECM [The CAN message from control unit 'Engine' is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the signal accelerator pedal position value from ECM is invalid then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- Accelerator pedal position sensor
- ECM

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C03A6” detected?

YES >> Proceed to BRC-512, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569752

1.PERFORM SELF-DIAGNOSIS FOR ECM

With CONSULT

1. Turn the ignition switch ON.
2. Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is any DTC detected?

YES >> Perform trouble diagnosis for the detected DTC. Refer to EC-142, "DTC Index".
NO >> GO TO 2.

2.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the ECM. Refer to EC-963, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C03B0 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013569753

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C03B0	00	CAN message E-IGN lock C/U [The CAN message from control unit (Electronic ignition lock control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the message from electronic ignition switch control unit is incorrect (message length incorrect) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- Data corrupt error of the message from electronic ignition switch control unit (message length incorrect).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C03B0” detected?

YES >> Proceed to BRC-514, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569754

1.PERFORM SELF-DIAGNOSIS FOR ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch control unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C03B1 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013569755

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C03B1	00	No CAN message E-IGN lock C/U [No CAN message was received from control unit (Electronic ignition lock control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the message from the electronic ignition switch control unit is not received then an error is set. This error is set, when the malfunction detection time is exceeded
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- Electronic ignition switch control unit

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C03B1” detected?

YES >> Proceed to BRC-515, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569756

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electronic ignition switch control unit. Refer to PCS-47, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C03B2 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013569757

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C03B2	00	CAN message E-IGN lock C/U [The CAN message from control unit (Electronic ignition lock control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the message from electronic ignition switch control unit is incorrect (message length incorrect) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- Data corrupt error of the message from electronic ignition switch control unit (message length incorrect).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C03B2” detected?

YES >> Proceed to BRC-516, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569758

1.PERFORM SELF-DIAGNOSIS FOR ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch control unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C03B3 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013569759

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C03B3	00	No CAN message E-IGN lock C/U [No CAN message was received from control unit (Electronic ignition lock control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the message from the electronic ignition switch control unit is not received then an error is set. This error is set, when the malfunction detection time is exceeded
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- Electronic ignition switch control unit

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C03B3” detected?

YES >> Proceed to BRC-517, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569760

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electronic ignition switch control unit. Refer to PCS-47, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C03C0 ELECTRIC PARKING BRAKE SYSTEM

DTC Description

INFOID:0000000013569761

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C03C0	00	CAN message EPKB C/U [The CAN message from control unit (Electric parking brake control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the message from electrical parking brake control module is incorrect (message length incorrect) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	50 ms

POSSIBLE CAUSE

- Data corrupt error of the message from electrical parking brake control module (message length incorrect).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C03C0” detected?

YES >> Proceed to BRC-518, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569762

1.PERFORM SELF-DIAGNOSIS FOR ELECTRIC PARKING BRAKE CONTROL MODULE

With CONSULT

Perform self-diagnosis for “EHS/PKB”. Refer to PB-18, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PB-24, "DTC Index".
NO >> INSPECTION END

C03C1 ELECTRIC PARKING BRAKE SYSTEM

DTC Description

INFOID:0000000013569763

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C03C1	00	No CAN signal received from E-PKB [No CAN message was received from control unit (Electric parking brake control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the message from electrical parking brake control module is not received then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	50 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- Electric parking brake control module

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C03C1” detected?

YES >> Proceed to BRC-519, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569764

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electric parking brake control module. Refer to PB-130, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C03C2 ELECTRIC PARKING BRAKE SYSTEM

DTC Description

INFOID:0000000013569765

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C03C2	00	CAN message EPKB C/U [The CAN message from control unit (Electric parking brake control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal brake torque request electrical parking brake from electrical parking brake control module is invalid (signal value is beyond the valid range) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- Signal brake torque request electrical parking brake from electrical parking brake control module invalid (signal value is beyond the valid range).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C03C2” detected?

YES >> Proceed to BRC-520, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569766

1.PERFORM SELF-DIAGNOSIS FOR ELECTRIC PARKING BRAKE CONTROL MODULE

With CONSULT

Perform self-diagnosis for “EHS/PKB”. Refer to PB-18, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PB-24, "DTC Index".
NO >> INSPECTION END

C03C3 ELECTRIC PARKING BRAKE SYSTEM

DTC Description

INFOID:0000000013569767

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C03C3	00	No CAN signal received from E-PKB [No CAN message was received from control unit (Electric parking brake control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the message from electrical parking brake control module is not received then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- Electric parking brake control module

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C03C3” detected?

YES >> Proceed to BRC-521, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569768

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electric parking brake control module. Refer to PB-130, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C03C4 ELECTRIC PARKING BRAKE SYSTEM

DTC Description

INFOID:0000000013569769

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C03C4	00	CAN message EPKB C/U [Controller area The CAN message from control unit (Electric parking brake control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the Signal parking brake state from electrical parking brake control module is invalid (signal value is malfunction) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- Signal parking brake state from electrical parking brake control module invalid (signal value is malfunction).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C03C4” detected?

YES >> Proceed to BRC-522, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569770

1.PERFORM SELF-DIAGNOSIS FOR ELECTRIC PARKING BRAKE CONTROL MODULE

With CONSULT

Perform self-diagnosis for “EHS/PKB”. Refer to PB-18, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PB-24, "DTC Index".
NO >> INSPECTION END

C03D0 COMBINATION METER SYSTEM

DTC Description

INFOID:0000000013569771

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C03D0	00	Invalid data received from IPCCM [The CAN message from control unit (Instrument cluster) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the message from combination meter is incorrect (message length incorrect) then an error is set. This error is set, when the malfunction detection time is exceeded [Note for malfunction detection time in the service comments column).
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- Data corrupt error of the message from combination meter (message length incorrect).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C03D0” detected?

YES >> Proceed to BRC-523, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569772

1.PERFORM SELF-DIAGNOSIS FOR COMBINATION METER

With CONSULT

Perform self-diagnosis for “METER/M&A”. Refer to MWI-68, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to MWI-85, "DTC Index".
NO >> INSPECTION END

C03D1 COMBINATION METER SYSTEM

DTC Description

INFOID:0000000013569773

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C03D1	00	No CAN sig received from comb meter [No CAN message was received from control unit (Instrument cluster)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the message from combination meter is not received then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- Combination meter

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C03D1” detected?

YES >> Proceed to BRC-524, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569774

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the combination meter. Refer to MWI-155, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C03E0 COMBINATION METER SYSTEM

DTC Description

INFOID:0000000013569775

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C03E0	00	Invalid data received from IPCCM [The CAN message from control unit (Instrument cluster) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the message from combination meter is incorrect (message length incorrect) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- Data corrupt error of the message from combination meter (message length incorrect).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C03E0” detected?

YES >> Proceed to BRC-525, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569776

1.PERFORM SELF-DIAGNOSIS FOR COMBINATION METER

With CONSULT

Perform self-diagnosis for “METER/M&A”. Refer to MWI-68, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to MWI-85, "DTC Index".
NO >> INSPECTION END

C03E1 COMBINATION METER SYSTEM

DTC Description

INFOID:0000000013569777

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C03E1	00	No CAN sig received from comb meter [No CAN message was received from control unit (Instrument cluster)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the message from combination meter is not received then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- Combination meter

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C03E1” detected?

YES >> Proceed to BRC-526, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569778

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the combination meter. Refer to MWI-155, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C03E2 COMBINATION METER SYSTEM

DTC Description

INFOID:0000000013569779

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C03E2	00	Invalid data received from IPCCM [The CAN message from control unit (Instrument cluster) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal roller bench test mode active parity from combination meter (roll test mode not activated) is invalid (signal value is malfunction) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- Signal roller bench test mode active parity from combination meter invalid (signal value is malfunction).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C03E2” detected?

YES >> Proceed to BRC-527, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569780

1.PERFORM SELF-DIAGNOSIS FOR COMBINATION METER

With CONSULT

Perform self-diagnosis for “METER/M&A”. Refer to MWI-68, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to MWI-85, "DTC Index".
NO >> INSPECTION END

C03E3 COMBINATION METER SYSTEM

DTC Description

INFOID:0000000013569781

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C03E3	00	Invalid data received from IPCCM [The CAN message from control unit (Instrument cluster) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal stop coordinator malfunction combination meter from combination meter is invalid (signal value is beyond the valid range) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	1500 ms

POSSIBLE CAUSE

- Signal stop coordinator malfunction combination meter from combination meter invalid (signal value is beyond the valid range).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C03E3” detected?

YES >> Proceed to BRC-528, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569782

1.PERFORM SELF-DIAGNOSIS FOR COMBINATION METER

With CONSULT

Perform self-diagnosis for “METER/M&A”. Refer to MWI-68, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to MWI-85, "DTC Index".
NO >> INSPECTION END

C03E4 COMBINATION METER SYSTEM

DTC Description

INFOID:0000000013569783

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C03E4	00	Invalid data received from IPCCM [The CAN message from control unit (Instrument cluster) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal vehicle winter tire maximum speed from combination meter is invalid (signal value is malfunction) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	1500 ms

POSSIBLE CAUSE

- signal vehicle winter tire maximum speed from combination meter invalid (signal value is malfunction).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C03E4” detected?

YES >> Proceed to BRC-529, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569784

1.PERFORM SELF-DIAGNOSIS FOR COMBINATION METER

With CONSULT

Perform self-diagnosis for “METER/M&A”. Refer to MWI-68, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to MWI-85, "DTC Index".
NO >> INSPECTION END

C03F0 COMBINATION METER SYSTEM

DTC Description

INFOID:0000000013569785

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C03F0	00	Invalid data received from IPCCM [The CAN message from control unit (Instrument cluster) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the message from combination meter is incorrect (message length incorrect) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- Data corrupt error of the message from combination meter (message length incorrect).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C03F0” detected?

YES >> Proceed to BRC-530, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569786

1.PERFORM SELF-DIAGNOSIS FOR COMBINATION METER

With CONSULT

Perform self-diagnosis for “METER/M&A”. Refer to MWI-68, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to MWI-85, "DTC Index".
NO >> INSPECTION END

C03F1 COMBINATION METER SYSTEM

DTC Description

INFOID:0000000013569787

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C03F1	00	No CAN sig received from comb meter [No CAN message was received from control unit (Instrument cluster)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the message from combination meter is not received then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- Combination meter

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C03F1” detected?

YES >> Proceed to BRC-531, "Diagnosis Procedure".
YES-2 >> “PAST” is displayed: INSPECTION END (Erase the memory of self-diagnosis results.)
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569788

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the combination meter. Refer to MWI-155, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C03F2 COMBINATION METER SYSTEM

DTC Description

INFOID:0000000013569789

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C03F2	00	Invalid data received from IPCCM [The CAN message from control unit (Instrument cluster) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal flat tire warning on request from combination meter is invalid (signal value is beyond the valid range) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	15000 ms

POSSIBLE CAUSE

- Signal flat tire warning on request from combination meter invalid (signal value is beyond the valid range).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C03F2” detected?

YES >> Proceed to BRC-532, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569790

1.PERFORM SELF-DIAGNOSIS FOR COMBINATION METER

With CONSULT

Perform self-diagnosis for “METER/M&A”. Refer to MWI-68, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to MWI-85, "DTC Index".
NO >> INSPECTION END

C0400 STEERING COLUMN CONTROL MODULE SYSTEM

DTC Description

INFOID:0000000013569791

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0400	00	Invalid data received from SCCM [The CAN message from control unit (Steering column tube module control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the message from steering column control module is incorrect (message length or message counter or checksum incorrect) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- Data corrupt error of the message from steering column control module (message length or message counter or checksum incorrect).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0400” detected?

YES >> Proceed to BRC-533, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569792

1.PERFORM SELF-DIAGNOSIS FOR STEERING COLUMN CONTROL MODULE

With CONSULT

Perform self-diagnosis for “SCCM”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-61, "DTC Index".
NO >> INSPECTION END

C0401 STEERING COLUMN CONTROL MODULE SYSTEM

DTC Description

INFOID:0000000013569793

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0401	00	COMMUNICATION ERROR (INVALID) [No CAN message was received from control unit (Steering column tube module control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the message from steering column control module is not received then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- Steering column control module

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0401” detected?

YES >> Proceed to BRC-534, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569794

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the steering column control module. Refer to BCS-250, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C0403 STEERING COLUMN CONTROL MODULE SYSTEM

DTC Description

INFOID:0000000013569795

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0403	00	Invalid data received from SCCM [The CAN message from control unit (Steering column tube module control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal steering wheel angle sensor state from steering column control module is invalid (signal value is malfunction) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- Signal steering wheel angle sensor state from steering column control module invalid (signal value is malfunction).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0403” detected?

YES >> Proceed to BRC-535, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569796

1.PERFORM SELF-DIAGNOSIS FOR STEERING COLUMN CONTROL MODULE

With CONSULT

Perform self-diagnosis for “SCCM”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-61, "DTC Index".
NO >> INSPECTION END

C0404 STEERING COLUMN CONTROL MODULE SYSTEM

DTC Description

INFOID:0000000013569797

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0404	00	Invalid data received from SCCM [The CAN message from control unit (Steering column tube module control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal steering wheel angle sensor state from steering column control module is invalid (signal value is malfunction) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- Signal steering wheel angle sensor state from steering column control module invalid (signal value is malfunction).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0404” detected?

YES >> Proceed to BRC-536, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569798

1.PERFORM SELF-DIAGNOSIS FOR STEERING COLUMN CONTROL MODULE

With CONSULT

Perform self-diagnosis for “SCCM”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-61, "DTC Index".
NO >> INSPECTION END

C0410 AXLE RPM SENSOR

DTC Description

INFOID:0000000013569799

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0410	00	Rpm sen delivering incorrect direction [At least one of the rpm sensors is delivering an incorrect rotation direction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 20 km/h (13 MPH) or more for 40 seconds or more
				Signal (terminal)	Axle rpm sensor
				Threshold	If the received axle rpm sensor signal (rectangular pulse duration of the rotation) does not complies with the preset comparison value of the system (e.g. rotation of 2 axle rpm sensors does not complies to the rotation of the other 2 axle rpm sensors) then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	20000 ms

POSSIBLE CAUSE

- Reversed assignment to the wheel and the rotation direction.
- Incorrect axle rpm sensor type installed.
- Axle rpm sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 20 km/h (13 MPH) or more for 40 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0410” detected?

YES >> Proceed to BRC-537, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569800

1.COMPONENT FUNCTION CHECK

NOTE:
This DTC indicates at least one of the rpm sensor signals have been swapped round or incorrect.

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR”.
3. Select the following items:

- Wheel speed at left front axle
- Wheel speed at right front axle
- Wheel speed at left rear axle
- Wheel speed at right rear axle

4. Perform drive test and check the actual values.

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace the malfunctioning rpm sensor. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation" (front), BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation" (rear).

C0420 AXLE RPM SENSOR

DTC Description

INFOID:0000000013569801

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0420	00	Front axle rpm sensor [The rpm sensors on the front axle are swapped]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at slow trip (slalom) and then 70 km/h (44 MPH) or more
				Signal (terminal)	Axle rpm sensor
				Threshold	The calculated yaw rate from the steering angle and the calculated yaw rates from the axle rpm sensors at the front and rear axle are compared to each other. During the trip, both signals must have the same sign. If opposite signs are detected then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Reversed axle rpm sensor at the front axle [Plug reversed or struck incorrect at the harness connector (add-on electronic stability program control unit)].
- Different tires and strongly one-sided loading of the vehicle.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at slow trip (slalom) and then 70 km/h (44 MPH) or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0420” detected?

YES >> Proceed to BRC-539, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569802

1.COMPONENT FUNCTION CHECK

NOTE:
This DTC indicates at least one of the rpm sensor signals have been swapped round or incorrect.

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR”.
3. Select the following items:

- Wheel speed at left front axle
- Wheel speed at right front axle
- Wheel speed at left rear axle
- Wheel speed at right rear axle

4. Perform drive test and check the actual values.

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace the malfunctioning rpm sensor. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation" (front), BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation" (rear).

C0430 AXLE RPM SENSOR

DTC Description

INFOID:0000000013569803

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0430	00	Rear axle rpm sensor [The rpm sensors on the rear axle are swapped]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at slow trip (slalom) and then 70 km/h (44 MPH) or more
				Signal (terminal)	Axle rpm sensor
				Threshold	The calculated yaw rate from the steering angle and the calculated yaw rates from the axle rpm sensors at the front and rear axle are compared to each other. During the trip, both signals must have the same sign. If opposite signs are detected then an error is set. The error is set if the error detection time is exceeded
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Reversed axle rpm sensor at the rear axle [Plug reversed or struck incorrect at the harness connector (add-on electronic stability program control unit)].
- Different tires and strongly one-sided loading of the vehicle.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at slow trip (slalom) and then 70 km/h (44 MPH) or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0430” detected?

YES >> Proceed to BRC-541, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569804

1.COMPONENT FUNCTION CHECK

NOTE:
This DTC indicates at least one of the rpm sensor signals have been swapped round or incorrect.

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR”.
3. Select the following items:

- Wheel speed at left front axle
- Wheel speed at right front axle
- Wheel speed at left rear axle
- Wheel speed at right rear axle

4. Perform drive test and check the actual values.

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace the malfunctioning rpm sensor. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation" (front), BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation" (rear).

C0451 STEERING ANGLE SENSOR SYSTEM

DTC Description

INFOID:0000000013569805

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0451	00	Internal malf steering angle sensor [There is an internal malfunction in component (Steering angle sensor)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If less than 1 or more than 3 steering angle sensor CAN messages are sent during continuous software monitoring then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	200 ms

POSSIBLE CAUSE

- Software error: Not correct number of CAN-messages of the steering angle sensor.
- Intern steering angle sensor error (electronic/mechanic).
- Steering angle sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 30 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
4. Perform self-diagnosis for “ABS”.

Is DTC “C0451” detected?

YES >> Proceed to BRC-543, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569806

1.PERFORM SELF-DIAGNOSIS FOR STEERING COLUMN CONTROL MODULE

With CONSULT

Perform self-diagnosis for “SCCM”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC “C1241”, “C1245” or “C2205” detected?

YES >> Check the detected DTC.
- C1241: Refer to BCS-212, "DTC Description".
- C1245: Refer to BCS-213, "DTC Description".
- C2205: Refer to BCS-214, "DTC Description".

NO >> GO TO 2.

2.PERFORM CONFIGURATION

With CONSULT
1. Turn the ignition switch OFF.
2. Turn the ignition switch ON.
3. Perform configuration for electronic stability control unit. Refer to BRC-85, "Description".

>> GO TO 3.

3.REPLACE STEERING COLUMN CONTROL MODULE

Replace steering column control module. Refer to BCS-250, "Removal and Installation".

>> INSPECTION END

C0452 STEERING ANGLE SENSOR SYSTEM

DTC Description

INFOID:0000000013569807

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0452	00	Internal malf steering angle sensor [There is an internal malfunction in component (Steering angle sensor)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at slow trip (slalom) and then 70 km/h (44 MPH) or more
				Signal (terminal)	—
				Threshold	If the steering angle changes without the change affects the steering angle sensor signal then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	40 ms

POSSIBLE CAUSE

- Installation of the steering angle sensor is malfunction (Steering angle sensor slips (column) or twisted or incorrect attached).
- Internal steering angle sensor error (electronics / mechanics).
- Steering angle sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at slow trip (slalom) and then 70 km/h (44 MPH) or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0452” detected?

YES >> Proceed to BRC-545, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569808

1.PERFORM SELF-DIAGNOSIS FOR STEERING COLUMN CONTROL MODULE

With CONSULT

Perform self-diagnosis for “SCCM”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC “C1241”, “C1245” or “C2205” detected?

YES >> Check the detected DTC.
- C1241: Refer to BCS-212, "DTC Description".
- C1245: Refer to BCS-213, "DTC Description".
- C2205: Refer to BCS-214, "DTC Description".

NO >> GO TO 2.

2.PERFORM CONFIGURATION

With CONSULT
1. Turn the ignition switch OFF.
2. Turn the ignition switch ON.
3. Perform configuration for electronic stability control unit. Refer to BRC-85, "Description".

>> GO TO 3.

3.REPLACE STEERING COLUMN CONTROL MODULE

Replace steering column control module. Refer to BCS-250, "Removal and Installation".

>> INSPECTION END

C0453 STEERING ANGLE SENSOR SYSTEM

DTC Description

INFOID:0000000013569809

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0453	00	Internal malf steering angle sensor [There is an internal malfunction in component (Steering angle sensor)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle (curves) and then press brake pedal
				Signal (terminal)	—
				Threshold	If the steering angle of the mechanical steering stops (+ tolerance) is exceeded then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- Installation of the steering angle sensor is malfunction (Steering angle sensor slips (column) or twisted or incorrect attached).
- Internal steering angle sensor error (electronics / mechanics).
- Mechanical stops of the steering knocked out.
- Steering angle sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Drive the vehicle (curves) and then press brake pedal.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0453” detected?

YES >> Proceed to BRC-547, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569810

1.PERFORM SELF-DIAGNOSIS FOR STEERING COLUMN CONTROL MODULE

With CONSULT

Perform self-diagnosis for “SCCM”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC “C1241”, “C1245” or “C2205” detected?

YES >> Check the detected DTC.
- C1241: Refer to BCS-212, "DTC Description".
- C1245: Refer to BCS-213, "DTC Description".
- C2205: Refer to BCS-214, "DTC Description".

NO >> GO TO 2.

2.PERFORM CONFIGURATION

With CONSULT
1. Turn the ignition switch OFF.
2. Turn the ignition switch ON.
3. Perform configuration for electronic stability control unit. Refer to BRC-85, "Description".

>> GO TO 3.

3.REPLACE STEERING COLUMN CONTROL MODULE

Replace steering column control module. Refer to BCS-250, "Removal and Installation".

>> INSPECTION END

C0454 STEERING ANGLE SENSOR SYSTEM

DTC Description

INFOID:0000000013569811

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0454	00	Internal malf steering angle sensor [There is an internal malfunction in component (Steering angle sensor)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle (curves) and then press brake pedal
				Signal (terminal)	—
				Threshold	If the steering angle is more than 40 degrees / 20 ms then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	20 ms

POSSIBLE CAUSE

- Installation of the steering angle sensor is malfunction (Steering angle sensor slips (column) or twisted or incorrect attached).
- Internal steering angle sensor error (electronics / mechanics).
- Steering angle sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Drive the vehicle (curves) and then press brake pedal.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0454” detected?

YES >> Proceed to BRC-549, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569812

1.PERFORM SELF-DIAGNOSIS FOR STEERING COLUMN CONTROL MODULE

With CONSULT

Perform self-diagnosis for “SCCM”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC “C1241”, “C1245” or “C2205” detected?

YES >> Check the detected DTC.
- C1241: Refer to BCS-212, "DTC Description".
- C1245: Refer to BCS-213, "DTC Description".
- C2205: Refer to BCS-214, "DTC Description".

NO >> GO TO 2.

2.PERFORM CONFIGURATION

With CONSULT
1. Turn the ignition switch OFF.
2. Turn the ignition switch ON.
3. Perform configuration for electronic stability control unit. Refer to BRC-85, "Description".

>> GO TO 3.

3.REPLACE STEERING COLUMN CONTROL MODULE

Replace steering column control module. Refer to BCS-250, "Removal and Installation".

>> INSPECTION END

C0456 STEERING ANGLE SENSOR SYSTEM

DTC Description

INFOID:0000000013569813

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0456	00	Internal malf steering angle sensor [There is an internal malfunction in component (Steering angle sensor)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle (straight) 5 km (3.1 mile)
				Signal (terminal)	—
				Threshold	The steering angle offset is determined over a long time by filtering of the measured steering angle signal during a drive (straight). If the determined offset value is more than ±15 degrees then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Installation of the steering angle sensor is malfunction (Steering angle sensor slips (column) or twisted or incorrect attached).
- Internal steering angle sensor error (electronics / mechanics).
- Steering angle sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Drive the vehicle (straight) 5 km (3.1 mile).
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0456” detected?

YES >> Proceed to BRC-551, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569814

1.PERFORM SELF-DIAGNOSIS FOR STEERING COLUMN CONTROL MODULE

With CONSULT

Perform self-diagnosis for “SCCM”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC “C1241”, “C1245” or “C2205” detected?

YES >> Check the detected DTC.
- C1241: Refer to BCS-212, "DTC Description".
- C1245: Refer to BCS-213, "DTC Description".
- C2205: Refer to BCS-214, "DTC Description".

NO >> GO TO 2.

2.PERFORM CONFIGURATION

With CONSULT
1. Turn the ignition switch OFF.
2. Turn the ignition switch ON.
3. Perform configuration for electronic stability control unit. Refer to BRC-85, "Description".

>> GO TO 3.

3.REPLACE STEERING COLUMN CONTROL MODULE

Replace steering column control module. Refer to BCS-250, "Removal and Installation".

>> INSPECTION END

C0457 STEERING ANGLE SENSOR SYSTEM

DTC Description

INFOID:0000000013569815

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition		
C0457	00	Internal malf steering angle sensor [There is an internal malfunction in component (Steering angle sensor)]	[NO SUBTYPE INFORMATION]	1	Diagnosis condition	Drive the vehicle at slow trip (slalom) and then 60 km/h (38 MPH) or more for 5 seconds or more
					Signal (terminal)	—
					Threshold	If the vehicle speed is for a defined time above a specified speed threshold and the steering angle sensor null positioning is not found then an error is set.
					Diagnosis delay time	0 ms
				2	Diagnosis condition	Drive the vehicle at slow trip (slalom) and then 60 km/h (38 MPH) or more for 5 seconds or more
					Signal (terminal)	—
					Threshold	If the steering angle sensor is not initialized or calibrated then an error is set.
					Diagnosis delay time	0 ms
				3	Diagnosis condition	Drive the vehicle at slow trip (slalom) and then 60 km/h (38 MPH) or more for 5 seconds or more
					Signal (terminal)	—
					Threshold	The error is set if the error detection time is exceeded.
					Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Installation of the steering angle sensor is malfunction (Steering angle sensor slips (column) or twisted or incorrect attached).
- Steering angle sensor is not initialized and calibrated.
- Internal steering angle sensor error (electronics / mechanics).
- Steering angle sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.

NOTE:
Wait at least 10 seconds after turning ignition switch OFF.

5. Start the engine.
NOTE:
Wait at least 10 seconds after start the engine.
6. Drive the vehicle at slow trip (slalom) and then 60 km/h (38 MPH) or more for 5 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0457” detected?

YES >> Proceed to BRC-554, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569816

1.PERFORM SELF-DIAGNOSIS FOR STEERING COLUMN CONTROL MODULE

With CONSULT
Perform self-diagnosis for “SCCM”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC “C1241”, “C1245” or “C2205” detected?

YES >> Check the detected DTC.
- C1241: Refer to BCS-212, "DTC Description".
- C1245: Refer to BCS-213, "DTC Description".
- C2205: Refer to BCS-214, "DTC Description".

NO >> GO TO 2.

2.PERFORM CONFIGURATION

With CONSULT
1. Turn the ignition switch OFF.
2. Turn the ignition switch ON.
3. Perform configuration for electronic stability control unit. Refer to BRC-85, "Description".

>> GO TO 3.

3.REPLACE STEERING COLUMN CONTROL MODULE

Replace steering column control module. Refer to BCS-250, "Removal and Installation".

>> INSPECTION END

C045A STEERING ANGLE SENSOR SYSTEM

DTC Description

INFOID:0000000013569817

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C045A	00	Internal malf steering angle sensor [There is an internal malfunction in component (Steering angle sensor)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at slow trip (slalom) and then 70 km/h (44 MPH) or more
				Signal (terminal)	—
				Threshold	The calculated yaw rate from the steering angle and the calculated yaw rates from the axle rpm sensors are compared to each other. During the trip, both signals must have the same sign. If opposite signs are detected then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Installation of the steering angle sensor is malfunction (Steering angle sensor slips (column) or twisted or incorrect attached).
- Internal steering angle sensor error (electronics / mechanics).
- Steering angle sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at slow trip (slalom) and then 70 km/h (44 MPH) or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C045A” detected?

YES >> Proceed to BRC-555, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569818

1.PERFORM SELF-DIAGNOSIS FOR STEERING COLUMN CONTROL MODULE

With CONSULT

Perform self-diagnosis for “SCCM”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC “C1241”, “C1245” or “C2205” detected?

YES >> Check the detected DTC.
- C1241: Refer to BCS-212, "DTC Description".
- C1245: Refer to BCS-213, "DTC Description".
- C2205: Refer to BCS-214, "DTC Description".

NO >> GO TO 2.

2.PERFORM CONFIGURATION

With CONSULT
1. Turn the ignition switch OFF.
2. Turn the ignition switch ON.
3. Perform configuration for electronic stability control unit. Refer to BRC-85, "Description".

>> GO TO 3.

3.REPLACE STEERING COLUMN CONTROL MODULE

Replace steering column control module. Refer to BCS-250, "Removal and Installation".

>> INSPECTION END

C045B STEERING ANGLE SENSOR SYSTEM

DTC Description

INFOID:0000000013569819

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C045B	00	Internal malf steering angle sensor [There is an internal malfunction in component (Steering angle sensor)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at slow trip (slalom) and then 70 km/h (44 MPH) or more
				Signal (terminal)	—
				Threshold	If the difference between the measured steering angle sensor signal and the model-based yaw rate is caused by an error of the steering angle sensor then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Installation of the steering angle sensor is malfunction (Steering angle sensor slips (column) or twisted or incorrect attached).
- Steering angle sensor is not calibrated. Internal steering angle sensor error (electronics / mechanics).
- Axis geometry was modified by accident or vehicle modifications.
- Steering angle sensor malfunction.
- Installation of the yaw rate sensor is malfunction (yaw rate sensor tilted or twisted or incorrect attached).
- Check the environment influence of the yaw rate sensor (Parts not attached).
- Internal yaw rate sensor error (electronics / mechanics).
- Yaw rate sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at slow trip (slalom) and then 70 km/h (44 MPH) or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C045B” detected?

YES >> Proceed to BRC-558, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569820

1.PERFORM SELF-DIAGNOSIS FOR STEERING COLUMN CONTROL MODULE

With CONSULT
Perform self-diagnosis for “SCCM”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC “C1241”, “C1245” or “C2205” detected?

YES >> Check the detected DTC.
- C1241: Refer to BCS-212, "DTC Description".
- C1245: Refer to BCS-213, "DTC Description".
- C2205: Refer to BCS-214, "DTC Description".

NO >> GO TO 2.

2.PERFORM CONFIGURATION

With CONSULT
1. Turn the ignition switch OFF.
2. Turn the ignition switch ON.
3. Perform configuration for electronic stability control unit. Refer to BRC-85, "Description".

>> GO TO 3.

3.REPLACE STEERING COLUMN CONTROL MODULE

Replace steering column control module. Refer to BCS-250, "Removal and Installation".

>> INSPECTION END

C0460 FRONT LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569821

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0460	00	FL axle rpm sensor [Signal 'Wheel rotation direction' from component (Left front axle rpm sensor) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 20 km/h (13 MPH) or more for 40 seconds or more
				Signal (terminal)	Left front axle rpm sensor
				Threshold	If the received axle rpm sensor signal (rectangular pulse duration of the rotation) does not complies with the preset comparison value of the system (e.g. rotation direction front left does not correspond to the rotation direction of the other three axle rpm sensor) then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	20000 ms

POSSIBLE CAUSE

- Reversed assignment to the wheel and the rotation direction.
- Incorrect axle rpm sensor type installed.
- Axle rpm sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 20 km/h (13 MPH) or more for 40 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0460” detected?

YES >> Proceed to BRC-559, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569822

1.COMPONENT FUNCTION CHECK

NOTE:
This DTC indicates at least one of the rpm sensor signals have been swapped round or incorrect.

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR”.
3. Select the following items:

- Wheel speed at left front axle
- Wheel speed at right front axle
- Wheel speed at left rear axle
- Wheel speed at right rear axle

4. Perform drive test and check the actual values.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace the malfunctioning rpm sensor. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation" (front), BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation" (rear).

C0470 FRONT RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569823

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0470	00	FR axle rpm sensor [Signal 'Wheel rotation direction' from component (Right front axle rpm sensor) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 20 km/h (13 MPH) or more for 40 seconds or more
				Signal (terminal)	Right front axle rpm sensor
				Threshold	If the received axle rpm sensor signal (rectangular pulse duration of the rotation) does not complies with the preset comparison value of the system (e.g. rotation direction front right does not correspond to the rotation direction of the other three axle rpm sensor) then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	20000 ms

POSSIBLE CAUSE

- Reversed assignment to the wheel and the rotation direction.
- Incorrect axle rpm sensor type installed.
- Axle rpm sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 20 km/h (13 MPH) or more for 40 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0470” detected?

YES >> Proceed to BRC-561, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569824

1.COMPONENT FUNCTION CHECK

NOTE:
This DTC indicates at least one of the rpm sensor signals have been swapped round or incorrect.

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR”.
3. Select the following items:

- Wheel speed at left front axle
- Wheel speed at right front axle
- Wheel speed at left rear axle
- Wheel speed at right rear axle

4. Perform drive test and check the actual values.

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace the malfunctioning rpm sensor. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation" (front), BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation" (rear).

C0480 REAR LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569825

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0480	00	RL axle rpm sensor [Signal 'Wheel rotation direction' from component (Left rear axle rpm sensor) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 20 km/h (13 MPH) or more for 40 seconds or more
				Signal (terminal)	Left rear axle rpm sensor
				Threshold	If the received axle rpm sensor signal (rectangular pulse duration of the rotation) does not complies with the preset comparison value of the system (e.g. rotation direction rear left does not correspond to the rotation direction of the other three axle rpm sensor) then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	20000 ms

POSSIBLE CAUSE

- Reversed assignment to the wheel and the rotation direction.
- Incorrect axle rpm sensor type installed.
- Axle rpm sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 20 km/h (13 MPH) or more for 40 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0480” detected?

YES >> Proceed to BRC-563, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569826

1.COMPONENT FUNCTION CHECK

NOTE:
This DTC indicates at least one of the rpm sensor signals have been swapped round or incorrect.

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR”.
3. Select the following items:

- Wheel speed at left front axle
- Wheel speed at right front axle
- Wheel speed at left rear axle
- Wheel speed at right rear axle

4. Perform drive test and check the actual values.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace the malfunctioning rpm sensor. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation" (front), BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation" (rear).

C0490 REAR RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569827

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0490	00	RR axle rpm sensor [Signal 'Wheel rotation direction' from component (Right rear axle rpm sensor) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 20 km/h (13 MPH) or more for 40 seconds or more
				Signal (terminal)	Right rear axle rpm sensor
				Threshold	If the received axle rpm sensor signal (rectangular pulse duration of the rotation) does not complies with the preset comparison value of the system (e.g. rotation direction rear right does not correspond to the rotation direction of the other three axle rpm sensor) then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	20000 ms

POSSIBLE CAUSE

- Reversed assignment to the wheel and the rotation direction.
- Incorrect axle rpm sensor type installed.
- Axle rpm sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 20 km/h (13 MPH) or more for 40 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0490” detected?

YES >> Proceed to BRC-565, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569828

1.COMPONENT FUNCTION CHECK

NOTE:
This DTC indicates at least one of the rpm sensor signals have been swapped round or incorrect.

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR”.
3. Select the following items:

- Wheel speed at left front axle
- Wheel speed at right front axle
- Wheel speed at left rear axle
- Wheel speed at right rear axle

4. Perform drive test and check the actual values.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace the malfunctioning rpm sensor. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation" (front), BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation" (rear).

C04A0 FRONT LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569829

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04A0	00	FL axle rpm sensor [The power supply or the signal line of component (Left front axle rpm sensor) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Left front axle rpm sensor
				Threshold	If the signal line or the power supply line has an interruption or a short circuit to ground or positive or the axle rpm sensor has a short circuit to another axle rpm sensor then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Signal line or power supply line has an interruption or has a short circuit to ground or positive.
- Axle rpm sensor has a short circuit to another axle rpm sensor.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C04A0” detected?

YES >> Proceed to BRC-567, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569830

1.COMPONENT FUNCTION CHECK

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR” >> “Wheel speed at left front axle”.
3. Rotate the left front wheel by hand.
4. Check that the actual value is more than 3 km/h (2 MPH).

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 2.

2.CHECK RPM SENSOR CIRCUIT

NOTE:
Voltage measurement is not possible with current DTC detection because the control unit switches off the output.

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and left front axle rpm sensor harness connector.
3. Check the continuity between electronic stability program control unit harness connector and left front axle rpm sensor harness connector.

Electronic stability program control unit		Left front axle rpm sensor		Continuity
Connector	Terminal	Connector	Terminal	
E46	8	E104	2	Existed
	19		1	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace the left front axle rpm sensor. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation".

C04A1 FRONT LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569831

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04A1	00	FL axle rpm sensor [The voltage supply of component (Left front axle rpm sensor) has short circuit to ground]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Left front axle rpm sensor
				Threshold	If the power supply line has a short circuit to ground then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	120 ms

POSSIBLE CAUSE

- Power supply line has a short circuit to ground.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C04A1” detected?

YES >> Proceed to BRC-569, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569832

1.COMPONENT FUNCTION CHECK

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR” >> “Wheel speed at left front axle”.
3. Rotate the left front wheel by hand.
4. Check that the actual value is more than 3 km/h (2 MPH).

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 2.

2.CHECK RPM SENSOR CIRCUIT

NOTE:
Voltage measurement is not possible with current DTC detection because the control unit switches off the output.

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and left front axle rpm sensor harness connector.
3. Check the continuity between electronic stability program control unit harness connector and left front axle rpm sensor harness connector.

Electronic stability program control unit		Left front axle rpm sensor		Continuity
Connector	Terminal	Connector	Terminal	
E46	8	E104	2	Existed
	19		1	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace the left front axle rpm sensor. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation".

C04A2 FRONT LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569833

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04A2	00	FL axle rpm sensor [The signal line of component (Left front axle rpm sensor) has a short circuit to positive]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Left front axle rpm sensor
				Threshold	If the signal line has a short circuit to positive then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	120 ms

POSSIBLE CAUSE

- Signal line has a short circuit to positive.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C04A2” detected?

YES >> Proceed to BRC-571, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569834

1.COMPONENT FUNCTION CHECK

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR” >> “Wheel speed at left front axle”.
3. Rotate the left front wheel by hand.
4. Check that the actual value is more than 3 km/h (2 MPH).

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 2.

2.CHECK RPM SENSOR CIRCUIT

NOTE:
Voltage measurement is not possible with current DTC detection because the control unit switches off the output.

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and left front axle rpm sensor harness connector.
3. Check the continuity between electronic stability program control unit harness connector and left front axle rpm sensor harness connector.

Electronic stability program control unit		Left front axle rpm sensor		Continuity
Connector	Terminal	Connector	Terminal	
E46	8	E104	2	Existed
	19		1	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace the left front axle rpm sensor. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation".

C04A3 FRONT LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569835

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04A3	00	FL axle rpm sensor [The signal line of component (Left front axle rpm sensor) has an open circuit or short circuit to ground]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Left front axle rpm sensor
				Threshold	If the signal line has an interruption or a short circuit to ground then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	120 ms

POSSIBLE CAUSE

- Signal line has an interruption or has an short circuit to ground.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C04A3” detected?

YES >> Proceed to BRC-573, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569836

1.COMPONENT FUNCTION CHECK

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR” >> “Wheel speed at left front axle”.
3. Rotate the left front wheel by hand.
4. Check that the actual value is more than 3 km/h (2 MPH).

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 2.

2.CHECK RPM SENSOR CIRCUIT

NOTE:
Voltage measurement is not possible with current DTC detection because the control unit switches off the output.

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and left front axle rpm sensor harness connector.
3. Check the continuity between electronic stability program control unit harness connector and left front axle rpm sensor harness connector.

Electronic stability program control unit		Left front axle rpm sensor		Continuity
Connector	Terminal	Connector	Terminal	
E46	8	E104	2	Existed
	19		1	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace the left front axle rpm sensor. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation".

C04A4 FRONT LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569837

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C04A4	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Front left axle rpm sensor: If the monitoring has a not plausible line state (signal line or power supply line) or detects a malfunction at the Multi-IC then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	120 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C04A4” detected?

YES-1 >> Proceed to BRC-575, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569838

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C04A6 FRONT LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569839

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04A6	00	FL axle rpm sensor [Component (Left front axle rpm sensor) has a mechanical malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 30 km/h (19 MPH) or more for 20 seconds or more
				Signal (terminal)	Left front axle rpm sensor
				Threshold	If the air gap after five turns of the wheel between the axle rpm sensor and the multipole wheel is too great then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Axle rpm sensor or multipole wheel are loosely attached.
- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).
- Axle rpm sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 30 km/h (19 MPH) or more for 20 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C04A6” detected?

YES >> Proceed to BRC-576, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569840

1.CHECK COMPONENT

1. Check the following items:
- Incorrect wheels or tires
- Incorrect gear ratio of rear axle
- Check wheel bearing play.
- Check fastening and installation position of rpm sensor.

- Check rpm sensor for damage, corrosion or loose contact.
- Check distance from multipole ring to rpm sensor.
- Check multipole ring for tight seating, correct installation and mechanical damage.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace error-detected parts.

2.CHECK RPM SENSOR CIRCUIT

NOTE:
Voltage measurement is not possible with current DTC detection because the control unit switches off the output.

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and left front axle rpm sensor harness connector.
3. Check the continuity between electronic stability program control unit harness connector and left front axle rpm sensor harness connector.

Electronic stability program control unit		Left front axle rpm sensor		Continuity
Connector	Terminal	Connector	Terminal	
E46	8	E104	2	Existed
	19		1	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace the left front axle rpm sensor. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation".

C04A7 FRONT LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569841

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04A7	00	FL axle rpm sensor [Component (Left front axle rpm sensor) is malfunction or the wrong model is installed]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Left front axle rpm sensor
				Threshold	If the axle rpm sensor is malfunction or the axle rpm sensor line or the axle rpm sensor type is incorrect then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	3500 ms

POSSIBLE CAUSE

- Axle rpm sensor line has an interruption or has a short circuit to ground or positive.
- Axle rpm sensor or multipole wheel are loosely attached.
- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).
- Incorrect axle rpm sensor type installed.
- Axle rpm sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
4. Perform self-diagnosis for “ABS”.

Is DTC “C04A7” detected?

YES >> Proceed to BRC-578, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569842

1.CHECK INSTALLATION CONDITION OF RPM SENSOR

Check fastening and installation position of left front axle rpm sensor.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair error-detected parts.

2.CHECK RPM SENSOR CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect electronic stability program control unit harness connector and left front axle rpm sensor harness connector.
3. Check the continuity between electronic stability program control unit harness connector and left front axle rpm sensor harness connector.

Electronic stability program control unit		Left front axle rpm sensor		Continuity
Connector	Terminal	Connector	Terminal	
E46	8	E104	2	Existed
	19		1	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 3.

3.REPLACE RPM SENSOR

With CONSULT

1. Replace left front axle rpm sensor. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation".
2. Erase DTC.
3. Perform DTC confirmation procedure again. Refer to BRC-578, "DTC Description".

Is DTC C04A7 detected again?

YES >> INSPECTION END
NO >> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C04AA FRONT LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569843

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04AA	00	FL axle rpm sensor [The signal from component (Left front axle rpm sensor) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Left front axle rpm sensor
				Threshold	If the axle rpm sensor signal is malfunction (high frequency signal disturbances) or a malfunction at the Multi-IC or the axle rpm sensor type is incorrect then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- High frequency signal interference at the axle rpm sensor inputs. Incorrect axle rpm sensor type installed.
- Axle rpm sensor malfunction.
- Hardware error in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C04AA” detected?

YES >> Proceed to BRC-580, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569844

1.CHECK INSTALLATION CONDITION OF RPM SENSOR

Check fastening and installation position of left front axle rpm sensor.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair error-detected parts.

2.CHECK RPM SENSOR CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and left front axle rpm sensor harness connector.
3. Check the continuity between electronic stability program control unit harness connector and left front axle rpm sensor harness connector.

Electronic stability program control unit		Left front axle rpm sensor		Continuity
Connector	Terminal	Connector	Terminal	
E46	8	E104	2	Existed
	19		1	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 3.

3.REPLACE RPM SENSOR

With CONSULT

1. Replace left front axle rpm sensor. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation".
2. Erase DTC.
3. Perform DTC confirmation procedure again. Refer to BRC-580, "DTC Description".

Is DTC C04AA detected again?

YES >> INSPECTION END
NO >> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C04AB FRONT LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569845

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04AB	00	FL axle rpm sensor [The signal of component (Left front axle rpm sensor) is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more
				Signal (terminal)	Left front axle rpm sensor
				Threshold	If the speed difference between the minimum and the maximum wheel speed is greater than 5% based on the maximum wheel speed then an error is set. If the malfunction wheel is always the same. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Tire or rim not permitted.
- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).
- Axle rpm sensor or multipole wheel are loosely attached.
- Incorrect multipole wheel type installed.
- Axle rpm sensor line has an interruption or has a short circuit to ground or positive.
- Axle rpm sensor malfunction.
- Hardware error in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Start the engine.
3. Drive the vehicle at 60 km/h (38 MPH) or more.
4. Stop the vehicle.
5. Perform self-diagnosis for “ABS”.

Is DTC “C04AB” detected?

YES >> Proceed to BRC-582, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569846

1.CHECK COMPONENT

1. Check the following items:

- Incorrect wheels or tires
- Incorrect gear ratio of rear axle
- Check wheel bearing play.
- Check fastening and installation position of rpm sensor.
- Check rpm sensor for damage, corrosion or loose contact.

- Check distance from multipole ring to rpm sensor.
- Check multipole ring for tight seating, correct installation and mechanical damage.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace error-detected parts.

2.CHECK RPM SENSOR CIRCUIT

NOTE:
Voltage measurement is not possible with current DTC detection because the control unit switches off the output.

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and left front axle rpm sensor harness connector.
3. Check the continuity between electronic stability program control unit harness connector and left front axle rpm sensor harness connector.

Electronic stability program control unit		Left front axle rpm sensor		Continuity
Connector	Terminal	Connector	Terminal	
E46	8	E104	2	Existed
	19		1	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace the left front axle rpm sensor. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation".

C04AC FRONT LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569847

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04AC	00	FL axle rpm sensor [The signal of component (Left front axle rpm sensor) is outside the permissible range]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more
				Signal (terminal)	Left front axle rpm sensor
				Threshold	If the axle rpm sensor signal is beyond the valid range (not plausible high frequency) then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	5040 ms

POSSIBLE CAUSE

- Check the environment influence while driving (speeding over edges).
- Axle rpm sensor or multipole wheel are loosely attached.
- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C04AC” detected?

YES >> Proceed to BRC-584, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569848

1.CHECK COMPONENT

1. Check the following items:
- Check multipole ring for tight seating, correct installation and mechanical damage.
- Check rpm sensor for damage, corrosion or loose contact.
- Check distance from multipole ring to rpm sensor.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace error-detected parts.

2.REPLACE RPM SENSOR

Replace all rpm sensors. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation" (front), BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation" (rear).

NOTE:
If the rpm sensor has to be replaced, all rpm sensors must be replaced.

>> END

C04AD FRONT LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569849

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04AD	00	FL axle rpm sensor [Component (Left front axle rpm sensor) or the signal lines to the component are malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more
				Signal (terminal)	Left front axle rpm sensor
				Threshold	If no axle rpm sensor signal is detected during the trip over 43.2 km/h (27 MPH) then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Axle rpm sensor line has an interruption or has a short circuit to ground or positive.
- Axle rpm sensor or multipole wheel are loosely attached.
- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).
- Axle rpm sensor malfunction.
- Hardware error in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Start the engine.
3. Drive the vehicle at 60 km/h (38 MPH) or more.
4. Stop the vehicle.
5. Perform self-diagnosis for “ABS”.

Is DTC “C04AD” detected?

YES >> Proceed to BRC-586, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569850

1.CHECK COMPONENT

1. Check the following items:

- Check multipole ring for tight seating, correct installation and mechanical damage.
- Check rpm sensor for damage, corrosion or loose contact.
- Check distance from multipole ring to rpm sensor.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace error-detected parts.

2.REPLACE RPM SENSOR

Replace all rpm sensors. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation" (front), BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation" (rear).

NOTE:

If the rpm sensor has to be replaced, all rpm sensors must be replaced.

>> END

C04AE FRONT LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569851

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04AE	00	FL axle rpm sensor [The signal from component (Left front axle rpm sensor) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more
				Signal (terminal)	Left front axle rpm sensor
				Threshold	If there is a missing tooth (pulse wheel) or an unrecognized N / S pole (multipole wheel) after ten turns of the wheel is detected between the axle rpm sensor and the pulse wheel or the multipole wheel then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Axle rpm sensor or pulse wheel or multipole wheel loosely attached.
- Pulse wheel dirty or damaged (missing tooth or too big air gap).
- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C04AE” detected?

YES >> Proceed to BRC-588, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569852

1.CHECK COMPONENT

1. Check the following items:
- Check multipole ring for tight seating, correct installation and mechanical damage.
- Check rpm sensor for damage, corrosion or loose contact.

- Check distance from multipole ring to rpm sensor.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace error-detected parts.

2.REPLACE RPM SENSOR

Replace all rpm sensors. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation" (front), BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation" (rear).

NOTE:
If the rpm sensor has to be replaced, all rpm sensors must be replaced.

>> END

C04AF FRONT LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569853

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04AF	00	FL axle rpm sensor [The signal from component (Left front axle rpm sensor) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more
				Signal (terminal)	Left front axle rpm sensor
				Threshold	If not plausible high wheel acceleration values or high multi-pole signals at low speed or high peak signals are detected then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Check the environment influence while driving (speeding over edges).
- Axle rpm sensor or multipole wheel are loosely attached.
- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole)

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C04AF” detected?

YES >> Proceed to BRC-590, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569854

1.CHECK COMPONENT

1. Check the following items:
- Check multipole ring for tight seating, correct installation and mechanical damage.
- Check rpm sensor for damage, corrosion or loose contact.
- Check distance from multipole ring to rpm sensor.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace error-detected parts.

2.REPLACE RPM SENSOR

Replace all rpm sensors. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation" (front), BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation" (rear).

NOTE:
If the rpm sensor has to be replaced, all rpm sensors must be replaced.

>> END

C04B0 FRONT LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569855

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04B0	00	FL axle rpm sensor [The signal from component (Left front axle rpm sensor) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (35 MPH) or more
				Signal (terminal)	Left front axle rpm sensor
				Threshold	If one or two wheels are on V min then an error is set immediately.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).
- Axle rpm sensor or multipole wheel are loosely attached.
- Axle rpm sensor line has an interruption or has a short circuit to ground or positive.
- Axle rpm sensor malfunction.
- Hardware error in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Start the engine.
3. Drive the vehicle at 60 km/h (35 MPH) or more.
4. Stop the vehicle.
5. Perform self-diagnosis for “ABS”.

Is DTC “C04B0” detected?

YES >> Proceed to BRC-592, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569856

1.CHECK COMPONENT

1. Check the following items:
- Check multipole ring for tight seating, correct installation and mechanical damage.
- Check rpm sensor for damage, corrosion or loose contact.
- Check distance from multipole ring to rpm sensor.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace error-detected parts.

2.REPLACE RPM SENSOR

Replace all rpm sensors. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation" (front), BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation" (rear).

NOTE:
If the rpm sensor has to be replaced, all rpm sensors must be replaced.

>> END

C04B1 FRONT LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569857

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04B1	00	FL axle rpm sensor [The signal from component (Left front axle rpm sensor) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more
				Signal (terminal)	Left front axle rpm sensor
				Threshold	If one or two wheels are on V min and the vehicle is accelerated to 18 km/h (12 MPH) faster vehicle speed an error is set immediately.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).
- Axle rpm sensor or multipole wheel are loosely attached.
- Axle rpm sensor line has an interruption or has a short circuit to ground or positive.
- Axle rpm sensor malfunction.
- Hardware error in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Start the engine.
3. Drive the vehicle at 60 km/h (38 MPH) or more.
4. Stop the vehicle.
5. Perform self-diagnosis for “ABS”.

Is DTC “C04B1” detected?

YES >> Proceed to BRC-594, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569858

1.CHECK COMPONENT

1. Check the following items:

- Check multipole ring for tight seating, correct installation and mechanical damage.
- Check rpm sensor for damage, corrosion or loose contact.
- Check distance from multipole ring to rpm sensor.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace error-detected parts.

2.REPLACE RPM SENSOR

Replace all rpm sensors. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation" (front), BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation" (rear).

NOTE:

If the rpm sensor has to be replaced, all rpm sensors must be replaced.

>> END

C04B3 FRONT LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569859

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04B3	00	FL axle rpm sensor [The signal from component (Left front axle rpm sensor) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Left front axle rpm sensor
				Threshold	If not plausible high frequencies or not plausible slip values or an implausible dynamic signal or a malfunction signal is detected then an suspected error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	80000 ms

POSSIBLE CAUSE

- Axle rpm sensor cable has an interruption.
- Axle rpm sensor or multipole wheel loosely attached.
- Multipole wheel dirty or damaged (air gap too big) or end-magnetized (undetected N / S pole).
- Tire or rim not permitted.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 30 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
4. Perform self-diagnosis for “ABS”.

Is DTC “C04B3” detected?

YES >> Proceed to BRC-596, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569860

1.CHECK COMPONENT

1. Check the following items:
- Incorrect wheels or tires
- Incorrect gear ratio of rear axle
- Check wheel bearing play.
- Check fastening and installation position of rpm sensor.
- Check rpm sensor for damage, corrosion or loose contact.
- Check distance from multipole ring to rpm sensor.

- Check multipole ring for tight seating, correct installation and mechanical damage.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace error-detected parts.

2.CHECK RPM SENSOR CIRCUIT

NOTE:
Voltage measurement is not possible with current DTC detection because the control unit switches off the output.

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and left front axle rpm sensor harness connector.
3. Check the continuity between electronic stability program control unit harness connector and left front axle rpm sensor harness connector.

Electronic stability program control unit		Left front axle rpm sensor		Continuity
Connector	Terminal	Connector	Terminal	
E46	8	E104	2	Existed
	19		1	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace the left front axle rpm sensor. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation".

C04B4 FRONT LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569861

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04B4	00	FL axle rpm sensor [Component (Left front axle rpm sensor) is malfunction or the wrong model is installed]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Left front axle rpm sensor
				Threshold	If the axle rpm sensor type is incorrect then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	2500 ms

POSSIBLE CAUSE

- Incorrect axle rpm sensor type installed.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C04B4” detected?

YES >> Proceed to BRC-598, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569862

1.CHECK INSTALLATION CONDITION OF RPM SENSOR

Check fastening and installation position of left front axle rpm sensor.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair error-detected parts.

2.CHECK RPM SENSOR CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and left front axle rpm sensor harness connector.

3. Check the continuity between electronic stability program control unit harness connector and left front axle rpm sensor harness connector.

Electronic stability program control unit		Left front axle rpm sensor		Continuity
Connector	Terminal	Connector	Terminal	
E46	8	E104	2	Existed
	19		1	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 3.

3.REPLACE RPM SENSOR

With CONSULT

1. Replace left front axle rpm sensor. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation".
2. Erase DTC.
3. Perform DTC confirmation procedure again. Refer to BRC-598, "DTC Description".

Is DTC C04B4 detected again?

YES >> INSPECTION END
NO >> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C04B5 FRONT LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569863

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04B5	00	FL axle rpm sensor [The signal of component (Left front axle rpm sensor) is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 30 km/h (19 MPH) or more for 7 seconds or more
				Signal (terminal)	Left front axle rpm sensor
				Threshold	If the axle rpm sensor signal status is invalid [comparison error between the rotation rate sensor and the electronic stability program control unit (data air gap or rotation direction or axle rpm sensor type)] then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	1000 ms

POSSIBLE CAUSE

- Axle rpm sensor malfunction or electronic stability program control unit malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Start the engine.
3. Drive the vehicle at 30 km/h (19 MPH) or more for 7 seconds or more.
4. Stop the vehicle.
5. Perform self-diagnosis for “ABS”.

Is DTC “C04B5” detected?

YES >> Proceed to BRC-600, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569864

1.CHECK INSTALLATION CONDITION OF RPM SENSOR

Check fastening and installation position of left front axle rpm sensor.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair error-detected parts.

2.CHECK RPM SENSOR CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and left front axle rpm sensor harness connector.
3. Check the continuity between electronic stability program control unit harness connector and left front axle rpm sensor harness connector.

Electronic stability program control unit		Left front axle rpm sensor		Continuity
Connector	Terminal	Connector	Terminal	
E46	8	E104	2	Existed
	19		1	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 3.

3.REPLACE RPM SENSOR

With CONSULT

1. Replace left front axle rpm sensor. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation".
2. Erase DTC.
3. Perform DTC confirmation procedure again. Refer to BRC-600, "DTC Description".

Is DTC C04B5 detected again?

YES >> INSPECTION END
NO >> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C04C0 FRONT RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569865

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04C0	00	FR axle rpm sensor [The power supply or the signal line of component (Right front axle rpm sensor) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Right front axle rpm sensor
				Threshold	If the signal line or the power supply line has an interruption or a short circuit to ground or positive or the axle rpm sensor has a short circuit to another axle rpm sensor then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Signal line or power supply line has an interruption or has a short circuit to ground or positive.
- Axle rpm sensor has a short circuit to another axle rpm sensor.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C04C0” detected?

YES >> Proceed to BRC-602, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569866

1.COMPONENT FUNCTION CHECK

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR” >> “Wheel speed at right front axle”.
3. Rotate the right front wheel by hand.
4. Check that the actual value is more than 3 km/h (2 MPH).

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 2.

2. CHECK RPM SENSOR CIRCUIT

NOTE:
Voltage measurement is not possible with current DTC detection because the control unit switches off the output.

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and right front axle rpm sensor harness connector.
3. Check the continuity between electronic stability program control unit harness connector and right front axle rpm sensor harness connector.

Electronic stability program control unit		Right front axle rpm sensor		Continuity
Connector	Terminal	Connector	Terminal	
E46	4	E105	2	Existed
	16		1	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace the right front axle rpm sensor. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation".

C04C1 FRONT RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569867

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04C1	00	FR axle rpm sensor [The voltage supply of component (Right front axle rpm sensor) has short circuit to ground]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Right front axle rpm sensor
				Threshold	If the power supply line has a short circuit to ground then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	120 ms

POSSIBLE CAUSE

- Power supply line has a short circuit to ground.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C04C1” detected?

YES >> Proceed to BRC-604, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569868

1.COMPONENT FUNCTION CHECK

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR” >> “Wheel speed at right front axle”.
3. Rotate the right front wheel by hand.
4. Check that the actual value is more than 3 km/h (2 MPH).

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 2.

2.CHECK RPM SENSOR CIRCUIT

NOTE:
Voltage measurement is not possible with current DTC detection because the control unit switches off the output.

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and right front axle rpm sensor harness connector.
3. Check the continuity between electronic stability program control unit harness connector and right front axle rpm sensor harness connector.

Electronic stability program control unit		Right front axle rpm sensor		Continuity
Connector	Terminal	Connector	Terminal	
E46	4	E105	2	Existed
	16		1	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace the right front axle rpm sensor. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation".

C04C2 FRONT RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569869

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04C2	00	FR axle rpm sensor [The signal line of component (Right front axle rpm sensor) has a short circuit to positive]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Right front axle rpm sensor
				Threshold	If the signal line has a short circuit to positive then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	120 ms

POSSIBLE CAUSE

- Signal line has a short circuit to positive.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C04C2” detected?

YES >> Proceed to BRC-606, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569870

1.COMPONENT FUNCTION CHECK

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR” >> “Wheel speed at right front axle”.
3. Rotate the right front wheel by hand.
4. Check that the actual value is more than 3 km/h (2 MPH).

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 2.

2.CHECK RPM SENSOR CIRCUIT

NOTE:
Voltage measurement is not possible with current DTC detection because the control unit switches off the output.

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and right front axle rpm sensor harness connector.
3. Check the continuity between electronic stability program control unit harness connector and right front axle rpm sensor harness connector.

Electronic stability program control unit		Right front axle rpm sensor		Continuity
Connector	Terminal	Connector	Terminal	
E46	4	E105	2	Existed
	16		1	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace the right front axle rpm sensor. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation".

C04C3 FRONT RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569871

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04C3	00	FR axle rpm sensor [The signal line of component (Right front axle rpm sensor) has an open circuit or short circuit to ground]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Right front axle rpm sensor
				Threshold	If the signal line has an interruption or a short circuit to ground then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	120 ms

POSSIBLE CAUSE

- Signal line has an interruption or has an short circuit to ground.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C04C3” detected?

YES >> Proceed to BRC-608, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569872

1.COMPONENT FUNCTION CHECK

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR” >> “Wheel speed at right front axle”.
3. Rotate the right front wheel by hand.
4. Check that the actual value is more than 3 km/h (2 MPH).

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 2.

2.CHECK RPM SENSOR CIRCUIT

NOTE:
Voltage measurement is not possible with current DTC detection because the control unit switches off the output.

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and right front axle rpm sensor harness connector.
3. Check the continuity between electronic stability program control unit harness connector and right front axle rpm sensor harness connector.

Electronic stability program control unit		Right front axle rpm sensor		Continuity
Connector	Terminal	Connector	Terminal	
E46	4	E105	2	Existed
	16		1	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace the right front axle rpm sensor. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation".

C04C4 FRONT RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569873

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C04C4	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Front right axle rpm sensor: If the monitoring has a not plausible line state (signal line or power supply line) or detects a malfunction at the Multi-IC then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	120 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C04C4” detected?

YES >> Proceed to BRC-610, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569874

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C04C6 FRONT RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569875

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C04C6	00	FR axle rpm sensor [Component (Right front axle rpm sensor) has a mechanical malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 30 km/h (19 MPH) or more for 20 seconds or more
				Signal (terminal)	Right front axle rpm sensor
				Threshold	If the air gap after five turns of the wheel between the axle rpm sensor and the multipole wheel is too great then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Axle rpm sensor or multipole wheel are loosely attached.
- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).
- Axle rpm sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 30 km/h (19 MPH) or more for 20 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C04C6” detected?

YES >> Proceed to BRC-611, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569876

1.CHECK COMPONENT

1. Check the following items:

- Incorrect wheels or tires
- Incorrect gear ratio of rear axle
- Check wheel bearing play.
- Check fastening and installation position of rpm sensor.

- Check rpm sensor for damage, corrosion or loose contact.
- Check distance from multipole ring to rpm sensor.
- Check multipole ring for tight seating, correct installation and mechanical damage.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace error-detected parts.

2.CHECK RPM SENSOR CIRCUIT

NOTE:
Voltage measurement is not possible with current DTC detection because the control unit switches off the output.

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and right front axle rpm sensor harness connector.
3. Check the continuity between electronic stability program control unit harness connector and right front axle rpm sensor harness connector.

Electronic stability program control unit		Right front axle rpm sensor		Continuity
Connector	Terminal	Connector	Terminal	
E46	4	E105	2	Existed
	16		1	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace the right front axle rpm sensor. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation".

C04C7 FRONT RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569877

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04C7	00	FR axle rpm sensor [Component (Right front axle rpm sensor) is malfunction or the wrong model is installed]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Right front axle rpm sensor
				Threshold	If the axle rpm sensor is malfunction or the axle rpm sensor line or the axle rpm sensor type is incorrect then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	3500 ms

POSSIBLE CAUSE

- Axle rpm sensor line has an interruption or has a short circuit to ground or positive.
- Axle rpm sensor or multipole wheel are loosely attached.
- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).
- Incorrect axle rpm sensor type installed.
- Axle rpm sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C04C7” detected?

YES >> Proceed to BRC-613, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569878

1.CHECK INSTALLATION CONDITION OF RPM SENSOR

Check fastening and installation position of right front axle rpm sensor.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair error-detected parts.

2.CHECK RPM SENSOR CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and right front axle rpm sensor harness connector.
3. Check the continuity between electronic stability program control unit harness connector and right front axle rpm sensor harness connector.

Electronic stability program control unit		Right front axle rpm sensor		Continuity
Connector	Terminal	Connector	Terminal	
E46	4	E105	2	Existed
	16		1	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 3.

3.REPLACE RPM SENSOR

With CONSULT

1. Replace right front axle rpm sensor. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation".
2. Erase DTC.
3. Perform DTC confirmation procedure again. Refer to BRC-613, "DTC Description".

Is DTC C04C7 detected again?

YES >> INSPECTION END
NO >> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C04CA FRONT RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569879

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C04CA	00	FR axle rpm sensor [The signal from component (Right front axle rpm sensor) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Right front axle rpm sensor
				Threshold	If the axle rpm sensor signal is malfunction (high frequency signal disturbances) or a malfunction at the Multi-IC or the axle rpm sensor type is incorrect then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- High frequency signal interference at the axle rpm sensor inputs.
- Incorrect axle rpm sensor type installed.
- Axle rpm sensor malfunction.
- Hardware error in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C04CA” detected?

YES >> Proceed to BRC-615, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569880

1.CHECK INSTALLATION CONDITION OF RPM SENSOR

Check fastening and installation position of right front axle rpm sensor.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair error-detected parts.

2.CHECK RPM SENSOR CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and right front axle rpm sensor harness connector.
3. Check the continuity between electronic stability program control unit harness connector and right front axle rpm sensor harness connector.

Electronic stability program control unit		Right front axle rpm sensor		Continuity
Connector	Terminal	Connector	Terminal	
E46	4	E105	2	Existed
	16		1	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 3.

3.REPLACE RPM SENSOR

With CONSULT

1. Replace right front axle rpm sensor. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation".
2. Erase DTC.
3. Perform DTC confirmation procedure again. Refer to BRC-615, "DTC Description".

Is DTC C04CA detected again?

YES >> INSPECTION END
NO >> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C04CB FRONT RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569881

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C04CB	00	FR axle rpm sensor [The signal of component (Right front axle rpm sensor) is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more
				Signal (terminal)	Right front axle rpm sensor
				Threshold	If the speed difference between the minimum and the maximum wheel speed is greater than 5% based on the maximum wheel speed then an error is set. If the malfunction wheel is always the same. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Tire or rim not permitted.
- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).
- Axle rpm sensor or multipole wheel are loosely attached.
- Incorrect multipole wheel type installed.
- Axle rpm sensor line has an interruption or has a short circuit to ground or positive.
- Axle rpm sensor malfunction.
- Hardware error in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C04CB” detected?

YES >> Proceed to BRC-618, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569882

1.CHECK COMPONENT

1. Check the following items:
- Incorrect wheels or tires
- Incorrect gear ratio of rear axle
- Check wheel bearing play.
- Check fastening and installation position of rpm sensor.
- Check rpm sensor for damage, corrosion or loose contact.
- Check distance from multipole ring to rpm sensor.
- Check multipole ring for tight seating, correct installation and mechanical damage.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace error-detected parts.

2.CHECK RPM SENSOR CIRCUIT

NOTE:
Voltage measurement is not possible with current DTC detection because the control unit switches off the output.

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and right front axle rpm sensor harness connector.
3. Check the continuity between electronic stability program control unit harness connector and right front axle rpm sensor harness connector.

Electronic stability program control unit		Right front axle rpm sensor		Continuity
Connector	Terminal	Connector	Terminal	
E46	4	E105	2	Existed
	16		1	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace the right front axle rpm sensor. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation".

C04CC FRONT RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569883

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C04CC	00	FR axle rpm sensor [The signal of component (Right front axle rpm sensor) is outside the permissible range]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more
				Signal (terminal)	Right front axle rpm sensor
				Threshold	If the axle rpm sensor signal is beyond the valid range (not plausible high frequency) then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	5040 ms

POSSIBLE CAUSE

- Check the environment influence while driving (speeding over edges).
- Axle rpm sensor or multipole wheel are loosely attached.
- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C04CC” detected?

YES >> Proceed to BRC-619, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569884

1.CHECK COMPONENT

1. Check the following items:
- Check multipole ring for tight seating, correct installation and mechanical damage.
- Check rpm sensor for damage, corrosion or loose contact.
- Check distance from multipole ring to rpm sensor.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace error-detected parts.

2.REPLACE RPM SENSOR

Replace all rpm sensors. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation" (front), BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation" (rear).

NOTE:
If the rpm sensor has to be replaced, all rpm sensors must be replaced.

>> END

C04CD FRONT RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569885

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04CD	00	FR axle rpm sensor [Component (Right front axle rpm sensor) or the signal lines to the component are malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more
				Signal (terminal)	Right front axle rpm sensor
				Threshold	If no axle rpm sensor signal is detected during the trip over 43.2 km/h (27 MPH) then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0

POSSIBLE CAUSE

- Axle rpm sensor line has an interruption or has a short circuit to ground or positive.
- Axle rpm sensor or multipole wheel are loosely attached.
- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).
- Axle rpm sensor malfunction.
- Hardware error in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C04CD” detected?

YES >> Proceed to BRC-621, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569886

1.CHECK COMPONENT

1. Check the following items:
- Check multipole ring for tight seating, correct installation and mechanical damage.
- Check rpm sensor for damage, corrosion or loose contact.

- Check distance from multipole ring to rpm sensor.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace error-detected parts.

2.REPLACE RPM SENSOR

Replace all rpm sensors. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation" (front), BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation" (rear).

NOTE:
If the rpm sensor has to be replaced, all rpm sensors must be replaced.

>> END

C04CE FRONT RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569887

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C04CE	00	FR axle rpm sensor [The signal from component (Right front axle rpm sensor) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more
				Signal (terminal)	Right front axle rpm sensor
				Threshold	If there is a missing tooth (pulse wheel) or an unrecognized N / S pole (multipole wheel) after ten turns of the wheel is detected between the axle rpm sensor and the pulse wheel or the multipole wheel then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Axle rpm sensor or pulse wheel or multipole wheel loosely attached.
- Pulse wheel dirty or damaged (missing tooth or too big air gap).
- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C04CE” detected?

YES >> Proceed to BRC-623, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569888

1.CHECK COMPONENT

1. Check the following items:
- Check multipole ring for tight seating, correct installation and mechanical damage.
- Check rpm sensor for damage, corrosion or loose contact.

- Check distance from multipole ring to rpm sensor.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace error-detected parts.

2.REPLACE RPM SENSOR

Replace all rpm sensors. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation" (front), BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation" (rear).

NOTE:
If the rpm sensor has to be replaced, all rpm sensors must be replaced.

>> END

C04CF FRONT RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569889

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C04CF	00	FR axle rpm sensor [The signal from component (Right front axle rpm sensor) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more
				Signal (terminal)	Right front axle rpm sensor
				Threshold	If not plausible high wheel acceleration values or high multi-pole signals at low speed or high peak signals are detected then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Check the environment influence while driving (speeding over edges).
- Axle rpm sensor or multipole wheel are loosely attached.
- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C04CF” detected?

YES >> Proceed to BRC-625, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569890

1.CHECK COMPONENT

1. Check the following items:
- Check multipole ring for tight seating, correct installation and mechanical damage.
- Check rpm sensor for damage, corrosion or loose contact.
- Check distance from multipole ring to rpm sensor.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace error-detected parts.

2.REPLACE RPM SENSOR

Replace all rpm sensors. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation" (front), BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation" (rear).

NOTE:
If the rpm sensor has to be replaced, all rpm sensors must be replaced.

>> END

C04D0 FRONT RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569891

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C04D0	00	FR axle rpm sensor [The signal from component (Right front axle rpm sensor) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more
				Signal (terminal)	Right front axle rpm sensor
				Threshold	If one or two wheels are on V min then an error is set immediately.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).
- Axle rpm sensor or multipole wheel are loosely attached.
- Axle rpm sensor line has an interruption or has a short circuit to ground or positive.
- Axle rpm sensor malfunction.
- Hardware error in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C04D0” detected?

YES >> Proceed to BRC-627, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569892

1.CHECK COMPONENT

1. Check the following items:

- Check multipole ring for tight seating, correct installation and mechanical damage.
- Check rpm sensor for damage, corrosion or loose contact.
- Check distance from multipole ring to rpm sensor.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace error-detected parts.

2. REPLACE RPM SENSOR

Replace all rpm sensors. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation" (front), BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation" (rear).

NOTE:
If the rpm sensor has to be replaced, all rpm sensors must be replaced.

>> END

C04D1 FRONT RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569893

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C04D1	00	FR axle rpm sensor [The signal from component (Right front axle rpm sensor) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more
				Signal (terminal)	Right front axle rpm sensor
				Threshold	If one or two wheels are on V min and the vehicle is accelerated to 18 km/h (12 MPH) faster vehicle speed an error is set immediately.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).
- Axle rpm sensor or multipole wheel are loosely attached.
- Axle rpm sensor line has an interruption or has a short circuit to ground or positive.
- Axle rpm sensor malfunction.
- Hardware error in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C04D1” detected?

YES >> Proceed to BRC-629, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569894

1.CHECK COMPONENT

1. Check the following items:
- Check multipole ring for tight seating, correct installation and mechanical damage.
- Check rpm sensor for damage, corrosion or loose contact.

- Check distance from multipole ring to rpm sensor.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace error-detected parts.

2.REPLACE RPM SENSOR

Replace all rpm sensors. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation" (front), BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation" (rear).

NOTE:
If the rpm sensor has to be replaced, all rpm sensors must be replaced.

>> END

C04D3 FRONT RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569895

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C04D3	00	FR axle rpm sensor [The signal from component (Right front axle rpm sensor) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Right front axle rpm sensor
				Threshold	If not plausible high frequencies or not plausible slip values or an implausible dynamic signal or a malfunction signal is detected then an suspected error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	80000 ms

POSSIBLE CAUSE

- Axle rpm sensor cable has an interruption.
- Axle rpm sensor or multipole wheel loosely attached.
- Multipole wheel dirty or damaged (air gap too big) or end-magnetized (undetected N / S pole).
- Tire or rim not permitted.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C04D3” detected?

YES >> Proceed to BRC-631, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569896

1.CHECK COMPONENT

1. Check the following items:
- Incorrect wheels or tires
- Incorrect gear ratio of rear axle
- Check wheel bearing play.
- Check fastening and installation position of rpm sensor.

- Check rpm sensor for damage, corrosion or loose contact.
- Check distance from multipole ring to rpm sensor.
- Check multipole ring for tight seating, correct installation and mechanical damage.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace error-detected parts.

2.CHECK RPM SENSOR CIRCUIT

NOTE:
Voltage measurement is not possible with current DTC detection because the control unit switches off the output.

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and right front axle rpm sensor harness connector.
3. Check the continuity between electronic stability program control unit harness connector and right front axle rpm sensor harness connector.

Electronic stability program control unit		Right front axle rpm sensor		Continuity
Connector	Terminal	Connector	Terminal	
E46	4	E105	2	Existed
	16		1	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace the right front axle rpm sensor. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation".

C04D4 FRONT RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569897

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04D4	00	FR axle rpm sensor [Component (Right front axle rpm sensor) is malfunction or the wrong model is installed]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Right front axle rpm sensor
				Threshold	If the axle rpm sensor type is incorrect then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	2500 ms

POSSIBLE CAUSE

- Incorrect axle rpm sensor type installed.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C04D4” detected?

YES >> Proceed to BRC-633, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569898

1.CHECK INSTALLATION CONDITION OF RPM SENSOR

Check fastening and installation position of right front axle rpm sensor.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair error-detected parts.

2.CHECK RPM SENSOR CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and right front axle rpm sensor harness connector.

3. Check the continuity between electronic stability program control unit harness connector and right front axle rpm sensor harness connector.

Electronic stability program control unit		Right front axle rpm sensor		Continuity
Connector	Terminal	Connector	Terminal	
E46	4	E105	2	Existed
	16		1	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 3.

3.REPLACE RPM SENSOR

With CONSULT

1. Replace right front axle rpm sensor. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation".
2. Erase DTC.
3. Perform DTC confirmation procedure again. Refer to BRC-633, "DTC Description".

Is DTC C04D4 detected again?

YES >> INSPECTION END
NO >> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C04D5 FRONT RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569899

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C04D5	00	FR axle rpm sensor [The signal of component (Right front axle rpm sensor) is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 30 km/h (19 MPH) or more for 7 seconds or more
				Signal (terminal)	Right front axle rpm sensor
				Threshold	If the axle rpm sensor signal status is invalid [comparison error between the yaw rate sensor and the electronic stability program control unit (data air gap or yaw direction or axle rpm sensor type)] then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	1000 ms

POSSIBLE CAUSE

- Axle rpm sensor malfunction or electronic stability program control unit malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Start the engine.
3. Drive the vehicle at 30 km/h (19 MPH) or more for 7 seconds or more.
4. Stop the vehicle.
5. Perform self-diagnosis for “ABS”.

Is DTC “C04D5” detected?

YES >> Proceed to BRC-635, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569900

1.CHECK INSTALLATION CONDITION OF RPM SENSOR

Check fastening and installation position of right front axle rpm sensor.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair error-detected parts.

2.CHECK RPM SENSOR CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and right front axle rpm sensor harness connector.
3. Check the continuity between electronic stability program control unit harness connector and right front axle rpm sensor harness connector.

Electronic stability program control unit		Right front axle rpm sensor		Continuity
Connector	Terminal	Connector	Terminal	
E46	4	E105	2	Existed
	16		1	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 3.

3.REPLACE RPM SENSOR

With CONSULT

1. Replace right front axle rpm sensor. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation".
2. Erase DTC.
3. Perform DTC confirmation procedure again. Refer to BRC-635, "DTC Description".

Is DTC C04D5 detected again?

YES >> INSPECTION END
NO >> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C04E0 REAR LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569901

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04E0	00	RL axle rpm sensor [The power supply or the signal line of component (Left rear axle rpm sensor) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Left rear axle rpm sensor
				Threshold	If the signal line or the power supply line has an interruption or a short circuit to ground or positive or the axle rpm sensor has a short circuit to another axle rpm sensor then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Signal line or power supply line has an interruption or has a short circuit to ground or positive.
- Axle rpm sensor has a short circuit to another axle rpm sensor.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C04E0” detected?

YES >> Proceed to BRC-637, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569902

1.COMPONENT FUNCTION CHECK

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR” >> “Wheel speed at left rear axle”.
3. Rotate the left rear wheel by hand.
4. Check that the actual value is more than 3 km/h (2 MPH).

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 2.

2.CHECK RPM SENSOR CIRCUIT

NOTE:
Voltage measurement is not possible with current DTC detection because the control unit switches off the output.

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and parking brake actuator motor LH harness connector.
3. Check the continuity between electronic stability program control unit harness connector and parking brake actuator motor LH harness connector.

Electronic stability program control unit		Left rear axle rpm sensor / parking brake actuator motor LH		Continuity
Connector	Terminal	Connector	Terminal	
E46	18	M607	2	Existed
	31		1	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace the left rear axle rpm sensor. Refer to BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation".

C04E1 REAR LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569903

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04E1	00	RL axle rpm sensor [The voltage supply of component (Left rear axle rpm sensor) has short circuit to ground]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Left rear axle rpm sensor
				Threshold	If the power supply line has a short circuit to ground then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	120 ms

POSSIBLE CAUSE

- Power supply line has a short circuit to ground.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C04E1” detected?

YES >> Proceed to BRC-639, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569904

1.COMPONENT FUNCTION CHECK

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR” >> “Wheel speed at left rear axle”.
3. Rotate the left rear wheel by hand.
4. Check that the actual value is more than 3 km/h (2 MPH).

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 2.

2.CHECK RPM SENSOR CIRCUIT

NOTE:
Voltage measurement is not possible with current DTC detection because the control unit switches off the output.

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and parking brake actuator motor LH harness connector.
3. Check the continuity between electronic stability program control unit harness connector and parking brake actuator motor LH harness connector.

Electronic stability program control unit		Left rear axle rpm sensor / parking brake actuator motor LH		Continuity
Connector	Terminal	Connector	Terminal	
E46	18	M607	2	Existed
	31		1	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace the left rear axle rpm sensor. Refer to BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation".

C04E2 REAR LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569905

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04E2	00	RL axle rpm sensor [The signal line of component (Left rear axle rpm sensor) has a short circuit to positive]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Left rear axle rpm sensor
				Threshold	If the signal line has a short circuit to positive then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	120 ms

POSSIBLE CAUSE

- Signal line has a short circuit to positive.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C04E2” detected?

YES >> Proceed to BRC-641, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569906

1.COMPONENT FUNCTION CHECK

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR” >> “Wheel speed at left rear axle”.
3. Rotate the left rear wheel by hand.
4. Check that the actual value is more than 3 km/h (2 MPH).

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 2.

2.CHECK RPM SENSOR CIRCUIT

NOTE:
Voltage measurement is not possible with current DTC detection because the control unit switches off the output.

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and parking brake actuator motor LH harness connector.
3. Check the continuity between electronic stability program control unit harness connector and parking brake actuator motor LH harness connector.

Electronic stability program control unit		Left rear axle rpm sensor / parking brake actuator motor LH		Continuity
Connector	Terminal	Connector	Terminal	
E46	18	M607	2	Existed
	31		1	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace the left rear axle rpm sensor. Refer to BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation".

C04E3 REAR LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569907

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04E3	00	RL axle rpm sensor [The signal line of component (Left rear axle rpm sensor) has an open circuit or short circuit to ground]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Left front axle rpm sensor
				Threshold	If the signal line has an interruption or a short circuit to ground then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	120 ms

POSSIBLE CAUSE

- Signal line has an interruption or has an short circuit to ground.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C04E3” detected?

YES >> Proceed to BRC-643, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569908

1.COMPONENT FUNCTION CHECK

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR” >> “Wheel speed at left rear axle”.
3. Rotate the left rear wheel by hand.
4. Check that the actual value is more than 3 km/h (2 MPH).

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 2.

2.CHECK RPM SENSOR CIRCUIT

NOTE:
Voltage measurement is not possible with current DTC detection because the control unit switches off the output.

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and parking brake actuator motor LH harness connector.
3. Check the continuity between electronic stability program control unit harness connector and parking brake actuator motor LH harness connector.

Electronic stability program control unit		Left rear axle rpm sensor / parking brake actuator motor LH		Continuity
Connector	Terminal	Connector	Terminal	
E46	18	M607	2	Existed
	31		1	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace the left rear axle rpm sensor. Refer to BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation".

C04E4 REAR LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569909

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C04E4	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Rear left axle rpm sensor: If the monitoring has a not plausible line state (signal line or power supply line) or detects a malfunction at the Multi-IC then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	120 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C04E4” detected?

YES-1 >> Proceed to BRC-645, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569910

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C04E6 REAR LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569911

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04E6	00	RL axle rpm sensor [Component (Left rear axle rpm sensor) has a mechanical malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 30 km/h (19 MPH) or more for 20 seconds or more
				Signal (terminal)	Left rear axle rpm sensor
				Threshold	If the air gap after five turns of the wheel between the axle rpm sensor and the multipole wheel is too great then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Axle rpm sensor or multipole wheel are loosely attached.
- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).
- Axle rpm sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 30 km/h (19 MPH) or more for 20 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C04E6” detected?

YES >> Proceed to BRC-646, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569912

1.CHECK COMPONENT

1. Check the following items:
- Incorrect wheels or tires
- Incorrect gear ratio of rear axle

- Check wheel bearing play.
- Check fastening and installation position of rpm sensor.
- Check rpm sensor for damage, corrosion or loose contact.
- Check distance from multipole ring to rpm sensor.
- Check multipole ring for tight seating, correct installation and mechanical damage.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace error-detected parts.

2.CHECK RPM SENSOR CIRCUIT

NOTE:
Voltage measurement is not possible with current DTC detection because the control unit switches off the output.

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and parking brake actuator motor LH harness connector.
3. Check the continuity between electronic stability program control unit harness connector and parking brake actuator motor LH harness connector.

Electronic stability program control unit		Left rear axle rpm sensor / parking brake actuator motor LH		Continuity
Connector	Terminal	Connector	Terminal	
E46	18	M607	2	Existed
	31		1	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace the left rear axle wheel sensor. Refer to BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation".

C04E7 REAR LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569913

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04E7	00	RL axle rpm sensor [Component (Left rear axle rpm sensor) is malfunction or the wrong model is installed]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Left rear axle rpm sensor
				Threshold	If the axle rpm sensor is malfunction or the axle rpm sensor line or the axle rpm sensor type is incorrect then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	3500 ms

POSSIBLE CAUSE

- Axle rpm sensor line has an interruption or has a short circuit to ground or positive.
- Axle rpm sensor or multipole wheel are loosely attached.
- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).
- Incorrect axle rpm sensor type installed.
- Axle rpm sensor malfunction

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C04E7” detected?

YES >> Proceed to BRC-648, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569914

1.CHECK INSTALLATION CONDITION OF RPM SENSOR

Check fastening and installation position of parking brake actuator motor LH.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair error-detected parts.

2.CHECK RPM SENSOR CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and parking brake actuator motor LH harness connector.
3. Check the continuity between electronic stability program control unit harness connector and parking brake actuator motor LH harness connector.

Electronic stability program control unit		Left rear axle rpm sensor / parking brake actuator motor LH		Continuity
Connector	Terminal	Connector	Terminal	
E46	18	M607	2	Existed
	31		1	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 3.

3.REPLACE RPM SENSOR

With CONSULT

1. Replace left rear axle wheel sensor. Refer to BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation".
2. Erase DTC.
3. Perform DTC confirmation procedure again. Refer to BRC-648, "DTC Description".

Is DTC C04E7 detected again?

YES >> INSPECTION END
NO >> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C04EA REAR LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569915

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04EA	00	RL axle rpm sensor [The signal from component (Left rear axle rpm sensor) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Left rear axle rpm sensor
				Threshold	If the axle rpm sensor signal is malfunction (high frequency signal disturbances) or a malfunction at the Multi-IC or the axle rpm sensor type is incorrect then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- High frequency signal interference at the axle rpm sensor inputs.
- Incorrect axle rpm sensor type installed.
- Axle rpm sensor malfunction.
- Hardware error in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C04EA” detected?

YES >> Proceed to BRC-650, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569916

1.CHECK INSTALLATION CONDITION OF RPM SENSOR

Check fastening and installation position of parking brake actuator motor LH.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair error-detected parts.

2.CHECK RPM SENSOR CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and parking brake actuator motor LH harness connector.
3. Check the continuity between electronic stability program control unit harness connector and parking brake actuator motor LH harness connector.

Electronic stability program control unit		Left rear axle rpm sensor / parking brake actuator motor LH		Continuity
Connector	Terminal	Connector	Terminal	
E46	18	M607	2	Existed
	31		1	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 3.

3.REPLACE RPM SENSOR

With CONSULT

1. Replace left rear axle wheel sensor. Refer to BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation".
2. Erase DTC.
3. Perform DTC confirmation procedure again. Refer to BRC-650, "DTC Description".

Is DTC C04EA detected again?

YES >> INSPECTION END
NO >> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C04EB REAR LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569917

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04EB	00	RL axle rpm sensor [The signal of component (Left rear axle rpm sensor) is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more
				Signal (terminal)	Left rear axle rpm sensor
				Threshold	If the speed difference between the minimum and the maximum wheel speed is greater than 5% based on the maximum wheel speed then an error is set. If the malfunction wheel is always the same. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Tire or rim not permitted. Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).
- Axle rpm sensor or multipole wheel are loosely attached.
- Incorrect multipole wheel type installed.
- Axle rpm sensor line has an interruption or has a short circuit to ground or positive.
- Axle rpm sensor malfunction.
- Hardware error in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C04EB” detected?

YES >> Proceed to BRC-653, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569918

1.CHECK COMPONENT

1. Check the following items:
- Incorrect wheels or tires
- Incorrect gear ratio of rear axle
- Check wheel bearing play.
- Check fastening and installation position of rpm sensor.
- Check rpm sensor for damage, corrosion or loose contact.
- Check distance from multipole ring to rpm sensor.
- Check multipole ring for tight seating, correct installation and mechanical damage.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace error-detected parts.

2.CHECK RPM SENSOR CIRCUIT

NOTE:
Voltage measurement is not possible with current DTC detection because the control unit switches off the output.

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and parking brake actuator motor LH harness connector.
3. Check the continuity between electronic stability program control unit harness connector and parking brake actuator motor LH harness connector.

Electronic stability program control unit		Left rear axle rpm sensor / parking brake actuator motor LH		Continuity
Connector	Terminal	Connector	Terminal	
E46	18	M607	2	Existed
	31		1	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace the left rear axle wheel sensor. Refer to BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation".

C04EC REAR LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569919

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04EC	00	RL axle rpm sensor [The signal of component (Left rear axle rpm sensor) is outside the permissible range]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more
				Signal (terminal)	Left rear axle rpm sensor
				Threshold	If the axle rpm sensor signal is beyond the valid range (not plausible high frequency) then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	5040 ms

POSSIBLE CAUSE

- Check the environment influence while driving (speeding over edges).
- Axle rpm sensor or multipole wheel are loosely attached.
- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C04EC” detected?

YES >> Proceed to BRC-654, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569920

1.CHECK COMPONENT

1. Check the following items:
- Check multipole ring for tight seating, correct installation and mechanical damage.
- Check rpm sensor for damage, corrosion or loose contact.
- Check distance from multipole ring to rpm sensor.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace error-detected parts.

2.REPLACE RPM SENSOR

Replace all rpm sensors. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation" (front), BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation" (rear).

NOTE:
If the rpm sensor has to be replaced, all rpm sensors must be replaced.

>> END

C04ED REAR LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569921

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04ED	00	RL axle rpm sensor [Component (Left rear axle rpm sensor) or the signal lines to the component are malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more
				Signal (terminal)	Left rear axle rpm sensor
				Threshold	If no axle rpm sensor signal is detected during the trip over 43.2 km/h (27 MPH) then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Axle rpm sensor line has an interruption or has a short circuit to ground or positive.
- Axle rpm sensor or multipole wheel are loosely attached.
- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).
- Axle rpm sensor malfunction.
- Hardware error in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C04ED” detected?

YES >> Proceed to BRC-656, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569922

1.CHECK COMPONENT

1. Check the following items:
- Check multipole ring for tight seating, correct installation and mechanical damage.
- Check rpm sensor for damage, corrosion or loose contact.

- Check distance from multipole ring to rpm sensor.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace error-detected parts.

2.REPLACE RPM SENSOR

Replace all rpm sensors. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation" (front), BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation" (rear).

NOTE:
If the rpm sensor has to be replaced, all rpm sensors must be replaced.

>> END

C04EE REAR LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569923

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04EE	00	RL axle rpm sensor [The signal from component (Left rear axle rpm sensor) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more
				Signal (terminal)	Left rear axle rpm sensor
				Threshold	If there is a missing tooth (pulse wheel) or an unrecognized N / S pole (multipole wheel) after ten turns of the wheel is detected between the axle rpm sensor and the pulse wheel or the multipole wheel then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Axle rpm sensor or pulse wheel or multipole wheel loosely attached.
- Pulse wheel dirty or damaged (missing tooth or too big air gap).
- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C04EE” detected?

YES >> Proceed to BRC-658, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569924

1.CHECK COMPONENT

1. Check the following items:
- Check multipole ring for tight seating, correct installation and mechanical damage.
- Check rpm sensor for damage, corrosion or loose contact.

- Check distance from multipole ring to rpm sensor.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace error-detected parts.

2.REPLACE RPM SENSOR

Replace all rpm sensors. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation" (front), BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation" (rear).

NOTE:
If the rpm sensor has to be replaced, all rpm sensors must be replaced.

>> END

C04EF REAR LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569925

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04EF	00	RL axle rpm sensor [The signal from component (Left rear axle rpm sensor) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more
				Signal (terminal)	Left rear axle rpm sensor
				Threshold	If not plausible high wheel acceleration values or high multi-pole signals at low speed or high peak signals are detected then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Check the environment influence while driving (speeding over edges).
- Axle rpm sensor or multipole wheel are loosely attached.
- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C04EF” detected?

YES >> Proceed to BRC-660, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569926

1.CHECK COMPONENT

1. Check the following items:
- Check multipole ring for tight seating, correct installation and mechanical damage.
- Check rpm sensor for damage, corrosion or loose contact.
- Check distance from multipole ring to rpm sensor.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace error-detected parts.

2.REPLACE RPM SENSOR

Replace all rpm sensors. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation" (front), BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation" (rear).

NOTE:
If the rpm sensor has to be replaced, all rpm sensors must be replaced.

>> END

C04F0 REAR LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569927

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04F0	00	RL axle rpm sensor [The signal from component (Left rear axle rpm sensor) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more
				Signal (terminal)	Left rear axle rpm sensor
				Threshold	Rear left axle rpm sensor: If one or two wheels are on V min then an error is set immediately.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).
- Axle rpm sensor or multipole wheel are loosely attached.
- Axle rpm sensor line has an interruption or has a short circuit to ground or positive.
- Axle rpm sensor malfunction.
- Hardware error in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C04F0” detected?

YES >> Proceed to BRC-662, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569928

1.CHECK COMPONENT

1. Check the following items:

- Check multipole ring for tight seating, correct installation and mechanical damage.
- Check rpm sensor for damage, corrosion or loose contact.
- Check distance from multipole ring to rpm sensor.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace error-detected parts.

2.REPLACE RPM SENSOR

Replace all rpm sensors. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation" (front), BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation" (rear).

NOTE:
If the rpm sensor has to be replaced, all rpm sensors must be replaced.

>> END

C04F1 REAR LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569929

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04F1	00	RL axle rpm sensor [The signal from component (Left rear axle rpm sensor) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more
				Signal (terminal)	Left rear axle rpm sensor
				Threshold	Rear left axle rpm sensor: If one or two wheels are on V min and the vehicle is accelerated to 18 km/h (12 MPH) faster vehicle speed an error is set immediately.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).
- Axle rpm sensor or multipole wheel are loosely attached.
- Axle rpm sensor line has an interruption or has a short circuit to ground or positive.
- Axle rpm sensor malfunction.
- Hardware error in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C04F1” detected?

YES >> Proceed to BRC-664, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569930

1.COMPONENT FUNCTION CHECK

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR” >> “Air gap Reserve RL”.

3. Check that the value indicates “OK”.

Is the inspection result normal?

YES >> GO TO 3.
NO >> GO TO 2.

2.CHECK COMPONENT

1. Check the following items:
- Check wheel bearing play and adjust if necessary.
- Check multipole ring for tight seating, correct installation and mechanical damage.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace error-detected parts.

3.CHECK COMPONENT

1. Check the following items:
- Check wheel bearing play and adjust if necessary.
- Check multipole ring and rpm sensor for dirt and damage.
- Clean multipole ring and replace if necessary.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace error-detected parts.

C04F3 REAR LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569931

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04F3	00	RL axle rpm sensor [The signal from component (Left rear axle rpm sensor) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Left rear axle rpm sensor
				Threshold	If not plausible high frequencies or not plausible slip values or an implausible dynamic signal or a malfunction signal is detected then an suspected error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	80000 ms

POSSIBLE CAUSE

- Axle rpm sensor cable has an interruption.
- Axle rpm sensor or multipole wheel loosely attached.
- Multipole wheel dirty or damaged (air gap too big) or end-magnetized (and detected N / S pole).
- Tire or rim not permitted.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C04F3” detected?

YES >> Proceed to BRC-666, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569932

1.COMPONENT FUNCTION CHECK

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR” >> “Air gap Reserve RL”.
3. Check that the value indicates “OK”.

Is the inspection result normal?

YES >> GO TO 3.
NO >> GO TO 2.

2.CHECK COMPONENT

1. Check the following items:
- Check wheel bearing play and adjust if necessary.
- Check multipole ring for tight seating, correct installation and mechanical damage.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace error-detected parts.

3.CHECK COMPONENT

1. Check the following items:
- Check wheel bearing play and adjust if necessary.
- Check multipole ring and rpm sensor for dirt and damage.
- Clean multipole ring and replace if necessary.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace error-detected parts.

C04F4 REAR LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569933

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04F4	00	RL axle rpm sensor [Component (Left rear axle rpm sensor) is malfunction or the wrong model is installed]	[NO SUBTYPE INFORMATION]	Diagnosis condition	ignition switch ON
				Signal (terminal)	Left rear axle rpm sensor
				Threshold	If the axle rpm sensor type is incorrect then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	2500 ms

POSSIBLE CAUSE

- Incorrect axle rpm sensor type installed.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C04F4” detected?

YES >> Proceed to BRC-668, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569934

1.CHECK INSTALLATION CONDITION OF RPM SENSOR

Check fastening and installation position of parking brake actuator motor LH.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair error-detected parts.

2.CHECK RPM SENSOR CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and parking brake actuator motor LH harness connector.

3. Check the continuity between electronic stability program control unit harness connector and parking brake actuator motor LH harness connector.

Electronic stability program control unit		Left rear axle rpm sensor / parking brake actuator motor LH		Continuity
Connector	Terminal	Connector	Terminal	
E46	18	M607	2	Existed
	31		1	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 3.

3.REPLACE RPM SENSOR

With CONSULT

1. Replace left rear axle wheel sensor. Refer to BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation".
2. Erase DTC.
3. Perform DTC confirmation procedure again. Refer to BRC-668, "DTC Description".

Is DTC C04F4 detected again?

YES >> INSPECTION END
NO >> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C04F5 REAR LEFT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569935

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C04F5	00	RL axle rpm sensor [The signal of component (Left rear axle rpm sensor) is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 30 km/h (19 MPH) or more for 7 seconds or more
				Signal (terminal)	Left rear axle rpm sensor
				Threshold	If the axle rpm sensor signal status is invalid [comparison error between the yaw rate sensor and the electronic stability program control unit (data air gap or yaw direction or axle rpm sensor type)] then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	1000 ms

POSSIBLE CAUSE

- Axle rpm sensor malfunction or electronic stability program control unit malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Start the engine.
3. Drive the vehicle at 30 km/h (19 MPH) or more for 7 seconds or more.
4. Stop the vehicle.
5. Perform self-diagnosis for “ABS”.

Is DTC “C04F5” detected?

YES >> Proceed to BRC-670, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569936

1.CHECK INSTALLATION CONDITION OF RPM SENSOR

Check fastening and installation position of parking brake actuator motor LH.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair error-detected parts.

2.CHECK RPM SENSOR CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and parking brake actuator motor LH harness connector.
3. Check the continuity between electronic stability program control unit harness connector and parking brake actuator motor LH harness connector.

Electronic stability program control unit		Left rear axle rpm sensor / parking brake actuator motor LH		Continuity
Connector	Terminal	Connector	Terminal	
E46	18	M607	2	Existed
	31		1	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 3.

3.REPLACE RPM SENSOR

With CONSULT

1. Replace left rear axle wheel sensor. Refer to BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation".
2. Erase DTC.
3. Perform DTC confirmation procedure again. Refer to BRC-670, "DTC Description".

Is DTC C04F5 detected again?

YES >> INSPECTION END
NO >> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0500 REAR RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569937

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0500	00	RR axle rpm sensor [The power supply or the signal line of component (Right rear axle rpm sensor) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Right rear axle rpm sensor
				Threshold	If the signal line or the power supply line has an interruption or a short circuit to ground or positive or the axle rpm sensor has a short circuit to another axle rpm sensor then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Signal line or power supply line has an interruption or has a short circuit to ground or positive.
- Axle rpm sensor has a short circuit to another axle rpm sensor.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0500” detected?

YES >> Proceed to BRC-672, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569938

1.COMPONENT FUNCTION CHECK

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR” >> “Wheel speed at right rear axle”.
3. Rotate the right rear wheel by hand.
4. Check that the actual value is more than 3 km/h (2 MPH).

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 2.

2. CHECK RPM SENSOR CIRCUIT

NOTE:
Voltage measurement is not possible with current DTC detection because the control unit switches off the output.

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and parking brake actuator motor RH harness connector.
3. Check the continuity between electronic stability program control unit harness connector and parking brake actuator motor RH harness connector.

Electronic stability program control unit		Right rear axle rpm sensor / parking brake actuator motor RH		Continuity
Connector	Terminal	Connector	Terminal	
E46	17	M608	1	Existed
	29		2	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace the right rear axle rpm sensor. Refer to BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation".

C0501 REAR RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569939

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0501	00	RR axle rpm sensor [Rear right axle revolutions per minute sensor]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Right rear axle rpm sensor
				Threshold	Rear right axle rpm sensor: If the power supply line has a short circuit to ground then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	120 ms

POSSIBLE CAUSE

- Power supply line has a short circuit to ground.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0501” detected?

YES >> Proceed to BRC-674, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569940

1.COMPONENT FUNCTION CHECK

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR” >> “Wheel speed at right rear axle”.
3. Rotate the right rear wheel by hand.
4. Check that the actual value is more than 3 km/h (2 MPH).

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 2.

2.CHECK RPM SENSOR CIRCUIT

NOTE:
Voltage measurement is not possible with current DTC detection because the control unit switches off the output.

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and parking brake actuator motor RH harness connector.
3. Check the continuity between electronic stability program control unit harness connector and parking brake actuator motor RH harness connector.

Electronic stability program control unit		Right rear axle rpm sensor / parking brake actuator motor RH		Continuity
Connector	Terminal	Connector	Terminal	
E46	17	M608	1	Existed
	29		2	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace the right rear axle rpm sensor. Refer to BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation".

C0502 REAR RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569941

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0502	00	RR axle rpm sensor [The signal line of component (Right rear axle rpm sensor) has a short circuit to positive]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Right rear axle rpm
				Threshold	If the signal line has a short circuit to positive then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	120 ms

POSSIBLE CAUSE

- Signal line has a short circuit to positive.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds ON turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0502” detected?

YES >> Proceed to BRC-676, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569942

1.COMPONENT FUNCTION CHECK

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR” >> “Wheel speed at right rear axle”.
3. Rotate the right rear wheel by hand.
4. Check that the actual value is more than 3 km/h (2 MPH).

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 2.

2.CHECK RPM SENSOR CIRCUIT

NOTE:
Voltage measurement is not possible with current DTC detection because the control unit switches off the output.

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and parking brake actuator motor RH harness connector.
3. Check the continuity between electronic stability program control unit harness connector and parking brake actuator motor RH harness connector.

Electronic stability program control unit		Right rear axle rpm sensor / parking brake actuator motor RH		Continuity
Connector	Terminal	Connector	Terminal	
E46	17	M608	1	Existed
	29		2	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace the right rear axle rpm sensor. Refer to BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation".

C0503 REAR RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569943

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0503	00	RR axle rpm sensor [The signal line of component (Right rear axle rpm sensor) has an open circuit or short circuit to ground]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Right rear axle rpm sensor
				Threshold	If the signal line has an interruption or a short circuit to ground then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	120 ms

POSSIBLE CAUSE

- Signal line has an interruption or has an short circuit to ground.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0503” detected?

YES >> Proceed to BRC-678, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569944

1.COMPONENT FUNCTION CHECK

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR” >> “Wheel speed at right rear axle”.
3. Rotate the right rear wheel by hand.
4. Check that the actual value is more than 3 km/h (2 MPH).

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 2.

2.CHECK RPM SENSOR CIRCUIT

NOTE:
Voltage measurement is not possible with current DTC detection because the control unit switches off the output.

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and parking brake actuator motor RH harness connector.
3. Check the continuity between electronic stability program control unit harness connector and parking brake actuator motor RH harness connector.

Electronic stability program control unit		Right rear axle rpm sensor / parking brake actuator motor RH		Continuity
Connector	Terminal	Connector	Terminal	
E46	17	M608	1	Existed
	29		2	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace the right rear axle rpm sensor. Refer to BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation".

C0504 REAR RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569945

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0504	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Rear right axle rpm sensor: If the monitoring has a not plausible line state (signal line or power supply line) or detects a malfunction at the Multi-IC then an error is set. The error is set if the error detection time is exceeded
				Diagnosis delay time	120 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0504” detected?

YES >> Proceed to BRC-680, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569946

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0506 REAR RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569947

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0506	00	RR axle rpm sensor [Component (Right rear axle rpm sensor) has a mechanical malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 30 km/h (19 MPH) or more for 20 seconds or more
				Signal (terminal)	Right rear axle rpm sensor
				Threshold	If the air gap after five turns of the wheel between the axle rpm sensor and the multipole wheel is too great then an error is set. The error is set if the error detection time is exceeded
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Axle rpm sensor or multipole wheel are loosely attached.
- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).
- Axle rpm sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 30 km/h (19 MPH) or more for 20 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0506” detected?

YES >> Proceed to BRC-681, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569948

1.CHECK COMPONENT

1. Check the following items:

- Incorrect wheels or tires
- Incorrect gear ratio of rear axle
- Check wheel bearing play.
- Check fastening and installation position of rpm sensor.

- Check rpm sensor for damage, corrosion or loose contact.
- Check distance from multipole ring to rpm sensor.
- Check multipole ring for tight seating, correct installation and mechanical damage.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace error-detected parts.

2.CHECK RPM SENSOR CIRCUIT

NOTE:
Voltage measurement is not possible with current DTC detection because the control unit switches off the output.

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and parking brake actuator motor RH harness connector.
3. Check the continuity between electronic stability program control unit harness connector and parking brake actuator motor RH harness connector.

Electronic stability program control unit		Right rear axle rpm sensor / parking brake actuator motor RH		Continuity
Connector	Terminal	Connector	Terminal	
E46	17	M608	1	Existed
	29		2	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace the right rear axle wheel sensor. Refer to BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation".

C0507 REAR RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569949

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0507	00	RR axle rpm sensor [Component (Right rear axle rpm sensor) is malfunction or the wrong model is installed]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Right rear axle rpm sensor
				Threshold	If the axle rpm sensor is malfunction or the axle rpm sensor line or rear axle rpm sensor type is incorrect then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	35000 ms

POSSIBLE CAUSE

- Axle rpm sensor line has an interruption or has a short circuit to ground or positive.
- Axle rpm sensor or multipole wheel are loosely attached.
- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).
- Incorrect axle rpm sensor type installed.
- Axle rpm sensor malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0507” detected?

YES >> Proceed to BRC-683, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569950

1.CHECK INSTALLATION CONDITION OF RPM SENSOR

Check fastening and installation position of parking brake actuator motor RH.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair error-detected parts.

2.CHECK RPM SENSOR CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and parking brake actuator motor RH harness connector.
3. Check the continuity between electronic stability program control unit harness connector and parking brake actuator motor RH harness connector.

Electronic stability program control unit		Right rear axle rpm sensor / parking brake actuator motor RH		Continuity
Connector	Terminal	Connector	Terminal	
E46	17	M608	1	Existed
	29		2	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 3.

3.REPLACE RPM SENSOR

With CONSULT

1. Replace right rear axle wheel sensor. Refer to BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation".
2. Erase DTC.
3. Perform DTC confirmation procedure again. Refer to BRC-683, "DTC Description".

Is DTC C0507 detected again?

YES >> INSPECTION END
NO >> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C050A REAR RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569951

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C050A	00	RR axle rpm sensor [The signal from component (Right rear axle rpm sensor) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Right rear axle rpm sensor
				Threshold	If the axle rpm sensor signal is malfunction (high frequency signal disturbances) or a malfunction at the Multi-IC or the axle rpm sensor type is incorrect then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	30 ms

POSSIBLE CAUSE

- High frequency signal interference at the axle rpm sensor inputs.
- Incorrect axle rpm sensor type installed.
- Axle rpm sensor malfunction.
- Hardware error in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C050A” detected?

YES >> Proceed to BRC-685, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569952

1.CHECK INSTALLATION CONDITION OF RPM SENSOR

Check fastening and installation position of parking brake actuator motor RH.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair error-detected parts.

2.CHECK RPM SENSOR CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and parking brake actuator motor RH harness connector.
3. Check the continuity between electronic stability program control unit harness connector and parking brake actuator motor RH harness connector.

Electronic stability program control unit		Right rear axle rpm sensor / parking brake actuator motor RH		Continuity
Connector	Terminal	Connector	Terminal	
E46	17	M608	1	Existed
	29		2	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 3.

3.REPLACE RPM SENSOR

With CONSULT

1. Replace right rear axle wheel sensor. Refer to BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation".
2. Erase DTC.
3. Perform DTC confirmation procedure again. Refer to BRC-685, "DTC Description".

Is DTC C050A detected again?

YES >> INSPECTION END
NO >> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C050B REAR RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569953

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C050B	00	RR axle rpm sensor [The signal of component (Right rear axle rpm sensor) is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more
				Signal (terminal)	Right rear axle rpm sensor
				Threshold	If the speed difference between the minimum and the maximum wheel speed is greater than 5% based on the maximum wheel speed then an error is set. If the malfunction wheel is always the same. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Tire or rim not permitted.
- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).
- Axle rpm sensor or multipole wheel are loosely attached.
- Incorrect multipole wheel type installed.
- Axle rpm sensor line has an interruption or has a short circuit to ground or positive.
- Axle rpm sensor malfunction.
- Hardware error in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C050B” detected?

YES >> Proceed to BRC-688, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569954

1.CHECK COMPONENT

1. Check the following items:
- Incorrect wheels or tires
- Incorrect gear ratio of rear axle
- Check wheel bearing play.
- Check fastening and installation position of rpm sensor.
- Check rpm sensor for damage, corrosion or loose contact.
- Check distance from multipole ring to rpm sensor.
- Check multipole ring for tight seating, correct installation and mechanical damage.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace error-detected parts.

2.CHECK RPM SENSOR CIRCUIT

NOTE:
Voltage measurement is not possible with current DTC detection because the control unit switches off the output.

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and parking brake actuator motor RH harness connector.
3. Check the continuity between electronic stability program control unit harness connector and parking brake actuator motor RH harness connector.

Electronic stability program control unit		Right rear axle rpm sensor / parking brake actuator motor RH		Continuity
Connector	Terminal	Connector	Terminal	
E46	17	M608	1	Existed
	29		2	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace the right rear axle wheel sensor. Refer to BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation".

C050C REAR RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569955

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C050C	00	RR axle rpm sensor [The signal of component (Right rear axle rpm sensor) is outside the permissible range]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more
				Signal (terminal)	Right rear axle rpm sensor
				Threshold	If the axle rpm sensor signal is beyond the valid range (not plausible high frequency) then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	5040 ms

POSSIBLE CAUSE

- Check the environment influence while driving (speeding over edges).
- Axle rpm sensor or multipole wheel are loosely attached.
- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C050C” detected?

YES >> Proceed to BRC-689, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569956

1.CHECK COMPONENT

1. Check the following items:
- Check multipole ring for tight seating, correct installation and mechanical damage.
- Check rpm sensor for damage, corrosion or loose contact.
- Check distance from multipole ring to rpm sensor.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace error-detected parts.

2.REPLACE RPM SENSOR

Replace all rpm sensors. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation" (front), BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation" (rear).

NOTE:
If the rpm sensor has to be replaced, all rpm sensors must be replaced.

>> END

C050D REAR RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569957

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C050D	00	RR axle rpm sensor [Component (Right rear axle rpm sensor) or the signal lines to the component are malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more
				Signal (terminal)	Right rear axle rpm sensor
				Threshold	If no axle rpm sensor signal is detected during the trip over 43.2 km/h (27 MPH) then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Axle rpm sensor line has an interruption or has a short circuit to ground or positive.
- Axle rpm sensor or multipole wheel are loosely attached.
- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).
- Axle rpm sensor malfunction.
- Hardware error in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C050D” detected?

YES >> Proceed to BRC-691, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569958

1.CHECK COMPONENT

1. Check the following items:
- Check multipole ring for tight seating, correct installation and mechanical damage.
- Check rpm sensor for damage, corrosion or loose contact.

- Check distance from multipole ring to rpm sensor.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace error-detected parts.

2.REPLACE RPM SENSOR

Replace all rpm sensors. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation" (front), BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation" (rear).

NOTE:
If the rpm sensor has to be replaced, all rpm sensors must be replaced.

>> END

C050E REAR RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569959

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C050E	00	RR axle rpm sensor [The signal from component (Right rear axle rpm sensor) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more
				Signal (terminal)	Right rear axle rpm sensor
				Threshold	If there is a missing tooth (pulse wheel) or an unrecognized N / S pole (multipole wheel) after ten turns of the wheel is detected between the axle rpm sensor and the pulse wheel or the multipole wheel then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Axle rpm sensor or pulse wheel or multipole wheel loosely attached.
- Pulse wheel dirty or damaged (missing tooth or too big air gap).
- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C050E” detected?

YES >> Proceed to BRC-693, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569960

1.CHECK COMPONENT

1. Check the following items:
- Check multipole ring for tight seating, correct installation and mechanical damage.
- Check rpm sensor for damage, corrosion or loose contact.

- Check distance from multipole ring to rpm sensor.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace error-detected parts.

2.REPLACE RPM SENSOR

Replace all rpm sensors. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation" (front), BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation" (rear).

NOTE:
If the rpm sensor has to be replaced, all rpm sensors must be replaced.

>> END

C050F REAR RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569961

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C050F	00	RR axle rpm sensor [The signal from component (Right rear axle rpm sensor) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more
				Signal (terminal)	Right rear axle rpm sensor
				Threshold	If not plausible high wheel acceleration values or high multi-pole signals at low speed or high peak signals are detected then an error is set. The error is set if the error detection time is exceeded
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Check the environment influence while driving (speeding over edges).
- Axle rpm sensor or multipole wheel are loosely attached.
- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C050F” detected?

YES >> Proceed to BRC-695, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569962

1.CHECK COMPONENT

1. Check the following items:
- Check multipole ring for tight seating, correct installation and mechanical damage.
- Check rpm sensor for damage, corrosion or loose contact.
- Check distance from multipole ring to rpm sensor.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace error-detected parts.

2. REPLACE RPM SENSOR

Replace all rpm sensors. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation" (front), BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation" (rear).

NOTE:
If the rpm sensor has to be replaced, all rpm sensors must be replaced.

>> END

C0510 REAR RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569963

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0510	00	RR axle rpm sensor [The signal from component (Right rear axle rpm sensor) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more
				Signal (terminal)	Right rear axle rpm sensor
				Threshold	If one or two wheels are on V min then an error is set immediately.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).
- Axle rpm sensor or multipole wheel are loosely attached.
- Axle rpm sensor line has an interruption or has a short circuit to ground or positive.
- Axle rpm sensor malfunction.
- Hardware error in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0510” detected?

YES >> Proceed to BRC-697, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569964

1.CHECK COMPONENT

1. Check the following items:
- Check multipole ring for tight seating, correct installation and mechanical damage.
- Check rpm sensor for damage, corrosion or loose contact.
- Check distance from multipole ring to rpm sensor.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace error-detected parts.

2.REPLACE RPM SENSOR

Replace all rpm sensors. Refer to BRC-968, "FRONT AXLE RPM SENSOR : Removal and Installation" (front), BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation" (rear).

NOTE:
If the rpm sensor has to be replaced, all rpm sensors must be replaced.

>> END

C0511 REAR RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569965

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0511	00	RR axle rpm sensor [The signal from component (Right rear axle rpm sensor) is malfunction	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more
				Signal (terminal)	Right rear axle rpm sensor
				Threshold	If one or two wheels are on V min and the vehicle is accelerated to 18 km/h (12 MPH) faster vehicle speed an error is set immediately.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Multipole wheel dirty or damaged (too big air gap) or end magnetized (undetected N / S pole).
- Axle rpm sensor or multipole wheel are loosely attached.
- Axle rpm sensor line has an interruption or has a short circuit to ground or positive.
- Axle rpm sensor malfunction.
- Hardware error in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Drive the vehicle at 60 km/h (38 MPH) or more for 5 seconds or more.
7. Stop the vehicle.
8. Perform self-diagnosis for “ABS”.

Is DTC “C0511” detected?

YES >> Proceed to BRC-699, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569966

1.COMPONENT FUNCTION CHECK

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR” >> “Air gap Reserve RR”.

3. Check that the value indicates “OK”.

Is the inspection result normal?

YES >> GO TO 3.
NO >> GO TO 2.

2.CHECK COMPONENT

1. Check the following items:
- Check wheel bearing play and adjust if necessary.
- Check multipole ring for tight seating, correct installation and mechanical damage.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace error-detected parts.

3.CHECK COMPONENT

1. Check the following items:
- Check wheel bearing play and adjust if necessary.
- Check multipole ring and rpm sensor for dirt and damage.
- Clean multipole ring and replace if necessary.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace error-detected parts.

C0513 REAR RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569967

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0513	00	RR axle rpm sensor [The signal from component (Right rear axle rpm sensor) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Right rear axle rpm sensor
				Threshold	If not plausible high frequencies or not plausible slip values or an implausible dynamic signal or a malfunction signal is detected then an suspected error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	80000 ms

POSSIBLE CAUSE

- Axle rpm sensor cable has an interruption.
- Axle rpm sensor or multipole wheel loosely attached.
- Multipole wheel dirty or damaged (air gap too big) or end-magnetized (and detected N / S pole).
- Tire or rim not permitted.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0513” detected?

YES >> Proceed to BRC-701, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569968

1.COMPONENT FUNCTION CHECK

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR” >> “Air gap Reserve RR”.
3. Check that the value indicates “OK”.

Is the inspection result normal?

YES >> GO TO 3.
NO >> GO TO 2.

2.CHECK COMPONENT

1. Check the following items:
- Check wheel bearing play and adjust if necessary.
- Check multipole ring for tight seating, correct installation and mechanical damage.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace error-detected parts.

3.CHECK COMPONENT

1. Check the following items:
- Check wheel bearing play and adjust if necessary.
- Check multipole ring and rpm sensor for dirt and damage.
- Clean multipole ring and replace if necessary.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace error-detected parts.

C0514 REAR RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013569969

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0514	00	RR axle rpm sensor [Component (Right rear axle rpm sensor) is malfunction or the wrong model is installed]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Right rear axle rpm sensor
				Threshold	If the axle rpm sensor type is incorrect then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	2500 ms

POSSIBLE CAUSE

- Incorrect axle rpm sensor type installed.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0514” detected?

YES >> Proceed to BRC-703, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569970

1.CHECK INSTALLATION CONDITION OF RPM SENSOR

Check fastening and installation position of parking brake actuator motor RH.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair error-detected parts.

2.CHECK RPM SENSOR CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and parking brake actuator motor RH harness connector.

3. Check the continuity between electronic stability program control unit harness connector and parking brake actuator motor RH harness connector.

Electronic stability program control unit		Right rear axle rpm sensor / parking brake actuator motor RH		Continuity
Connector	Terminal	Connector	Terminal	
E46	17	M608	1	Existed
	29		2	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 3.

3.REPLACE RPM SENSOR

With CONSULT

1. Replace right rear axle wheel sensor. Refer to BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation".
2. Erase DTC.
3. Perform DTC confirmation procedure again. Refer to BRC-703, "DTC Description".

Is DTC C0514 detected again?

YES >> INSPECTION END
NO >> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0540 ELECTRIC SHIFT SELECTOR SYSTEM

DTC Description

INFOID:0000000013569971

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0540	00	CAN message shift module [The CAN message from control unit (Shift module) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the message from the electric shift selector is incorrect (message length or message counter or checksum incorrect) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- Data corrupt error of the message from electric shift selector / TCM (message length or message counter or checksum incorrect).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0540” detected?

YES >> Proceed to BRC-705, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569972

1.PERFORM SELF-DIAGNOSIS FOR TCM

With CONSULT

Perform self-diagnosis for “TRANSMISSION”. Refer to TM-36, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to TM-45, "DTC Index".
NO >> INSPECTION END

C0541 ELECTRIC SHIFT SELECTOR SYSTEM

DTC Description

INFOID:0000000013569973

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0541	00	No CAN message shift module [No CAN message was received from control unit 'Shift module']	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the message from the electric shift selector is not received then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	1 second or less

POSSIBLE CAUSE

- CAN communication has a malfunction
- Electric shift selector

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0541” detected?

YES >> Proceed to BRC-706, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569974

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electric shift selector. Refer to TM-227, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C0542 ELECTRIC SHIFT SELECTOR SYSTEM

DTC Description

INFOID:0000000013569975

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0542	00	CAN message shift module [The CAN message from control unit (Shift module) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal selector lever position of electric shift selector from ECM is invalid (signal value is beyond the valid range) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- Signal selector lever position of electric shift selector from ECM invalid (signal value is beyond the valid range).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0542” detected?

YES >> Proceed to BRC-707, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569976

1.PERFORM SELF-DIAGNOSIS FOR TCM

With CONSULT

Perform self-diagnosis for “TRANSMISSION”. Refer to TM-36, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to TM-45, "DTC Index".
NO >> INSPECTION END

C0543 ENGINE SYSTEM

DTC Description

INFOID:0000000013569977

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0543	00	Signal from ECM is implausible [One or more signals sent from control unit (Engine) via the CAN bus is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal selector lever position target from ECM is invalid (signal value is beyond the valid range) then an error is set. This error is set, when the malfunction detection time is exceeded [Note for malfunction detection time in the service comments column).
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- Component (ECM / sensor) is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0543” detected?

YES >> Proceed to BRC-708, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569978

1.PERFORM SELF-DIAGNOSIS FOR ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C0560 ENGINE SYSTEM

DTC Description

INFOID:0000000013569979

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0560	00	CAN message ECM [The CAN message from control unit (Engine) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the message from ECM is incorrect (message length or message counter or checksum incorrect) then an error is set. This error is set, when the malfunction detection time is exceeded [Note for malfunction detection time in the service comments column).
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- Data corrupt error of the message from ECM (message length or message counter or checksum incorrect).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0560” detected?

YES >> Proceed to BRC-709, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569980

1.PERFORM SELF-DIAGNOSIS FOR ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C0561 ENGINE SYSTEM

DTC Description

INFOID:0000000013569981

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0561	00	No CAN message ECM [No CAN message was received from control unit 'Engine']	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the message from ECM is not received then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- ECM

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0561” detected?

YES >> Proceed to BRC-710, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569982

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the ECM. Refer to EC-963, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C0570 COMBINATION METER SYSTEM

DTC Description

INFOID:0000000013569983

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0570	00	Invalid data received from IPCCM [The CAN message from control unit (Instrument cluster) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the message from combination meter is incorrect (message length incorrect) then an error is set. This error is set, when the malfunction detection time is exceeded [Note for malfunction detection time in the service comments column).
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- Data corrupt error of the message from combination meter (message length incorrect).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0570” detected?

YES >> Proceed to BRC-711, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569984

1.PERFORM SELF-DIAGNOSIS FOR COMBINATION METER

With CONSULT

Perform self-diagnosis for “METER/M&A”. Refer to MWI-68, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to MWI-85, "DTC Index".
NO >> INSPECTION END

C0571 COMBINATION METER SYSTEM

DTC Description

INFOID:0000000013569985

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0571	00	No CAN sig received from comb meter [No CAN message was received from control unit (Instrument cluster)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the message from combination meter is not received then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- Combination meter

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0571” detected?

YES >> Proceed to BRC-712, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569986

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the combination meter. Refer to MWI-155, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C0572 COMBINATION METER SYSTEM

DTC Description

INFOID:0000000013569987

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0572	00	Invalid data received from IPCCM The CAN message from control unit (Instrument cluster) is malfunction	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the message from combination meter is incorrect (Data corrupt error: message length or message counter or checksum incorrect) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	80 ms

POSSIBLE CAUSE

- Component (combination meter / sensor) is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 30 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
4. Perform self-diagnosis for “ABS”.

Is DTC “C0572” detected?

YES >> Proceed to BRC-713, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569988

1.PERFORM SELF-DIAGNOSIS FOR COMBINATION METER

With CONSULT

Perform self-diagnosis for “METER/M&A”. Refer to MWI-68, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to MWI-85, "DTC Index".
NO >> INSPECTION END

C0573 COMBINATION METER SYSTEM

DTC Description

INFOID:0000000013569989

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0573	00	No CAN sig received from comb meter [No CAN message was received from control unit (Instrument cluster)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the message from combination meter is not received then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	80 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- Combination meter

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0573” detected?

YES >> Proceed to BRC-714, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569990

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the combination meter. Refer to MWI-155, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C0580 COMBINATION METER SYSTEM

DTC Description

INFOID:0000000013569991

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0580	00	Invalid data received from IPCCM [The CAN message from control unit (Instrument cluster) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the message from combination meter is incorrect (message length incorrect) then an error is set. This error is set, when the malfunction detection time is exceeded [Note for malfunction detection time in the service comments column).
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- Data corrupt error of the message from combination meter (message length incorrect).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0580” detected?

YES >> Proceed to BRC-715, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569992

1.PERFORM SELF-DIAGNOSIS FOR COMBINATION METER

With CONSULT

Perform self-diagnosis for “METER/M&A”. Refer to MWI-68, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to MWI-85, "DTC Index".
NO >> INSPECTION END

C0581 COMBINATION METER SYSTEM

DTC Description

INFOID:0000000013569993

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0581	00	No CAN sig received from comb meter [No CAN message was received from control unit (Instrument cluster)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the message from combination meter is not received then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- Combination meter

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0581” detected?

YES >> Proceed to BRC-716, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569994

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the combination meter. Refer to MWI-155, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C0582 COMBINATION METER SYSTEM

DTC Description

INFOID:0000000013569995

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0582	00	Invalid data received from IPCCM [The CAN message from control unit (Instrument cluster) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal winter tire speed limiter maximum speed from combination meter is invalid (signal value is beyond the valid range) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	3000 ms

POSSIBLE CAUSE

- Signal winter tire speed limiter maximum speed of the combination meter invalid (signal value out of the valid range).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0582” detected?

YES >> Proceed to BRC-717, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569996

1.PERFORM SELF-DIAGNOSIS FOR COMBINATION METER

With CONSULT

Perform self-diagnosis for “METER/M&A”. Refer to MWI-68, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to MWI-85, "DTC Index".
NO >> INSPECTION END

C05C0 AIR BAG DIAGNOSIS SENSOR UNIT SYSTEM

DTC Description

INFOID:0000000013569997

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C05C0	00	CAN message supplemental restraint [The CAN message from control unit (Supplemental restraint system control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the message from air bag diagnosis sensor unit is incorrect (message length incorrect) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- Data corrupt error of the message from air bag diagnosis sensor unit (message length incorrect).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C05C0” detected?

YES >> Proceed to BRC-718, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013569998

1.PERFORM SELF-DIAGNOSIS FOR AIR BAG DIAGNOSIS SENSOR UNIT

With CONSULT

Perform self-diagnosis for “AIR BAG”. Refer to SRC-16, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to SRC-20, "DTC Index".
NO >> INSPECTION END

C05C1 AIR BAG DIAGNOSIS SENSOR UNIT SYSTEM

DTC Description

INFOID:0000000013569999

1TC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C05C1	00	No CAN message SRS C/U [No CAN message was received from control unit (Supplemental restraint system control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the message from air bag diagnosis sensor unit is not received then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- Air bag diagnosis sensor unit

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C05C1” detected?

YES >> Proceed to BRC-719, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570000

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the air bag diagnosis sensor unit. Refer to SR-41, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C05C2 DRIVER SEAT BUCKLE SWITCH SYSTEM

DTC Description

INFOID:0000000013570001

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C05C2	00	CAN message supplemental restraint [The CAN message from control unit (Supplemental restraint system control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal buckle switch driver state from air bag diagnosis sensor unit is invalid (signal value is malfunction) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	1500 ms

POSSIBLE CAUSE

- Signal Buckle switch driver state from air bag diagnosis sensor unit invalid (signal value is malfunction).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C05C2” detected?

YES >> Proceed to BRC-720, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570002

1.PERFORM SELF-DIAGNOSIS FOR AIR BAG DIAGNOSIS SENSOR UNIT

With CONSULT

Perform self-diagnosis for “AIR BAG”. Refer to SRC-16, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to SRC-20, "DTC Index".
NO >> INSPECTION END

C05D0 ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570003

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C05D0	00	CAN comm CPA/distronic C/U [CAN communication with component (COLLISION PREVENTION ASSIST controller unit) or (DISTRONIC electric controller unit)is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the message from ICC sensor or distance sensor is incorrect then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- ICC sensor (With ICC system)
- Distance sensor (Without ICC system with FEB system)

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C05D0” detected?

YES >> Proceed to BRC-721, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570004

1.PERFORM SELF-DIAGNOSIS FOR ICC SENSOR OR DISTANCE SENSOR

With CONSULT

1. Turn the ignition switch ON.
2. Perform self-diagnosis for “ICC sensor”. Refer to BRC-993, "CONSULT Function (ICC Sensor)".

Is any DTC detected?

YES >> Check the DTC. Refer to BRC-996, "DTC Index".
NO >> GO TO 2.

2. CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the ICC sensor. Refer to BRC-1009, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C05D1 ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570005

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C05D1	00	No CAN message CPA/distronic C/U [No CAN message was received from control unit (COLLISION PREVENTION ASSIST controller unit) or (DISTRONIC electric controller unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the message from ICC sensor or distance sensor is not received then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- ICC sensor (With ICC system)
- Distance sensor (Without ICC system with FEB system)

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C05D1” detected?

YES >> Proceed to BRC-723, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570006

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the ICC sensor. Refer to BRC-1009, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C05D2 ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570007

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C05D2	00	Sig from CPA/distronic C/U implausible [One or more of the signals transmitted by control unit (COLLISION PREVENTION ASSIST controller unit) or (DISTRONIC electric controller unit) via the CAN bus are implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal brake torque request radar decision unit from ICC sensor or distance sensor is invalid (signal value is malfunction) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- Signal brake torque request radar decision unit from ICC sensor or distance sensor invalid (signal value is malfunction).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C05D2” detected?

YES >> Proceed to BRC-725, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570008

1.PERFORM SELF-DIAGNOSIS FOR ICC SENSOR OR DISTANCE SENSOR

With CONSULT

Perform self-diagnosis for “ICC sensor”. Refer to BRC-993, "CONSULT Function (ICC Sensor)".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-996, "DTC Index".
NO >> INSPECTION END

C05D3 ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570009

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C05D3	00	Sig from CPA/distronic C/U implausible [One or more of the signals transmitted by control unit (COLLISION PREVENTION ASSIST controller unit) or (DISTRONIC electric controller unit) via the CAN bus are implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal Engine torque request radar decision unit from ICC sensor or distance sensor is invalid (signal value is malfunction) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- Signal engine torque request radar decision unit from ICC sensor or distance sensor invalid (signal value is malfunction).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C05D3” detected?

YES >> Proceed to BRC-727, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570010

1.PERFORM SELF-DIAGNOSIS FOR ICC SENSOR OR DISTANCE SENSOR

With CONSULT

Perform self-diagnosis for “ICC sensor”. Refer to BRC-993, "CONSULT Function (ICC Sensor)".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-996, "DTC Index".
NO >> INSPECTION END

C05D4 ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570011

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C05D4	00	Sig from CPA/distronic C/U implausible [One or more of the signals transmitted by control unit (COLLISION PREVENTION ASSIST controller unit) or (DISTRONIC electric controller unit) via the CAN bus are implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal braking assistance system from ICC sensor or distance sensor is invalid (signal value is malfunction) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- Signal braking assistance system of ICC sensor or distance sensor invalid (signal value malfunction).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C05D4” detected?

YES >> Proceed to BRC-729, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570012

1.PERFORM SELF-DIAGNOSIS FOR ICC SENSOR OR DISTANCE SENSOR

With CONSULT

Perform self-diagnosis for “ICC sensor”. Refer to BRC-993, "CONSULT Function (ICC Sensor)".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-996, "DTC Index".
NO >> INSPECTION END

C05E0 ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570013

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C05E0	00	CAN comm CPA/distronic C/U [CAN communication with component (COLLISION PREVENTION ASSIST controller unit) or (DISTRONIC electric controller unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the message from ICC sensor or distance sensor is incorrect then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	60 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- ICC sensor (With ICC system)
- Distance sensor (Without ICC system with FEB system)

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C05E0” detected?

YES >> Proceed to BRC-731, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570014

1.PERFORM SELF-DIAGNOSIS FOR ICC SENSOR OR DISTANCE SENSOR

With CONSULT

1. Turn the ignition switch ON.
2. Perform self-diagnosis for “ICC sensor”. Refer to BRC-993, "CONSULT Function (ICC Sensor)".

Is any DTC detected?

YES >> Check the DTC. Refer to BRC-996, "DTC Index".
NO >> GO TO 2.

2. CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the ICC sensor. Refer to BRC-1009, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C05E1 ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570015

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C05E1	00	No CAN message CPA/distronic C/U [No CAN message was received from control unit (COLLISION PREVENTION ASSIST controller unit) or (DISTRONIC electric controller unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the message from ICC sensor or distance sensor is not received then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	60 ms

POSSIBLE CAUSE

- Wiring is malfunction.
- Time out error of the message from ICC sensor or distance sensor.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C05E1” detected?

YES >> Proceed to BRC-733, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570016

1.PERFORM SELF-DIAGNOSIS FOR ICC SENSOR OR DISTANCE SENSOR

With CONSULT

Perform self-diagnosis for “ICC sensor”. Refer to BRC-993, "CONSULT Function (ICC Sensor)".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-996, "DTC Index".

NO >> INSPECTION END

C05F0 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013570017

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C05F0	00	CAN message E-IGN lock C/U [The CAN message from control unit (Electronic ignition lock control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the message from the electronic ignition switch control unit is incorrect (message length incorrect) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- Data corrupt error of the message from the electronic ignition switch control unit (message length incorrect).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C05F0” detected?

YES >> Proceed to BRC-735, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570018

1.PERFORM SELF-DIAGNOSIS FOR ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch control unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C05F1 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013570019

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C05F1	00	No CAN message E-IGN lock C/U [No CAN message was received from control unit (Electronic ignition lock control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the message from the electronic ignition switch control unit is not received then an error is set. This error is set, when the malfunction detection time is exceeded
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- Electronic ignition switch control unit

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C05F1” detected?

YES >> Proceed to BRC-736, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570020

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electronic ignition switch control unit. Refer to PCS-47, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C05F3 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013570021

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C05F3	00	CAN message E-IGN lock C/U [The CAN message from control unit (Electronic ignition lock control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the Signal stop coordinator stop state signal actuation module front from the electronic ignition switch control unit is invalid (signal value is beyond the valid range) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	1500 ms

POSSIBLE CAUSE

- Signal stop coordinator stop state signal actuation module front of the electronic ignition switch control unit invalid (signal value out of the valid range).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C05F3” detected?

YES >> Proceed to BRC-737, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570022

1.PERFORM SELF-DIAGNOSIS FOR ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch control unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C05F6 REAR RIGHT AXLE RPM SENSOR

DTC Description

INFOID:0000000013570023

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C05F6	00	RR axle rpm sensor [The signal of component (Right rear axle rpm sensor) is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Drive the vehicle at 30 km/h (19 MPH) or more for 7 seconds or more
				Signal (terminal)	Right rear axle rpm sensor
				Threshold	If the axle rpm sensor-signal status is invalid [Equal error between the yaw rate sensor and the electronic stability program control unit (Data air gap or rotation direction or axle rpm sensor-Sensor type)] then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	1000 ms

POSSIBLE CAUSE

- Axle rpm sensor malfunction or electronic stability program control unit malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Start the engine.
3. Drive the vehicle at 30 km/h (19 MPH) or more for 7 seconds or more.
4. Stop the vehicle.
5. Perform self-diagnosis for “ABS”.

Is DTC “C05F6” detected?

YES >> Proceed to BRC-738, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570024

1.CHECK INSTALLATION CONDITION OF RPM SENSOR

Check fastening and installation position of parking brake actuator motor RH.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair error-detected parts.

2.CHECK RPM SENSOR CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and parking brake actuator motor RH harness connector.
3. Check the continuity between electronic stability program control unit harness connector and parking brake actuator motor RH harness connector.

Electronic stability program control unit		Right rear axle rpm sensor / parking brake actuator motor RH		Continuity
Connector	Terminal	Connector	Terminal	
E46	17	M608	1	Existed
	29		2	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 3.

3.REPLACE RPM SENSOR

With CONSULT

1. Replace right rear axle wheel sensor. Refer to BRC-969, "REAR AXLE RPM SENSOR : Removal and Installation".
2. Erase DTC.
3. Perform DTC confirmation procedure again. Refer to BRC-738, "DTC Description".

Is DTC C05F6 detected again?

YES >> INSPECTION END
NO >> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0600 STEERING COLUMN CONTROL MODULE SYSTEM

DTC Description

INFOID:0000000013570025

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0600	00	Invalid data received from SCCM [The CAN message from control unit (Steering column tube module control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the message from steering column control module is incorrect (message length or message counter or checksum incorrect) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	50 ms

POSSIBLE CAUSE

- Data corrupt error of the message from steering column control module (message length or message counter or checksum incorrect).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0600” detected?

YES >> Proceed to BRC-740, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570026

1.PERFORM SELF-DIAGNOSIS FOR STEERING COLUMN CONTROL MODULE

With CONSULT

Perform self-diagnosis for “SCCM”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-61, "DTC Index".
NO >> INSPECTION END

C0601 STEERING COLUMN CONTROL MODULE SYSTEM

DTC Description

INFOID:0000000013570027

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0601	00	COMMUNICATION ERROR (INVALID) [No CAN message was received from control unit (Steering column tube module control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the message from steering column control module is not received then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	50 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- Steering column control module

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0601” detected?

YES >> Proceed to BRC-741, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570028

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the steering column control module. Refer to BCS-250, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C0610 STEERING COLUMN CONTROL MODULE SYSTEM

DTC Description

INFOID:0000000013570029

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0610	00	Invalid data received from SCCM [The CAN message from control unit (Steering column tube module control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the message from steering column control module is incorrect (message length incorrect) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- Data corrupt error of the message from steering column control module (message length incorrect).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0610” detected?

YES >> Proceed to BRC-742, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570030

1.PERFORM SELF-DIAGNOSIS FOR STEERING COLUMN CONTROL MODULE

With CONSULT

Perform self-diagnosis for “SCCM”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-61, "DTC Index".
NO >> INSPECTION END

C0611 STEERING COLUMN CONTROL MODULE SYSTEM

DTC Description

INFOID:0000000013570031

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0611	00	COMMUNICATION ERROR (INVALID) [No CAN message was received from control unit (Steering column tube module control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the message from steering column control module is not received then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- Steering column control module

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0611” detected?

YES- >> Proceed to BRC-743, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570032

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the steering column control module. Refer to BCS-250, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C0612 STEERING COLUMN CONTROL MODULE SYSTEM

DTC Description

INFOID:0000000013570033

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0612	00	COMMUNICATION ERROR (INVALID) [One or more signals sent from control unit (Steering column tube module control unit) via the CAN bus is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal steering wheel angle high precision from steering column control module is invalid (signal value is malfunction) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- Signal steering wheel angle high precision from steering column control module invalid (signal value is malfunction).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0612” detected?

YES >> Proceed to BRC-744, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570034

1.PERFORM SELF-DIAGNOSIS FOR STEERING COLUMN CONTROL MODULE

With CONSULT

Perform self-diagnosis for “SCCM”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-61, "DTC Index".
NO >> INSPECTION END

C0613 STEERING COLUMN CONTROL MODULE SYSTEM

DTC Description

INFOID:0000000013570035

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0613	00	COMMUNICATION ERROR (INVALID) [One or more signals sent from control unit (Steering column tube module control unit) via the CAN bus is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal steering wheel angle high precision sensor state from steering column control module is invalid (signal value is malfunction) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- Signal steering wheel angle high precision sensor state from steering column control module invalid (signal value is malfunction).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0613” detected?

YES >> Proceed to BRC-745, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570036

1.PERFORM SELF-DIAGNOSIS FOR STEERING COLUMN CONTROL MODULE

With CONSULT

Perform self-diagnosis for “SCCM”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-61, "DTC Index".
NO >> INSPECTION END

C0614 STANDSTILL CONTROL (SSC)

DTC Description

INFOID:0000000013570037

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0614	00	Software of EPS C/U is incompatible [The software of Control unit (Electronic Stability Program control unit) is incompatible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Standstill control error is detected so an error is set immediately.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Error is only stored when a malfunction in an assistance system has occurred during standstill and the vehicle is secured by the standstill control (SSC).
- Cause of the error must be applied in another FSP entry.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0614” detected?

YES >> Proceed to BRC-746, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570038

1.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Turn the ignition switch ON.
2. Erase self-diagnosis result for “ABS”.
3. Turn the ignition switch OFF.
4. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
5. Perform self-diagnosis for “ABS”.

Is DTC “C0614” detected?

YES >> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".
NO >> INSPECTION END

C0630 STEERING CONTROL SYSTEM

DTC Description

INFOID:0000000013570039

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0630	00	CAN message EPS C/U [The CAN message from control unit (Electric power steering control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the message from EPS control unit is incorrect (message length incorrect) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- Data corrupt error of the message from EPS control unit (message length or message counter or checksum incorrect).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0630” detected?

YES >> Proceed to BRC-747, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570040

1.PERFORM SELF-DIAGNOSIS FOR EPS CONTROL UNIT

With CONSULT

Perform self-diagnosis for “EPS/DAST 3”. Refer to STC-12, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to STC-16, "DTC Index".
NO >> INSPECTION END

C0631 STEERING CONTROL SYSTEM

DTC Description

INFOID:0000000013570041

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0631	00	No CAN message EPS C/U [No CAN message was received from control unit (Electric power steering control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the message from EPS control unit is not received then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- EPS control unit

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0631” detected?

YES >> Proceed to BRC-748, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570042

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the EPS control unit. Refer to STC-57, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C0632 STEERING CONTROL SYSTEM

DTC Description

INFOID:0000000013570043

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0632	00	Signal from ESP C/U is implausible [One or more signals sent from control unit (Electric power steering control unit) via the CAN bus is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal steering assist state from EPS control unit is invalid (signal value is beyond the valid range) then an error is set. This error is set, when the malfunction detection time is exceeded [Note for malfunction detection time in the service comments column).
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- Signal steering assist state from EPS control unit invalid (signal value out of the valid range).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0632” detected?

YES >> Proceed to BRC-749, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570044

1.PERFORM SELF-DIAGNOSIS FOR EPS CONTROL UNIT

With CONSULT

Perform self-diagnosis for “EPS/DAST 3”. Refer to STC-12, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to STC-16, "DTC Index".
NO >> INSPECTION END

C0633 STEERING CONTROL SYSTEM

DTC Description

INFOID:0000000013570045

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0633	00	Signal from ESP C/U is implausible [One or more signals sent from control unit (Electric power steering control unit) via the CAN bus is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal actual steering wheel torque electric power steering from EPS control unit is invalid (signal value is beyond the valid range) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- Signal actual steering wheel torque electric power steering of the EPS control unit invalid (signal value out of the valid range).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0633” detected?

YES >> Proceed to BRC-750, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570046

1.PERFORM SELF-DIAGNOSIS FOR EPS CONTROL UNIT

With CONSULT

Perform self-diagnosis for “EPS/DAST 3”. Refer to STC-12, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to STC-16, "DTC Index".
NO >> INSPECTION END

C0640 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013570047

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0640	00	CAN message E-IGN lock C/U [The CAN message from control unit (Electronic ignition lock control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the message from the electronic ignition switch control unit is incorrect (message length or checksum incorrect) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	50 ms

POSSIBLE CAUSE

- Data corrupt error of the message from the electronic ignition switch control unit (message length or checksum incorrect).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0640” detected?

YES >> Proceed to BRC-751, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570048

1.PERFORM SELF-DIAGNOSIS FOR ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch control unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C0641 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013570049

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0641	00	No CAN message E-IGN lock C/U [No CAN message was received from control unit (Electronic ignition lock control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the message from the electronic ignition switch control unit is not received then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	50 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- Electronic ignition switch control unit

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0641” detected?

YES- >> Proceed to BRC-752, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570050

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electronic ignition switch control unit. Refer to PCS-47, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C0642 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013570051

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0642	00	COMMUNICATION ERROR (INVALID) [One or more signals sent from control unit (Electronic ignition lock control unit) via the CAN bus is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal vehicle fixed maximum speed from the electronic ignition switch control unit is invalid (signal value is malfunction) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	1500 ms

POSSIBLE CAUSE

- Signal vehicle fixed maximum speed from the electronic ignition switch control unit invalid (signal value is malfunction).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0642” detected?

YES >> Proceed to BRC-753, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570052

1.PERFORM SELF-DIAGNOSIS FOR ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch control unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C0650 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013570053

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0650	00	CAN message E-IGN lock C/U [The CAN message from control unit (Electronic ignition lock control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the message from the electronic ignition switch control unit is incorrect (message length or checksum incorrect) then an error is set. This error is set, when the malfunction detection time is exceeded
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- Data corrupt error of the message from the electronic ignition switch control unit (message length or checksum incorrect).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0650” detected?

YES >> Proceed to BRC-754, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570054

1.PERFORM SELF-DIAGNOSIS FOR ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch control unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C0651 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013570055

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0651	00	No CAN message E-IGN lock C/U [No CAN message was received from control unit (Electronic ignition lock control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the message from the electronic ignition switch control unit is not received then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- Electronic ignition switch control unit

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0651” detected?

YES >> “Proceed to BRC-755, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570056

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electronic ignition switch control unit. Refer to PCS-47, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C0652 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013570057

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0652	00	COMMUNICATION ERROR (INVALID) [One or more signals sent from control unit (Electronic ignition lock control unit) via the CAN bus is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal stop coordinator style from the electronic ignition switch control unit is invalid (signal value is beyond the valid range) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	4500 ms

POSSIBLE CAUSE

- Signal stop coordinator style from the electronic ignition switch control unit invalid (signal value is beyond the valid range).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0652” detected?

YES >> Proceed to BRC-756, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570058

1.PERFORM SELF-DIAGNOSIS FOR ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch control unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C0656 COMBINATION METER SYSTEM

DTC Description

INFOID:0000000013570059

DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0656	00	CAN signal (meter) is implausible [CAN signal 'Time' from control unit (Instrument cluster) is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	—
				Signal (terminal)	—
				Threshold	—
				Diagnosis delay time	—

POSSIBLE CAUSE

—

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0656” detected?

YES >> Proceed to BRC-757, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570060

1.CHECK THE TIME ON COMBINATION METER

Check the time on combination meter.

Is the current time correct?

YES >> INSPECTION END
NO >> Set the current time.

C0660 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013570061

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0660	00	CAN message E-IGN lock C/U [The CAN message from control unit (Electronic ignition lock control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the message from the electronic ignition switch control unit is incorrect (message length incorrect) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- Data corrupt error of the message from the electronic ignition switch control unit (message length incorrect).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0660” detected?

YES >> Proceed to BRC-758, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570062

1.PERFORM SELF-DIAGNOSIS FOR ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch control unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C0661 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013570063

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0661	00	No CAN message E-IGN lock C/U [No CAN message was received from control unit (Electronic ignition lock control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the message from the electronic ignition switch control unit is not received then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- Electronic ignition switch control unit

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0661” detected?

YES >> Proceed to BRC-759, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570064

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electronic ignition switch control unit. Refer to PCS-47, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C0662 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013570065

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0662	00	COMMUNICATION ERROR (INVALID) [One or more signals sent from control unit (Electronic ignition lock control unit) via the CAN bus is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal electronic stability program switch pressed from the electronic ignition switch control unit is invalid (signal value is beyond the valid range) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	1500 ms

POSSIBLE CAUSE

- Signal electronic stability program switch pressed from the electronic ignition switch control unit invalid (signal value is beyond the valid range).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0662” detected?

YES >> Proceed to BRC-760, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570066

1.PERFORM SELF-DIAGNOSIS FOR ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch control unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C0663 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013570067

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0663	00	COMMUNICATION ERROR (INVALID) [One or more signals sent from control unit (Electronic ignition lock control unit) via the CAN bus is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal phone call or speech dialogue system active from the electronic ignition switch control unit is invalid (signal value is beyond the valid range) then an error is set. This error is set, when the malfunction detection time is exceeded [Note for malfunction detection time in the service comments column).
				Diagnosis delay time	1500 ms

POSSIBLE CAUSE

- Signal phone call or speech dialogue system active from the electronic ignition switch control unit invalid (signal value is beyond the valid range).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0663” detected?

YES >> Proceed to BRC-761, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570068

1.PERFORM SELF-DIAGNOSIS FOR ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch control unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C0664 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013570069

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0664	00	COMMUNICATION ERROR (INVALID) [One or more signals sent from control unit (Electronic ignition lock control unit) via the CAN bus is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal telematics switches pressed from the electronic ignition switch control unit is invalid (signal value is beyond the valid range) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	1500 ms

POSSIBLE CAUSE

- Signal telematics switches pressed from the electronic ignition switch control unit invalid (signal value is beyond the valid range).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0664” detected?

YES >> Proceed to BRC-762, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570070

1.PERFORM SELF-DIAGNOSIS FOR ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch control unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C0665 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013570071

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0665	00	COMMUNICATION ERROR (INVALID) [One or more signals sent from control unit (Electronic ignition lock control unit) via the CAN bus is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal downhill speed regulation switch pressed from the electronic ignition switch control unit is invalid (signal value is malfunction) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	1500 ms

POSSIBLE CAUSE

- Signal downhill speed regulation switch pressed of the electronic ignition switch control unit invalid (signal value malfunction).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0665” detected?

YES >> Proceed to BRC-763, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570072

1.PERFORM SELF-DIAGNOSIS FOR ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch control unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C0670 BCM SYSTEM

DTC Description

INFOID:0000000013570073

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0670	00	CAN message SAM C/U [The CAN message from control unit (SAM control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the message from the BCM is incorrect (message length incorrect) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- Data corrupt error of the message from BCM (message length incorrect).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0670” detected?

YES >> Proceed to BRC-764, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570074

1.PERFORM SELF-DIAGNOSIS FOR BCM

With CONSULT

Perform self-diagnosis for “BCM”. Refer to BCS-24, "CONSULT Function (BCM)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-51, "DTC Index".
NO >> INSPECTION END

C0671 BCM SYSTEM

DTC Description

INFOID:0000000013570075

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0671	00	No CAN message SAM C/U [No CAN message was received from control unit (SAM control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the message from the BCM is not received then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- BCM

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0671” detected?

YES >> Proceed to BRC-765, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570076

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the BCM. Refer to BCS-248, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C0672 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013570077

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0672	00	CAN message E-IGN lock C/U [The CAN message from control unit (Electronic ignition lock control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal stop coordinator malfunction power supply 14V from the electronic ignition switch control unit is invalid (signal value is beyond the valid range) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	1500 ms

POSSIBLE CAUSE

- Signal stop coordinator malfunction power supply 14V of the electronic ignition switch control unit invalid (signal value out of the valid range).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0672” detected?

YES >> Proceed to BRC-766, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570078

1.PERFORM SELF-DIAGNOSIS FOR ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch control unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C0690 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013570079

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0690	00	CAN message E-IGN lock C/U [The CAN message from control unit (Electronic ignition lock control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the message from the electronic ignition switch control unit is incorrect (message length incorrect) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- Data corrupt error of the message from the electronic ignition switch control unit (message length incorrect).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 30 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0690” detected?

YES >> Proceed to BRC-767, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570080

1.PERFORM SELF-DIAGNOSIS FOR ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch control unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C0691 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013570081

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0691	00	No CAN message E-IGN lock C/U [No CAN message was received from control unit (Electronic ignition lock control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the message from the electronic ignition switch control unit is not received then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- Electronic ignition switch control unit

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0691” detected?

YES >> Proceed to BRC-768, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570082

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electronic ignition switch control unit. Refer to PCS-47, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C06A0 ENGINE/TRANSMISSION SYSTEM

DTC Description

INFOID:0000000013570083

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C06A0	00	CAN message ECM [The CAN message from control unit (Engine) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the message from ECM is incorrect (message length incorrect) then an error is set. This error is set, when the malfunction detection time is exceeded [Note for malfunction detection time in the service comments column).
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- Data corrupt error of the message from ECM (message length incorrect).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C06A0” detected?

YES >> Proceed to BRC-769, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570084

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C06A1 ENGINE/TRANSMISSION SYSTEM

DTC Description

INFOID:0000000013570085

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C06A1	00	No CAN message ECM [No CAN message was received from control unit 'Engine']	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the TCM message from ECM is not received then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- ECM
- TCM

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C06A1” detected?

YES >> Proceed to BRC-770, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570086

1.PERFORM SELF-DIAGNOSIS FOR ECM

With CONSULT

1. Turn the ignition switch ON.
2. Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is any DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> GO TO 2.

2.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the ECM. Refer to EC-963, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C06A3 ENGINE/TRANSMISSION SYSTEM

DTC Description

INFOID:0000000013570087

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C06A3	00	CAN message ECM [The CAN message from control unit (Engine) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal vehicle driving program transmission control module version two from ECM is invalid (signal value is beyond the valid range) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- Signal vehicle driving program transmission control module of the engine control module invalid (signal value out of the valid range).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C06A3” detected?

YES >> Proceed to BRC-772, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570088

1.PERFORM SELF-DIAGNOSIS FOR ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function"

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index"
NO >> INSPECTION END

C06A5 ENGINE/4WD SYSTEM

DTC Description

INFOID:0000000013570089

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C06A5	00	CAN message ECM [The CAN message from control unit (Engine) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the message from ECM is incorrect (message length incorrect) then an error is set. This error is set, when the malfunction detection time is exceeded [Note for malfunction detection time in the service comments column).
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- Data corrupt-error of the message from the ECM / 4WD control unit (message length wrong).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C06A5” detected?

YES >> Proceed to BRC-773, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570090

1.PERFORM SELF-DIAGNOSIS FOR ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C06A6 ENGINE/4WD SYSTEM

DTC Description

INFOID:0000000013570091

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C06A6	00	No CAN message ECM [No CAN message was received from control unit 'Engine']	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the 4WD message from ECM is not received then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- ECM
- 4WD control unit

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C06A6” detected?

YES >> Proceed to BRC-774, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570092

1.PERFORM SELF-DIAGNOSIS FOR ECM

With CONSULT

1. Turn the ignition switch ON.
2. Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is any DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> GO TO 2.

2.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the ECM. Refer to EC-963, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C06AA SONAR CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013570093

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C06AA	00	CAN signal from E-PKB is malf [The CAN message from control unit (Parking system control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the message from sonar control unit is incorrect (message length or message counter or checksum incorrect) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	60 ms

POSSIBLE CAUSE

- Data corrupt-Error of the message from the sonar control unit (message length or message counter or checksum wrong).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C06AA” detected?

YES >> Proceed to BRC-776, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570094

1.PERFORM SELF-DIAGNOSIS OF SONAR CONTROL UNIT

With CONSULT

Perform self-diagnosis for “SONAR”. Refer to SN-30, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to SN-39, "DTC Index".
NO >> INSPECTION END

C06AB SONAR CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013570095

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C06AB	00	No CAN sig received from parking sys [No CAN message was received from control unit (Parking system control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the message from sonar control unit is not received then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	60 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- Sonar control unit

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C06AB” detected?

YES >> Proceed to BRC-777, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570096

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the sonar control unit. Refer to SN-200, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C06AC SONAR CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013570097

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C06AC	00	Signal from PKB C/U is implausible [One or more signals sent from control unit (Parking system control unit) via the CAN bus is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal sonar control braking state from sonar control unit is invalid (signal value is beyond the valid range) then an error is set. This error is set, when the malfunction detection time is exceeded [Note for malfunction detection time in the service comments column).
				Diagnosis delay time	1000 ms

POSSIBLE CAUSE

- Signal sonar control braking state of the sonar control unit invalid (signal value out of the valid range).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C06AC” detected?

YES >> Proceed to BRC-778, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570098

1.PERFORM SELF-DIAGNOSIS OF SONAR CONTROL UNIT

With CONSULT

Perform self-diagnosis for “SONAR”. Refer to SN-30, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to SN-39, "DTC Index".
NO >> INSPECTION END

C06AD SONAR CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013570099

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C06AD	00	Signal from PKB C/U is implausible [One or more signals sent from control unit (Parking system control unit) via the CAN bus is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal braking mode request from sonar control unit is invalid (signal value is beyond the valid range) then an error is set. This error is set, when the malfunction detection time is exceede.
				Diagnosis delay time	1000 ms

POSSIBLE CAUSE

- Signal braking mode request of the sonar control unit invalid (signal value is out of the valid range).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C06AD” detected?

YES >> Proceed to BRC-779, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570100

1.PERFORM SELF-DIAGNOSIS OF SONAR CONTROL UNIT

With CONSULT

Perform self-diagnosis for “SONAR”. Refer to SN-30, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to SN-39, "DTC Index".
NO >> INSPECTION END

C06AE SONAR CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013570101

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C06AE	00	Signal from PKB C/U is implausible [One or more signals sent from control unit (Parking system control unit) via the CAN bus is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal sonar control parking state from sonar control unit is invalid (signal value is beyond the valid range) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	1000 ms

POSSIBLE CAUSE

- Signal sonar control parking state of sonar control unit invalid (signal value is out of the valid range).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C06AE” detected?

YES >> Proceed to BRC-780, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570102

1.PERFORM SELF-DIAGNOSIS OF SONAR CONTROL UNIT

With CONSULT

Perform self-diagnosis for “SONAR”. Refer to SN-30, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to SN-39, "DTC Index".
NO >> INSPECTION END

C06AF SONAR CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013570103

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C06AF	00	Signal from PKB C/U is implausible [One or more signals sent from control unit (Parking system control unit) via the CAN bus is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal sonar control parking spot type from sonar control unit is invalid (signal value is beyond the valid range) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	1000 ms

POSSIBLE CAUSE

- Signal sonar control parking spot type of the sonar control unit invalid (signal value is out of the valid range).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C06AF” detected?

YES >> Proceed to BRC-781, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570104

1.PERFORM SELF-DIAGNOSIS OF SONAR CONTROL UNIT

With CONSULT

Perform self-diagnosis for “SONAR”. Refer to SN-30, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to SN-39, "DTC Index".
NO >> INSPECTION END

C06B0 ACCELERATION SENSOR

DTC Description

INFOID:0000000013570105

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C06B0	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Acceleration sensor (integrated): If the EEPROM content is incorrect or data could not be read an error is set immediately.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Acceleration sensor malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C06B0” detected?

YES >> Proceed to BRC-782, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570106

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C06B1 ACCELERATION SENSOR

DTC Description

INFOID:0000000013570107

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C06B1	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Acceleration sensor (integrated): If the acceleration sensor detects a communication error then an error is set. The error is set if the error detection time is exceeded
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Acceleration sensor or micro controller malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C06B1” detected?

YES >> Proceed to BRC-783, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570108

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C06B2 ACCELERATION SENSOR

DTC Description

INFOID:0000000013570109

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C06B2	00	Internal malfunction in ESP C/U [There is an internal malfunction in Control unit (Electronic Stability Program control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Acceleration sensor (integrated): If the acceleration sensor detects mutiple sporadic malfunction then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	200 ms

POSSIBLE CAUSE

- Check the environment influence of the acceleration sensor [high frequency collisions. Holder or traction system hydraulic unit incorrect attached. Parts are not attached].
- Acceleration sensor malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C06B2” detected?

YES >> Proceed to BRC-784, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570110

1.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT INSTALLATION POSITION

Check the electronic stability program control unit installation position. Refer to BRC-975, "Exploded View".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Install the electronic stability program control unit again. Refer to BRC-975, "Removal and Installation".

2.PERFORM SELF-DIAGNOSIS

With CONSULT
1. Erase self-diagnosis result for “ABS”.
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
4. Perform self-diagnosis for “ABS”.

Is DTC “C06B2” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C06B3 ACCELERATION SENSOR

DTC Description

INFOID:0000000013570111

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C063B3	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Acceleration sensor (integrated): If the acceleration sensor detects an internal malfunction in the reset then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Acceleration sensor malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C06B3” detected?

YES >> Proceed to BRC-786, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".

Diagnosis Procedure

INFOID:0000000013570112

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C06B4 ACCELERATION SENSOR

DTC Description

INFOID:0000000013570113

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C06B4	00	Internal malfunction in ESP C/U [There is an internal malfunction in Control unit (Electronic Stability Program control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Acceleration sensor (integrated): If the acceleration sensor detects an exceeding of the measured value in the digital filter then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Check the environment influence of the acceleration sensor [high frequency collisions. Holder or traction system hydraulic unit incorrect attached. Parts are not attached].
- Acceleration sensor malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C06B4” detected?

YES >> Proceed to BRC-787, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570114

1.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT INSTALLATION POSITION

Check the electronic stability program control unit installation position. Refer to BRC-975, "Exploded View".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Install the electronic stability program control unit again. Refer to BRC-975, "Removal and Installation".

2.PERFORM SELF-DIAGNOSIS

With CONSULT
1. Erase self-diagnosis result for “ABS”.
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
4. Perform self-diagnosis for “ABS”.

Is DTC “C06B4” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".
NO >> INSPECTION END

C06B5 ACCELERATION SENSOR

DTC Description

INFOID:0000000013570115

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C06B5	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Acceleration sensor (integrated): If the acceleration sensor detects an internal error in the initialization then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Acceleration sensor malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C06B5” detected?

YES >> Proceed to BRC-789, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".

Diagnosis Procedure

INFOID:0000000013570116

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C06B6 ACCELERATION SENSOR

DTC Description

INFOID:0000000013570117

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C06B6	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Acceleration sensor (integrated): If the acceleration sensor detects an internal error then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Acceleration sensor malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C06B6” detected?

YES >> Proceed to BRC-790, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".

Diagnosis Procedure

INFOID:0000000013570118

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C06B7 ACCELERATION SENSOR

DTC Description

INFOID:0000000013570119

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C06B7	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Acceleration sensor (integrated): If the acceleration sensor detects an interruption in the bond connection then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Acceleration sensor malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C06B7” detected?

YES >> Proceed to BRC-791, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".

Diagnosis Procedure

INFOID:0000000013570120

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C06B8 ACCELERATION SENSOR

DTC Description

INFOID:0000000013570121

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C06B8	00	Internal malfunction in ESP C/U [There is an internal malfunction in Control unit (Electronic Stability Program control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Acceleration sensor (integrated): If the acceleration sensor detects an exceeding of the measured range then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- Check the environment influence of the acceleration sensor [high frequency collisions. Holder or traction system hydraulic unit incorrect attached. Parts are not attached].
- Acceleration sensor malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C06B8” detected?

YES >> Proceed to BRC-792, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570122

1.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT INSTALLATION POSITION

Check the electronic stability program control unit installation position. Refer to BRC-975, "Exploded View".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Install the electronic stability program control unit again. Refer to BRC-975, "Removal and Installation".

2.PERFORM SELF-DIAGNOSIS

With CONSULT
1. Erase self-diagnosis result for “ABS”.
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
4. Perform self-diagnosis for “ABS”.

Is DTC “C06B8” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C06B9 ACCELERATION SENSOR

DTC Description

INFOID:0000000013570123

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C06B9	00	Internal malfunction in ESP C/U [There is an internal malfunction in Control unit (Electronic Stability Program control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Acceleration sensor (integrated): If the acceleration sensor detects an exceeding of the measured range then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	120 ms

POSSIBLE CAUSE

- Check the environment influence of the acceleration sensor [high frequency collisions. Holder or traction system hydraulic unit incorrect attached. Parts are not attached].
- Acceleration sensor malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C06B9” detected?

YES >> Proceed to BRC-794, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570124

1.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT INSTALLATION POSITION

Check the electronic stability program control unit installation position. Refer to BRC-975, "Exploded View".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Install the electronic stability program control unit again. Refer to BRC-975, "Removal and Installation".

2.PERFORM SELF-DIAGNOSIS

With CONSULT
1. Erase self-diagnosis result for “ABS”.
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
4. Perform self-diagnosis for “ABS”.

Is DTC “C06B9” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C06BA ACCELERATION SENSOR

DTC Description

INFOID:0000000013570125

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C06BA	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Acceleration sensor (integrated): If the acceleration sensor detects an initialization time out error or an communication error then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Acceleration sensor or micro controller malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C06BA” detected?

YES >> Proceed to BRC-796, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570126

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C06BB ACCELERATION SENSOR

DTC Description

INFOID:0000000013570127

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C06BB	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Acceleration sensor (integrated): If the acceleration sensor detects an cycle time error an error is set immediately.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Acceleration sensor malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C06BB” detected?

YES >> Proceed to BRC-797, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570128

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C06BC ACCELERATION SENSOR

DTC Description

INFOID:0000000013570129

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C06BC	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Acceleration sensor (integrated): If the acceleration sensor detects sensitivity error an error is set immediately.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Acceleration sensor malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C06BC” detected?

YES >> Proceed to BRC-798, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570130

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C06BD ACCELERATION SENSOR

DTC Description

INFOID:0000000013570131

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C06BD	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Acceleration sensor (integrated): If the acceleration sensor detects sensitivity error an error is set immediately.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Acceleration sensor malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C06BD” detected?

YES >> Proceed to BRC-799, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570132

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C06BE ACCELERATION SENSOR

DTC Description

INFOID:0000000013570133

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C06BE	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Acceleration sensor (integrated): If the acceleration sensor detects sensitivity error (filtered signal) an error is set immediately.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Acceleration sensor malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C06BE” detected?

YES >> Proceed to BRC-800, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570134

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C06BF ACCELERATION SENSOR

DTC Description

INFOID:0000000013570135

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C06BF	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Acceleration sensor (integrated): If the acceleration sensor detects sensitivity error (filtered signal) an error is set immediately.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Acceleration sensor malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C06BF” detected?

YES >> Proceed to BRC-801, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570136

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C06C0 ACCELERATION SENSOR

DTC Description

INFOID:0000000013570137

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C06C0	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Acceleration sensor (integrated): If the acceleration sensor detects temperature sensor error then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Acceleration sensor malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C06C0” detected?

YES >> Proceed to BRC-802, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570138

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C06C1 ACCELERATION SENSOR

DTC Description

INFOID:0000000013570139

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C06C1	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Acceleration sensor (integrated): If the acceleration sensor detects an exceeding of the temperature range then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Acceleration sensor malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C06C1” detected?

YES >> Proceed to BRC-803, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570140

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C06D0 YAW RATE SENSOR

DTC Description

INFOID:0000000013570141

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C06D0	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Yaw rate sensor (integrated): If the internal power supply (5V) from yaw rate sensor is beyond the valid range is then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Yaw rate sensor or micro controller malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C06D0” detected?

YES >> Proceed to BRC-804, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570142

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C06D1 YAW RATE SENSOR

DTC Description

INFOID:0000000013570143

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C06D1	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Yaw rate sensor (integrated): If the yaw rate sensor signal is beyond the valid range is then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Yaw rate sensor or micro controller malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C06D1” detected?

YES >> Proceed to BRC-805, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570144

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C06D2 YAW RATE SENSOR

DTC Description

INFOID:0000000013570145

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C06D2	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Yaw rate sensor (integrated): If the yaw rate sensor detects an internal error then an error is set. The error is set if the error detection time is exceeded
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Yaw rate sensor malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C06D2” detected?

YES >> Proceed to BRC-806, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570146

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C06D3 YAW RATE SENSOR

DTC Description

INFOID:0000000013570147

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C06D3	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Yaw rate sensor (integrated): If the yaw rate sensor detects a self-test error then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	40 ms

POSSIBLE CAUSE

- Yaw rate sensor malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C06D3” detected?

YES >> Proceed to BRC-807, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570148

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C06D4 YAW RATE SENSOR

DTC Description

INFOID:0000000013570149

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C06D4	00	Internal malfunction in ESP C/U [There is an internal malfunction in Control unit (Electronic Stability Program control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Yaw rate sensor (integrated): If the yaw rate sensor detects multiple sporadic malfunction then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	140 ms

POSSIBLE CAUSE

- Check the environment influence for the yaw rate sensor (high frequency collisions. Holder or traction system hydraulic unit incorrect attached. Parts are not attached).
- Yaw rate sensor malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C06D4” detected?

YES >> Proceed to BRC-808, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570150

1.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT INSTALLATION POSITION

Check the electronic stability program control unit installation position. Refer to BRC-975, "Exploded View".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Install the electronic stability program control unit again. Refer to BRC-975, "Removal and Installation".

2.PERFORM SELF-DIAGNOSIS

With CONSULT
1. Erase self-diagnosis result for “ABS”.
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
4. Perform self-diagnosis for “ABS”.

Is DTC “C06D4” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C06D5 YAW RATE SENSOR

DTC Description

INFOID:0000000013570151

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C06D5	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Yaw rate sensor (integrated): If the yaw rate sensor detects a temperature sensor error then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Yaw rate sensor malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C06D5” detected?

YES >> Proceed to BRC-810, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570152

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C06D6 YAW RATE SENSOR

DTC Description

INFOID:0000000013570153

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C06D6	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Yaw rate sensor (integrated): If the yaw rate sensor detects an exceeding of the temperature range then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Yaw rate sensor malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C06D6” detected?

YES >> Proceed to BRC-811, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570154

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C06E0 YAW RATE SENSOR

DTC Description

INFOID:0000000013570155

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C06E0	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction [Yaw rate sensor (integrated) and acceleration sensor (integrated): EEPROM content incorrect or data could not be read]. An error is set immediately during the startup phase and during ongoing operation.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C06E0” detected?

YES >> Proceed to BRC-812, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570156

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C06E1 YAW RATE SENSOR/ACCELERATION SENSOR

DTC Description

INFOID:0000000013570157

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C06E1	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Yaw rate sensor (integrated) and Acceleration sensor (integrated): If during the temperature monitoring (temperature sensors) the temperature from yaw rate sensor and from acceleration sensor is different to each other (temperature threshold exceeded) then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Yaw rate sensor or acceleration sensor or micro controller malfunction (Hardware).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C06E1” detected?

YES >> Proceed to BRC-813, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570158

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C06E2 ACCELERATION SENSOR

DTC Description

INFOID:0000000013570159

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C06E2	00	Accele sensor is not calibrated [Component 'Acceleration sensor' is not calibrated]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Acceleration sensor (integrated): If the acceleration sensor detects no valid values from the previous calibration during the startup phase or the values are not in the valid range after calibration then an error is set immediately.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Installation of the acceleration sensor is malfunction (electronic stability program control unit tilted or incorrect attached).
- Acceleration sensor is not calibrated.
- Check the environment influence of the acceleration sensor (Parts not attached).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Perform self-diagnosis for “ABS”.

Is DTC “C06E2” detected?

YES >> Proceed to BRC-814, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570160

1.CALIBRATION OF ACCELERATION SENSOR

Perform calibration of acceleration sensor. Refer to BRC-86, "Description".

>> INSPECTION END

C06F0 STEERING ANGLE SENSOR SYSTEM

DTC Description

INFOID:0000000013570161

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C06F0	00	Internal malf steering angle sensor [There is an internal malfunction in component (Steering angle sensor)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Between ±30° steer wheel straight left and right
				Signal (terminal)	—
				Threshold	Ignition ON + 5 seconds + trip > 4 km/h (2.5 MPH); very slow between ±30° steer wheel straight back and forth (slower than 2°/s) or drive very long; Monitoring turns OFF for the ignition cycle when the steering wheel angle OFFset change exceeds 4°.
				Diagnosis delay time	Not a condition of time, but to steering movements while driving.

POSSIBLE CAUSE

- 0.1° Steering wheel angle sensor signal has larger gap 0.3° (3 contiguous blind spots); Cause e.g. contamination or error code disk

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   Wait at least 5 seconds after start the engine.
2. Drive the vehicle at 4 km/h (2.5 MPH) or less.
3. Very slow between ±30° steer wheel straight back and forth.
   NOTE:
   Steer is slower than 2°/s
4. Perform self-diagnosis for “ABS”.

Is DTC “C06F0” detected?

YES >> Proceed to BRC-815, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570162

1.PERFORM SELF-DIAGNOSIS FOR STEERING COLUMN CONTROL MODULE

With CONSULT

Perform self-diagnosis for “SCCM”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-61, "DTC Index".
NO >> INSPECTION END

C06F1 COMBINATION METER SYSTEM

DTC Description

INFOID:0000000013570163

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C06F1	00	Signal from combi meter is implausible [One or more signals sent from control unit (Instrument cluster) via the CAN bus is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Attention assist ON
				Signal (terminal)	—
				Threshold	—
				Diagnosis delay time	—

POSSIBLE CAUSE

- Combination meter sends signals of the message implausible

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   Wait at least 5 seconds after start the engine.
2. Attention assist turned OFF.
   NOTE:
   Wait at least 10 seconds after attention assist turned OFF.
3. Attention assist turned ON.
4. Perform self-diagnosis for “ABS”.

Is DTC “C06F1” detected?

YES >> Proceed to BRC-816, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570164

1.PERFORM SELF-DIAGNOSIS FOR COMBINATION METER

With CONSULT

Perform self-diagnosis for “METER/M&A”. Refer to MWI-68, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to MWI-85, "DTC Index".
NO >> INSPECTION END

C06F2 COMBINATION METER SYSTEM

DTC Description

INFOID:0000000013570165

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C06F2	00	Check for correct time [Check for correct time]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	—
				Diagnosis delay time	—

POSSIBLE CAUSE

- Combination meter sends implausible values of the date / time.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Turn the ignition switch ON.
   NOTE:
   Wait at least 20 minutes after turning ignition switch ON.
2. Perform self-diagnosis for “ABS”.

Is DTC “C06F2” detected?

YES >> Proceed to BRC-817, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570166

1.CHECK THE TIME ON COMBINATION METER

Check the time on combination meter.

Is the current time correct?

YES >> INSPECTION END
NO >> Set the current time.

C06F3 RAIN/LIGHT SENSOR

DTC Description

INFOID:0000000013570167

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition		
		[Trouble diagnosis content]	[Malfunction type]			
C06F3	00	Check for correct time [Check for correct time]	[NO SUBTYPE INFORMATION]	1	Diagnosis condition	Drive the vehicle
					Signal (terminal)	—
					Threshold	0 a.m. to 12 p.m. and trip over twilight. Time from 0 a.m. to 12 p.m., trip > 5 km (3.1 mile) distance in brightness (rain light sensor twilight / twilight level signal permanently = 7), then it gets dark (rain light sensor twilight / twilight level signal permanently = 0) and further trip from > 40 km (24.9 mile)
					Diagnosis delay time	—
C06F3	00	Check for correct time [Check for correct time]	[NO SUBTYPE INFORMATION]	2	Diagnosis condition	Drive the vehicle
					Signal (terminal)	—
					Threshold	12 p.m. to 12 a.m. and trip over twilight. Time from 12 p.m. and 24 a.m., trip > 40 km (24.9 mile) distance at night (rain light sensor twilight / twilight level signal permanently = 0), then it becomes bright (rain light sensor twilight / twilight level signal permanently = 7) and further trip from > 5 km (3.1 mile).
					Diagnosis delay time	—

POSSIBLE CAUSE

- Incorrect time set or rain / light sensor sends implausible values (e.g. contamination)

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION (1)

With CONSULT

1. Start the engine.
2. Drive the vehicle between 0 a.m. and 12 p.m. and trip over twilight.
   NOTE:
   40 km (24.9 mile) distance at night (rain light sensor twilight / twilight level signal permanently = 0), then it gets bright (rain light sensor twilight / twilight level signal permanently = 7) and further trip of > 5 km (3.1 mile).
3. Perform self-diagnosis for “ABS”.

Is DTC “C06F3” detected?

YES >> Proceed to BRC-819, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> GO TO 3.

3.CHECK DTC DETECTION (2)

With CONSULT
1. Start the engine.
2. Drive the vehicle between 12 p.m. and 24 a.m. and trip over twilight.
   NOTE:
   5 km (3.1 mile) distance at brightness (rain light sensor twilight / twilight level signal permanently = 7), then it gets dark (rain light sensor twilight / twilight level signal permanently = 0) and further trip of > 40 km (24.9 mile).
3. Perform self-diagnosis for “ABS”.

Is DTC “C06F3” detected?

YES >> Proceed to BRC-867, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570168

1.CHECK THE TIME ON COMBINATION METER

Check the time on combination meter.

Is the current time correct?

YES >> INSPECTION END
NO >> Set the current time.

C0730 BRAKE FLUID LEAKAGE

DTC Description

INFOID:0000000013570169

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0730	00	Check brake system for leaks [Check brake system for leaks]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Vehicle rolls during HOLD at a standstill faster than above 0.5 km/h (0.3 MPH). This error is set, when the malfunction detection time is exceeded [Note for malfunction detection time in the service comments column).
				Diagnosis delay time	120 ms

POSSIBLE CAUSE

- Brake lines or traction system hydraulic unit is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0730” detected?

YES >> Proceed to BRC-820, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570170

1.CHECK BRAKE SYSTEM

1. Visually check the brake hydraulic line for leakage.
2. Perform air bleeding. Refer to BR-12, "Bleeding Brake System".
3. Perform DTC confirmation procedure again. Refer to BRC-820, "DTC Description".

Is DTC C0730 detected again?

YES >> Replace traction system hydraulic unit. Refer to BRC-972, "Removal and Installation".
NO >> INSPECTION END

C0731 TRANSMISSION SYSTEM

DTC Description

INFOID:0000000013570171

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0731	00	No CAN message shift module [No CAN message was received from control unit 'Shift module']	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the transmission is not responding to the P-loading request from TCM for a defined period (3.1seconds) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- Electric shift selector or TCM is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0731” detected?

YES >> Proceed to BRC-821, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570172

1.PERFORM SELF-DIAGNOSIS FOR TCM

With CONSULT

1. Turn the ignition switch ON.
2. Perform self-diagnosis for “TRANSMISSION”. Refer to TM-36, "CONSULT Function".

Is any DTC detected?

YES >> Check the DTC. Refer to TM-45, "DTC Index".
NO >> GO TO 2.

2.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the TCM. Refer to TM-216, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C0732 ELECTRIC SHIFT SELECTOR SYSTEM

DTC Description

INFOID:0000000013570173

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0732	00	Signal from shift module is implausible [One or more signals sent from control unit 'Shift module' via the CAN bus is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	The signal electric shift selector has detect a set standstill coordinator error from electric shift selector. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	520 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- Electric shift selector

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0732” detected?

YES >> Proceed to BRC-823, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570174

1.PERFORM SELF-DIAGNOSIS FOR ELECTRIC SHIFT SELECTOR

With CONSULT

1. Turn the ignition switch ON.
2. Perform self-diagnosis for “SHIFT”. Refer to TM-41, "CONSULT Function".

Is any DTC detected?

YES >> Check the DTC. Refer to TM-50, "DTC Index".
NO >> GO TO 2.

2.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electric shift selector. Refer to TM-227, "Removal and Installation".

NO >> Repair or replace the malfunctioning parts.

C0733 BATTERY SYSTEM

DTC Description

INFOID:0000000013570175

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0733	00	Additional battery is malfunction [Component (Additional battery) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	ignition switch ON
				Signal (terminal)	—
				Threshold	If the sub battery is malfunction then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	320 ms

POSSIBLE CAUSE

- Sub battery malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 60 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0733” detected?

YES >> Proceed to BRC-825, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570176

1.CHECK THE INSTALLATION OF BATTERY

Check the installation of battery.

- Main Battery: Refer to PG-108, "MAIN BATTERY : Exploded View".
- Sub battery: Refer to PG-113, "SUB BATTERY : Exploded View".

Is the battery installed?

YES >> GO TO 2.
NO >> Install the battery.
- Main Battery: Refer to PG-109, "MAIN BATTERY : Removal and Installation".
- Sub battery: Refer to PG-113, "SUB BATTERY : Removal and Installation".

2.PERFORM SELF-DIAGNOSIS FOR BCM

With CONSULT

1. Start the engine and wait for 10 seconds or more.
   CAUTION:
   Never drive the vehicle.

2. Perform self-diagnosis for “BCM”. Refer to BCS-24, "CONSULT Function (BCM)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-51, "DTC Index".
NO >> GO TO 3.

3. CHECK THE BATTERY CIRCUIT FOR BCM

Check the battery circuit for BCM.

Is the inspection result normal?

YES >> Check all affected plugs, electrical components and connectors for damage, loose contact, corrosion etc. and repair if necessary.
NO >> Repair or replace error-detected parts.

C0734 EXCEEDED MAXIMUM HOLDING TIME

DTC Description

INFOID:0000000013570177

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0734	00	ESP control unit [Electronic stability program control unit]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Maximum holding time exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Maximum holding time exceeded

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Turn the ignition switch ON.
2. Erase self-diagnosis result for “ABS”.
3. Turn the ignition switch OFF.
   NOTE:
   Wait at least 30 seconds after turning ignition switch OFF.
4. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
5. Perform self-diagnosis for “ABS”.

Is DTC “C0734” detected?

YES >> Proceed to BRC-827, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570178

1.ERASE SELF-DIAGNOSIS RESULT

With CONSULT
Erase self-diagnosis result for “ABS”.

>> INSPECTION END

C0735 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013570179

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0735	00	Configuration of E-IGN lock C/U [The coding of control unit (Electronic ignition lock control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the configuration from electronic ignition switch control unit does not match the configuration from the ECU then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Electronic ignition switch does not support the standstill coordinator.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0735” detected?

YES >> Proceed to BRC-828, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570180

1.PERFORM SELF-DIAGNOSIS FOR ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch control unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> GO TO 2.

2.CHECK CODING IN ELECTRONIC IGNITION SWITCH CONTROL UNIT

Check the coding in electronic ignition switch control unit. Refer to PCS-8, "CONSULT Function".

Is the coding correct?

YES >> GO TO 3.
NO >> Change the coding to the correct. Refer to PCS-8, "CONSULT Function". And then, GO TO 3.

3. CHECK PARTS NUMBER OF ELECTRONIC IGNITION SWITCH CONTROL UNIT

Check the parts number of electronic ignition switch control unit.

Is the parts number correct?

YES >> GO TO 4.
NO >> Replace the electronic ignition switch control unit. Refer to PCS-47, "Removal and Installation". And then, GO TO 4.

4. ERASE SELF-DIAGNOSTIC RESULT FOR ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT
Erase self-diagnostic result for “Electric ign switch control unit”.

>> INSPECTION END

C0736 COMBINATION METER SYSTEM

DTC Description

INFOID:0000000013570181

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0736	00	Configuration of combination meter [The coding of control unit (Instrument cluster) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the configuration from combination meter does not match the configuration from ECU then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Combination meter does not support the standstill coordinator.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0736” detected?

YES >> Proceed to BRC-830, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570182

1.PERFORM SELF-DIAGNOSIS FOR ELECTRONIC COMBINATION METER

With CONSULT

Perform self-diagnosis for “METER/M&A”. Refer to MWI-68, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to MWI-85, "DTC Index".
NO >> GO TO 2.

2.CHECK CODING IN COMBINATION METER

Check the coding in combination meter. Refer to MWI-68, "CONSULT Function".

Is the coding correct?

YES >> GO TO 3.
NO >> Change the coding to the correct. Refer to MWI-68, "CONSULT Function". And then, GO TO 3.

3.CHECK PARTS NUMBER OF COMBINATION METER

Check the parts number of combination meter.

Is the parts number correct?

YES >> GO TO 4.
NO >> Replace the combination meter. Refer to MWI-155, "Removal and Installation". And then, GO TO 4.

4. ERASE SELF-DIAGNOSTIC RESULT FOR COMBINATION METER

With CONSULT
Erase self-diagnostic result for “METER/M&A”.

>> INSPECTION END

C0739 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013570183

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0739	00	Configuration of E-IGN lock C/U [The coding of control unit (Electronic ignition lock control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the coding of the electronic ignition switch control unit is set on then an error is set in the model series. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Configuration (electronic ignition switch control unit) not correct.
- Signal of the electronic ignition switch control unit is not accepted by the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0739” detected?

YES >> Proceed to BRC-832, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570184

1.PERFORM SELF-DIAGNOSIS FOR ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch control unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> GO TO 2.

2.CHECK CODING IN ELECTRONIC IGNITION SWITCH CONTROL UNIT

Check the coding in electronic ignition switch control unit. Refer to PCS-8, "CONSULT Function".

Is the coding correct?

YES >> GO TO 3.
NO >> Change the coding to the correct. Refer to PCS-8, "CONSULT Function". And then, GO TO 3.

3. CHECK PARTS NUMBER OF ELECTRONIC IGNITION SWITCH CONTROL UNIT

Check the parts number of electronic ignition switch control unit.

Is the parts number correct?

YES >> GO TO 4.
NO >> Replace the electronic ignition switch control unit. Refer to PCS-47, "Removal and Installation". And then, GO TO 4.

4. ERASE SELF-DIAGNOSTIC RESULT FOR ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT
Erase self-diagnostic result for “Electric ign switch control unit”.

>> INSPECTION END

C073A ELECTRIC SHIFT SELECTOR SYSTEM

DTC Description

INFOID:0000000013570185

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C073A	00	Signal from shift module is implausible [One or more signals sent from control unit 'Shift module' via the CAN bus is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	The signal brake control overvalue requirement off from electric shift selector is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	520 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- Electric shift selector

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C073A” detected?

YES >> Proceed to BRC-834, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570186

1.PERFORM SELF-DIAGNOSIS FOR ELECTRIC SHIFT SELECTOR

With CONSULT

1. Turn the ignition switch ON.
2. Perform self-diagnosis for “SHIFT”. Refer to TM-41, "CONSULT Function".

Is any DTC detected?

YES >> Check the DTC. Refer to TM-50, "DTC Index".
NO >> GO TO 2.

2.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electric shift selector. Refer to TM-227, "Removal and Installation".

NO >> Repair or replace the malfunctioning parts.

C073B ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013570187

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C073B	00	CAN message E-IGN lock C/U [The CAN message from control unit (Electronic ignition lock control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the electronic ignition switch control unit has detect a park mode error then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	520 ms

POSSIBLE CAUSE

- Electronic ignition switch control unit is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C073B” detected?

YES >> Proceed to BRC-836, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570188

1.PERFORM SELF-DIAGNOSIS FOR ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch control unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C073C BRAKE FLUID LEAKAGE

DTC Description

INFOID:0000000013570189

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C073C	00	Hold function [The HOLD function was activated in an overloaded vehicle on an uphill or downhill gradient]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the vehicle during the HOLD function is starting to roll more than 4 times in the standstill (roll monitoring active) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Valves do not close completely due to the dirty brake fluid.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C073C” detected?

YES >> Proceed to BRC-837, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570190

1.CHECK BRAKE SYSTEM

1. Visually check the brake hydraulic line for leakage.
2. Perform air bleeding. Refer to BR-12, "Bleeding Brake System".
3. Perform DTC confirmation procedure again. Refer to BRC-837, "DTC Description".

Is DTC C073C detected again?

YES >> Replace traction system hydraulic unit. Refer to BRC-972, "Removal and Installation".
NO >> INSPECTION END

C073D TRANSMISSION SYSTEM

DTC Description

INFOID:0000000013570191

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C073D	00	Signal from shift module is implausible [One or more signals sent from control unit 'Shift module' via the CAN bus is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the signal gear selector lever is implausible to the signal gear selector lever or the signal gear selector lever is malfunction. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- Electric shift selector

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C073D” detected?

YES >> Proceed to BRC-838, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570192

1.PERFORM SELF-DIAGNOSIS FOR ELECTRIC SHIFT SELECTOR

With CONSULT

1. Turn the ignition switch ON.
2. Perform self-diagnosis for “SHIFT”. Refer to TM-41, "CONSULT Function".

Is any DTC detected?

YES >> Check the DTC. Refer to TM-45, "DTC Index".
NO >> GO TO 2.

2.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electric shift selector. Refer to TM-227, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C0741 CONTROL UNIT

DTC Description

INFOID:0000000013570193

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0741	00	VIN stored in ESP C/U is different [The VIN stored in Control unit (Electronic Stability Program control unit) is different from the VIN retrieved from the vehicle]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the vehicle identification number, which is received over the network does not match with the stored vehicle identification number in the EEPROM then an error is set immediately.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Configuration (coding vehicle identification number) incorrect.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0741” detected?

YES >> Proceed to BRC-840, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570194

1.CHECK CODING

Check the coding in electronic stability program control unit.

Is the inspection result normal?

YES >> Perform configuration. Refer to BRC-85, "Description".
NO >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0742 CONTROL UNIT

DTC Description

INFOID:0000000013570195

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0742	00	VIN stored in ESP C/U is different [The VIN stored in Control unit (Electronic Stability Program control unit) is different from the VIN retrieved from the vehicle]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If no vehicle identification number is received over the network then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- CAN bus line CAN-H or CAN-L has an interruption.
- Plug connections is malfunction.
- CAN bus termination resistor value incorrect.
- Environment of the sending component (Partner ECU / Sensor) is malfunction (Power supply is malfunction or insufficient or component is malfunction).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0742” detected?

YES >> Proceed to BRC-841, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570196

1.CHECK CODING

Check the coding in electronic stability program control unit.

Is the inspection result normal?

YES >> Perform configuration. Refer to BRC-85, "Description".
NO >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0743 CONTROL UNIT

DTC Description

INFOID:0000000013570197

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0743	00	Variant coding [The global variant coding could not be read out of the CAN bus]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Variant code: If the network coding is not performed due to missing network information then an error is set immediately.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- CAN bus line CAN-H or CAN-L has an interruption.
- Plug connections is malfunction.
- CAN bus termination resistor value incorrect.
- Environment of the sending component (Partner ECU / Sensor) is malfunction (Power supply is malfunction or insufficient or component is malfunction).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0743” detected?

YES >> Proceed to BRC-842, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570198

1.CHECK CAN COMMUNICATION

Check CAN communication. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

>> Check electrical lines and connectors electronic stability program control unit for loose contact, damage and corrosion and repair or replace if necessary. Refer to GI-56, "Intermittent Incident".

C0744 CAN COMMUNICATION

DTC Description

INFOID:0000000013570199

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0744	00	INTERNAL CONTROL MODULE [An incorrect variant coding or configuration was detected]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If a new network coding is available due to a software update and a ignition change is not performed then an error is set immediately.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- New network coding due to available software update (Partner ECUs sends new coding information) and ignition change is not performed.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0744” detected?

YES >> Proceed to BRC-843, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570200

1.CHECK CODING

Check the coding in electronic stability program control unit.

Is the inspection result normal?

YES >> Perform configuration. Refer to BRC-85, "Description".
NO >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0745 CONTROL UNIT

DTC Description

INFOID:0000000013570201

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0745	00	Configuration of ESP control unit [The coding of Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If invalid values are stored in the EEPROM (variant code plausibility test is not successful) then an error is set immediately.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Invalid values are stored in the EEPROM (variant code plausibility test is not successful).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0745” detected?

YES >> Proceed to BRC-844, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570202

1.CHECK CODING

Check the coding in electronic stability program control unit.

Is the inspection result normal?

YES >> Perform configuration. Refer to BRC-85, "Description".
NO >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0746 CONTROL UNIT

DTC Description

INFOID:0000000013570203

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0746	00	Configuration of ESP control unit [The coding of Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If variants are not encoded by relevant EEPROM cells (variant code encoding information) then an error is set immediately.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Configuration (coding variants) incorrect.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0746” detected?

YES >> Proceed to BRC-845, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570204

1.CHECK CODING

Check the coding in electronic stability program control unit.

Is the inspection result normal?

YES >> Perform configuration. Refer to BRC-85, "Description".
NO >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0747 CONTROL UNIT

DTC Description

INFOID:0000000013570205

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0747	00	Configuration of ESP control unit [The coding of Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If a variant code error in the electronic stability program control unit occurs (malfunction EEPROM) then an error is set immediately.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- EEPROM in the electronic stability program control unit has malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0747” detected?

YES >> Proceed to BRC-846, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570206

1.CHECK CODING

Check the coding in electronic stability program control unit.

Is the inspection result normal?

YES >> Perform configuration. Refer to BRC-85, "Description".
NO >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0748 CONTROL UNIT

DTC Description

INFOID:0000000013570207

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0748	00	Configuration of ESP control unit [The coding of Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Variant code: If the over the network received propulsion method does not match with the stored variant code in the EEPROM then an error is set immediately.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Configuration (coding transmission type) not correct.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0748” detected?

YES >> Proceed to BRC-847, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570208

1.CHECK CODING

Check the coding in electronic stability program control unit.

Is the inspection result normal?

YES >> Perform configuration. Refer to BRC-85, "Description".
NO >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0749 CONTROL UNIT

DTC Description

INFOID:0000000013570209

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0749	00	Configuration of ESP control unit [The coding of Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Variant code: If the network coding is not performed due to malfunction network information (network plausibility test not successful) then an error is set immediately.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Component (Partner ECU / sensor) is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0749” detected?

YES >> Proceed to BRC-848, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570210

1.CHECK CODING

Check the coding in electronic stability program control unit.

Is the inspection result normal?

YES >> Perform configuration. Refer to BRC-85, "Description".
NO >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C074B CONTROL UNIT

DTC Description

INFOID:0000000013570211

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C074B	00	Configuration of ESP control unit [The coding of Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the configuration (coding variant) is incorrect or the EEPROM parameters are not plausible (parameter calculation is malfunction) then an error is set immediately.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Configuration (coding variant) not correct or EEPROM-parameter not plausible (parameter calculation malfunction).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C074B” detected?

YES >> Proceed to BRC-849, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570212

1.CHECK CODING

Check the coding in electronic stability program control unit.

Is the inspection result normal?

YES >> Perform configuration. Refer to BRC-85, "Description".
NO >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0751 SWITCHING VALVE

DTC Description

INFOID:0000000013570213

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0751	00	ESP control unit [This malfunction code in Control unit (Electronic Stability Program control unit) can be ignored and erased]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Switching valve overheat protection has struck. Overheating protection of the switch valves. The error is set immediately.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- HOLD function in standstill too many times activated in a row.
- Therefore the overheating protection was activated.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1.
2. Turn the ignition switch OFF.
   NOTE:
   Wait at least 30 seconds after turning ignition switch OFF.
3. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
4. Perform self-diagnosis for “ABS”.

Is DTC “C0751” detected?

YES >> Proceed to BRC-850, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570214

1.ERASE SELF-DIAGNOSIS RESULT

With CONSULT

Erase self-diagnosis result for “ABS”.

>> INSPECTION END

C0765 ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570215

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0765	00	CAN comm CPA/distronic C/U [CAN communication with component (COLLISION PREVENTION ASSIST controller unit) or (DISTRONIC electric controller unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the message from ICC sensor or distance sensor is incorrect then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- ICC sensor (With ICC system)
- Distance sensor (Without ICC system with FEB system)

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0765” detected?

YES >> Proceed to BRC-851, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570216

1.PERFORM SELF-DIAGNOSIS FOR ICC SENSOR OR DISTANCE SENSOR

With CONSULT

1. Turn the ignition switch ON.
2. Perform self-diagnosis for “ICC sensor”. Refer to BRC-993, "CONSULT Function (ICC Sensor)".

Is any DTC detected?

YES >> Check the DTC. Refer to BRC-996, "DTC Index".
NO >> GO TO 2.

2. CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the ICC sensor or distance sensor. Refer to BRC-1009, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C0766 ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570217

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0766	00	No CAN message CPA/distronic C/U [No CAN message was received from control unit (COLLISION PREVENTION ASSIST controller unit) or (DISTRONIC electric controller unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON after 10 seconds
				Signal (terminal)	CAN communication signal
				Threshold	If the message from ICC sensor or distance sensor is incorrect then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- ICC sensor (With ICC system)
- Distance sensor (Without ICC system with FEB system)

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0766” detected?

YES >> Proceed to BRC-853, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570218

1.PERFORM SELF-DIAGNOSIS FOR ICC SENSOR OR DISTANCE SENSOR

With CONSULT

1. Turn the ignition switch ON.
2. Perform self-diagnosis for “ICC sensor”. Refer to BRC-993, "CONSULT Function (ICC Sensor)".

Is any DTC detected?

YES >> Check the DTC. Refer to BRC-996, "DTC Index".
NO >> GO TO 2.

2. CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the ICC sensor or distance sensor. Refer to BRC-1009, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C0767 ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570219

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0767	00	Sig from CPA/distronic C/U implausible [One or more of the signals transmitted by control unit (COLLISION PREVENTION ASSIST controller unit) or (DISTRONIC electric controller unit) via the CAN bus are implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal braking source from ICC sensor or distance sensor is invalid (signal value is beyond the valid range) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	200 ms

POSSIBLE CAUSE

- Signal braking source from ICC sensor or distance sensor invalid (signal value is beyond the valid range).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0767” detected?

YES >> Proceed to BRC-855, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570220

1.PERFORM SELF-DIAGNOSIS FOR ICC SENSOR OR DISTANCE SENSOR

With CONSULT

Perform self-diagnosis for “ICC sensor”. Refer to BRC-993, "CONSULT Function (ICC Sensor)".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-996, "DTC Index".
NO >> INSPECTION END

C0769 ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570221

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0769	00	Sig from CPA/distronic C/U implausible [One or more of the signals transmitted by control unit (COLLISION PREVENTION ASSIST controller unit) or (DISTRONIC electric controller unit) via the CAN bus are implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal vehicle yaw moment front request from ICC sensor or distance sensor is invalid (signal value is malfunction) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	200 ms

POSSIBLE CAUSE

- signal vehicle yaw moment front request of the ICC sensor or distance sensor invalid (signal value malfunction).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0769” detected?

YES >> Proceed to BRC-857, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570222

1.PERFORM SELF-DIAGNOSIS FOR ICC SENSOR OR DISTANCE SENSOR

With CONSULT

Perform self-diagnosis for “ICC sensor”. Refer to BRC-993, "CONSULT Function (ICC Sensor)".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-996, "DTC Index".
NO >> INSPECTION END

C076A ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570223

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C076A	00	Sig from CPA/distronic C/U implausible [One or more of the signals transmitted by control unit (COLLISION PREVENTION ASSIST controller unit) or (DISTRONIC electric controller unit) via the CAN bus are implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal vehicle yaw moment rear request from ICC sensor or distance sensor is invalid (signal value is malfunction) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	200 ms

POSSIBLE CAUSE

- signal vehicle yaw moment rear request of ICC sensor or distance sensor invalid (signal value malfunction).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C076A” detected?

YES >> Proceed to BRC-859, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570224

1.PERFORM SELF-DIAGNOSIS FOR ICC SENSOR OR DISTANCE SENSOR

With CONSULT

Perform self-diagnosis for “ICC sensor”. Refer to BRC-993, "CONSULT Function (ICC Sensor)".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-996, "DTC Index".
NO >> INSPECTION END

C076B ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570225

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C076B	00	Sig from CPA/distronic C/U implausible [One or more of the signals transmitted by control unit (COLLISION PREVENTION ASSIST controller unit) or (DISTRONIC electric controller unit) via the CAN bus are implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal vehicle yaw rate request from ICC sensor or distance sensor is invalid (signal value is malfunction) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	200 ms

POSSIBLE CAUSE

- signal vehicle yaw rate request of the ICC sensor or distance sensor invalid (signal value malfunction).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C076B” detected?

YES >> Proceed to BRC-861, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570226

1.PERFORM SELF-DIAGNOSIS FOR ICC SENSOR OR DISTANCE SENSOR

With CONSULT

Perform self-diagnosis for “ICC sensor”. Refer to BRC-993, "CONSULT Function (ICC Sensor)".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-996, "DTC Index".
NO >> INSPECTION END

C0810 ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570227

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0810	00	CAN comm CPA/distronic C/U [CAN communication with component (COLLISION PREVENTION ASSIST controller unit) or (DISTRONIC electric controller unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the message from ICC sensor or distance sensor is incorrect then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	50 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- ICC sensor (With ICC system)
- Distance sensor (Without ICC system with FEB system)

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0810” detected?

YES >> Proceed to BRC-863, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570228

1.PERFORM SELF-DIAGNOSIS FOR ICC SENSOR OR DISTANCE SENSOR

With CONSULT

1. Turn the ignition switch ON.
2. Perform self-diagnosis for “ICC sensor”. Refer to BRC-993, "CONSULT Function (ICC Sensor)".

Is any DTC detected?

YES >> Check the DTC. Refer to BRC-996, "DTC Index".
NO >> GO TO 2.

2. CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the ICC sensor or distance sensor. Refer to BRC-1009, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C0811 ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570229

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0811	00	No CAN message CPA/distronic C/U [No CAN message was received from control unit (COLLISION PREVENTION ASSIST controller unit) or (DISTRONIC electric controller unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the message from ICC sensor or distance sensor is not received then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	50 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- ICC sensor (With ICC system)
- Distance sensor (Without ICC system with FEB system)

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0811” detected?

YES >> Proceed to BRC-865, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570230

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the ICC sensor or distance sensor. Refer to BRC-1009, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C0820 DOOR (DRIVER SIDE) SYSTEM

DTC Description

INFOID:0000000013570231

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0820	00	Driver door contact [Door contact “Driver door” has a malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON.
				Signal (terminal)	—
				Threshold	If the driver door contact is jammed or broken (3x door contact signal is malfunction) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Wiring or plug connections or Installation of the door contact of the driver door is malfunction.
- Driver door contact malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Close doors.
4. Open doors.
5. Close doors again.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0820” detected?

YES >> Proceed to BRC-867, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570232

1.CHECK THE INSTALLATION OR INSTALLATION POSITION OF FRONT DOOR SWITCH (DRIVER SIDE)

Check the installation or the installation position of front door lock assembly (driver side). Refer to DLK-264, "Exploded View".

NOTE:
Door switch is integrated in the door lock assembly.

Is the inspection result normal?

YES >> Replace the front door lock assembly (driver side). Refer to DLK-265, "DOOR LOCK : Removal and Installation".
NO >> Correct the installation or the installation position.

C0830 ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570233

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0830	00	Read malfunction memory of CPA C/U [Read malfunction memory of control unit (COLLISION PREVENTION ASSIST controller unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal is not active then an error is set. This error is set, when the malfunction detection time is exceeded
				Diagnosis delay time	20 ms

POSSIBLE CAUSE

- Signal from ICC sensor or distance sensor not active.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0830” detected?

YES >> Proceed to BRC-868, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570234

1.PERFORM SELF-DIAGNOSIS FOR ICC SENSOR OR DISTANCE SENSOR

With CONSULT

Perform self-diagnosis for “ICC sensor”. Refer to BRC-993, "CONSULT Function (ICC Sensor)".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-996, "DTC Index".
NO >> INSPECTION END

C0831 ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570235

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0831	00	Read malfunction memory of CPA C/U [Read malfunction memory of control unit (COLLISION PREVENTION ASSIST controller unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the yaw moment request is beyond the valid range (gradient) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	20 ms

POSSIBLE CAUSE

- Configuration (coding yaw torque interface-vehicle ground) incorrect.
- Yaw torque requirement from ICC sensor or distance sensor beyond the valid range (Gradient).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0831” detected?

YES >> Proceed to BRC-869, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570236

1.PERFORM SELF-DIAGNOSIS FOR ICC SENSOR OR DISTANCE SENSOR

With CONSULT

Perform self-diagnosis for “ICC sensor”. Refer to BRC-993, "CONSULT Function (ICC Sensor)".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-996, "DTC Index".
NO >> INSPECTION END

C0832 ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570237

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0832	00	Read malfunction memory of CPA C/U [Read malfunction memory of control unit (COLLISION PREVENTION ASSIST controller unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Yaw-moment interface: If the yaw moment request is malfunction (Lane assist or blind spot assist) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	20 ms

POSSIBLE CAUSE

- Configuration (coding yaw torque interface-vehicle ground) incorrect.
- Yaw torque requirement from ICC sensor or distance sensor is malfunction (Lane assist or blind spot assistant).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0832” detected?

YES >> Proceed to BRC-870, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570238

1.PERFORM SELF-DIAGNOSIS FOR ICC SENSOR OR DISTANCE SENSOR

With CONSULT

Perform self-diagnosis for “ICC sensor”. Refer to BRC-993, "CONSULT Function (ICC Sensor)".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-996, "DTC Index".
NO >> INSPECTION END

C0833 ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570239

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0833	00	Read malfunction memory of CPA C/U [Read malfunction memory of control unit (COLLISION PREVENTION ASSIST controller unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	ignition switch ON
				Signal (terminal)	—
				Threshold	Yaw-moment interface: If any intervention by the yaw moment interface is beyond the valid speed range then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	20 ms

POSSIBLE CAUSE

- Intervention of yaw torque interface from ICC sensor or distance sensor beyond the valid speed range.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0833” detected?

YES >> Proceed to BRC-871, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570240

1.PERFORM SELF-DIAGNOSIS FOR ICC SENSOR OR DISTANCE SENSOR

With CONSULT

Perform self-diagnosis for “ICC sensor”. Refer to BRC-993, "CONSULT Function (ICC Sensor)".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-996, "DTC Index".
NO >> INSPECTION END

C0834 ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570241

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0834	00	Read malfunction memory of CPA C/U [Read malfunction memory of control unit (COLLISION PREVENTION ASSIST controller unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Yaw-moment interface: If the ICC sensor or distance sensor does not respond to the shutdown of the yaw moment interface (requirement not received) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	20 ms

POSSIBLE CAUSE

- Wiring is malfunction. ICC sensor or distance sensor does not respond to the shutdown of the yaw torque interface.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0834” detected?

YES >> Proceed to BRC-872, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570242

1.PERFORM SELF-DIAGNOSIS FOR ICC SENSOR OR DISTANCE SENSOR

With CONSULT

Perform self-diagnosis for “ICC sensor”. Refer to BRC-993, "CONSULT Function (ICC Sensor)".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-996, "DTC Index".
NO >> INSPECTION END

C0835 ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570243

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0835	00	Read malfunction memory of CPA C/U [Read malfunction memory of control unit (COLLISION PREVENTION ASSIST controller unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Yaw-moment interface: If the yaw moment request is too long (Lane assist or blind spot assist) then an error is set. This error is set, when the malfunction detection time is exceeded [Note for malfunction detection time in the service comments column).
				Diagnosis delay time	20 ms

POSSIBLE CAUSE

- Yaw torque requirement from ICC sensor or distance sensor too long (Lane assist or blind spot assistant).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0835” detected?

YES >> Proceed to BRC-873, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570244

1.PERFORM SELF-DIAGNOSIS FOR ICC SENSOR OR DISTANCE SENSOR

With CONSULT

Perform self-diagnosis for “ICC sensor”. Refer to BRC-993, "CONSULT Function (ICC Sensor)".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-996, "DTC Index".
NO >> INSPECTION END

C0840 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013570245

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0840	00	No CAN message E-IGN lock C/U [No CAN message was received from control unit (Electronic ignition lock control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the wake up voltage signal is not available then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- Power supply and ground circuit of electronic ignition switch control unit
- Electronic ignition switch control unit

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0840” detected?

YES >> Proceed to BRC-874, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570246

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electronic ignition switch control unit. Refer to PCS-47, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C0841 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013570247

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0841	00	No CAN message E-IGN lock C/U [No CAN message was received from control unit (Electronic ignition lock control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the signal is not identical with the wake up voltage signal then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- Power supply and ground circuit of electronic ignition switch control unit
- Electronic ignition switch control unit

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0841” detected?

YES >> Proceed to BRC-875, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570248

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electronic ignition switch control unit. Refer to PCS-47, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C0950 AXLE RPM SENSOR

DTC Description

INFOID:0000000013570249

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0950	00	Implausible values of rpm sensors [Implausible values of rpm sensors]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Axle rpm sensor
				Threshold	If high frequencies are not plausible or implausible slip values or implausible dynamic signals or signals are recognized as malfunction then a suspected error is set. If at least two suspected errors are set at the same time then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- Axle rpm sensor cable has an interruption.
- Axle rpm sensor or multipole wheel loosely attached.
- Multipole wheel dirty or damaged (air gap too big) or end-magnetized (undetected N / S pole).
- Tire or rim not permitted.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0950” detected?

YES >> Proceed to BRC-876, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570250

1.CHECK COMPONENT

Check the following items:

- Wheels or tires for wear and size.
- Tire air pressure
- The rear axle gear ratio is correct.

- A multipole ring is dirty or damaged.
- Check multipole ring for tight seating, correct installation and mechanical damage.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace error-detected parts.

C0951 AXLE RPM SENSOR

DTC Description

INFOID:0000000013570251

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0951	00	Implausible values of rpm sensors [Implausible values of rpm sensors]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Axle rpm sensor
				Threshold	If high frequencies are not plausible or implausible slip values or implausible dynamic signals or signals are recognized as malfunction then a suspected error is set. If at least two suspected errors are set at the same time then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Axle rpm sensor cable has an interruption.
- Axle rpm sensor or multipole wheel loosely attached.
- Multipole wheel dirty or damaged (air gap too big) or end-magnetized (undetected N / S pole).
- Tire or rim not permitted.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0951” detected?

YES >> Proceed to BRC-878, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570252

1.CHECK COMPONENT

Check the following items:

- Wheels or tires for wear and size.
- Tire air pressure
- The rear axle gear ratio is correct.

- A multipole ring is dirty or damaged.
- Check multipole ring for tight seating, correct installation and mechanical damage.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace error-detected parts.

C0960 VALVE

DTC Description

INFOID:0000000013570253

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0960	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the valves and then the hydraulic cut-off is activated during the valve driver gate test and the hydraulic shutdown test and is determined that the valve remains active then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	5 ms

POSSIBLE CAUSE

- Hardware error in the electronic stability program control unit: Valve driver control or valve feedback error.
- Bond demolition.
- Short circuit.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0960” detected?

YES >> Proceed to BRC-880, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570254

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0961 VALVE DRIVER

DTC Description

INFOID:0000000013570255

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0961	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Valve driver: Hardware monitoring has detected an open load and a under current). During the internal hardware monitoring and ongoing operation an error is set immediately.
				Diagnosis delay time	35 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0961” detected?

YES >> Proceed to BRC-881, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570256

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0962 VALVE

DTC Description

INFOID:0000000013570257

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0962	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the Silent valve driver test (Hardware) from the valve driver is permanently switch on then an error is set. The error is set if the error detection time is exceeded
				Diagnosis delay time	15 ms

POSSIBLE CAUSE

- Hardware error in the electronic stability program control unit: Valve driver control or valve feedback error.
- Bond demolition.
- Short circuit.
- Valve driver malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0962” detected?

YES >> Proceed to BRC-882, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570258

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0963 VALVE DRIVER

DTC Description

INFOID:0000000013570259

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0963	00	ESP control unit is incomplete [Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Electronic stability program control unit is malfunction (Valve driver: Valve voltage error although the valve voltage is greater than the internal power supply). During the internal hardware monitoring and if the valve relay is switched on then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Software or Hardware error

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0963” detected?

YES >> Proceed to BRC-883, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570260

1.REPLACE ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Replace the electronic stability program control unit even if other DTC are displayed.

>> Replace electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C0971 ELECTRIC PARKING BRAKE SYSTEM

DTC Description

INFOID:0000000013570261

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0971	00	Signal from EPKB C/U is implausible [One or more signals sent from control unit (Electric parking brake control unit) via the CAN bus is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	The electric parking brake sends a signal through the brake control requirement. No standby at the standstill allowed to accept a request (operate / solve). This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Electromechanical locking brake malfunction (mechanical or electrical).
- Electric parking brake control module is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0971” detected?

YES >> Proceed to BRC-884, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570262

1.PERFORM SELF-DIAGNOSIS FOR ELECTRIC PARKING BRAKE CONTROL MODULE

With CONSULT

Perform self-diagnosis for “EHS/PKB”. Refer to PB-18, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PB-24, "DTC Index".
NO >> INSPECTION END

C0972 ELECTRIC PARKING BRAKE SYSTEM

DTC Description

INFOID:0000000013570263

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0972	00	Signal from EPKB C/U is implausible [One or more signals sent from control unit (Electric parking brake control unit) via the CAN bus is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the electric parking brake does not respond to the operate requirement from the electric parking brake control module for a defined time: 2 seconds then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Electromechanical locking brake malfunction (mechanical or electrical).
- Electric parking brake control module is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0972” detected?

YES >> Proceed to BRC-885, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570264

1.PERFORM SELF-DIAGNOSIS FOR ELECTRIC PARKING BRAKE CONTROL MODULE

With CONSULT

Perform self-diagnosis for “EHS/PKB”. Refer to PB-18, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PB-24, "DTC Index".
NO >> INSPECTION END

C0973 ELECTRIC PARKING BRAKE SYSTEM

DTC Description

INFOID:0000000013570265

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0973	00	CAN message EPKB C/U [The CAN message from control unit (Electric parking brake control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal electronic stability program switch pressed from the electronic ignition switch control unit is invalid (signal value is beyond the valid range) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	1500 ms

POSSIBLE CAUSE

- Signal electronic stability program switch pressed from the electronic ignition switch control unit invalid (signal value is beyond the valid range).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C0973” detected?

YES >> Proceed to BRC-886, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570266

1.PERFORM SELF-DIAGNOSIS FOR ELECTRIC PARKING BRAKE CONTROL MODULE

With CONSULT

Perform self-diagnosis for “EHS/PKB”. Refer to PB-18, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PB-24, "DTC Index".
NO >> INSPECTION END

C0990 BRAKE FLUID LEAKAGE

DTC Description

INFOID:0000000013570267

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0990	00	Check brake system for leaks [Check brake system for leaks]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If it comes to a hydraulic gross leakage in the standstill during an active HOLD function (pump control time exceeded due to many pump operations) then an error is set. The error is set if the error detection time is exceeded
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Valves do not close completely due to the dirty brake fluid.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0990” detected?

YES >> Proceed to BRC-887, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570268

1.CHECK BRAKE SYSTEM

1. Visually check the brake hydraulic line for leakage.
2. Perform air bleeding. Refer to BR-12, "Bleeding Brake System".
3. Perform DTC confirmation procedure again. Refer to BRC-887, "DTC Description".

Is DTC C0990 detected again?

YES >> Replace traction system hydraulic unit. Refer to BRC-972, "Removal and Installation".
NO >> INSPECTION END

C0991 BRAKE FLUID LEAKAGE

DTC Description

INFOID:0000000013570269

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0991	00	Check brake system for leaks [Check brake system for leaks]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If it comes to a hydraulic gross leakage in the standstill during an active HOLD function (pump control time exceeded due to too long pump operations) then an error is set. The error is set if the error detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Valves do not close completely due to the dirty brake fluid.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0991” detected?

YES >> Proceed to BRC-888, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570270

1.CHECK BRAKE SYSTEM

1. Visually check the brake hydraulic line for leakage.
2. Perform air bleeding. Refer to BR-12, "Bleeding Brake System".
3. Perform DTC confirmation procedure again. Refer to BRC-888, "DTC Description".

Is DTC C0991 detected again?

YES >> Replace traction system hydraulic unit. Refer to BRC-972, "Removal and Installation".
NO >> INSPECTION END

C09A0 ATTENTION ASSIST

DTC Description

INFOID:0000000013570271

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C09A0	00	Reprogram ESP control unit [Reprogram Control unit (Electronic Stability Program control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the Memory protection unit detects forbidden memory accesses from Attention assist on the protected memory area in the electronic stability program control unit then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Not allowed memory access of the attention assist to protected memory areas in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 30 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C09A0” detected?

YES >> Proceed to BRC-889, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570272

1.PERFORM CONFIGURATION

With CONSULT

Perform configuration. Refer to BRC-85, "Description"

>> GO TO 2.

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C09A0” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C09A1 LINEAR REGULATOR

DTC Description

INFOID:0000000013570273

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C09A1	00	Reprogram ESP control unit [Reprogram Control unit (Electronic Stability Program control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the Memory protection unit detects forbidden memory accesses from linear regulator on the protected memory area in the electronic stability program control unit then an error is set. This error is set, when the malfunction detection time is exceeded
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Not allowed memory access of the longitudinal controller to protected memory areas in the electronic stability program control unit.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 30 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C09A1” detected?

YES >> Proceed to BRC-891, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570274

1.PERFORM CONFIGURATION

With CONSULT

Perform configuration. Refer to BRC-85, "Description"

>> GO TO 2.

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C09A1” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C0A00 BATTERY SYSTEM

DTC Description

INFOID:0000000013570275

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0A00	00	Charge level of battery is not OK [The charge level of the battery is not OK]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Power supply
				Threshold	Low battery state received from signal control module rear vehicle power management. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Temporarily insufficient battery charge.
- High electrical system load (possibly built additional consumer).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Hold function is activated.
4. Perform self-diagnosis for “ABS”.

Is DTC “C0A00” detected?

YES >> Proceed to BRC-893, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570276

1.PERFORM SELF-DIAGNOSIS FOR BCM

With CONSULT

Perform self-diagnosis for “BCM”. Refer to BCS-24, "CONSULT Function (BCM)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-51, "DTC Index".
NO >> INSPECTION END

C0A01 BATTERY SYSTEM

DTC Description

INFOID:0000000013570277

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0A01	00	Charge level of battery is not OK [Charge level of battery is not OK]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Power supply
				Threshold	Critical battery state received from signal control module rear vehicle power management. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Incorrect operation by the user.
- Battery almost excessively exhausted.
- Quiescent current malfunction of the vehicle.
- Long lifetime of the vehicle.
- Battery is aging.
- Environmental factors (e.g. extreme cold temperatures).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Hold function is activated.
4. Perform self-diagnosis for “ABS”.

Is DTC “C0A01” detected?

YES >> Proceed to BRC-894, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570278

1.PERFORM SELF-DIAGNOSIS FOR BCM

With CONSULT

Perform self-diagnosis for “BCM”. Refer to BCS-24, "CONSULT Function (BCM)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-51, "DTC Index".
NO >> INSPECTION END

C0A02 BATTERY SYSTEM

DTC Description

INFOID:0000000013570279

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0A02	00	Charge level of battery is not OK [The charge level of the battery is not OK.]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Power supply
				Threshold	Unknown battery state received from signal control module rear vehicle power management. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Signal from electronic ignition switch control unit indicates battery status not available.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0A02” detected?

YES >> Proceed to BRC-895, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570280

1.PERFORM SELF-DIAGNOSIS FOR BCM

With CONSULT

Perform self-diagnosis for “BCM”. Refer to BCS-24, "CONSULT Function (BCM)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-51, "DTC Index".
NO >> INSPECTION END

C0A03 BCM SYSTEM

DTC Description

INFOID:0000000013570281

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0A03	00	Charge level of battery is not OK [The charge level of the battery is not OK.]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Power supply
				Threshold	Signal has detected error, which is set from signal control module rear gesetzt. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	520 ms

POSSIBLE CAUSE

- Signal control module rear is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0A03” detected?

YES >> Proceed to BRC-896, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570282

1.PERFORM SELF-DIAGNOSIS FOR BCM

With CONSULT

Perform self-diagnosis for “BCM”. Refer to BCS-24, "CONSULT Function (BCM)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-51, "DTC Index".
NO >> INSPECTION END

C0A04 ELECTRIC SHIFT SELECTOR SYSTEM

DTC Description

INFOID:0000000013570283

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0A04	00	Signal from TCM is implausible [One or more signals sent from control unit (Transmission) via the CAN bus is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal gear selector lever is implausible to the signal gear selector lever securely in position P then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	520 ms

POSSIBLE CAUSE

- Signal gear selector lever not plausible to the signal gear selector lever securely in position P.
- Both signals from the electric shift selector are provided.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0A04” detected?

YES >> Proceed to BRC-897, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570284

1.PERFORM SELF-DIAGNOSIS FOR TCM

With CONSULT

Perform self-diagnosis for “TRANSMISSION”. Refer to TM-36, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to TM-45, "DTC Index".
NO >> INSPECTION END

C0A05 COMBINATION METER SYSTEM

DTC Description

INFOID:0000000013570285

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0A05	00	Invalid data received from IPCCM [The CAN message from control unit (Instrument cluster) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	The signal instrument cluster has detected a standstill coordinator error, which is set from combination meter. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	520 ms

POSSIBLE CAUSE

- Combination meter is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0A05” detected?

YES >> Proceed to BRC-898, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570286

1.PERFORM SELF-DIAGNOSIS FOR COMBINATION METER

With CONSULT

Perform self-diagnosis for “METER/M&A”. Refer to MWI-68, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to MWI-85, "DTC Index".
NO >> INSPECTION END

C0A06 BCM SYSTEM

DTC Description

INFOID:0000000013570287

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0A06	00	Combination meter [There is a malfunction in control unit (Instrument cluster)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	The signal status standstill from combination meter is not plausible to the internal signal status standstill. This error is set, when the malfunction detection time is exceeded [Note for malfunction detection time in the service comments column).
				Diagnosis delay time	1520 ms

POSSIBLE CAUSE

- Combination meter does not support standstill coordinator.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0A06” detected?

YES >> Proceed to BRC-899, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570288

1.CHECK THE PARTS NUMBER OF COMBINATION METER

Check the parts number of combination meter.

Is the parts number correct?

YES >> GO TO 2.
NO >> Replace combination meter. Refer to MWI-155, "Removal and Installation".

2.CHECK COMBINATION METER

Check combination meter. Refer to MWI-68, "CONSULT Function".

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace combination meter. Refer to MWI-155, "Removal and Installation".

C0A07 BCM SYSTEM

DTC Description

INFOID:0000000013570289

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0A07	00	No CAN message SAM C/U [No CAN message was received from control unit (SAM control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	Error CAN communication disorder with BCM. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	520 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- BCM

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0A07” detected?

YES >> Proceed to BRC-900, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570290

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the BCM. Refer to BCS-248, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C0A08 BCM SYSTEM

DTC Description

INFOID:0000000013570291

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0A08	00	Check line between ESP and SAM [Check electrical line between Control unit (Electronic Stability Program control unit) and component (SAM control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	Error in the toggle line. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	520 ms

POSSIBLE CAUSE

- Toggle line between the BCM and electronic stability program control unit is malfunction.
- Either unidentifiable toggle pattern or permanent High- or Low-level.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0A08” detected?

YES >> Proceed to BRC-901, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570292

1.PERFORM SELF-DIAGNOSIS FOR BCM

With CONSULT

Perform self-diagnosis for “BCM”. Refer to BCS-24, "CONSULT Function (BCM)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-51, "DTC Index".
NO >> GO TO 2.

2.PERFORM CONFIGURATION FOR BCM

With CONSULT

Perform configuration for “BCM”. Refer to BCS-89, "Description".

>> GO TO 3.

3. CHECK CAN COMMUNICATION LINE

Check the CAN communication line. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace the malfunctioning parts.

C0A09 BCM SYSTEM

DTC Description

INFOID:0000000013570293

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0A09	00	Check line between ESP and SAM [Check electrical line between Control unit (Electronic Stability Program control unit) and component (SAM control unit)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	Different signal content toggle line and CAN signal 3. This error is set, when the malfunction detection time is exceeded [Note for malfunction detection time in the service comments column).
				Diagnosis delay time	1520 ms

POSSIBLE CAUSE

- Toggle line between BCM and electronic stability program control unit is malfunction.
- CAN communication with the BCM impaired.
- Values received or status the toggle line different from the standstill coordinator status over CAN.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0A09” detected?

YES >> Proceed to BRC-903, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570294

1.CHECK CONNECTOR

1. Turn the ignition switch OFF.
2. Check the electronic stability program control unit harness connector for damage, disconnection or looseness.
3. Check the BCM harness connector for damage, disconnection or looseness.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair / replace harness or connector, securely lock the connector.

2.CHECK CAN COMMUNICATION LINE

Check the CAN communication line. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace the malfunctioning parts.

C0A0A BCM SYSTEM

DTC Description

INFOID:0000000013570295

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0A0A	00	Signal from SAM C/U is implausible [One or more signals sent from control unit (SAM control unit) via the CAN bus is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	The signal has detected a standstill coordinator error, which is set from BCM. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	520 ms

POSSIBLE CAUSE

- BCM is malfunction.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0A0A” detected?

YES >> Proceed to BRC-905, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570296

1.PERFORM SELF-DIAGNOSIS FOR BCM

With CONSULT

Perform self-diagnosis for “BCM”. Refer to BCS-24, "CONSULT Function (BCM)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-51, "DTC Index".
NO >> INSPECTION END

C0A0B ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013570297

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C0A0B	00	CAN message SAM C/U [The CAN message from control unit (SAM control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the signal stop coordinator malfunction BCM from the electronic ignition switch control unit is invalid (signal value is beyond the valid range) then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	1500 ms

POSSIBLE CAUSE

- Signal stop coordinator malfunction BCM from the electronic ignition switch control unit invalid (signal value is beyond the valid range).

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0A0B” detected?

YES >> Proceed to BRC-906, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570298

1.PERFORM SELF-DIAGNOSIS FOR BCM

With CONSULT

Perform self-diagnosis for “BCM”. Refer to BCS-24, "CONSULT Function (BCM)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-51, "DTC Index".
NO >> INSPECTION END

C0A30 EXCEEDED MAXIMUM HOLDING TIME

DTC Description

INFOID:0000000013570299

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C0A30	00	Timeout of HOLD function [Timeout of HOLD function]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	If the maximum holding time is exceeded then an error is set. This error is set, when the malfunction detection time is exceeded.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Transmission hold support was not deactivated within the maximum allowable time from the TCM.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Turn the ignition switch OFF.
   NOTE:
   Wait at least 30 seconds after turning ignition switch OFF.
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C0A30” detected?

YES >> Proceed to BRC-907, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570300

1.ERASE SELF-DIAGNOSIS RESULT

With CONSULT

Erase self-diagnosis result for “ABS”.

>> INSPECTION END

C2060 DYNAMOMETER MODE

DTC Description

INFOID:0000000013570301

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C2060	00	Output dynamometer mode is active [The mode 'Output dynamometer' is active]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	The roller bench test function is over the hotkey at the multi-function steering wheel (combination meter) activated. The activation occurs (project-specific) when there is no axle rpm sensor errors present and the wheel speed have exceeded a certain speed threshold.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Event occurred

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
   NOTE:
   Wait at least 30 seconds after turning ignition switch ON.
3. Perform self-diagnosis for “ABS”.

Is DTC “C2060” detected?

YES >> Proceed to BRC-908, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570302

1.INSPECTION START

NOTE:
This DTC indicates the output dynamometer mode in the combination meter is deactivated.

>> INSPECTION END

C3201 ENGINE SYSTEM

DTC Description

INFOID:0000000013570303

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C3201	00	No CAN message ECM [No CAN message was received from control unit 'Engine']	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed 400 rpm or more
				Signal (terminal)	CAN communication
				Threshold	—
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- ECM

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   Engine speed is 400 rpm or more.
2. Perform self-diagnosis for “ABS”.

Is DTC “C3201” detected?

YES >> Proceed to BRC-909, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570304

1.PERFORM SELF-DIAGNOSIS FOR ECM

With CONSULT

1. Turn the ignition switch ON.
2. Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is any DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> GO TO 2.

2.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the ECM. Refer to EC-963, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C3209 ENGINE SYSTEM

DTC Description

INFOID:0000000013570305

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C3209	00	Signal from ECM is implausible [One or more signals sent from control unit (Engine) via the CAN bus is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed is 400 rpm or more
				Signal (terminal)	—
				Threshold	—
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- ECM functions do not operate with the ECM interface according to specifications.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   Engine speed is 400 rpm or more.
2. Perform self-diagnosis for “ABS”.

Is DTC “C3209” detected?

YES- >> Proceed to BRC-910, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570306

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C3212 ENGINE SYSTEM

DTC Description

INFOID:0000000013570307

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C3212	00	Signal from ECM is implausible [One or more signals sent from control unit 'Engine' via the CAN bus is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed is 400 rpm or more
				Signal (terminal)	CAN communication
				Threshold	—
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- ECM

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   Engine speed is 400 rpm or more.
2. Perform self-diagnosis for “ABS”.

Is DTC “C3212” detected?

YES >> Proceed to BRC-911, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570308

1.PERFORM SELF-DIAGNOSIS FOR ECM

With CONSULT

1. Turn the ignition switch ON.
2. Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is any DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> GO TO 2.

2.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the ECM. Refer to EC-963, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C3220 ENGINE SYSTEM

DTC Description

INFOID:0000000013570309

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C3220	00	Signal from ECM is implausible [One or more signals sent from control unit (Engine) via the CAN bus is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed is 400 rpm or more
				Signal (terminal)	—
				Threshold	—
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- ECM functions do not operate with the ECM interface according to specifications.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   Engine speed is 400 rpm or more.
2. Perform self-diagnosis for “ABS”.

Is DTC “C3220” detected?

YES >> Proceed to BRC-912, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570310

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C3221 ENGINE SYSTEM

DTC Description

INFOID:0000000013570311

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C3221	00	Signal from ECM is implausible [One or more signals sent from control unit (Engine) via the CAN bus is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed is 400 rpm or more
				Signal (terminal)	—
				Threshold	—
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- ECM functions do not operate with the ECM interface according to specifications.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   Engine speed is 400 rpm or more.
2. Perform self-diagnosis for “ABS”.

Is DTC “C3221” detected?

YES >> Proceed to BRC-913, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570312

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function"

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C3235 COMBINATION METER SYSTEM

DTC Description

INFOID:0000000013570313

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C3235	00	No CAN sig received from comb meter [No CAN message was received from control unit (Instrument cluster)]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed is 400 rpm or more
				Signal (terminal)	CAN communication
				Threshold	—
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- Combination meter

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   Engine speed is 400 rpm or more.
2. Perform self-diagnosis for “ABS”.

Is DTC “C3235” detected?

YES >> Proceed to BRC-914, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570314

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the combination meter. Refer to MWI-155, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C3250 STEERING COLUMN CONTROL MODULE SYSTEM

DTC Description

INFOID:0000000013570315

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C3250	00	COMMUNICATION ERROR (INVALID) [One or more signals sent from control unit (Steering column tube module control unit) via the CAN bus is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed is 400 rpm or more
				Signal (terminal)	—
				Threshold	—
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Steering column control module functions do not operate with the steering column control module interface according to specifications.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   Engine speed is 400 rpm or more.
2. Perform self-diagnosis for “ABS”.

Is DTC “C3250” detected?

YES >> Proceed to BRC-915, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570316

1.PERFORM SELF-DIAGNOSIS FOR STEERING COLUMN CONTROL MODULE

With CONSULT

Perform self-diagnosis for “SCCM”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-61, "DTC Index".
NO >> INSPECTION END

C3254 STEERING COLUMN CONTROL MODULE SYSTEM

DTC Description

INFOID:0000000013570317

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C3254	00	CAN message multifunction camera [The CAN message from control unit (Multifunction camera) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed 400 rpm or more
				Signal (terminal)	CAN communication
				Threshold	—
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- CAN communication has a malfunction
- Steering column control module

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   engine speed is 400 rpm or more.
2. Perform self-diagnosis for “ABS”.

Is DTC “C3254” detected?

YES >> Proceed to BRC-916, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570318

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the steering column control module. Refer to BCS-250, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C3256 STEERING COLUMN CONTROL MODULE SYSTEM

DTC Description

INFOID:0000000013570319

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C3256	00	COMMUNICATION ERROR (INVALID) [One or more signals sent from control unit (Steering column tube module control unit) via the CAN bus is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed is 400 rpm or more
				Signal (terminal)	—
				Threshold	—
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Steering column control module functions do not operate with the steering column control module interface according to specifications.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   Engine speed is 400 rpm or more.
2. Perform self-diagnosis for “ABS”.

Is DTC “C3256” detected?

YES >> Proceed to BRC-917, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570320

1.PERFORM SELF-DIAGNOSIS FOR STEERING COLUMN CONTROL MODULE

With CONSULT

Perform self-diagnosis for “SCCM”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-61, "DTC Index".
NO >> INSPECTION END

C3260 CONTROL UNIT

DTC Description

INFOID:0000000013570321

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C3260	00	Configuration of ESP control unit [The coding of Control unit (Electronic Stability Program control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed is 400 rpm or more
				Signal (terminal)	—
				Threshold	—
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Standstill control (SSK) in the electronic stability program control unit not coded.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   Engine speed is 400 rpm or more.
2. Perform self-diagnosis for “ABS”.

Is DTC “C3260” detected?

YES >> Proceed to BRC-918, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570322

1.CHECK CODING

Check the coding in electronic stability program control unit.

Is the inspection result normal?

YES >> Perform configuration. Refer to BRC-85, "Description".
NO >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

C3261 CONTROL UNIT

DTC Description

INFOID:0000000013570323

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C3261	00	2/4 wheel drive status input (subfault) [The signal of component (Brake light switch) is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed is 400 rpm or more
				Signal (terminal)	Brake light switch
				Threshold	—
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Electronic stability program control unit functions do not operate with the electronic stability program control unit interface according to specifications.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Start the engine.
   NOTE:
   Engine speed is 400 rpm or more.
3. Perform self-diagnosis for “ABS”.

Is DTC “C3261” detected?

YES >> Proceed to BRC-919, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570324

1.PRECAUTION

After performing this procedure, perform the following steps to erase stored DTC:

- **Turn ignition switch OFF.**
- **Turn ignition switch ON.**
- **Fully depress the brake pedal to operate the brake light switch.**
- **Erase DTC.**

>> GO TO 2.

2.COMPONENT FUNCTION CHECK

With CONSULT

1. Turn ignition switch ON.
2. On CONSULT screen, select “ABS” >> “DATA MONITOR”.
3. Select the following items:

- Signal high of brake light SW

- Signal low of brake light SW

4. Check the actual value of each items under the following conditions:

Monitor item	Condition	Value
Signal high of brake light SW	Brake pedal: Fully released	Off
	Brake pedal: Depressed	On
Signal low of brake light SW	Brake pedal: Fully released	Off
	Brake pedal: Depressed	On

Without CONSULT

1. Turn ignition switch ON.
2. Check the voltage between brake light switch harness connector and ground under the following conditions:

Brake light switch			Condition	Voltage (Approx.)
Connector	+	-		
	Terminal			
E9	3	2	Brake pedal: Fully released	Less than 2 V
			Brake pedal: Depressed	More than 10 V
	4		Brake pedal: Fully released	Less than 2 V
			Brake pedal: Depressed	More than 10 V

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 3.

3. CHECK BRAKE LIGHT SWITCH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector and brake light switch harness connector.
3. Check the continuity between electronic stability program control unit harness connector and brake light switch harness connector.

Electronic stability program control unit		Brake light switch		Continuity
Connector	Terminal	Connector	Terminal	
E46	6	E9	4	Existed
	30		3	
	32		2	
	35		1	

4. Check harness for short to power and short to ground.

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace error-detected parts.

4. CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT

Check electronic stability program control unit power supply and ground circuit. Refer to BRC-965, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Replace brake light switch. Refer to BR-17, "Exploded View".
NO >> Repair or replace error-detected parts.

C3263 ENGINE SYSTEM

DTC Description

INFOID:0000000013570325

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C3263	00	Signal from ECM is implausible [One or more signals sent from control unit (Engine) via the CAN bus is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed is 400 rpm or more
				Signal (terminal)	—
				Threshold	Side shaft moment implausible
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- ECM functions do not operate with the ECM interface according to specifications.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   Engine speed is 400 rpm or more.
2. Perform self-diagnosis for “ABS”.

Is DTC “C3263” detected?

YES >> Proceed to BRC-921, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570326

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C3275 CONTROL UNIT

DTC Description

INFOID:0000000013570327

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C3275	00	Software of EPS C/U is incompatible [The software of Control unit (Electronic Stability Program control unit) is incompatible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed is 400 rpm or more
				Signal (terminal)	—
				Threshold	—
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Vehicle dynamics control (VDC) functions do not operate with the motor and brake torque interface according to specifications.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   Engine speed is 400 rpm or more.
2. Perform self-diagnosis for “ABS”.

Is DTC “C3275” detected?

YES >> Proceed to BRC-922, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570328

1.PERFORM CONFIGURATION

With CONSULT

Perform configuration. Refer to BRC-85, "Description"

>> GO TO 2.

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
2. Start the engine.
   NOTE:
   - Wait at least 10 seconds after start the engine.
   - Engine speed is 400 rpm or more.

3. Perform self-diagnosis for “ABS”.

Is DTC “C3275” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C3285 ENGINE SYSTEM

DTC Description

INFOID:0000000013570329

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C3285	00	Signal from ECM is implausible [One or more signals sent from control unit (Engine) via the CAN bus is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed is 400 rpm or more
				Signal (terminal)	—
				Threshold	—
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- ECM functions do not operate with the ECM interface according to specifications.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   Engine speed is 400 rpm or more.
2. Perform self-diagnosis for “ABS”.

Is DTC “C3285” detected?

YES >> Proceed to BRC-924, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570330

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C3289 ELECTRONIC IGNITION SWITCH CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013570331

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C3289	00	CAN message E-IGN lock C/U [The CAN message from control unit (Electronic ignition lock control unit) is malfunction]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed is 400 rpm or more
				Signal (terminal)	—
				Threshold	—
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

—

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   Engine speed is 400 rpm or more.
2. Perform self-diagnosis for “ABS”.

Is DTC “C3289” detected?

YES >> Proceed to BRC-925, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570332

1.PERFORM SELF-DIAGNOSIS FOR ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch control unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C328A ELECTRIC PARKING BRAKE SYSTEM

DTC Description

INFOID:0000000013570333

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C328A	00	Signal from EPKB C/U is implausible [One or more signals sent from control unit (Electric parking brake control unit) via the CAN bus is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed is 400 rpm or more
				Signal (terminal)	—
				Threshold	—
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Electric parking brake function do not operate with the electric parking brake function interface according to specifications.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   Engine speed is 400 rpm or more.
2. Perform self-diagnosis for “ABS”.

Is DTC “C328A” detected?

YES >> Proceed to BRC-926, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570334

1.PERFORM SELF-DIAGNOSIS FOR ELECTRIC PARKING BRAKE CONTROL MODULE

With CONSULT

Perform self-diagnosis for “EHS/PKB”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C3295 CONTROL UNIT

DTC Description

INFOID:0000000013570335

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C3295	00	Software of EPS C/U is incompatible [The software of Control unit (Electronic Stability Program control unit) is incompatible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed > 400 rpm
				Signal (terminal)	—
				Threshold	Requested braking moment at the same time-requested engine moment
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- Vehicle dynamics control (VDC) functions do not operate with the motor and brake torque interface according to specifications.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine and more than 400 rpm.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Perform self-diagnosis for “ABS”.

Is DTC “C3295” detected?

YES >> Proceed to BRC-927, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570336

1.PERFORM CONFIGURATION

With CONSULT

Perform configuration. Refer to BRC-85, "Description"

>> GO TO 2.

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Turn the ignition switch OFF.

NOTE:
Wait at least 10 seconds after turning ignition switch OFF.

2. Start the engine and more than 400 rpm.

NOTE:
Wait at least 10 seconds after start the engine.

3. Perform self-diagnosis for “ABS”.

Is DTC “C3295” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C3296 CONTROL UNIT

DTC Description

INFOID:0000000013570337

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C3296	00	Software of EPS C/U is incompatible [The software of Control unit (Electronic Stability Program control unit) is incompatible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed > 400 rpm
				Signal (terminal)	—
				Threshold	Driver brakes and cruise control remains active.
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- Vehicle dynamics control (VDC) functions do not operate with the motor and brake torque interface according to specifications.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine and more than 400 rpm.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Perform self-diagnosis for “ABS”.

Is DTC “C3296” detected?

YES >> Proceed to BRC-929, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570338

1.PERFORM CONFIGURATION

With CONSULT

Perform configuration. Refer to BRC-85, "Description"

>> GO TO 2.

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Turn the ignition switch OFF.

NOTE:
Wait at least 10 seconds after turning ignition switch OFF.

2. Start the engine and more than 400 rpm.

NOTE:
Wait at least 10 seconds after start the engine.

3. Perform self-diagnosis for “ABS”.

Is DTC “C3296” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C3297 CONTROL UNIT

DTC Description

INFOID:0000000013570339

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C3297	00	Software of EPS C/U is incompatible [The software of Control unit (Electronic Stability Program control unit) is incompatible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed > 400 rpm
				Signal (terminal)	—
				Threshold	Cruise control speed is too high.
				Diagnosis delay time	1000 ms

POSSIBLE CAUSE

- Vehicle dynamics control (VDC) functions do not operate with the motor and brake torque interface according to specifications.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine and more than 400 rpm.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Perform self-diagnosis for “ABS”.

Is DTC “C3297” detected?

YES >> Proceed to BRC-931, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570340

1.PERFORM CONFIGURATION

With CONSULT

Perform configuration. Refer to BRC-85, "Description"

>> GO TO 2.

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Turn the ignition switch OFF.

NOTE:
Wait at least 10 seconds after turning ignition switch OFF.

2. Start the engine and more than 400 rpm

NOTE:
Wait at least 10 seconds after start the engine.

3. Perform self-diagnosis for “ABS”.

Is DTC “C3297” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C3298 CONTROL UNIT

DTC Description

INFOID:0000000013570341

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C3298	00	Software of EPS C/U is incompatible [The software of Control unit (Electronic Stability Program control unit) is incompatible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed > 400 rpm
				Signal (terminal)	—
				Threshold	Cruise control delay is too high
				Diagnosis delay time	1000 ms

POSSIBLE CAUSE

- Vehicle dynamics control (VDC) functions do not operate with the motor and brake torque interface according to specifications.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine and more than 400 rpm.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Perform self-diagnosis for “ABS”.

Is DTC “C3298” detected?

YES >> Proceed to BRC-933, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570342

1.PERFORM CONFIGURATION

With CONSULT

Perform configuration. Refer to BRC-85, "Description"

>> GO TO 2.

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Turn the ignition switch OFF.

NOTE:
Wait at least 10 seconds after turning ignition switch OFF.

2. Start the engine and more than 400 rpm.

NOTE:
Wait at least 10 seconds after start the engine.

3. Perform self-diagnosis for “ABS”.

Is DTC “C3298” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C3299 CONTROL UNIT

DTC Description

INFOID:0000000013570343

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C3299	00	Software of EPS C/U is incompatible [The software of Control unit (Electronic Stability Program control unit) is incompatible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed > 400 rpm
				Signal (terminal)	—
				Threshold	Active driver and cruise control brakes
				Diagnosis delay time	2000 ms

POSSIBLE CAUSE

- Vehicle dynamics control (VDC) functions do not operate with the motor and brake torque interface according to specifications.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine and more than 400 rpm.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Perform self-diagnosis for “ABS”.

Is DTC “C3299” detected?

YES >> Proceed to BRC-935, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570344

1.PERFORM CONFIGURATION

With CONSULT

Perform configuration. Refer to BRC-85, "Description"

>> GO TO 2.

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Turn the ignition switch OFF.

NOTE:
Wait at least 10 seconds after turning ignition switch OFF.

2. Start the engine and more than 400 rpm.

NOTE:
Wait at least 10 seconds after start the engine.

3. Perform self-diagnosis for “ABS”.

Is DTC “C3299” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C329B CONTROL UNIT

DTC Description

INFOID:0000000013570345

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C329B	00	Software of EPS C/U is incompatible [The software of Control unit (Electronic Stability Program control unit) is incompatible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed > 400 rpm
				Signal (terminal)	CAN communication
				Threshold	Active driver and APC active
				Diagnosis delay time	2000 ms

POSSIBLE CAUSE

- Vehicle dynamics control (VDC) functions do not operate with the motor and brake torque interface according to specifications.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Start the engine and more than 400 rpm.
   NOTE:
   Wait at least 10 seconds after start the engine.
6. Perform self-diagnosis for “ABS”.

Is DTC “C329B” detected?

YES >> Proceed to BRC-937, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570346

1.PERFORM CONFIGURATION

With CONSULT

Perform configuration. Refer to BRC-85, "Description"

>> GO TO 2.

2.PERFORM SELF-DIAGNOSIS

With CONSULT

1. Turn the ignition switch OFF.

NOTE:
Wait at least 10 seconds after turning ignition switch OFF.

2. Start the engine and more than 400 rpm.

NOTE:
Wait at least 10 seconds after start the engine.

3. Perform self-diagnosis for “ABS”.

Is DTC “C329B” detected?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".

NO >> INSPECTION END

C3334 ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570347

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C3334	00	Software version of CPA C/U is old [The software version of control unit (COLLISION PREVENTION ASSIST controller unit) is too old]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed is 400 rpm or more
				Signal (terminal)	—
				Threshold	—
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Brake torque interface according to specifications.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   Engine speed is 400 rpm or more.
2. Perform self-diagnosis for “ABS”.

Is DTC “C3334” detected?

YES >> Proceed to BRC-939, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570348

1.REPLACE ICC SENSOR

Replace the ICC sensor. Refer to BRC-1009, "Removal and Installation".

>> INSPECTION END

C3340 ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570349

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C3340	00	Software version of CPA C/U is old [The software version of control unit (COLLISION PREVENTION ASSIST controller unit) is too old]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed is 400 rpm or more
				Signal (terminal)	—
				Threshold	—
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Brake torque interface according to specifications.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   Engine speed is 400 rpm or more.
2. Perform self-diagnosis for “ABS”.

Is DTC “C3340” detected?

YES >> Proceed to BRC-940, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570350

1.REPLACE ICC SENSOR

Replace the ICC sensor. Refer to BRC-1009, "Removal and Installation".

>> INSPECTION END

C3341 ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570351

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C3341	00	Software version of CPA C/U is old [The software version of control unit (COLLISION PREVENTION ASSIST controller unit) is too old]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed is 400 rpm or more
				Signal (terminal)	—
				Threshold	—
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Brake torque interface according to specifications.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   Engine speed is 400 rpm or more.
2. Perform self-diagnosis for “ABS”.

Is DTC “C3341” detected?

YES >> Proceed to BRC-941, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570352

1.REPLACE ICC SENSOR

Replace the ICC sensor. Refer to BRC-1009, "Removal and Installation".

>> INSPECTION END

C3342 ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570353

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C3342	00	Software version of CPA C/U is old [The software version of control unit (COLLISION PREVENTION ASSIST controller unit) is too old]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed is 400 rpm or more
				Signal (terminal)	—
				Threshold	—
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- Brake torque interface according to specifications.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   Engine speed is 400 rpm or more.
2. Perform self-diagnosis for “ABS”.

Is DTC “C3342” detected?

YES >> Proceed to BRC-942, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570354

1.REPLACE ICC SENSOR

Replace the ICC sensor. Refer to BRC-1009, "Removal and Installation".

>> INSPECTION END

C3343 ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570355

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C3343	00	Software version of CPA C/U is old [The software version of control unit (COLLISION PREVENTION ASSIST controller unit) is too old]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed is 400 rpm or more
				Signal (terminal)	—
				Threshold	—
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- Brake torque interface according to specifications.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   Engine speed is 400 rpm or more.
2. Perform self-diagnosis for “ABS”.

Is DTC “C3343” detected?

YES >> Proceed to BRC-943, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570356

1.REPLACE ICC SENSOR

Replace the ICC sensor. Refer to BRC-1009, "Removal and Installation".

>> INSPECTION END

C3344 ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570357

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C3344	00	Software version of CPA C/U is old [The software version of control unit (COLLISION PREVENTION ASSIST controller unit) is too old]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed is 400 rpm or more
				Signal (terminal)	—
				Threshold	—
				Diagnosis delay time	1000 ms

POSSIBLE CAUSE

- Brake torque interface according to specifications.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   Engine speed is 400 rpm or more.
2. Perform self-diagnosis for “ABS”.

Is DTC “C3344” detected?

YES >> Proceed to BRC-944, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570358

1.REPLACE ICC SENSOR

Replace the ICC sensor. Refer to BRC-1009, "Removal and Installation".

>> INSPECTION END

C3345 ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570359

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C3345	00	Software version of CPA C/U is old [The software version of control unit (COLLISION PREVENTION ASSIST controller unit) is too old]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed is 400 rpm or more
				Signal (terminal)	—
				Threshold	—
				Diagnosis delay time	1000 ms

POSSIBLE CAUSE

- Brake torque interface according to specifications.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   Engine speed is 400 rpm or more.
2. Perform self-diagnosis for “ABS”.

Is DTC “C3345” detected?

YES >> Proceed to BRC-945, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570360

1.REPLACE ICC SENSOR

Replace the ICC sensor. Refer to BRC-1009, "Removal and Installation".

>> INSPECTION END

C3346 ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570361

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C3346	00	Software version of CPA C/U is old [The software version of control unit (COLLISION PREVENTION ASSIST controller unit) is too old]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed is 400 rpm or more
				Signal (terminal)	—
				Threshold	—
				Diagnosis delay time	2000 ms

POSSIBLE CAUSE

- Brake torque interface according to specifications.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   Engine speed is 400 rpm or more.
2. Perform self-diagnosis for “ABS”.

Is DTC “C3346” detected?

YES >> Proceed to BRC-946, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570362

1.REPLACE ICC SENSOR

Replace the ICC sensor. Refer to BRC-1009, "Removal and Installation".

>> INSPECTION END

C3347 ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570363

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C3347	00	Software version of CPA C/U is old [The software version of control unit (COLLISION PREVENTION ASSIST controller unit) is too old]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed is 400 rpm or more
				Signal (terminal)	CAN communication
				Threshold	—
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- Brake torque interface according to specifications.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   Engine speed is 400 rpm or more.
2. Perform self-diagnosis for “ABS”.

Is DTC “C3347” detected?

YES >> Proceed to BRC-947, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570364

1.REPLACE ICC SENSOR

Replace the ICC sensor. Refer to BRC-1009, "Removal and Installation".

>> INSPECTION END

C3348 ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570365

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C3348	00	Software version of CPA C/U is old [The software version of control unit (COLLISION PREVENTION ASSIST controller unit) is too old]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed is 400 rpm or more
				Signal (terminal)	—
				Threshold	Is the kickdown signal equal 1, then the signal must be no later than 160 ms after the signal unequal 8 and unequal 9.
				Diagnosis delay time	160 ms

POSSIBLE CAUSE

- Brake torque interface according to specifications.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   Engine speed is 400 rpm or more.
2. Perform self-diagnosis for “ABS”.

Is DTC “C3348” detected?

YES >> Proceed to BRC-948, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570366

1.REPLACE ICC SENSOR

Replace the ICC sensor. Refer to BRC-1009, "Removal and Installation".

>> INSPECTION END

C3349 ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570367

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C3349	00	Software version of CPA C/U is old [The software version of control unit (COLLISION PREVENTION ASSIST controller unit) is too old]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed is 400 rpm or more
				Signal (terminal)	—
				Threshold	—
				Diagnosis delay time	300 ms (15 cycles)

POSSIBLE CAUSE

- Brake torque interface according to specifications.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   Engine speed is 400 rpm or more.
2. Perform self-diagnosis for “ABS”.

Is DTC “C3349” detected?

YES >> Proceed to BRC-949, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570368

1.REPLACE ICC SENSOR

Replace the ICC sensor. Refer to BRC-1009, "Removal and Installation".

>> INSPECTION END

C334A ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570369

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C334A	00	Software version of CPA C/U is old [The software version of control unit (COLLISION PREVENTION ASSIST controller unit) is too old]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed is 400 rpm or more
				Signal (terminal)	—
				Threshold	—
				Diagnosis delay time	300 ms (15 cycles)

POSSIBLE CAUSE

- Brake torque interface according to specifications.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   Engine speed is 400 rpm or more.
2. Perform self-diagnosis for “ABS”.

Is DTC “C334A” detected?

YES >> Proceed to BRC-950, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570370

1.REPLACE ICC SENSOR

Replace the ICC sensor. Refer to BRC-1009, "Removal and Installation".

>> INSPECTION END

C334C ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570371

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C334C	00	Software version of CPA C/U is old. [The software version of control unit (COLLISION PREVENTION ASSIST controller unit) is too old]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed is 400 rpm or more
				Signal (terminal)	—
				Threshold	Speed reduction is too high or too long holding period standstill.
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Brake torque interface according to specifications.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   Engine speed is 400 rpm or more.
2. Perform self-diagnosis for “ABS”.

Is DTC “C334C” detected?

YES >> Proceed to BRC-951, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570372

1.REPLACE ICC SENSOR

Replace the ICC sensor. Refer to BRC-1009, "Removal and Installation".

>> INSPECTION END

C3385 ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570373

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C3385	00	Software version of CPA C/U is old [The software version of control unit (COLLISION PREVENTION ASSIST controller unit) is too old]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed is 400 rpm or more
				Signal (terminal)	—
				Threshold	—
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Brake torque interface according to specifications.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   Engine speed is 400 rpm or more.
2. Perform self-diagnosis for “ABS”.

Is DTC “C3385” detected?

YES >> Proceed to BRC-952, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570374

1.REPLACE ICC SENSOR

Replace the ICC sensor. Refer to BRC-1009, "Removal and Installation".

>> INSPECTION END

C3386 ICC SENSOR/DISTANCE SENSOR SYSTEM

DTC Description

INFOID:0000000013570375

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C3386	00	Software version of CPA C/U is old [The software version of control unit (COLLISION PREVENTION ASSIST controller unit) is too old]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed is 400 rpm or more
				Signal (terminal)	—
				Threshold	—
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Brake torque interface according to specifications.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   Engine speed is 400 rpm or more.
2. Perform self-diagnosis for “ABS”.

Is DTC “C3386” detected?

YES >> Proceed to BRC-953, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570376

1.REPLACE ICC SENSOR

Replace the ICC sensor. Refer to BRC-1009, "Removal and Installation".

>> INSPECTION END

C3500 SONAR CONTROL UNIT SYSTEM

DTC Description

INFOID:0000000013570377

DTC DETECTION LOGIC

DTC		CONSULT screen item		DTC detected condition	
		[Trouble diagnosis content]	[Malfunction type]		
C3500	00	Signal from PKB C/U is implausible [One or more signals sent from control unit (Parking system control unit) via the CAN bus is implausible]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Engine speed > 400 rpm or more
				Signal (terminal)	—
				Threshold	—
				Diagnosis delay time	0 ms

POSSIBLE CAUSE

- Sonar function does not control the sonar control unit interface in occurRence with the specification

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Start the engine.
   NOTE:
   Engine speed is 400 rpm or more.
2. Perform self-diagnosis for “ABS”.

Is DTC “C3500” detected?

YES >> Proceed to BRC-954, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570378

1.PERFORM SELF-DIAGNOSIS OF SONAR CONTROL UNIT

With CONSULT

Perform self-diagnosis for “SONAR”. Refer to SN-30, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to SN-39, "DTC Index".
NO >> INSPECTION END

C3600 TRAILER VIBRATION DAMPING FUNCTION

DTC Description

INFOID:0000000013570379

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C3600	00	ESP control [ESP control]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the trailer vibration damping control occurred active, then a trailer vibration damping event is set in a time frame is started. Within this time frame with each new trailer vibration damping event will be checked whether a trailer vibration damping entry already exists. Only after the time frame has expired a new trailer vibration damping event can may be set again. This feature protects the EEPROM prior to many trailer vibration damping entries.
				Diagnosis delay time	40 ms

POSSIBLE CAUSE

- Trailer vibration damping control was active and a trailer vibration damping event was set in the customer diagnostic memory.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C3600” detected?

YES >> Proceed to BRC-955, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570380

1.ERASE SELF-DIAGNOSIS RESULT

With CONSULT
Erase self-diagnosis result for “ABS”.

>> INSPECTION END

C3601 VEHICLE DYNAMICS CONTROL (VDC) FUNCTION

DTC Description

INFOID:0000000013570381

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C3601	00	ESP control [ESP® control]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the vehicle dynamics control (VDC) control occurred active, then a vehicle dynamics control (VDC) event is set in a time frame is started. Within this time frame with each new vehicle dynamics control (VDC) event will be checked whether a vehicle dynamics control (VDC) entry already exists. Only after the time frame has expired a new vehicle dynamics control (VDC) event can may be set again. This feature protects the EEPROM prior to many vehicle dynamics control (VDC) entries.
				Diagnosis delay time	160 ms

POSSIBLE CAUSE

- Vehicle dynamics control (VDC) control was active and a vehicle dynamics control (VDC) event was set in the customer diagnostic memory.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C3601” detected?

YES >> Proceed to BRC-957, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570382

1.ERASE SELF-DIAGNOSIS RESULT

With CONSULT
Erase self-diagnosis result for “ABS”.

>> INSPECTION END

C3604 YAW MOMENT INTERFACE FUNCTION

DTC Description

INFOID:0000000013570383

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C3604	00	ESP control [ESP control]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the yaw moment interface control occurred active, then a yaw moment interface event is set in a time frame is started. Within this time frame with each new yaw moment interface event will be checked whether a yaw moment interface entry already exists. Only after the time frame has expired a new yaw moment interface event can may be set again. This feature protects the EEPROM prior to many yaw moment interface entries.
				Diagnosis delay time	40 ms

POSSIBLE CAUSE

- Yaw moment interface control was active and an yaw moment interface event was set in the customer diagnostic memory.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C3604” detected?

YES >> Proceed to BRC-959, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570384

1.ERASE SELF-DIAGNOSIS RESULT

With CONSULT
Erase self-diagnosis result for “ABS”.

>> INSPECTION END

C3605 HYDRAULICAL BRAKE ASSISTANT FUNCTION

DTC Description

INFOID:0000000013570385

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C3605	00	BAS control [BAS control]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the hydraulic brake assistant control occurred active, then a hydraulic brake assistant event is set in a time frame is started. Within this time frame with each new hydraulic brake assistant event will be checked whether a hydraulic brake assistant entry already exists. Only after the time frame has expired a new hydraulic brake assistant event can may be set again. This feature protects the EEPROM prior to many hydraulic brake assistant entries.
				Diagnosis delay time	400 ms

POSSIBLE CAUSE

- Hydraulic brake assistant (HBA) control was active and an hydraulic brake assistant (HBA) event was set in the customer diagnostic memory.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C3605” detected?

YES >> Proceed to BRC-961, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570386

1.ERASE SELF-DIAGNOSIS RESULT

With CONSULT
Erase self-diagnosis result for “ABS”.

>> INSPECTION END

C3606 ANTI-LOCK BRAKING SYSTEM (ABS) FUNCTION

DTC Description

INFOID:0000000013570387

DTC DETECTION LOGIC

DTC		CONSULT screen item [Trouble diagnosis content]	CONSULT screen item [Malfunction type]	DTC detected condition	
C3606	00	ABS control [ABS control]	[NO SUBTYPE INFORMATION]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication
				Threshold	If the anti-lock brake system (ABS) control occurred active, then an anti-lock brake system (ABS) event is set in a time frame is started. Within this time frame with each new anti-lock brake system (ABS) event will be checked whether an anti-lock brake system (ABS) entry already exists. Only after the time frame has expired a new anti-lock brake system (ABS) event can may be set again. This feature protects the EEPROM prior to many anti-lock brake system (ABS) entries.
				Diagnosis delay time	400 ms

POSSIBLE CAUSE

- Anti-lock brake system (ABS) regulation was active and an anti-lock brake system (ABS) event was set in the customer diagnostic memory.

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

With CONSULT

1. Vehicle on a flat area (standstill).
2. Turn the ignition switch ON.
3. Erase self-diagnosis result for “ABS”.
4. Turn the ignition switch OFF.
   NOTE:
   Wait at least 10 seconds after turning ignition switch OFF.
5. Turn the ignition switch ON.
   NOTE:
   Wait at least 10 seconds after turning ignition switch ON.
6. Perform self-diagnosis for “ABS”.

Is DTC “C3606” detected?

YES >> Proceed to BRC-963, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013570388

1.ERASE SELF-DIAGNOSIS RESULT

With CONSULT
Erase self-diagnosis result for “ABS”.

>> INSPECTION END

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000013570389

1.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT BATTERY POWER SUPPLY

1. Turn the ignition switch OFF.
2. Disconnect electronic stability program control unit harness connector.
3. Check the voltage between electronic stability program control unit harness connector and ground.

+		–	Voltage (Approx.)
Electronic stability program control unit			
Connector	Terminal		
E46	1	Ground	Battery voltage
	7		
	25		
	28		

Is the inspection result normal?

YES >> GO TO 3.
NO >> GO TO 2.

2.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT BATTERY POWER SUPPLY CIRCUIT

1. Turn the ignition switch OFF.
2. Check the 40A fuse (#237).
3. Check the 5A fuse (#218).
4. Check the 25A fuse (#204).
5. Check the 5A fuse (#230).
6. Disconnect fuse and fusible link block 1 harness connector.
7. Check the continuity between electronic stability program control unit harness connector and fuse and fusible link block 1 harness connector.

Electronic stability program control unit		Fuse and fusible link block 1		Continuity
Connector	Terminal	Connector	Terminal	
E46	1	E61	26	Existed
	7	E57	22	
	25	E54	1	
	28	E56	16	

8. Check the continuity between electronic stability program control unit harness connector and ground.

Electronic stability program control unit		—	Continuity
Connector	Terminal		
E46	1	Ground	No existed
	7		
	25		
	28		

Is the inspection result normal?

YES >> Perform trouble diagnosis for battery power supply.
NO >> Repair / replace harness, connector, or fuse.

3.CHECK ELECTRONIC STABILITY PROGRAM CONTROL UNIT GROUND CIRCUIT

Check the continuity between electronic stability program control unit harness connector and the ground.

Electronic stability program control unit		—	Continuity
Connector	Terminal		
E46	13	Ground	Existed
	38		

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair / replace harness, connector, or terminal.

4.CHECK TERMINAL

1. Check the electronic stability program control unit pin terminals for damage or loose connection with harness connector.
2. Check the fuse and fusible link block 1 pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".
NO >> Repair / replace harness, connector, or terminal.

REMOVAL AND INSTALLATION

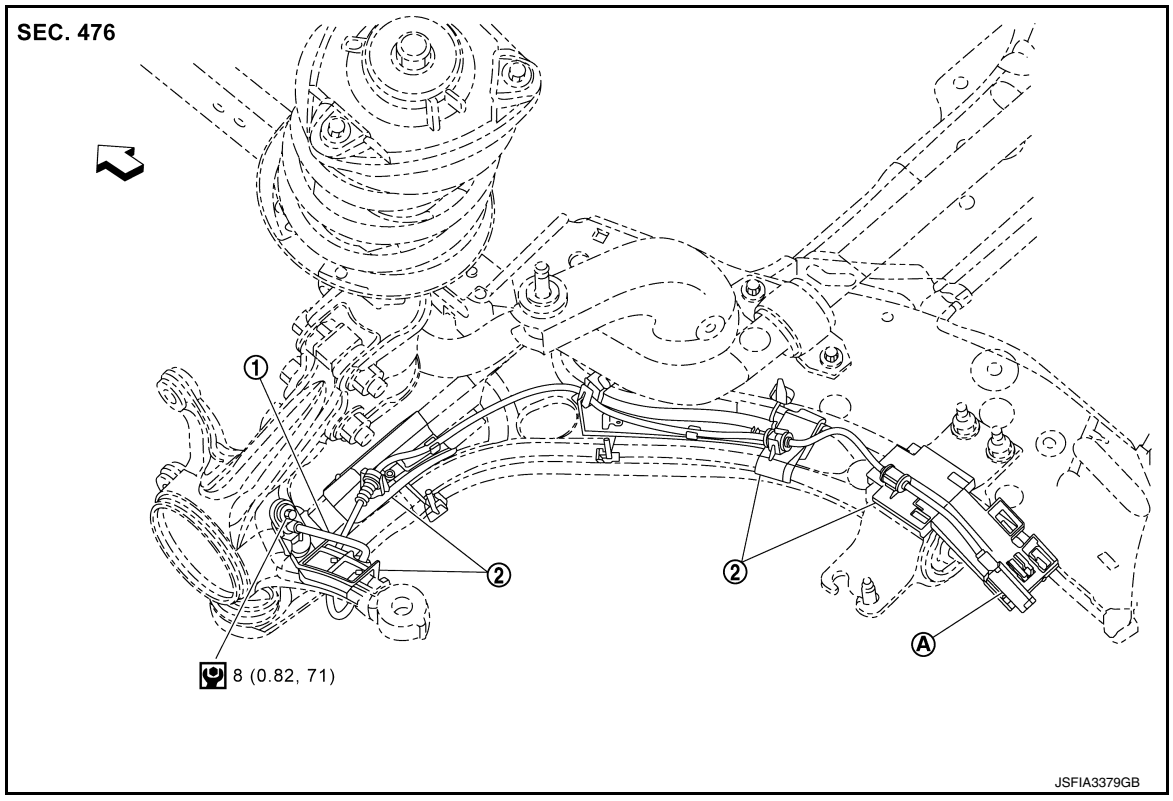
WHEEL SENSOR

FRONT AXLE RPM SENSOR

FRONT AXLE RPM SENSOR : Exploded View

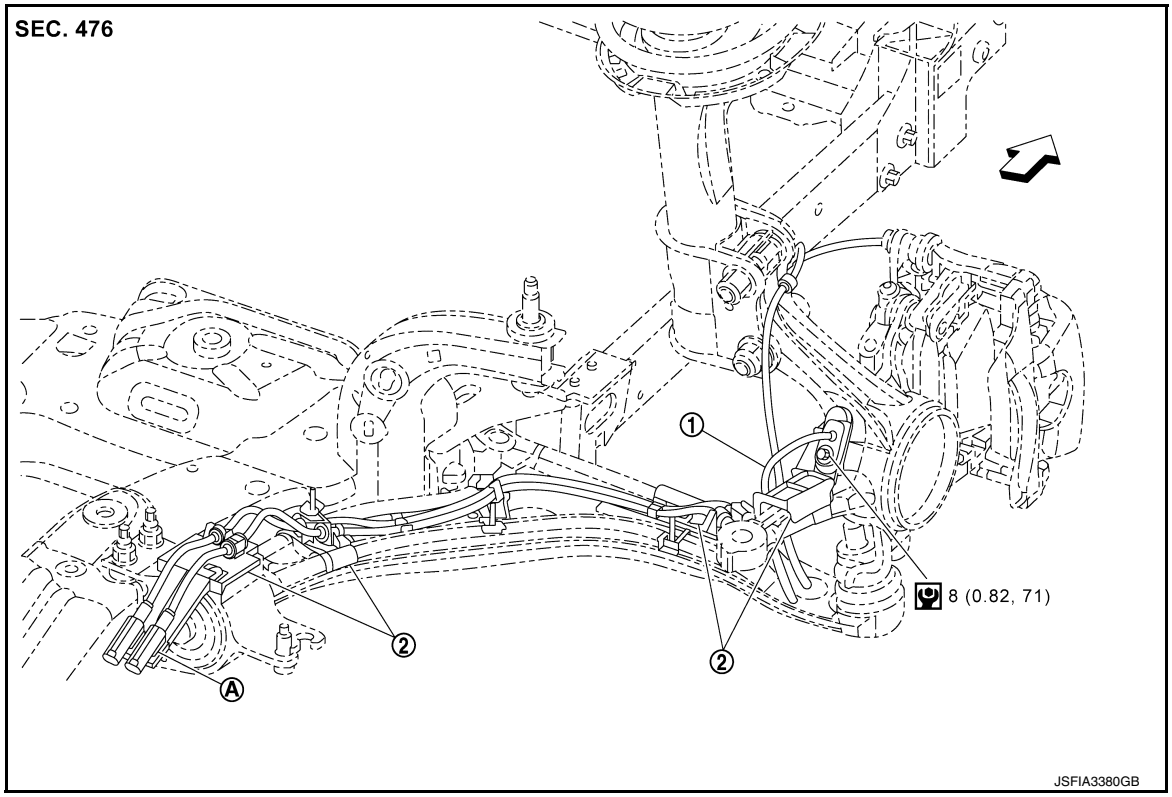
INFOID:0000000013570390

LEFT SIDE



① Front LH axle rpm sensor
② Harness bracket
Ⓐ Front LH axle rpm sensor harness connector
⇦: Vehicle front
: N·m (kg-m, in-lb)

RIGHT SIDE



① Front RH axle rpm sensor
② Harness bracket
Ⓐ Front RH axle rpm sensor harness connector
⇦: Vehicle front
: N·m (kg-m, in-lb)

FRONT AXLE RPM SENSOR : Removal and Installation

INFOID:0000000013570391

REMOVAL

1. Remove tires with power tool (commercial service tool). Refer to WT-70, "Exploded View".
2. Remove front axle rpm sensor from steering knuckle.
   CAUTION:
   Never rotate and never pull front axle rpm sensor as much as possible, when pulling out.
3. Remove front fender protector. Refer to EXT-41, "FENDER PROTECTOR : Removal and Installation".
4. Disconnect front axle rpm sensor harness connector.
5. Remove front axle rpm sensor harness and harness brackets from the transverse link.
   CAUTION:
   Never twist or pull front axle rpm sensor harness, when removing.

INSTALLATION

Note the following, and install in the reverse order of the removal.

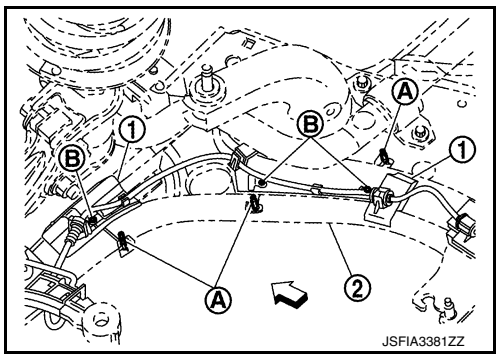
CAUTION:

- **Never twist front axle rpm sensor harness when installing front axle rpm sensor.**
- **Never tensile load shall not be applied to the front axle rpm sensor harness.**
- Check that there is no foreign material like iron powder or damage of front axle rpm sensor pick-up. Install after cleaning when there are foreign material like iron powder, or replace when there is a malfunction.
- Check that there is no foreign material like iron powder or damage on inner surface of front axle rpm sensor mounting hole of steering knuckle and sensor rotor. Install after cleaning when there are foreign material like iron powder, or replace when there is a malfunction.
- Install harness brackets, follow the procedure below.

- Set harness brackets ① to the transverse link ②.

⇦ : Vehicle front

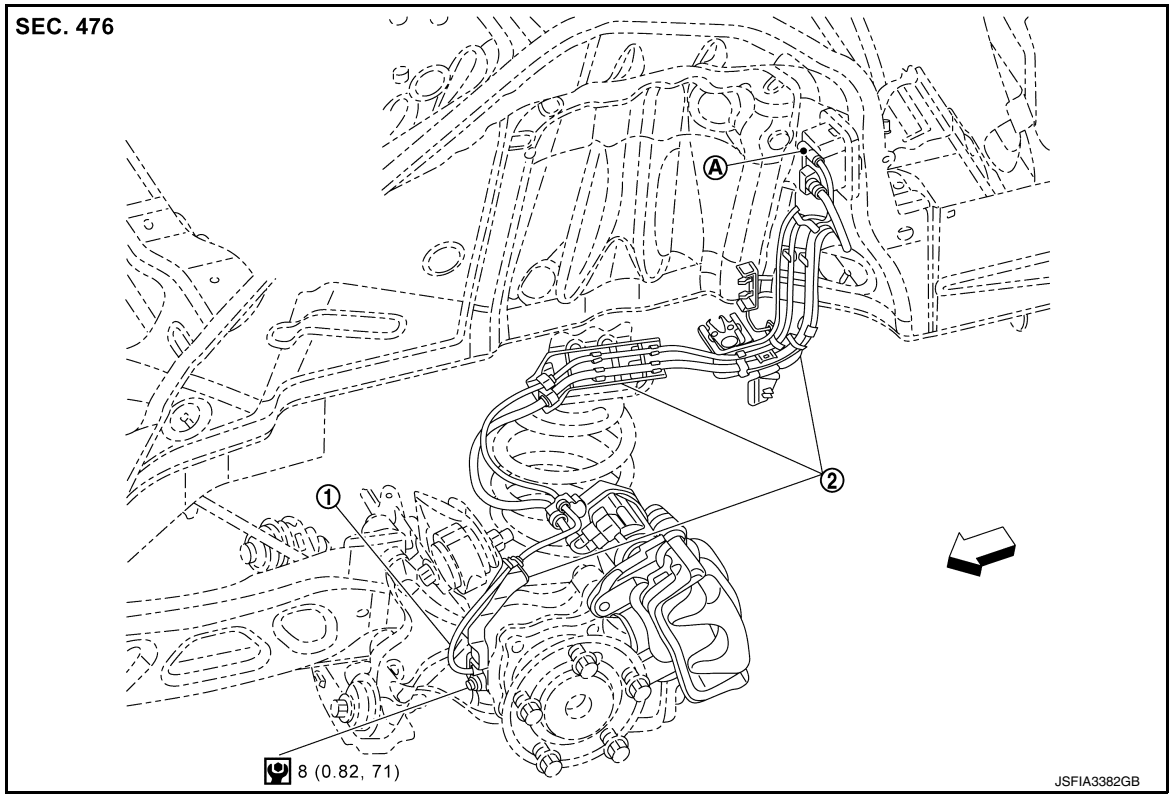
- Insert pins Ⓐ of harness brackets to holes Ⓑ of harness brackets until locks.



REAR AXLE RPM SENSOR

REAR AXLE RPM SENSOR : Exploded View

INFOID:0000000013570392



① Rear LH axle rpm sensor
② Harness bracket
Ⓐ Rear LH axle rpm sensor harness connector
⇦: Vehicle front
: N·m (kg-m, in-lb)

NOTE:
Rear RH axle rpm sensor is symmetrically opposite of LH.

REAR AXLE RPM SENSOR : Removal and Installation

INFOID:0000000013570393

REMOVAL

1. Remove tires with power tool (commercial service tool). Refer to WT-70, "Exploded View".
2. Remove rear axle rpm sensor from rear axle housing.
   CAUTION:
   Never rotate or pull rear axle rpm sensor as much as possible, when pulling out.

3. Disconnect rear axle rpm sensor harness connector.
4. Remove rear axle rpm sensor harness from harness brackets.
   CAUTION:
   Never twist and never pull rear axle rpm sensor harness, when removing.
5. Remove harness brackets from the vehicle.

INSTALLATION

Note the following, and install in the reverse order of the removal.

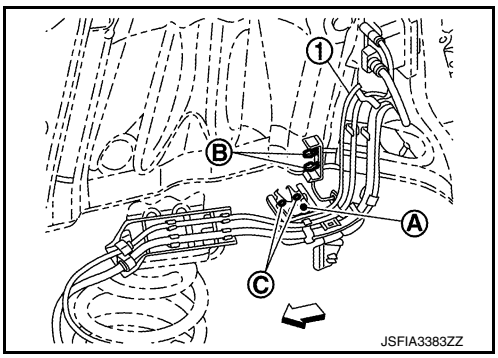
CAUTION:

- **Never twist rear axle rpm sensor harness when installing rear axle rpm sensor.**
- **Never tensile load shall not be applied to the rear axle rpm sensor harness.**
- Check that there is no foreign material like iron powder or damage of rear axle rpm sensor pick-up. Install after cleaning when there are foreign material like iron powder, or replace when there is a malfunction.
- Check that there is no foreign material like iron powder or damage on inner surface of rear axle rpm sensor mounting hole of steering knuckle and sensor rotor. Install after cleaning when there are foreign material like iron powder, or replace when there is a malfunction.
- Install harness brackets, follow the procedure below.

- Set harness bracket ① to the brake hose bracket Ⓐ.

⇦ : Vehicle front

- Insert pins Ⓑ of harness bracket to holes Ⓒ of brake hose bracket until locks.



SENSOR ROTOR

FRONT SENSOR ROTOR

FRONT SENSOR ROTOR : Removal and Installation

INFOID:0000000013570394

CAUTION:
Replace wheel bearing as an assembly when replacing because sensor rotor cannot be disassembled. Refer to FAX-12, "Disassembly and Assembly".

REAR SENSOR ROTOR

REAR SENSOR ROTOR : Removal and Installation

INFOID:0000000013570395

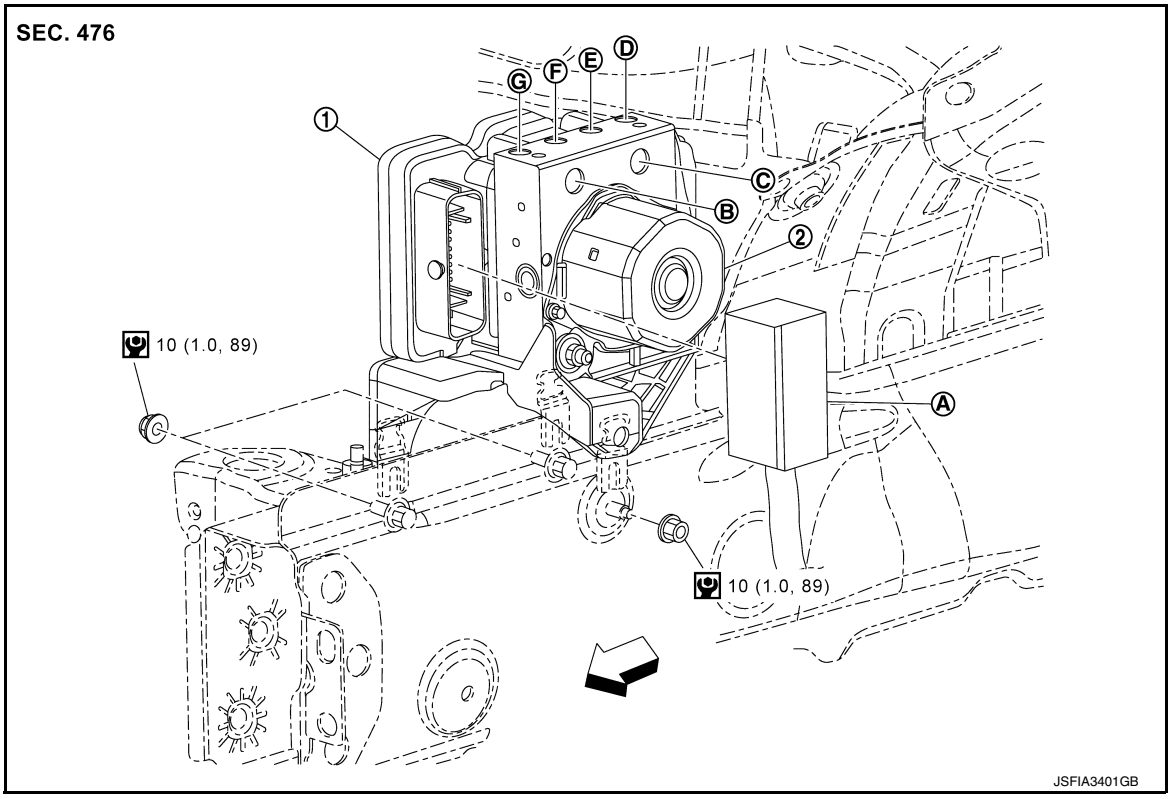
CAUTION:
Replace wheel hub assembly as an assembly when replacing because sensor rotor cannot be disassembled.

- **2WD: Refer to RAX-7, "Removal and Installation".**
- **AWD: Refer to RAX-17, "Removal and Installation".**

TRACTION SYSTEM HYDRAULIC UNIT

Exploded View

INFOID:0000000013570396



①	Electronic stability program control unit	②	Traction system hydraulic unit		
Ⓐ	Electronic stability program control unit harness connector	Ⓑ	To master cylinder secondary side	Ⓒ	To master cylinder primary side
Ⓓ	To rear LH brake	Ⓔ	To front RH brake	Ⓕ	To front LH brake
Ⓖ	To rear RH brake				

⇦: Vehicle front

: N·m (kg-m, in-lb)

Removal and Installation

INFOID:0000000013570397

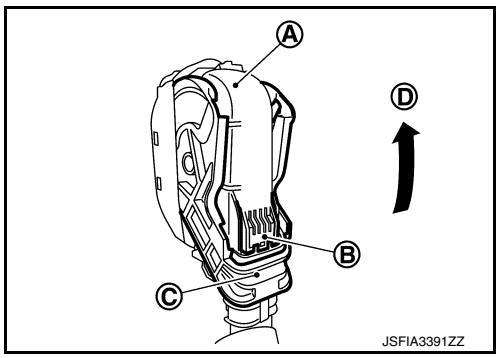
REMOVAL

CAUTION:

When replacing traction system hydraulic unit, the calibration of electronic stability program control unit is required. Refer to BRC-84, "Description".

1. Turn the ignition switch OFF.
2. Drain brake fluid. Refer to BR-11, "Draining".
3. Remove air cleaner housing assembly. Refer to EM-23, "Removal and Installation".

4. Disconnect electronic stability program control unit harness connector Ⓐ, follow the procedure described below.



CAUTION:
- **The following procedure for disconnecting the electronic stability program control unit harness connector must be followed. Otherwise, damage may be caused to the locking mechanism.**
- **Never touch, deform or damage electronic stability program control unit harness connector and of socket on electronic stability program control unit.**
- **Never allow any foreign objects, dirt or fluids to enter the socket or electronic stability program control unit harness connector. Otherwise, the electronic stability program control unit will be damaged and malfunction.**

NOTE:
Clean electronic stability program control unit and electronic stability program control unit harness connector in the area, using a [assembly cleaner (Adolf Würth GmbH & Co.KG), or equivalent].

a. Push the pawl Ⓑ.
b. Move the lever Ⓒ in the direction Ⓓ by approx. 90 degrees.

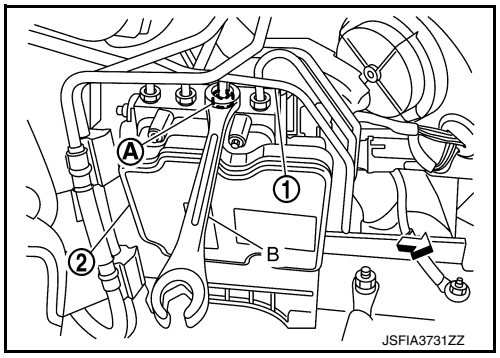
CAUTION:
Never use tool.

c. Disconnect electronic stability program control unit harness connector.

CAUTION:
Never handle the connector by lever. The lever can otherwise be damaged.

d. Move the lever downward until locked.

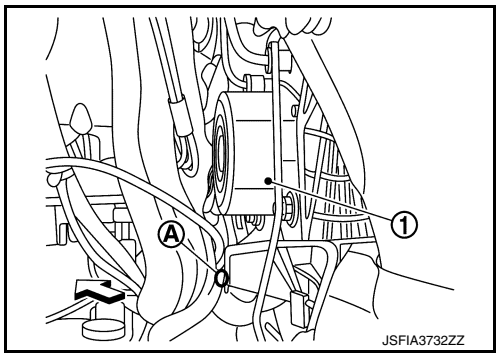
5. Remove left front tire with power tool (commercial service tool). Refer to WT-70, "Exploded View".
6. Remove left front fender protector. Refer to EXT-41, "FENDER PROTECTOR : Removal and Installation".
7. Loosen flare nuts Ⓐ of brake tubes ① using a flare nut wrench (B), and then remove brake tubes from traction system hydraulic unit ②. Refer to BR-20, "FRONT : Exploded View".



NOTE:
Clean traction system hydraulic unit in the area of the brake tubes, using a [assembly cleaner (Adolf Würth GmbH & Co.KG), or equivalent].

⇦ : Vehicle front

8. Remove clamp Ⓐ of electrical line from traction system hydraulic unit ①.



⇦ : Vehicle front

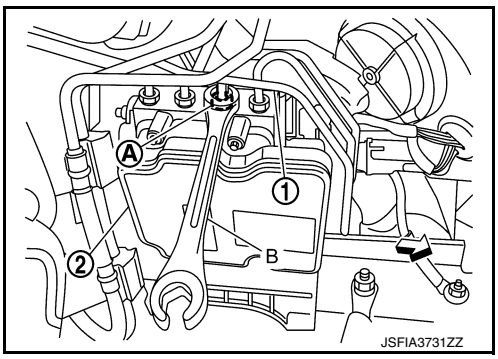
9. Remove traction system hydraulic unit mounting nuts.
10. Remove traction system hydraulic unit and electronic stability program control unit as a set.
11. Remove electronic stability program control unit from traction system hydraulic unit. Refer to BRC-975, "Removal and Installation".

INSTALLATION

Note the following, and install in the reverse order of removal.

CAUTION:
- **Never remove and install traction system hydraulic unit and electronic stability program control unit by holding electronic stability program control unit harness.**
- **Never apply excessive impact to traction system hydraulic unit and electronic stability program control unit, such as by dropping it.**

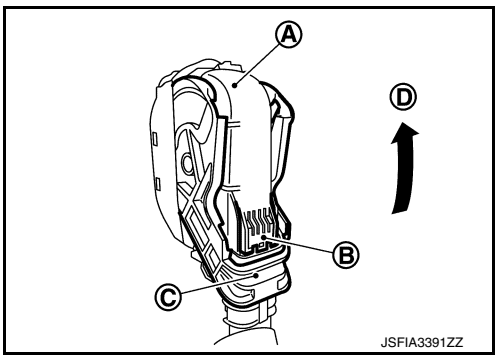
- When replacing with a new traction system hydraulic unit, never remove the protector of the brake tube mounting hole until right before the brake tube is installed.
- When installing brake tubes ① to traction system hydraulic unit ②, tighten to the specified torque using a flare nut torque wrench (B) so that flare nuts Ⓐ and brake tube are not damaged. Refer to BR-20, "FRONT : Exploded View".



- Install electronic stability program control unit harness connector Ⓐ, follow the procedure described below.

CAUTION:

- **The following procedure for installing the electronic stability program control unit harness connector must be followed. Otherwise, damage may be caused to the locking mechanism.**
- **Never touch, deform or damage electronic stability program control unit harness connector and of socket on electronic stability program control unit.**
- **Never allow any foreign objects, dirt or fluids to enter the socket or electronic stability program control unit harness connector. Otherwise, the electronic stability program control unit will be damaged and malfunction.**



- Push the pawl Ⓑ.
- Move the lever Ⓒ in the direction Ⓓ by approx. 90 degrees.

CAUTION:

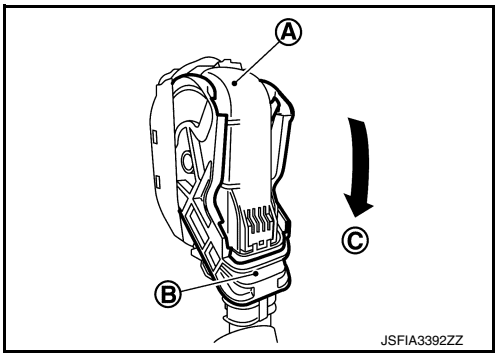
Never use tool.

- After installing the electronic stability program control unit harness connector Ⓐ, move the lever Ⓑ in the direction Ⓒ to secure the locking.

CAUTION:

Never handle the connector by lever. The lever can otherwise be damaged.

- Perform adjustment after installation. Refer to BRC-974, "Adjustment".



Adjustment

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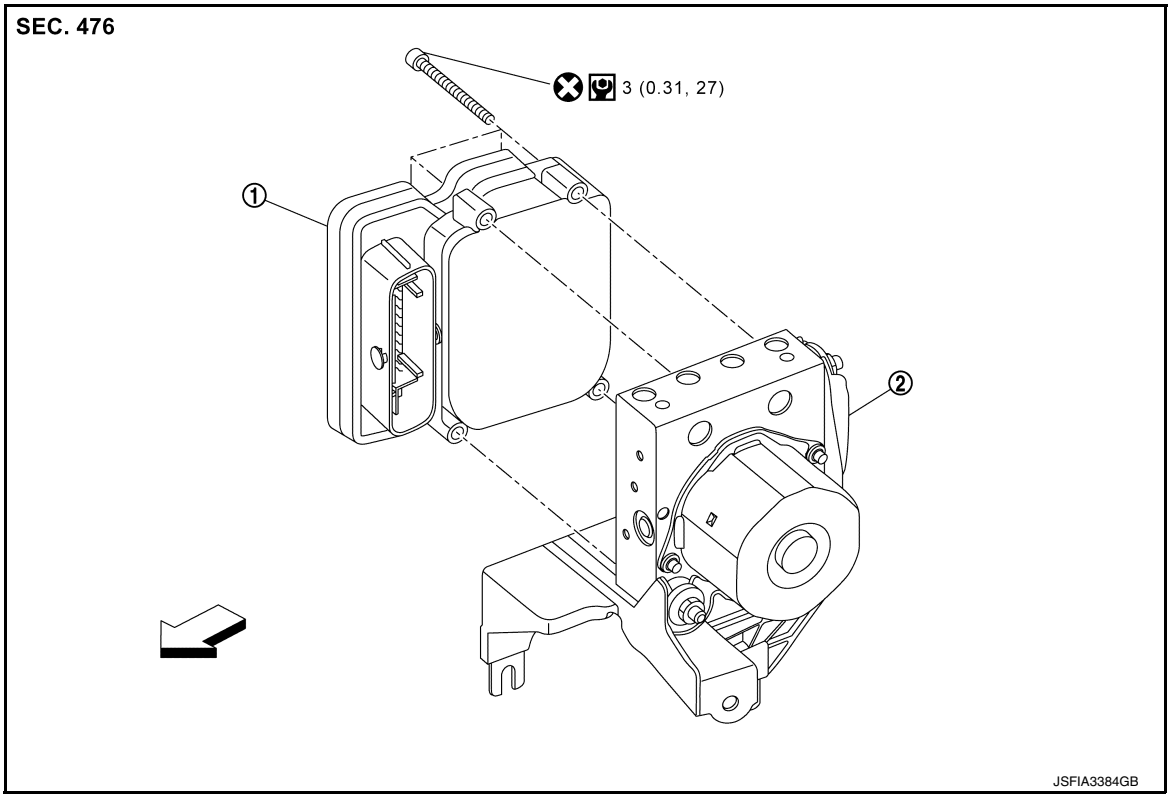
ADJUSTMENT AFTER INSTALLATION

- Perform additional service when replacing electronic stability program control unit. Refer to BRC-84, "Description".
- Bleed air from brake piping after installation. Refer to BR-12, "Bleeding Brake System".

ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Exploded View

INFOID:0000000013570399



① Electronic stability program control unit
② Traction system hydraulic unit

⇦: Vehicle front

: Always replace after every disassembly.

: N·m (kg-m, in-lb)

Removal and Installation

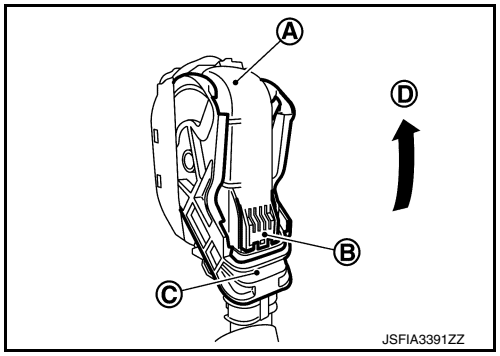
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REMOVAL

CAUTION:

When replacing electronic stability program control unit, the calibration of electronic stability program control unit is required. Refer to BRC-84, "Description".

1. Turn the ignition switch OFF.
2. Remove air cleaner housing assembly. Refer to EM-23, "Removal and Installation".
3. Disconnect electronic stability program control unit harness connector Ⓐ, follow the procedure described below.



CAUTION:

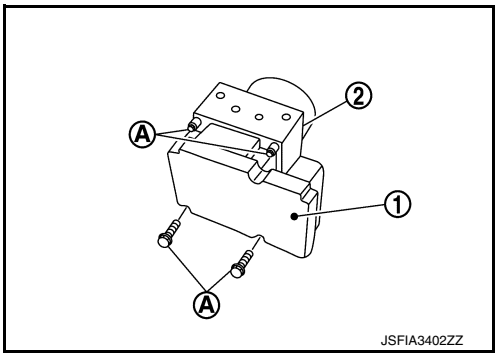
- **The following procedure for disconnecting the electronic stability program control unit harness connector must be followed. Otherwise, damage may be caused to the locking mechanism.**
- **Never touch, deform or damage electronic stability program control unit harness connector and of socket on electronic stability program control unit.**
- **Never allow any foreign objects, dirt or fluids to enter the socket or electronic stability program control unit har-**

ness connector. Otherwise, the electronic stability program control unit will be damaged and malfunction.

NOTE:
Clean electronic stability program control unit and electronic stability program control unit harness connector in the area, using a [assembly cleaner (Adolf Würth GmbH & Co.KG), or equivalent].

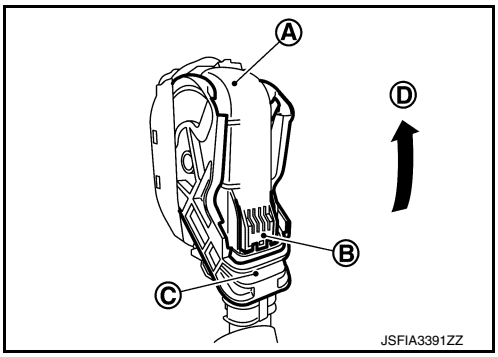
a. Push the pawl Ⓑ.
b. Move the lever Ⓒ in the direction Ⓓ by approx. 90 degrees.
CAUTION:
Never use tool.
c. Disconnect electronic stability program control unit harness connector.
CAUTION:
Never handle the connector by lever. The lever can otherwise be damaged.
d. Move the lever downward until locked.

4. Remove mounting bolts Ⓐ of electronic stability program control unit ① from traction system hydraulic unit ②.
5. Remove electronic stability program control unit from traction system hydraulic unit.
CAUTION:
Never touch the contact areas or sealing silicone of electronic stability program control unit either with hands or with tools.



INSTALLATION

Note the following, and install in the reverse order of removal.
CAUTION:
- **Never apply excessive impact to electronic stability program control unit, such as by dropping it.**
- **Never reuse electronic stability program control unit mounting bolt.**
- Install electronic stability program control unit harness connector Ⓐ, follow the procedure described below.
CAUTION:
  - **The following procedure for installing the electronic stability program control unit harness connector must be followed. Otherwise, damage may be caused to the locking mechanism.**
  - **Never touch, deform or damage electronic stability program control unit harness connector and of socket on electronic stability program control unit.**
  - **Never allow any foreign objects, dirt or fluids to enter the socket or electronic stability program control unit harness connector. Otherwise, the electronic stability program control unit will be damaged and malfunction.**

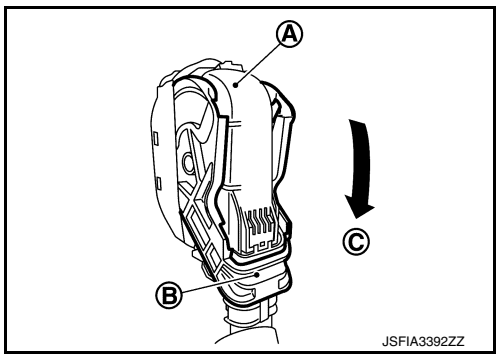


- Push the pawl Ⓑ.
- Move the lever Ⓒ in the direction Ⓓ by approx. 90 degrees.
CAUTION:
Never use tool.

- After installing the electronic stability program control unit harness connector Ⓐ, move the lever Ⓑ in the direction Ⓒ to secure the locking.

CAUTION:
Never handle the connector by lever. The lever can otherwise be damaged.

- Perform adjustment after installation. Refer to BRC-977, "Adjustment".



Adjustment

INFOID:0000000013570401

ADJUSTMENT AFTER INSTALLATION

- Perform additional service when replacing electronic stability program control unit. Refer to BRC-84, "Description".

PRECAUTION

PRECAUTIONS

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:0000000013570402

Risk of injury

There is a risk of injury caused by parts becoming projectiles if uncontrolled deployment of air bag or seat belt pre-tensioner occurs, or by storing air bag with the deployment side facing downwards. When scrapping air bag or seat belt pre-tensioner by means of controlled deployment, there is also a danger present if a sufficiently safe distance is not maintained, or if opening using cutting torches or other cutting tools, or due to smelting or if parts that are not yet triggered are exposed to a blaze or a smoldering fire at landfills.

Safety instructions/precautions

- Removed air bag must always be stored with deployment side facing up.
- Acquisition, transportation, storage, testing and assembly work should only be performed or supervised by properly trained personnel.
- Install air bag or seat belt pre-tensioner immediately following retrieval from storage.
- Air bag and seat belt pre-tensioner must be protected from flying sparks, open fires and temperature exceeding 100°C (212°F).
- Never transport air bag and seat belt pre-tensioner in the passenger compartment. Store them securely in the luggage room of the vehicle in their original replacement part packaging and secure them so that they cannot slip around.
- Never allow air bag and seat belt pre-tensioner to come into contact with grease, oil, or cleaning agents.
- Perform system tests using approved testing equipment only, and only when the units are properly installed and the vehicle is unoccupied.
- Before the initial hookup of the battery or an external power supply, the ignition must be switched on and the vehicle unoccupied.
- Air bag and seat belt pre-tensioner that fall from a height of more than 0.5 m must be replaced.
- When scrapping by means of controlled deployment of air bag and seat belt pre-tensioner, a safe distance of at least 10 m must be maintained.
- Before starting work on air bag and seat belt pre-tensioner and work on components that are connected to air bag and seat belt pre-tensioner or require and intervention in their electric circuit (e.g. when removing the steering wheel):
- Disconnect any external power sources (e.g. charger).
- Disconnect and insulate ground line of battery
- Before starting bodywork in combination with welding or retrofitting, during which work is performed on uninsulated, current-carrying lines or require an intervention in their electric circuit (e.g. when removing the steering wheel):
- Disconnect any external power sources (e.g. charger).
- Disconnect and insulate ground line of battery.
- During welding, disconnect plug connection and from control unit of air bag.
- When the air bag deploys, the pyrofuse activates and the power source from the battery is disconnected. This prevents possible fires caused by electric leakage after an accident occurs.

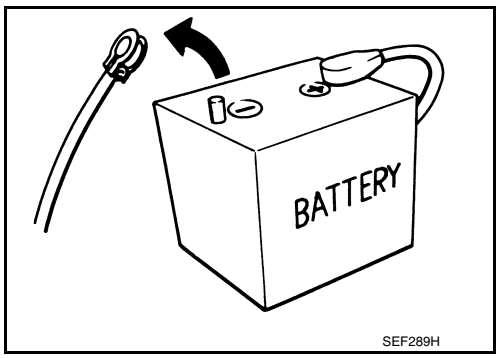
Precautions for Removing Battery Terminal

INFOID:0000000013570403

When disconnecting the battery terminal, pay attention to the following.

- Always use a 12V battery as power source.
- Never disconnect battery terminal while engine is running.

- When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.
- For vehicles with the engine listed below, remove the battery terminal after a lapse of the specified time:



BR08DE	: 4 minutes	YD25DDTi	: 2 minutes
D4D engine	: 20 minutes	YS23DDT	: 4 minutes
HRA2DDT	: 12 minutes	YS23DDTT	: 4 minutes
K9K engine	: 4 minutes	ZD30DDTi	: 60 seconds
M9R engine	: 4 minutes	ZD30DDTT	: 60 seconds
R9M engine	: 4 minutes		
V9X engine	: 4 minutes		

NOTE:
ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.

- After high-load driving, if the vehicle is equipped with the V9X engine, turn the ignition switch OFF and wait for at least 15 minutes to remove the battery terminal.

NOTE:
- Turbocharger cooling pump may operate in a few minutes after the ignition switch is turned OFF.
- Example of high-load driving
  - Driving for 30 minutes or more at 140 km/h (86 MPH) or more.
  - Driving for 30 minutes or more on a steep slope.

- For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch.

NOTE:
If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.

- After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.

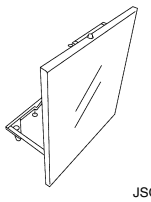
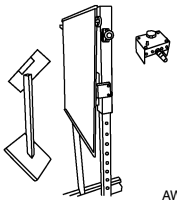
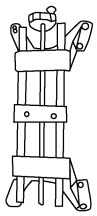
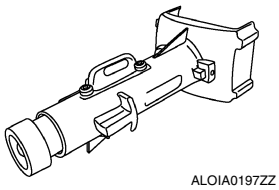
NOTE:
The removal of 12V battery may cause a DTC detection error.

PREPARATION

PREPARATION

Special Service Tools

INFOID:0000000013757364

Tool number (TechMate No.) Tool name		Description
KV99112700 (—) ICC target board	 JSOIA1012ZZ	Uses for ICC sensor alignment
— (1-20-2851-1) ICC sensor Alignment Kit	 AWOIA0016ZZ	Uses for ICC sensor alignment
— (1-20-2722-1-IF) Wheel Adapter	 AWOIA0017ZZ	Uses for ICC sensor alignment
— (J-51093) ICC sensor cone alignment tool	 ALOIA0197ZZ	Uses for ICC sensor alignment

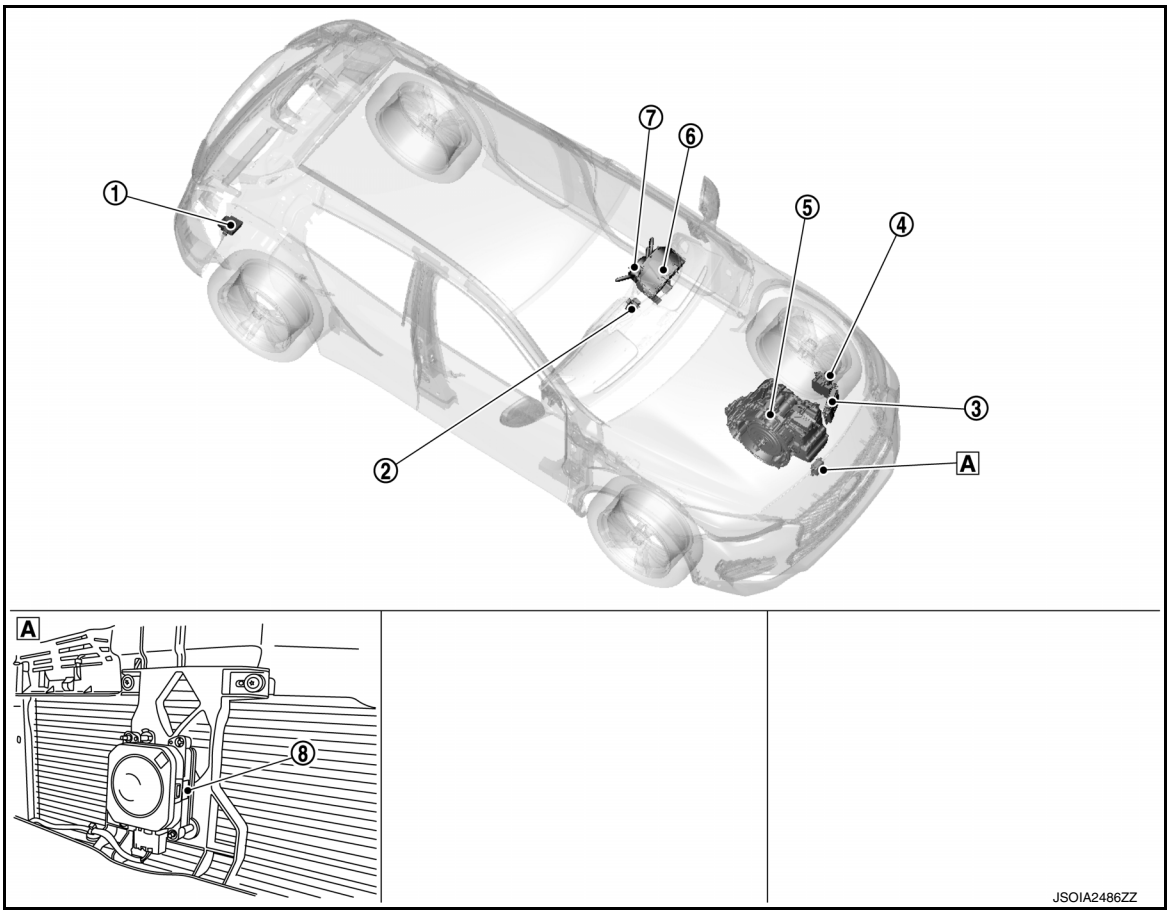
NOTE:
For radar alignment, KV99112700 or a set of TachMate No. SST are to be used.

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000013570405



A Back side of front bumper

No.	Component parts	Function
①	Electric parking brake control module	• Transmits parking brake status signal. • Refer to PB-7, "Component Parts Location" for detailed installation location
②	Electronic ignition switch control unit	• Receives / transmits each signal. • Refer to PCS-5, "Component Parts Location" for detailed installation location.
③	ECM	• Transmits each engine status. • Controls the engine according to received signal. • Refer to EC-27, "Component Parts Location" for detailed installation location.
④	Electronic stability program control module	• Transmits braking and wheel speed status. • Controls the braking according to received signal. • Refer to BRC-29, "Component Parts Location" for detailed installation location.
⑤	TCM	• Transmits each transmission status • Controls the transmission according to received signal. • Refer to TM-17, "Component Parts Location" for detailed installation location.

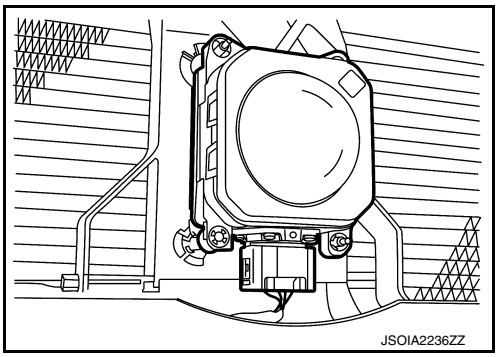
No.	Component parts	Function
⑥	Combination meter	• Performs the followings - Displays the FEB status: BRC-990, "Menu Displayed by Pressing Each Switch" - Operates warning buzzer. • Refer to MWI-7, "METER SYSTEM : Component Parts Location" for detailed installation location.
⑦	Steering column control module	• Transmits each switch status • Refer to BCS-8, "BODY CONTROL SYSTEM : Component Parts Location" for detailed installation location.
⑧	ICC sensor	FEB main controller BRC-982, "ICC Sensor"

ICC Sensor

INFOID:0000000013757441

LOCATION

The ICC sensor is located in the middle behind the front brand emblem in the radiator trim. The brand emblem shields the ICC sensor against external effects (for example dirt, ice or insects).



TASK

The ICC sensor assesses the traffic situation ahead of the vehicle through evaluation of the data from the radar. The detected data serve to implement the following functions:

- Cruise control
- Permanent limiter (ASL)
- Intelligent Cruise Control (ICC)
- Forward Emergency Braking (FEB)

The ICC sensor compares the permanent target and actual values with each other and evaluates the respective driver requirements. In order to implement the automatic clearance and speed control the ICC sensor transmits the respective requests for acceleration, deceleration and switching via the CAN communication after evaluation of all input factors.This means that the ICC sensor has the following individual tasks:

- Reception of input factors
- Evaluation of input factors
- Transmission of initial parameters

RECEPTION OF INPUT FACTORS

Amongst others the ICC sensor receives the following input signals via CAN communication:

- Operating condition for engine/drivetrain
- System status of ICC
- Engaged gear range/stage
- Parking brake status
- Engine drive torque
- Braking torque
- Acceleration/yaw rate
- Driver request through the cruise control lever
- Driver request to overtake through setting the turn signal
- Vehicle speed/acceleration
- Steering wheel angle
- Object recognition
- Brake pedal position
- Accelerator pedal position

The resulting functions are described in the respective function descriptions.

EVALUATION OF INPUT FACTORS

The input factors are evaluated by the integrated microprocessors and sending of the respective initial parameters takes place.

Transmission of initial parameters

Amongst other things the ICC sensor transmits the following initial parameters via CAN communication:
- Request to increase/reduce engine torque
- Request to increase/limit stage
- Request to increase/reduce braking torque
- Request to emit warning tones, system or warning messages

The functions that use these signals are described in the individual function descriptions.

BODY

The following components are integrated in the ICC sensor:
- Control unit
- Radar sensor

Properties of the radar sensor:
- Detection range:
- 30 m (98.4 ft) or less for a detection angle of 30°
- 30 up to 100 m (98.4 up to 328.1 ft) for a detection angle of 16°
- 100 up to 200 m (328.1 ft up to 656.2 ft) for a detection angle of 12°
- Carrier frequency: 77 GHz (independent measurement of Radar sensor distance and speed)

CAUTION:

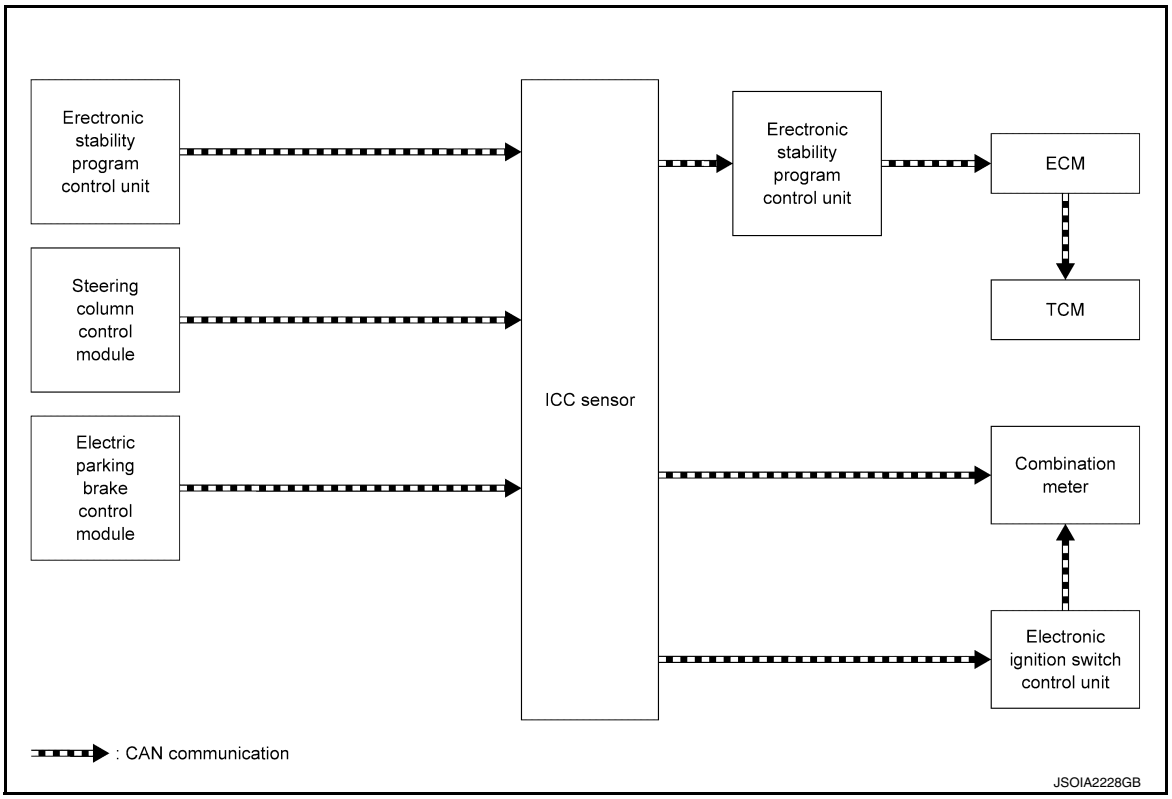
The ICC sensor must be newly adjusted after Detection range: exchange (e.g. after an accident repair) using the integrated “service adjustment mode”

SYSTEM

System Description

INFOID:0000000013570408

SYSTEM DIAGRAM



INPUT/OUTPUT SIGNAL ITEM

ICC sensor input/output

Input Signal

Transmit unit	Signal name		Description
Electronic stability program control unit	CAN communication	Wheel speed signal	Receives wheel speed
		Brake torque signal	Receives brake torque
		Body acceleration sensor signal	Receives body acceleration status
		Brake pedal status signal	Receives brake pedal position
Steering column control module	CAN communication	Cruise control lever signal	Receives status of cruise control lever
		Steering wheel angle signal	Receives steering wheel angle
		Combination switch signal	Receives status of combination switch
Electric parking brake control module	CAN communication	Parking brake status signal	Receives status of parking brake
ECM	CAN communication	Engine running signal	Receives engine running status
		Drivetrain operation signal	Receives drivetrain operation
		Gear range status signal	Receives gear range status
		Available torque signal	Receives available torque signal
		Acceleration pedal position signal	Receives acceleration pedal position

Output Signal

Reception unit	Signal name		Description
Combination meter	CAN communication	FEB warning lamp signal	Transmits FEB warning lamp signal
		Meter display signal	Transmits meter display signal
		Warning buzzer signal	Transmits warning buzzer signal
Electric ignition switch control unit	CAN communication	FEB warning lamp signal	Transmits FEB warning lamp signal
		Meter display signal	Transmits meter display signal
		Warning buzzer signal	Transmits warning buzzer signal
Electronic stability program control unit	CAN communication	Braking torque increase signal	Transmits brake torque increase signal
		Braking torque reduce signal	Transmits brake torque reduce signal
ECM	CAN communication	Engine torque increase request signal	Transmits engine torque increase signal
		Engine torque reduce request signal	Transmits engine torque reduce signal
		Engage target gear request signal	Transmits engage target gear request signal
		Object information signal	Transmits object information signal

OUTLINE

Forward Emergency Braking (FEB) is controlled by ICC sensor.

NOTE:

After this, there are mentioned as ICC sensor.

FUNCTION REQUIREMENTS, GENERAL

- Forward emergency braking (FEB) is coded in the electronic ignition lock control unit
- The ICC sensor is coded correctly (with ICC)
- No under-voltage or over-voltage
- “Emergency Brake” activated in the “Assist.” menu of the combination meter
- Engine running or drivetrain operational
- Vehicle is not in backward movement

Forward emergency braking (FEB) is released manually through the operation level in the combination meter.The combination meter sends the respective status via CAN communication to the ICC sensor.

FORWARD EMERGENCY BRAKING (FEB), GENERAL POINTS

The FEB continuously checks the following distance to the vehicle driving immediately ahead, warns the driver optically and acoustically about any possible collisions (e.g. a rear-end collision) with other vehicles and helps to significantly reduce the risk of accident. In an imminent collision situation, the FEB initiates autonomous partial braking.

To do this the ICC sensor evaluates the traffic situation in front of the vehicle, the route immediately in front as well as the driver activity and constantly determines the risk potential of a possible collision. Output of these warnings takes place in a vehicle speed range of 7 km/h (4.34 MPH) up to 250 km/h (155.35 MPH).

If the driver reacts to the acoustic warning and brakes, he will be assisted in this by the adaptive Brake Assist. This calculates the required brake force amplification according to the situation.

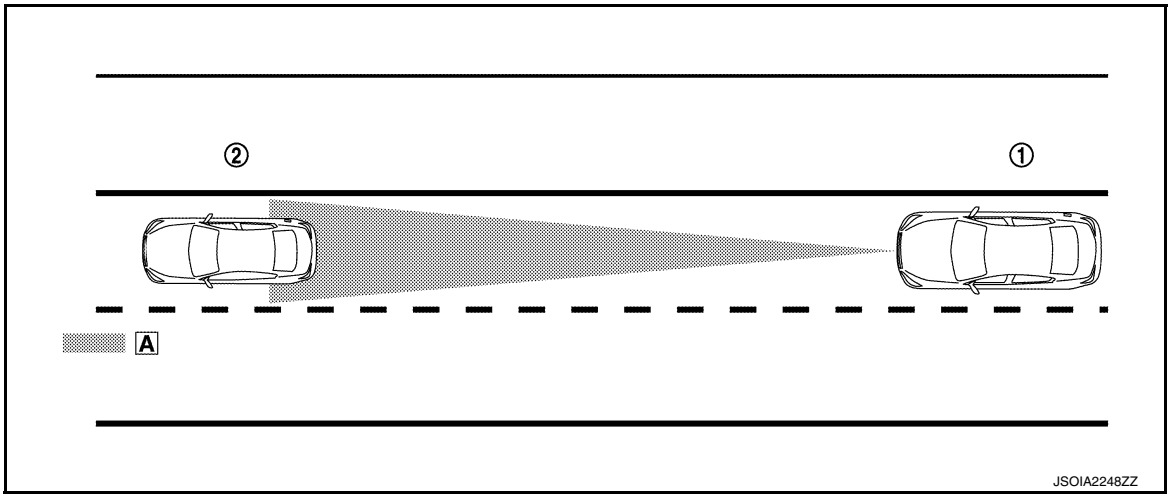
Autonomous partial braking is also initiated if there is no reaction from the driver to the warnings.

In this way a possible collision can be prevented or at least its consequences can be mitigated.

The following components are integrated in the ICC sensor:

- Radar sensor
- Control unit

The following presentation shows the detection range of the radar sensor:



① A vehicle equipped with FEB

② The target vehicle (target object) moving directly ahead is detected by the radar sensor system

A Detection range of the radar

THE FEB FUNCTION COMPRISES THE FOLLOWING SUBFUNCTIONS:
- Function sequence for distance warning
- Function sequence for braking assistance
- Function sequence for autonomous partial braking

FUNCTION SEQUENCE FOR DISTANCE WARNING

Apart from data from the radar sensor, the ICC sensor also evaluates the following variables:
- Direction of travel and vehicle speed
- Acceleration/yaw rate
- Steering wheel angle Driver activity:
- Accelerator pedal position
- Brake pedal position
- Setting the turn signal (turn signaling)

Direction Of Travel And Vehicle Speed:

he direction of travel is defined using the wheel rotation direction.
The vehicle speed is calculated from the wheel speed.
The electronic stability program control unit transmits respective information via CAN communication to the ICC sensor.

Acceleration/yaw Rate:

The acceleration/yaw rate is detected from the body acceleration sensor which is integrated in the electronic stability program control unit.
The electronic stability program control unit transmits respective information via CAN communication to the ICC sensor.

Steering Wheel Angle:

The steering wheel angle sensor detects/records the steering wheel angle.
The steering column tube module control unit directly reads in the signals of the steering wheel angle sensor and sends information about the steering wheel angle via the CAN communication to the ICC sensor.
The data of the steering wheel angle sensor serve to test the plausibility of the yaw rate detected by the body acceleration sensor.

Accelerator Pedal Position:

The ECM transmits information about the accelerator pedal position via the CAN communication to the ICC sensor.

Brake pedal position:

The electronic stability program control unit transmits the status of the brake pedal via CAN communication to the ICC sensor.

Setting The Turn Signal (Turn Signaling):
The steering column tube module control unit directly reads the switch position of the combination switch and transmits these via the CAN communication to the ICC sensor. The ICC sensor calculates the distance from the obstacle and the time up to a possible collision. The ICC sensor differentiates here between a static and a collision-critical distance warning.

Static Distance Warning:
Output of the static distance warning takes place purely optically. If the distance from the vehicle directly ahead goes below 0.8 s in flowing traffic and this critical distance is maintained for t > 3 s [(e.g. at a speed of 100 km/h (62.14 MPH), distance about 22.2 m (72.8 ft)], the ICC sensor sends the request to output the warning via the CAN communication to the combination meter. The combination meter reacts by actuating the FEB warning lamp.

Collision Critical Distance Warning:
Output of the collision-critical distance warning takes place optically and acoustically.
If an obstacle within the detection range of the radar sensor is classified as accident-critical (a collision will occur within 2.6 s or more), the ICC sensor sends the request to output the warning via the via chassis CAN communication to the combination meter, which then activates the FEB warning lamp and directly actuates the warning buzzer (intermittent tone).
The warning output cannot be acknowledged. Take-back of the warning only occurs if the situation has been defused.
For output of the warning the ICC sensor also takes the driver activity and the route directly ahead into account along with the vehicle speed and the distance to an obstacle. The vehicle moving directly ahead is detected through modifications of the accelerator pedal position, through actuation of the turn signal or through pressing the brake pedal. The route ahead is defined over the yaw rate, the steering wheel angle and the direction of travel.
The approach warning can react to obstacles directly ahead up to a ground speed of 250 km/h (155.35 MPH), or to stationary obstacles up to about 70 km/h (43.49 MPH), for example halting or parking vehicles.

System Limits:
The collisions critical warning is not issued for a collision with:
- With persons or animals
- With oncoming vehicles
- With cross traffic
- in curves

Function Sequence For Braking Assistance
If the driver then reacts to the collision-critical distance warning with an emergency braking maneuver, the Brake Assist system provides support for the best possible utilization of the braking distance to the obstacle.The brake support is available in a vehicle speed range of 7 km/h (4.34 MPH) up to 250 km/h (155.35 MPH).
The ICC sensor evaluates the data from the radar sensor and permanently calculates the required brake force.
NOTE:
The hazard braking is defined over the actuation speed and the actuation strength with which the brake pedal is actuated.
The actuation speed and the actuation forces are detected by front axle brake pressure sensor. The electronic stability program control unit directly reads in the signals from the front axle brake pressure sensor, calculates the braking torque requested by the driver and sends this information via the CAN communication to the ICC sensor.
In the event of an emergency braking maneuver, the ICC sensor sends the required brake force via chassis CAN communication to the electronic stability program control unit, which actuates the hydraulic brake pressure via the traction system hydraulic unit.
The adaptive Brake Assist can react to stationary obstacles up to a vehicle speed of about 70 km/h (43.49 MPH).

Additional Function Requirements For Autonomous Partial Braking
Vehicle speed: 7 km/h (4.34 MPH) up to 105 km/h (65.25 MPH) (up to obstacles directly ahead) or 7 km/h (4.34 MPH) up to 50 km/h (31.07 MPH) (in the case of stationary obstacles)

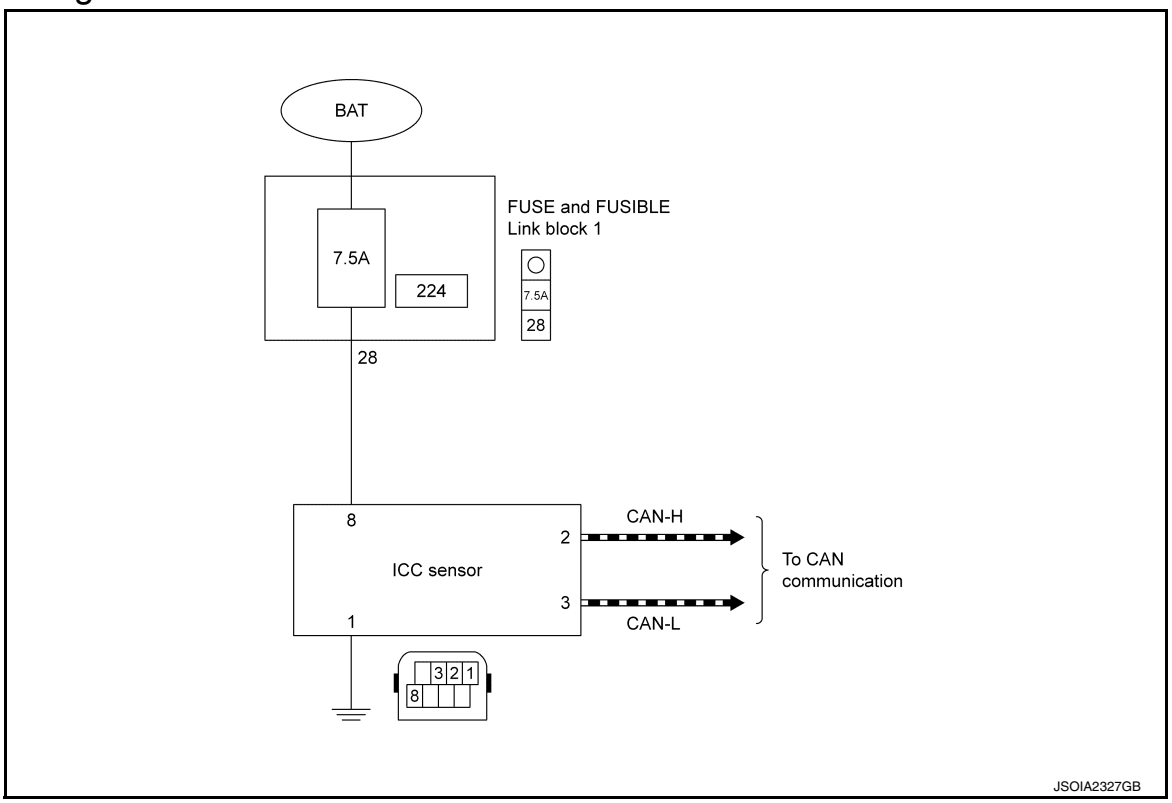
Function Sequence For Autonomous Partial Braking
If the driver fails to react in an accident-critical situation to the warning, the ICC sensor initiates autonomous partial braking and a reduction in engine torque. The ICC sensor calculates the braking torque required (maximum deceleration approx. 6 m/s^2) taking the following variables into account:

- Relative speed to vehicle or obstacle
- Distance from vehicle or obstacle

The ICC sensor transmits the respective request to increase the braking torque and for engine torque reduction via chassis CAN communication to the electronic stability program control unit. The electronic stability program control unit evaluates the incoming requests, actuates the traction system hydraulic unit directly, and sends the request to reduce engine torque via chassis CAN communication to the ECM.
If the driver then reacts to the autonomous partial braking and brakes, the Adaptive Brake Assist system provides support for the best possible utilization of the braking distance to the obstacle.

Circuit Diagram

INFOID:0000000013570409



WARNING/INDICATOR/CHIME LIST

WARNING/INDICATOR/CHIME LIST : Warning Lamp/Indicator Lamp

INFOID:0000000013570410

Name	Design	Layout/Function
FEB warning lamp		For layout, refer to MWI-8, "METER SYSTEM : Design". For function, refer to MWI-24, "WARNING LAMPS/INDICATOR LAMPS : FEB Warning Lamp".

INFORMATION DISPLAY (COMBINATION METER)

INFORMATION DISPLAY (COMBINATION METER) : Warning/Indicator (On Information Display)

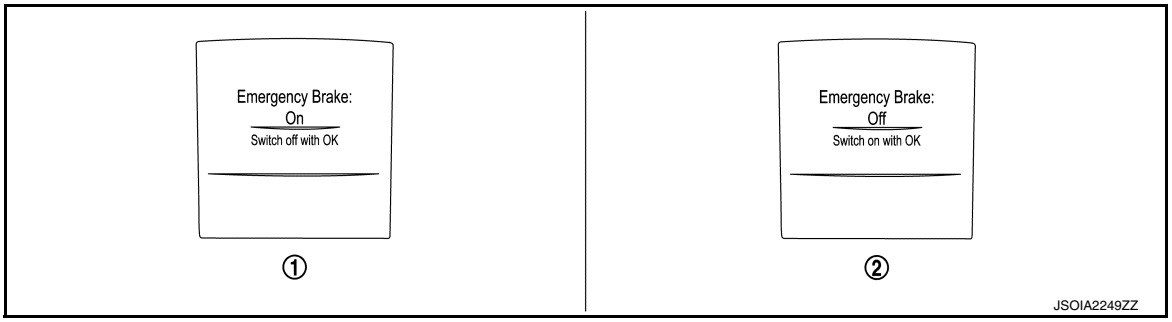
INFOID:0000000013570411

System name	Design	Warning message	Description
FEB	—	Emergency Brake currently unavailable See Owner's Manual	BRC-990, "Menu Displayed by Pressing Each Switch"
	—	Emergency Brake inoperative	
	—	Radar sensors dirty See Owner's Manual	

OPERATION

Switch Name and Function

INFOID:0000000013570412

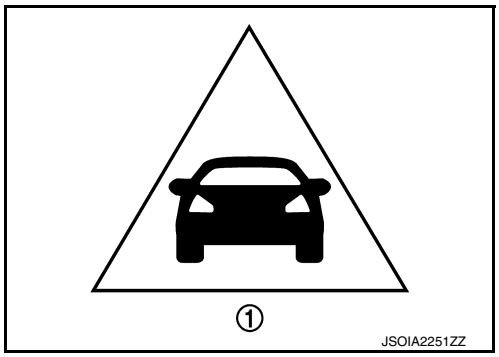


No.	Switch name	Description
①	FEB system setting screen On (Information display)	The setting of FEB system can be switched between ON and OFF
②	FEB system setting screen Off (Information display)	

Menu Displayed by Pressing Each Switch

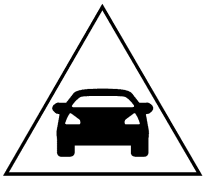
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SYSTEM DISPLAY



No.	Switch name	Description
①	FEB warning lamp	FEB warning lamp illuminates if the distance to the vehicle in front is too small

DISPLAY AND OPERATION

System status	Actuation	Warning	Buzzer
FEB OFF	—	—	—
There is a no possibility of a collision	—	—	—
Of approximately 30 km/h (18.64 MPH) or more, if over several seconds the distance maintained to the vehicle travelling in front is insufficient. The FEB warning lamp then light up in the combination meter.	—	 JSOIA2252ZZ	—

System status	Actuation	Warning	Buzzer
Of approximately 7 km/h (4.34 MPH) or more, if own vehicle rapidly approach a vehicle in front. An intermittent warning buzzer will then sound and the FEB warning lamp will light up in the combination meter.	—	 JSOIA2252ZZ	ON
If the driver does not react to the approach warning signal in a critical situation, the FEB system can assist with the autonomous braking function.	Autonomous braking	 JSOIA2252ZZ	ON

WARNING DISPLAY

Condition		Note	Information display
Warning display	The FEB system is temporarily inoperative.	Possible cause • The radar sensor system is temporarily inoperative, for example, due to electromagnetic radiation emitted by nearby TV or radio stations or other sources of electromagnetic radiation. • The system is outside the operating temperature range. • The on-board voltage is too low.	Emergency Brake currently unavailable See Owner's Manual
		The FEB system is temporarily inoperative due to amalfunction. The adaptive brake assist function may also have malfunction.	Emergency Brake inoperative
	FEB system is temporarily restricted or inoperative.	Possible cause • The sensor behind the front emblem is dirty. • The function of the FEB system is impaired due to heavy rain or snow.	Radar sensors dirty See Owner's Manual

HANDLING PRECAUTION

Precautions for Forward Emergency Braking (FEB)

INFOID:0000000013570414

FORWARD EMERGENCY BRAKING (FEB) SYSTEM

- Failure to follow the warnings and instructions for proper use of the FEB system could result in serious personal injury or death.
- The FEB system is a supplemental aid to the driver. It is not a replacement for the driver's attention to traffic conditions or responsibility to drive safely. It cannot prevent accidents due to carelessness or dangerous driving techniques.
- The FEB system does not function in all driving, traffic, weather and road conditions.

FEB SYSTEM LIMITATIONS

Listed below are the system limitations for the FEB system. Failure to operate the vehicle in accordance with these system limitations could result in serious injury or death.

- The FEB system cannot detect all vehicles under all conditions.
- The radar sensor does not detect the following objects:
  - Pedestrians or animals
  - Oncoming vehicles
  - Crossing vehicles
- The radar sensor has some performance limitations. For stationary vehicles, the FEB system will not function when the vehicle is driven at speeds over:
  - Approximately 50 km/h (31 MPH) for the Autonomous braking function.
- The radar sensor may not detect a vehicle ahead in the following conditions:
  - Dirt, ice, snow or other material covering the radar sensor.
  - Interference by other radar sources.
  - Snow or heavy rain.
  - If the vehicle ahead is narrow (e.g. motorcycle).
  - If the vehicle ahead is in a different lane.
  - Under strong radar reflections, for example, in a multi-storey car park.
  - New vehicle or after a maintenance of the FEB system.
  - When driving on a steep downhill slope or roads with sharp curves.
- In some road or traffic conditions, the FEB system may intervene unnecessarily or give an unnecessary warning. Always pay careful attention to the traffic situation. Do not rely solely on the distance warning function and terminate the intervention if necessary.
- Braking distances increase on slippery surfaces.
- The system is designed to automatically check the sensor's functionality, within certain limitations. The system may not detect some forms of obstruction of the sensor area such as ice, snow, stickers, for example. In these cases, the system may not be able to warn the driver properly. Be sure that driver check, clean and clear the sensor area regularly.
- Excessive noise will interfere with the warning chime sound, and the chime may not be heard.

DIAGNOSIS SYSTEM (ICC SENSOR)

CONSULT Function (ICC Sensor)

INFOID:0000000013757442

APPLICATION ITEMS

CONSULT performs the following functions via CAN communication with ICC sensor.

Diagnosis mode	Description
Self Diagnostic Result	Displays malfunctioning system memorized in ICC sensor.
Data Monitor	Displays real-time input/output data of ICC sensor.
Work Support	It can monitor the adjustment direction indication in order to perform the radar alignment operation smoothly.
ECU Identification	Displays ICC sensor part number.
Configuration	Writes the vehicle specification when replacing ICC sensor

SELF DIAGNOSTIC RESULT

Refer to BRC-996, "DTC Index".

When “CRNT” is displayed on self-diagnosis result.
- The system is presently malfunctioning.

When “PAST” is displayed on self-diagnosis result.
- System malfunction in the past is detected, but the system is presently normal.

FREEZE FRAME DATA (FFD)

The following vehicle status is recorded when DTC is detected and is displayed on CONSULT.

Freeze Frame Data Item	Unit	Display item
Original Odometer Value	km	Displays the odometer value stored when the respective DTC is detected for the first time.
Most Recent Odometer Value	km	Displays the odometer value stored when the respective DTC is detected for the last time.
Frequency Counter	0 – 255	Displays the frequency counter defined as the total number of times the DTC status has changed from “stored - not active” to “active”.
Ignition cycle counter	0 – 255	Displays the number of consecutive operation cycles recorded since a DTC first became stored -not active and is no longer an active DTC. This information is needed for Self-healing functionality.
Inside temp of cont unit last occurrence	°C	Displays the internal temperature of ICC sensor value stored when the respective DTC is detected for the first time.
Vehicle speed last occurrence	km/h	Displays the last occurrence vehicle speed value stored when the respective DTC is detected for the first time.

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitored item [Unit]	Description
STATUS OF SENS CALIB [Unknown/READY/Running/Cancelled/ finished]	—
PROGRESS OF ADJUSTMENT [Yes/No]	—
Supply voltage of cntrl module [V]	Indicates battery power supply of ICC sensor

Monitored item [Unit]	Description
STATUS OF SEN CALIB HRIZN [NO ADJ1/L ADJ/S ADJ/LA ADJ/SA ADJ/NO ADJ2/NO ADJ3/NO ADJ4/NO ADJ5]	—
HORIZON MISALIGN ANGLE [°]	—

WORK SUPPORT

Work support items	Description
SENSOR UNLOCK	—
CALBRATION OF LONG RANGE RADAR SENSOR	Outputs millimeter waves, calculates dislocation of the millimeter waves, and indicates adjustment direction.

ICC sensor alignment procedure
Refer to CCS-58, "Application Notice".

ECU DIAGNOSIS INFORMATION

ICC SENSOR

Reference Value

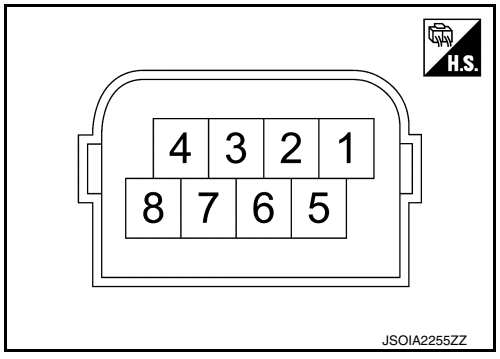
INFOID:0000000013757443

VALUES ON THE DIAGNOSIS TOOL

NOTE:
The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor item	Condition		Value/Status
STATUS OF SENS CALIB	—		Unknown
	—		READY
	—		Running
	—		Cancelled
	—		finished
PROGRESS OF ADJUSTMENT	—		Yes
	—		No
Supply voltage of cntrl module	Ignition switch ON	—	Power supply voltage value
STATUS OF SEN CALIB HRIZN	—		NO ADJ
	—		L ADJ
	—		S ADJ
	—		LA ADJ
	—		SA ADJ
	—		NO ADJ2
	—		NO ADJ3
	—		NO ADJ4
	—		NO ADJ5
HORIZON MISALIGN ANGLE	—		Display the actual angle

TERMINAL LAYOUT



PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition	Standard value	Reference value
+	–	Signal name	Input/ Output			
1 (BR)	Ground	Ground	—	Ignition switch ON	0 - 0.1 V	Approx. 0 V
2 (W)	—	CAN communication-H	—	—	—	—
3 (G)	—	CAN communication-L	—	—	—	—
8 (B)	Ground	Battery power supply	Input	Ignition switch OFF	10 - 16 V	Battery voltage

DTC Index

INFOID:0000000013757444

DTC	Items	Reference
C2200-00	CAN message error (transmission)	CCS-72
C2201-00	Chassis CAN bus OFF malfunction	CCS-73
C2202-00	CAN message error (transmission)	CCS-74
C2203-00	CAN message error (transmission)	CCS-75
C2204-00	Radar is malfunction	CCS-76
C2205-00	Radar is malfunction	CCS-77
C2206-00	Radar is malfunction	CCS-78
C2207-00	Radar is malfunction	CCS-79
C2208-00	Radar is malfunction	CCS-80
C2209-00	Radar is malfunction	CCS-81
C220A-00	Radar is malfunction	CCS-82
C220B-00	Radar is malfunction	CCS-83
C220E-00	Radar is malfunction	CCS-84
C220F-00	Radar is malfunction	CCS-85
C2210-00	Radar is malfunction	CCS-86
C2211-00	Radar is malfunction	CCS-87
C2212-00	Radar is malfunction	CCS-88
C2214-00	Radar is malfunction	CCS-89
C2215-00	Radar is malfunction	CCS-90
C2216-00	Radar is malfunction	CCS-91
C2217-00	Radar is malfunction	CCS-92
C2218-00	Radar is malfunction	CCS-93
C2219-00	Radar is malfunction	CCS-94
C221A-00	Radar is malfunction	CCS-95
C221B-00	Radar is malfunction	CCS-96
C221C-00	Radar is malfunction	CCS-97
C221D-00	Radar is malfunction	CCS-98
C221E-00	Radar is malfunction	CCS-99
C221F-00	Radar is malfunction	CCS-100
C2220-00	Radar is malfunction	CCS-101
C2221-00	Radar is malfunction	CCS-102

DTC	Items	Reference
C2222-00	Radar is malfunction	CCS-103
C2223-00	Radar is malfunction	CCS-104
C2224-00	Radar is malfunction	CCS-105
C2225-00	Radar is malfunction	CCS-106
C2226-00	Radar is malfunction	CCS-107
C2227-00	Radar is malfunction	CCS-108
C2228-00	Radar is malfunction	CCS-109
C2229-00	Radar is malfunction	CCS-110
C222A-00	Radar is malfunction	CCS-111
C222B-00	Radar is malfunction	CCS-112
C222C-00	Radar is malfunction	CCS-113
C222D-00	Radar is blocked by dirt/foreign object	CCS-114
C222E-00	Cruise func is temporarily unavailable	CCS-115
C2233-00	Radar sensor is maladjusted	CCS-116
C2235-00	Radar sensor is maladjusted	CCS-117
C2236-00	Radar sensor is maladjusted	CCS-118
C2237-00	Invalid data received from VDCM	CCS-119
C2238-00	Invalid data received from VDCM	CCS-120
C2239-00	Invalid data received from VDCM	CCS-121
C223A-00	Invalid data received from VDCM	CCS-122
C223B-00	Invalid data received from VDCM	CCS-123
C223C-00	Invalid data received from VDCM	CCS-124
C223D-00	Radar is malfunction	CCS-125
C223E-00	Radar is malfunction	CCS-126
C223F-00	Radar is malfunction	CCS-127
C2240-00	Radar is malfunction	CCS-128
C2241-00	Radar is malfunction	CCS-129
C2242-00	Radar is malfunction	CCS-130
C2243-00	Radar is malfunction	CCS-131
C2244-00	Radar is malfunction	CCS-132
C2245-00	Power supply of radar is not OK	CCS-133
C2246-00	Power supply of radar is not OK	CCS-134
C2247-00	Power supply of radar is not OK	CCS-135
C2248-00	Power supply of radar is not OK	CCS-136
C2249-00	Power supply of radar is not OK	CCS-137
C224A-00	Radar is malfunction	CCS-138
C224B-00	Radar is malfunction	CCS-139
C224C-00	Radar is malfunction	CCS-140
C224D-00	Radar is malfunction	CCS-141
C224E-00	Radar is malfunction	CCS-142
C224F-00	Radar is malfunction	CCS-143
C2250-00	Radar is malfunction	CCS-144
C2251-00	Radar is malfunction	CCS-145
C2252-00	Radar is malfunction	CCS-146

DTC	Items	Reference
C2253-00	Radar is malfunction	CCS-147
C2254-00	Radar is malfunction	CCS-148
C2255-00	Radar is malfunction	CCS-149
C2256-00	CONT MODULE INTERNAL TEMP A	CCS-150
C2257-00	CONT MODULE INTERNAL TEMP A	CCS-151
C2258-00	CONT MODULE INTERNAL TEMP A	CCS-152
C2259-00	Radar is malfunction	CCS-153
C225A-00	INTERNAL CONTROL MODULE	CCS-154
C225B-00	No CAN sig received from motor elec	CCS-155
C225C-00	No CAN sig received from motor elec	CCS-156
C225D-00	No CAN sig received from motor elec	CCS-157
C225E-00	No CAN sig received from motor elec	CCS-158
C2260-00	No CAN signal received from ESP	CCS-159
C2261-00	No CAN signal received from ESP	CCS-160
C2262-00	No CAN signal received from ESP	CCS-161
C2263-00	No CAN signal received from ESP	CCS-162
C2264-00	No CAN signal received from ESP	CCS-163
C2265-00	COMMUNICATION ERROR (INVALID)	CCS-164
C2266-00	COMMUNICATION ERROR (INVALID)	CCS-165
C2267-00	No CAN sig received from comb meter	CCS-166
C2268-00	No CAN signal received from IGN lock	CCS-167
C2269-00	Engine torque request sig implausible	CCS-168
C226A-00	Invalid data received from VDCM	CCS-169
C226C-00	Invalid data received from ECM/PCM A	CCS-170
C226D-00	Invalid data received from ECM/PCM A	CCS-171
C226E-00	Invalid data received from ECM/PCM A	CCS-172
C226F-00	Invalid data received from ECM/PCM A	CCS-173
C2271-00	Invalid data received from VDCM	CCS-174
C2272-00	Invalid data received from VDCM	CCS-175
C2273-00	Invalid data received from VDCM	CCS-176
C2274-00	Invalid data received from VDCM	CCS-177
C2275-00	Invalid data received from VDCM	CCS-178
C2276-00	CAN signal from SCCM is malfunction	CCS-179
C2277-00	CAN signal from SCCM is malfunction	CCS-180
C2278-00	CAN signal from comb meter is malf	CCS-181
C2279-00	CAN signal from IGN lock is malf	CCS-182
C227A-00	Invalid data received from ECM/PCM A	CCS-183
C227B-00	Invalid data received from ECM/PCM A	CCS-184
C227C-00	Invalid data received from ECM/PCM A	CCS-185
C227D-00	Invalid data received from ECM/PCM A	CCS-186
C227F-00	Invalid data received from VDCM	CCS-187
C2280-00	Invalid data received from VDCM	CCS-188
C2281-00	Invalid data received from VDCM	CCS-189
C2282-00	Invalid data received from VDCM	CCS-190

DTC	Items	Reference
C2283-00	CAN signal from SCCM is malfunction	CCS-191
C2284-00	CAN signal from SCCM is malfunction	CCS-192
C2285-00	Invalid data received from ECM/PCM A	CCS-193
C2286-00	Invalid data received from ECM/PCM A	CCS-194
C2287-00	Invalid data received from ECM/PCM A	CCS-195
C2288-00	Invalid data received from ECM/PCM A	CCS-196
C228A-00	Invalid data received from VDCM	CCS-197
C228B-00	Invalid data received from VDCM	CCS-198
C228C-00	Invalid data received from VDCM	CCS-199
C228D-00	CAN signal from SCCM is malfunction	CCS-200
C228E-00	CAN signal from SCCM is malfunction	CCS-201
C2291-00	Vehicle speed signal is implausible	CCS-202
C2293-00	Static engine torque sig is implausible	CCS-203
C2294-00	Max engine torque sig is implausible	CCS-204
C2295-00	Min engine torque sig is implausible	CCS-205
C2296-00	Requested ENG torque is implausible	CCS-206
C2297-00	Engine speed signal is implausible	CCS-207
C2299-00	Crankshaft signal is implausible	CCS-208
C229B-00	Actual gear signal is implausible	CCS-209
C229D-00	Invalid data received from VDCM	CCS-210
C229E-00	REQ BRK TRQ signal is implausible	CCS-211
C229F-00	Cruise shutoff signal is implausible	CCS-212
C22A1-00	Longitudinal acceleration implausible	CCS-213
C22A2-00	Yaw rate sig from ESP is implausible	CCS-214
C22A3-00	STRG sensor signal is implausible	CCS-215
C22A4-00	STRG sensor signal is implausible	CCS-216
C22A5-00	Steering wheel angle is implausible	CCS-217
C22A6-00	Steering angle speed is implausible	CCS-218
C22A7-00	Pulse counter signal is implausible	CCS-219
C22A8-00	Wheel speed from ESP is implausible	CCS-220
C22A9-00	WHL rotation direction sig implausible	CCS-221
C22AA-00	Status signal from meter is implausible	CCS-222
C22AB-00	VHCL SPD DISP signal is implausible	CCS-223
C22AC-00	Accel pedal sensor sig is implausible	CCS-224
C22AD-00	Brake pedal position sig is implausible	CCS-225
C22AE-00	Brake pedal position sig is implausible	CCS-226
C22AF-00	Cruise control lever sig is implausible	CCS-227
C22B0-00	Cruise cont sig from SCM implausible	CCS-228
C22B1-00	Turn signal SW status sig implausible	CCS-229
C22B2-00	Outside temperature sig is implausible	CCS-230
C22B3-00	Outside temperature sig is implausible	CCS-231
C22B6-00	Odo signal from meter is implausible	CCS-232
C22B7-00	Odo signal from meter is implausible	CCS-233
C22BB-00	No CAN signal received from ESP	CCS-234

DTC	Items	Reference
C22BC-00	No CAN sig received from comb meter	CCS-235
C22BE-00	No CAN signal received from IGN lock	CCS-236
C22BF-00	Invalid data received from VDCM	CCS-237
C22C0-00	CAN signal from comb meter is malf	CCS-238
C22C2-00	CAN signal from IGN lock is malf	CCS-239
C22C3-00	Invalid data received from VDCM	CCS-240
C22C4-00	Invalid data received from VDCM	CCS-241
C22C6-00	CAN signal from IGN lock is malf	CCS-242
C22C7-00	Brake signal from ESP is implausible	CCS-243
C22C8-00	Radar is currently nonfunctional	CCS-244
C22C9-00	Radar is currently nonfunctional	CCS-245
C22CA-00	Radar is currently nonfunctional	CCS-246
C22CB-00	Radar is malfunction	CCS-247
C22CD-00	Radar is blocked by dirt/foreign object	CCS-248
C22CE-00	Dynamic braking mode sig implausible	CCS-249
C22CF-00	Dynamic braking mode sig implausible	CCS-250
C22D0-00	No CAN signal received from E-PKB	CCS-251
C22D1-00	CAN signal from E-PKB is malfunction	CCS-252
C22D2-00	CAN signal from E-PKB is malfunction	CCS-253
C22D3-00	CAN signal from E-PKB is malfunction	CCS-254
C22D4-00	No CAN signal received from IGN lock	CCS-255
C22D5-00	CAN signal from IGN lock is malf	CCS-256
C22D6-00	CAN signal from IGN lock is malf	CCS-257
C22D7-00	Country code signal is implausible	CCS-258
C22D9-00	FL tumbler SW status is implausible	CCS-259
C22DA-00	FR tumbler SW status is implausible	CCS-260
C22DB-00	RL tumbler SW status is implausible	CCS-261
C22DC-00	RR tumbler SW status is implausible	CCS-262
C22DD-00	Cruise shutoff signal is implausible	CCS-263
C22DE-00	Brake signal from ESP is implausible	CCS-264
C22DF-00	Braking torque signal is implausible	CCS-265
C22E0-00	Target gear signal is implausible	CCS-266
C22E1-00	COMMUNICATION ERROR (INVALID)	CCS-267
C22E2-00	CAN signal from SCCM is malfunction	CCS-268
C22E3-00	CAN signal from SCCM is malfunction	CCS-269
C22E4-00	CAN signal from SCCM is malfunction	CCS-270
C22E5-00	Steering wheel angle is implausible	CCS-271
C22E6-00	Steering wheel angle is implausible	CCS-272
C22E7-00	Longitudinal acceleration implausible	CCS-273
C22E8-00	CAN signal from comb meter is malf	CCS-274
C22EA-00	Cruise shutoff signal is implausible	CCS-275
C22EB-00	VIN signal from IGN lock is implausible	CCS-276
C22EC-00	SCN coding of radar is malfunction	CCS-277
C22ED-00	Radar sensor is maladjusted	CCS-278

DTC	Items	Reference
C22EE-00	Invalid data received from ECM/PCM A	CCS-279
C22EF-00	Invalid data received from ECM/PCM A	CCS-280
C22F0-00	Invalid data received from ECM/PCM A	CCS-281
C22F1-00	Invalid data received from ECM/PCM A	CCS-282
C22F2-00	No CAN sig received from motor elec	CCS-283
C22F3-00	No CAN sig received from motor elec	CCS-284
C22F4-00	No CAN signal received from IGN lock	CCS-285
C22F5-00	CAN signal from IGN lock is malf	CCS-286
C22F6-00	CAN signal from IGN lock is malf	CCS-287
C22F7-00	CAN signal from IGN lock is malf	CCS-288
C22F9-00	CAN signal from IGN lock is malf	CCS-289
C22FA-00	No CAN signal received from IGN lock	CCS-290
C22FB-00	Steering variant signal is implausible	CCS-291
C22FC-00	Steering variant signal is implausible	CCS-292
C22FD-00	Electric PKB signal is implausible	CCS-293
C22FF-00	Status signal from ESP is implausible	CCS-294
C2303-00	Radar is malfunction	CCS-295
C2304-00	Wheel speed from ESP is implausible	CCS-296
C2305-00	Wheel speed from ESP is implausible	CCS-297
C2306-00	No CAN signal received from IGN lock	CCS-298
C2307-00	No CAN signal received from ESP	CCS-299
C2308-00	No CAN signal received from IGN lock	CCS-300
C2309-00	No CAN signal received from IGN lock	CCS-301
C230A-00	CAN signal from IGN lock is malf	CCS-302
C230B-00	CAN signal from IGN lock is malf	CCS-303
C230C-00	CAN signal from IGN lock is malf	CCS-304
C230D-00	Invalid data received from VDCM	CCS-305
C230E-00	CAN signal from IGN lock is malf	CCS-306
C230F-00	T/M mode signal is implausible	CCS-307
C2310-00	T/M mode signal is implausible	CCS-308
C2311-00	Braking torque signal is implausible	CCS-309
C2312-00	Driver belt buckle signal is implausible	CCS-310
C2313-00	Driver belt buckle signal is implausible	CCS-311
C2314-00	Max speed limit signal is implausible	CCS-312
C2315-00	Invalid data received from VDCM	CCS-313
C2316-00	Invalid data received from VDCM	CCS-314
C2317-00	No CAN signal received from ESP	CCS-315
C2318-00	No CAN signal received from ESP	CCS-316
C2319-00	No CAN sig received from parking sys	CCS-317
C231A-00	Invalid data received from VDCM	CCS-318
C231B-00	Invalid data received from VDCM	CCS-319
C231C-00	CAN signal from E-PKB is malf	CCS-320
C231E-00	Invalid data received from VDCM	CCS-321
C231F-00	Invalid data received from VDCM	CCS-322

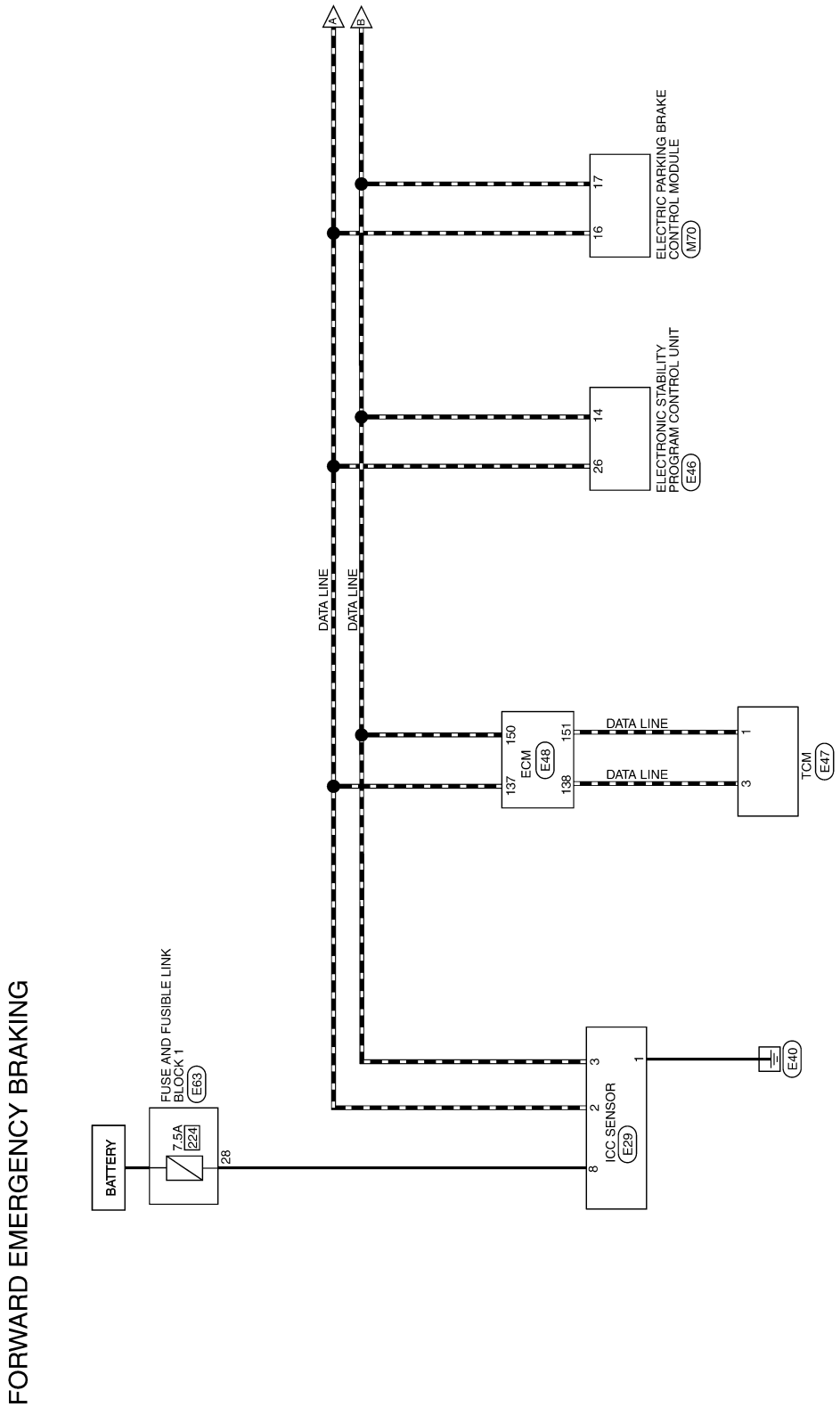
DTC	Items	Reference
C2320-00	Invalid data received from VDCM	CCS-323
C2321-00	Invalid data received from VDCM	CCS-324
C2322-00	Brake status from ESP is implausible	CCS-325
C2323-00	Body variant signal is implausible	CCS-326
C2324-00	Model series signal is implausible	CCS-327
C2325-00	Brake status from ESP is implausible	CCS-328
C232C-00	No CAN signal received from IGN lock	CCS-329
C232D-00	CAN signal from IGN lock is malf	CCS-330
C232E-00	CAN signal from IGN lock is malf	CCS-331
C2330-00	No CAN sig received from motor elec	CCS-332
C2331-00	Invalid data received from ECM/PCM A	CCS-333
C2332-00	No CAN signal received from ESP	CCS-334
C2333-00	Invalid data received from VDCM	CCS-335
C2334-00	T/M mode signal is implausible	CCS-336
C2335-00	T/M mode signal is implausible	CCS-337
C2336-00	T/M mode signal is implausible	CCS-338

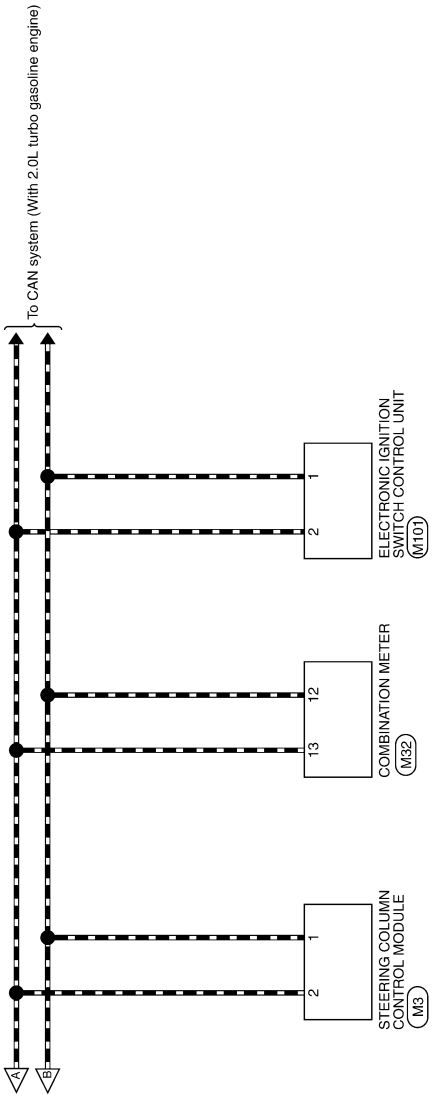
WIRING DIAGRAM

FORWARD EMERGENCY BRAKING

Wiring Diagram

INFOID:0000000013570421





JRFWC5056GB

FORWARD EMERGENCY BRAKING

Connector No.	E29
Connector Name	ICC SENSOR
Connector Type	MB_A2105404581

Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	GROUND
2	W	CAN-H
3	G	CAN-L
8	B	BATTERY POWER SUPPLY

Connector No.	E46
Connector Name	ELECTRONIC STABILITY PROGRAM CONTROL UNIT
Connector Type	MB_A2465400581

Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	MOTOR POWER SUPPLY
2	W	BRAKE PEDAL
4	P	RIGHT FRONT AXLE RPM SENSOR SIGNAL
5	GR	BRAKE VACUUM SENSOR POWER SUPPLY
6	B	BRAKE LIGHT SWITCH-L
7	R	BATTERY POWER SUPPLY
8	Y	LFET FRONT AXLE RPM SENSOR SIGNAL
10	O	STANDSTILL CONTROL (SSC) STATUS
12	P	BRAKE VACUUM SENSOR SIGNAL
13	BR	GROUND (MOTOR)
14	G	CAN-L
16	B	RIGHT FRONT AXLE RPM SENSOR POWER SUPPLY
17	Y	RIGHT REAR AXLE RPM SENSOR POWER SUPPLY
18	BR	LFET REAR AXLE RPM SENSOR SIGNAL
19	W	LFET FRONT AXLE RPM SENSOR POWER SUPPLY

23	B	BRAKE VACUUM SENSOR GROUND
25	P	VALVE RELAY POWER SUPPLY
26	W	CAN-H
28	R	BATTERY POWER SUPPLY
29	P	RIGHT REAR AXLE RPM SENSOR SIGNAL
30	V	BRAKE LIGHT SWITCH-H
31	GR	LFET REAR AXLE RPM SENSOR POWER SUPPLY
32	L	BRAKE LIGHT SWITCH GROUND
35	R	BRAKE LIGHT SWITCH POWER SUPPLY
38	B	GROUND (VALVE)

Connector No.	E47
Connector Name	TCM
Connector Type	MB_A2465450026

Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	CAN-L
2	V	NOT P
3	GR	CAN-H
5	W	BATTERY POWER SUPPLY

Connector No.	E48
Connector Name	ECM
Connector Type	MB_A0075406981

Terminal No.	Color Of Wire	Signal Name [Specification]
97	R	POWER SUPPLY (ECM)
98	BR	ECM GROUND
99	V	POWER SUPPLY (ECM)

100	BR	ECM GROUND
101	R	POWER SUPPLY (ECM)
102	B	ECM GROUND
103	L	COOLING FAN CONTROL SIGNAL
104	R	SENSOR POWER SUPPLY (ACCELERATOR PEDAL POSITION SENSOR 3)
105	G	SENSOR POWER SUPPLY (ACCELERATOR PEDAL POSITION SENSOR 2)
106	BR	SENSOR GROUND (ACCELERATOR PEDAL POSITION SENSOR1)
111	B	IGNITION SIGNAL
112	Y	POWER SUPPLY (BATTERY)
116	W	STARTER RELAY-L
119	GR	SENSOR GROUND (ACCELERATOR PEDAL POSITION SENSOR 2)
120	O	SENSOR GROUND
122	R	HOT START SIGNAL
123	GR	MOTOR RELAY CONTROL SIGNAL
127	O	FUEL PUMP ON SIGNAL
132	G	ACCELERATOR PEDAL POSITION SENSOR 1
136	Y	POWERTRAIN SENSOR CAN-H
137	W	CAN-H
138	GR	POWERTRAIN CAN-H
141	B	WATER PUMP RELAY CONTROL SIGNAL
145	W	ACCELERATOR PEDAL POSITION SENSOR 2
146	G	FUEL TANK PRESSURE SENSOR
147	L	CRASH SIGNAL
148	W	STARTER RELAY-H
149	B	POWERTRAIN SENSOR CAN-L
150	G	CAN-L
151	L	POWERTRAIN CAN-L
152	V	EVAP CANISTER VENT CONTROL VALVE
153	BR	EVAP PURGE CONTROL VALVE

Connector No.	E63
Connector Name	FUSE AND FUSIBLE LINK BLOCK 1
Connector Type	MB_A0065454101

Terminal No.	Color Of Wire	Signal Name [Specification]
28	B	-

Connector No.	M3
Connector Name	STEERING COLUMN CONTROL MODULE
Connector Type	MB_A2045401281

Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	CAN-L (CHASIS)
2	W	CAN-H (CHASIS)
3	BR	GND
4	R	KL30G
6	R	KL30
7	BR	GND
8	L	AB1+
9	Y	AB1-
10	V	AB2+
11	G	AB2-

Connector No.	M32
Connector Name	COMBINATION METER
Connector Type	MB_A0525452726

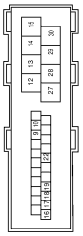
Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	GROUND
4	R	BATTERY POWER SUPPLY
12	GR	CAN-L
13	W	CAN-H
17	BR	CAN-L
18	R	CAN-H

JRFWC5057GB

FORWARD EMERGENCY BRAKING

Connector No.	M70
Connector Name	ELECTRIC PARKING BRAKE CONTROL MODULE
Connector Type	MB_A0085409281

H.S.

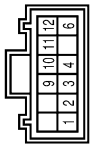


Terminal No.	Color Of Wire	Signal Name [Specification]
9	G	ELECTRIC PARKING BRAKE SWITCH 1
10	P	ELECTRIC PARKING BRAKE SWITCH 2
12	R	MOTOR RH (+)
13	W	MOTOR POWER SUPPLY (RH)
14	R	MOTOR LH (+)
15	R	MOTOR POWER SUPPLY (LH)
16	W	CAN-H
17	G	CAN-L
18	O	ELECTRIC PARKING BRAKE SWITCH 3
19	G	ELECTRIC PARKING BRAKE SWITCH 4
22	B	POWER SUPPLY
27	Y	MOTOR RH (-)
28	BR	GROUND (MOTOR RH)
29	V	MOTOR LH (-)
30	BR	GROUND (MOTOR LH)

9	GR	REMOTE KEYLESS
10	W	POWER SUPPLY
11	BR	DIAGNOSTIC CAN-L
12	L	DIAGNOSTIC CAN-H

Connector No.	M101
Connector Name	ELECTRONIC IGNITION SWITCH CONTROL UNIT
Connector Type	MB_A0265458426

H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	CHASSIS CAN-L
2	W	CHASSIS CAN-H
3	R	BODY CAN 1-H
4	BR	BODY CAN 1-L
6	W	STEERING LOCK OPERATION

JRFWC5058GB

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:0000000013570422

1.INTERVIEW FOR MALFUNCTION

It is also important to clarify the customer concerns before starting the inspection. Interview the customer about their concerns carefully and understand the symptoms fully.

NOTE:

The customers are not professionals. Never assume that “maybe the customer means···” or “maybe the customer mentioned this symptom”.

>> GO TO 2.

2.SELF-DIAGNOSIS WITH CONSULT

1. Perform “All DTC Reading” with CONSULT.
2. Check if the DTC is detected on the self-diagnosis results of “ICC sensor”.

Is any DTC detected?

YES >> Record or print self-diagnosis results and freeze frame data (FFD). GO TO 3.
NO >> GO TO 5.

3.TROUBLE DIAGNOSIS BY DTC

1. Check the DTC in the self-diagnosis results.
2. Perform trouble diagnosis for the detected DTC. Refer to BRC-996, "DTC Index".

NOTE:

If “DTC: U1000” is detected, first diagnose the CAN communication system.

>> GO TO 4.

4.MALFUNCTIONING PART REPAIR

Repair or replace the identified malfunctioning parts.

>> GO TO 5.

5.REPAIR CHECK (SELF-DIAGNOSIS WITH CONSULT)

1. Erases self-diagnosis results.
2. Perform “All DTC Reading” again after repairing or replacing the specific items.
3. Check if any DTC is detected in self-diagnosis results of “ICC sensor”.

Is any DTC detected?

YES >> GO TO 3.
NO >> INSPECTION END

ADDITIONAL SERVICE WHEN REPLACING ICC SENSOR

Description

INFOID:0000000013570423

Always perform the radar alignment after removing and installing or replacing the ICC sensor. Refer to BRC-1008, "Work Procedure".

CAUTION:

The system does not operate normally unless the radar alignment is performed. Always perform it.

Work Procedure

INFOID:0000000013570424

1.PERFORM CONFIGURATION (WRITING VEHICLE SPECIFICATION)

Perform configuration. Refer to CCS-70, "Description".

>> GO TO 2.

2.PERFORM ICC SENSOR INITIAL VERTICAL ALIGNMENT

Perform the ICC sensor initial vertical alignment. Refer to CCS-55, "Description".

>> GO TO 3.

3.PERFORM ICC ALIGNMENT

Perform the ICC alignment. Refer to CCS-58, "Application Notice".

>> GO TO 4.

4.REPAIR CHECK (SELF-DIAGNOSIS WITH CONSULT)

1. Erases self-diagnosis results.
2. Perform “All DTC Reading”.
3. Check if any DTC is detected in self-diagnosis results of “ICC sensor”.

Is any DTC detected?

YES >> Perform trouble diagnosis for the detected DTC. Refer to BRC-996, "DTC Index".
NO >> INSPECTION END

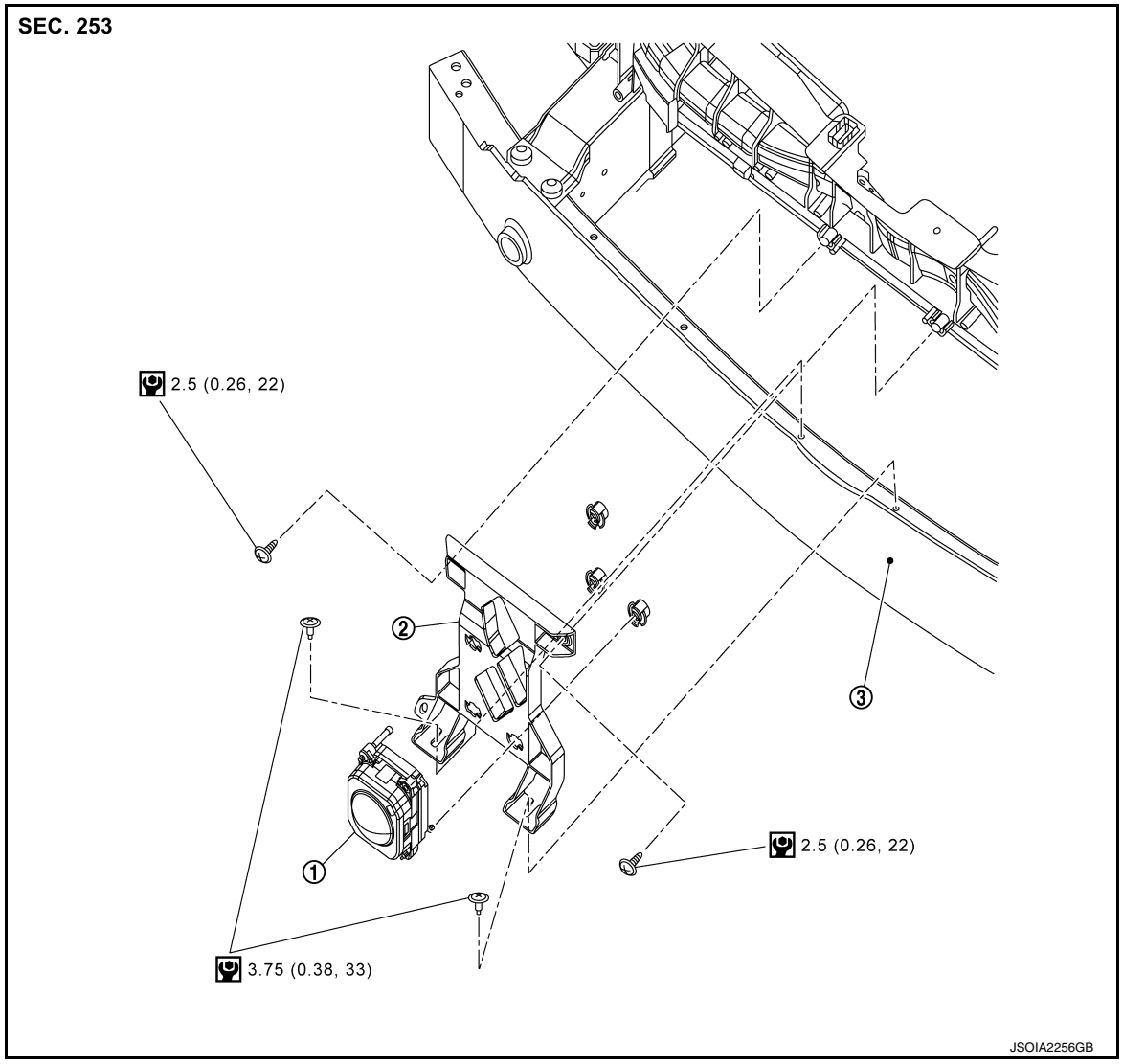
REMOVAL AND INSTALLATION

ICC SENSOR

Exploded View

INFOID:0000000013757480

CAUTION:
Always perform the ICC sensor alignment after the replacement, removal and installation of ICC sensor. Refer to CCS-58, "Application Notice".



① ICC sensor ② Bracket ③ Front bumper reinforcement

: N·m (kg-m, in-lb)

Removal and Installation

INFOID:0000000013757481

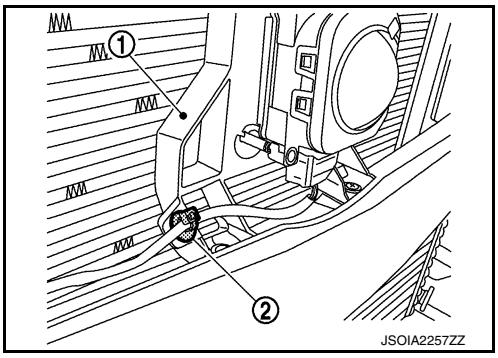
REMOVAL

CAUTION:
Always perform the ICC sensor alignment after the replacement, removal and installation of ICC sensor. Refer to CCS-58, "Application Notice".

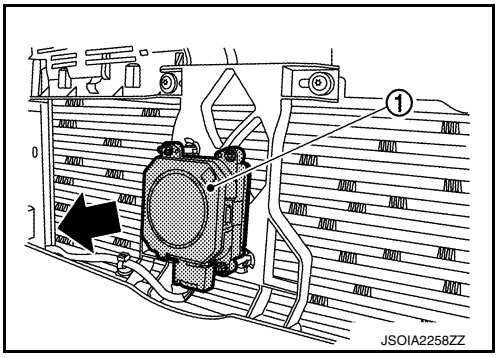
1. Turn ignition switch OFF and remove the key-fob from electronic ignition lock control unit.
2. Remove front bumper fascia. Refer to EXT-21, "Removal and Installation".
   NOTE:

When remove ICC sensor alone, remove front emblem and then proceed to step 4.

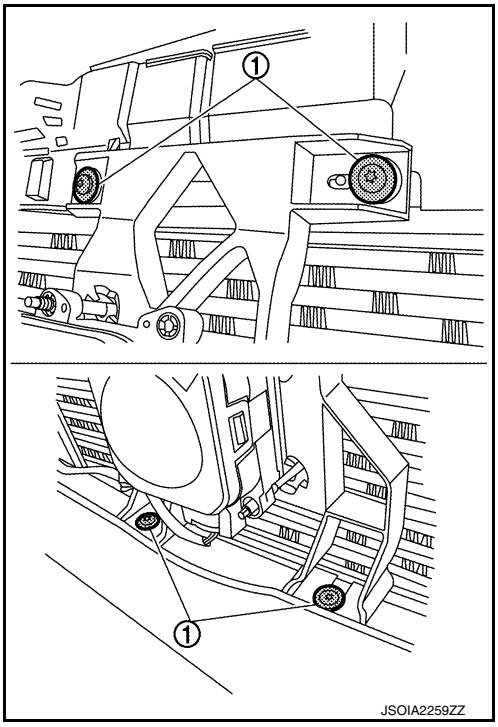
3. Remove ICC sensor harness ② from ICC sensor bracket ①.



4. Pull ICC sensor ① to remove it from the bracket.



5. Disconnect ICC sensor connector.
6. Remove mounting screws ①.



7. Remove ICC sensor bracket.

INSTALLATION

Install in the reverse order of removal.

CAUTION:

- **Always perform the ICC sensor alignment after the replacement, removal and installation of ICC sensor. Refer to CCS-58, "Application Notice".**
- **After replacing ICC sensor, perform additional service when replace ICC sensor. Refer to CCS-54, "Description".**