

SECTION BL

BODY, LOCK & SECURITY SYSTEM

CONTENTS

PRECAUTIONS	5	SURFACE MISMATCH ADJUSTMENT	15	A
Precautions for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"	5	Removal and Installation	15	B
Precautions Necessary for Steering Wheel Rotation After Battery Disconnect	5	HOOD ASSEMBLY	15	C
OPERATION PROCEDURE	5	HOOD HINGE	15	D
Precautions for Procedures without Cowl Top Cover....	6	HOOD LOCK	16	E
Precautions for Work	6	HOOD LOCK CABLE	17	F
PREPARATION	7	RADIATOR CORE SUPPORT	19	G
Special service tool	7	Removal and Installation	19	H
Commercial Service Tools	7	REMOVAL	19	I
SQUEAK AND RATTLE TROUBLE DIAGNOSES	8	INSTALLATION	19	BL
Work Flow	8	FRONT FENDER	20	J
CUSTOMER INTERVIEW	8	Removal and Installation	20	K
DUPLICATE THE NOISE AND TEST DRIVE	9	REMOVAL	20	L
CHECK RELATED SERVICE BULLETINS	9	INSTALLATION	20	M
LOCATE THE NOISE AND IDENTIFY THE ROOT CAUSE	9	POWER DOOR LOCK SYSTEM	21	
REPAIR THE CAUSE	9	Component Parts and Harness Connector Location..	21	
CONFIRM THE REPAIR	10	System Description	22	
Generic Squeak and Rattle Troubleshooting	10	LOCK OPERATION	22	
INSTRUMENT PANEL	10	UNLOCK OPERATION	22	
CENTER CONSOLE	10	OUTLINE	23	
DOORS	10	CAN Communication System Description	23	
TRUNK	11	Schematic	24	
SUNROOF/HEADLINING	11	WITHOUT INTELLIGENT KEY	24	
OVERHEAD CONSOLE (FRONT AND REAR)....	11	Wiring Diagram — D/LOCK —	25	
SEATS	11	WITHOUT INTELLIGENT KEY	25	
UNDERHOOD	11	Schematic	30	
Diagnostic Worksheet	12	WITH INTELLIGENT KEY	30	
HOOD	14	Wiring Diagram — D/LOCK —	31	
Fitting Adjustment	14	WITH INTELLIGENT KEY	31	
LATERAL/LONGITUDINAL CLEARANCE ADJUSTMENT	14	Terminals and Reference Values for BCM	36	
		Work Flow	36	
		CONSULT—III Function (BCM)	36	
		WORK SUPPORT	36	
		DATA MONITOR	36	
		ACTIVE TEST	37	
		Trouble Diagnoses Symptom Chart	37	
		BCM Power Supply and Ground Circuit Check	38	
		Door Switch Check	38	
		Key Switch (Insert) Check	40	
		Door Lock and Unlock Switch Check	42	

Front Door Lock Assembly LH (Actuator) Check ...	46	nal Layout	102
Door Lock Actuator Check (Front RH and Rear LH/ RH)	47	Terminals and Reference Values for Steering Lock Solenoid	102
Front Door Key Cylinder Switch LH Check	48	Terminals and Reference Values for BCM	102
Passenger Select Unlock Relay Circuit Check (With Intelligent Key)	50	Terminals and Reference Values for IPDM E/R ...	102
REMOTE KEYLESS ENTRY SYSTEM	52	Terminals and Reference Values for Combination Meter	102
Component Parts and Harness Connector Location..	52	Trouble Diagnosis Procedure	103
System Description	53	PRELIMINARY CHECK	103
INPUTS	53	WORK FLOW	104
OPERATION PROCEDURE	54	CONSULT-III Function (INTELLIGENT KEY)	105
CAN Communication System Description	55	BASIC OPERATION	105
Schematic	56	CONSULT-III Application Items	105
Wiring Diagram — KEYLES —	57	SELF-DIAGNOSTIC RESULTS	105
.....	57	WORK SUPPORT	105
Terminals and Reference Values for BCM	60	DATA MONITOR	107
How to Perform Trouble Diagnoses	60	ACTIVE TEST	108
CONSULT-III Function (BCM)	60	Trouble Diagnosis Symptom Chart	109
CONSULT-III APPLICATION ITEMS	60	ALL INTELLIGENT KEY FUNCTIONS ARE INOPERATIVE	109
Work Flow	62	KEY WARNING LAMP (GREEN) ILLUMINATES	109
Trouble Diagnosis Symptom Chart	62	KEY WARNING LAMP (RED) ILLUMINATES	109
Keyfob Battery and Function Check	64	KEY WARNING LAMP DOES NOT ILLUMINATE	110
ACC Switch Check	65	NON DTC ITEM	110
Door Switch Check	66	ENGINE START CONDITION CHECK	110
Key Switch Check	68	DOOR LOCK/UNLOCK FUNCTION MALFUNC- TION	111
Hazard Function Check	68	REMOTE KEYLESS ENTRY FUNCTION MAL- FUNCTION	112
Horn Function Check	68	TRUNK OPEN FUNCTION MALFUNCTION	113
Interior Lamp Illumination Function Check	69	HAZARD AND HORN REMINDER FUNCTION MALFUNCTION	113
Remote Keyless Entry Receiver Check	70	WARNING CHIME FUNCTION MALFUNCTION	114
Keyfob Function (Lock) Check	72	WARNING LAMP FUNCTION MALFUNCTION	115
Keyfob Function (Unlock) Check	72	CAN Communication System Check	116
ID Code Entry Procedure	73	Power Supply and Ground Circuit Check	117
KEYFOB ID SET UP WITH CONSULT-III	73	Key Switch (Intelligent Key Unit Input) Check	117
KEYFOB ID SET UP WITHOUT CONSULT-III ...	74	Key Switch (BCM Input) Check	119
Keyfob Battery Replacement	75	Ignition Knob Switch Check	120
Removal and Installation of Remote Keyless Entry Receiver	76	Door Switch Check	122
REMOVAL	76	Trunk Room Lamp Switch Check	124
INSTALLATION	76	Front Door Request Switch Check	126
INTELLIGENT KEY SYSTEM	77	Trunk Opener Request Switch Check	128
Component Parts and Harness Connector Location..	77	Front Door Lock Assembly LH (Door Unlock Sensor) Check	129
System Description	79	Intelligent Key Warning Chime (Combination Meter) Check	131
DOOR LOCK/UNLOCK/TRUNK OPEN FUNC- TION	79	Check Intelligent Key Warning Buzzer (Front of Vehicle)	131
REMOTE KEYLESS ENTRY FUNCTIONS	83	Outside Key Antenna Check	132
ENGINE START FUNCTION	85	Inside Key Antenna Check	134
WARNING CHIME/BUZZER/LAMPS FUNC- TION	86	Steering Lock Solenoid Check	135
CHANGE SETTINGS FUNCTION	88	Stop Lamp Switch Check	137
INTELLIGENT KEY REGISTRATION	88	CVT Device (Park Position Switch) Check	138
STEERING LOCK SOLENOID REGISTRATION..	88	“P-SHIFT” Warning Lamp Check	139
CAN Communication System Description	89	“KEY” Warning Lamp (RED) Check	139
Schematic	90	“KEY” Warning Lamp (GREEN) Check	140
Wiring Diagram — I/KEY —	92	Hazard Function Check	140
Intelligent Key Unit Harness Connector Terminal Layout	100	Check Horn Function	140
Terminals and Reference Values for Intelligent Key Unit	100		
Steering Lock Solenoid Harness Connector Termi-			

IPDM E/R Operation Check	140	Removal	169	
Intelligent Key Battery Replacement	142	Installation	169	A
INTELLIGENT KEY BATTERY INSPECTION ..	142	VEHICLE SECURITY (THEFT WARNING) SYSTEM	170	
Remote Keyless Entry Function	142	Component Parts and Harness Connector Location	170	
Removal and Installation of Intelligent Key Unit ..	143	System Description	171	B
REMOVAL	143	DESCRIPTION	171	
INSTALLATION	143	POWER SUPPLY AND GROUND	171	
DOOR	144	INITIAL CONDITION TO ACTIVATE THE SYS-		C
Fitting Adjustment	144	TEM	172	
FRONT DOOR	145	VEHICLE SECURITY SYSTEM ALARM OPER-		
REAR DOOR	146	ATION	172	
Removal and Installation	146	VEHICLE SECURITY SYSTEM DEACTIVATION	172	D
FRONT DOOR	146	PANIC ALARM OPERATION	172	
REAR DOOR	147	CAN Communication System Description	173	
FRONT DOOR LOCK	150	Schematic	174	E
Component Parts Location	150	Wiring Diagram — VEHSEC —	175	
Removal and Installation	150	175	
REMOVAL	150	Terminals and Reference Values for BCM	179	F
INSTALLATION	152	Terminals and Reference Values for Intelligent Key		
REAR DOOR LOCK	153	Unit	179	
Component Parts Location	153	CONSULT-III Function (BCM)	179	
Removal and Installation	153	CONSULT-III APPLICATION ITEM	179	G
REMOVAL	153	Trouble Diagnosis	181	
INSTALLATION	155	WORK FLOW	181	
TRUNK LID	156	Preliminary Check	182	H
Fitting Adjustment	156	Symptom Chart	183	
LONGITUDINAL AND LATERAL CLEARANCE		Diagnostic Procedure 1	184	
ADJUSTMENT	156	Diagnostic Procedure 2	186	
SURFACE HEIGHT ADJUSTMENT	156	Diagnostic Procedure 3	186	
Trunk Lid Assembly	157	Diagnostic Procedure 4	187	
REMOVAL	157	Diagnostic Procedure 5	187	
INSTALLATION	157	Diagnostic Procedure 6	187	
Trunk Lid Lock	157	Diagnostic Procedure 7	187	
REMOVAL	157	NATS (NISSAN ANTI-THEFT SYSTEM)	189	
INSTALLATION	157	Component Parts and Harness Connector Location	189	K
Trunk Lid Striker	158	System Description	190	
REMOVAL	158	DESCRIPTION	190	
INSTALLATION	158	SECURITY INDICATOR	190	L
TRUNK LID OPENER	159	System Composition	190	
Component Parts and Harness Connector Location	159	ECM Re-communicating Function	191	
System Description	160	Wiring Diagram — NATS —	192	
Wiring Diagram — TLID —	161	Terminals and Reference Values for BCM	193	M
WITHOUT INTELLIGENT KEY	161	CONSULT-III Function	193	
WITH INTELLIGENT KEY	162	CONSULT-III DIAGNOSTIC TEST MODE		
Terminals and Reference Values for BCM	163	FUNCTION	193	
Terminals and Reference Values for Intelligent Key		NATS SELF-DIAGNOSTIC RESULTS ITEM		
Unit	163	CHART	193	
CONSULT-III Function (BCM)	163	Trouble Diagnosis Procedure	194	
CONSULT-III APPLICATION ITEMS	163	PRELIMINARY CHECK	194	
Work Flow	163	WORK FLOW	195	
Trouble Diagnosis Chart by Symptom	164	Trouble Diagnoses	197	
Terminals and Reference Values for BCM	164	SYMPTOM MATRIX CHART 1	197	
Terminals and Reference Values for BCM	164	SYMPTOM MATRIX CHART 2	197	
BCM Power Supply and Ground Circuit Check ...	164	Diagnostic Procedure 1	198	
BCM Power Supply and Ground Circuit Check ...	164	Diagnostic Procedure 2	200	
Check Trunk Opener Request Switch Circuit (With		Diagnostic Procedure 3	202	
Intelligent Key)	165	Diagnostic Procedure 4	203	
Check Trunk Lid Opener Actuator Circuit	167	Diagnostic Procedure 5	204	
FUEL FILLER LID OPENER	169	How to Replace NATS Antenna Amp.	205	

BODY REPAIR	206	HANDLING PRECAUTIONS FOR PLASTICS	230
Body Exterior Paint Color	206	LOCATION OF PLASTIC PARTS	231
Body Component Parts	207	Precautions in Repairing High Strength Steel	233
UNDERBODY COMPONENT PARTS	207	HIGH STRENGTH STEEL (HSS) USED IN NIS-	
BODY COMPONENT PARTS	209	SAN VEHICLES	233
Corrosion Protection	211	Foam Repair	237
DESCRIPTION	211	URETHANE FOAM APPLICATIONS	237
ANTI-CORROSIVE WAX	212	FILL PROCEDURES	237
UNDERCOATING	213	Replacement Operations	239
Body Sealing	214	DESCRIPTION	239
DESCRIPTION	214	HOODLEDGE LH	242
Body Construction	217	HOODLEDGE RH	244
BODY CONSTRUCTION	217	FRONT SIDE MEMBER	246
Body Alignment	218	OUTRIGGER	248
BODY CENTER MARKS	218	FRONT PILLAR	249
PANEL PARTS MATCHING MARKS	220	DASH SIDE	253
DESCRIPTION	220	CENTER PILLAR	255
ENGINE COMPARTMENT	222	OUTER SILL REINFORCEMENT	259
UNDERBODY	224	REAR FENDER	260
PASSENGER COMPARTMENT	226	REAR PANEL	262
REAR BODY	228	REAR FLOOR REAR	263
Handling Precautions for Plastics	230	REAR SIDE MEMBER EXTENSION	265

PRECAUTIONS

PRECAUTIONS

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Precautions for Supplemental Restraint System (SRS) “AIR BAG” and “SEAT BELT PRE-TENSIONER”

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The Supplemental Restraint System such as “AIR BAG” and “SEAT BELT PRE-TENSIONER”, used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the SRS and SB section of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SRS section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

Precautions Necessary for Steering Wheel Rotation After Battery Disconnect

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NOTE:

- This procedure is applied only to models with Intelligent Key system and NVIS/IVIS (NISSAN/INFINITI VEHICLE IMMOBILIZER SYSTEM - NATS).
- Remove and install all control units after disconnecting both battery cables with the ignition in the “LOCK” position.
- Always use CONSULT-III to perform self-diagnosis as a part of each function inspection after finishing work. If DTC is detected, perform trouble diagnosis according to self-diagnostic results.

For models equipped with the Intelligent Key system and NVIS/IVIS, an electrically controlled steering lock mechanism is adopted on the key cylinder.

For this reason, if the battery is disconnected or if the battery is discharged, the steering wheel will lock and steering wheel rotation will become impossible.

If steering wheel rotation is required when battery power is interrupted, follow the procedure below before starting the repair operation.

OPERATION PROCEDURE

1. Connect both battery cables.

NOTE:

Supply power using jumper cables if battery is discharged.

2. Use the Intelligent Key or mechanical key to turn the ignition switch to the “ACC” position. At this time, the steering lock will be released.
3. Disconnect both battery cables. The steering lock will remain released and the steering wheel can be rotated.
4. Perform the necessary repair operation.
5. When the repair work is completed, return the ignition switch to the “LOCK” position before connecting the battery cables. (At this time, the steering lock mechanism will engage.)
6. Perform a self-diagnosis check of all control units using CONSULT-III.

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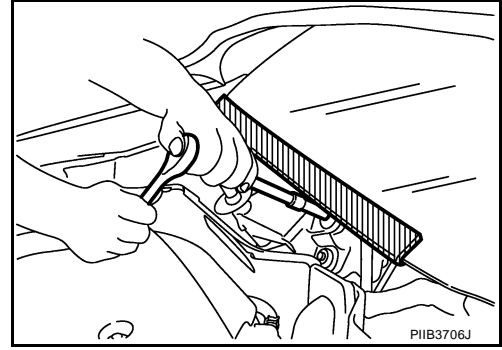
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PRECAUTIONS

Precautions for Procedures without Cowl Top Cover

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When performing the procedure after removing cowl top cover, cover the lower end of windshield.



Precautions for Work

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- After removing and installing the opening/closing parts, be sure to carry out fitting adjustments to check their operation.
- Check the lubrication level, damage, and wear of each part. If necessary, grease or replace it.

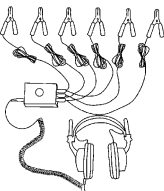
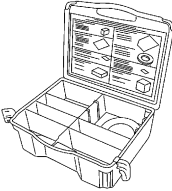
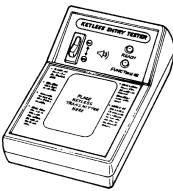
PREPARATION

PREPARATION

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Special service tool

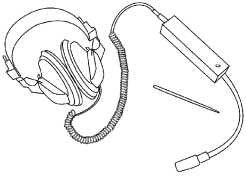
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Tool number (Kent-Moore No.) Tool name	Description
<p>— (J-39570) Chassis ear</p>  <p style="text-align: right;">SIIA0993E</p>	<p>Locating the noise</p>
<p>— (J-43980) NISSAN Squeak and Rattle Kit</p>  <p style="text-align: right;">SIIA0994E</p>	<p>Repairing the cause of noise</p>
<p>— (J-43241) Remote Keyless Entry Tester</p>  <p style="text-align: right;">LEL946A</p>	<p>Used to test key fobs</p>

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Commercial Service Tools

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Tool name	Description
<p>Engine ear</p>  <p style="text-align: right;">SIIA0995E</p>	<p>Locating the noise</p>

M

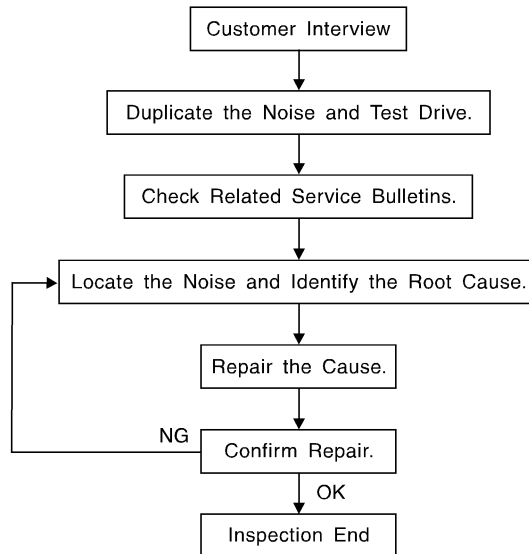
SQUEAK AND RATTLE TROUBLE DIAGNOSES

SQUEAK AND RATTLE TROUBLE DIAGNOSES

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Work Flow

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CUSTOMER INTERVIEW

Interview the customer if possible, to determine the conditions that exist when the noise occurs. Use the Diagnostic Worksheet during the interview to document the facts and conditions when the noise occurs and any customer's comments; refer to [BL-12, "Diagnostic Worksheet"](#). This information is necessary to duplicate the conditions that exist when the noise occurs.

- The customer may not be able to provide a detailed description or the location of the noise. Attempt to obtain all the facts and conditions that exist when the noise occurs (or does not occur).
- If there is more than one noise in the vehicle, be sure to diagnose and repair the noise that the customer is concerned about. This can be accomplished by test driving the vehicle with the customer.
- After identifying the type of noise, isolate the noise in terms of its characteristics. The noise characteristics are provided so the customer, service adviser and technician are all speaking the same language when defining the noise.
- Squeak —(Like tennis shoes on a clean floor)
Squeak characteristics include the light contact/fast movement/brought on by road conditions/hard surfaces = higher pitch noise/softer surfaces = lower pitch noises/edge to surface = chirping.
- Creak—(Like walking on an old wooden floor)
Creak characteristics include firm contact/slow movement/twisting with a rotational movement/pitch dependent on materials/often brought on by activity.
- Rattle—(Like shaking a baby rattle)
Rattle characteristics include the fast repeated contact/vibration or similar movement/loose parts/missing clip or fastener/incorrect clearance.
- Knock —(Like a knock on a door)
Knock characteristics include hollow sounding/sometimes repeating/often brought on by driver action.
- Tick—(Like a clock second hand)
Tick characteristics include gentle contacting of light materials/loose components/can be caused by driver action or road conditions.
- Thump—(Heavy, muffled knock noise)
Thump characteristics include softer knock/dead sound often brought on by activity.
- Buzz—(Like a bumble bee)
Buzz characteristics include high frequency rattle/firm contact.
- Often the degree of acceptable noise level will vary depending upon the person. A noise that you may judge as acceptable may be very irritating to the customer.
- Weather conditions, especially humidity and temperature, may have a great effect on noise level.

SQUEAK AND RATTLE TROUBLE DIAGNOSES

DUPLICATE THE NOISE AND TEST DRIVE

If possible, drive the vehicle with the customer until the noise is duplicated. Note any additional information on the Diagnostic Worksheet regarding the conditions or location of the noise. This information can be used to duplicate the same conditions when you confirm the repair.

If the noise can be duplicated easily during the test drive, to help identify the source of the noise, try to duplicate the noise with the vehicle stopped by doing one or all of the following:

- 1) Close a door.
 - 2) Tap or push/pull around the area where the noise appears to be coming from.
 - 3) Rev the engine.
 - 4) Use a floor jack to recreate vehicle "twist".
 - 5) At idle, apply engine load (electrical load, half-clutch on M/T model, drive position on A/T model).
 - 6) Raise the vehicle on a hoist and hit a tire with a rubber hammer.
- Drive the vehicle and attempt to duplicate the conditions the customer states exist when the noise occurs.
 - If it is difficult to duplicate the noise, drive the vehicle slowly on an undulating or rough road to stress the vehicle body.

CHECK RELATED SERVICE BULLETINS

After verifying the customer concern or symptom, check ASIST for Technical Service Bulletins (TSBs) related to that concern or symptom.

If a TSB relates to the symptom, follow the procedure to repair the noise.

LOCATE THE NOISE AND IDENTIFY THE ROOT CAUSE

1. Narrow down the noise to a general area. To help pinpoint the source of the noise, use a listening tool (Chassis Ear: J-39570, Engine Ear: J-39565 and mechanic's stethoscope).
2. Narrow down the noise to a more specific area and identify the cause of the noise by:
 - removing the components in the area that you suspect the noise is coming from. Do not use too much force when removing clips and fasteners, otherwise clips and fasteners can be broken or lost during the repair, resulting in the creation of new noise.
 - tapping or pushing/pulling the component that you suspect is causing the noise. Do not tap or push/pull the component with excessive force, otherwise the noise will be eliminated only temporarily.
 - feeling for a vibration with your hand by touching the component(s) that you suspect is (are) causing the noise.
 - placing a piece of paper between components that you suspect are causing the noise.
 - looking for loose components and contact marks.
Refer to [BL-10, "Generic Squeak and Rattle Troubleshooting"](#).

REPAIR THE CAUSE

- If the cause is a loose component, tighten the component securely.
- If the cause is insufficient clearance between components:
 - separate components by repositioning or loosening and retightening the component, if possible.
 - insulate components with a suitable insulator such as urethane pads, foam blocks, felt cloth tape or urethane tape. A NISSAN Squeak and Rattle Kit (J-43980) is available through your authorized NISSAN Parts Department.

CAUTION:

Do not use excessive force as many components are constructed of plastic and may be damaged.

Always check with the Parts Department for the latest parts information.

The following materials are contained in the NISSAN Squeak and Rattle Kit (J-43980). Each item can be ordered separately as needed.

URETHANE PADS [1.5 mm (0.059 in) thick]

Insulates connectors, harness, etc.

76268-9E005: 100×135 mm (3.94×5.31 in)/76884-71L01: 60×85 mm (2.36×3.35 in)/76884-71L02: 15×25 mm (0.59×0.98 in)

INSULATOR (Foam blocks)

Insulates components from contact. Can be used to fill space behind a panel.

73982-9E000: 45 mm (1.77 in) thick, 50×50 mm (1.97×1.97 in)/73982-50Y00: 10 mm (0.39 in) thick, 50×50 mm (1.97×1.97 in)

INSULATOR (Light foam block)

SQUEAK AND RATTLE TROUBLE DIAGNOSES

80845-71L00: 30 mm (1.18 in) thick, 30×50 mm (1.18×1.97 in)

FELT CLOTH TAPE

Used to insulate where movement does not occur. Ideal for instrument panel applications.

68370-4B000: 15×25 mm (0.59×0.98 in) pad/**68239-13E00:** 5 mm (0.20 in) wide tape roll. The following materials not found in the kit can also be used to repair squeaks and rattles.

UHMW (TEFLON) TAPE

Insulates where slight movement is present. Ideal for instrument panel applications.

SILICONE GREASE

Used instead of UHMW tape that will be visible or not fit.

Note: Will only last a few months.

SILICONE SPRAY

Use when grease cannot be applied.

DUCT TAPE

Use to eliminate movement.

CONFIRM THE REPAIR

Confirm that the cause of a noise is repaired by test driving the vehicle. Operate the vehicle under the same conditions as when the noise originally occurred. Refer to the notes on the Diagnostic Worksheet.

Generic Squeak and Rattle Troubleshooting

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Refer to Table of Contents for specific component removal and installation information.

INSTRUMENT PANEL

Most incidents are caused by contact and movement between:

1. The cluster lid A and instrument panel
2. Acrylic lens and combination meter housing
3. Instrument panel to front pillar garnish
4. Instrument panel to windshield
5. Instrument panel mounting pins
6. Wiring harnesses behind the combination meter
7. A/C defroster duct and duct joint

These incidents can usually be located by tapping or moving the components to duplicate the noise or by pressing on the components while driving to stop the noise. Most of these incidents can be repaired by applying felt cloth tape or silicone spray (in hard to reach areas). Urethane pads can be used to insulate wiring harness.

CAUTION:

Do not use silicone spray to isolate a squeak or rattle. If you saturate the area with silicone, you will not be able to recheck the repair.

CENTER CONSOLE

Components to pay attention to include:

1. Shifter assembly cover to finisher
2. A/C control unit and cluster lid C
3. Wiring harnesses behind audio and A/C control unit

The instrument panel repair and isolation procedures also apply to the center console.

DOORS

Pay attention to the:

1. Finisher and inner panel making a slapping noise
2. Inside handle escutcheon to door finisher
3. Wiring harnesses tapping
4. Door striker out of alignment causing a popping noise on starts and stops

Tapping or moving the components or pressing on them while driving to duplicate the conditions can isolate many of these incidents. You can usually insulate the areas with felt cloth tape or insulator foam blocks from the NISSAN Squeak and Rattle Kit (J-43980) to repair the noise.

SQUEAK AND RATTLE TROUBLE DIAGNOSES

TRUNK

Trunk noises are often caused by a loose jack or loose items put into the trunk by the owner. In addition look for:

1. Trunk lid bumpers out of adjustment
2. Trunk lid striker out of adjustment
3. The trunk lid torsion bars knocking together
4. A loose license plate or bracket

Most of these incidents can be repaired by adjusting, securing or insulating the item(s) or component(s) causing the noise.

SUNROOF/HEADLINING

Noises in the sunroof/headlining area can often be traced to one of the following:

1. Sunroof lid, rail, linkage or seals making a rattle or light knocking noise
2. Sun visor shaft shaking in the holder
3. Front or rear windshield touching headliner and squeaking

Again, pressing on the components to stop the noise while duplicating the conditions can isolate most of these incidents. Repairs usually consist of insulating with felt cloth tape.

OVERHEAD CONSOLE (FRONT AND REAR)

Overhead console noises are often caused by the console panel clips not being engaged correctly. Most of these incidents are repaired by pushing up on the console at the clip locations until the clips engage.

In addition look for:

1. Loose harness or harness connectors.
2. Front console map/reading lamp lense loose.
3. Loose screws at console attachment points.

SEATS

When isolating seat noise it's important to note the position the seat is in and the load placed on the seat when the noise is present. These conditions should be duplicated when verifying and isolating the cause of the noise.

Cause of seat noise include:

1. Headrest rods and holder
2. A squeak between the seat pad cushion and frame
3. The rear seatback lock and bracket

These noises can be isolated by moving or pressing on the suspected components while duplicating the conditions under which the noise occurs. Most of these incidents can be repaired by repositioning the component or applying urethane tape to the contact area.

UNDERHOOD

Some interior noise may be caused by components under the hood or on the engine wall. The noise is then transmitted into the passenger compartment.

Causes of transmitted underhood noise include:

1. Any component mounted to the engine wall
2. Components that pass through the engine wall
3. Engine wall mounts and connectors
4. Loose radiator mounting pins
5. Hood bumpers out of adjustment
6. Hood striker out of adjustment

These noises can be difficult to isolate since they cannot be reached from the interior of the vehicle. The best method is to secure, move or insulate one component at a time and test drive the vehicle. Also, engine RPM or load can be changed to isolate the noise. Repairs can usually be made by moving, adjusting, securing, or insulating the component causing the noise.

A

B

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SQUEAK AND RATTLE TROUBLE DIAGNOSES

EIS00B7G

Diagnostic Worksheet

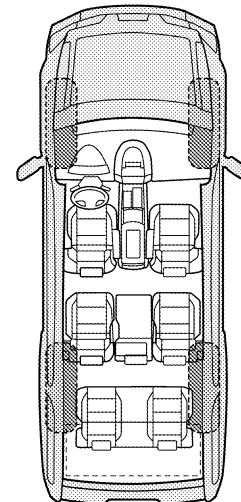
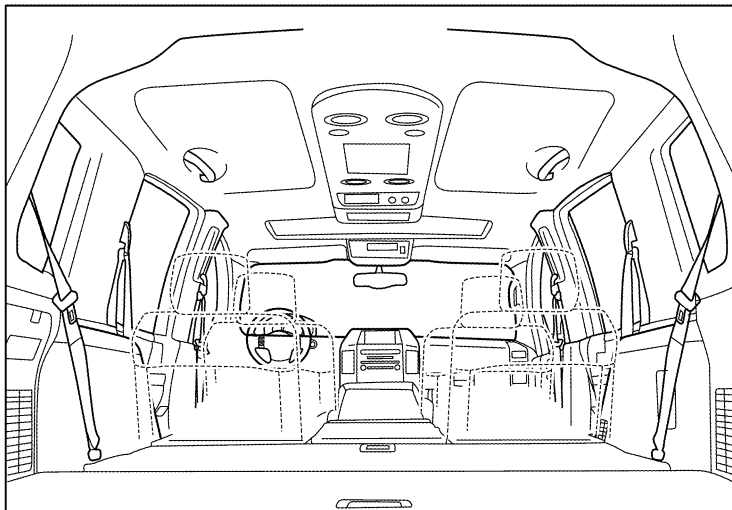
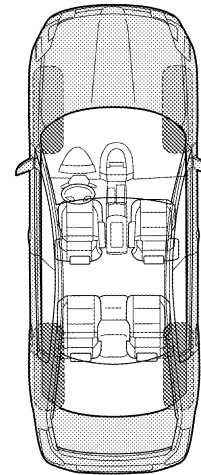
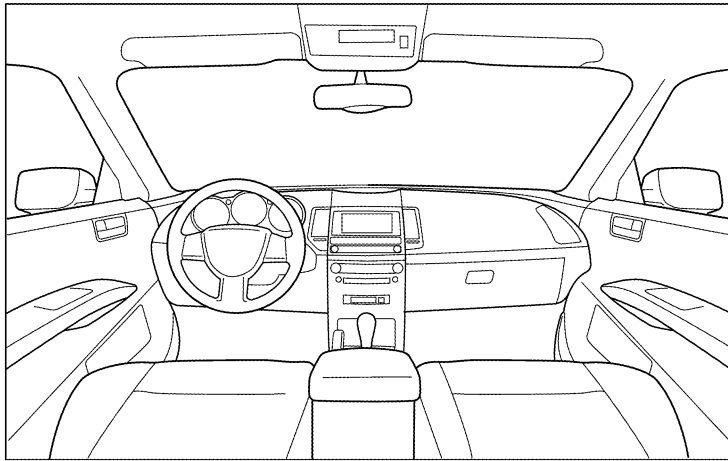
Dear Customer:

We are concerned about your satisfaction with your vehicle. Repairing a squeak or rattle sometimes can be very difficult. To help us fix your vehicle right the first time, please take a moment to note the area of the vehicle where the squeak or rattle occurs and under what conditions. You may be asked to take a test drive with a service advisor or technician to ensure we confirm the noise you are hearing.

SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

I. WHERE DOES THE NOISE COME FROM? (circle the area of the vehicle)

The illustrations are for reference only, and may not reflect the actual configuration of your vehicle.



Continue to page 2 of the worksheet and briefly describe the location of the noise or rattle. In addition, please indicate the conditions which are present when the noise occurs.

SQUEAK AND RATTLE TROUBLE DIAGNOSES

SQUEAK & RATTLE DIAGNOSTIC WORKSHEET - page 2

Briefly describe the location where the noise occurs:

II. WHEN DOES IT OCCUR? (please check the boxes that apply)

- | | |
|---|--|
| <input type="checkbox"/> Anytime | <input type="checkbox"/> After sitting out in the rain |
| <input type="checkbox"/> 1st time in the morning | <input type="checkbox"/> When it is raining or wet |
| <input type="checkbox"/> Only when it is cold outside | <input type="checkbox"/> Dry or dusty conditions |
| <input type="checkbox"/> Only when it is hot outside | <input type="checkbox"/> Other: |

III. WHEN DRIVING:

- Through driveways
- Over rough roads
- Over speed bumps
- Only about ____ mph
- On acceleration
- Coming to a stop
- On turns: left, right or either (circle)
- With passengers or cargo
- Other: _____
- After driving ____ miles or ____ minutes

IV. WHAT TYPE OF NOISE

- Squeak (like tennis shoes on a clean floor)
- Creak (like walking on an old wooden floor)
- Rattle (like shaking a baby rattle)
- Knock (like a knock at the door)
- Tick (like a clock second hand)
- Thump (heavy muffled knock noise)
- Buzz (like a bumble bee)

TO BE COMPLETED BY DEALERSHIP PERSONNEL

Test Drive Notes:

	YES	NO	Initials of person performing
Vehicle test driven with customer	<input type="checkbox"/>	<input type="checkbox"/>	_____
- Noise verified on test drive	<input type="checkbox"/>	<input type="checkbox"/>	_____
- Noise source located and repaired	<input type="checkbox"/>	<input type="checkbox"/>	_____
- Follow up test drive performed to confirm repair	<input type="checkbox"/>	<input type="checkbox"/>	_____

VIN: _____ Customer Name _____

W.O.# _____ Date: _____

This form must be attached to Work Order

LAI0071E

HOOD

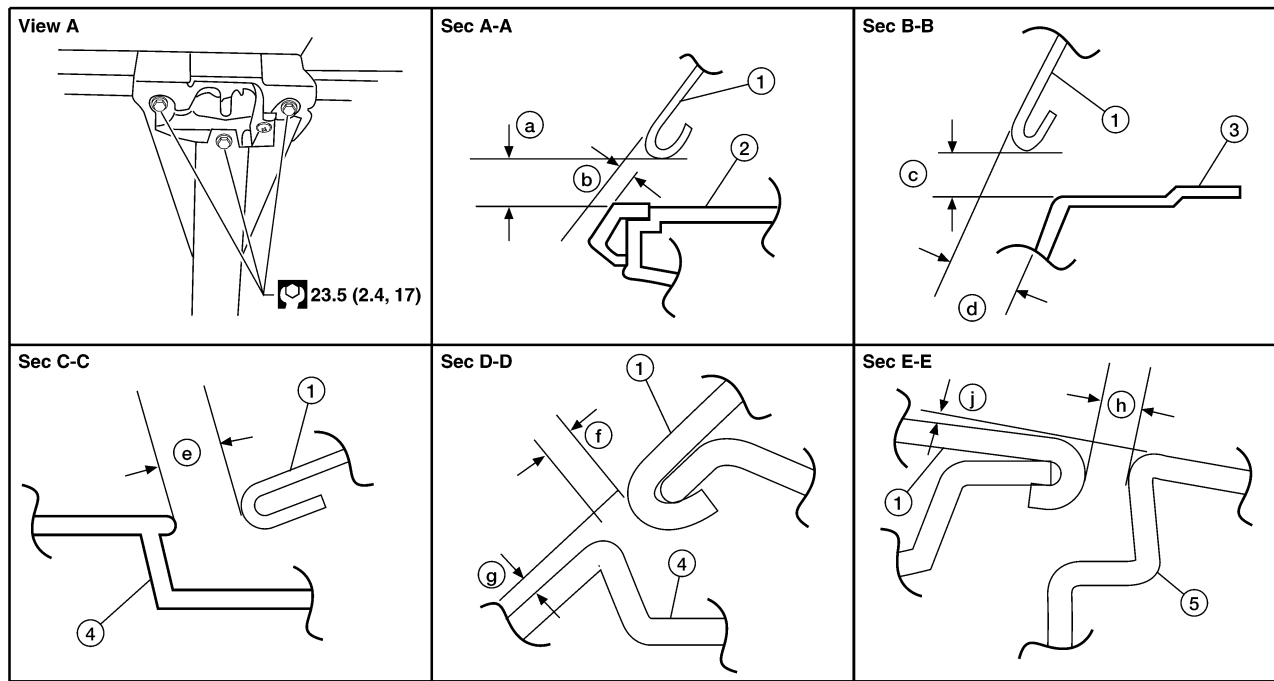
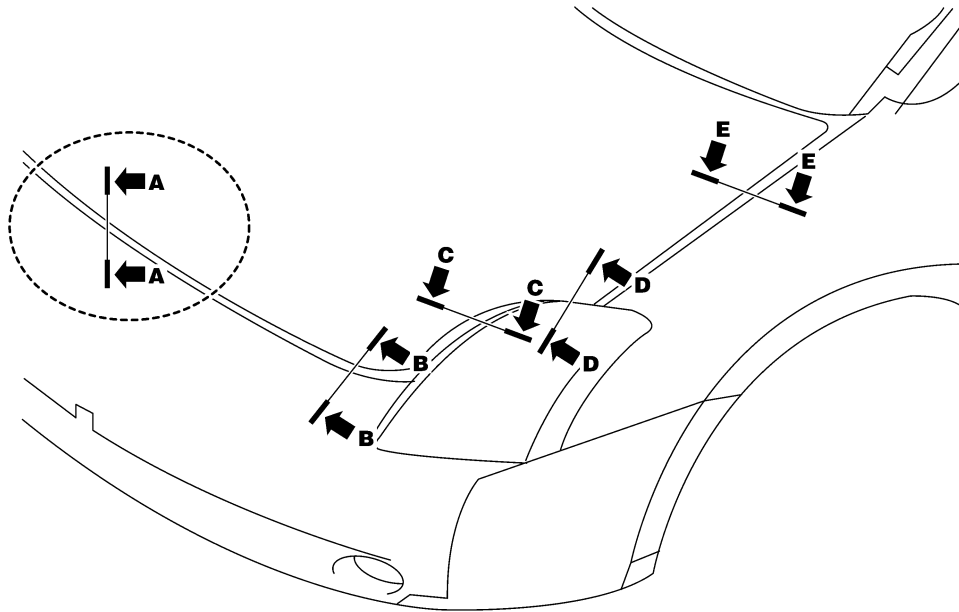
PPF:F5100

E/S00B71

HOOD

Fitting Adjustment

SEC. 650



L11A2774E

- | | | |
|---|---|--|
| 1. Hood assembly | 2. Radiator grille | 3. Front bumper fascia |
| 4. Headlamp assembly | 5. Front fender | a. 5.0 ± 2.0 mm (0.2 ± 0.08 in) |
| b. 2.0 ± 2.0 mm (0.08 ± 0.08 in) | c. 5.0 ± 2.0 mm (0.2 ± 0.08 in) | d. 2.95 ± 2.0 mm (0.12 ± 0.08 in) |
| e. 4.5 ± 2.0 mm (0.18 ± 0.08 in) | f. 4.5 ± 2.0 mm (0.18 ± 0.08 in) | g. 1.5 ± 2.0 mm (0.06 ± 0.08 in) |
| h. 3.5 ± 1.0 mm (0.14 ± 0.04 in) | j. 0.0 ± 1.0 mm (0.0 ± 0.04 in) | |

LATERAL/LONGITUDINAL CLEARANCE ADJUSTMENT

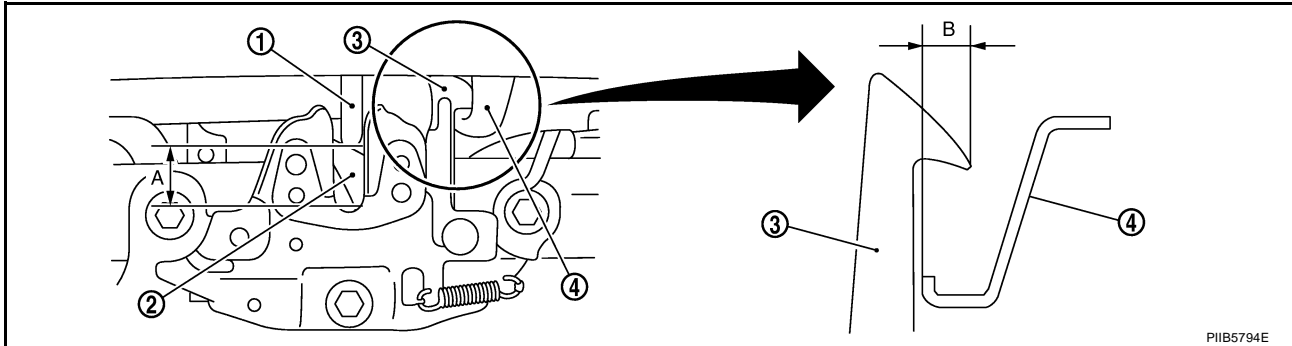
1. Remove the front fenders. Refer to [BL-20, "FRONT FENDER"](#).
2. Seat the hood hinge bolts without torquing.
3. Install the front fenders. Refer to [BL-20, "FRONT FENDER"](#).
4. Adjust the hood assembly so that the right and left side clearance dimensions are within specification.

HOOD

5. Remove the front fenders. Refer to [BL-20, "FRONT FENDER"](#) .
6. Tighten the hood hinge bolts to the specified torque.
7. Install the front fenders. Refer to [BL-20, "FRONT FENDER"](#) .

SURFACE MISMATCH ADJUSTMENT

1. Remove the front grille. Refer to [BL-20, "FRONT FENDER"](#) .
2. Position the hood lock aside.
3. Adjust surface level difference of hood, fender, and headlamp according to the fitting standard dimension, using RH and LH bumper rubbers.
4. Install the hood lock and adjust until the center of the striker and the hood lock are vertically aligned.
5. Press the hood lightly with [approx. 29 N (3 kg)] of force and adjust A and B as shown.



1. Hood striker
2. Primary latch
3. Secondary striker
4. Secondary latch

A : 20 mm (0.79 in)

B : 6.8 mm (0.268 in) min.

6. After adjustment tighten hood lock bolts to the specified torque.
7. Install the front grille. Refer to [EI-18, "FRONT GRILLE"](#) .

Removal and Installation HOOD ASSEMBLY

EIS00B7H

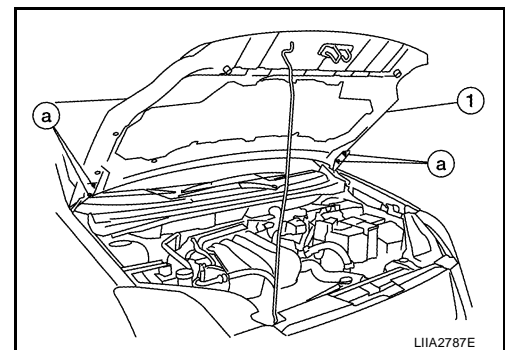
Removal

1. Remove the nuts (a) and the hood assembly (1).

CAUTION:

Two technicians should be used to avoid damaging the hood or windshield during removal.

Hood hinge nuts : 14.6 N-m (1.5 kg-m, 11 ft-lb)



Installation

Installation is in the reverse order of removal.

CAUTION:

- After installing, perform fitting adjustment. Refer to [BL-14, "Fitting Adjustment"](#) .

HOOD HINGE

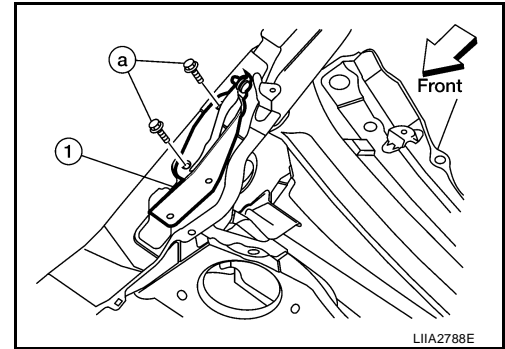
Removal

1. Remove the hood assembly. Refer to [BL-15, "HOOD ASSEMBLY"](#) .
2. Remove the front fender (s). Refer to [BL-20, "FRONT FENDER"](#) .

HOOD

3. Remove the bolts (a) and the hood hinge (1).

Hood hinge bolts : 14.6 N·m (1.5 kg-m, 11 ft-lb)



Installation

Installation is in the reverse order of removal.

CAUTION:

- Before installing the hood hinge, apply anticorrosive agent to the surface that makes contact with the hood edge.
- After installing, perform fitting adjustment. Refer to [BL-14, "Fitting Adjustment"](#).

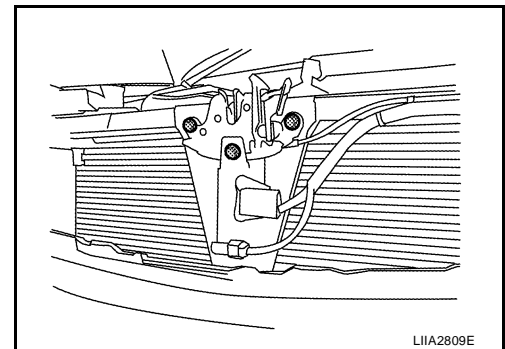
HOOD LOCK

Removal

1. Remove the front grille (LH). Refer to [EI-18, "FRONT GRILLE"](#).
2. Remove the hood lock bolts.

Hood lock bolts : 23.6 N·m (2.4 kg-m, 17 ft-lb)

3. Remove the hood lock from the hood lock cable.



Installation

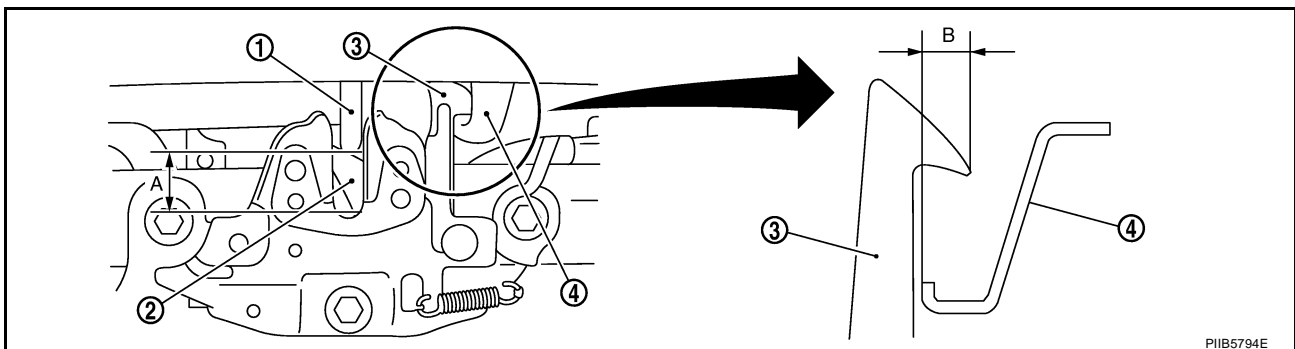
Installation is in the reverse order of removal.

Inspection

CAUTION:

If the hood lock cable is bent or deformed, replace it.

1. Check that the secondary latch is properly engaged with the secondary striker (B: 6.8 mm (0.268 in) by the hood's own weight.



1. Hood striker

2. Primary latch

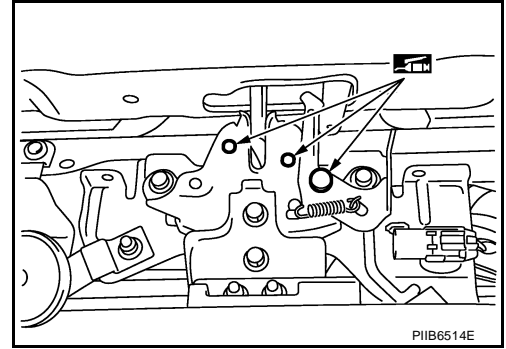
3. Secondary striker

4. Secondary latch

2. While operating the hood release handle, carefully check that the front end of the hood is raised by approx. 20 mm (0.79 in). Also check that the hood release handle returns to the original position.
3. Check that the secondary hood release operates at 29.4 N (3.0 kg) or below.

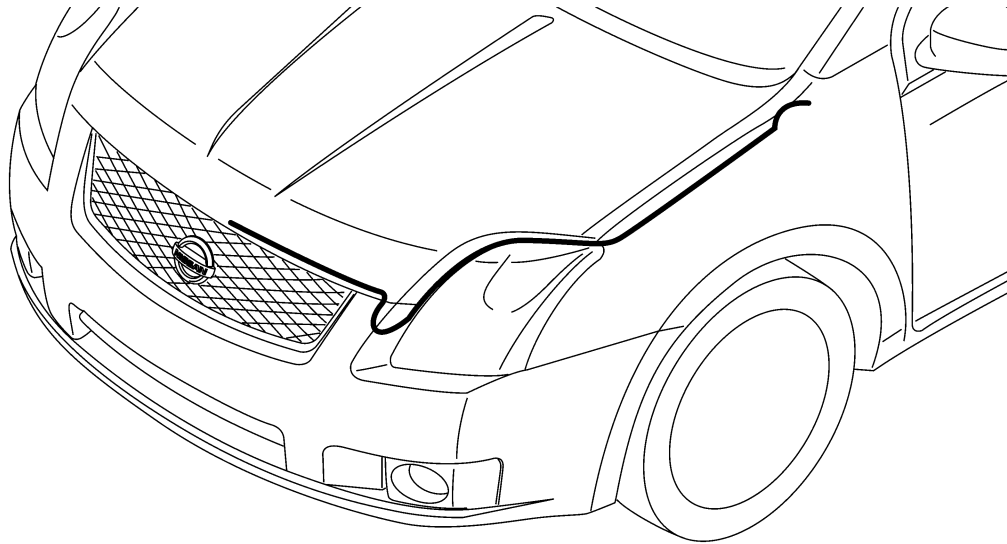
HOOD

4. Confirm that the static closing force of the hood is 343 – 441 N·m (35 – 44 kg-m).
5. Check the hood lock lubrication condition. If necessary, apply “body grease” to the points as shown.



HOOD LOCK CABLE

SEC. 650



Removal

1. Remove the front grille (LH/RH). Refer to [EI-18, "FRONT GRILLE"](#) .
2. Remove the fender protector (LH). Refer to [EI-21, "FENDER PROTECTOR"](#) .
3. Remove the hood lock. Refer to [BL-16, "HOOD LOCK"](#) .
4. Disconnect the hood lock cable from the radiator core support and the underside of the hoodedge.
5. Remove the instrument lower finisher. Refer to [IP-10, "INSTRUMENT PANEL ASSEMBLY"](#) .
6. Push the grommet from the upper dash into the passenger compartment and remove the hood lock cable.

CAUTION:

While pulling the cable, be careful not to damage (peel) hood opener cable outer surface on edges of body through hole.

Installation

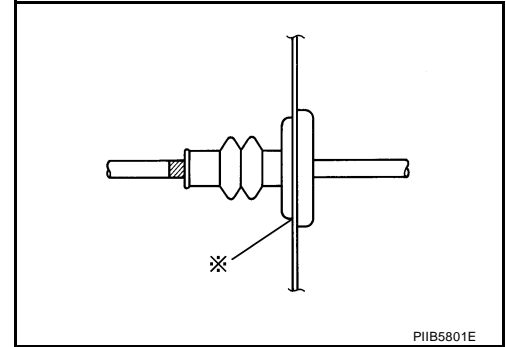
1. Pull the hood lock cable through the hole in the upper dash and into the wheel well.

HOOD

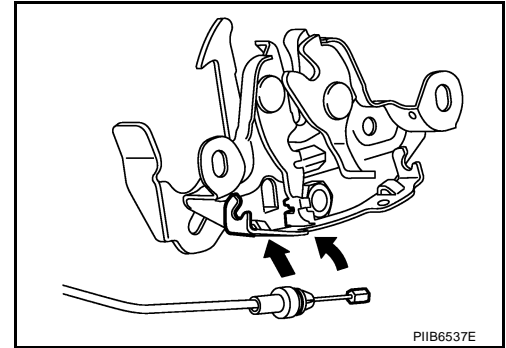
CAUTION:

Be careful not to bend the cable too much, keeping the radius 100 mm (3.94 in) or more.

2. Check that the cable is not offset from the positioning grommet, and push the grommet into the upper dash hole securely.
3. Apply sealant around the grommet (at * mark).



4. Connect the hood lock cable to hood lock.
5. After installing, check the hood lock adjustment and the hood opener operation. Refer to [BL-14, "Fitting Adjustment"](#).



RADIATOR CORE SUPPORT

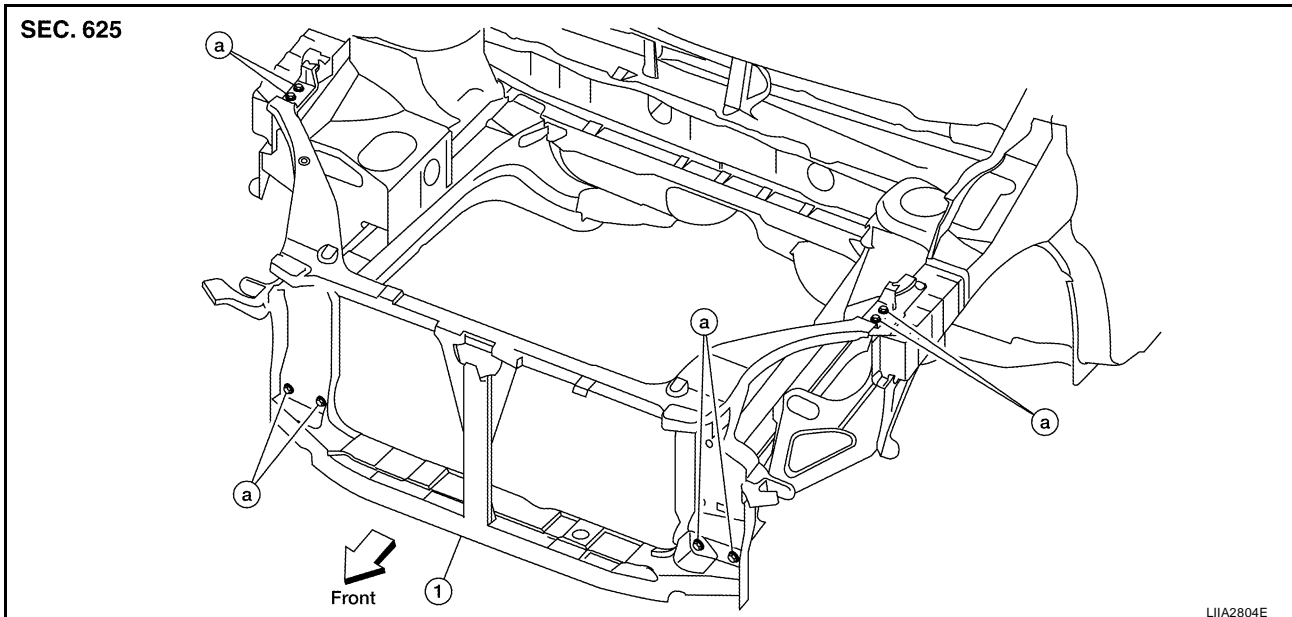
PFP:62500

EIS00BBP

RADIATOR CORE SUPPORT

Removal and Installation REMOVAL

1. Remove the hood. Refer to [BL-15, "HOOD ASSEMBLY"](#) .
2. Remove the front bumper reinforcement. Refer to [EI-16, "REAR BUMPER"](#) .
3. Remove the hood lock assembly. Refer to [BL-16, "HOOD LOCK"](#) .
4. Remove the air duct. Refer to [EM-18, "AIR CLEANER AND AIR DUCT"](#) .
5. Remove both headlamps. Refer to [LT-25, "Removal and Installation"](#) .
6. Remove the crash zone sensor.
7. Remove the I-key buzzer.
8. Remove the horn. Refer to [WW-28, "HORN"](#) .
9. Remove the air guide and hood lock cable clip.
10. Remove the washer tank. Refer to [WW-24, "Removal and Installation of Washer Fluid Reservoir"](#) .
11. Remove the radiator. Refer to [CO-13, "RADIATOR"](#) .
12. Remove the AC condenser. Refer to [MTC-105, "Removal and Installation for Condenser"](#) .
13. Remove the bolts (a) and the radiator core support (1).



INSTALLATION

Installation is in the reverse order of removal.

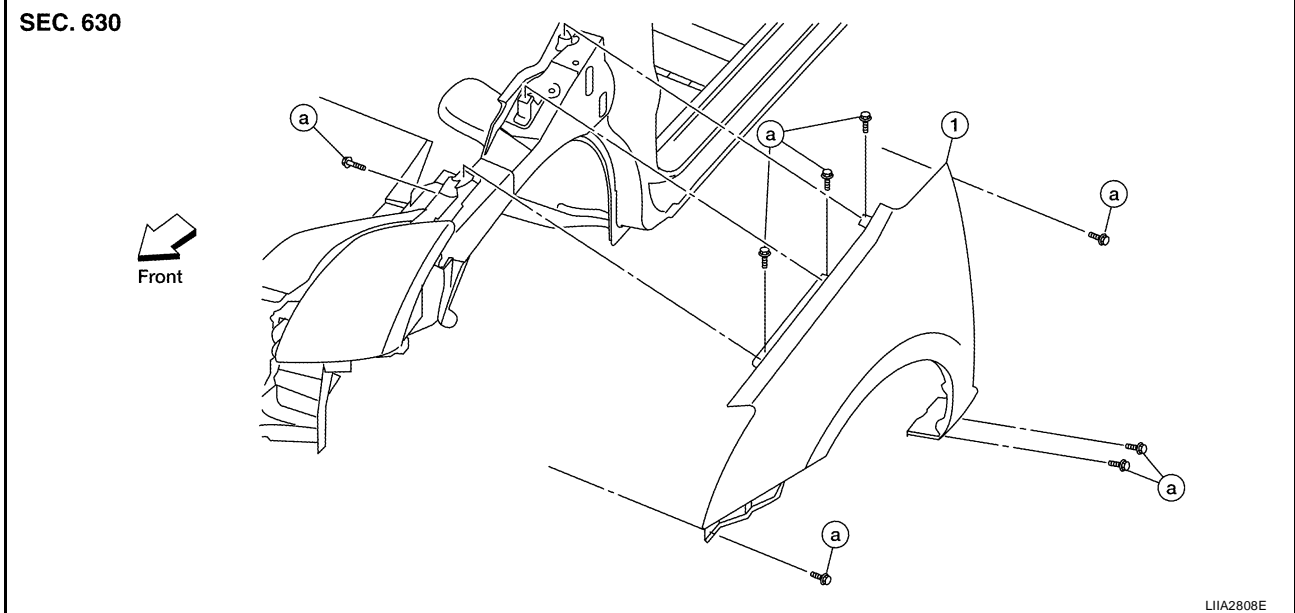
FRONT FENDER

FRONT FENDER

PFP:63100

Removal and Installation

EIS00B7J



1. Front fender

2. Bolts

REMOVAL

1. Remove the headlamp assemblies. Refer to [LT-25, "Removal and Installation"](#).
2. Remove the cowl top cover (LH/RH). Refer to [EI-19, "COWL TOP"](#).
3. Remove the front fender protector. Refer to [EI-21, "FENDER PROTECTOR"](#).
4. Remove the bolts (a) and the front fender (1).

CAUTION:

While removing use a shop cloth to protect the vehicle body from damage.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- After installing, apply touch-up paint onto the head of the front fender bolts.

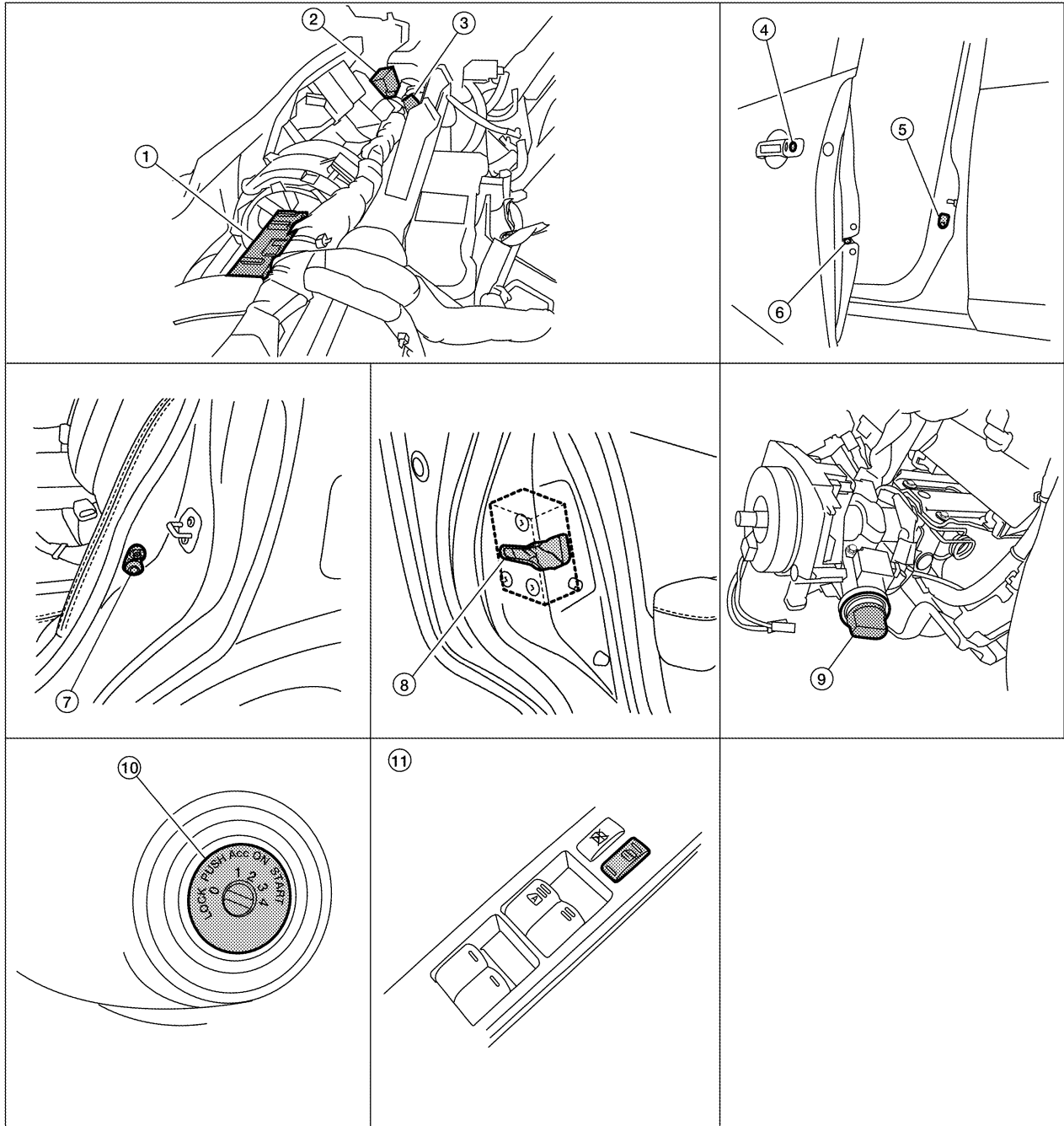
POWER DOOR LOCK SYSTEM

PFP:24814

EIS00B7K

POWER DOOR LOCK SYSTEM

Component Parts and Harness Connector Location



A
B
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M

- | | | |
|--|--|--|
| 1. BCM M18, M19, M20
(view with instrument panel removed) | 2. Intelligent Key unit M42
(with Intelligent Key) | 3. Passenger select unlock relay M14
(with Intelligent Key) |
| 4. Front door lock assembly LH (key cylinder switch) D9 | 5. Front door switch LH B21, RH B28 | 6. Front door lock assembly (actuator) LH D9, RH D107 |
| 7. Rear door switch LH B26, RH B41 | 8. Rear door lock actuator LH D202, RH D302 | 9. Key switch and ignition knob switch M49
(with Intelligent Key) |
| 10. Key switch M50
(without Intelligent Key) | 11. Main power window and door lock/unlock switch D5
Power window and door lock/unlock switch RH D104 | |

BIA0001E

POWER DOOR LOCK SYSTEM

EIS00B7L

System Description

Power is supplied at all times

- through 50A fusible link (letter j , located in the fuse and fusible link box)
- to BCM terminal 70
- through 10A fuse [No. 21, located in the fuse block (J/B)]
- to BCM terminal 57
- through 10A fuse [No. 19, located in the fuse block (J/B)]
- to key switch terminal 2 (without Intelligent Key system)
- through 10A fuse [No. 9, located in the fuse block (J/B)]
- to key switch and ignition knob switch terminals 2 and 4 (with Intelligent Key system).

When key switch is ON (key is inserted in ignition key cylinder), power is supplied

- through key switch terminal 1 (without Intelligent Key system) or key switch and ignition knob terminal 1 (with Intelligent Key system)
- to BCM terminal 37.

Ground is supplied

- to BCM terminal 67
- through body grounds M57 and M61.

LOCK OPERATION

When the door is locked with main power window and door lock/unlock switch, ground is supplied

- to BCM terminal 45
- through main power window and door lock and unlock switch terminals 10 and 14
- through body grounds M57 and M61.

When the door is locked with power window and door lock/unlock switch RH, ground is supplied

- to BCM terminal 45
- through power window and door lock and unlock switch RH terminals 1 and 3
- through body grounds M57 and M61.

When the door is locked with front door key cylinder switch LH, ground is supplied

- to BCM terminal 8
- through front door key cylinder switch LH terminals 4 and 6
- through body grounds M57 and M61.

UNLOCK OPERATION

When the door is unlocked with main power window and door lock/unlock switch, ground is supplied

- to BCM terminal 46
- through main power window and door lock/unlock switch terminals 11 and 14
- through body grounds M57 and M61.

When the door is unlocked with power window and door lock/unlock switch RH, ground is supplied

- to BCM terminal 46
- through power window and door lock and unlock switch RH terminals 2 and 3
- through body grounds M57 and M61.

When the door is unlocked with front door key cylinder switch LH, ground is supplied

- to BCM terminal 7
- through front door key cylinder switch LH terminals 4 and 5
- through body grounds M57 and M61.

When the front door switch LH is ON (door is OPEN), ground is supplied

- to BCM terminal 47
- through front door switch LH terminal 2
- through front door switch LH case ground.

When the front door switch RH is ON (door is OPEN), ground is supplied

POWER DOOR LOCK SYSTEM

- to BCM terminal 12
- through front door switch RH terminal 2
- through front door switch RH case ground.

When the rear door switch LH is ON (door is OPEN), ground is supplied

- to BCM terminal 48
- through rear door switch LH terminal 2
- through rear door switch LH case ground.

When the rear door switch RH is ON (door is OPEN), ground is supplied

- to BCM terminal 13
- through rear door switch RH terminal 2
- through rear door switch RH case ground.

OUTLINE

Functions available by operating the inside door lock and unlock switches

- Interlocked with the locking operation of door lock and unlock switch, door lock actuators of all doors are locked.
- Interlocked with the unlocking operation of door lock and unlock switch, door lock actuators of all doors are unlocked.

Functions available by operating the front door key cylinder switch LH

- Interlocked with the locking operation of front door key cylinder switch LH, door lock actuators of all doors are locked.
- When front door key cylinder switch LH is unlocked, front door lock actuator LH is unlocked.
- When front door key cylinder switch LH is unlocked for the second time within 5 seconds after the first operation, door lock actuators on all doors are unlocked.

Key reminder door system

When door lock and unlock switch is operated to lock doors with ignition key inserted in key cylinder and any door open, all door lock actuators are locked and then unlocked.

CAN Communication System Description

EIS00B7M

Refer to [LAN-4, "SYSTEM DESCRIPTION"](#) .

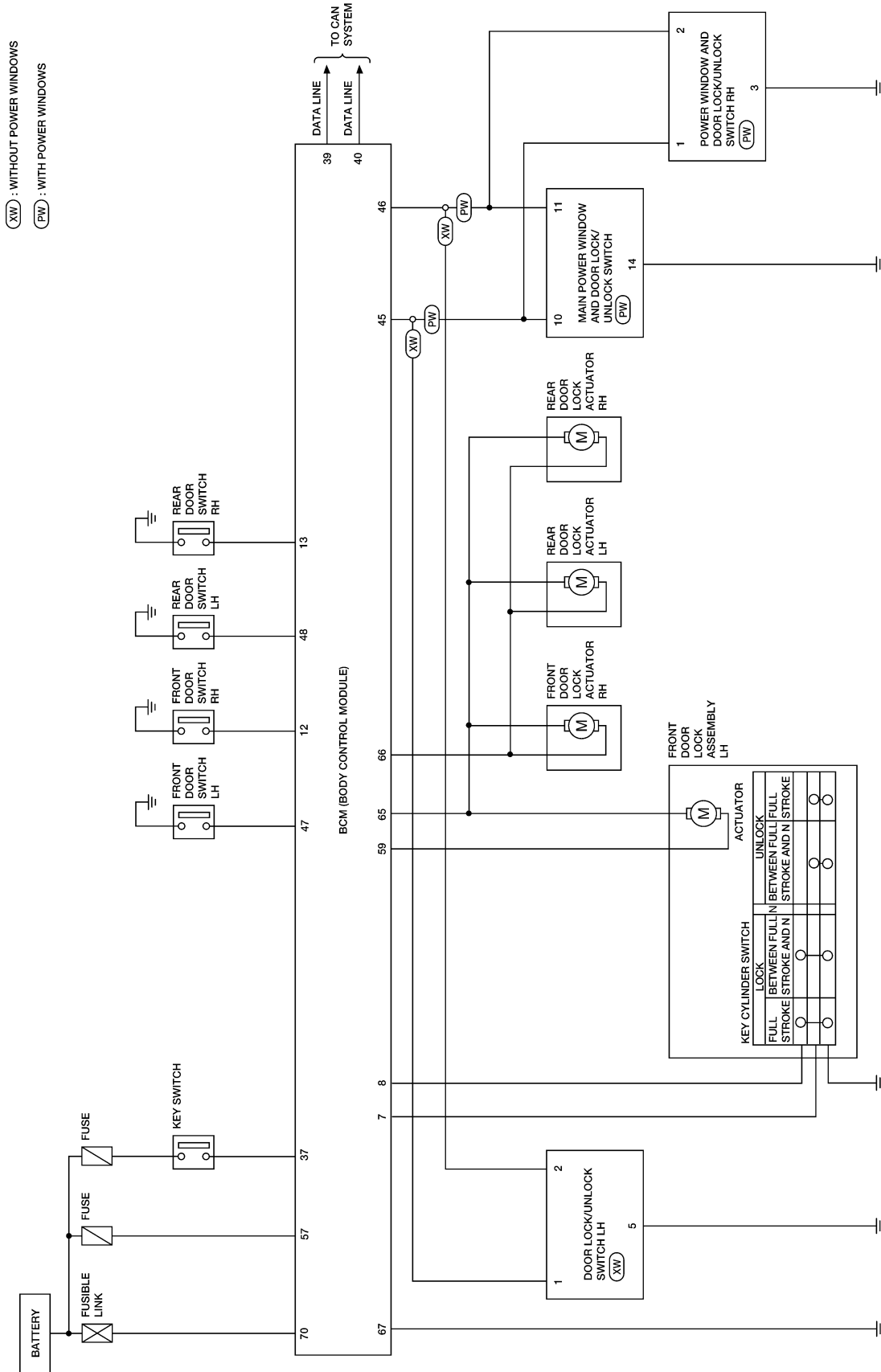
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BL

POWER DOOR LOCK SYSTEM

EIS00B7N

Schematic WITHOUT INTELLIGENT KEY



WIWA2174E

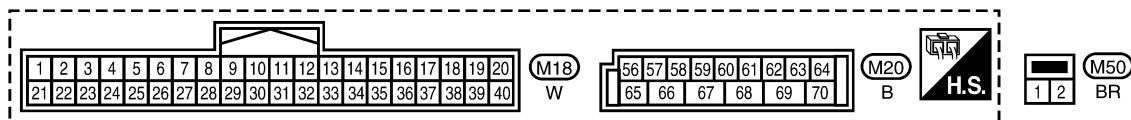
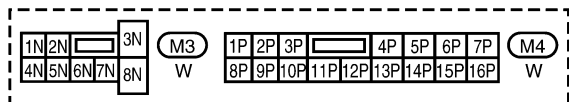
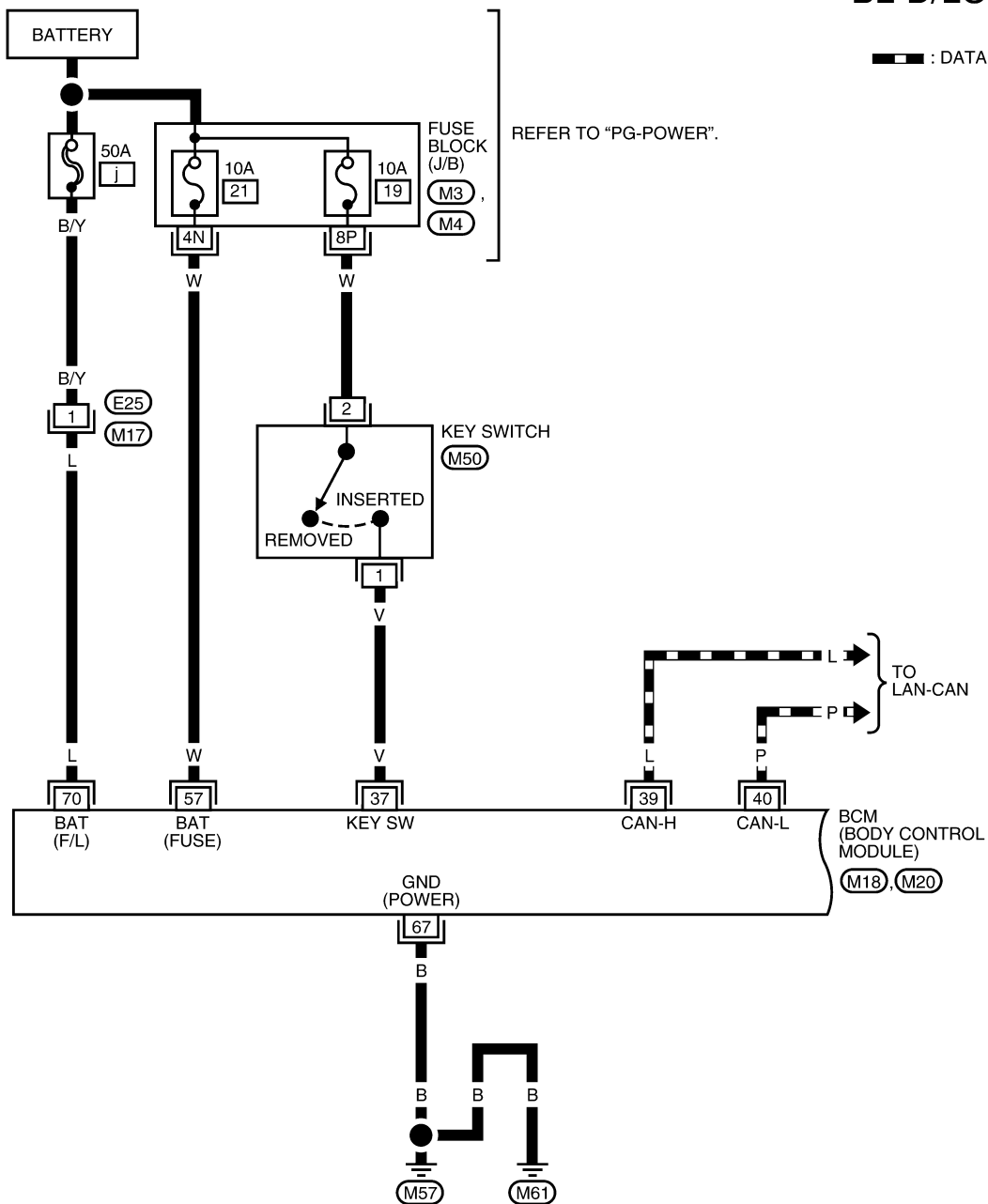
POWER DOOR LOCK SYSTEM

Wiring Diagram — D/LOCK — WITHOUT INTELLIGENT KEY

EIS00B70

BL-D/LOCK-01

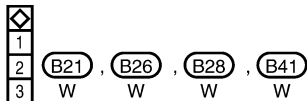
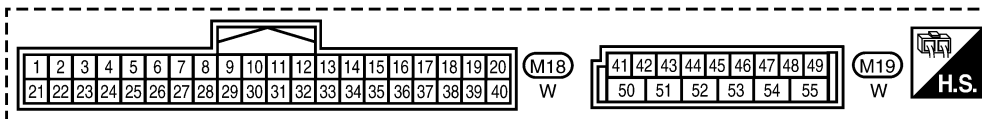
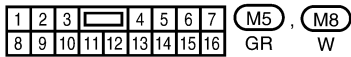
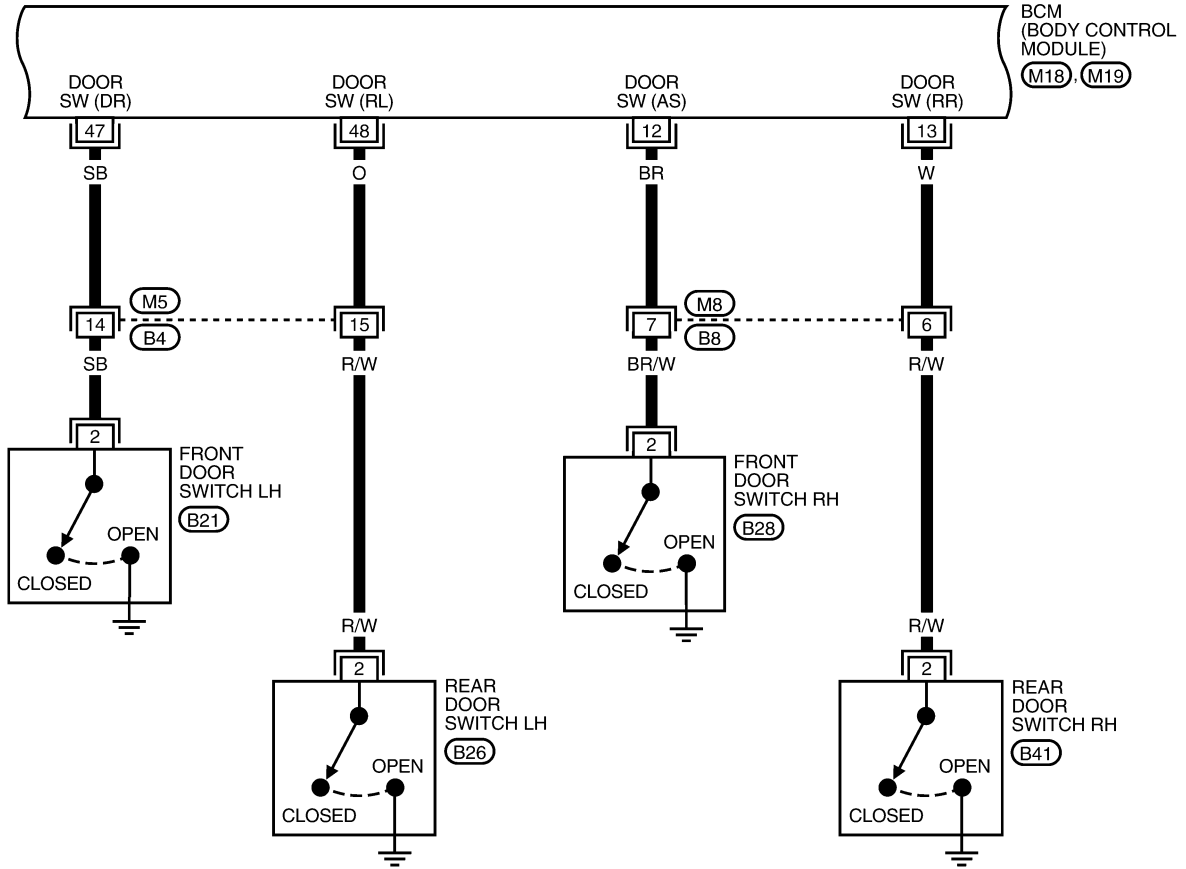
▬ : DATA LINE



WIWA2175E

POWER DOOR LOCK SYSTEM

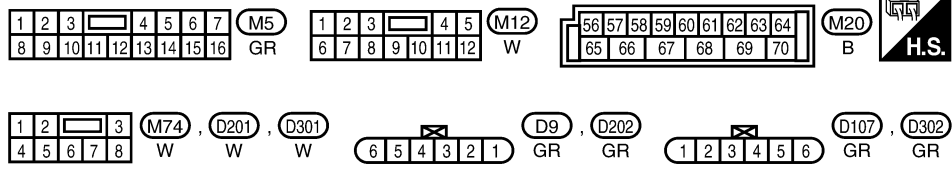
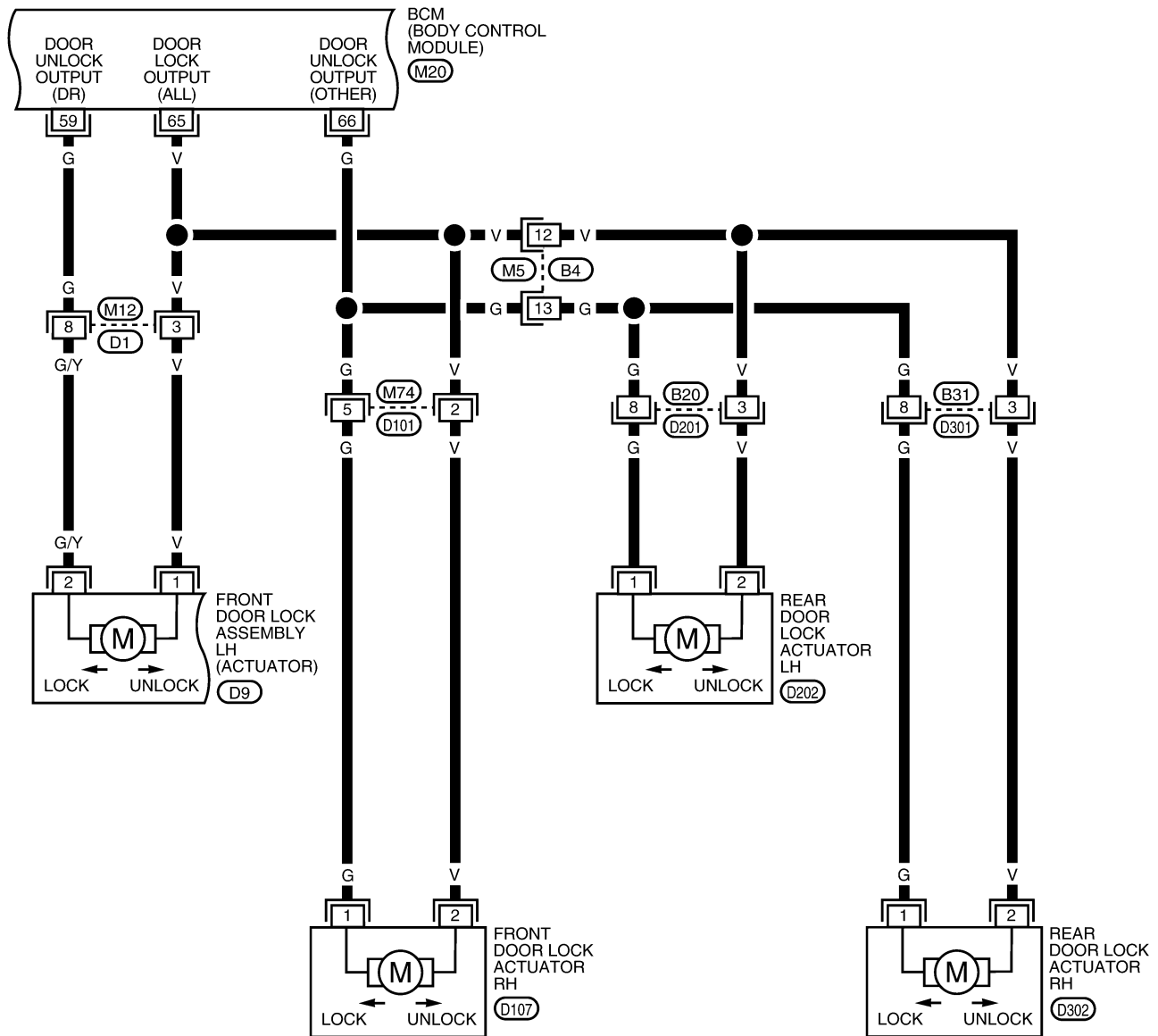
BL-D/LOCK-02



WIWA2176E

POWER DOOR LOCK SYSTEM

BL-D/LOCK-03

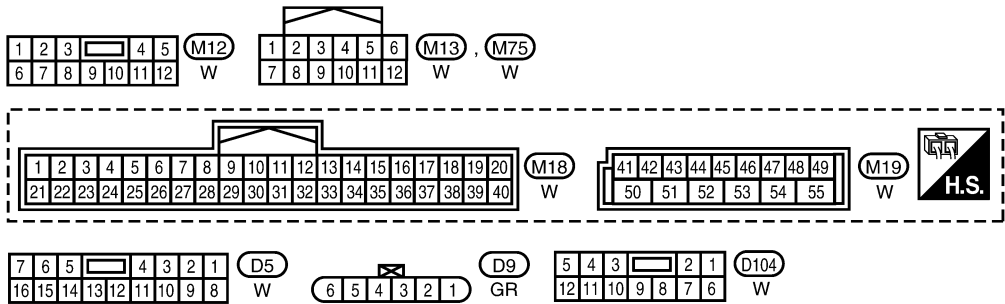
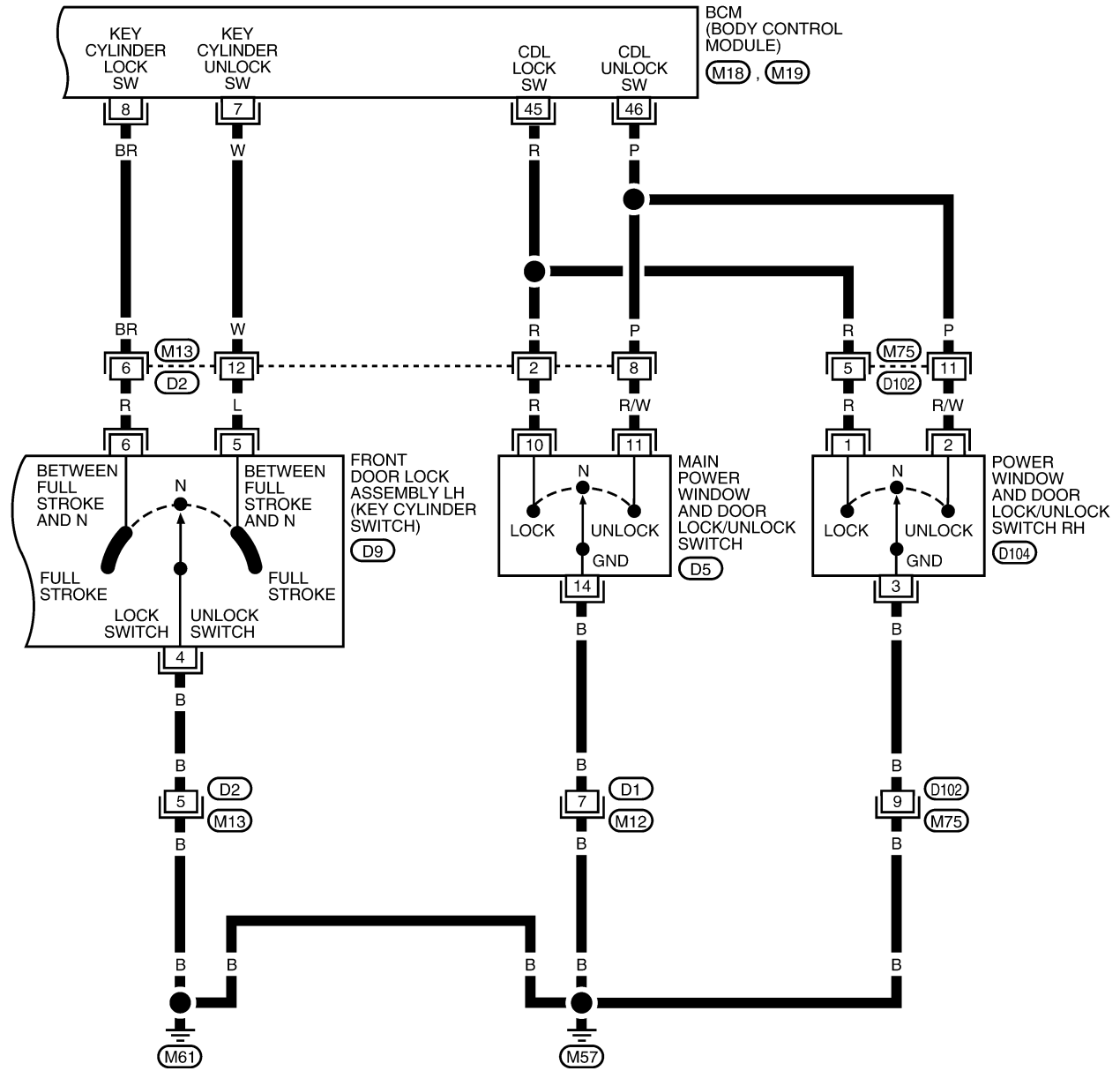


WIWA2177E

POWER DOOR LOCK SYSTEM

With Power Windows

BL-D/LOCK-04

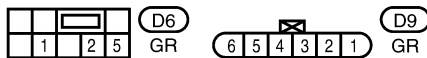
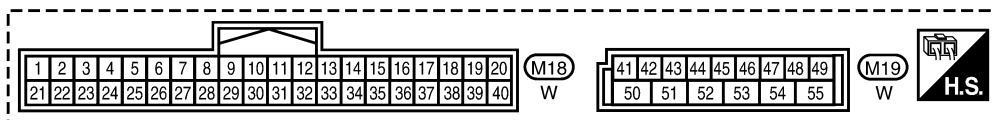
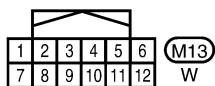
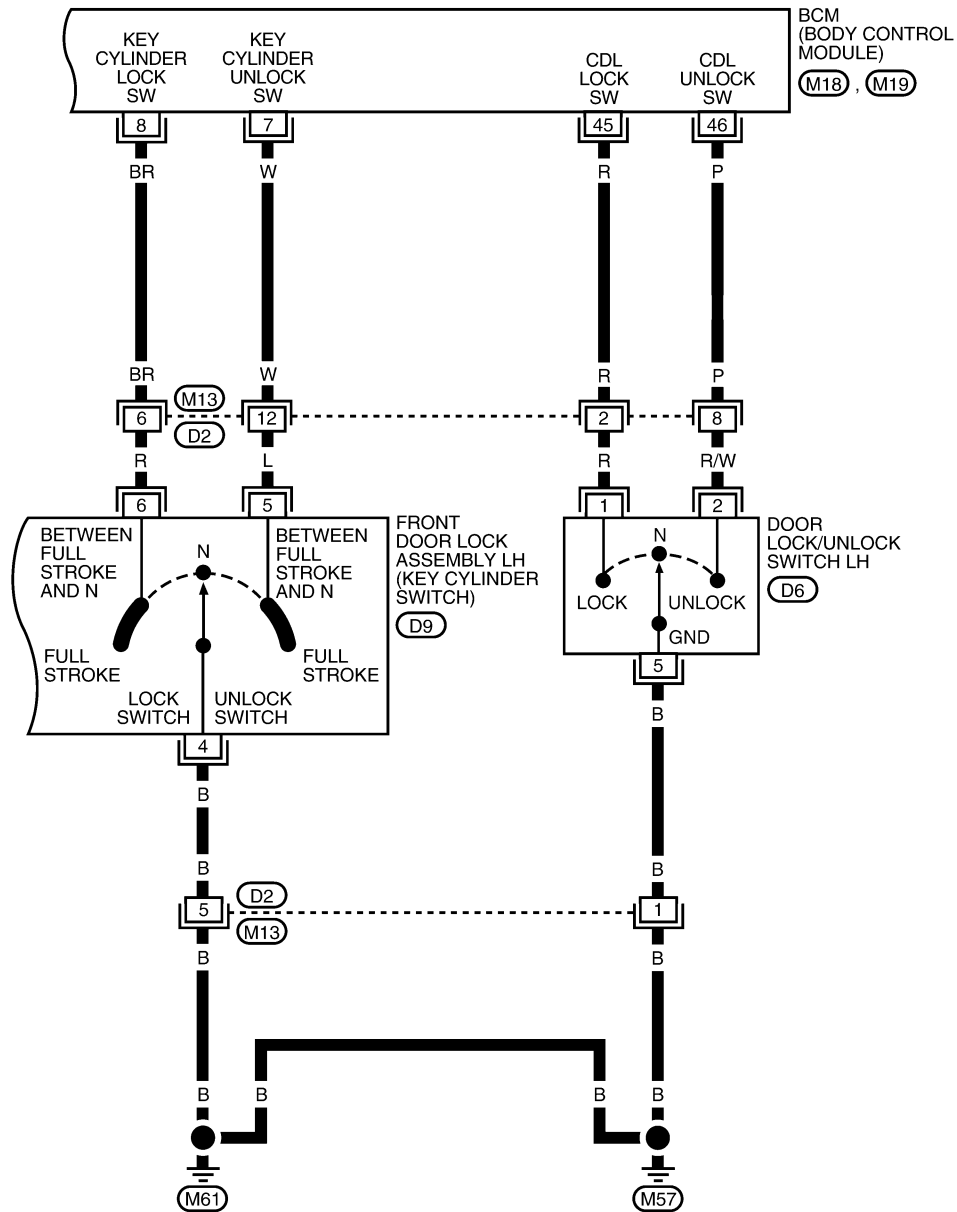


WIWA2178E

POWER DOOR LOCK SYSTEM

Without Power Windows

BL-D/LOCK-05

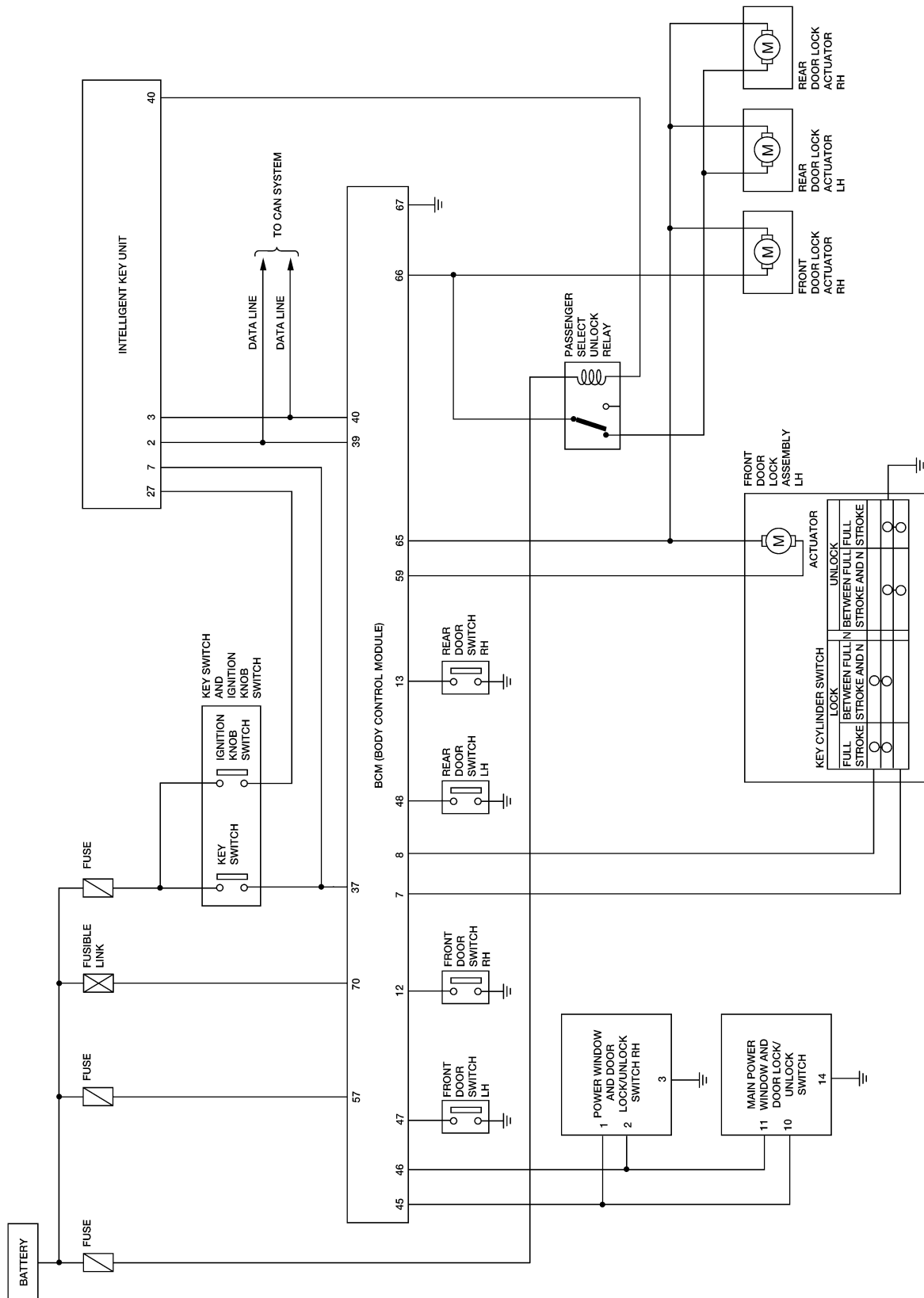


WIWA2179E

POWER DOOR LOCK SYSTEM

Schematic WITH INTELLIGENT KEY

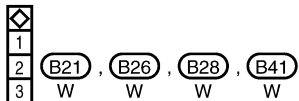
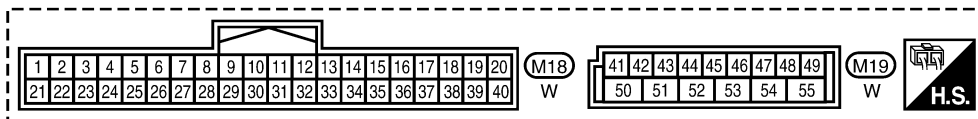
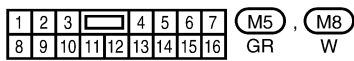
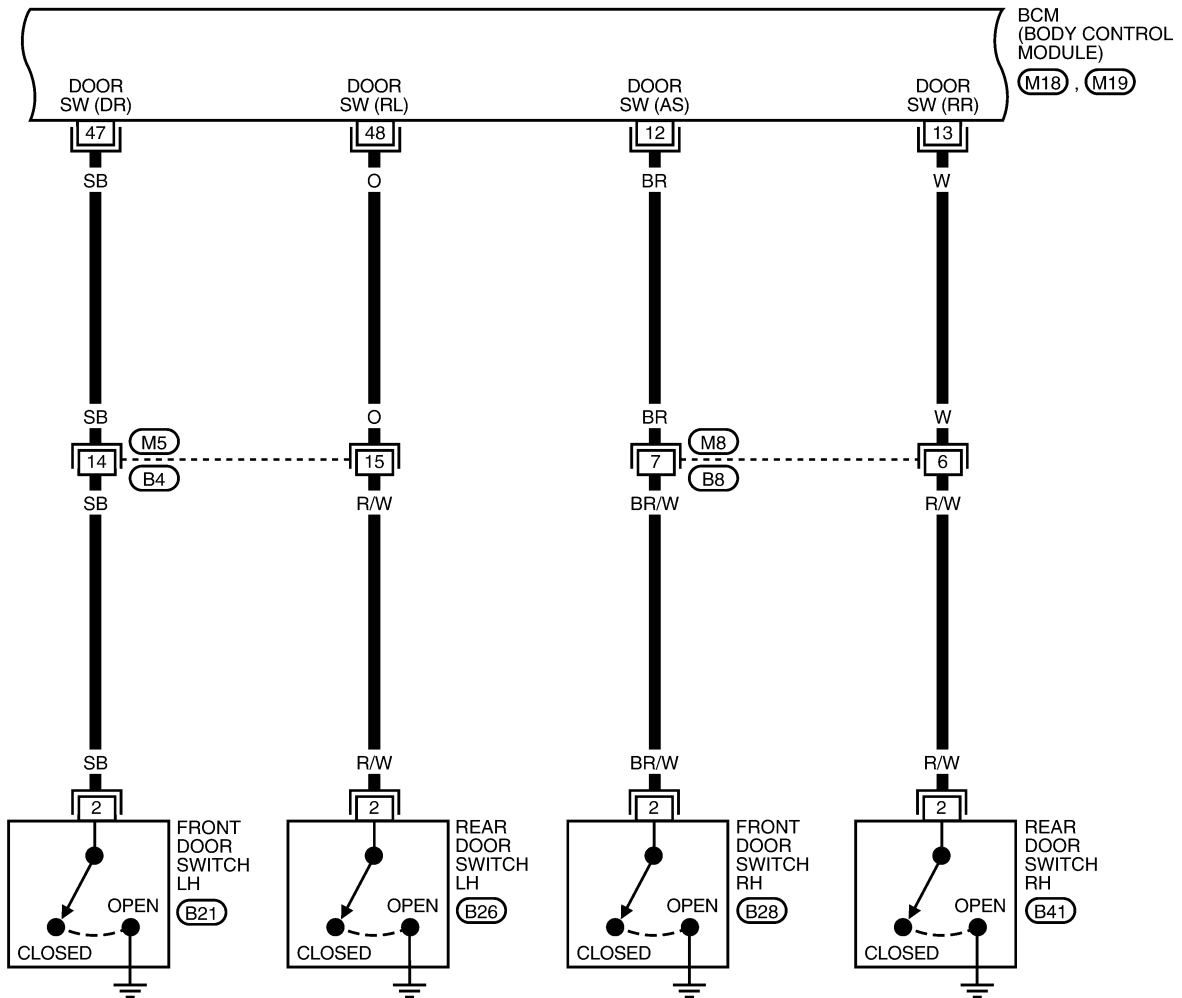
EIS00B7P



WIWA2180E

POWER DOOR LOCK SYSTEM

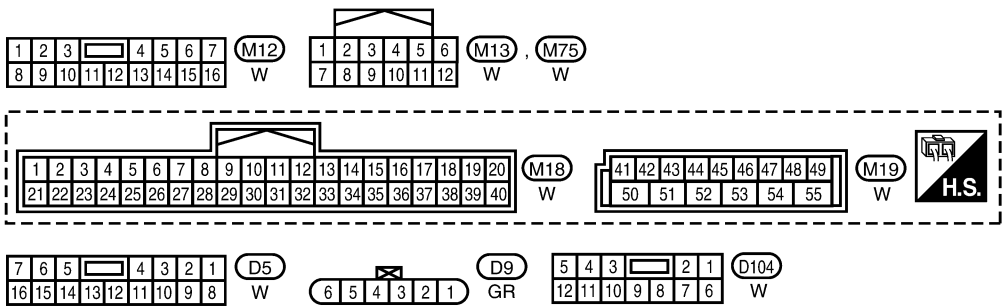
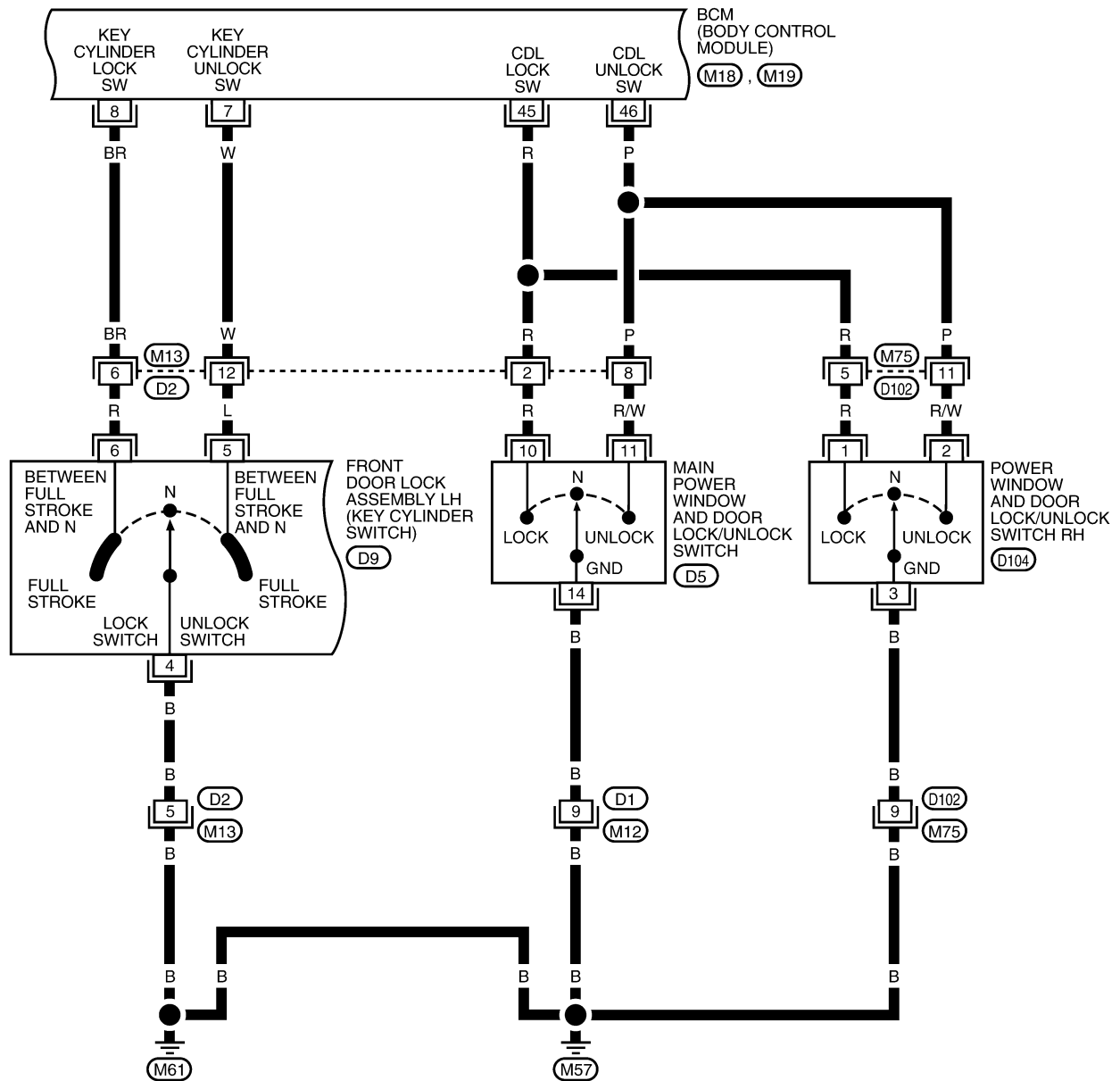
BL-D/LOCK-07



WIWA2182E

POWER DOOR LOCK SYSTEM

BL-D/LOCK-08

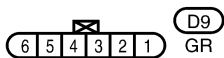
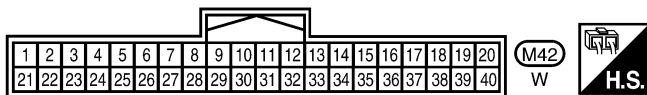
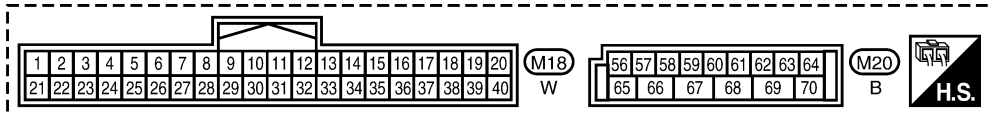
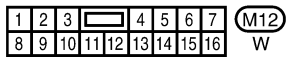
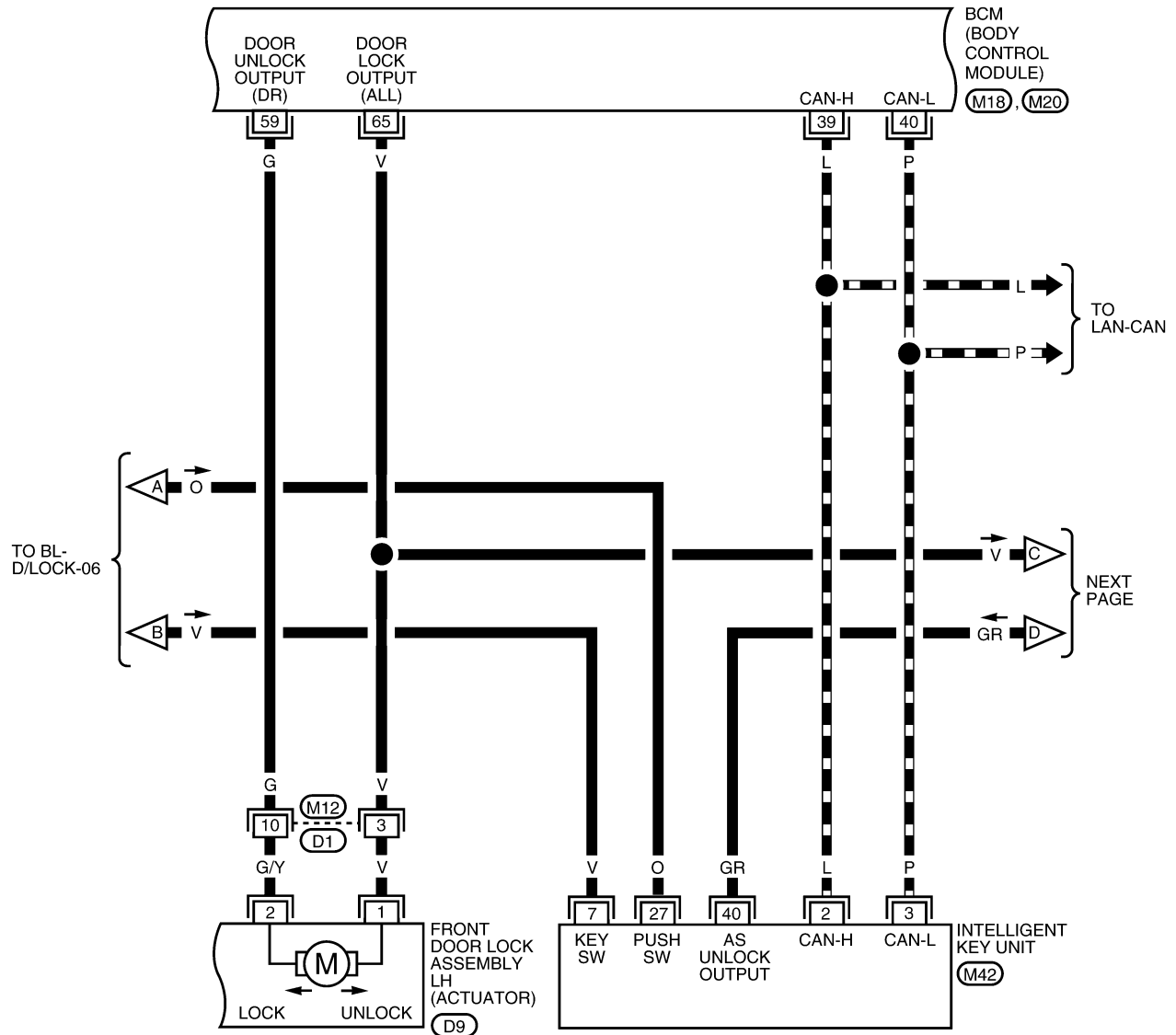


W1WA2183E

POWER DOOR LOCK SYSTEM

BL-D/LOCK-09

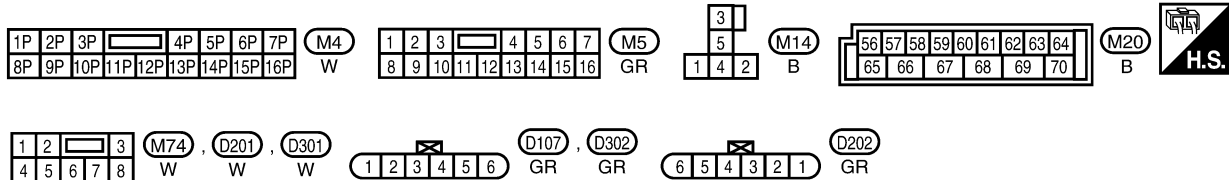
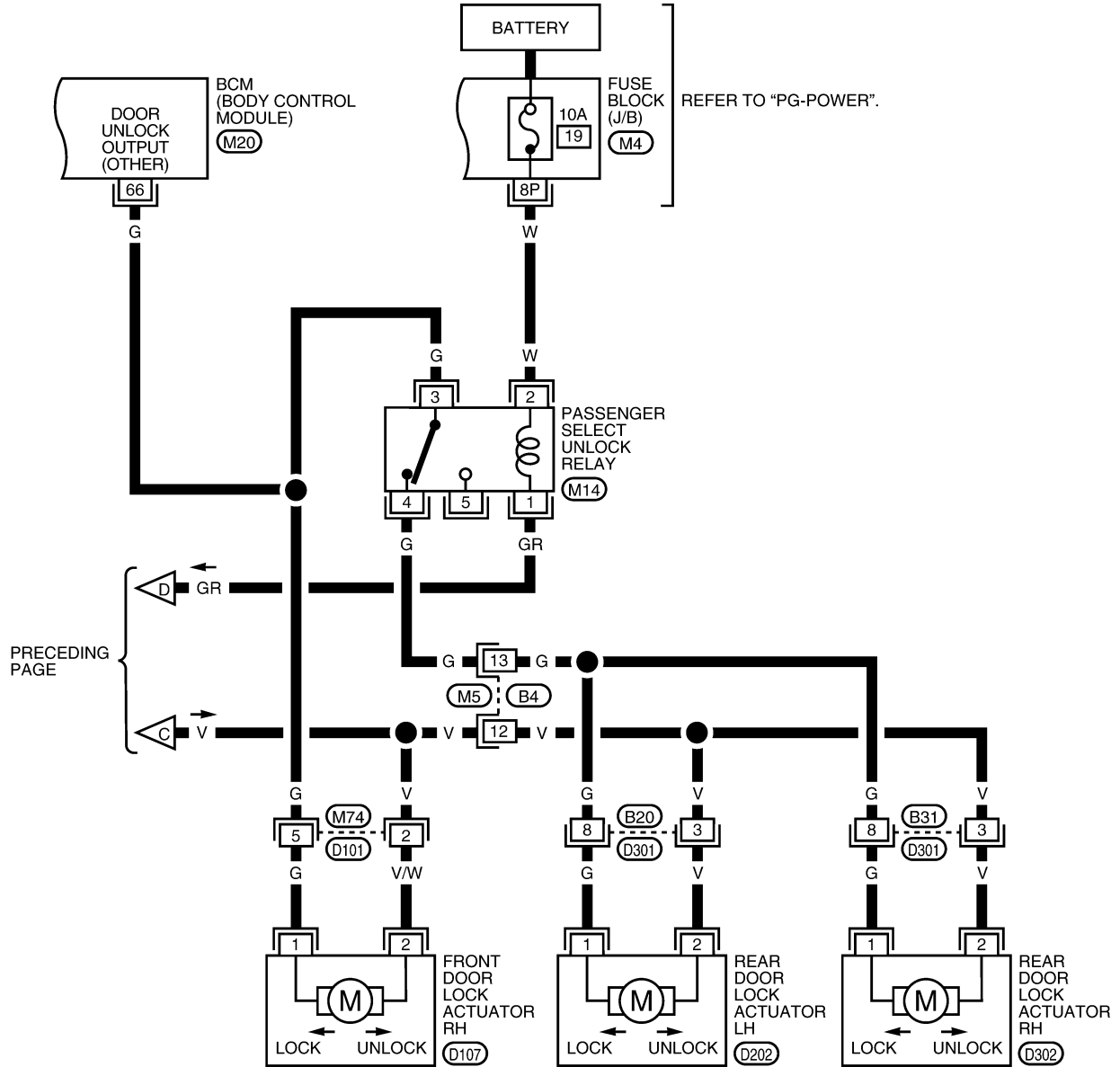
— : DATA LINE



WIWA2184E

POWER DOOR LOCK SYSTEM

BL-D/LOCK-10



WIWA2185E

POWER DOOR LOCK SYSTEM

Terminals and Reference Values for BCM

EIS00B7R

Refer to [BCS-13, "Terminals and Reference Values for BCM"](#) .

Work Flow

EIS00B7S

1. Check the symptom and customer's requests.
2. Understand the outline of system. Refer to [BL-22, "System Description"](#) .
3. According to the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to [BL-37, "Trouble Diagnoses Symptom Chart"](#) .
4. Does power door lock system operate normally? OK: GO TO 5, NG: GO TO 3.
5. Inspection End.

CONSULT-III Function (BCM)

EIS00B7T

CONSULT-III can display each diagnostic item using the diagnostic test modes shown following.

BCM diagnostic test item	Diagnostic mode	Description
Inspection by part	WORK SUPPORT	Supports inspections and adjustments. Commands are transmitted to the BCM for setting the status suitable for required operation, input/output signals are received from the BCM and received data is displayed.
	DATA MONITOR	Displays BCM input/output data in real time.
	ACTIVE TEST	Operation of electrical loads can be checked by sending drive signal to them.
	SELF-DIAG RESULTS	Displays BCM self-diagnosis results.
	CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.
	ECU PART NUMBER	BCM part number can be read.
	CONFIGURATION	Performs BCM configuration read/write functions.

WORK SUPPORT

Work item	Description
DOOR LOCK-UNLOCK SET	Select unlock mode can be changed in this mode. Selects ON-OFF of select unlock mode.
ANTI-LOCK OUT SET	Key reminder door mode can be changed in this mode. Selects ON-OFF of key reminder door mode.

DATA MONITOR

Monitor item	Content
IGN ON SW	Indicates [ON/OFF] condition of ignition switch in ON position.
KEY ON SW	Indicates [ON/OFF] condition of key switch.
CDL LOCK SW	Indicates [ON/OFF] condition of lock signal from door lock and unlock switch.
CDL UNLOCK SW	Indicates [ON/OFF] condition of unlock signal from door lock and unlock switch.
DOOR SW-DR	Indicates [ON/OFF] condition of front door switch LH.
DOOR SW-AS	Indicates [ON/OFF] condition of front door switch RH.
DOOR SW-RR	Indicates [ON/OFF] condition of rear door switch RH.
DOOR SW-RL	Indicates [ON/OFF] condition of rear door switch LH.
BACK DOOR SW	This is displayed even when it is not equipped.
KEY CYL LK-SW	Indicates [ON/OFF] condition of lock signal from key cylinder.
KEY CYL UN-SW	Indicates [ON/OFF] condition of unlock signal from key cylinder.
KEYLESS LOCK*	Indicates [ON/OFF] condition of lock signal from keyfob.
KEYLESS UNLOCK*	Indicates [ON/OFF] condition of unlock signal from keyfob.
I-KEY LOCK**	Indicates [ON/OFF] condition of lock signal from door request switch.
I-KEY UNLOCK**	Indicates [ON/OFF] condition of unlock signal from door request switch.

POWER DOOR LOCK SYSTEM

*: With Remote Keyless Entry system

** : With Intelligent Key system

ACTIVE TEST

Test item	Content
ALL LOCK	This test is able to check all door lock actuators lock operation. These actuators lock when "ON" on CONSULT-III screen is touched.
ALL UNLOCK	This test is able to check all door lock actuators unlock operation. These actuators unlock when "ON" on CONSULT-III screen is touched.
DR UNLOCK	This test is able to check front door lock actuator LH unlock operation. These actuators lock when "ON" on CONSULT-III screen is touched.
OTHER UNLOCK	This test is able to check door lock actuators (except front door lock actuator LH) unlock operation. These actuators unlock when "ON" on CONSULT-III screen is touched.

Trouble Diagnoses Symptom Chart

E/S00B7U

Symptom	Repair order	Refer to page
Key reminder door function does not operate properly.	1. BCM power supply and ground circuit check	BCS-16
	2. Door switch check	BL-38
	3. Key switch (insert) check	BL-40
	4. Replace BCM.	BCS-21
Power door lock does not operate with door lock and unlock switch on main power window and door lock/unlock switch, power window and door lock/unlock switch RH or door lock/unlock switch LH.	1. Door lock/unlock switch check	BL-42
	2. Replace BCM.	BCS-21
One or both rear door lock actuators do not operate.	1. Passenger select unlock relay circuit check	BL-50
Front door lock assembly LH (actuator) does not operate.	1. Front door lock assembly LH (actuator) check	BL-46
Specific door lock actuator does not operate.	1. Door lock actuator check (Front RH, Rear LH/RH)	BL-47
Power door lock does not operate with front door key cylinder switch operation.	1. Front door key cylinder switch check	BL-48
	2. Replace BCM.	BCS-21
All power door locks do not operate.	1. BCM power supply and ground circuit check	BCS-16
	2. Door lock/unlock switch check	BL-42
	3. Replace BCM.	BCS-21

POWER DOOR LOCK SYSTEM

BCM Power Supply and Ground Circuit Check

EIS00B7V

Refer to [BCS-16, "BCM Power Supply and Ground Circuit Check"](#) .

Door Switch Check

EIS00B7W

1. CHECK DOOR SWITCHES INPUT SIGNAL

 With CONSULT-III

Check door switches ("DOOR SW-DR", "DOOR SW-AS", "DOOR SW-RL", "DOOR SW-RR") in DATA MONITOR mode with CONSULT-III. Refer to [BL-36, "DATA MONITOR"](#) .

- When any doors are open:

DOOR SW-DR : ON
DOOR SW-AS : ON
DOOR SW-RL : ON
DOOR SW-RR : ON

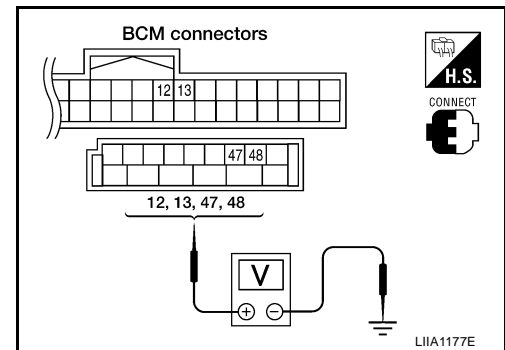
- When any doors are closed:

DOOR SW-DR : OFF
DOOR SW-AS : OFF
DOOR SW-RL : OFF
DOOR SW-RR : OFF

 Without CONSULT-III

Check voltage between BCM connector M18 or M19 terminals 12, 13, 47, 48 and ground.

Connector	Item	Terminals		Condition	Voltage (V) (Approx.)
		(+)	(-)		
M19	Front door switch LH	47	Ground	Open ↓ Closed	0 ↓ Battery voltage
	Rear door switch LH	48			
M18	Front door switch RH	12			
	Rear door switch RH	13			



OK or NG

- OK >> Door switch circuit is OK.
- NG >> GO TO 2.

POWER DOOR LOCK SYSTEM

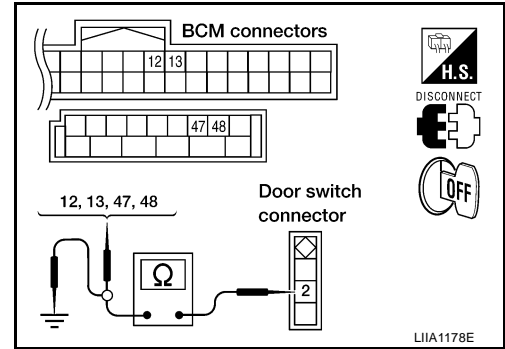
2. CHECK DOOR SWITCH CIRCUIT

- Turn ignition switch OFF.
- Disconnect door switch and BCM.
- Check continuity between door switch connector B21 (Front LH), B28 (Front RH), B26 (Rear LH), B41 (Rear RH) terminal 2 and BCM connector M18, M19 terminals 12, 13, 47 and 48.

- 2 - 47 : Continuity should exist.**
2 - 12 : Continuity should exist.
2 - 48 : Continuity should exist.
2 - 13 : Continuity should exist.

- Check continuity between door switch connector B21 (Front LH), B28 (Front RH), B26 (Rear LH), B41 (Rear RH) terminal 2 and ground.

- 2 - Ground : Continuity should not exist.**



OK or NG

- OK >> GO TO 3.
 NG >> Repair or replace harness.

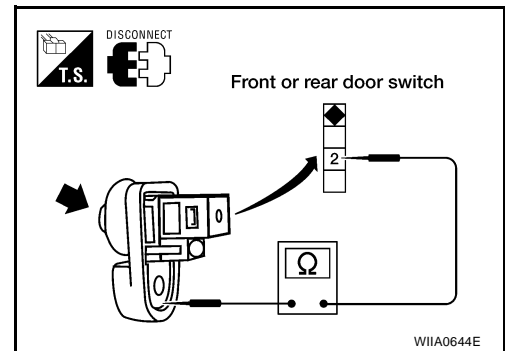
3. CHECK DOOR SWITCHES

Check continuity between door switch terminals.

Door switch (front or rear)	Terminals	Condition	Continuity
		2 - Ground	Pressed
		Released	Yes

OK or NG

- OK >> GO TO 4.
 NG >> Replace door switch.



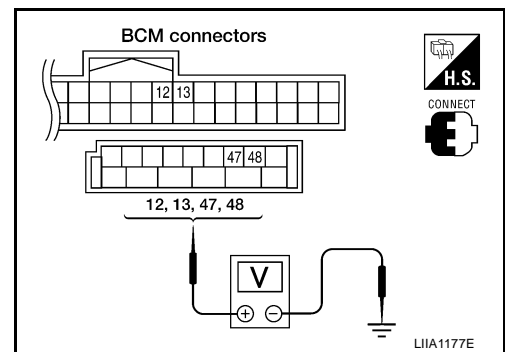
4. CHECK BCM OUTPUT VOLTAGE

- Reconnect BCM connectors.
- Check voltage between BCM connector M18, M19 terminals 12, 13, 47, 48 and ground.

- 12 - Ground : Battery voltage**
13 - Ground : Battery voltage
47 - Ground : Battery voltage
48 - Ground : Battery voltage

OK or NG

- OK >> Door switch circuit is OK.
 NG >> Replace BCM. Refer to [BCS-21, "Removal and Installation of BCM"](#).



POWER DOOR LOCK SYSTEM

EIS00B7X

Key Switch (Insert) Check

1. CHECK KEY SWITCH INPUT SIGNAL

With CONSULT-III

Check key switch "KEY ON SW" in DATA MONITOR mode with CONSULT-III. Refer to [BL-36, "DATA MONITOR"](#).

- When key is inserted into ignition key cylinder:
KEY ON SW : ON
- When key is removed from ignition key cylinder:
KEY ON SW : OFF

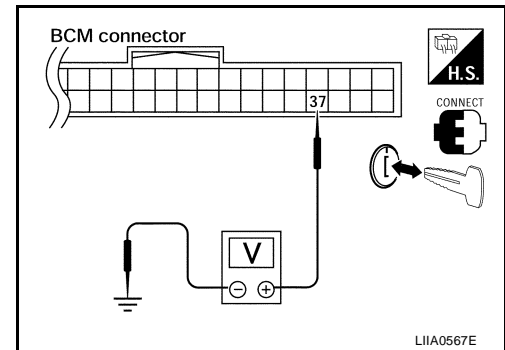
Without CONSULT-III

Check voltage between BCM connector and ground.

Connector	Terminals		Condition	Voltage (V) (Approx.)
	(+)	(-)		
M18	37	Ground	Key is inserted.	Battery voltage
			Key is removed.	0

OK or NG

- OK >> Key switch circuit is OK.
- NG-1 >> GO TO 2 (with Intelligent Key).
- NG-2 >> GO TO 3 (without Intelligent Key).



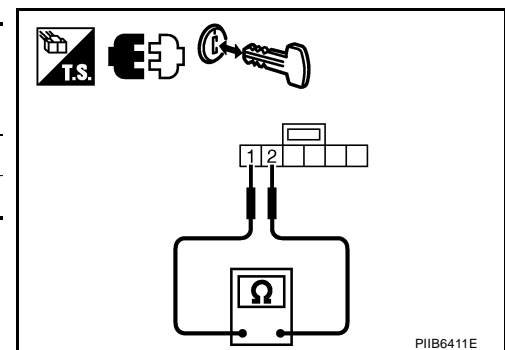
2. CHECK KEY SWITCH (WITH INTELLIGENT KEY)

- Turn ignition switch OFF.
- Disconnect key switch and ignition knob switch connector.
- Check continuity between key switch and ignition knob switch terminals.

Terminal		Condition	Continuity
Key switch and ignition knob switch			
1	2	Key Inserted	Yes
		Key Removed	No

OK or NG

- OK >> Check the following.
 - 10A fuse (No. 9, located in fuse and fusible link block)
 - Harness for open or short between key switch and ignition knob switch and fuse
 - Harness for open or short between BCM and key switch and ignition knob switch
- NG >> Replace key switch and ignition knob switch.



POWER DOOR LOCK SYSTEM

3. CHECK KEY SWITCH (WITHOUT INTELLIGENT KEY)

1. Turn ignition switch OFF.
2. Disconnect key switch connector.
3. Check key switch.

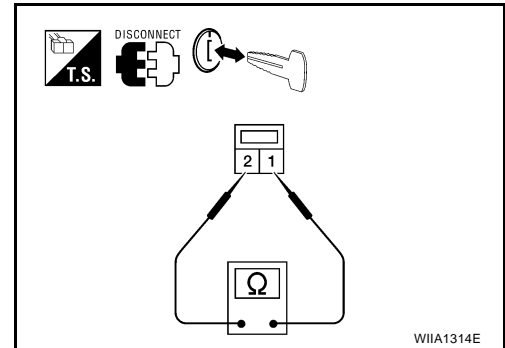
Terminals	Condition	Continuity
1 - 2	Key is inserted.	Yes
	Key is removed.	No

OK or NG

OK >> Check the following.

- 10A fuse [No. 19, located in fuse block (J/B)]
- Harness for open or short between key switch and fuse
- Harness for open or short between BCM and key switch

NG >> Replace key switch.



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POWER DOOR LOCK SYSTEM

EIS00B7Y

Door Lock and Unlock Switch Check

1. CHECK DOOR LOCK AND UNLOCK INPUT SIGNAL

With CONSULT-III

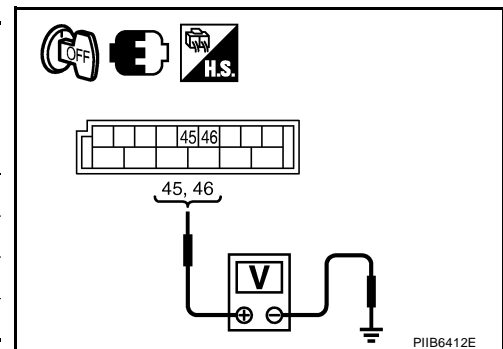
Check door lock and unlock switch ("CDL LOCK SW" and "CDL UNLOCK SW") in DATA MONITOR mode with CONSULT-III.

Test item	Condition
CDL LOCK SW	Door lock and unlock switch is turned to LOCK : ON
	Other than above : OFF
CDL UNLOCK SW	Door lock and unlock switch is turned to UNLOCK : ON
	Other than above : OFF

Without CONSULT-III

Check voltage between BCM connector and ground

Terminals		Door lock and unlock switch condition	Voltage (V) (Approx.)
(+)	(-)		
BCM connector	Terminal		
M19	45	Lock	0
		Neutral / Unlock	Battery voltage
	46	Unlock	0
		Neutral / Lock	Battery voltage



OK or NG

- OK >> Door lock and unlock switch is OK.
- NG1 >> With power windows, GO TO 2.
- NG2 >> Without power windows, GO TO 5.

2. CHECK DOOR LOCK/UNLOCK SWITCH

1. Turn ignition switch OFF.
2. Disconnect door lock/unlock switch.
3. Check continuity between main power window and door lock/unlock switch terminals 10, 11 and 14.

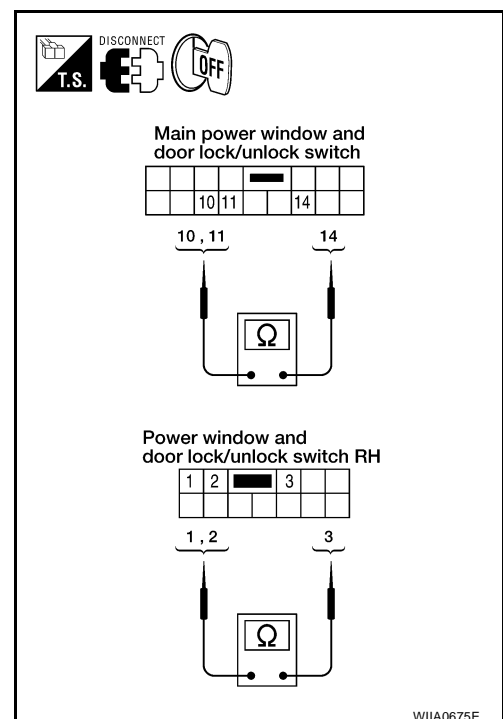
Terminals	Condition	Continuity
10	Lock	Yes
	Unlock/Neutral	No
11	Unlock	Yes
	Lock/Neutral	No

4. Check continuity between power window and door lock/unlock switch RH terminals 1, 2 and 3.

Terminals	Condition	Continuity
1	Lock	Yes
	Unlock/Neutral	No
2	Unlock	Yes
	Lock/Neutral	No

OK or NG

- OK >> GO TO 3.
- NG >> Replace door lock/unlock switch.

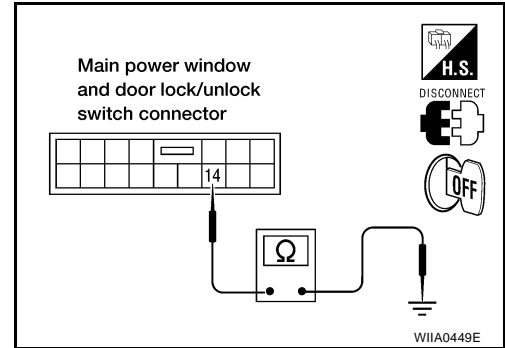


POWER DOOR LOCK SYSTEM

3. CHECK DOOR LOCK/UNLOCK SWITCH GROUND HARNESS

1. Disconnect main power window and door lock/unlock switch or power window and door lock/unlock switch RH.
2. Check continuity between main power window and door lock/unlock switch connector D5 terminal 14 and ground.

14 - Ground : Continuity should exist.

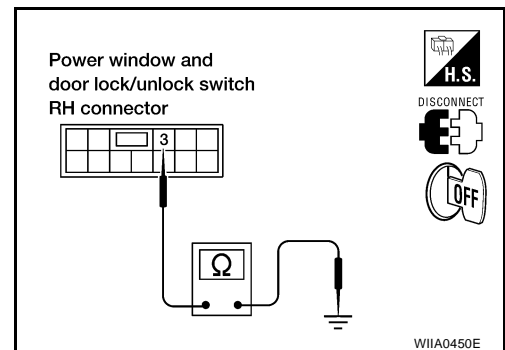


3. Check continuity between power window and door lock/unlock switch RH connector D104 terminal 3 and ground

3 - Ground : Continuity should exist.

OK or NG

- OK >> GO TO 4.
- NG >> Repair or replace harness.



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POWER DOOR LOCK SYSTEM

4. CHECK DOOR LOCK SWITCH CIRCUIT

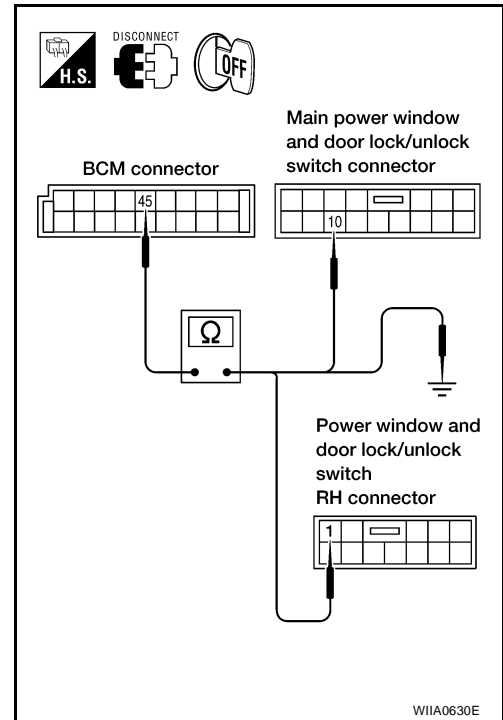
1. Disconnect BCM.
2. Check continuity between BCM connector M19 terminal 45 and main power window and door lock/unlock switch connector D5 terminal 10 or power window and door lock/unlock switch RH connector D104 terminal 1.

1 - 45 : Continuity should exist.

10 - 45 : Continuity should exist.

3. Check continuity between BCM connector M19 terminal 45 and ground.

45 - Ground : Continuity should not exist.



4. Check continuity between BCM connector M19 terminal 46 and main power window and door lock/unlock switch LH connector D5 terminal 11 or power window and door lock/unlock switch RH connector D104 terminal 2.

2 - 46 : Continuity should exist.

11 - 46 : Continuity should exist.

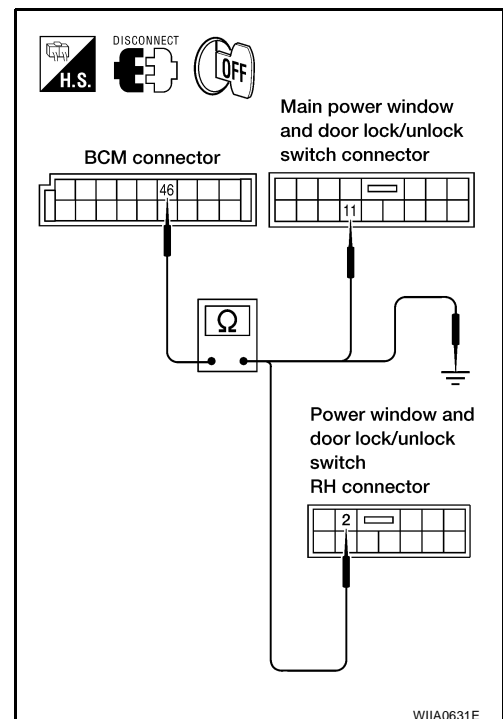
5. Check continuity between BCM connector M19 terminal 46 and ground.

46 - Ground : Continuity should not exist.

OK or NG

OK >> Replace BCM. Refer to [BCS-21, "Removal and Installation of BCM"](#).

NG >> Repair or replace harness.



POWER DOOR LOCK SYSTEM

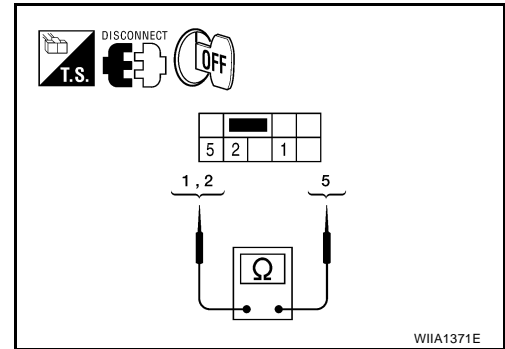
5. CHECK DOOR LOCK/UNLOCK SWITCH LH

1. Turn ignition switch OFF.
2. Disconnect door lock/unlock switch LH.
3. Check continuity between door lock/unlock switch LH terminals 1, 2 and 5.

Terminals	Condition	Continuity
1	Lock	Yes
	Unlock/Neutral	No
2	Unlock	Yes
	Lock/Neutral	No

OK or NG

- OK >> GO TO 6.
 NG >> Replace door lock/unlock switch LH.



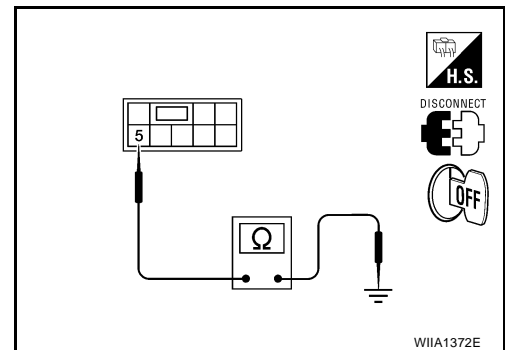
6. CHECK DOOR LOCK/UNLOCK SWITCH GROUND HARNESS

Check continuity between door lock/unlock switch connector D6 terminal 5 and ground.

5 - Ground : Continuity should exist.

OK or NG

- OK >> GO TO 7.
 NG >> Repair or replace harness.



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POWER DOOR LOCK SYSTEM

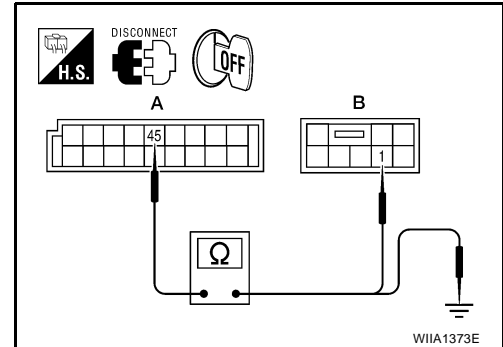
7. CHECK DOOR LOCK SWITCH CIRCUIT

1. Disconnect BCM.
2. Check continuity between BCM connector M19 (A) terminal 45 and door lock/unlock switch LH connector D6 (B) terminal 1.

1 - 45 : Continuity should exist.

3. Check continuity between BCM connector M19 (A) terminal 45 and ground.

45 - Ground : Continuity should not exist.

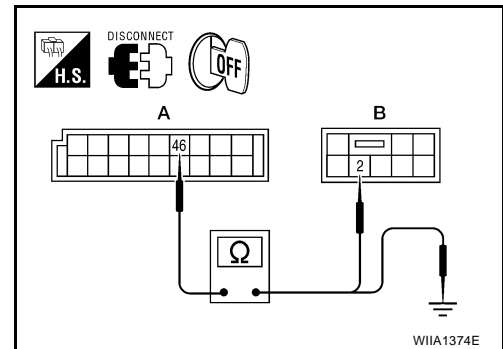


4. Check continuity between BCM connector M19 (A) terminal 46 and door lock/unlock switch LH connector D6 (B) terminal 2.

2 - 46 : Continuity should exist.

5. Check continuity between BCM connector M19 (A) terminal 46 and ground.

46 - Ground : Continuity should not exist.



OK or NG

- OK >> Replace BCM. Refer to [BCS-21, "Removal and Installation of BCM"](#).
- NG >> Repair or replace harness.

Front Door Lock Assembly LH (Actuator) Check

EIS00B7Z

1. CHECK FRONT DOOR LOCK ASSEMBLY LH (ACTUATOR) HARNESS

1. Turn ignition switch OFF.
2. Disconnect BCM and front door lock assembly LH (actuator).
3. Check continuity between BCM connector M20 (A) terminals 59, 65 and front door lock assembly LH (actuator) connector D9 (B) terminals 1, 2.

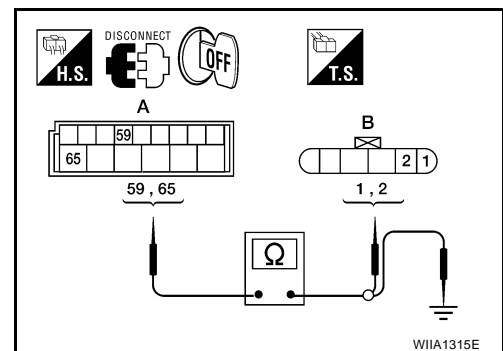
Connector	Terminal	Connector	Terminal	Continuity
A: M20	59	B: D9	2	Yes
	65		1	Yes

4. Check continuity between BCM connector M20 (A) terminals 59, 65 and body ground.

Connector	Terminals	Continuity
A: M20	59	No
	65	No

OK or NG

- OK >> GO TO 2.
- NG >> Repair or replace harness.

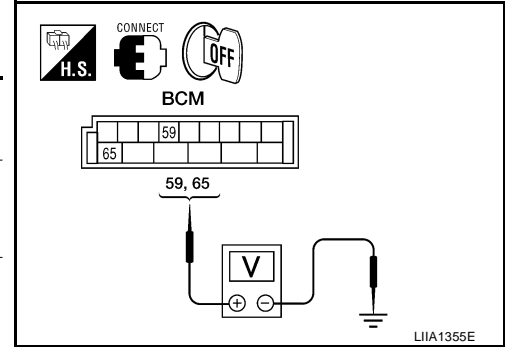


POWER DOOR LOCK SYSTEM

2. CHECK FRONT DOOR LOCK ASSEMBLY LH SIGNAL

1. Reconnect BCM.
2. Check voltage between BCM connector M20 terminals 59, 65 and ground.

Connector	Terminals		Condition	Voltage (V) (Approx.)
	(+)	(-)		
M20	59	Ground	Main power window and door lock/unlock switch is turned to UNLOCK	0 → Battery voltage
	65		Main power window and door lock/unlock switch is turned to LOCK	0 → Battery voltage



OK or NG

- OK >> Replace front door lock assembly LH (actuator). Refer to [BL-150, "Removal and Installation"](#) .
 NG >> Replace BCM. Refer to [BCS-21, "Removal and Installation of BCM"](#) .

Door Lock Actuator Check (Front RH and Rear LH/RH)

EIS00B80

1. CHECK DOOR LOCK ACTUATOR HARNESS

NOTE:

For models with Intelligent Key, insure that passenger select unlock relay remains connected during this test.

1. Turn ignition switch OFF.
2. Disconnect BCM and each door lock actuator.
3. Check continuity between BCM connector M20 (A) terminals 65, 66 and front door lock actuator RH connector D107 (B), rear door lock actuator RH connector D302 (B), rear door lock actuator LH connector D202 (C) terminals 1, 2.

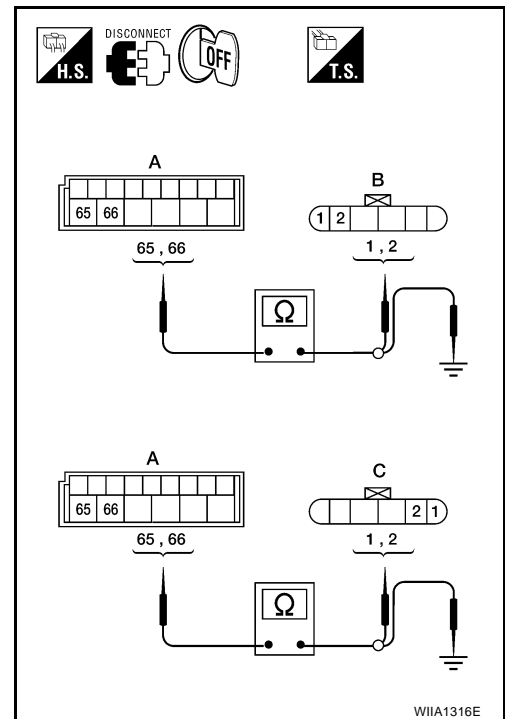
Connector	Terminal	Connector	Terminal	Continuity
A: M20	65	B: D107 C: D202	2	Yes
	66	B: D302	1	Yes

4. Check continuity between BCM connector M20 (A) terminals 65, 66 and body ground.

Connector	Terminals	Continuity
A: M20	65	No
	66	No

OK or NG

- OK >> GO TO 2.
 NG >> Check the following:
- Without Intelligent Key: Repair or replace harness.
 - With Intelligent Key: For front doors, repair or replace harness.
 - With Intelligent Key: For rear door, repair or replace harness or passenger select unlock relay.

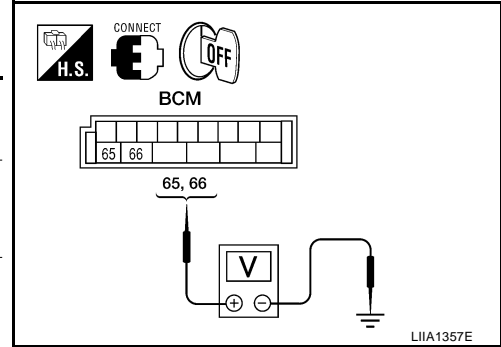


POWER DOOR LOCK SYSTEM

2. CHECK DOOR LOCK ACTUATOR SIGNAL

1. Reconnect BCM.
2. Check voltage between BCM connector M20 terminals 65, 66 and ground.

Connector	Terminals		Condition	Voltage (V) (Approx.)
	(+)	(-)		
M20	65	Ground	Main power window and door lock/unlock switch is turned to UNLOCK	0 → Battery voltage
	66		Main power window and door lock/unlock switch is turned to LOCK	0 → Battery voltage



OK or NG

- OK >> Replace front door lock assembly RH or rear door lock actuator LH/RH. Refer to [BL-150, "Removal and Installation"](#) (rear) or [BL-153, "Removal and Installation"](#) (rear).
- NG >> Replace BCM. Refer to [BCS-21, "Removal and Installation of BCM"](#).

Front Door Key Cylinder Switch LH Check

EIS00B81

1. CHECK FRONT DOOR KEY CYLINDER SWITCH LH

With CONSULT-III

Check front door key cylinder switch ("KEY CYL LK-SW") and ("KEY CYL UN-SW") in DATA MONITOR mode in CONSULT-III. Refer to [BL-36, "DATA MONITOR"](#).

- When key inserted and front key cylinder is turned to LOCK:

KEY CYL LK-SW : ON

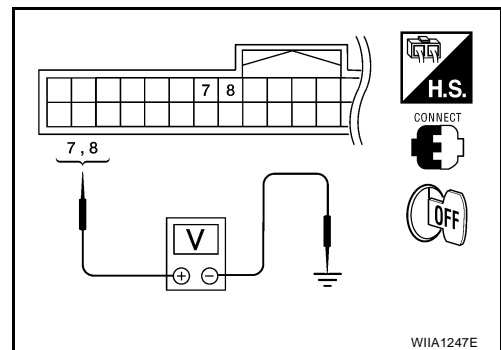
- When key inserted and front key cylinder is turned to UNLOCK:

KEY CYL UN-SW : ON

Without CONSULT-III

Check voltage between BCM connector M18 terminals 7, 8 and ground.

Connector	Terminals		Condition	Voltage (V) (Approx.)
	(+)	(-)		
M18	7	Ground	Neutral/Lock	5
			Unlock	0
	8		Neutral/Unlock	5
			Lock	0



OK or NG

- OK >> Front door key cylinder switch LH signal is OK.
- NG >> GO TO 2.

POWER DOOR LOCK SYSTEM

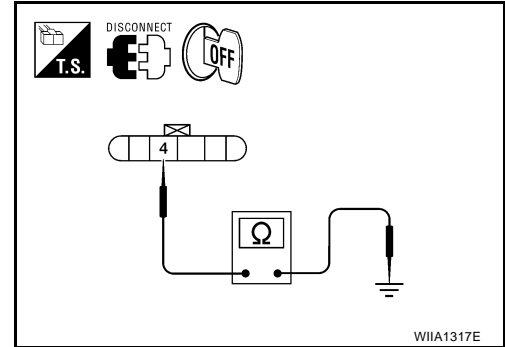
2. CHECK FRONT DOOR KEY CYLINDER SWITCH LH GROUND HARNESS

1. Turn ignition switch OFF.
2. Disconnect front door key cylinder switch LH.
3. Check continuity between front door key cylinder switch LH connector D9 terminal 4 and body ground.

Connector	Terminals	Continuity
D9	4 – Ground	Yes

OK or NG

- OK >> GO TO 3.
 NG >> Repair or replace harness.



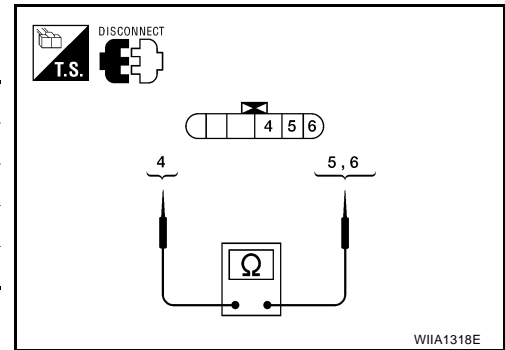
3. CHECK DOOR KEY CYLINDER SWITCH LH

Check continuity between front door key cylinder switch LH terminals.

Terminals	Door key cylinder switch position	Continuity
4 – 6	Neutral/Unlock	No
	Lock	Yes
4 – 5	Neutral/Lock	No
	Unlock	Yes

OK or NG

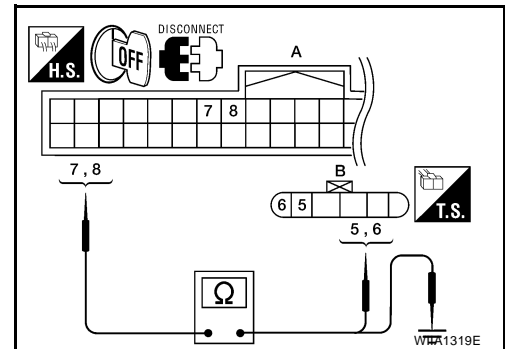
- OK >> GO TO 4.
 NG >> Replace front door key cylinder switch LH. Refer to [BL-150, "FRONT DOOR LOCK"](#).



4. CHECK DOOR KEY CYLINDER HARNESS

1. Disconnect BCM connector M18.
2. Check continuity between BCM connector M18 (A) terminals 7, 8 and front door key cylinder switch LH connector D9 (B) terminals 5, 6 and body ground.

Connector	Terminal	Connector	Terminal	Continuity
A: M18	7	B: D9	5	Yes
	8		6	Yes
	7	Ground	No	
	8	Ground	No	



OK or NG

- OK >> Front door key cylinder switch LH circuit is OK.
 NG >> Repair or replace harness.

POWER DOOR LOCK SYSTEM

EIS00B82

Passenger Select Unlock Relay Circuit Check (With Intelligent Key)

1. CHECK PASSENGER SELECT UNLOCK RELAY CIRCUIT

NOTE:

Passenger select unlock relay must remain connected during this step.

1. Turn ignition switch OFF.
2. Disconnect BCM and inoperative rear door lock actuator.
3. Check continuity between BCM connector M20 (A) terminal 65 and rear door lock actuator LH connector D202 (B) terminal 2 or rear door lock actuator RH connector D302 (C) Terminal 2.

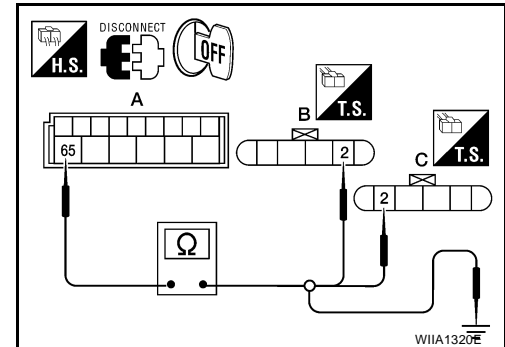
65 - 2 : Continuity should exist.

4. Check continuity between BCM connector M20 (A) terminal 65 and body ground.

65 - Ground : Continuity should not exist.

OK or NG

- OK >> GO TO 4.
NG >> GO TO 2.



2. CHECK PASSENGER SELECT UNLOCK RELAY INPUT

1. Disconnect passenger select unlock relay.
2. Check continuity between BCM connector M20 (A) terminal 66 and passenger select unlock relay connector M14 (B) terminal 3.

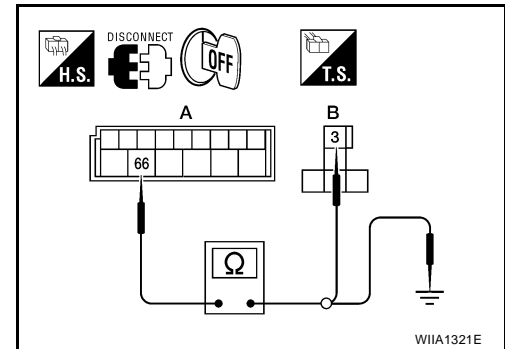
66 - 3 : Continuity should exist.

3. Check continuity between BCM connector M20 (A) terminal 66 and body ground.

66 - Ground : Continuity should not exist.

OK or NG

- OK >> GO TO 3.
NG >> Repair or replace harness between BCM and relay.



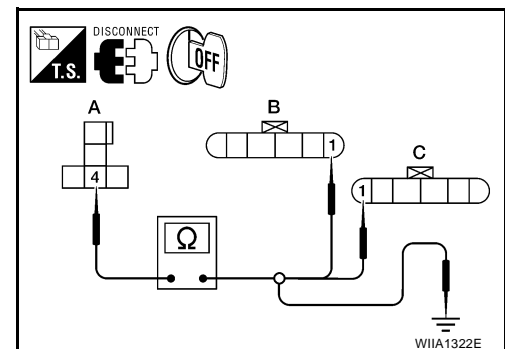
3. CHECK PASSENGER SELECT UNLOCK RELAY OUTPUT

1. Disconnect inoperative rear door lock actuator.
2. Check continuity between passenger select unlock relay connector M14 (A) terminal 4 and rear door lock actuator LH connector D202 (B) or rear door lock actuator RH connector D302 (C) terminal 1.

4 - 1 : Continuity should exist.

3. Check continuity between passenger select unlock relay connector M14 (A) terminal 4 and ground.

4 - Ground : Continuity should not exist.



OK or NG

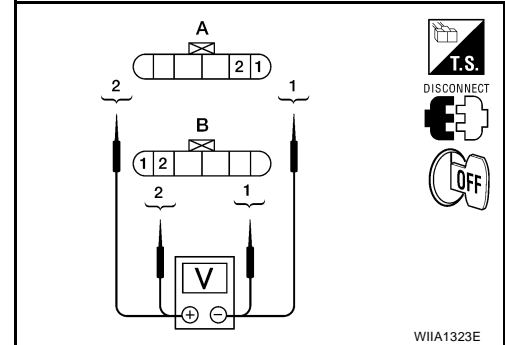
- OK >> Replace passenger select unlock relay.
NG >> Repair or replace harness between relay and actuator.

POWER DOOR LOCK SYSTEM

4. CHECK REAR DOOR LOCK ACTUATOR ASSEMBLY

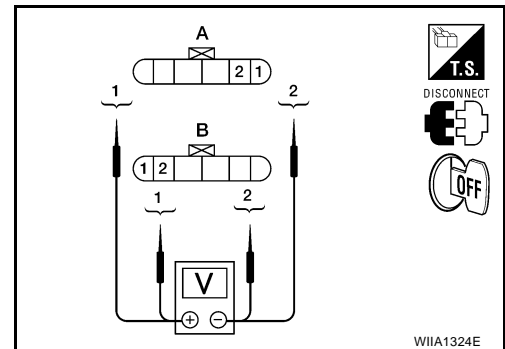
1. Reconnect BCM.
2. Check voltage between rear door lock actuator connector LH D202 (A) or rear door lock actuator connector RH D302 (B) terminals 1 and 2.

Connector	Terminals		Condition	Voltage (V) (Approx.)
	(+)	(-)		
A: D202 (LH) B: D302 (RH)	2	1	Main power window and door lock/unlock switch is turned to LOCK	0 → Battery voltage



3. Check voltage between rear door lock actuator connector LH D202 (A) or rear door lock actuator connector RH D302 (B) terminals 1 and 2.

Connector	Terminals		Condition	Voltage (V) (Approx.)
	(+)	(-)		
A: D202 (LH) B: D302 (RH)	1	2	Main power window and door lock/unlock switch is turned to UNLOCK	0 → Battery voltage



OK or NG

- OK >> Replace rear door lock actuator. Refer to [BL-153, "Removal and Installation"](#).
- NG >> Repair or replace harness between actuator and splice.

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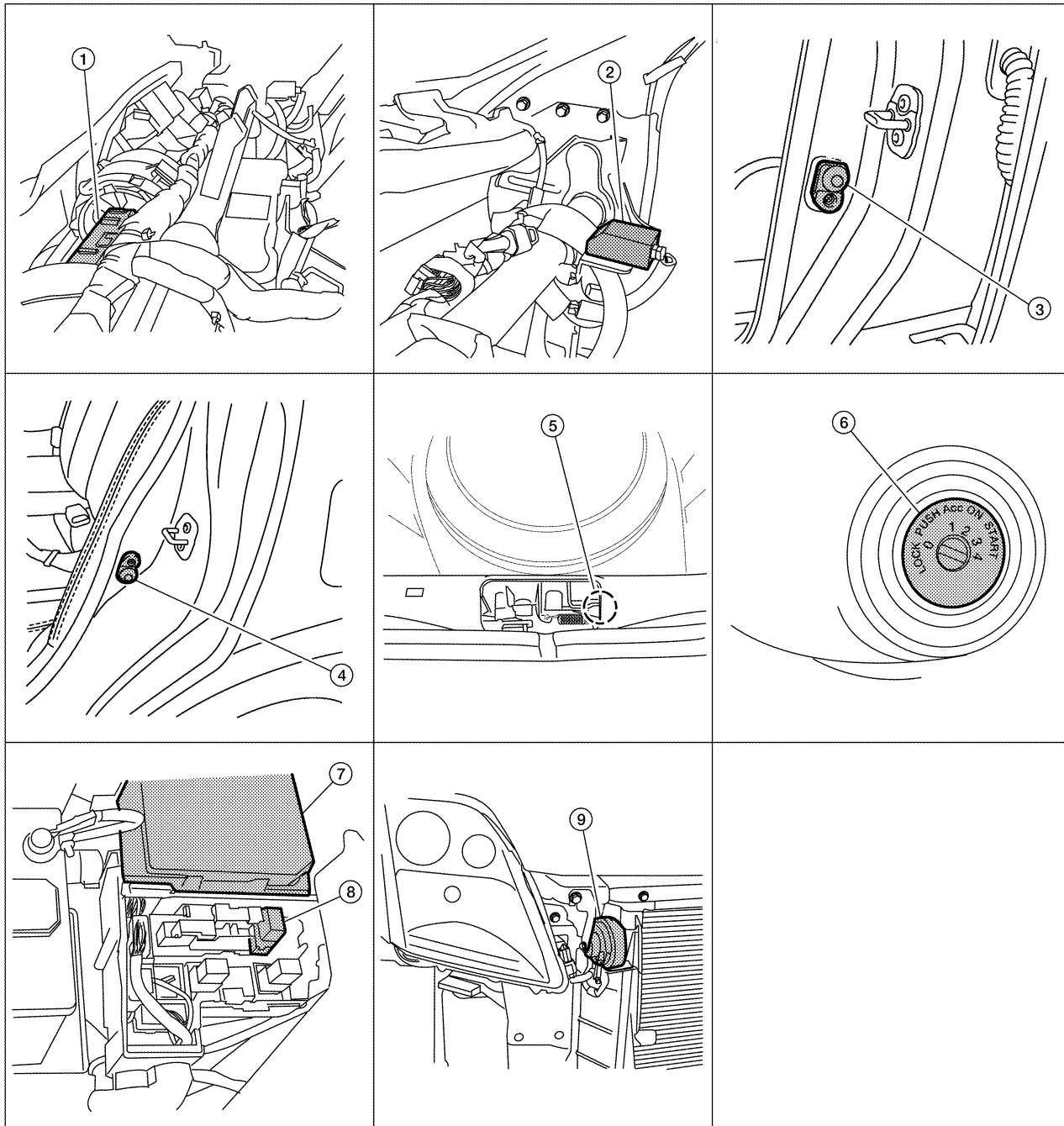
REMOTE KEYLESS ENTRY SYSTEM

REMOTE KEYLESS ENTRY SYSTEM

PF2:28596

Component Parts and Harness Connector Location

EIS00B83



B1IA0004E

- | | | |
|--|--|-------------------------------------|
| 1. BCM M18, M19, M20
(view with instrument panel removed) | 2. Remote keyless entry receiver M15
(view with instrument panel removed) | 3. Front door switch LH B21, RH B28 |
| 4. Rear door switch LH B26, RH B41 | 5. Trunk room lamp switch B57 | 6. Key switch M50 |
| 7. IPDM E/R E43, E46, E48
(next to battery) | 8. Horn relay H-1
(front of battery) | 9. Horn E57, E58 |

REMOTE KEYLESS ENTRY SYSTEM

EIS00B84

System Description

INPUTS

Power is supplied at all times

- through 50A fusible link (letter j , located in the fuse and fusible link box)
- to BCM terminal 70
- through 10A fuse [No. 21, located in the fuse block (J/B)]
- to BCM terminal 57.

When the key switch is ON (key is inserted in ignition key cylinder), power is supplied

- through 10A fuse [No. 19, located in the fuse block (J/B)]
- through key switch terminals 2 and 1
- to BCM terminal 37.

When the ignition switch is ACC or ON, power is supplied

- through 10A fuse [No. 6, located in the fuse block (J/B)]
- to BCM terminal 11.

When the ignition switch is ON or START, power is supplied

- through 10A fuse [No. 12, located in the fuse block (J/B)]
- to BCM terminal 38.

Ground is supplied

- to BCM terminal 67
- through body grounds M57 and M61.

When the front door switch LH is ON (door is OPEN), ground is supplied

- to BCM terminal 47
- through front door switch LH terminal 2
- through front door switch LH case ground.

When the front door switch RH is ON (door is OPEN), ground is supplied

- to BCM terminal 12
- through front door switch RH terminal 2
- through front door switch RH case ground.

When the rear door switch LH is ON (door is OPEN), ground is supplied

- to BCM terminal 48
- through rear door switch LH terminal 2
- through rear door switch LH case ground.

When the rear door switch RH is ON (door is OPEN), ground is supplied

- to BCM meter terminal 13
- through rear door switch RH terminal 2
- through rear door switch RH case ground.

When the trunk room lamp switch is ON (trunk is OPEN), ground is supplied

- to BCM terminal 42
- through trunk room lamp switch terminals 1 and 2
- through body grounds B7 and B19.

Keyfob signal is inputted to BCM from remote keyless entry receiver.

The remote keyless entry system controls operation of the

- power door lock
- hazard reminder
- auto door lock
- panic alarm
- room lamp

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REMOTE KEYLESS ENTRY SYSTEM

OPERATION PROCEDURE

Power Door Lock Operation

BCM receives a LOCK signal from keyfob. BCM locks all doors with input of LOCK signal from keyfob.
BCM receives an UNLOCK signal from keyfob. BCM unlocks all doors with input of UNLOCK signal from keyfob.

Hazard and Horn Reminder

When the doors are locked or unlocked by keyfob, power is supplied to sound horn and flash hazard warning lamps as follows

- LOCK operation: 3 or 4 mode (lamps flash twice)
- UNLOCK operation: 2 or 4 mode (lamps flash once)
- Horns sound once with LOCK function when this feature is set ON.

The hazard reminder has modes 1, 2, 3 or 4. The horn reminder can be turned ON/OFF with any LOCK mode.

Operating function of hazard reminder

	Mode 1		Mode 2		Mode 3		Mode 4	
Keyfob operation	Lock	Unlock	Lock	Unlock	Lock	Unlock	Lock	Unlock
Hazard warning lamp flash	—	—	—	Once	Twice	—	Twice	Once
Horns sound (ON/OFF)	ON: once	—	ON: once	—	ON: once	—	ON: once	—

Hazard and horn reminders do not operate if any door switch is ON (any door is OPEN).

How to change hazard and horn reminder modes

With CONSULT-III

Hazard reminder can be changed using "HAZARD LAMP SET" mode in "WORK SUPPORT".
Horn reminder can be changed using "HORN CHIRP SET" mode in "WORK SUPPORT".
Refer to [BL-60, "Work Support"](#).

Without CONSULT-III

Refer to Owner's Manual for instructions.

Auto Door Lock Operation

Auto lock function signal is sent for operation when any of the following signals are not sent within 1 minute after the unlock signal is sent from the keyfob:

- when door switch is turned ON for open
- when the key switch is turned ON
- when the lock signal is sent from the keyfob

Auto door lock mode can be changed using "AUTO LOCK SET" mode in "WORK SUPPORT".
Refer to [BL-60, "Work Support"](#).

Panic Alarm Operation

When key switch is OFF (when ignition key is not inserted in key cylinder), BCM turns on and off horn intermittently with input of PANIC ALARM signal from keyfob.

BCM outputs to IPDM E/R for panic alarm signal (horn signal) as DATA LINE (CAN H line and CAN L line).

The alarm automatically turns off after 25 seconds or when BCM receives any signal from keyfob.

Panic alarm operation mode can be changed using "PANIC ALARM SET" mode in "WORK SUPPORT".

Refer to [BL-60, "Work Support"](#).

Trunk Lid Operation

When a TRUNK OPEN signal is sent with key OFF (ignition key removed from key cylinder) from keyfob, power is supplied

- through BCM terminal 53
- to trunk lid opener actuator terminal 1.

When power and ground are supplied, trunk lid opener actuator opens trunk lid.

Interior Lamp Operation

When the following conditions occur, remote keyless entry system turns on interior lamp (for 30 seconds) with input of UNLOCK signal from keyfob. For detailed description, refer to [LT-89, "INTERIOR ROOM LAMP"](#).

REMOTE KEYLESS ENTRY SYSTEM

- Interior room lamp switch is in the DOOR position
- door switch OFF (when all the doors are closed)

CAN Communication System Description

E/S00B85

Refer to [LAN-4, "SYSTEM DESCRIPTION"](#) .

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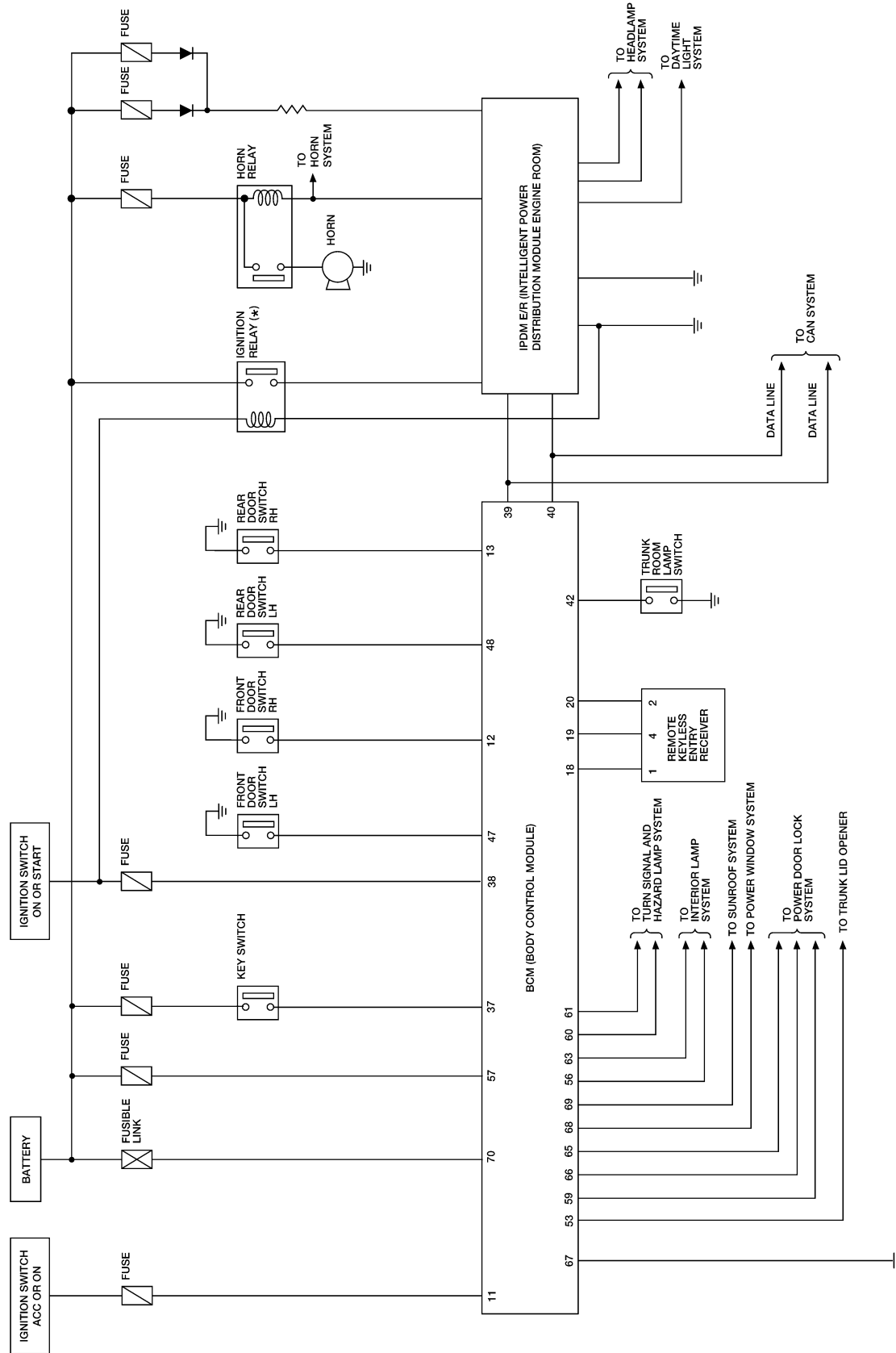
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REMOTE KEYLESS ENTRY SYSTEM

EIS00B86

Schematic



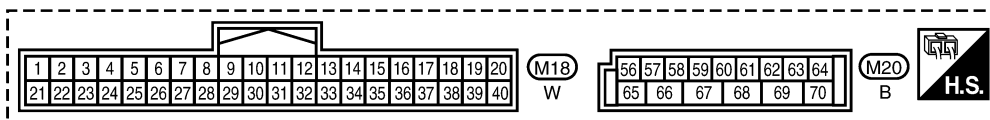
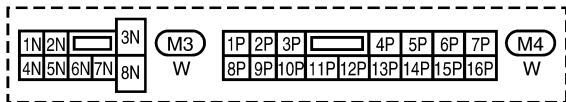
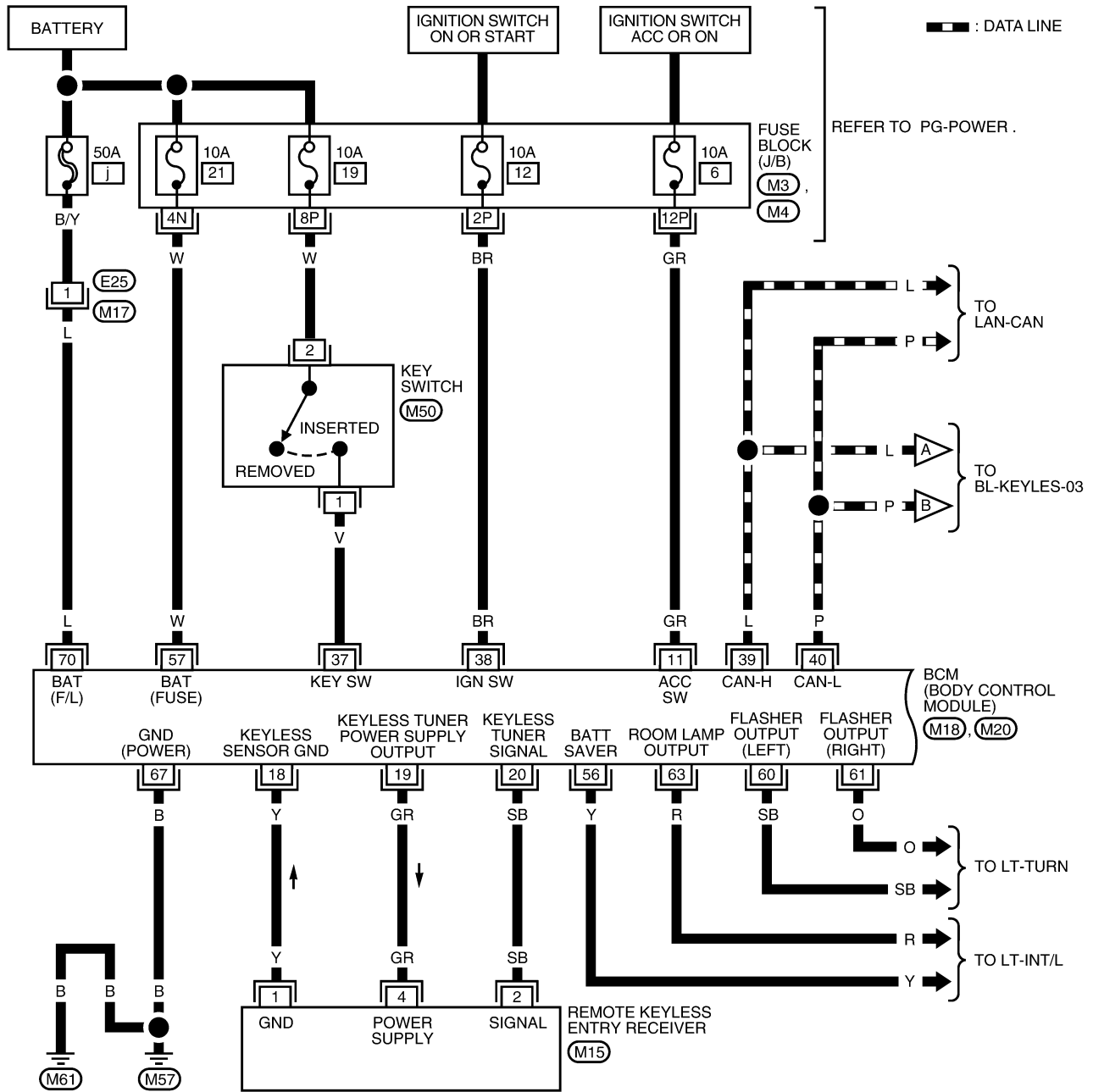
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REMOTE KEYLESS ENTRY SYSTEM

Wiring Diagram — KEYLES —

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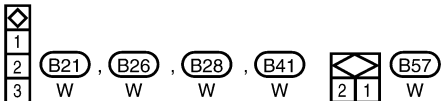
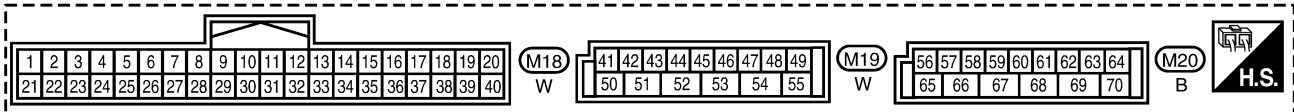
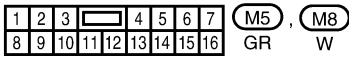
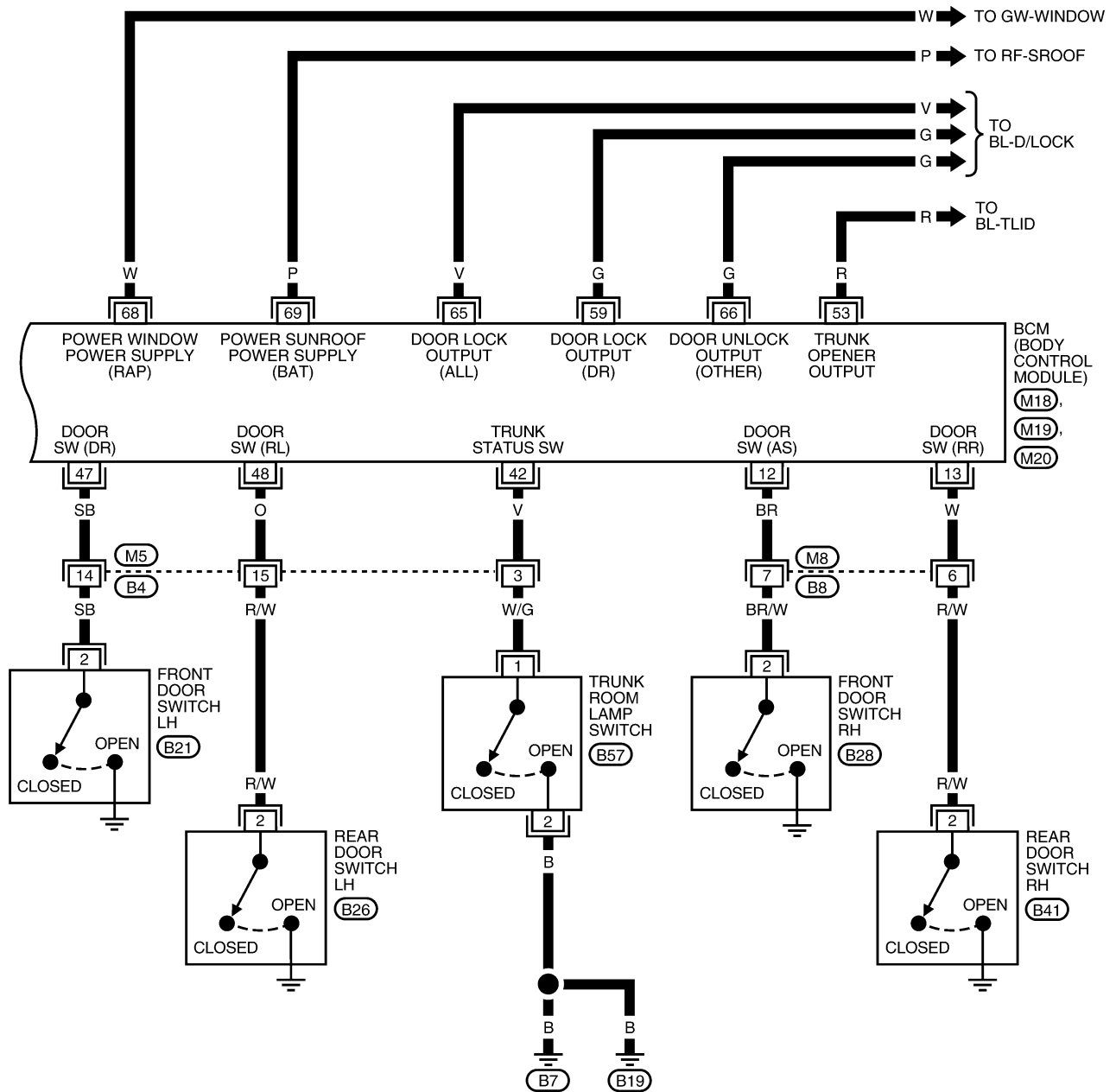
BL-KEYLES-01



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REMOTE KEYLESS ENTRY SYSTEM

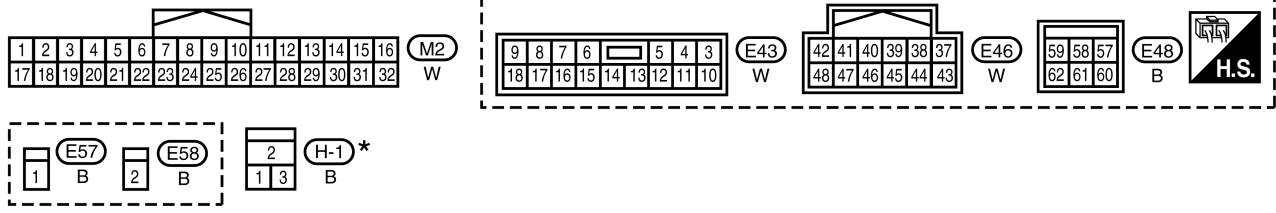
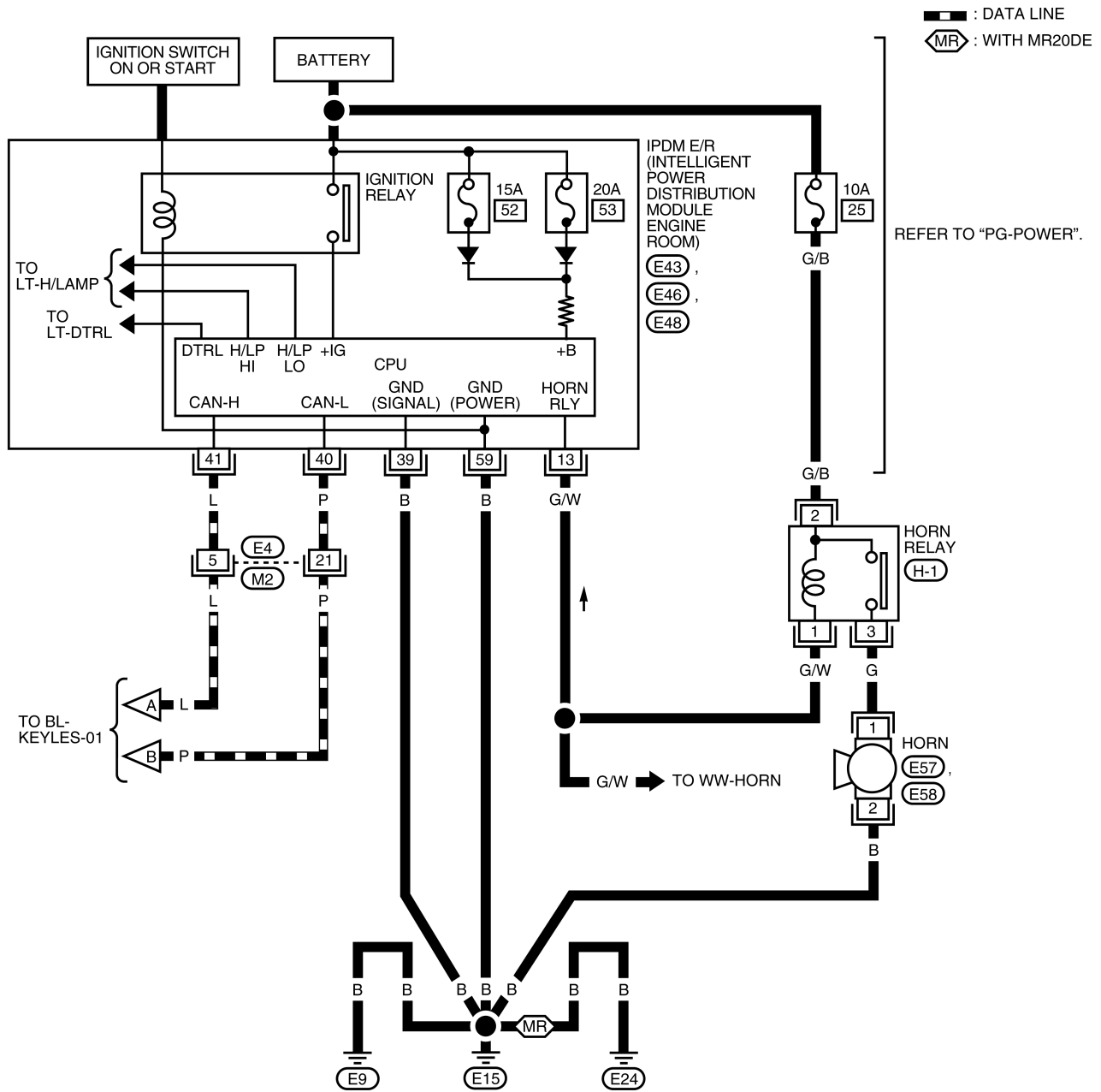
BL-KEYLES-02



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REMOTE KEYLESS ENTRY SYSTEM

BL-KEYLES-03



* : THIS CONNECTOR IS NOT SHOWN IN "HARNES LAYOUT" OF PG SECTION.

REMOTE KEYLESS ENTRY SYSTEM

Terminals and Reference Values for BCM

E/IS00B88

Refer to [BCS-13, "Terminals and Reference Values for BCM"](#) .

How to Perform Trouble Diagnoses

E/IS00B89

1. Confirm the symptom or customer complaint.
2. Understand operation, description and function description. Refer to [BL-53, "System Description"](#) .
3. Perform the Preliminary Check. Refer to [BL-62, "Work Flow"](#) .
4. Check symptom and repair or replace the component.
5. Does the remote keyless entry system operate normally? If YES, GO TO 6. If NO, GO TO 4.
6. Inspection end.

CONSULT-III Function (BCM)

E/IS00B8A

CONSULT-III can display each diagnostic item using the diagnostic test modes shown following.

BCM diagnostic test item	Diagnostic mode	Description
Inspection by part	WORK SUPPORT	Supports inspections and adjustments. Commands are transmitted to the BCM for setting the status suitable for required operation, input/output signals are received from the BCM and received date is displayed.
	DATA MONITOR	Displays BCM input/output data in real time.
	ACTIVE TEST	Operation of electrical loads can be checked by sending drive signal to them.
	SELF-DIAG RESULTS	Displays BCM self-diagnosis results.
	CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.
	ECU PART NUMBER	BCM part number can be read.
	CONFIGURATION	Performs BCM configuration read/write functions.

CONSULT-III APPLICATION ITEMS

Work Support

Test Item	Description
REMO CONT ID REGIST	Keyfob ID code can be registered.
REMO CONT ID ERASER	Keyfob ID code can be erased.
REMO CONT ID CONFIR	It can be checked whether keyfob ID code is registered or not in this mode.
HAZARD LAMP SET	Hazard reminder mode can be changed in this mode. The hazard reminder mode will be changed when "CURRENT SETTING" on CONSULT-III screen is touched.
AUTO LOCK SET	Auto locking function mode can be changed in this mode. The function mode will be changed when "CURRENT SETTING" on CONSULT-III screen is touched.
PANIC ALRM SET	Panic alarm operation mode can be changed in this mode. The operation mode will be changed when "CURRENT SETTING" on CONSULT-III screen is touched.
TRUNK OPEN SET	Keyless trunk open operation mode can be changed in this mode. The operation mode will be changed when "CURRENT SETTING" on CONSULT-III screen is touched.
PW DOWN SET	Power window down can be changed in this mode. The operation mode will be changed when "CURRENT SETTING" on CONSULT-III screen is touched.

REMOTE KEYLESS ENTRY SYSTEM

PANIC ALARM SET

	MODE 1	MODE 2	MODE 3
Keyfob operation	0.5 seconds	Nothing	1.5 seconds

HAZARD LAMP BACK SET

	MODE 1	MODE 2	MODE 3	MODE 4
Hazard lamp operation mode	Nothing	Unlock only	Lock only	Lock and Unlock

AUTO LOCK SET

	MODE 1	MODE 2	MODE 3
Auto locking function	30 seconds	Nothing	1 minutes

TRUNK OPEN

	MODE 1	MODE 2	MODE 3
Keyfob operation	0.5 seconds	Nothing	1.5 seconds

Data Monitor

Monitored Item	Description
IGN ON SW	Indicates [ON/OFF] condition of ignition switch in ON position.
KEY ON SW	Indicates [ON/OFF] condition of key switch.
ACC ON SW	Indicates [ON/OFF] condition of ignition switch in ACC position.
KEYLESS LOCK	Indicates [ON/OFF] condition of lock signal from keyfob.
KEYLESS UNLOCK	Indicates [ON/OFF] condition of unlock signal from keyfob.
KEYLESS PANIC	Indicates [ON/OFF] condition of panic alarm signal from keyfob.
KEYLESS TRUNK	Indicates [ON/OFF] condition of trunk signal from keyfob.
DOOR SW-DR	Indicates [ON/OFF] condition of front door switch driver side.
DOOR SW-AS	Indicates [ON/OFF] condition of front door switch passenger side.
DOOR SW-RR	Indicates [ON/OFF] condition of rear door switch RH.
DOOR SW-RL	Indicates [ON/OFF] condition of rear door switch LH.
BACK DOOR SW	This is displayed even when it is not equipped.
TRNK OPN MNTR	Indicates [ON/OFF] condition of trunk room lamp switch.
CDL LOCK SW	Indicates [ON/OFF] condition of lock signal from door lock and unlock switch.
CDL UNLOCK SW	Indicates [ON/OFF] condition of unlock signal from door lock and unlock switch.
RKE LCK-UNLCK	Indicates [ON/OFF] condition of lock and unlock signal from keyfob.
RKE KEEP UNLK	Indicates [ON/OFF] condition of unlock signal from keyfob after 3 seconds.
KEY CYL LK-SW	Indicates [ON/OFF] condition of driver key cylinder lock signal.

Active Test

Test Item	Description
FLASHER	This test is able to check right hazard reminder operation. The right hazard lamp turns on when "ON" on CONSULT-III screen is touched.
POWER WINDOW DOWN	This is displayed even when it is not equipped.
HORN	This test is able to check horn operation. The horn blows when "ON" on CONSULT-III screen is touched.
DOOR LOCK	This test is able to check door lock actuator operation. <ul style="list-style-type: none"> ● The all door lock actuator are locked when "ALL LOCK" on CONSULT-III screen is touched. ● The all door lock actuator are unlocked when "ALL UNLOCK" on CONSULT-III screen is touched.
TRUNK/BACK DOOR	This is displayed even when it is not equipped.
PSD PBD OPEN TEST	This is displayed even when it is not equipped.

REMOTE KEYLESS ENTRY SYSTEM

EIS00B8B

Work Flow

1. Check the symptom and customer's requests.
2. Understand outline of system. Refer to [BL-53, "System Description"](#) .
3. Confirm that power door lock system operates normally.
Refer to [BL-21, "POWER DOOR LOCK SYSTEM"](#) .
4. Repair or replace any malfunctioning parts.
Refer to [BL-62, "Trouble Diagnosis Symptom Chart"](#) .
5. Does remote keyless entry system operate normally? If Yes, GO TO 6. If No, GO TO 4.
6. Inspection end.

Trouble Diagnosis Symptom Chart

EIS00B8C

NOTE:

- Always check the "Work Flow" before troubleshooting. Refer to [BL-62, "Work Flow"](#) .
- Always check keyfob battery before replacing keyfob.

Symptom	Diagnoses/service procedure	Reference page
All functions of remote keyless entry system do not operate.	1. Check keyfob battery and function. NOTE: If the result of keyfob function check with CONSULT-III is OK, keyfob is not malfunctioning.	BL-72
	2. Check remote keyless entry receiver.	BL-70
	3. Refer to ID Code Entry Procedure.	BL-73
	4. Replace BCM.	BCS-21
The new ID of keyfob cannot be entered.	1. Check keyfob battery and function. NOTE: If the result of keyfob function check with CONSULT-III is OK, keyfob is not malfunctioning.	BL-72
	2. Check key switch.	BL-68
	3. Check door switch.	BL-66
	4. Check ACC switch.	BL-65
	5. Replace keyfob. Refer to ID Code Entry Procedure.	BL-73
	6. Replace BCM.	BCS-21
Door lock does not function with keyfob. (Power door lock system is "OK".)	1. Check keyfob function. (Lock) NOTE: If the result of keyfob function check with CONSULT-III is OK, keyfob is not malfunctioning.	BL-72
	2. Replace keyfob. Refer to ID Code Entry Procedure.	BL-73
	3. Check door switch.	BL-66
	4. Replace BCM.	BCS-21
Door unlock does not function with keyfob (Power door lock system is "OK")	1. Check keyfob function. (Unlock) NOTE: If the result of keyfob function check with CONSULT-III is OK, keyfob is not malfunctioning.	BL-72
	2. Replace keyfob. Refer to ID Code Entry Procedure.	BL-73
	3. Replace BCM.	BCS-21
Hazard reminder does not activate properly when pressing lock or unlock button of keyfob.	1. Check hazard reminder mode.* *: Hazard reminder mode can be changed. First check the hazard reminder setting.	BL-60
	2. Check hazard function.	BL-68
	3. Replace BCM.	BCS-21

REMOTE KEYLESS ENTRY SYSTEM

Symptom	Diagnoses/service procedure	Reference page
Panic alarm does not activate when panic alarm button is continuously pressed.	1. Check panic alarm mode.* *: Panic alarm mode can be changed. First check the panic alarm setting.	BL-60
	2. Check keyfob battery and function. NOTE: If the result of keyfob function check with CONSULT-III is OK, keyfob is not malfunctioning.	BL-72
	3. Check horn function.	BL-68
	4. Check key switch.	BL-68
	5. Replace keyfob. Refer to ID Code Entry Procedure.	BL-73
	6. Replace BCM.	BCS-21
Trunk lid does not open when trunk opener button is continuously pressed (ignition key must be OFF).	1. Check keyfob battery and function. NOTE: If the result of keyfob function check with CONSULT-III is OK, keyfob is not malfunctioning.	BL-72
	2. Check trunk lid opener actuator.	BL-164
	3. Replace BCM.	BCS-21
Auto door lock operation does not activate properly. (All other remote keyless entry system functions are OK.)	1. Check auto door lock operation mode.* *: Auto door lock operation mode can be changed. First check the auto door lock operation setting.	BL-60
	2. Replace BCM.	BCS-21
Interior lamp operation does not activate properly.	1. Check interior lamp operation.	BL-69
	2. Replace BCM.	BCS-21

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REMOTE KEYLESS ENTRY SYSTEM

EIS00B8D

Keyfob Battery and Function Check

1. CHECK KEYFOB BATTERY

1. Remove keyfob battery. Refer to [BL-75, "Keyfob Battery Replacement"](#) .
2. Measure voltage between battery positive and negative terminals, (+) and (-).

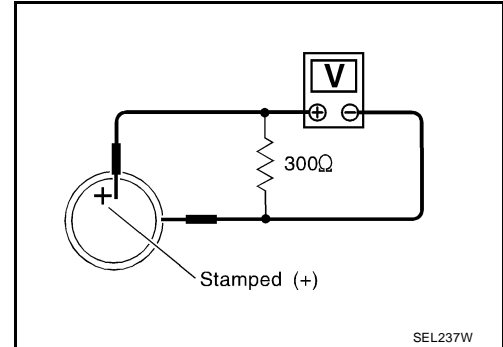
Voltage : 2.5 – 3.0V

NOTE:

Keyfob does not function if battery is not set correctly.

OK or NG

- OK >> GO TO 2.
- NG >> Replace battery.



SEL237W

2. CHECK KEYFOB FUNCTION

With CONSULT-III

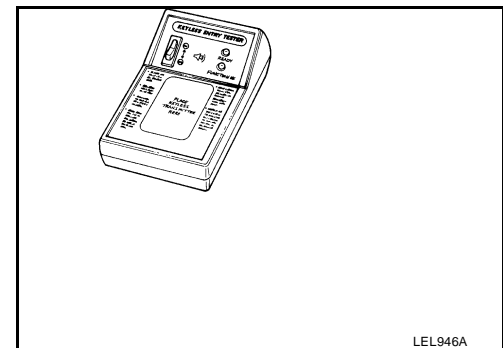
Check keyfob function in "DATA MONITOR" mode with CONSULT-III.

When pushing each button of keyfob, the corresponding monitor item should be turned as follows.

Condition	Monitor item	
Pushing LOCK	KEYLESS LOCK	: ON
Pushing UNLOCK	KEYLESS UNLOCK	: ON
Keep pushing UNLOCK	RKE KEEP UNLK after UNLOCK button is pushed for 3 seconds.	: ON
Pushing PANIC	KEYLESS PANIC	: ON
Pushing LOCK and UNLOCK at the same time	RKE LCK-UNLCK	: ON
Pushing TRUNK	KEYLESS TRUNK	: ON

Without CONSULT-III

Check keyfob function using Remote Keyless Entry Tester J-43241.



LEL946A

OK or NG

- OK >> WITH CONSULT-III: Keyfob, remote keyless entry receiver and wiring harness between BCM and remote keyless entry receiver are OK. Replace BCM. Refer to [BCS-21, "Removal and Installation of BCM"](#) .
- OK >> WITHOUT CONSULT-III: Keyfob is OK. Further inspection is necessary. Refer to [BL-62, "Trouble Diagnosis Symptom Chart"](#) .
- NG >> WITH CONSULT-III: Further inspection is necessary. Refer to [BL-62, "Trouble Diagnosis Symptom Chart"](#) .
- NG >> WITHOUT CONSULT-III: Replace keyfob. Refer to [BL-73, "ID Code Entry Procedure"](#) .

REMOTE KEYLESS ENTRY SYSTEM

E/S00B8E

ACC Switch Check

1. CHECK ACC SWITCH

With CONSULT-III

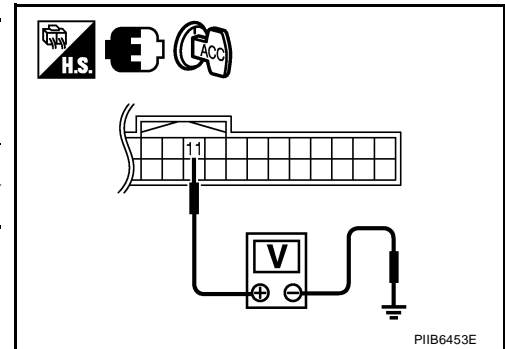
Check ACC switch ("ACC ON SW") in "DATA MONITOR" mode with CONSULT-III.

Monitor item	Condition	
ACC ON SW	Ignition switch position is ACC or ON	: ON
	Ignition switch position is OFF	: OFF

Without CONSULT-III

Check voltage between BCM connector and ground.

Terminals		Ignition switch condition	Voltage (V) (Approx.)
(+)			
BCM connector	Terminal		
M18	11	ACC or ON	Battery voltage
		OFF	0



OK or NG

OK >> ACC switch is OK.

NG >> Check the following.

- 10A fuse [No. 6, located in fuse block (J/B)]
- Harness for open or short between BCM and fuse.

A

B

C

D

E

F

G

H

BL

J

K

L

M

REMOTE KEYLESS ENTRY SYSTEM

EIS00B8F

Door Switch Check

1. CHECK DOOR SWITCHES INPUT SIGNAL

 With CONSULT-III

Check door switches ("DOOR SW-DR", "DOOR SW-AS", "DOOR SW-RL", "DOOR SW-RR") in DATA MONITOR mode with CONSULT-III. Refer to [BL-36, "DATA MONITOR"](#).

- When any doors are open:

DOOR SW-DR : ON
DOOR SW-AS : ON
DOOR SW-RL : ON
DOOR SW-RR : ON

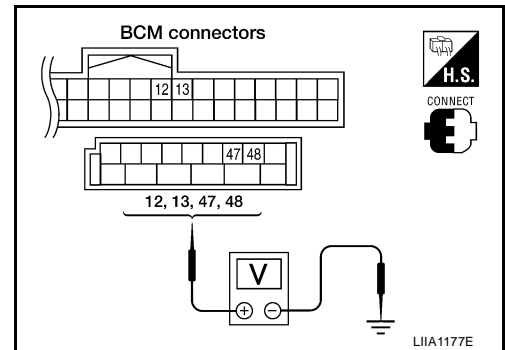
- When any doors are closed:

DOOR SW-DR : OFF
DOOR SW-AS : OFF
DOOR SW-RL : OFF
DOOR SW-RR : OFF

 Without CONSULT-III

Check voltage between BCM connector M18 or M19 terminals 12, 13, 47, 48 and ground.

Connector	Item	Terminals		Condition	Voltage (V) (Approx.)
		(+)	(-)		
M19	Front door switch LH	47	Ground	Open ↓ Closed	0 ↓ Battery voltage
	Rear door switch LH	48			
M18	Front door switch RH	12			
	Rear door switch RH	13			



OK or NG

- OK >> Door switch circuit is OK.
- NG >> GO TO 2.

REMOTE KEYLESS ENTRY SYSTEM

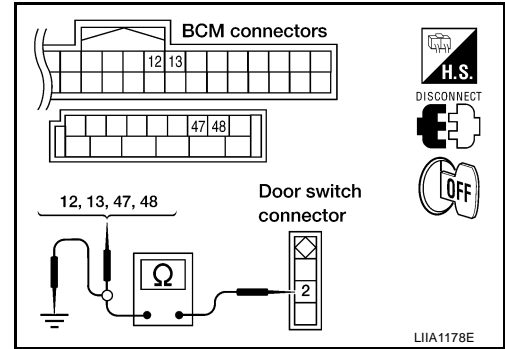
2. CHECK DOOR SWITCH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect door switch and BCM.
3. Check continuity between door switch connector B21 (Front LH), B28 (Front RH), B26 (Rear LH), B41 (Rear RH) terminal 2 and BCM connector M18, M19 terminals 12, 13, 47 and 48.

- 2 - 47 : Continuity should exist.**
2 - 12 : Continuity should exist.
2 - 48 : Continuity should exist.
2 - 13 : Continuity should exist.

4. Check continuity between door switch connector B21 (Front LH), B28 (Front RH), B26 (Rear LH), B41 (Rear RH) terminal 2 and ground.

- 2 - Ground : Continuity should not exist.**



OK or NG

- OK >> GO TO 3.
 NG >> Repair or replace harness.

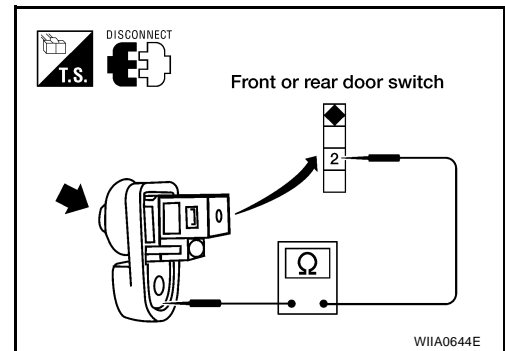
3. CHECK DOOR SWITCHES

Check continuity between door switch terminals.

Door switch (front or rear)	Terminals	Condition	Continuity
		2 - Ground	Pressed
		Released	Yes

OK or NG

- OK >> GO TO 4.
 NG >> Replace door switch.



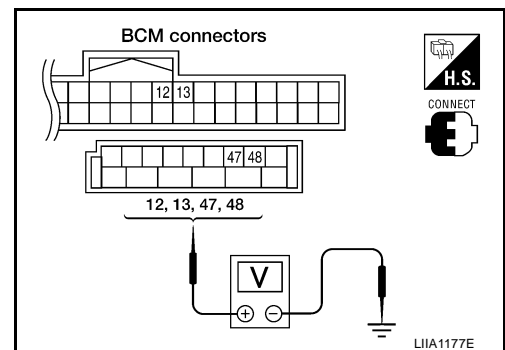
4. CHECK BCM OUTPUT VOLTAGE

1. Reconnect BCM connectors.
2. Check voltage between BCM connector M18, M19 terminals 12, 13, 47, 48 and ground.

- 12 - Ground : Battery voltage**
13 - Ground : Battery voltage
47 - Ground : Battery voltage
48 - Ground : Battery voltage

OK or NG

- OK >> Door switch circuit is OK.
 NG >> Replace BCM. Refer to [BCS-21, "Removal and Installation of BCM"](#).



REMOTE KEYLESS ENTRY SYSTEM

EIS00B8G

Key Switch Check

1. CHECK KEY SWITCH INPUT SIGNAL

With CONSULT-III

Check key switch "KEY ON SW" in DATA MONITOR mode with CONSULT-III. Refer to [BL-61, "Data Monitor"](#)

- When key is inserted into ignition key cylinder:
KEY ON SW : ON
- When key is removed from ignition key cylinder:
KEY ON SW : OFF

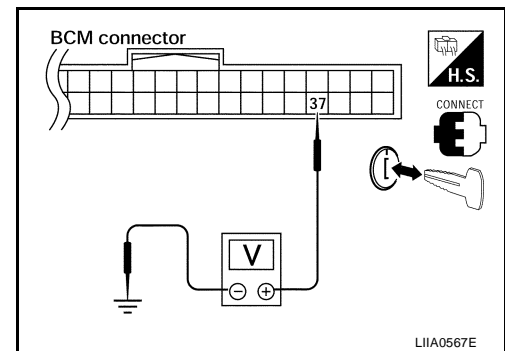
Without CONSULT-III

Check voltage between BCM connector and ground.

Connector	Terminals		Condition	Voltage (V) (Approx.)
	(+)	(-)		
M18	37	Ground	Key is inserted.	Battery voltage
			Key is removed.	0

OK or NG

- OK >> Key switch circuit is OK.
NG >> GO TO 2.



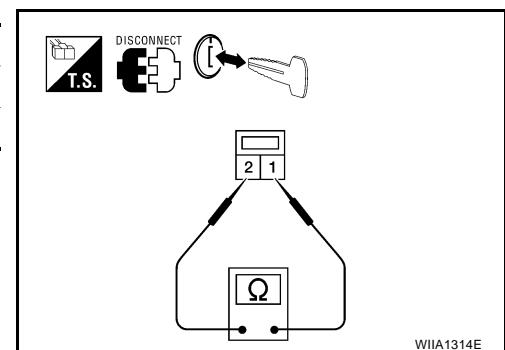
2. CHECK KEY SWITCH

- Turn ignition switch OFF.
- Disconnect key switch connector.
- Check key switch.

Terminals	Condition	Continuity
1 - 2	Key is inserted.	Yes
	Key is removed.	No

OK or NG

- OK >> Check the following.
- 10A fuse [No. 19, located in fuse block (J/B)]
 - Harness for open or short between key switch and fuse
 - Harness for open or short between BCM and key switch
- NG >> Replace key switch.



Hazard Function Check

EIS00B8H

1. CHECK HAZARD WARNING LAMP

Does hazard warning lamp flash with hazard switch?

OK or NG

- OK >> Hazard warning lamp circuit is OK.
NG >> Check hazard circuit. Refer to [LT-48, "TURN SIGNAL AND HAZARD WARNING LAMPS"](#).

Horn Function Check

EIS00B8I

First perform the "SELF-DIAG RESULTS" in "BCM" with CONSULT-III, then perform the trouble diagnosis of malfunction system indicated "SELF-DIAG RESULTS" of "BCM". Refer to [LAN-7, "TROUBLE DIAGNOSIS"](#).

REMOTE KEYLESS ENTRY SYSTEM

1. CHECK HORN FUNCTION

Does horn sound with horn switch?

OK or NG

OK >> GO TO 2.

NG >> Check horn circuit. Refer to [WW-28, "HORN"](#).

2. CHECK IPDM E/R INPUT SIGNAL

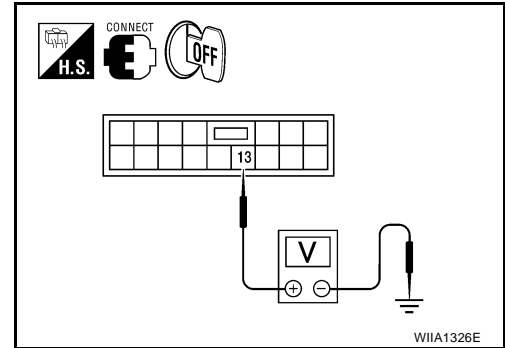
Check voltage between IPDM E/R connector and ground.

Terminals		Voltage (V) (Approx.)
(+)	(-)	
IPDM E/R connector	Terminal	Ground
E43	13	
		Battery voltage

OK or NG

OK >> Replace IPDM E/R. Refer to [PG-30, "Removal and Installation of IPDM E/R"](#)

NG >> GO TO 3.



3. CHECK HORN RELAY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R and horn relay connector.
3. Check continuity between IPDM E/R harness connector and horn relay harness connector.

A		B		Continuity
IPDM E/R connector	Terminal	Horn relay connector	Terminal	
E43	13	H-1	1	Yes

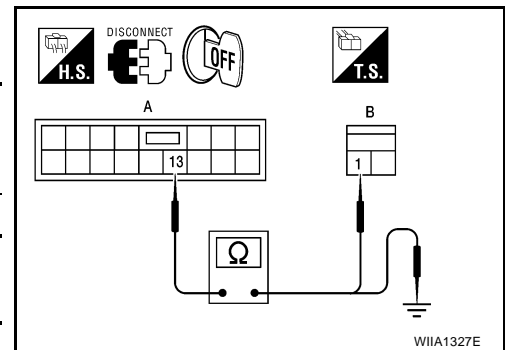
4. Check continuity between IPDM E/R harness connector and ground.

A		Ground	Continuity
IPDM E/R connector	Terminal		
E43	13		No

OK or NG

OK >> Check condition of harness and connector.

NG >> Repair or replace harness.



Interior Lamp Illumination Function Check

EIS00B8J

1. CHECK INTERIOR LAMP ILLUMINATION FUNCTION

When interior room lamp switch is in "DOOR" position, open the front door (LH or RH).

Does interior lamp illuminate?

YES >> Replace BCM. Refer to [BCS-21, "Removal and Installation of BCM"](#).

NO >> Check interior lamp circuit. Refer to [LT-89, "INTERIOR ROOM LAMP"](#).

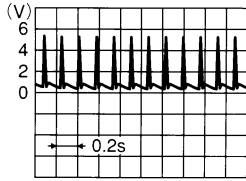
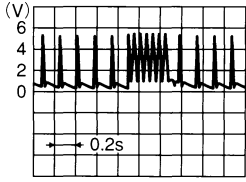
REMOTE KEYLESS ENTRY SYSTEM

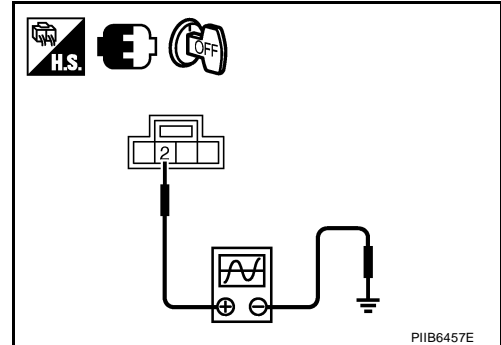
EIS00B8K

Remote Keyless Entry Receiver Check

1. CHECK REMOTE KEYLESS ENTRY RECEIVER OUTPUT SIGNAL

1. Turn ignition switch OFF.
2. Check remote keyless entry receiver connector and ground signal with oscilloscope.

Terminals		Keyfob condition	Signal (Reference value)
(+)	(-)		
Remote keyless entry receiver connector	Terminal		
M15	2	Ground	 <p>OCC3879D</p>
		Any button is pressed	 <p>OCC3880D</p>



OK or NG

- OK >> Remote keyless entry receiver circuit is OK.
 NG >> GO TO 2.

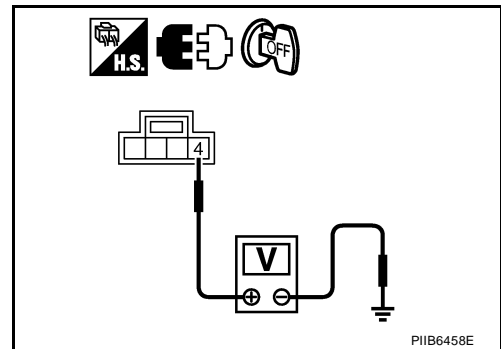
2. CHECK REMOTE KEYLESS ENTRY RECEIVER INPUT VOLTAGE

1. Disconnect remote keyless entry receiver connector.
2. Check voltage between remote keyless entry receiver connector M15 terminal 4 and ground.

Terminals			Voltage (V) (Approx.)
(+)	(-)		
Remote keyless entry receiver connector	Terminal		
M15	4	Ground	4.5

OK or NG

- OK >> GO TO 4.
 NG >> GO TO 3.



REMOTE KEYLESS ENTRY SYSTEM

3. CHECK REMOTE KEYLESS ENTRY RECEIVER POWER SUPPLY CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between BCM connector M18 (A) terminal 19 and remote keyless entry receiver connector M15 (B) terminal 4.

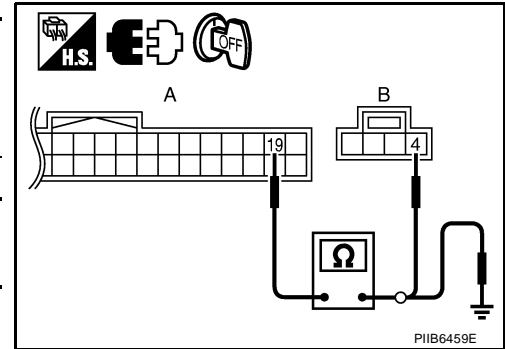
A		B		Continuity
BCM connector	Terminal	Remote keyless entry receiver connector	Terminal	
M18	19	M15	4	Yes

3. Check continuity between BCM connector (A) M18 terminal 19 and ground.

A		Ground	Continuity
BCM connector	Terminal		
M18	19		No

OK or NG

- OK >> Replace BCM. Refer to [BCS-21, "Removal and Installation of BCM"](#).
- NG >> Repair or replace the harness.



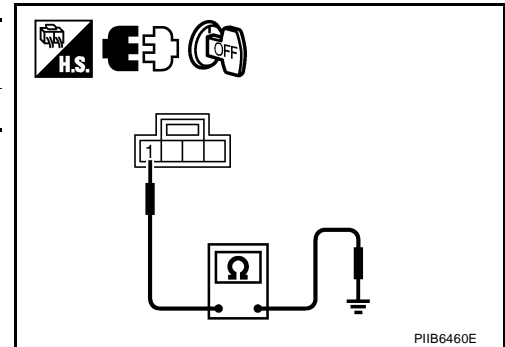
4. CHECK REMOTE KEYLESS ENTRY RECEIVER GROUND CIRCUIT

Check continuity between remote keyless entry receiver connector M15 terminal 1 and ground.

Remote keyless entry receiver connector	Terminal	Ground	Continuity
M15	1		Yes

OK or NG

- OK >> GO TO 6.
- NG >> GO TO 5.



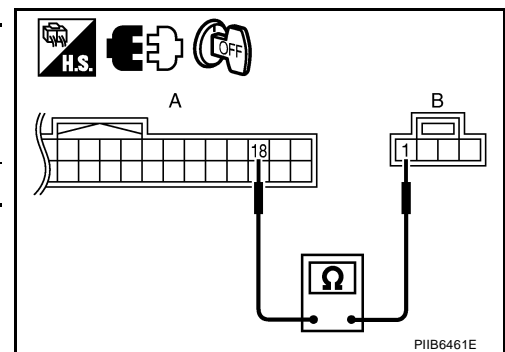
5. CHECK REMOTE KEYLESS ENTRY RECEIVER GROUND CIRCUIT

Check continuity between BCM connector M18 (A) terminal 18 and remote keyless entry receiver connector M15 (B) terminal 1.

A		B		Continuity
BCM connector	Terminal	Remote keyless entry receiver connector	Terminal	
M18	18	M15	1	Yes

OK or NG

- OK >> Replace BCM. Refer to [BCS-21, "Removal and Installation of BCM"](#).
- NG >> Repair or replace the harness.



REMOTE KEYLESS ENTRY SYSTEM

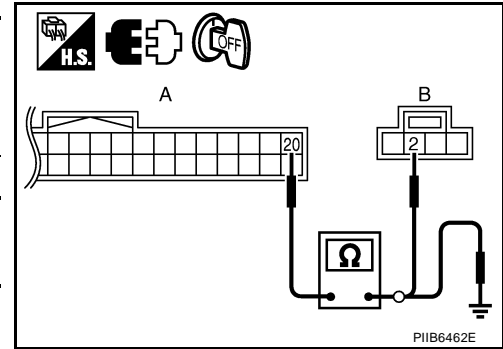
6. CHECK REMOTE KEYLESS ENTRY RECEIVER SIGNAL CIRCUIT

1. Check continuity between BCM connector M18 (A) terminal 20 and remote keyless entry receiver connector M15 (B) terminal 2.

A		B		Continuity
BCM connector	Terminal	Remote keyless entry receiver connector	Terminal	
M18	20	M15	2	Yes

2. Check continuity between BCM connector (A) M18 terminal 20 and ground.

A		Ground	Continuity
BCM connector	Terminal		
M18	20		No



OK or NG

- OK >> Replace remote keyless entry receiver. Refer to [BL-76, "Removal and Installation of Remote Keyless Entry Receiver"](#).
- NG >> Repair or replace harness.

Keyfob Function (Lock) Check

EIS00B8L

1. CHECK KEYFOB FUNCTION

With CONSULT-III

Check keyfob function in "DATA MONITOR" mode with CONSULT-III. When pushing lock button of keyfob, the corresponding monitor item should be turned as follows.

Test item	Condition
KEYLESS LOCK	Pushing LOCK button: ON
	Other than above: OFF

OK or NG

- OK >> Keyfob is OK.
- NG >> Replace keyfob.

Keyfob Function (Unlock) Check

EIS00B8M

1. CHECK KEYFOB FUNCTION

With CONSULT-III

Check keyfob function in "DATA MONITOR" mode with CONSULT-III. When pushing unlock button of keyfob, the corresponding monitor item should be turned as follows.

Test item	Condition
KEYLESS UNLOCK	Pushing UNLOCK button: ON
	Other than above: OFF

OK or NG

- OK >> Keyfob is OK.
- NG >> Replace keyfob.

REMOTE KEYLESS ENTRY SYSTEM

EIS0088N

ID Code Entry Procedure KEYFOB ID SET UP WITH CONSULT-III

NOTE:

- If a keyfob is lost, the ID code of the lost keyfob must be erased to prevent unauthorized use. A specific ID code can be erased with CONSULT-III. However, when the ID code of a lost keyfob is not known, all controller ID codes should be erased. After all ID codes are erased, the ID codes of all remaining and/or new keyfobs must be re-registered.
- When registering an additional keyfob, the existing ID codes in memory may or may not be erased. If five ID codes are stored in memory, when an additional code is registered, only the oldest code is erased. If less than five ID codes are stored in memory, when an additional ID code is registered, the new ID code is added and no ID codes are erased.
- Entry of maximum five ID codes is allowed. When more than five ID codes are entered, the oldest ID code will be erased.
- Even if same ID code that is already in the memory is input, the same ID code can be entered. The code is counted as an additional code.

1. Connect CONSULT-III.
2. Touch "MULTI REMOTE ENT".
3. Touch "WORK SUPPORT".
4. The following items can be set up:
 - "REMO CONT ID CONFIR"
Use this mode to confirm if a keyfob ID code is registered or not.
 - "REMO CONT ID REGIST"
Use this mode to register a keyfob ID code.

NOTE:

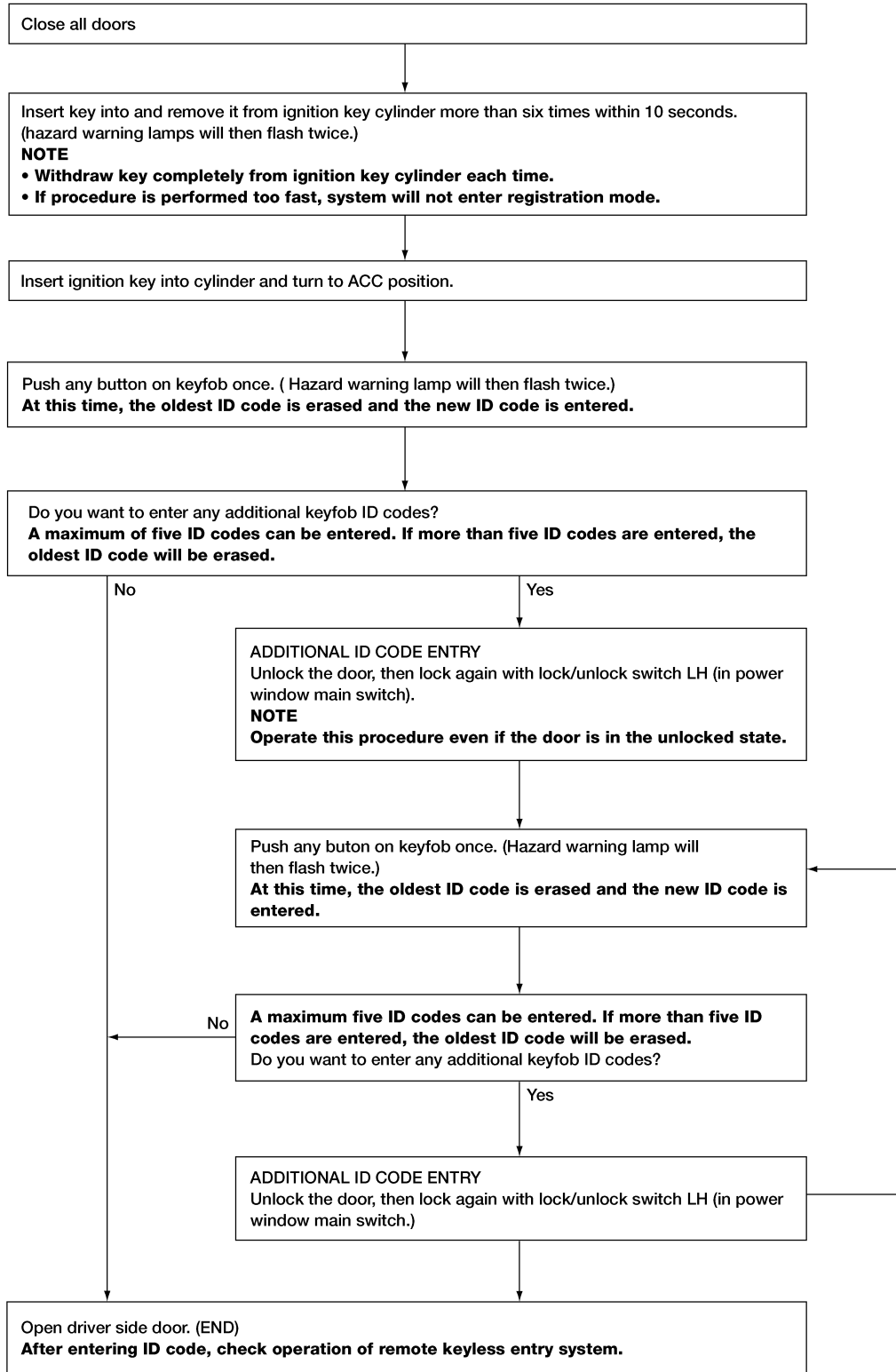
Register the ID code when keyfob or BCM is replaced, or when additional keyfob is required.

- "REMO CONT ID ERASUR"
Use this mode to erase a keyfob ID code.

A
B
C
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BL
J
K
L
M

REMOTE KEYLESS ENTRY SYSTEM

KEYFOB ID SET UP WITHOUT CONSULT-III



LIA1513E

REMOTE KEYLESS ENTRY SYSTEM

NOTE:

- If a keyfob is lost, the ID code of the lost keyfob must be erased to prevent unauthorized use. A specific ID code can be erased with CONSULT-III. However, when the ID code of a lost keyfob is not known, all controller ID codes should be erased. After all ID codes are erased, the ID codes of all remaining and/or new keyfobs must be re-registered.
To erase all ID codes in memory, register one ID code (keyfob) five times. After all ID codes are erased, the ID codes of all remaining and/or new keyfobs must be re-registered.
- When registering an additional keyfob, the existing ID codes in memory may or may not be erased. If five ID codes are stored in memory, when an additional code is registered, only the oldest code is erased. If less than five ID codes are stored in memory, when an additional ID code is registered, the new ID code is added and no ID codes are erased.
- If you need to activate more than two additional new keyfobs, repeat the procedure "Additional ID code entry" for each new keyfob.
- Entry of maximum five ID codes is allowed. When more than five ID codes are entered, the oldest ID code will be erased.
- Even if same ID code that is already in the memory is input, the same ID code can be entered. The code is counted as an additional code.

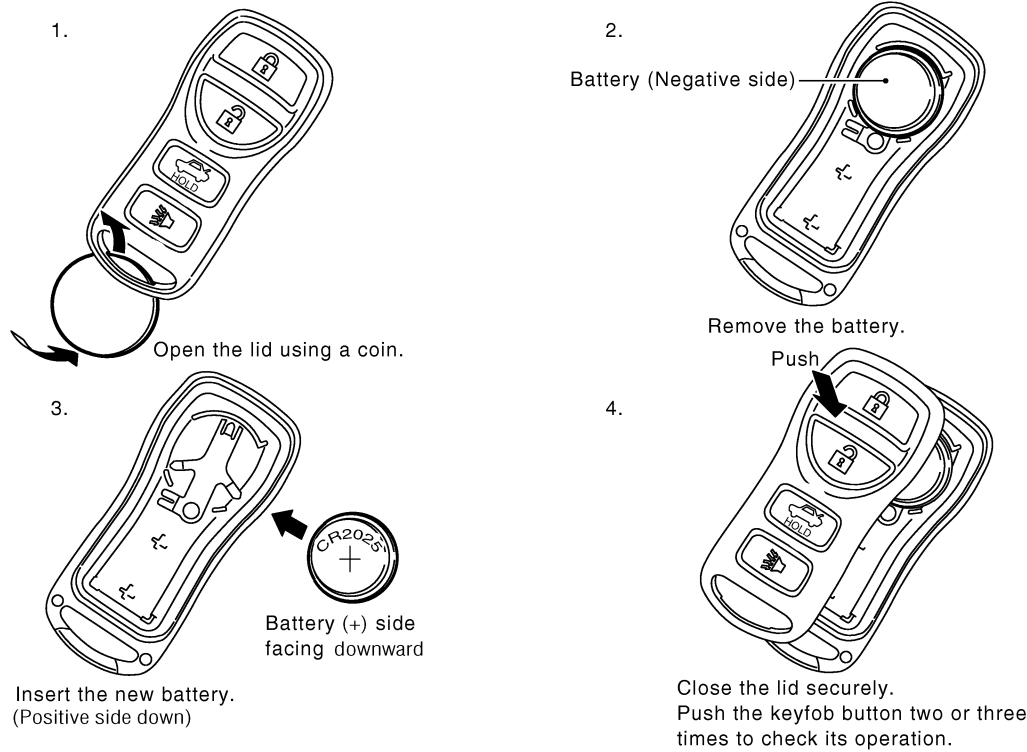
Keyfob Battery Replacement

EIS00B80

SEC. 998

NOTE:

- Be careful not to touch the circuit board or battery terminal.
- The keyfob is water-resistant. However, if it does get wet, immediately wipe it dry.



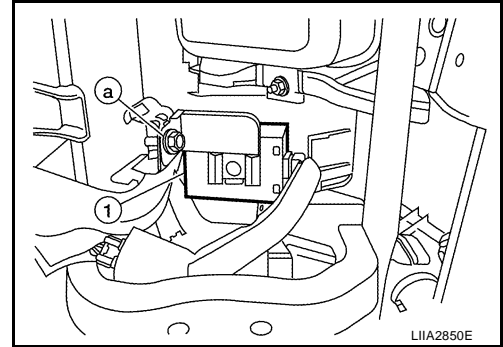
REMOTE KEYLESS ENTRY SYSTEM

Removal and Installation of Remote Keyless Entry Receiver

EIS00B8P

REMOVAL

1. Disconnect the battery negative terminal.
2. Remove glove box assembly. Refer to [IP-11, "Removal and Installation"](#).
3. Remove the screw (a) disconnect and remove the remote keyless entry receiver (1).



INSTALLATION

Installation is in the reverse order of removal.

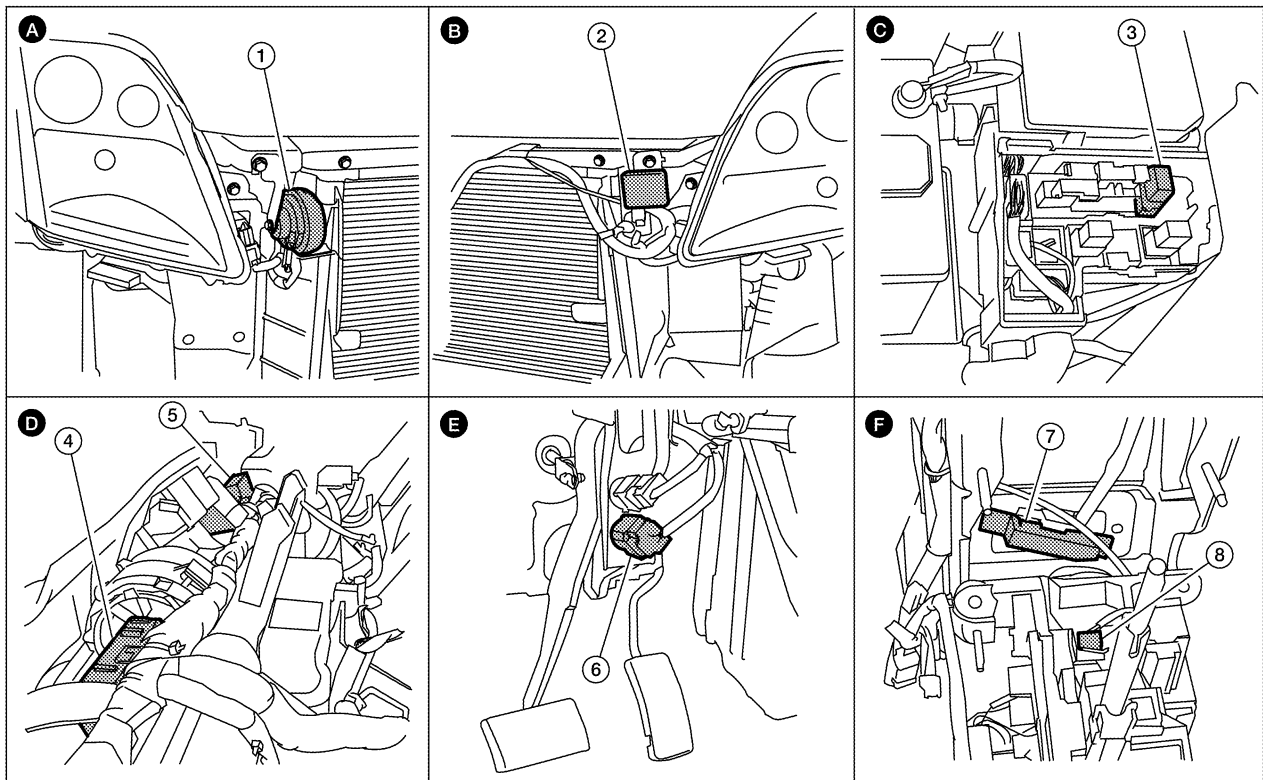
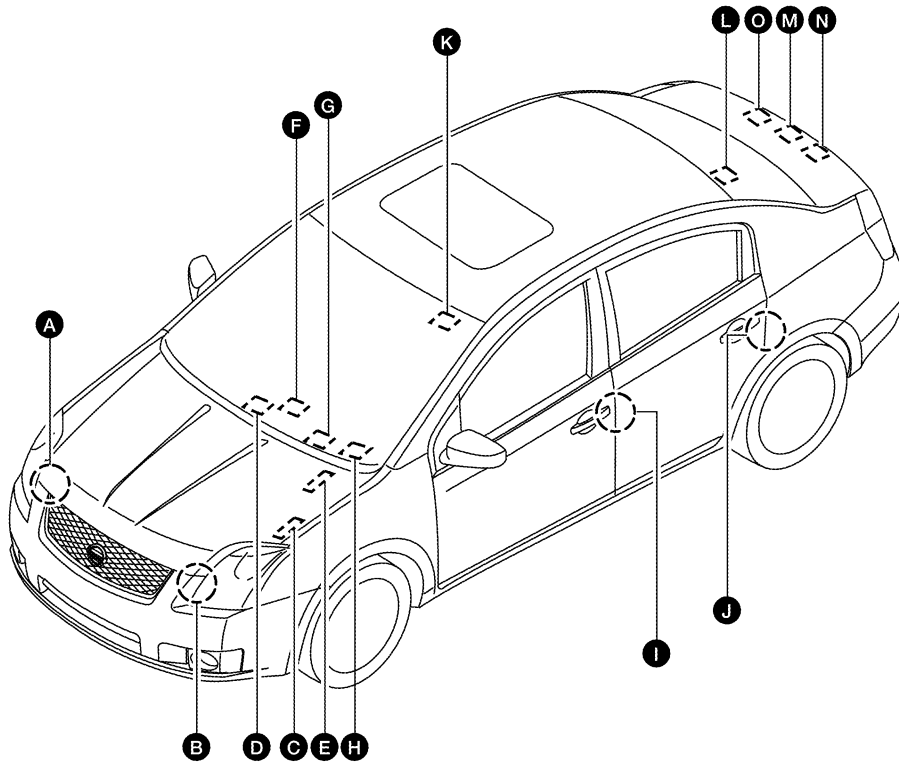
INTELLIGENT KEY SYSTEM

PF0:285e2

EIS00BBR

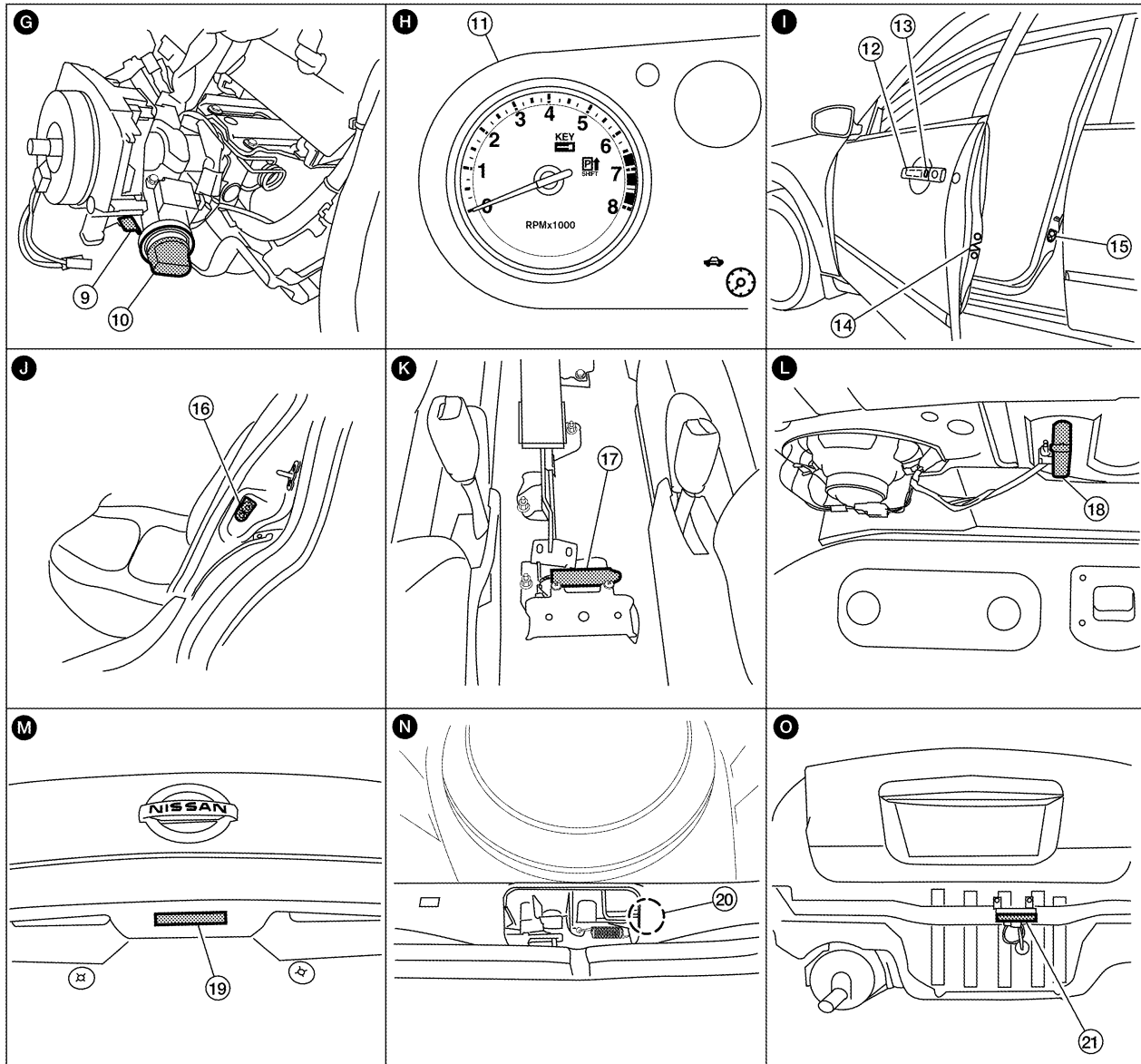
INTELLIGENT KEY SYSTEM

Component Parts and Harness Connector Location



BIA0002E

INTELLIGENT KEY SYSTEM



B1IA0003E

- | | | |
|---|---|---|
| 1. Horn E57, E58
(view with front fascia removed) | 2. Intelligent key warning buzzer E26
(view with front fascia removed) | 3. Horn relay H-1 |
| 4. BCM M18, M19, M20
(view with instrument panel removed) | 5. Intelligent Key Unit M42 | 6. Stop lamp switch E60 |
| 7. Instrument panel antenna M25
(view with center console removed) | 8. CVT device (park position switch)
M38 | 9. Steering lock solenoid M27
(view with steering wheel removed) |
| 10. Key switch and ignition knob switch M49 | 11. Combination meter M24
(warning lamp indicators) | 12. Front outside handle key antenna LH
D4, RH D103 |
| 13. Front outside handle request switch LH
D4, RH D103 | 14. Front door lock assembly LH (door
unlock sensor) D9 | 15. Front door switch LH B21, RH B28 |
| 16. Rear door switch LH B26, RH B41 | 17. Front console antenna B18
(view with front console removed) | 18. Rear parcel shelf antenna B45
(view from inside trunk) |
| 19. Trunk opener request switch T5 | 20. Trunk room lamp switch B57 | 21. Rear bumper antenna B49
(view with rear fascia removed) |

INTELLIGENT KEY SYSTEM

EIS00BBS

System Description

- The Intelligent Key system is a system that makes it possible to lock and unlock the door locks (door lock/unlock function), open the trunk (trunk open function), and start the engine (engine start function) by carrying around the Intelligent Key (without some key operation), which operates based on the results of electronic ID verification using two-way communications between the Intelligent Key and the vehicle (Intelligent Key unit).

CAUTION:

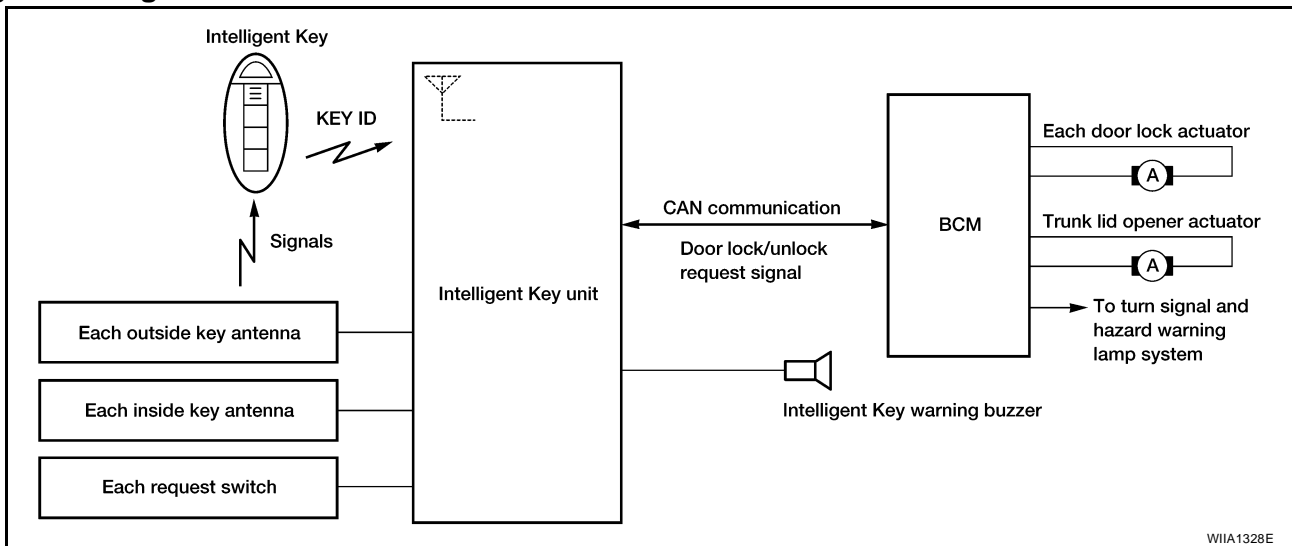
The driver should always carry the Intelligent Key

- Operation of the remote control buttons on the Intelligent Key also provides the same functions as the remote control entry system (Remote keyless entry functions).
- If an action that does not meet the operating conditions of the Intelligent Key system is taken, the chime (inside vehicle) goes off to inform the driver (Warning chime functions).
- When a door lock is locked or unlocked with request switch or remote control button operation, the hazard lamps flash and the Intelligent Key warning buzzer (front of vehicle) sounds (Hazard and horn reminder function).
- Even if the Intelligent Key battery is completely discharged, the door locks can be locked and unlocked and the engine started with the mechanical key built into the Intelligent Key.
- The settings for each function can be changed with the CONSULT-III.
- If an Intelligent Key is lost, a new Intelligent Key can be registered. A maximum of 4 Intelligent Keys can be registered.
- It has been made possible to diagnose the system and register an Intelligent Key with the CONSULT-III.

DOOR LOCK/UNLOCK/TRUNK OPEN FUNCTION

Only when pressing the request switch, it is possible to lock and unlock the door and open the trunk by carrying around the Intelligent Key (without some key operation).

System Diagram



INTELLIGENT KEY SYSTEM

Operation Description

- When the Intelligent Key unit detects that each request switch is pressed, it starts the outside antenna corresponding to the pressed request switch and sends the request signal to the Intelligent Key. And then, make sure that the Intelligent Key is near the door or the trunk.
- If the Intelligent Key is within the outside antenna detection area, it receives the request signal and sends the key ID signal to the Intelligent Key unit.
- Intelligent Key receives the key ID signal and compares it with the registered key ID.
- If the key ID check result is OK, the Intelligent Key unit sends the door lock/unlock or trunk open request signal to BCM (Body control module) via CAN communication line.
- Intelligent Key unit sends the door lock/unlock signal and sounds Intelligent Key warning buzzer (front of vehicle) warning (lock: 2 times, unlock: 1 time, trunk open: 4 times) at the same time.
- When BCM receives the door lock/unlock signal, it operates door lock actuator and flashes the hazard lamp (lock: 2 times, unlock: 1 time) at the same time as an operation check.
- When BCM receives the trunk open request signal, it operates the trunk lid opener actuator and opens the trunk.

Operation Condition

If the following conditions are not satisfied, door lock/unlock or trunk open operations will not response even if the request switch is operated.

Each request switch operation	Operation condition
Lock operation	<ul style="list-style-type: none">● All doors are closed● Intelligent Key is outside the vehicle● Intelligent Key is within outside key antenna detection area even if another Intelligent Key is inside the vehicle● OFF position warning chime is not operated
Unlock Operation	<ul style="list-style-type: none">● Intelligent Key is outside the vehicle● Intelligent Key is within outside key antenna detection area
Trunk open operation	<ul style="list-style-type: none">● Intelligent Key is in the outside key antenna (rear bumper) detection area and Intelligent Key is not inside vehicle.● Intelligent Keys are in the outside key antenna (rear bumper) detection area and Intelligent Key is inside vehicle. But both Intelligent Key IDs are different.

Outside Key Antenna Detection Area

The outside key antenna detection area of door lock/unlock function is in the range of approximately 80 cm (31.50 in) surrounding the driver and passenger door handles. The outside key antenna detection area of trunk open function is in the range of approximately 80 cm (31.50 in) surrounding Trunk opener request switch. However, this operating range depends on the ambient conditions.

INTELLIGENT KEY SYSTEM

Key Reminder Function

Key reminder functions have the following 2 functions.

Key reminder function	Operation condition	Operation
When the door is open to closed	Key reminder function is operated when <ul style="list-style-type: none"> ● Intelligent Key is inside the vehicle ● Any door is open ● All doors are locked by door lock and unlock switch or door lock knob ● All doors are closed 	<ul style="list-style-type: none"> ● All doors unlock operation ● Sound Intelligent Key warning buzzer (front of vehicle) for 3 seconds
When the trunk is closed	Key reminder function is operated when <ul style="list-style-type: none"> ● Intelligent Key is inside trunk room ● All doors are closed ● All doors are locked ● Trunk is closed 	<ul style="list-style-type: none"> ● Trunk open operation. ● Sound Intelligent Key warning buzzer (front of vehicle) for 10 seconds

CAUTION:

- The above function operates when the Intelligent Key is inside the vehicle. However, there may be times when the Intelligent Key cannot be detected, and this function will not operate when the Intelligent Key is on the instrument panel, rear parcel shelf, or in the glove box. Also, this system sometimes does not operate if the Intelligent Key is in the door pocket of an open door.
- While the key reminder function is operated when the trunk is open/closed and the chime sounds, if the following operations are performed, the key reminder function is cleared and chime sounds are stopped.
 - Remote control door lock button operation of Intelligent Key
 - Remote control door unlock button operation of Intelligent Key
 - When the trunk is closed, the Intelligent Key is not inside the vehicle
 - When any door is open

Selective Unlock Function

When a LOCK signal is sent from front door request switch LH or RH, all doors will be locked. When an UNLOCK signal is sent from front door request switch LH or RH once, that door will be unlocked. Then, if an UNLOCK signal is sent from the same front door request switch again within 1 minute, all other doors will be unlocked.

Hazard and Horn Reminder

When doors are locked or unlocked by a door request switch, Intelligent Key unit sends hazard request signal to BCM via CAN communication line. BCM flashes hazard warning lamps as a reminder. Intelligent Key unit sends a chirp signal to the Intelligent Key warning buzzer (front of vehicle) as a reminder. The hazard and buzzer reminder has a horn chirp mode (C mode) and a non-horn chirp mode (S mode).

Operating function of hazard and horn reminder

	C mode		S mode	
	Lock	Unlock	Lock	Unlock
Door request switch operation	Lock	Unlock	Lock	Unlock
Hazard warning lamp flash	Twice	Once	Twice	—
Warning buzzer (front of vehicle)	Twice	Once	—	—

Hazard and buzzer reminders do not operate if any door switch is ON (OPEN door) and ignition switch is ON.

How to change hazard and horn reminder mode

With CONSULT-III

Hazard and horn reminder can be changed using "HAZARD ANSWER BACK", "ANSWER BACK WITH I-KEY LOCK" and "ANSWER BACK WITH I-KEY UNLOCK" mode in "WORK SUPPORT". Refer to [BL-105, "WORK SUPPORT"](#).

Without CONSULT-III

Refer to Owner's Manual for instructions.

INTELLIGENT KEY SYSTEM

Auto Door Lock Function

When all doors are locked, ignition knob switch is OFF (when ignition switch is not pressed) and key switch is OFF (when mechanical key is not inserted in key cylinder), doors are unlocked with a door request switch. When Intelligent Key unit does not receive the following signals within 1 minute, all doors are locked.

- Door switch is ON (door is opened)
- Door is locked
- Ignition knob switch is ON (ignition switch is pressed)
- Key switch is ON (mechanical key is inserted in key cylinder)

Auto door lock mode can be changed by "AUTO RELOCK TIMER" mode in "WORK SUPPORT". Refer to [BL-105, "WORK SUPPORT"](#) .

Room Lamp Operation

When the following conditions are met:

- Condition of interior lamp switch is in DOOR position
- Door switch is OFF (when all the doors are closed)

Intelligent Key system turns on interior lamp (for 30 seconds) by receiving UNLOCK signal from a door request switch. For detailed description, refer to [BL-82, "Room Lamp Operation"](#) .

List of Operation Related Parts

Parts marked with × are the parts related to operation.

Door lock/trunk open function	Intelligent Key	Key switch	Ignition knob switch	Door unlock sensor	Door switch	Trunk lamp switch	Front door request switch (LH, RH)	Trunk opener request switch	Door lock actuator	Trunk lid opener actuator	Inside key antenna	Front outside antenna (LH, RH)	Rear bumper antenna	Intelligent Key warning buzzer	Intelligent Key unit	CAN communication system	BCM	Hazard warning lamp
Door lock/unlock function by request switch	×			×	×		×		×		×	×			×	×	×	
Door lock/unlock function by mechanical key									×									×
Trunk open function by the trunk opener switch	×					×		×		×	×		×		×	×	×	
Hazard and horn reminder function														×	×	×	×	×
Key reminder function	×			×	×		×	×	×		×	×	×	×	×	×	×	×
Selective unlock function by request switch (LH side)	×						×		×		×	×			×	×	×	
Auto door lock function	×	×	×		×		×								×	×	×	

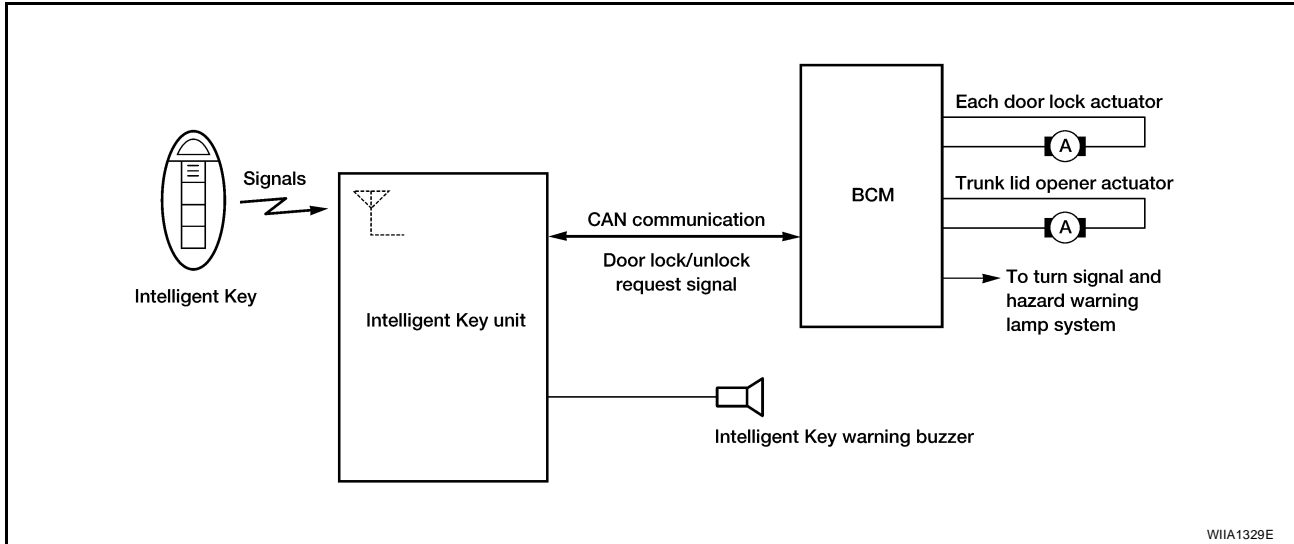
INTELLIGENT KEY SYSTEM

REMOTE KEYLESS ENTRY FUNCTIONS

Door Lock/Unlock Function

The Intelligent Key has the same functions as the remote control entry system. Therefore, it can be used in the same manner as the remote control transmitter by operating the door lock/unlock button and trunk open button.

System Diagram



Door Lock/Unlock Function

- When door lock/unlock button of the Intelligent Key is pressed, lock signal or unlock signal is sent from Intelligent Key to Intelligent Key unit.
- Intelligent Key unit sends the door lock/unlock request signal to BCM via CAN communication line.
- When BCM receives the door lock/unlock signal, it operates door lock actuator and flashes the hazard lamp (lock: 2 times, unlock: 1 time) at the same time as an operation check.

Trunk Open Function

- When pressing the trunk button of the Intelligent Key, the trunk open signal is sent from the Intelligent Key to the Intelligent Key unit.
- Intelligent Key unit sends trunk open request signal to BCM via CAN communication line and sounds Intelligent Key warning buzzer (front of vehicle) 4 times at the same time.
- When BCM receives the trunk open request signal, it operates the trunk lid opener actuator and opens the trunk.

Operation Condition

Remote control operation	Operation condition
Lock	<ul style="list-style-type: none"> • All doors closed • OFF position warning chime is not operated.
Unlock	—
Trunk open	<ul style="list-style-type: none"> • Ignition switch is in OFF position. • Press and hold the trunk open button for 0.5 second or more

Selective Unlock Function

When a LOCK signal is sent from remote control of Intelligent Key, all doors will be locked. When an UNLOCK signal is sent from remote control of Intelligent Key once, driver's door will be unlocked. Then, if an UNLOCK signal is sent from remote control of Intelligent Key again within 1 minute, all other door will be unlocked.

Hazard and Horn Reminder

When doors are locked or unlocked by remote control of Intelligent Key, Intelligent Key unit sends hazard and horn request signal to BCM via CAN communication line.

INTELLIGENT KEY SYSTEM

BCM flashes hazard warning lamps as a reminder and sends horn chirp signal to IPDM E/R. IPDM E/R sounds horn as a reminder.

The hazard and horn reminder has a horn chirp mode (C mode) and a non-horn chirp mode (S mode).

Operating function of hazard and horn reminder

	C mode		S mode	
	Lock	Unlock	Lock	Unlock
Remote control of Intelligent Key operation	Lock	Unlock	Lock	Unlock
Hazard warning lamp flash	Twice	Once	Twice	—
Horn sound	Once	—	—	—

Hazard and horn reminders do not operate if any door switch is ON (door is OPEN) and ignition switch is ON.

How to change hazard and horn reminder mode

Ⓟ With CONSULT-III

Hazard and horn reminder can be changed using “HORN WITH KEYLESS LOCK” and “HAZARD ANSWER BACK” mode in “WORK SUPPORT”. Refer to [BL-105, "WORK SUPPORT"](#) .

ⓧ Without CONSULT-III

Refer to Owner's Manual for instructions.

Auto Door Lock Function

When all doors are locked, ignition knob switch is OFF (when ignition switch is not pressed) and key switch is OFF (when mechanical key is not inserted in key cylinder), doors are unlocked with remote control of Intelligent Key. When Intelligent Key unit does not receive the following signals within 1 minute, all doors are locked.

- Door switch is ON (door is opened)
- Door is locked
- Ignition knob switch is ON (ignition switch is pressed)
- Key switch is ON (mechanical key is inserted in key cylinder)

Auto door lock mode can be changed by “AUTO RELOCK TIMER” mode in “WORK SUPPORT”. Refer to [BL-105, "WORK SUPPORT"](#) .

Panic Alarm Function

When ignition knob switch is OFF (when ignition switch is not pressed) and key switch is OFF (when mechanical key is not inserted in key cylinder), Intelligent Key unit receives PANIC ALARM signal from remote control of Intelligent Key.

Intelligent Key unit sends alarm request signal to BCM via CAN communication line.

BCM turns on and off headlamp intermittently and sends theft warning horn signal to IPDM E/R. Then, IPDM E/R turns on and off horn intermittently.

The headlamp flashes and the horn sounds intermittently.

The alarm automatically turns off:

- After 25 seconds
- When Intelligent Key unit receives any signal from remote control of Intelligent Key
- When a door request switch is pressed (Intelligent Key is outside vehicle)

Panic alarm function mode can be changed by “PANIC ALARM DELAY” mode in “WORK SUPPORT”. Refer to [BL-105, "WORK SUPPORT"](#) .

Room Lamp Illumination Operation

When the following conditions are met:

- Condition of interior lamp switch is in DOOR position
- Door switch OFF (when all the doors are closed)

Intelligent Key system turns on interior lamp (for 30 seconds) by receiving UNLOCK signal from remote control of Intelligent Key. For detailed description, refer to [BL-82, "Room Lamp Operation"](#) .

INTELLIGENT KEY SYSTEM

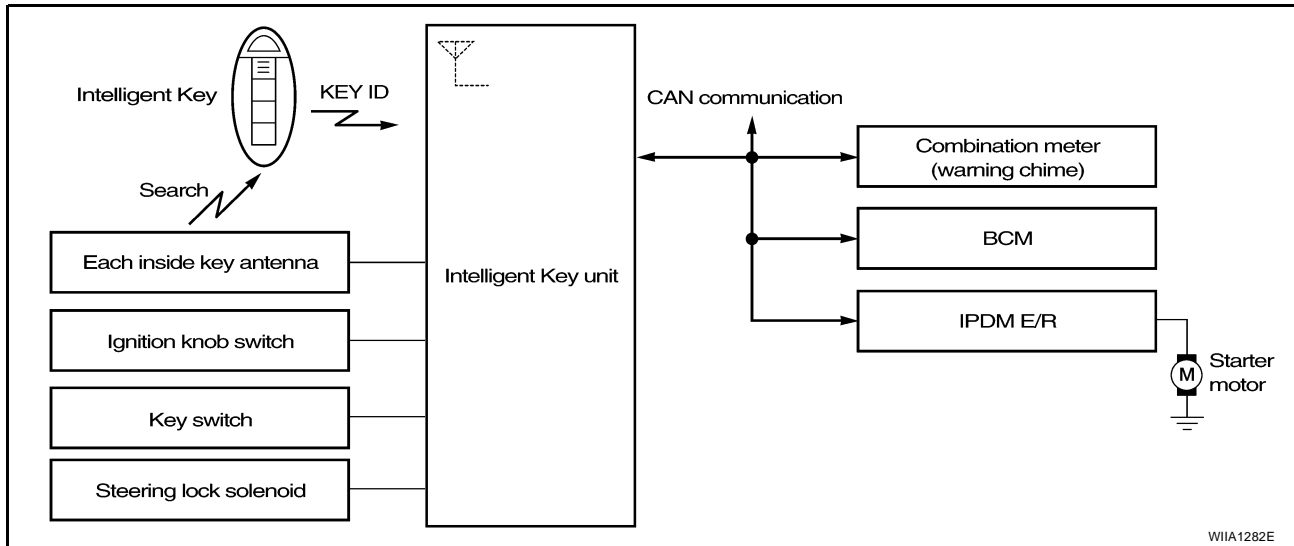
List of Operation Related Parts

Parts marked with × are the parts related to operation.

Remote keyless entry functions	Intelligent Key	Key switch	Ignition knob switch	Front door request switch (LH, RH)	Door switch	Trunk lamp switch	Door lock actuator	Trunk lid opener actuator	Intelligent Key warning buzzer	Intelligent Key unit	CAN communication system	BCM	Combination meter	Hazard warning lamp	Horn	IPDM E/R	Head lamp
Door lock/unlock function by remote control button	×				×		×			×	×	×					
Trunk open function by remote control button	×					×		×		×	×	×					
Hazard and horn reminder function	×								×	×	×	×	×	×	×	×	
Selective unlock function	×				×		×			×	×	×					
Keyless power window down (open) function	×	×								×		×					
Auto door lock function	×	×	×		×					×	×	×					
Panic alarm function	×			×						×	×	×			×	×	×

ENGINE START FUNCTION

When the registered Intelligent Key is carried, the engine can be started without inserting the key.



When ignition knob switch is ON (press ignition switch), Intelligent Key unit searches Intelligent Key in the vehicle using inside key antenna.

When Intelligent Key is inside the vehicle, it performs the following operation.

- Illuminate green "KEY" warning lamp in combination meter.
- Released steering lock and ignition switch can be turned from OFF to ACC, ON or START position.

NOTE:

If Intelligent Key is not registered, "KEY" warning lamp in combination meter illuminates red.

- Intelligent Key sends engine start signal via CAN communication line.

When ignition switch turns to START position, BCM sends starter request signal to IPDM E/R. Then, engine starts.

Even if Intelligent Key battery runs down, Intelligent Key unit can start engine with mechanical key built into Intelligent Key. For details, refer to [BL-189, "NATS \(Nissan Anti-Theft System\)"](#).

All of the originally supplied Intelligent Key IDs have been registered in Intelligent Key system.

If requested by the vehicle owner, a maximum of four Intelligent Key IDs can be registered into the Intelligent Key system components.

INTELLIGENT KEY SYSTEM

List of Operation Related Parts

Parts marked with × are the parts related to operation.

Engine start functions	Intelligent Key	Key switch	Ignition knob switch	Inside key antenna	Intelligent Key unit	CAN communication system	BCM	Combination meter	IPDM E/R	NATS antenna amp.	steering lock solenoid
Engine start function by the Intelligent Key	×		×	×	×	×	×	×	×		×
Engine start function by the mechanical key		×			×	×	×		×	×	×

WARNING CHIME/BUZZER/LAMPS FUNCTION

Operation Description

The following warning chime (combination meter), intelligent key warning buzzer (front of vehicle), and warning lamps "KEY" and "P-SHIFT" (combination meter) are given to the user as warning information while using the intelligent key system.

- Ignition switch warning chime
- Ignition key warning chime
- OFF position warning chime
- OFF position warning chime (after door closed)
- Take away warning chime
- Take away warning chime (from window)
- Door lock operation warning chime
- Intelligent key low battery warning
- P position warning

NOTE:

For key-in-ignition warning chime related issues only, refer to [DI-51, "WARNING CHIME"](#) .

INTELLIGENT KEY SYSTEM

Operation Condition

Operation	Condition	Intelligent Key warning sound	Warning lamp illuminates
Ignition switch warning chime	<ul style="list-style-type: none"> ● Key switch is OFF. ● Ignition switch is in the ACC, OFF or LOCK position. [ignition switch is pressed (ignition knob switch is ON)]. ● Driver door is open. 	Chime (Instrument panel)	—
Ignition key warning chime (When mechanical key is used)	<ul style="list-style-type: none"> ● Mechanical key is inserted in ignition switch (key switch is ON). ● Ignition switch is in the ACC, OFF or LOCK position. ● Driver door is open. 	Chime (Instrument panel)	—
OFF position warning chime	<ul style="list-style-type: none"> ● Ignition switch is turned from ACC to OFF. [ignition switch is pressed (ignition knob switch is ON)]. ● Ignition switch is in the LOCK position and pressed for 1 second. 	Chime (Instrument panel)	—
OFF position warning chime (after door closed)	When driver door is opened and then closed while the OFF position warning chime above is operating.	Buzzer (front of vehicle)	—
Take away warning chime	<ul style="list-style-type: none"> ● Engine is running. ● Door open to close. ● Intelligent Key is not found inside vehicle. 	Buzzer (front of vehicle)	"KEY" (red) blinking
Take away warning chime (from window)	<ul style="list-style-type: none"> ● Engine is running. ● Door is closed. ● Intelligent Key is not found inside vehicle. 	Chime (Instrument panel)	"KEY" (red) blinking
Door lock operation warning chime	When request switch is pushed under the following conditions: <ul style="list-style-type: none"> ● All door are closed. ● Door is unlocked. ● Intelligent Key is inside vehicle. 	Buzzer (front of vehicle)	—
Intelligent Key low battery warning	When Intelligent Key battery is low, Intelligent Key unit is detected after ignition switch is turned ON.	—	"KEY" (green) blinking
P position warning	When selector lever is in other than P position, ignition switch is turned from ON to OFF.	—	"P-SHIFT"

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INTELLIGENT KEY SYSTEM

List of Operation Related Parts

Parts marked with × are the parts related to operation.

Warning and alarm functions	Intelligent Key	Key switch	Ignition knob switch	Ignition switch ACC position input signal	Ignition switch ON position input signal	Door switch	Door request switch	Inside key antenna	Front outside antenna (LH, RH)	Rear bumper antenna	Intelligent Key warning buzzer	Intelligent Key unit	CAN communication system	BCM	Combination meter	CVT device (park position switch)
Ignition switch warning chime			×		×	×						×				
Ignition key warning chime (When mechanical key used)		×			×	×							×	×	×	
OFF position warning chime			×	×	×						×	×				
OFF position warning chime (after door close)			×	×	×	×					×	×				
Take away warning chime	×		×			×		×			×	×				×
Take away warning chime (from window)	×		×			×		×			×	×				×
Door lock operation warning chime	×		×			×	×	×	×		×	×				
Intelligent Key low battery warning	×				×			×				×				×
P position warning					×							×			×	×

CHANGE SETTINGS FUNCTION

The settings for each function can be changed with the CONSULT-III.

Changing Settings Using CONSULT-III

The settings for the Intelligent Key system functions can be changed using CONSULT-III (WORK SUPPORT). Refer to [BL-105, "WORK SUPPORT"](#) .

NOTE:

Once a function setting is changed, it will remain effective even if the battery is disconnected.

INTELLIGENT KEY REGISTRATION

Intelligent Key-ID registration is performed using the CONSULT-III.

CAUTION:

- After a new Intelligent Key-ID is registered, be sure to check the function.
- When registering an additional Intelligent Key-ID, take any Intelligent Keys already registered and Intelligent Keys for any other vehicles out of the vehicle before starting.

CONSULT-III can be used to check and delete Intelligent Key-IDs.

For further information, see the **CONSULT-III Operation Manual NATS**.

STEERING LOCK SOLENOID REGISTRATION

Steering Lock Solenoid ID Registration

CAUTION:

- The method for registering a steering lock solenoid ID depends on the status of the steering lock solenoid and Intelligent Key unit (new or old unit).
- After registration is completed, press ignition switch with an Intelligent Key in the vehicle so that it can be turned, and confirm that it cannot be turned even when ignition switch is pressed without an Intelligent Key in the vehicle.

For further information, see the **CONSULT-III Operation Manual NATS-IVIS/NVIS**.

INTELLIGENT KEY SYSTEM

CAN Communication System Description

EIS00BBT

Refer to [LAN-4, "SYSTEM DESCRIPTION"](#) .

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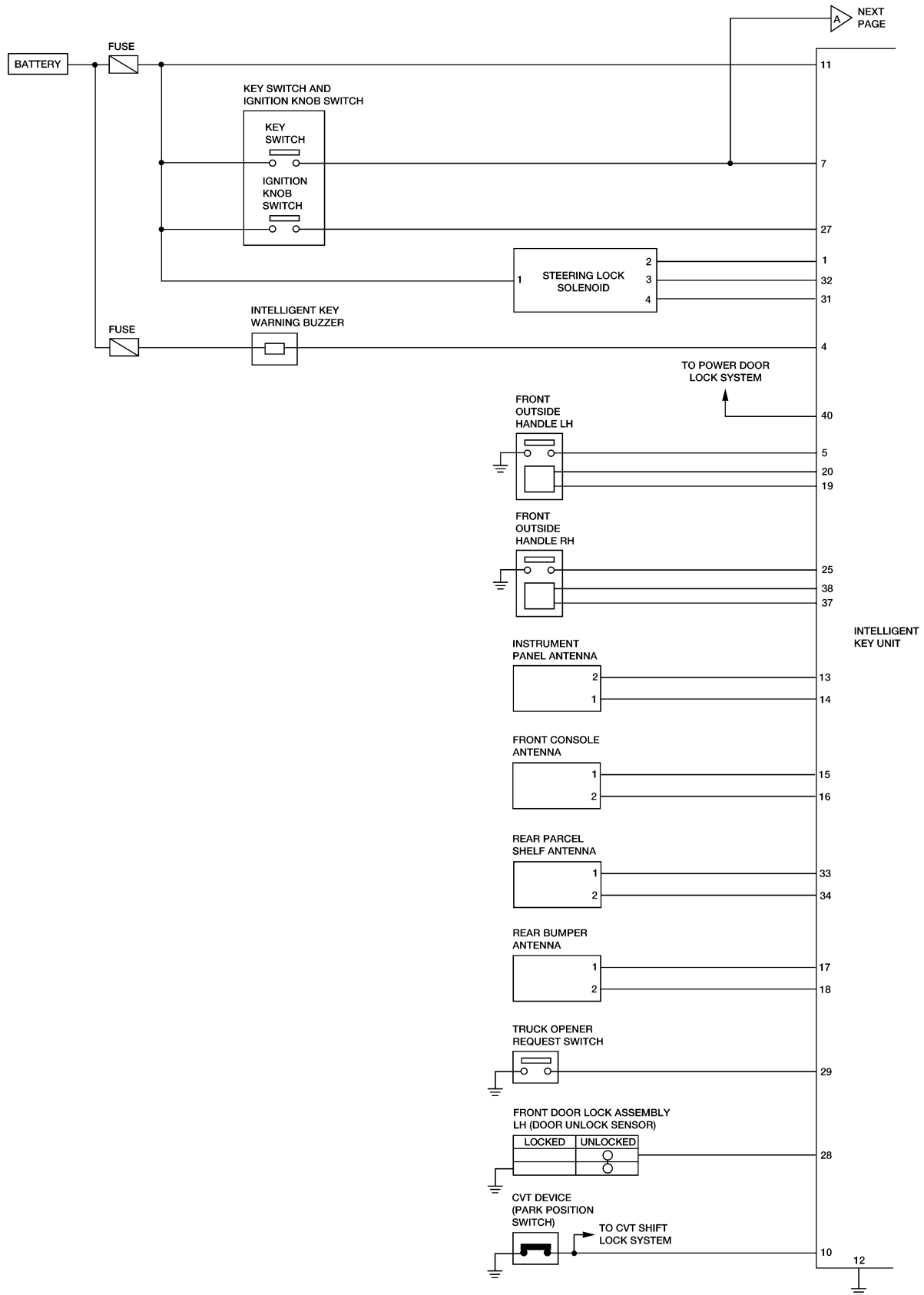
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INTELLIGENT KEY SYSTEM

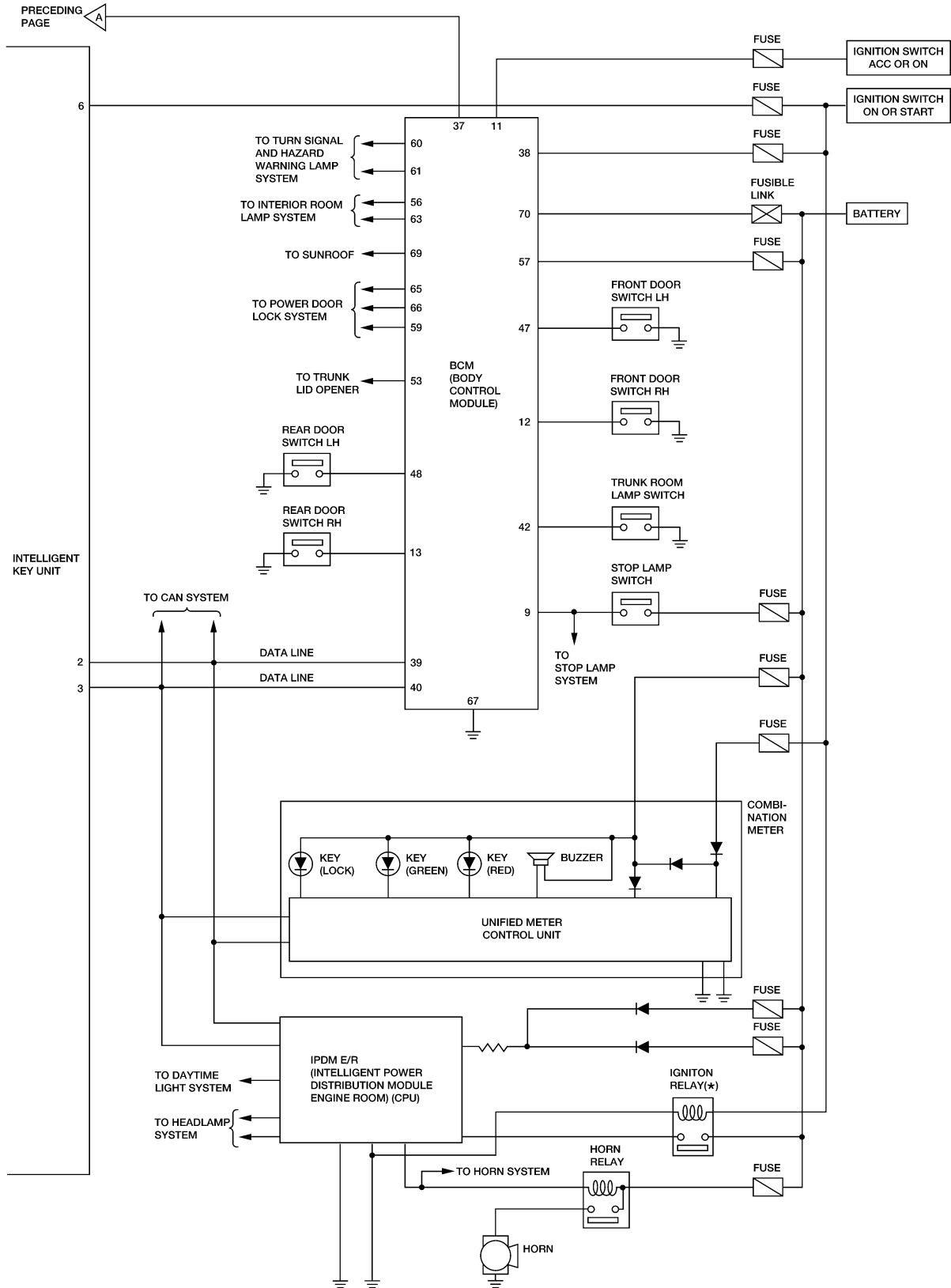
Schematic

EIS00BBU



WIWA2195E

INTELLIGENT KEY SYSTEM



* : THIS RELAY IS BUILT INTO THE IPDM E/R
(INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

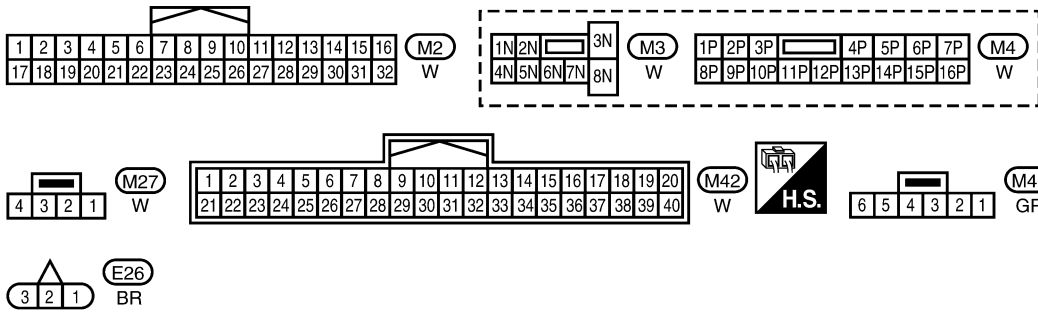
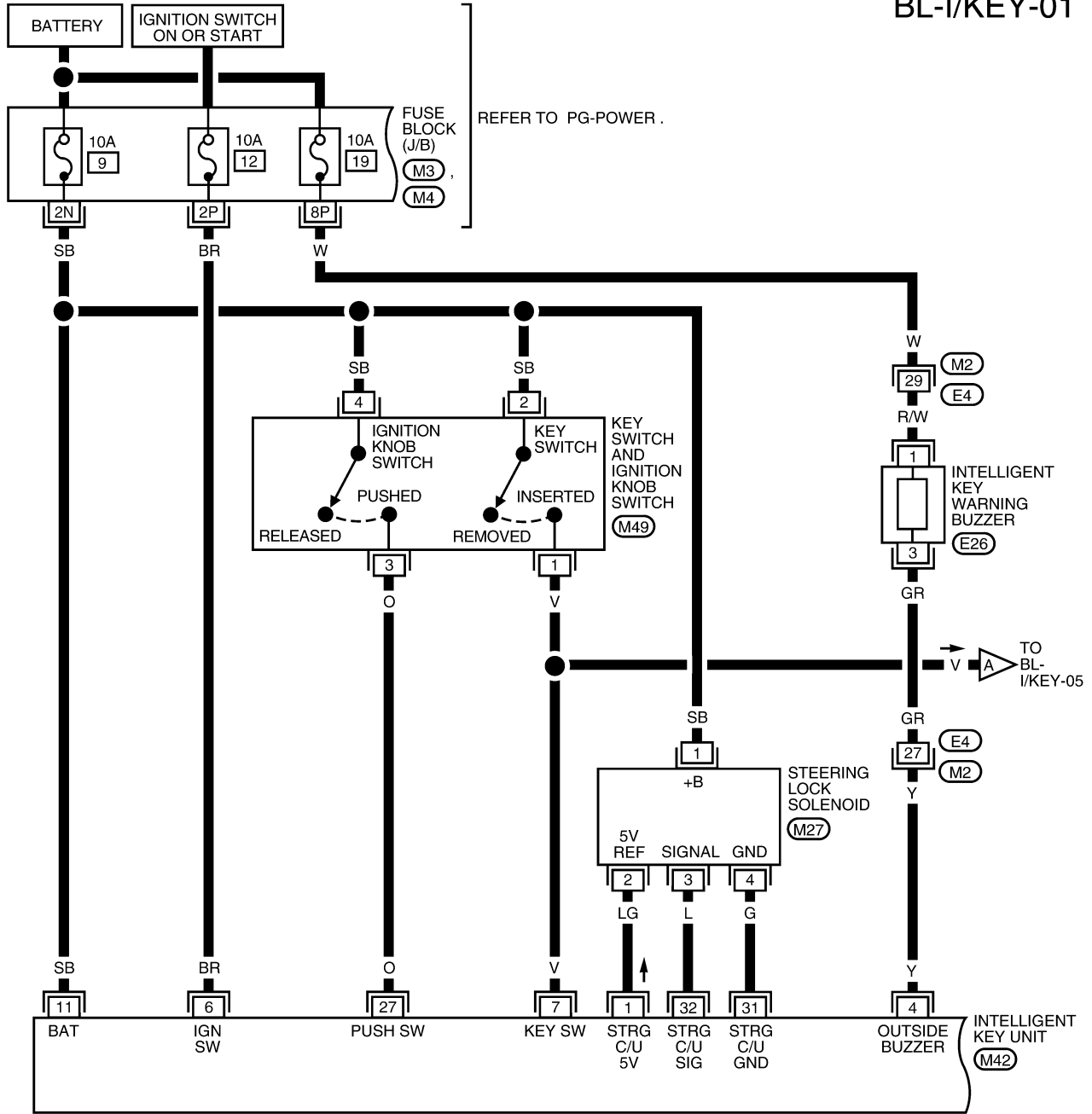
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INTELLIGENT KEY SYSTEM

Wiring Diagram — I/KEY —

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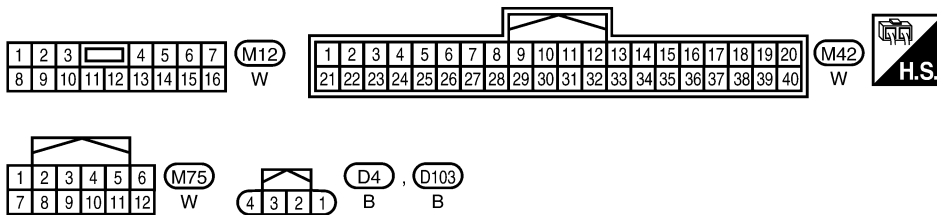
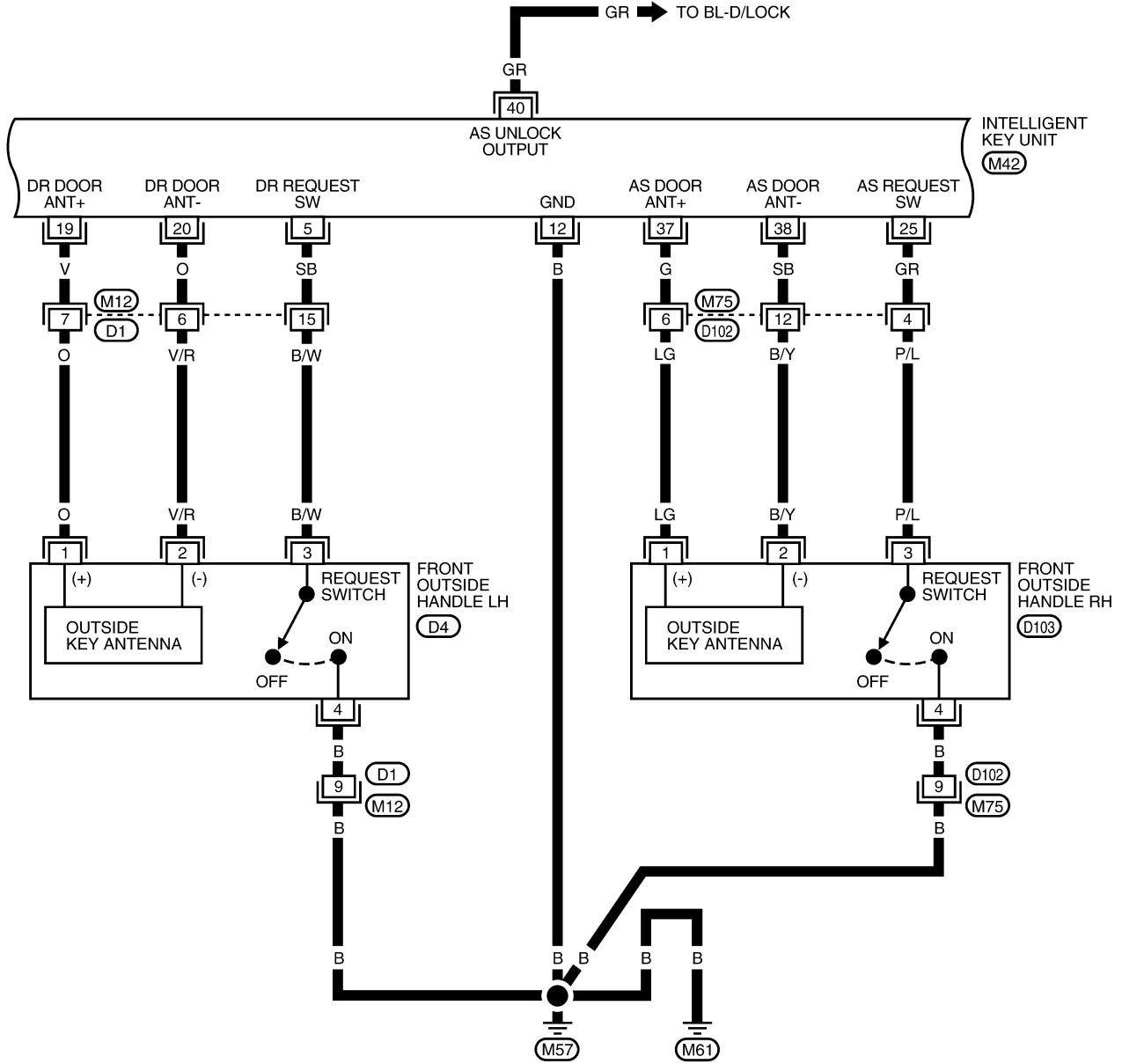
BL-I/KEY-01



WIWA2197E

INTELLIGENT KEY SYSTEM

BL-I/KEY-02

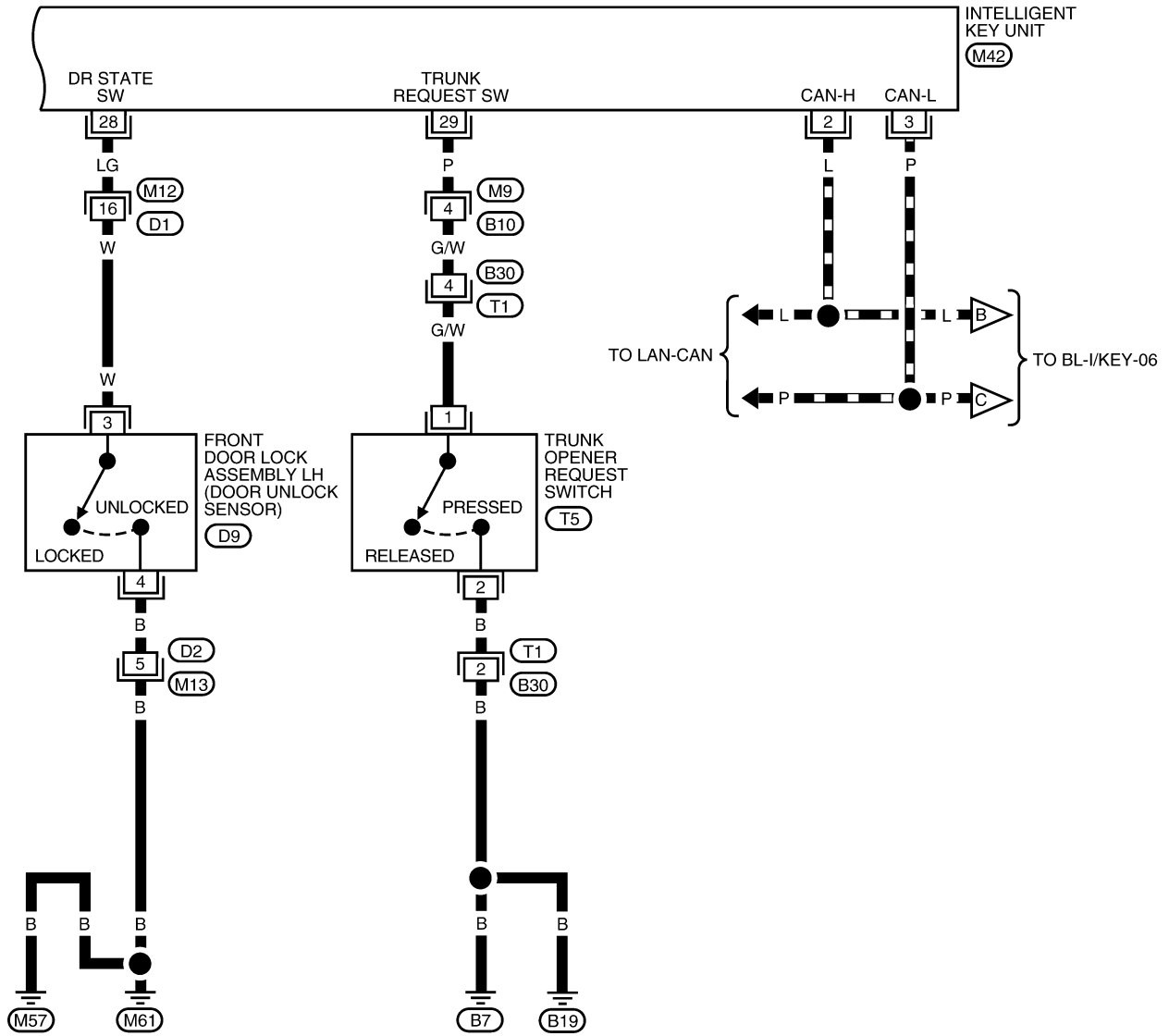


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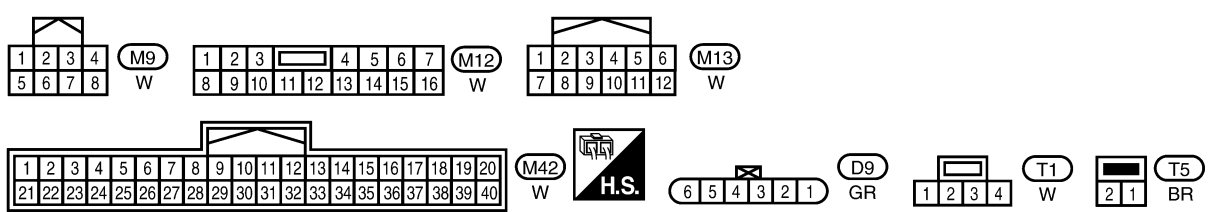
INTELLIGENT KEY SYSTEM

BL-I/KEY-04

— : DATA LINE



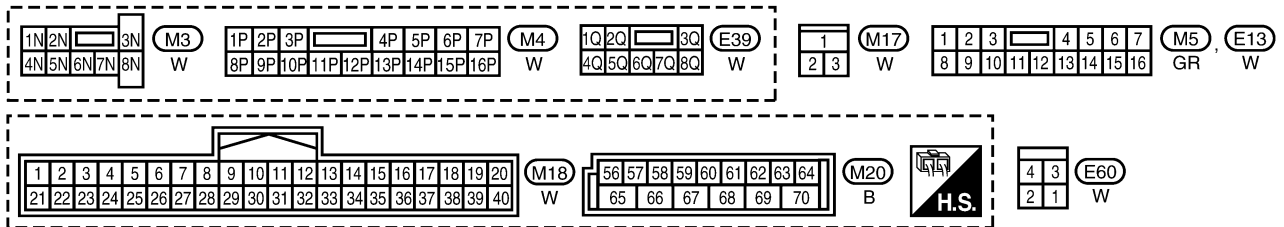
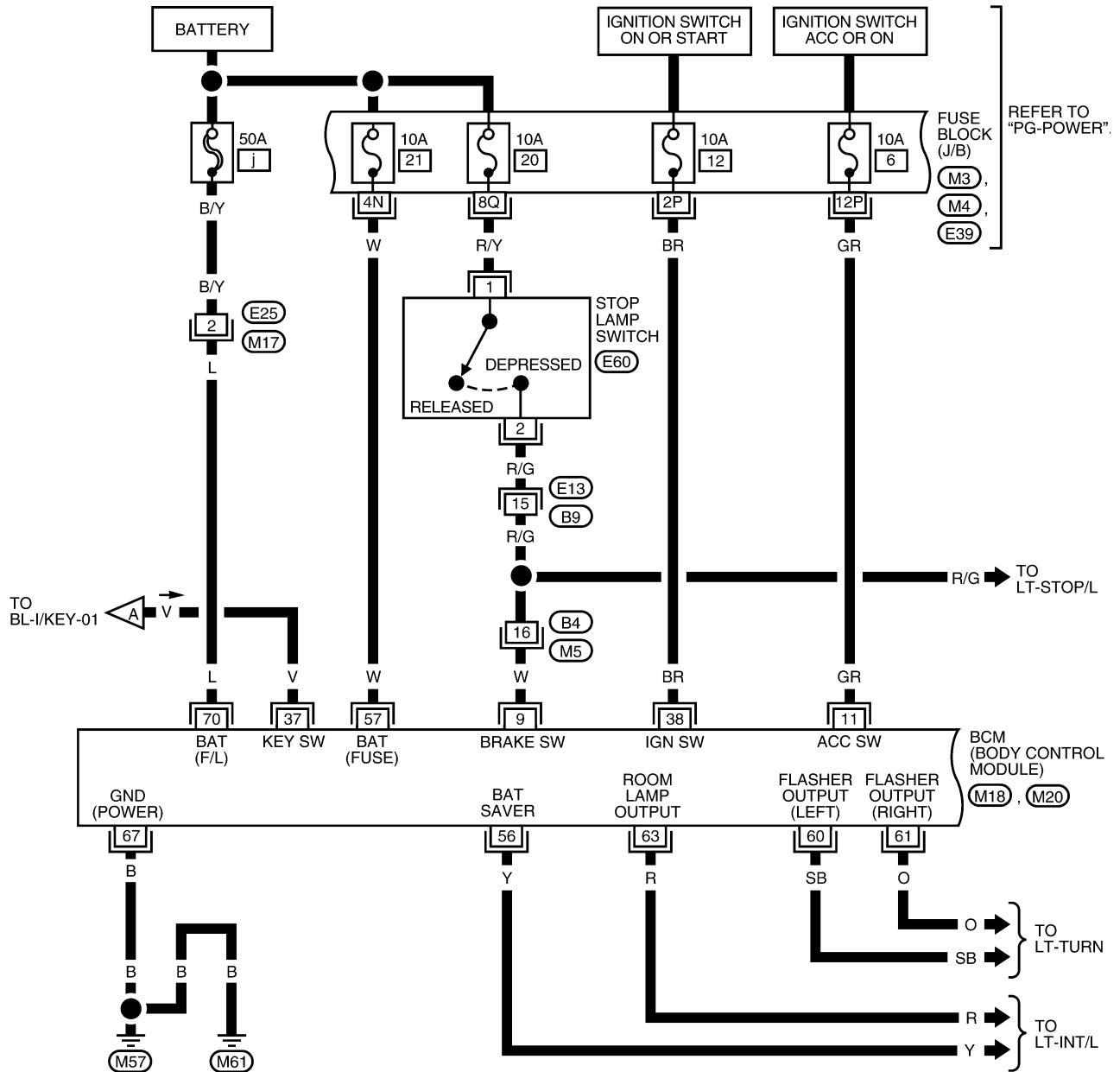
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INTELLIGENT KEY SYSTEM

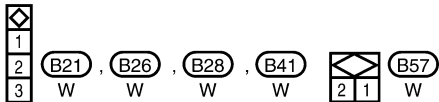
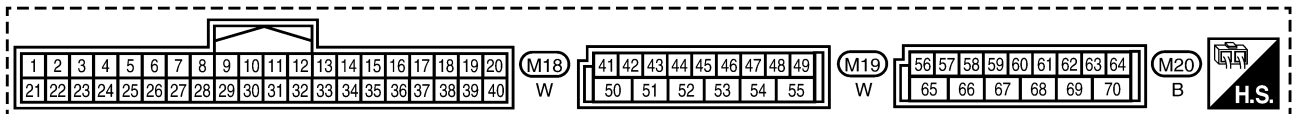
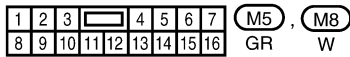
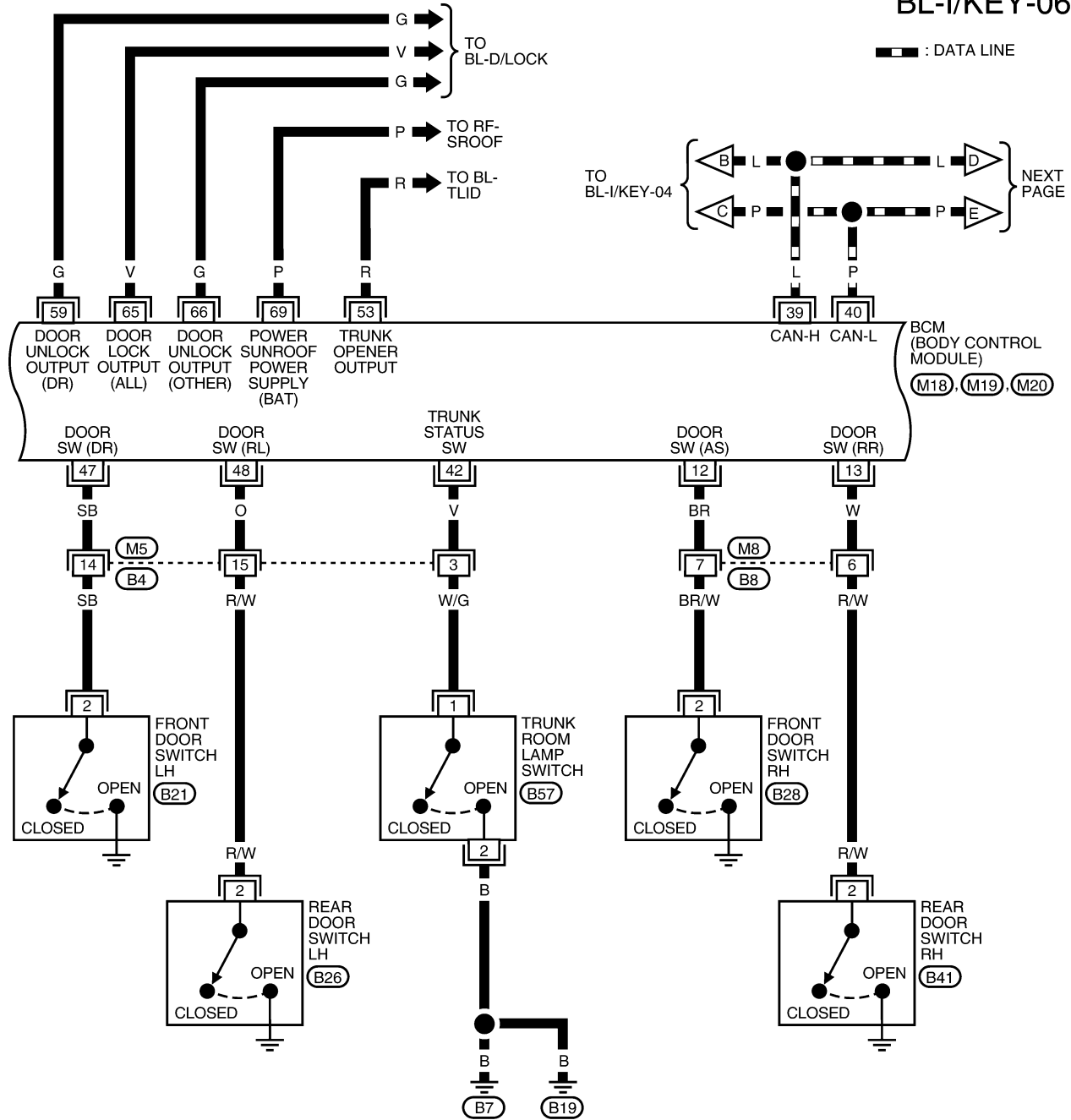
BL-I/KEY-05



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INTELLIGENT KEY SYSTEM

BL-I/KEY-06

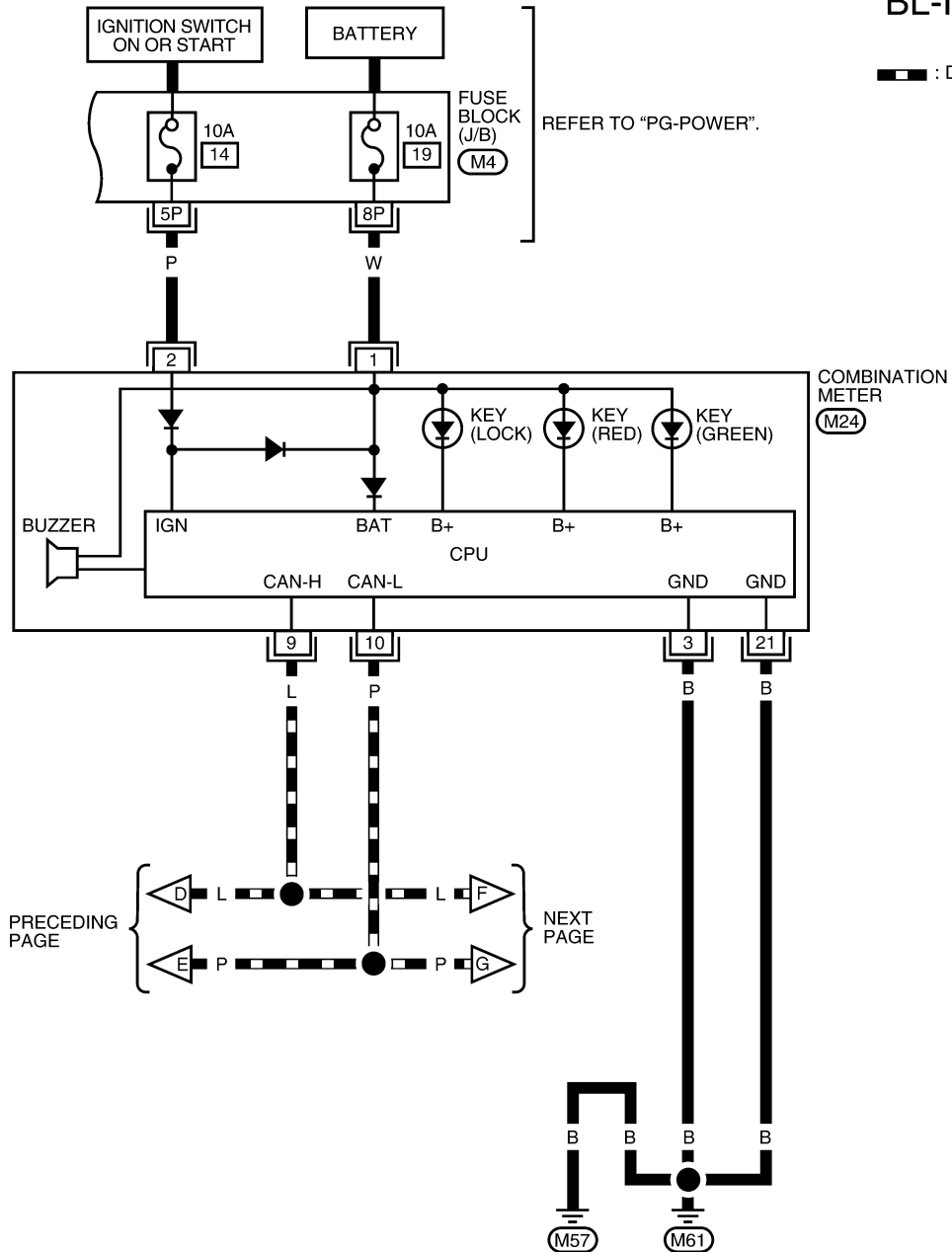


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INTELLIGENT KEY SYSTEM

BL-I/KEY-07

▬ : DATA LINE



1P	2P	3P	4P	5P	6P	7P	(M4)	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	(M24)		
8P	9P	10P	11P	12P	13P	14P	15P	16P	W	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	W

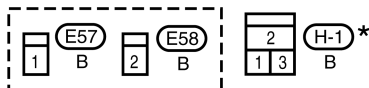
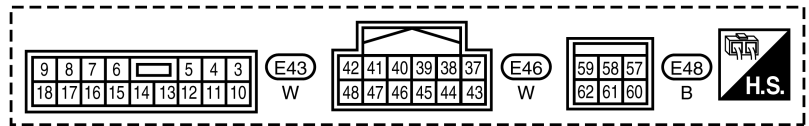
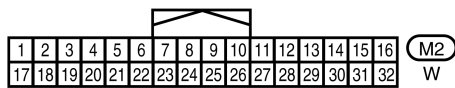
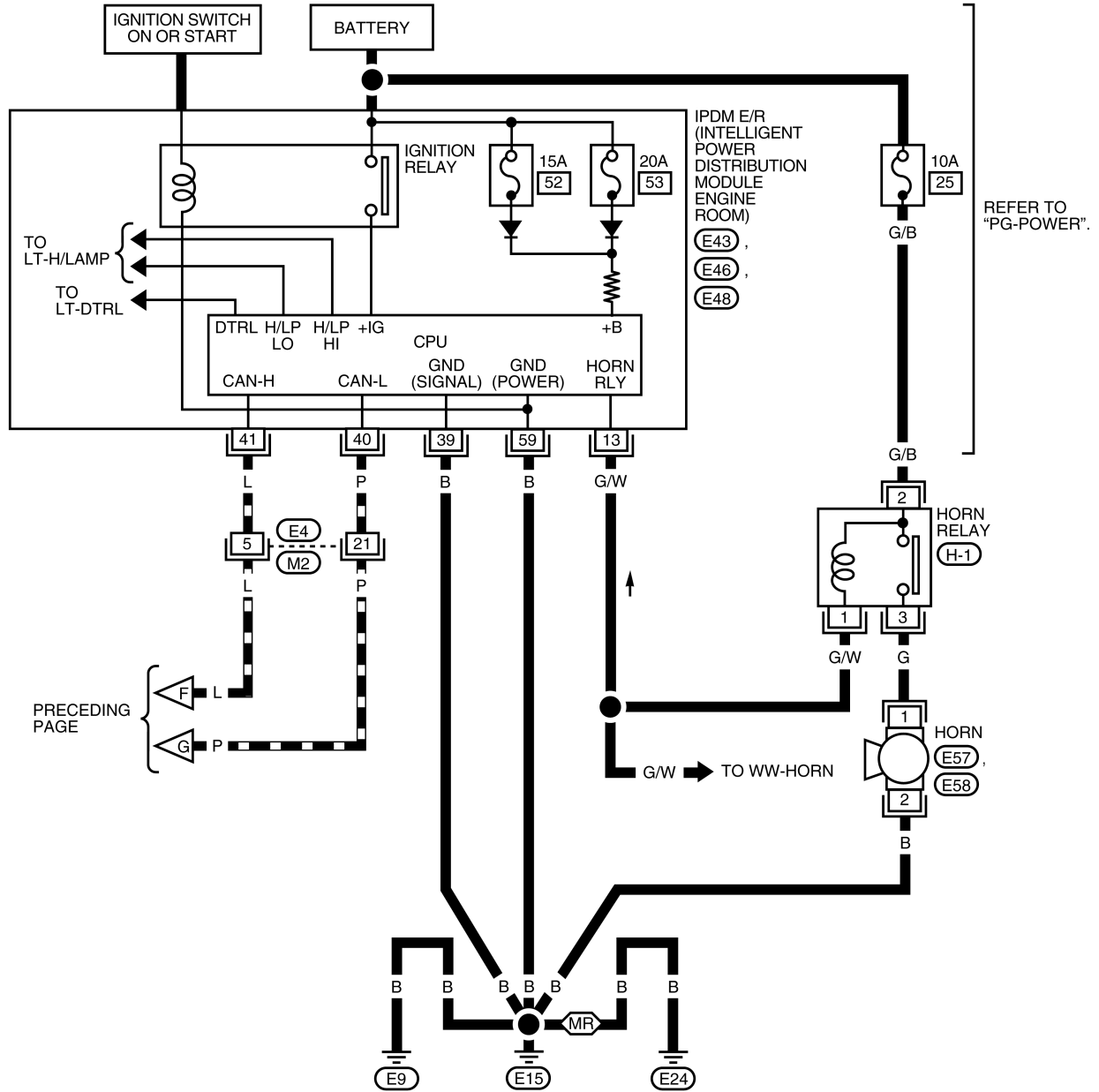
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INTELLIGENT KEY SYSTEM

BL-I/KEY-08

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MR : WITH MR20DE



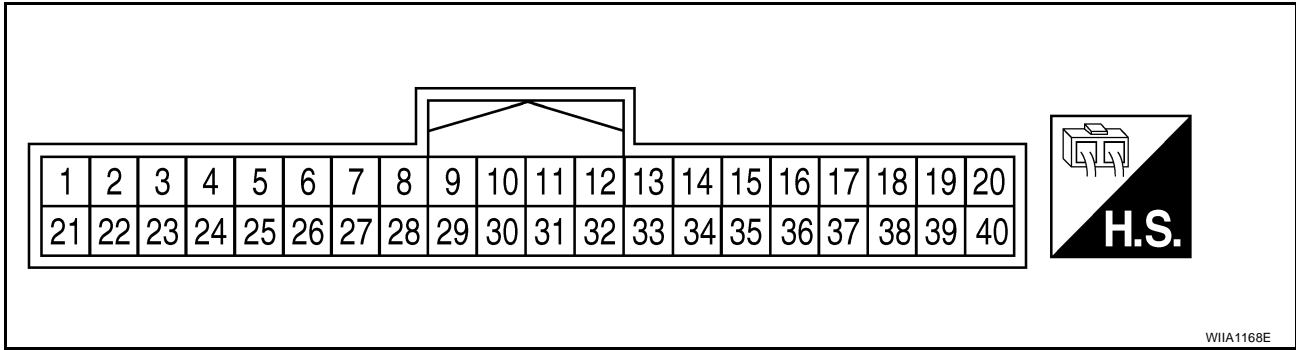
* : THIS CONNECTOR IS NOT SHOWN IN "HARNES LAYOUT" OF PG SECTION.

WIIWA2324E

INTELLIGENT KEY SYSTEM

Intelligent Key Unit Harness Connector Terminal Layout

EIS00BBW



WIIA1168E

Terminals and Reference Values for Intelligent Key Unit

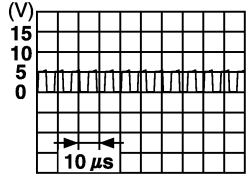
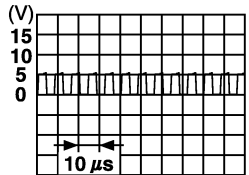
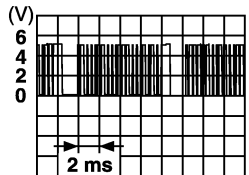
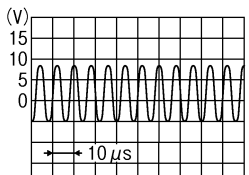
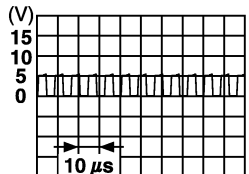
EIS00BBX

Terminal	Wire Color	Item	Condition		Voltage (V) Approx.	
			Ignition Switch Position	Operation or Conditions		
1	LG	Steering lock solenoid power supply	LOCK	—	5	
2	L	CAN-H	—	—	—	
3	P	CAN-L	—	—	—	
4	Y	Intelligent Key warning buzzer	LOCK	Operate door request switch.	Buzzer OFF	Battery voltage
					Sound buzzer	0
5	SB	Front door request switch LH	—	Press door request switch (driver side).		0
				Other than above		5
6	BR	Ignition switch (ON)	ON	—	Battery voltage	
7	V	Key switch	LOCK	Insert mechanical key into ignition switch.		Battery voltage
				Remove mechanical key from ignition switch.		0
10	R	CVT device (park position switch)	ON	Shift lever in park position.		0
				Other than above		Battery voltage
11	SB	Power source (Fuse)	—	—	Battery voltage	
12	B	Ground	—	—	0	
13	W	Instrument panel antenna (+) signal	LOCK	<ul style="list-style-type: none"> Any door open → all door close Press ignition knob switch: ON (Ignition knob switch) 		
14	BR	Instrument panel antenna (-) signal				
15	SB	Front console antenna (+) signal	LOCK	<ul style="list-style-type: none"> Any door open → all door close Press ignition knob switch: ON (Ignition knob switch) 		
16	O	Front console antenna (-) signal				

PIIB5502J

PIIB5502J

INTELLIGENT KEY SYSTEM

Terminal	Wire Color	Item	Condition		Voltage (V) Approx.
			Ignition Switch Position	Operation or Conditions	
17	W	Rear bumper antenna (+) signal	LOCK	Press back door request switch.	
18	R	Rear bumper antenna (-) signal			
19	V	Front outside antenna LH (+) signal	LOCK	Press door request switch LH.	
20	O	Front outside antenna LH (-) signal			
25	GR	Front door request switch RH	—	Press front door request switch RH.	0
				Other than above	5
27	O	Ignition knob switch	—	Press ignition switch.	Battery voltage
				Release ignition switch.	0
28	LG	Unlock sensor (driver side)	—	Door (driver side) is locked.	5
				Door (driver side) is unlocked.	0
29	P	Trunk opener	—	Press trunk opener request switch.	0
				Other than above	5
31	G	Steering lock solenoid ground	—	—	0
32	L	Steering lock solenoid communication signal	LOCK	When Intelligent Key is inside vehicle, press ignition knob switch.	
					Other than above
33	Y	Rear parcel shelf antenna (+) signal	LOCK	<ul style="list-style-type: none"> ● Any door open → all door close ● Press ignition knob switch: ON (Ignition knob switch) 	
34	V	Rear parcel shelf antenna (-) signal			
37	G	Front outside antenna RH (+) signal	LOCK	Press door request switch RH.	
38	SB	Front outside antenna RH (-) signal			
40	GR	AS unlock output	—	Unlock with rear door locks disabled.	0
				Other than above	Battery voltage

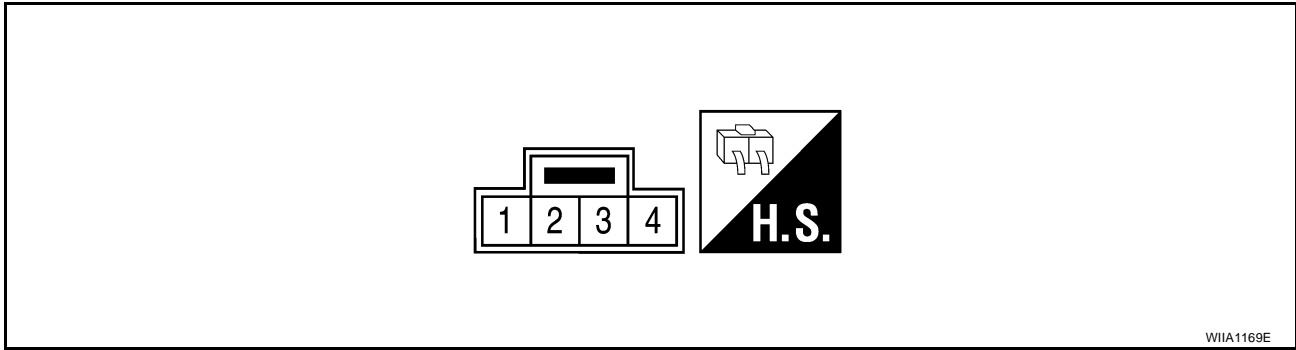
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INTELLIGENT KEY SYSTEM

Steering Lock Solenoid Harness Connector Terminal Layout

EIS00BBY



WIIA1169E

Terminals and Reference Values for Steering Lock Solenoid

EIS00BBZ

Terminal	Wire Color	Signal Designation	Condition		Voltage (V) Approx.
			Ignition Switch Position	Operation or Conditions	
1	SB	Power source (fuse)	LOCK	—	Battery voltage
2	LG	Steering lock solenoid power supply	LOCK	—	5
3	L	Steering lock solenoid communication signal	LOCK	When Intelligent Key is inside vehicle, press ignition knob switch.	
				Other than the above	5
4	G	Steering lock solenoid ground	—	—	0

SIIA1911J

Terminals and Reference Values for BCM

EIS00BC0

Refer to [BCS-13, "Terminals and Reference Values for BCM"](#) .

Terminals and Reference Values for IPDM E/R

EIS00BC1

Refer to [PG-26, "Terminals and Reference Values for IPDM E/R"](#) .

Terminals and Reference Values for Combination Meter

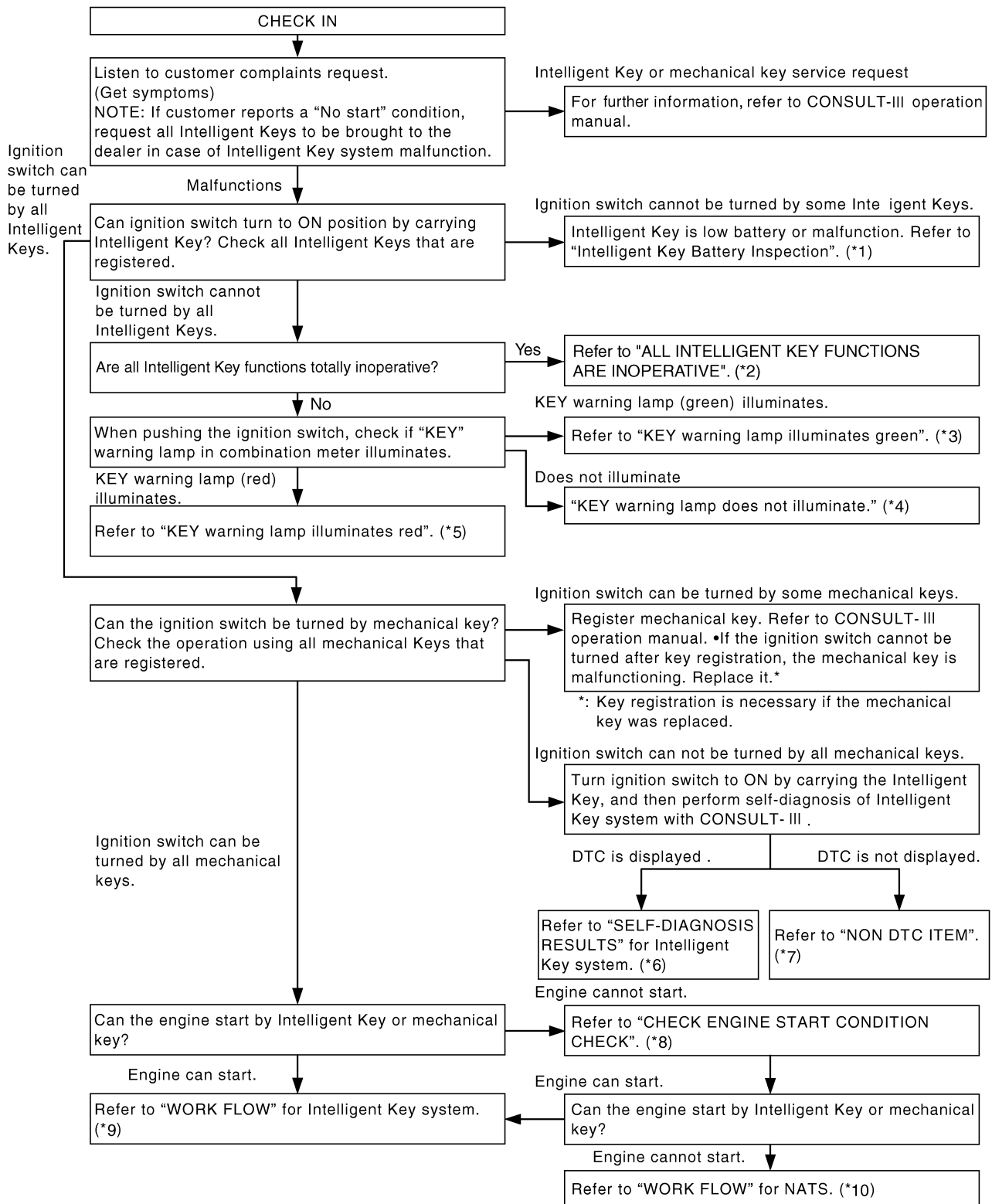
EIS00BC2

Refer to [DI-12, "Terminals and Reference Values for Combination Meter"](#) .

INTELLIGENT KEY SYSTEM

EIS00BC3

Trouble Diagnosis Procedure PRELIMINARY CHECK



*1: [BL-142](#)

*4: [BL-110](#)

*7: [BL-110](#)

*10: [BL-104](#)

*2: [BL-109](#)

*5: [BL-109](#)

*8: [BL-110](#)

*3: [BL-109](#)

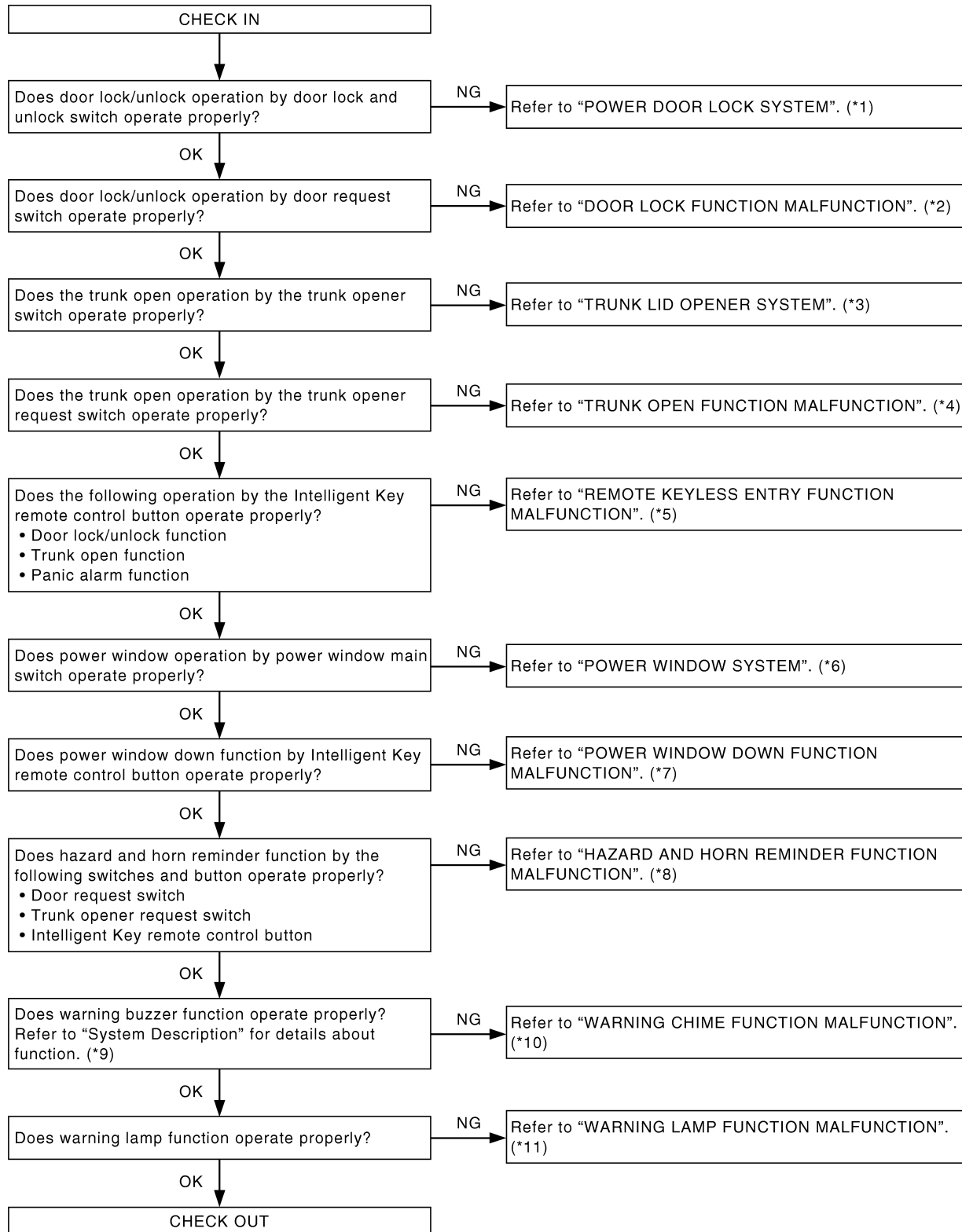
*6: [BL-105](#)

*9: [BL-104](#)

WIIA1362E

INTELLIGENT KEY SYSTEM

WORK FLOW



PIIB4186E

*1: [BL-21](#)

*2: [BL-111](#)

*3: [BL-159](#)

*4: [BL-113](#)

*5: [BL-112](#)

*6: [GW-15](#)

*7: [BL-112](#)

*8: [BL-113](#)

*9: [BL-86](#)

*10: [BL-114](#)

*11: [BL-115](#)

INTELLIGENT KEY SYSTEM

CONSULT-III Function (INTELLIGENT KEY)

EIS00BC4

CONSULT-III can display each diagnostic item using the diagnostic test modes as shown below.

Part to be diagnosed	Test item, Diagnosis mode	Description
Intelligent Key	WORK SUPPORT	Changes settings for each function.
	SELF-DIAG RESULTS	Intelligent Key unit performs CAN communication diagnosis.
	DATA MONITOR	Displays Intelligent Key unit input data in real time.
	CAN DIAG SUPPORT MONITOR	The results of transmit/receive diagnosis of CAN Communication can be read.
	ACTIVE TEST	Operation of electrical loads can be checked by sending driving signal to then.
	ECU PART NUMBER	Displays Intelligent Key unit part No.

BASIC OPERATION

EIS00BC5

1. Connect CONSULT-III.

NOTE:

Use mechanical key to turn ignition switch to ON.

2. Perform "SELF-DIAG RESULTS".

CONSULT-III Application Items SELF-DIAGNOSTIC RESULTS

EIS00BC6

Self-diag results	Description	Diagnosis procedure	Reference page
CAN COMM	Malfunction is detected in CAN communication.	CAN communication system check.	LAN-7
CAN COMM2	Intelligent Key unit internal malfunction	CAN communication system check.	LAN-7
STRG COMM	Malfunction is detected in communication of Intelligent Key unit and steering lock solenoid.	Steering lock solenoid check.	BL-135
I-KEY C/U	Intelligent Key unit internal malfunction	Replace Intelligent Key unit.	BL-143
IMMU	NATS malfunction	Check NATS.	BL-189

WORK SUPPORT

Monitor item	Description
CONFIRM KEY FOB ID	It can be checked whether Intelligent Key ID code is registered or not in this mode.
TAKE OUT FROM WINDOW WARN	Take away warning chime (from window) mode can be changed to operate (ON) or not operate (OFF) with this mode. The operation mode will be changed when "CHANGE SETT" on CONSULT-III screen is touched.
LOW BAT OF KEY FOB WARN	Intelligent Key low battery warning mode can be changed to operate (ON) or not operate (OFF) with this mode. The operation mode will be changed when "CHANGE SETT" on CONSULT-III screen is touched.
ANSWER BACK FUNCTION	The condition of answer back function can be changed to operate (ON) or not operate (OFF) with this mode. The operation mode will be changed when "CHANGE SETT" on CONSULT-III screen is touched.
SELECTIVE UNLOCK FUNCTION	Selective unlock function mode can be changed to operate (ON) or not operate (OFF) with this mode. The operation mode will be changed when "CHANGE SETT" on CONSULT-III screen is touched.
ANTI KEY LOCK IN FUNCTION	Key reminder function mode can be changed to operate (ON) or not operate (OFF) with this mode. The operation mode will be changed when "CHANGE SETT" on CONSULT-III screen is touched.
HORN WITH KEYLESS LOCK	Horn reminder function mode by Intelligent Key remote control button can be changed to operate (ON) or not operate (OFF) with this mode. The operation mode will be changed when "CHANGE SETT" on CONSULT-III screen is touched.

INTELLIGENT KEY SYSTEM

Monitor item	Description
HAZARD ANSWER BACK	<p>Hazard reminder function mode can be selected from the following with this mode. The operation mode will be changed when "CHANGE SETT" on CONSULT-III screen is touched.</p> <ul style="list-style-type: none"> ● LOCK ONLY: Door lock operation only ● UNLOCK ONLY: Door unlock operation only ● LOCK/UNLOCK: Lock/Unlock operation ● OFF: Non-operation
ANSWER BACK WITH I-KEY LOCK	<p>Horn reminder function (lock operation) mode by any front door request or trunk opener request switch can be selected from the following with this mode. The operation mode will be changed when "CHANGE SETT" on CONSULT-III screen is touched.</p> <ul style="list-style-type: none"> ● HORN CHIRP: Sound horn ● BUZZER: Sound buzzer ● OFF: Non-operation
ANSWER BACK WITH I-KEY UNLOCK	<p>Horn reminder function (unlock operation) mode by a door request switch can be changed to operate (ON) or not operate (OFF) with this mode.</p>
AUTO RELOCK TIMER	<p>Auto door lock timer mode can select the following with this mode.</p> <ul style="list-style-type: none"> ● 1 minute ● 5 minute ● OFF: Non-operation
PANIC ALARM DELAY	<p>Panic alarm button's pressing time on Intelligent Key remote control button can be selected from the following with this mode. The operation mode will be changed when "CHANGE SETT" on CONSULT-III screen is touched.</p> <ul style="list-style-type: none"> ● 0.5 second ● 1.5 second ● No delay
TRUNK/GLASS HATCH OPEN	<p>Hazard and horn reminder function mode by trunk request switch can be changed to operate (ON) or not operate (OFF) with this mode. The operation mode will be changed when "CHANGE SETT" on CONSULT-III screen is touched.</p>
TRUNK OPEN DELAY	<p>Trunk button's pressing time on Intelligent Key remote control button can be selected from the following with this mode. The operation mode will be changed when "CHANGE SETT" on CONSULT-III screen is touched.</p> <ul style="list-style-type: none"> ● 0.5 second ● 1.5 second ● No delay
P/W DOWN DELAY	<p>This item is displayed, but cannot be set.</p>
LOCK/UNLOCK BY I-KEY	<p>Door lock/unlock function by any front door request or trunk opener request switch mode can be changed to operate (ON) or not operate (OFF) with this mode. The operation mode will be changed when "CHANGE SETT" on CONSULT-III screen is touched.</p>

INTELLIGENT KEY SYSTEM

DATA MONITOR

Monitor item	Content
PUSH SW	Indicates [ON/OFF] condition of ignition knob switch.
KEY SW	Indicates [ON/OFF] condition of key switch.
DR REQ SW	Indicates [ON/OFF] condition of front door request switch LH.
AS REQ SW	Indicates [ON/OFF] condition of front door request switch RH.
BD/TR REQ SW	Indicates [ON/OFF] condition of trunk opener request switch.
IGN SW	Indicates [ON/OFF] condition of ignition switch in ON position.
ACC SW	Indicates [ON/OFF] condition of ignition switch in ACC position.
STOP LAMP SW	Indicates [ON/OFF] condition of stop lamp switch.
P RANGE SW	Indicates [ON/OFF] condition of CVT device (park position switch).
TR CANCEL SW*	This item is displayed, but cannot be monitored.
DOOR LOCK SIG*	Indicates [ON/OFF] condition of door lock signal from Intelligent Key remote control button.
DOOR UNLOCK SIG*	Indicates [ON/OFF] condition of door unlock signal from Intelligent Key remote control button.
KEYLESS TRUNK*	Indicates [ON/OFF] condition of trunk open signal from Intelligent Key remote control button.
KEYLESS PANIC*	Indicates [ON/OFF] condition of panic alarm signal from Intelligent Key remote control button.
DOOR SW DR*	Indicates [OPEN/CLOSE] condition of front door switch driver side from BCM via CAN communication line.
DOOR SW AS*	Indicates [OPEN/CLOSE] condition of front door switch passenger side from BCM via CAN communication line.
DOOR SW RR*	Indicates [OPEN/CLOSE] condition of RR door switch from BCM via CAN communication line.
DOOR SW RL*	Indicates [OPEN/CLOSE] condition of RL door switch from BCM via CAN communication line.
DOOR BK SW*	This item is displayed, but cannot be monitored.
TRUNK SW*	Indicates [OPEN/CLOSE] condition of trunk lamp switch from BCM via CAN communication line.
VEHICLE SPEED*	Indicates [km/h] condition of vehicle speed.

*: Select "SELECTION FROM MENU".

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INTELLIGENT KEY SYSTEM

ACTIVE TEST

Test item	Description
DOOR LOCK/UNLOCK	<p>This test is able to check door lock/unlock operation.</p> <ul style="list-style-type: none"> ● The all door lock actuators are unlocked when "ALL UNLK" on CONSULT-III screen is touched. ● The door lock actuator (driver side) is unlocked when "DR UNLK" on CONSULT-III screen is touched. ● The door lock actuator (passenger side) is unlocked when "AS UNLK" on CONSULT- III screen is touched. ● The all door lock actuators are locked when "LOCK" on CONSULT-III screen is touched.
ANTENNA	<p>This test is able to check Intelligent Key antenna operation. When the following conditions are met, hazard warning lamps flash.</p> <ul style="list-style-type: none"> ● Inside key antenna (Instrument panel) detects Intelligent Key, when "RM ANT1" on CONSULT-III screen is touched. ● Inside key antenna (Front console) detects Intelligent Key, when "RM ANT2" on CONSULT-III screen is touched. ● Inside key antenna (Trunk room) detects Intelligent Key, when "LAG ANT" on CONSULT-III screen is touched. ● Outside key antenna (LH side) detects Intelligent Key, when "DR ANT" on CONSULT-III screen is touched. ● Outside key antenna (RH side) detects Intelligent Key, when "AS ANT" on CONSULT-III screen is touched. ● Rear bumper antenna detects Intelligent Key, when "BD ANT" on CONSULT-III screen is touched.
OUTSIDE BUZZER	<p>This test is able to check Intelligent Key warning buzzer (front of vehicle) operation. Intelligent Key warning buzzer (front of vehicle) sounds when "ON" on CONSULT-III screen is touched.</p>
INSIDE BUZZER (CHIME)	<p>This test is able to check Intelligent Key warning chime (combination meter) operation.</p> <ul style="list-style-type: none"> ● Take away warning chime sounds when "TAKE OUT" on CONSULT-III screen is touched. ● Ignition switch warning chime sounds when "KNOB" on CONSULT-III screen is touched. ● Ignition key warning chime sounds when "KEY" on CONSULT-III screen is touched.
INDICATOR	<p>This test is able to check warning lamp operation.</p> <ul style="list-style-type: none"> ● "KEY" Warning lamp (Green) illuminates when "BLUE ON" on CONSULT-III screen is touched. ● "KEY" Warning lamp (Red) illuminates when "RED ON" on CONSULT-III screen is touched. ● "P-SHIFT" Warning lamp illuminates when "KNOB ON" on CONSULT-III screen is touched. ● "KEY" Warning lamp (Green) flashes when "BLUE IND" on CONSULT-III screen is touched. ● "KEY" Warning lamp (RED) flashes when "BLUE IND" on CONSULT-III screen is touched. ● "P-SHIFT" Warning lamp flashes when "KNOB ON" on CONSULT-III screen is touched.

INTELLIGENT KEY SYSTEM

EIS00BC7

Trouble Diagnosis Symptom Chart

ALL INTELLIGENT KEY FUNCTIONS ARE INOPERATIVE

NOTE:

- Before performing the diagnosis in the following table, check “Trouble Diagnosis Procedure”. Refer to [BL-103, "Trouble Diagnosis Procedure"](#) .
- Make sure that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis, and check each symptom.
- If the following “symptoms” are detected, check systems shown in the “Diagnoses/service procedure” column in this order.
- Check if ignition switch turns using mechanical key. If it turns, check if “ENGINE START BY I-KEY” in “WORK SUPPORT” mode is ON.

Conditions of Vehicle (Operating Conditions)

- Intelligent Key is registered.
- Key is not inserted in ignition switch.
- One or more registered Intelligent Keys are in the vehicle.

Symptom	Diagnosis/service procedure	Reference page
All doors, trunk and ignition switch do not respond to Intelligent Key command.	1. Intelligent Key battery inspection check.	BL-142
	2. Remote Keyless Entry Function check.	BL-142
	3. Intelligent Key unit power supply and ground circuit check.	BL-117
	4. Replace Intelligent Key unit.	BL-143

KEY WARNING LAMP (GREEN) ILLUMINATES

NOTE:

- Before performing the diagnosis in the following table, check “Trouble Diagnosis Procedure”. Refer to [BL-103, "Trouble Diagnosis Procedure"](#) .
- Make sure that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis, and check each symptom.
- If the following “symptoms” are detected, check systems shown in the “Diagnoses/service procedure” column in this order.

Conditions of Vehicle (Operating Conditions)

- Intelligent Key is registered.
- Key is not inserted in ignition switch.
- One or more registered Intelligent Keys are in the vehicle.

Symptom	Diagnosis/service procedure	Reference page
Ignition switch does not turn on with Intelligent Key. [KEY warning lamp (green) illuminates].	1. Steering lock solenoid check.	BL-135
	2. Replace Intelligent Key unit.	BL-143

KEY WARNING LAMP (RED) ILLUMINATES

NOTE:

- Before performing the diagnosis in the following table, check “Trouble Diagnosis Procedure”. Refer to [BL-103, "Trouble Diagnosis Procedure"](#) .
- Make sure that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis, and check each symptom.
- If the following “symptoms” are detected, check systems shown in the “Diagnoses/service procedure” column in this order.

Conditions of Vehicle (Operating Conditions)

- Intelligent Key is registered.
- Key is not inserted in ignition switch.
- One or more registered Intelligent Keys are in the vehicle.

INTELLIGENT KEY SYSTEM

Symptom	Diagnosis/service procedure	Reference page
Ignition switch does not turn on with Intelligent Key. [KEY warning lamp (red) illuminates].	1. Inside key antenna check.	BL-134
	2. Replace Intelligent Key unit.	BL-143

KEY WARNING LAMP DOES NOT ILLUMINATE

NOTE:

- Before performing the diagnosis in the following table, check “Trouble Diagnosis Procedure”. Refer to [BL-103, "Trouble Diagnosis Procedure"](#) .
- Make sure that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis, and check each symptom.
- If the following “symptoms” are detected, check systems shown in the “Diagnoses/service procedure” column in this order.
- Check if ignition switch turns using mechanical key. If it turns, check if “ENGINE START BY I-KEY” in “WORK SUPPORT” mode is ON.

Conditions of Vehicle (Operating Conditions)

- Intelligent Key is registered.
- Key is not inserted in ignition switch.
- One or more registered Intelligent Keys are in the vehicle.

Symptom	Diagnosis/service procedure	Reference page
Ignition switch does not turn on with Intelligent Key. [KEY warning lamp does not illuminate].	1. Intelligent Key unit power supply and ground circuit check.	BL-117
	2. Ignition knob switch check.	BL-120
	3. Key switch check.	BL-117
	4. Replace Intelligent Key unit.	BL-143

NON DTC ITEM

NOTE:

- Before performing the diagnosis in the following table, check “Trouble Diagnosis Procedure”. Refer to [BL-103, "Trouble Diagnosis Procedure"](#) .
- Make sure that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis, and check each symptom.
- If the following “symptoms” are detected, check systems shown in the “Diagnoses/service procedure” column in this order.

Conditions of Vehicle (Operating Conditions)

- Intelligent Key is registered.
- Multiple mechanical keys are not set in a keyfob.
(If mechanical keys are near the ignition switch, the operation may not work properly).

Symptom	Diagnosis/service procedure	Reference page
Non DTC Item	1. Key switch check.	BL-117
	2. NATS antenna amp. check	BL-194

ENGINE START CONDITION CHECK

NOTE:

- Before performing the diagnosis in the following table, check “Trouble Diagnosis Procedure”. Refer to [BL-103, "Trouble Diagnosis Procedure"](#) .
- If the following “symptoms” are detected, check systems shown in the “Diagnoses/service procedure” column in this order.

INTELLIGENT KEY SYSTEM

Symptom	Diagnosis/service procedure	Reference page
Engine start condition check	1. CVT device (park position switch) check.	BL-138
	2. Stop lamp switch check.	BL-137
	3. Replace Intelligent Key unit.	BL-143

DOOR LOCK/UNLOCK FUNCTION MALFUNCTION

NOTE:

- Before performing the diagnosis in the following table, check “Trouble Diagnosis Procedure”. Refer to [BL-103, "Trouble Diagnosis Procedure"](#) .
- Make sure that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis, and check each symptom.
- If the following “symptoms” are detected, check systems shown in the “Diagnosis/procedure” column in this order.

Conditions of Vehicle (Operating Conditions)

- “LOCK/UNLOCK BY I-KEY” is ON when setting on CONSULT-III.
- Ignition switch is not depressed.
- All doors are closed.

Symptom	Diagnosis/service procedure	Reference page
Door lock/unlock do not operate by request switch.	1. Door switch check.	BL-122
	2. Ignition knob switch check.	BL-120
	3. Replace Intelligent Key unit.	BL-143
Door lock/unlock does not operate by request switch (LH side).	1. Front door request switch LH check.	BL-126
	2. Front outside antenna LH check.	BL-132
	3. Replace Intelligent Key unit.	BL-143
Door lock/unlock does not operate by request switch (RH side).	1. Front door request switch RH check.	BL-126
	2. Front outside antenna RH check.	BL-132
	3. Replace Intelligent Key unit.	BL-143
Selective unlock function does not operate by front door request switch LH (other door lock functions operate properly).	1. Check “SELECT UNLOCK FUNCTION” setting in “WORK SUPPORT”.	BL-105
	2. Replace Intelligent Key unit.	BL-143
Auto lock function does not operate properly.	1. Check “AUTO RELOCK TIMER” setting in “WORK SUPPORT”.	BL-105
	2. Key switch check.	BL-117
	3. Ignition knob switch check.	BL-120
	4. Door switch check.	BL-122
	5. Replace Intelligent Key unit.	BL-143
Key reminder function does not operate properly.	1. Check “ANTI KEY LOCK IN FUNCTION” setting in “WORK SUPPORT”.	BL-105
	2. Door switch check.	BL-122
	3. Inside key antenna check.	BL-134
	4. Front door lock actuator LH (door unlock sensor) check.	BL-129
	5. Intelligent Key battery inspection.	BL-142
	6. Replace Intelligent Key unit.	BL-143

INTELLIGENT KEY SYSTEM

REMOTE KEYLESS ENTRY FUNCTION MALFUNCTION

NOTE:

- Before performing the diagnosis in the following table, check “Trouble Diagnosis Procedure”. Refer to [BL-103, "Trouble Diagnosis Procedure"](#) .
- Make sure that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis, and check each symptom.
- If the following “symptoms” are detected, check systems shown in the “Diagnosis/service procedure” column in this order.

Conditions of Vehicle (Operating Conditions)

- Ignition switch is not depressed.
- All doors are closed.

Symptom	Diagnosis/service procedure	Reference page
All of the remote keyless entry functions do not operate.	1. Intelligent Key battery and function inspection.	BL-142
	2. Remote Keyless Entry function check.	BL-142
	3. Replace Intelligent Key unit.	BL-143
Selective unlock function does not operate by Intelligent Key remote control button.	1. Check “SELECT UNLOCK FUNCTION” setting in “WORK SUPPORT”.	BL-105
	2. Intelligent Key battery inspection.	BL-142
	3. Replace Intelligent Key unit.	BL-143
Auto lock function does not operate properly.	1. Check “AUTO RELOCK TIMER” setting in “WORK SUPPORT”.	BL-105
	2. Key switch check.	BL-117
	3. Ignition knob switch check.	BL-120
	4. Door switch check.	BL-122
	5. Replace Intelligent Key unit.	BL-143
Key reminder function does not operate properly.	1. Check “ANTI KEY LOCK IN FUNCTION” setting in “WORK SUPPORT”.	BL-105
	2. Door switch check.	BL-122
	3. Inside key antenna check.	BL-134
	4. Front door lock actuator LH (door unlock sensor) check.	BL-129
	5. Intelligent Key battery inspection.	BL-142
	6. Replace Intelligent Key unit.	BL-143
Panic alarm function does not operate properly.	1. Check “PANIC ALARM DELAY” setting in “WORK SUPPORT”.	BL-105
	2. Theft warning operation check.	BL-170
	3. Intelligent Key battery inspection.	BL-142
	4. Key switch check.	BL-117
	5. Ignition knob switch check.	BL-120
	6. Replace Intelligent Key unit.	BL-143
Trunk open function does not operate properly.	1. Check “TRUNK OPEN DELAY” setting in “WORK SUPPORT”.	BL-105
	2. Trunk lid opener system check.	BL-159
	3. Trunk lamp switch check.	BL-124
	4. Intelligent Key battery inspection.	BL-142
	5. Replace Intelligent Key unit.	BL-143

INTELLIGENT KEY SYSTEM

TRUNK OPEN FUNCTION MALFUNCTION

NOTE:

- Before performing the diagnosis in the following table, check “Trouble Diagnosis Procedure”. Refer to [BL-103, "Trouble Diagnosis Procedure"](#) .
- Make sure that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis, and check each symptom.
- If the following “symptoms” are detected, check systems shown in the “Diagnosis/service procedure” column in this order.

Conditions of Vehicle (Operating Conditions)

- “LOCK/UNLOCK BY I-KEY” is ON when setting on CONSULT-III.
- Trunk cancel switch is in ON position.

Symptom	Diagnosis procedure	Reference page
Trunk open function does not operate by trunk opener request switch.	1. Trunk opener request switch check.	BL-128
	2. Rear bumper antenna check.	BL-132
	3. Replace Intelligent Key unit.	BL-143

HAZARD AND HORN REMINDER FUNCTION MALFUNCTION

NOTE:

- Before performing the diagnosis in the following table, check “Trouble Diagnosis Procedure”. Refer to [BL-103, "Trouble Diagnosis Procedure"](#) .
- Make sure that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis, and check each symptom.
- If the following “symptoms” are detected, check systems shown in the “Diagnosis/service procedure” column in this order.

Conditions of Vehicle (Operating Conditions)

- Ignition switch is not depressed.
- All doors are closed.

Symptom	Diagnosis/service procedure	Reference page
Hazard reminder does not operate properly by request switch. (Horn reminder operates properly).	1. Check “HAZARD ANSWER BACK” setting in “WORK SUPPORT”.	BL-105
	2. Hazard function with hazard switch check.	BL-140
	3. Replace Intelligent Key unit	BL-143
Horn reminder does not operate properly by request switch. (Hazard reminder operates properly).	1. Check “ANSWER BACK WITH I-KEY LOCK” or “ANSWER BACK WITH I-KEY UNLOCK” setting in “WORK SUPPORT”.	BL-105
	2. Intelligent Key warning buzzer (front of vehicle) check.	BL-131
	3. Horn function check.	BL-140
	4. IPDM E/R operation check.	BL-140
	5. Replace Intelligent Key unit.	BL-143
Hazard reminder does not operate properly by Intelligent Key remote control button. (Horn reminder operates properly).	1. Check “HAZARD ANSWER BACK” setting in “WORK SUPPORT”.	BL-105
	2. Hazard function check.	BL-140
	3. Replace Intelligent Key unit.	BL-143
Horn reminder does not operate properly by Intelligent Key remote control button (door lock/unlock button). (Hazard reminder operates properly).	1. Check “HORN WITH KEYLESS LOCK” setting in “WORK SUPPORT”.	BL-105
	2. Intelligent Key warning buzzer (front of vehicle) check.	BL-131
	3. Horn function check.	BL-140
	4. IPDM E/R operation check.	BL-140
	5. Replace Intelligent Key unit.	BL-143

INTELLIGENT KEY SYSTEM

Symptom	Diagnosis/service procedure	Reference page
Horn reminder does not operate properly by trunk opener request switch.	1. Check "TRUNK/GLASS HATCH OPEN" setting in "WORK SUPPORT".	BL-105
	2. Intelligent Key warning buzzer (front of vehicle) check.	BL-131
	3. Lid trunk opener system check.	BL-159
	4. Replace Intelligent Key unit.	BL-143

WARNING CHIME FUNCTION MALFUNCTION

NOTE:

- Before performing the diagnosis in the following table, check "Trouble Diagnosis Procedure". Refer to [BL-103, "Trouble Diagnosis Procedure"](#).
- Make sure that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.
- If the following "symptoms" are detected, check systems shown in the "Diagnosis/service procedure" column in this order.

Conditions of Vehicle (Operating Conditions)

Each warning chime function is ON when setting on CONSULT-III.

Symptom	Diagnosis/service procedure	Reference page
Ignition switch warning chime does not operate.	1. Ignition knob switch check.	BL-120
	2. Door switch check.	BL-122
	3. Key switch check.	BL-117
	4. Intelligent Key warning chime (combination meter) check.	BL-131
	5. Replace Intelligent Key unit.	BL-143
Ignition key warning chime does not operate properly. (When mechanical key is used)	1. Key switch (Intelligent Key unit input) check.	BL-117
	2. Key switch (BCM input) check.	BL-119
	3. Door switch check.	BL-122
	4. Warning chime check.	BL-131
	5. Replace Intelligent Key unit.	BL-143
OFF position warning chime does not operate.	1. Ignition knob switch check.	BL-120
	2. Key switch check.	BL-117
	3. Power supply and ground circuit check.	BL-117
	4. Intelligent Key warning chime (combination meter) check.	BL-131
	5. Replace Intelligent Key unit.	BL-143
OFF position warning chime (after door closed) does not operate properly.	1. Ignition knob switch check.	BL-120
	2. Intelligent Key warning buzzer (front of vehicle) check.	BL-131
	3. Replace Intelligent Key unit.	BL-143
Take away warning chime does not operate properly.	1. Door switch check.	BL-122
	2. Power supply and ground circuit check.	BL-117
	3. Intelligent Key battery inspection.	BL-142
	4. Inside key antenna check.	BL-134
	5. Intelligent Key warning buzzer (front of vehicle) check.	BL-131
	6. Replace Intelligent Key unit.	BL-143

INTELLIGENT KEY SYSTEM

Symptom	Diagnosis/service procedure	Reference page
Take away warning chime (from window) does not operate properly.	1. Check "TAKE OUT FROM WINDOW WARN" setting in "WORK SUPPORT".	BL-105
	2. Inside key antenna check.	BL-134
	3. Power supply and ground circuit check	BL-117
	4. Intelligent Key battery inspection.	BL-142
	5. Intelligent Key warning chime (combination meter) check.	BL-131
	6. Replace Intelligent Key unit.	BL-143
Door lock operation warning chime does not operate properly.	1. Door switch check.	BL-122
	2. Ignition knob switch check.	BL-120
	3. Front door request switch LH check.	BL-126
	4. Front outside antenna LH check.	BL-132
	5. Inside key antenna check.	BL-134
	6. Intelligent Key warning buzzer (front of vehicle) check.	BL-131
	7. Replace Intelligent Key unit.	BL-143

WARNING LAMP FUNCTION MALFUNCTION

NOTE:

- Before performing the diagnosis in the following table, check "Trouble Diagnosis Procedure". Refer to [BL-103, "Trouble Diagnosis Procedure"](#) .
- If the following "symptoms" are detected, check systems shown in the "Diagnosis/service procedure" column in this order.

Symptom	Diagnosis/service procedure	Reference page
Intelligent Key low battery warning does not operate properly.	1. Check "LOW BAT OF KEY FOB WARN" setting in "WORK SUPPORT".	BL-105
	2. Intelligent Key battery inspection.	BL-142
	3. KEY warning lamp (green) check.	BL-140
	4. Replace Intelligent Key unit.	BL-143
P position warning lamp does not illuminate properly.	1. CVT device (park position switch) check.	BL-138
	2. "P-SHIFT" warning lamp (red) check.	BL-139
	3. Replace Intelligent Key unit.	BL-143
Take away warning lamp does not illuminate properly. (Take away warning chime is operated).	1. KEY warning lamp (red) check.	BL-139
	2. Replace Intelligent Key unit.	BL-143
Ignition switch warning lamp does not illuminate properly. (Ignition switch warning chime is operated).	1. KEY warning lamp (red) check.	BL-139
	2. Replace Intelligent Key unit.	BL-143

INTELLIGENT KEY SYSTEM

CAN Communication System Check

EIS00BC8

1. CHECK SELF-DIAGNOSTIC RESULTS

④ With CONSULT-III

- Connect CONSULT-III, and turn ignition switch ON.
- Touch "INTELLIGENT KEY" on "SELECT SYSTEM" screen.
- Touch "SELF-DIAG RESULTS" on "SELECT DIAG MODE" screen.
- Check display content in self-diagnostic results.

CONSULT-III display item	DTC code
NO DTC IS DETECTED	—
CAN COMM	U1000
CAN COMM2	U1010

OK or NG

NO DTC IS DETECTED>> INSPECTION END

CAN COMM [U1000]>> Go to "CAN SYSTEM", Refer to [LAN-23, "TROUBLE DIAGNOSIS"](#) .

CAN COMM2 [U1010]>> Replace Intelligent Key unit. Refer to [BL-143, "Removal and Installation of Intelligent Key Unit"](#) .

INTELLIGENT KEY SYSTEM

EIS00BC9

Power Supply and Ground Circuit Check

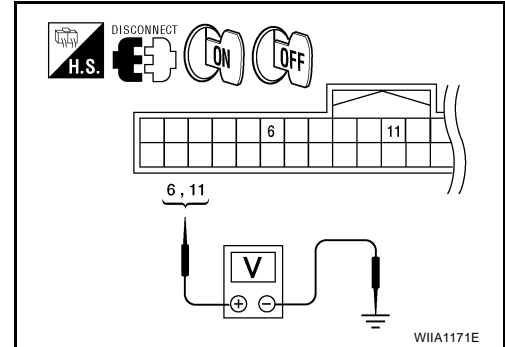
1. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect Intelligent Key unit connector.
3. Check voltage between Intelligent Key unit harness connector M42 terminals 6, 11 and ground.

Connector	Terminals		Ignition switch position	
	(+)	(-)	OFF	ON
M42	6	Ground	0V	Battery voltage
	11		Battery voltage	Battery voltage

OK or NG

- OK >> GO TO 2.
 NG >> Repair or replace Intelligent Key power supply circuit.



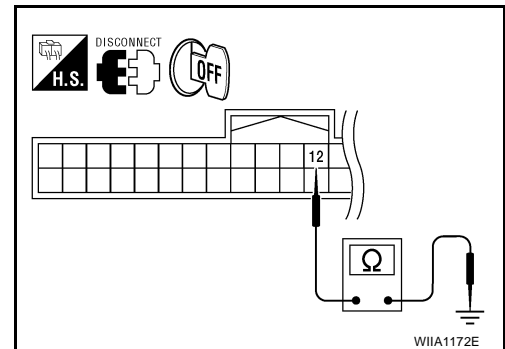
2. CHECK GROUND CIRCUIT

Check continuity between Intelligent Key unit harness connector M42 terminal 12 and ground.

12 - Ground : Continuity should exist.

OK or NG

- OK >> Power supply and ground circuits are OK.
 NG >> Repair or replace the Intelligent Key unit ground circuit.



Key Switch (Intelligent Key Unit Input) Check

1. CHECK KEY SWITCH

With CONSULT-III

Check key switch ("KEY SW") in "DATA MONITOR" mode with CONSULT-III.

Monitor item	Condition
KEY SW	Insert mechanical key into ignition switch: ON
	Remove mechanical key from ignition switch: OFF

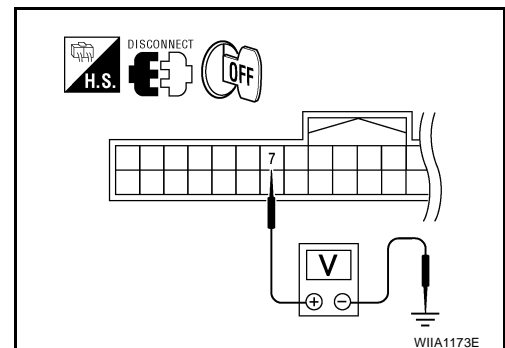
Without CONSULT-III

1. Turn ignition switch OFF.
2. Disconnect Intelligent Key unit harness connector.
3. Check voltage between Intelligent Key unit harness connector M42 terminal 7 and ground.

Connector	Terminals		Condition	Voltage (V) (Approx.)
	(+)	(-)		
M42	7	Ground	Insert mechanical key into ignition switch	Battery voltage
			Remove mechanical key from ignition switch	0

OK or NG

- OK >> Key switch is OK.
 NG >> GO TO 2.



INTELLIGENT KEY SYSTEM

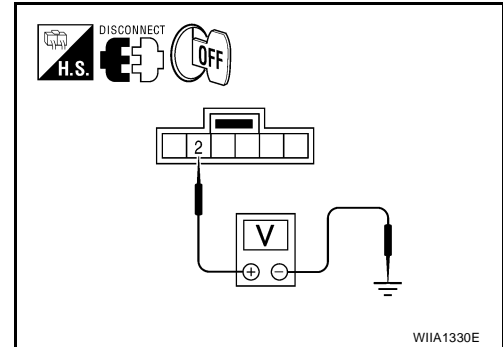
2. CHECK KEY SWITCH POWER SUPPLY CIRCUIT

1. Remove mechanical key from ignition switch.
2. Disconnect key switch and ignition knob switch connector.
3. Check voltage between key switch and ignition knob switch harness connector M49 terminal 2 and ground.

2 - Ground : **Battery voltage**

OK or NG

- OK >> GO TO 3.
 NG >> Repair or replace key switch and ignition knob switch power supply circuit.



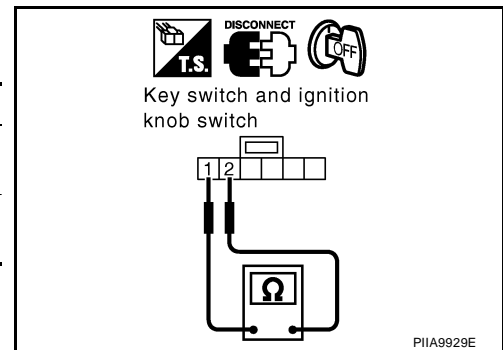
3. CHECK KEY SWITCH OPERATION

Check continuity between key switch and ignition knob switch terminals 1 and 2.

Component	Terminals		Condition	Continuity
Key switch	1	2	Insert mechanical key into ignition switch.	Yes
			Remove mechanical key from ignition switch.	No

OK or NG

- OK >> GO TO 4.
 NG >> Replace key cylinder assembly (built-in key switch).



4. CHECK KEY SWITCH CIRCUIT

1. Check continuity between Intelligent Key unit harness connector M42 (A) terminal 7 and key switch and ignition knob switch harness connector M49 (B) terminal 1.

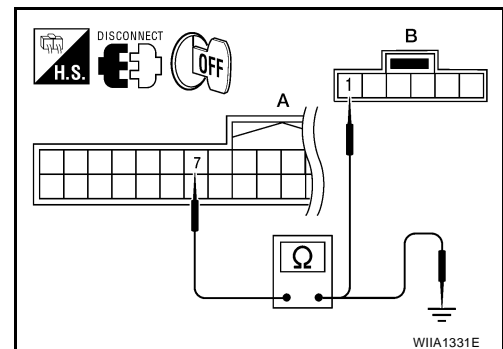
7 - 1 : **Continuity should exist.**

2. Check continuity between Intelligent Key unit harness connector M42 (A) terminal 7 and ground.

7 - Ground : **Continuity should not exist.**

OK or NG

- OK >> Check the condition of harness and harness connector.
 NG >> Repair or replace harness between Intelligent Key unit and key switch and ignition knob switch.



INTELLIGENT KEY SYSTEM

EIS00BCB

Key Switch (BCM Input) Check

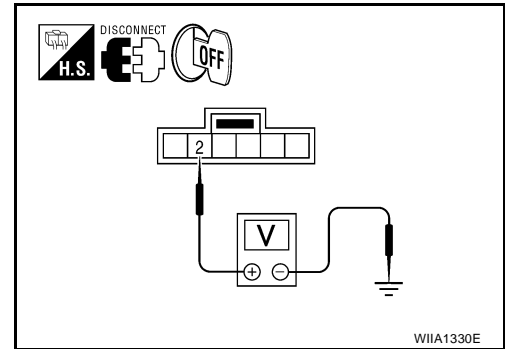
1. CHECK KEY SWITCH POWER SUPPLY CIRCUIT

1. Remove mechanical key from ignition switch.
2. Disconnect key switch and ignition knob switch connector.
3. Check voltage between key switch and ignition knob switch harness connector M49 terminal 2 and ground.

2 – Ground : Battery voltage.

OK or NG

- OK >> GO TO 2.
 NG >> Check harness between key switch and ignition knob switch and fuse.



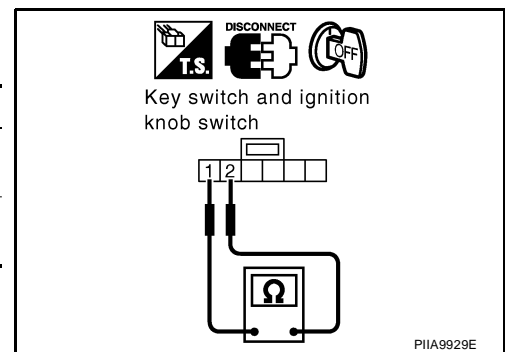
2. CHECK KEY SWITCH

Check continuity between key switch and ignition knob switch terminals 1 and 2.

Component	Terminals		Condition	Continuity
Ignition switch	1	2	Insert mechanical key into ignition switch.	Yes
			Remove mechanical key from ignition switch.	No

OK or NG

- OK >> GO TO 3.
 NG >> Replace key cylinder assembly (built-in key switch).



3. CHECK KEY SWITCH SIGNAL CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between BCM harness connector M18 (A) terminal 37 and key switch and ignition knob switch harness connector M49 (B) terminal 1.

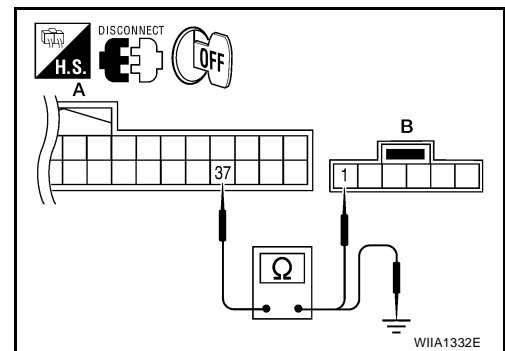
37 – 1 : Continuity should exist.

3. Check continuity between BCM harness connector M18 (A) terminal 37 and ground.

37 – Ground : Continuity should not exist.

OK or NG

- OK >> Key switch (BCM input) circuit is OK.
 NG >> Repair or replace harness between key switch and ignition knob switch and BCM.



INTELLIGENT KEY SYSTEM

EIS00BCC

Ignition Knob Switch Check

1. CHECK IGNITION KNOB SWITCH

With CONSULT-III

Display "PUSH SW" on DATA MONITOR screen, and check if ON/OFF display is linked to ignition switch operation.

Monitor item	Condition
PUSH SW	Ignition switch is pushed: ON
	Ignition switch is released: OFF

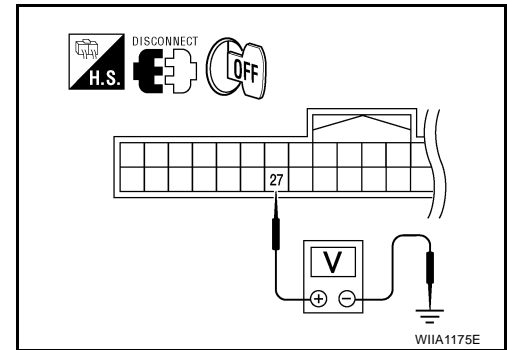
Without CONSULT-III

- Turn ignition switch OFF.
- Disconnect Intelligent Key unit connector.
- Check voltage between Intelligent Key unit harness connector M42 terminal 27 and ground.

Connector	Terminals		Condition	Voltage (V) (Approx.)
	(+)	(-)		
M42	27	Ground	Ignition switch is pushed	Battery voltage
			Ignition switch is released	0

OK or NG

- OK >> Ignition knob switch is OK.
 NG >> GO TO 2.



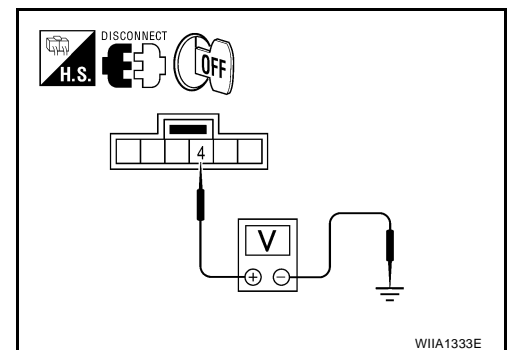
2. CHECK IGNITION KNOB SWITCH POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- Disconnect key switch and ignition knob switch connector.
- Check voltage between key switch and ignition knob switch harness connector M49 terminal 4 and ground.

4 - Ground : **Battery voltage**

OK or NG

- OK >> GO TO 3.
 NG >> Repair or replace key switch and ignition knob switch power supply circuit.



INTELLIGENT KEY SYSTEM

3. CHECK IGNITION KNOB SWITCH OPERATION

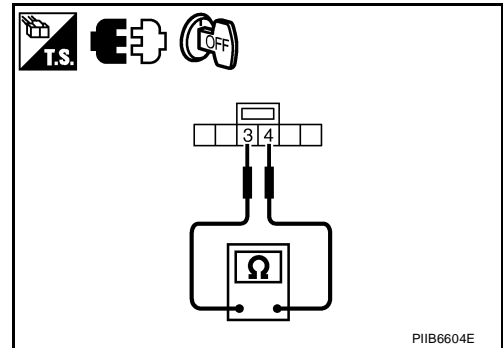
Check continuity between key switch and ignition knob switch terminals 3 and 4.

Component	Terminals		Condition	Continuity
Ignition knob switch	3	4	Ignition switch is pushed	Yes
			Ignition switch is released	No

OK or NG

OK >> GO TO 4.

NG >> Replace key switch and ignition knob switch.



4. CHECK IGNITION KNOB SWITCH CIRCUIT

- Check continuity between Intelligent Key unit harness connector M42 (A) terminal 27 and key switch and ignition knob switch harness connector M49 (B) terminal 3.

27 - 3 : Continuity should exist.

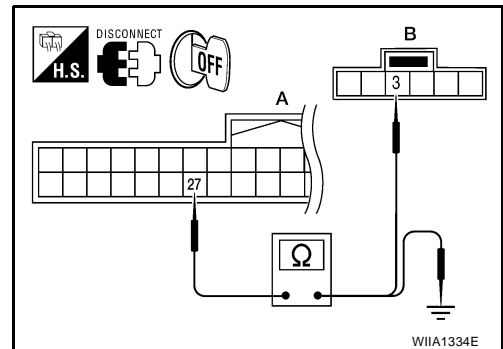
- Check continuity between Intelligent Key unit harness connector M42 terminal 27 and ground.

27 - Ground : Continuity should not exist.

OK or NG

OK >> Check the condition of harness and harness connector.

NG >> Repair or replace harness between Intelligent Key unit and key switch and ignition knob switch.



INTELLIGENT KEY SYSTEM

EIS00BCD

Door Switch Check

1. CHECK DOOR SWITCHES INPUT SIGNAL

 With CONSULT-III

Check door switches ("DOOR SW-DR", "DOOR SW-AS", "DOOR SW-RL", "DOOR SW-RR") in DATA MONITOR mode with CONSULT-III. Refer to [BL-36, "DATA MONITOR"](#).

- When any doors are open:

DOOR SW-DR : ON
DOOR SW-AS : ON
DOOR SW-RL : ON
DOOR SW-RR : ON

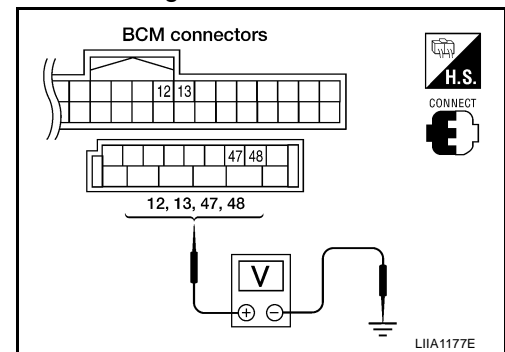
- When any doors are closed:

DOOR SW-DR : OFF
DOOR SW-AS : OFF
DOOR SW-RL : OFF
DOOR SW-RR : OFF

 Without CONSULT-III

Check voltage between BCM connector M18 or M19 terminals 12, 13, 47, 48 and ground.

Connector	Item	Terminals		Condition	Voltage (V) (Approx.)
		(+)	(-)		
M19	Front door switch LH	47	Ground	Open ↓ Closed	0 ↓ Battery voltage
	Rear door switch LH	48			
M18	Front door switch RH	12			
	Rear door switch RH	13			



OK or NG

- OK >> Door switch circuit is OK.
- NG >> GO TO 2.

INTELLIGENT KEY SYSTEM

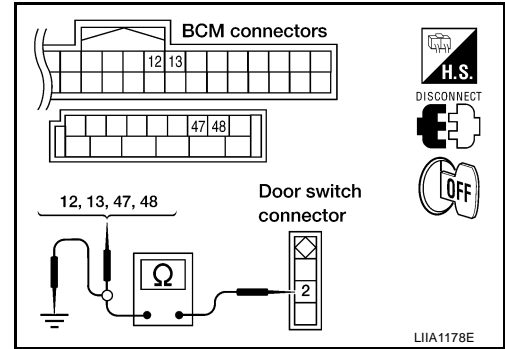
2. CHECK DOOR SWITCH CIRCUIT

- Turn ignition switch OFF.
- Disconnect door switch and BCM.
- Check continuity between door switch connector B21 (Front LH), B28 (Front RH), B26 (Rear LH), B41 (Rear RH) terminal 2 and BCM connector M18, M19 terminals 12, 13, 47 and 48.

2 - 47 : Continuity should exist.
2 - 12 : Continuity should exist.
2 - 48 : Continuity should exist.
2 - 13 : Continuity should exist.

- Check continuity between door switch connector B21 (Front LH), B28 (Front RH), B26 (Rear LH), B41 (Rear RH) terminal 2 and ground.

2 - Ground : Continuity should not exist.



OK or NG

- OK >> GO TO 3.
 NG >> Repair or replace harness.

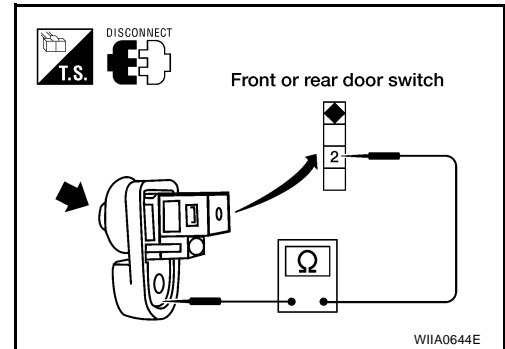
3. CHECK DOOR SWITCHES

Check continuity between door switch terminals.

Door switch (front or rear)	Terminals	Condition	Continuity
		2 - Ground	Pressed
		Released	Yes

OK or NG

- OK >> GO TO 4.
 NG >> Replace door switch.



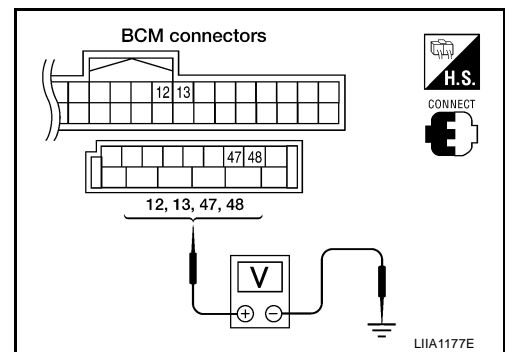
4. CHECK BCM OUTPUT VOLTAGE

- Reconnect BCM connectors.
- Check voltage between BCM connector M18, M19 terminals 12, 13, 47, 48 and ground.

12 - Ground : Battery voltage
13 - Ground : Battery voltage
47 - Ground : Battery voltage
48 - Ground : Battery voltage

OK or NG

- OK >> Door switch circuit is OK.
 NG >> Replace BCM. Refer to [BCS-21, "Removal and Installation of BCM"](#) .



INTELLIGENT KEY SYSTEM

EIS00BCE

Trunk Room Lamp Switch Check

1. CHECK TRUNK ROOM LAMP SWITCH INPUT SIGNAL

With CONSULT-III

Check ("TRUNK SW") in "DATA MONITOR" mode with CONSULT-III.

Monitor item	Trunk condition	
TRUNK SW	OPEN	: ON
	CLOSED	: OFF

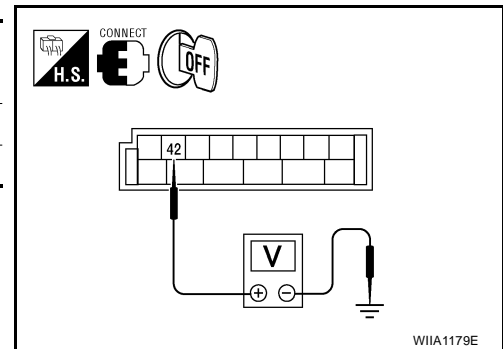
Without CONSULT-III

- Turn ignition switch OFF.
- Check voltage between BCM harness connector M19 terminal 42 and ground.

Connector	Terminals		Trunk condition	Voltage (V) (Approx.)
	(+)	(-)		
M19	42	Ground	CLOSED	Battery voltage
			OPEN	0

OK or NG

- OK >> Trunk room lamp switch circuit is OK.
 NG >> GO TO 2.



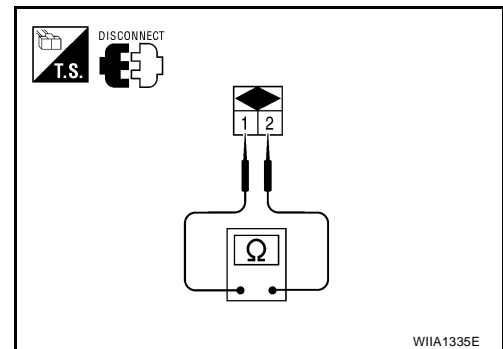
2. CHECK TRUNK ROOM LAMP SWITCH

- Turn ignition switch OFF.
- Disconnect trunk room lamp switch connector.
- Check continuity between trunk room lamp switch terminals 1 and 2.

Terminals		Trunk condition	Continuity
1	2	CLOSED	No
		OPEN	Yes

OK or NG

- OK >> GO TO 3.
 NG >> Replace trunk room lamp switch.

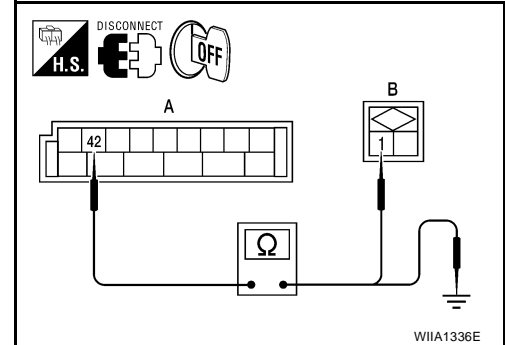


INTELLIGENT KEY SYSTEM

3. CHECK TRUNK ROOM LAMP SWITCH CIRCUIT

1. Disconnect BCM connector M19.
2. Check continuity between BCM harness connector M19 (A) terminal 42 and trunk room lamp switch harness connector B57 (B) terminal 1.

42 – 1 : Continuity should exist.



3. Check continuity between BCM harness connector M19 (A) terminal 42 and ground.

42 – Ground : Continuity should not exist.

OK or NG

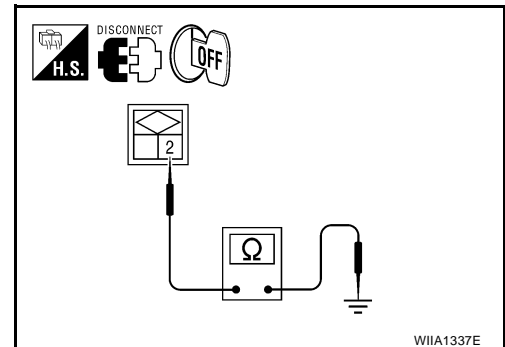
OK >> GO TO 4.

NG >> Repair or replace harness between BCM and trunk room lamp switch.

4. CHECK TRUNK ROOM LAMP SWITCH GROUND CIRCUIT

Check continuity between trunk room lamp switch harness connector B57 terminal 2 and ground.

2 – Ground : Continuity should exist.



OK or NG

OK >> Check connection of harness and connector.

NG >> Repair or replace trunk room lamp switch ground circuit.

INTELLIGENT KEY SYSTEM

EIS00BCF

Front Door Request Switch Check

1. CHECK FRONT DOOR REQUEST SWITCH

With CONSULT-III

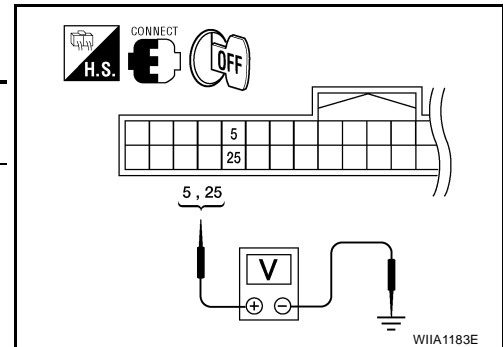
Check front door request switch ("DR REQ SW" or "AS REQ SW") in "DATA MONITOR" mode.

Monitor item	Condition
DR REQ SW AS REQ SW	Front door request switch is pressed: ON
	Front door request switch is released: OFF

Without CONSULT-III

- Turn ignition switch OFF.
- Check voltage between Intelligent Key unit harness connector M42 terminals 5, 25 and ground.

Connector	Item	Terminals		Condition	Voltage (V) (Approx.)
		(+)	(-)		
M42	Front door request switch LH	5	Ground	Door request switch is pressed	0
	Front door request switch RH	25		Door request switch is released	Battery voltage



OK or NG

- OK >> Front door request switch is OK.
 NG >> GO TO 2.

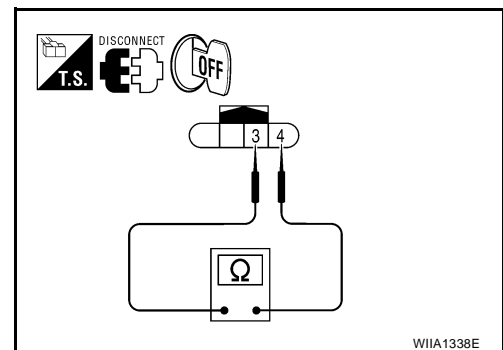
2. CHECK FRONT DOOR REQUEST SWITCH OPERATION

- Turn ignition switch OFF.
- Disconnect front door request switch connector.
- Check continuity between front door request switch terminals 3 and 4.

Component	Terminals		Condition	Continuity
Front door request switch (LH or RH)	3	4	Front door request switch is pressed	Yes
			Front door request switch is released	No

OK or NG

- OK >> GO TO 3.
 NG >> Replace front door request switch.



INTELLIGENT KEY SYSTEM

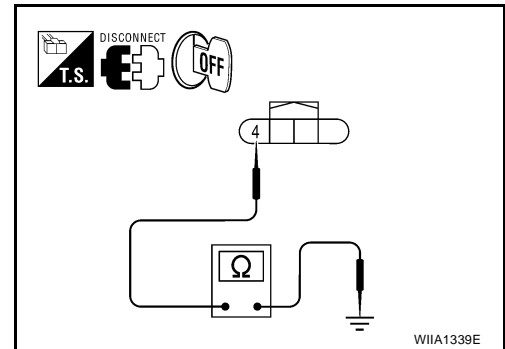
3. CHECK FRONT DOOR REQUEST SWITCH GROUND CIRCUIT

Check continuity between front door request switch harness connector D4 (LH), D103 (RH) terminal 4 and ground.

4 - Ground : Continuity should exist.

OK or NG

- OK >> GO TO 4.
- NG >> Repair or replace door request switch ground circuit.



4. CHECK FRONT DOOR REQUEST SWITCH CIRCUIT

1. Disconnect Intelligent Key unit connector.
2. Check continuity between Intelligent Key unit harness connector M42 (A) terminals 5 (LH), 25 (RH) and front door request switch harness connector D4 (B) (LH), D103 (RH) terminal 3.

Driver side 5 - 3 : Continuity should exist.

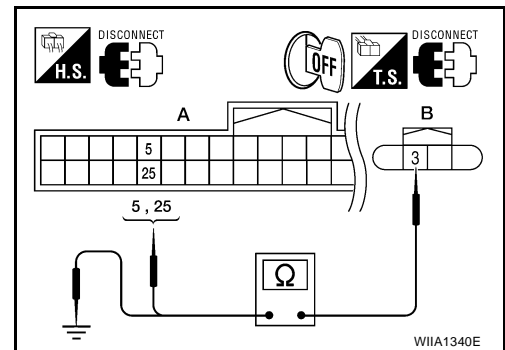
Passenger side 25 - 3 : Continuity should exist.

3. Check continuity between front door request switch harness connector D4 (B) (LH), D103 (RH), terminal 3 and ground.

3 - Ground : Continuity should not exist.

OK or NG

- OK >> GO TO 5.
- NG >> Repair or replace harness between Intelligent Key unit and front door request switch.



5. CHECK FRONT DOOR REQUEST SWITCH SIGNAL

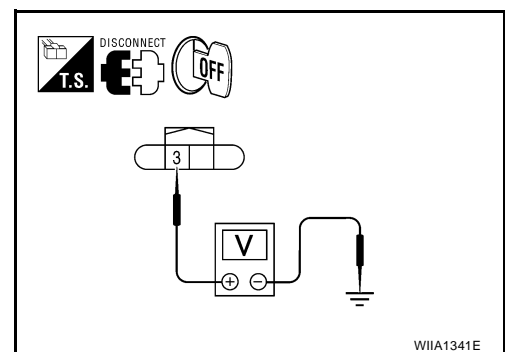
1. Connect Intelligent Key unit connector.
2. Check voltage between front door request switch harness connector D4 (LH), D103 (RH) terminal 3 and ground.

LH: 3 - Ground : Battery voltage

RH: 3 - Ground : Battery voltage

OK or NG

- OK >> Check condition of harness and connector.
- NG >> Replace Intelligent Key Unit. Refer to [BL-143, "Removal and Installation of Intelligent Key Unit"](#) .



INTELLIGENT KEY SYSTEM

EIS00BCG

Trunk Opener Request Switch Check

1. CHECK TRUNK OPENER REQUEST SWITCH

With CONSULT-III

Check trunk opener request switch ("BD/TR REQ SW") in "DATA MONITOR" mode.

Monitor item	Condition
BD/TR REQ SW	Trunk opener request switch is pressed: ON
	Trunk opener request switch is released: OFF

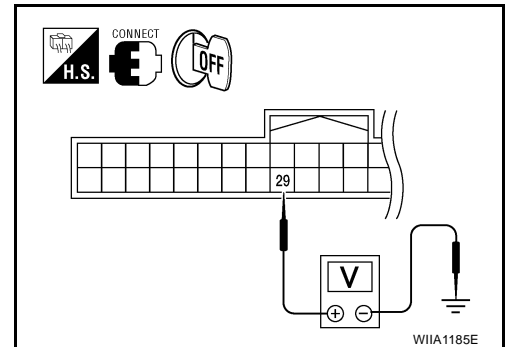
Without CONSULT-III

- Turn ignition switch OFF.
- Check voltage between Intelligent Key unit connector M42 terminal 29 and ground.

Connector	Terminals		Condition	Voltage (V) (Approx.)
	(+)	(-)		
M42	29	Ground	Trunk opener request switch is pressed	0
			Trunk opener request switch is released	5

OK or NG

- OK >> Trunk opener request switch is OK.
 NG >> GO TO 2.



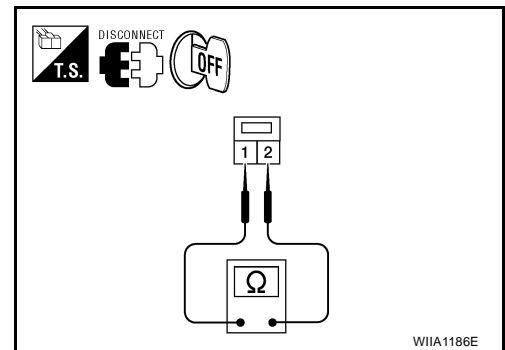
2. CHECK TRUNK OPENER REQUEST SWITCH OPERATION

- Turn ignition switch OFF.
- Disconnect trunk opener request switch connector.
- Check continuity between trunk opener request switch terminals 1 and 2.

Component	Terminals		Condition	Continuity
Trunk opener request switch	1	2	Trunk opener request switch is pressed	Yes
			Trunk opener request switch is released	No

OK or NG

- OK >> GO TO 3.
 NG >> Replace trunk opener request switch.



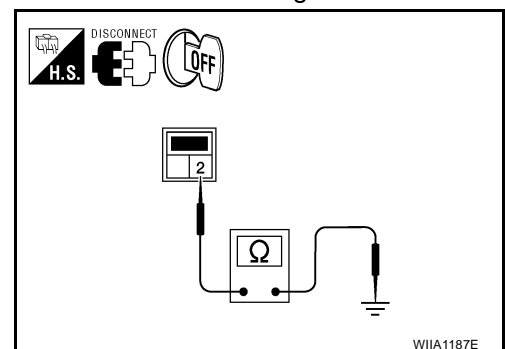
3. CHECK TRUNK OPENER REQUEST SWITCH GROUND CIRCUIT

Check continuity between trunk opener request switch harness connector T5 terminal 2 and ground.

2 - Ground : Continuity should exist.

OK or NG

- OK >> GO TO 4.
 NG >> Repair or replace trunk opener request switch ground circuit.



INTELLIGENT KEY SYSTEM

4. CHECK TRUNK OPENER REQUEST SWITCH CIRCUIT

1. Disconnect Intelligent Key unit connector.
2. Check continuity between Intelligent Key unit harness connector M42 (A) terminal 29 and trunk opener request switch harness connector T5 (B) terminal 1.

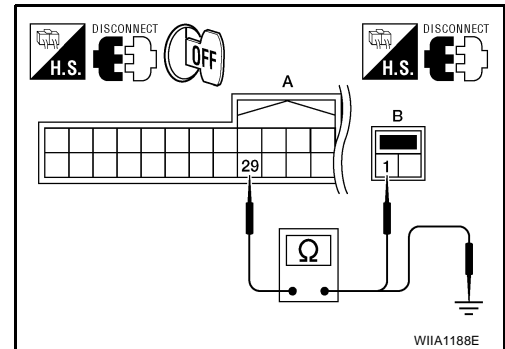
29 - 1 : Continuity should exist.

3. Check continuity between Intelligent Key unit harness connector M42 (A) terminal 29 and ground.

29 - Ground : Continuity should not exist.

OK or NG

- OK >> GO TO 5.
 NG >> Repair or replace harness between Intelligent Key unit and trunk opener request switch.



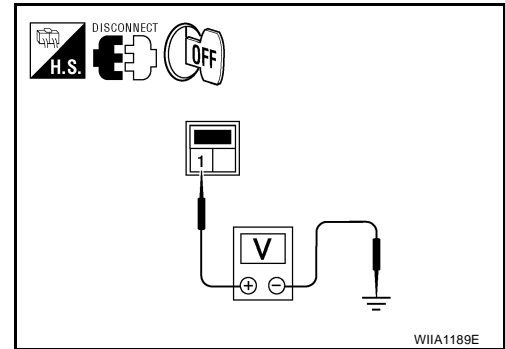
5. CHECK TRUNK OPENER REQUEST SWITCH SIGNAL

1. Connect Intelligent Key Unit connector.
2. Check voltage between trunk opener request switch harness connector T5 terminal 1 and ground.

1 - Ground : Battery voltage

OK or NG

- OK >> Check condition of harness and connector.
 NG >> Replace Intelligent Key unit. Refer to [BL-143, "Removal and Installation of Intelligent Key Unit"](#) .



Front Door Lock Assembly LH (Door Unlock Sensor) Check

EIS00BCH

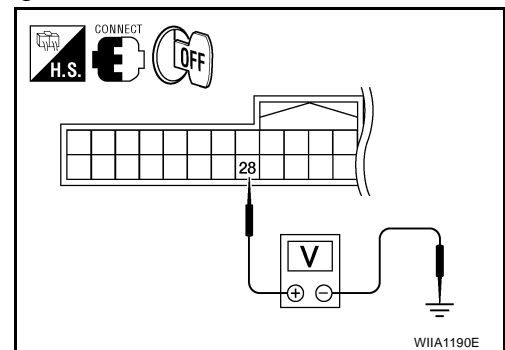
1. CHECK UNLOCK SENSOR POWER SUPPLY

Check voltage between Intelligent Key unit connector terminal 28 and ground.

Connector	Terminals		Condition	Voltage (V) (Approx.)
	(+)	(-)		
M42	28	Ground	Driver side door lock is locked	5
			Driver side door lock is unlocked	0

OK or NG

- OK >> front door lock assembly LH (door unlock sensor) is OK.
 NG >> GO TO 2.



INTELLIGENT KEY SYSTEM

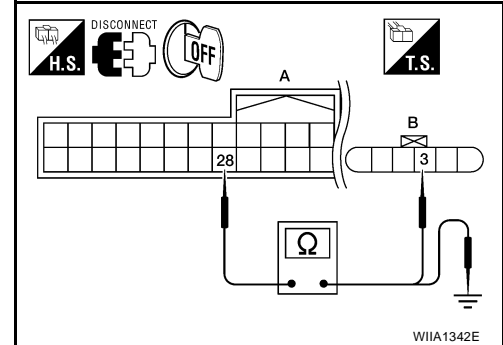
2. CHECK UNLOCK SENSOR CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect Intelligent Key unit and front door lock assembly LH (door unlock sensor) connector.
3. Check continuity between Intelligent Key unit harness connector M42 (A) terminal 28 and front door lock assembly LH (door unlock sensor) harness connector D9 (B) terminal 3.

28 – 3 : Continuity should exist.

4. Check continuity between Intelligent Key unit harness connector M42 (A) terminal 28 and ground.

28 – Ground : Continuity should not exist.



OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness between Intelligent Key unit and front door lock assembly LH (door unlock sensor).

3. CHECK UNLOCK SENSOR GROUND CIRCUIT

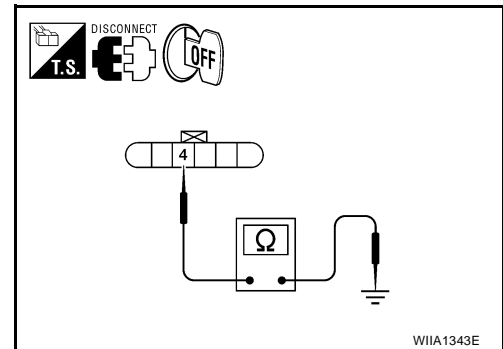
Check continuity between front door lock assembly LH (door unlock sensor) harness connector D9 terminal 4 and ground.

4 – Ground : Continuity should exist.

OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness.



4. CHECK INTELLIGENT KEY UNIT OUTPUT SIGNAL

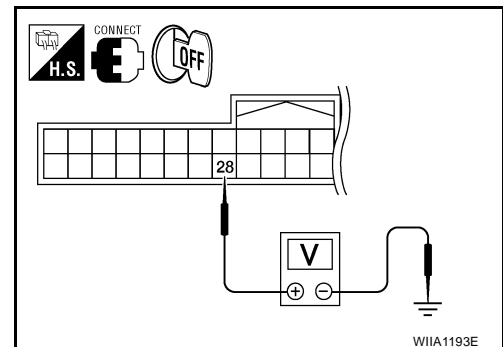
1. Connect Intelligent Key unit harness connector.
2. Check voltage between Intelligent Key unit harness connector M42 terminal 28 and ground.

28 – Ground : Approx. 5V

OK or NG

OK >> Replace front door lock assembly LH (door unlock sensor).

NG >> Replace Intelligent Key unit. Refer to [BL-143, "Removal and Installation of Intelligent Key Unit"](#) .



INTELLIGENT KEY SYSTEM

Intelligent Key Warning Chime (Combination Meter) Check

EIS00BCI

1. CHECK INTELLIGENT KEY WARNING CHIME (COMBINATION METER) OPERATION

Using CONSULT-III, enter "INTELLIGENT KEY" menu and select "ACTIVE TEST". Activate "INSIDE BUZZER" and listen for a chime response.

OK or NG

- OK >> Warning chime is OK.
- NG >> Refer to [DI-51, "WARNING CHIME"](#).

Check Intelligent Key Warning Buzzer (Front of Vehicle)

EIS00BCJ

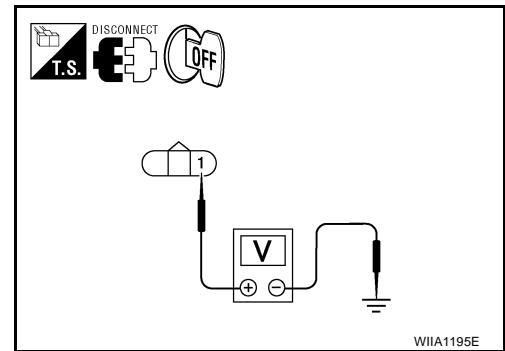
1. CHECK INTELLIGENT KEY WARNING BUZZER (FRONT OF VEHICLE) POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect Intelligent Key warning buzzer (front of vehicle) connector.
3. Check voltage between Intelligent Key warning buzzer (front of vehicle) harness connector E26 terminal 1 and ground.

1 - Ground : Battery voltage

OK or NG

- OK >> GO TO 2.
- NG >> Repair or replace Intelligent Key warning buzzer (front of vehicle) power supply circuit.



2. CHECK INTELLIGENT KEY WARNING BUZZER (FRONT OF VEHICLE) CIRCUIT

1. Disconnect Intelligent Key unit connector.
2. Check continuity between Intelligent Key unit harness connector M42 (A) terminal 4 and Intelligent Key warning buzzer (front of vehicle) harness connector E26 (B) terminal 3.

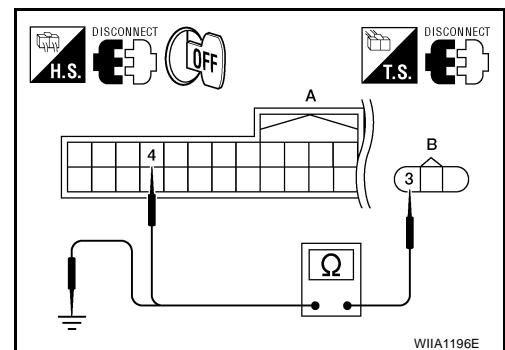
4 - 3 : Continuity should exist.

3. Check continuity between Intelligent Key warning buzzer (front of vehicle) harness connector E26 (B) terminal 3 and ground.

3 - Ground : Continuity should not exist.

OK or NG

- OK >> GO TO 3.
- NG >> Repair or replace harness between Intelligent Key warning buzzer (front of vehicle) and Intelligent Key unit.



INTELLIGENT KEY SYSTEM

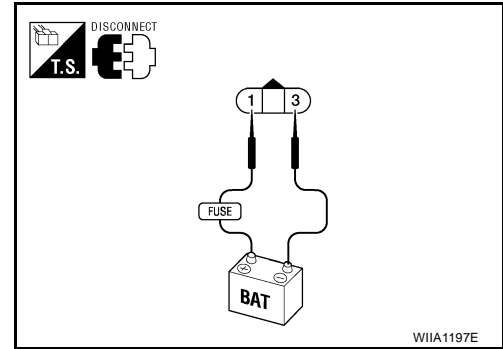
3. CHECK INTELLIGENT KEY WARNING BUZZER (FRONT OF VEHICLE) OPERATION

Connect battery power supply to Intelligent Key warning buzzer (front of vehicle) harness connector E26 terminals 1 and 3, and check the operation.

1 (BAT+) - 3 (BAT-) : The buzzer sounds

OK or NG

- OK >> Intelligent Key warning buzzer (front of vehicle) is OK.
- NG >> Replace Intelligent Key warning buzzer (front of vehicle).



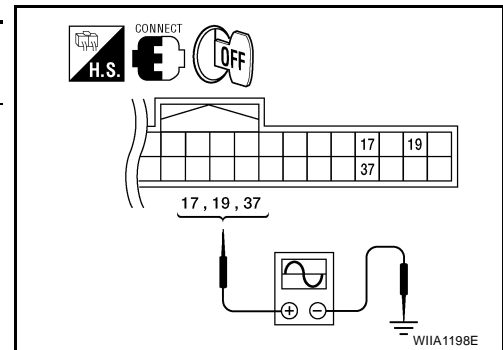
WIIA1197E

Outside Key Antenna Check

1. CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL

1. Turn ignition switch OFF.
2. Check signal between Intelligent Key unit connector M42 terminals 17, 19, 37 and ground with an oscilloscope.

Connector	Item	Terminals		Condition	Signal (Reference value)
		(+)	(-)		
M42	Rear bumper antenna	17	Ground	Request switch is pushed	<p style="text-align: center;">SIIA1910J</p>
	Front outside antenna LH	19			
	Front outside antenna RH	37			



WIIA1198E

OK or NG

- OK >> Outside key antenna is OK.
- NG >> GO TO 2.

INTELLIGENT KEY SYSTEM

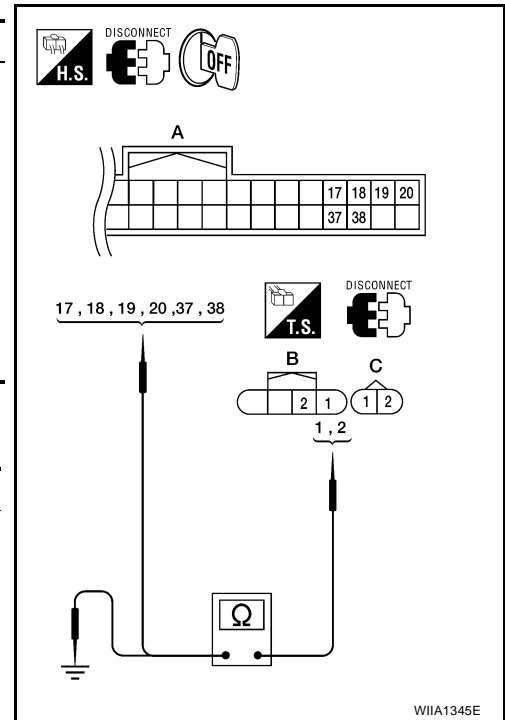
2. CHECK OUTSIDE KEY ANTENNA CIRCUIT

1. Disconnect Intelligent Key unit connector and outside key antenna connector.
2. Check continuity between each outside key antenna harness connector D4 (B) (LH) or D103 (B) (RH), rear bumper antenna connector B49 (C) terminals 1, 2 and Intelligent Key unit harness connector M42 (A) terminals 17, 18, 19, 20, 37, and 38.

Item	Connector	Terminal	Connector	Terminal	Continuity
Rear bumper antenna	C: B49	1	A: M42	17	Yes
		2		18	
Front outside antenna LH	B: D4	1		19	
		2		20	
Front outside antenna RH	B: D103	1		37	
		2		38	

3. Check continuity between each outside key antenna harness connector terminals 1, 2 and ground.

Item	Connector	Terminal	Continuity
Rear bumper antenna	C: B49	1 2	No
Front outside antenna LH	B: D4	1 2	
		Front outside antenna RH	



OK or NG

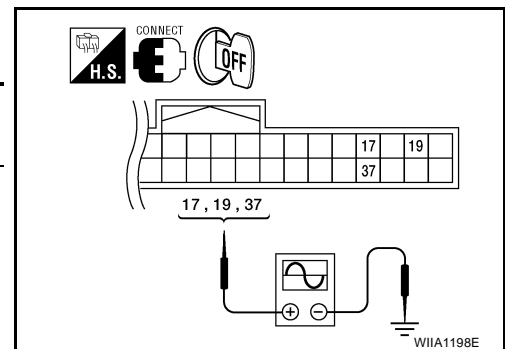
OK >> GO TO 3.

NG >> Replace harness between outside key antenna and Intelligent Key unit.

3. CHECK OUTSIDE KEY ANTENNA POWER SUPPLY

1. Replace outside key antenna. (New antenna or other antenna)
2. Connect Intelligent Key unit connector and outside key antenna connector.
3. Check signal between Intelligent Key unit connector terminals 17, 19, 37 and ground with an oscilloscope.

Connector	Item	Terminals		Condition	Signal (Reference value)
		(+)	(-)		
M42	Rear bumper antenna	17	Ground	Request switch is pushed	
	Front outside antenna LH	19			
	Front outside antenna RH	37			



OK or NG

OK >> Replace outside key antenna.

NG >> Replace Intelligent Key unit. Refer to [BL-143, "Removal and Installation of Intelligent Key Unit"](#) .

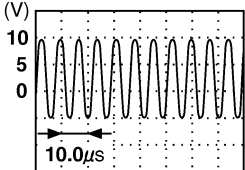
INTELLIGENT KEY SYSTEM

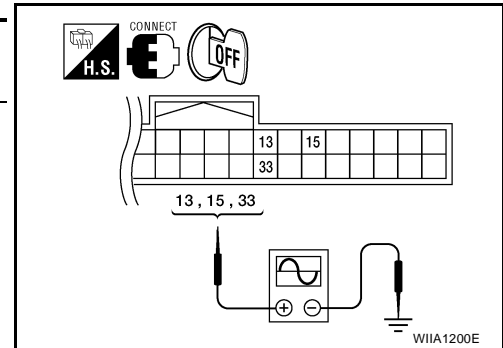
EIS00BCL

Inside Key Antenna Check

1. CHECK INSIDE KEY ANTENNA POWER SUPPLY SIGNAL

1. Turn ignition switch OFF.
2. Check signal between Intelligent Key unit connector and ground with an oscilloscope.

Connector	Item	Terminals		Condition	Signal (V) (Reference value)
		(+)	(-)		
M42	Rear parcel shelf antenna	33	Ground	Any door is open → All doors are closed	
	Front console antenna	15	Ground	Ignition switch is pushed.	
	Instrument panel antenna	13			



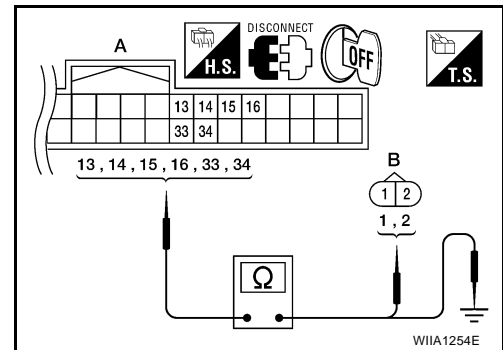
OK or NG

- OK >> Inside key antenna is OK.
 NG >> GO TO 2.

2. CHECK INSIDE KEY ANTENNA

1. Disconnect Intelligent Key unit connector and inside key antenna connectors.
2. Check continuity between inside key antenna harness connector M25 (B) (instrument panel), B18 (B) (front console), B45 (B) (rear parcel shelf) terminals 1, 2 and Intelligent Key unit harness connector M42 (A) terminals 13, 14, 15, 16, 33 and 34.

Item	Connector	Terminal	Connector	Terminal	Continuity
Instrument panel antenna	B: M25	2	A: M42	13	Yes
		1		14	
Front console antenna	B: B18	1		15	
		2		16	
Rear parcel shelf antenna	B: B45	1		33	
		2		34	



3. Check continuity between Intelligent Key unit harness connector M42 (A) terminals 13, 14, 15, 16, 33, 34 and ground.

Item	Connector	Terminals	Continuity
Intelligent Key unit	A: M42	13	Ground
		14	
		15	
		16	
		33	
		34	

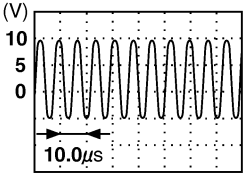
OK or NG

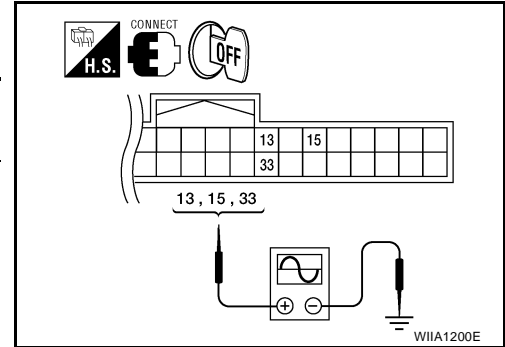
- OK >> GO TO 3.
 NG >> Repair or replace harness between inside key antenna and Intelligent Key unit.

INTELLIGENT KEY SYSTEM

3. CHECK INSIDE KEY ANTENNA POWER SUPPLY SIGNAL

1. Replace inside key antenna. (New antenna or other antenna)
2. Connect Intelligent Key unit connector.
3. Check signal between Intelligent Key unit connector and ground with oscilloscope.

Connector	Item	Terminals		Condition	Signal (V) (Reference value)
		(+)	(-)		
M42	Rear parcel shelf antenna	33	Ground	Any door is open → All doors are closed	
	Front console antenna	15	Ground	Ignition switch is pushed.	
	Instrument panel antenna	13			



OK or NG

OK >> Replace inside key antenna.

NG >> Replace Intelligent Key unit. Refer to [BL-143, "Removal and Installation of Intelligent Key Unit"](#) .

Steering Lock Solenoid Check

EIS00BCN

1. CHECK STEERING LOCK SOLENOID POWER SUPPLY

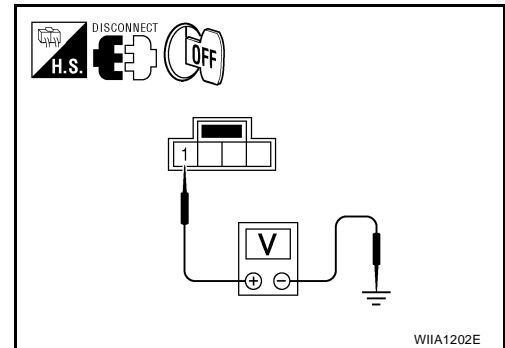
1. Turn ignition switch OFF.
2. Disconnect steering lock solenoid connector.
3. Check voltage between steering lock solenoid harness connector M27 terminal 1 and ground.

1 - Ground : Battery voltage

OK or NG

OK >> GO TO 2.

NG >> Repair or replace steering lock solenoid power supply circuit.



2. CHECK STEERING LOCK SOLENOID GROUND CIRCUIT

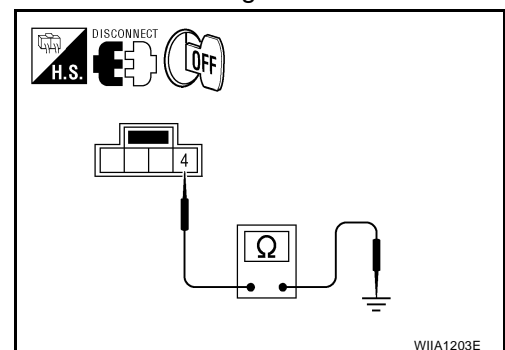
Check continuity between steering lock solenoid harness connector M27 terminal 4 and ground.

4 - Ground : Continuity should exist.

OK or NG

OK >> GO TO 3.

NG >> Repair or replace the steering lock solenoid ground circuit.



INTELLIGENT KEY SYSTEM

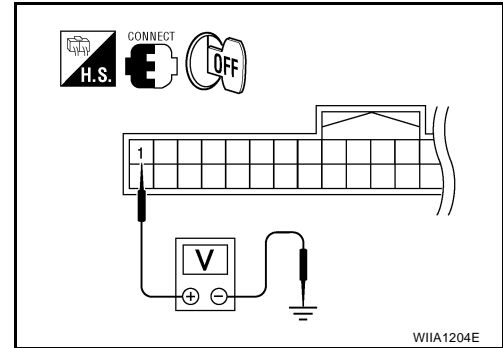
3. CHECK INTELLIGENT KEY UNIT OUTPUT SIGNAL

1. Connect steering lock solenoid connector.
2. Check voltage between Intelligent Key unit harness connector M42 terminal 1 and ground.

1 - Ground : Approx. 5V

OK or NG

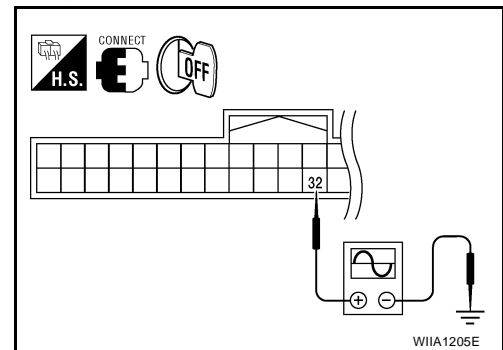
- OK >> GO TO 4.
 NG >> Replace Intelligent Key unit. Refer to [BL-143, "Removal and Installation of Intelligent Key Unit"](#) .



4. CHECK STEERING LOCK COMMUNICATION SIGNAL

Check signal between Intelligent Key unit connector M42 terminal 32 and ground with oscilloscope.

Connector	Terminals		Condition	Signal (V) (Reference value)
	(+)	(-)		
M42	32	Ground	Ignition switch is pushed	<p>SIIA1911J</p>



OK or NG

- OK >> GO TO 5.
 NG >> Replace Intelligent Key unit. Refer to [BL-143, "Removal and Installation of Intelligent Key Unit"](#) .

5. CHECK STEERING LOCK SOLENOID COMMUNICATION CIRCUIT

1. Disconnect Intelligent Key unit and steering lock solenoid connectors.
2. Check continuity between Intelligent Key unit harness connector M42 (B) terminals 1, 32 and steering lock solenoid connector M27 (A) terminals 2, 3.

1 - 2 : Continuity should exist.

32 - 3 : Continuity should exist.

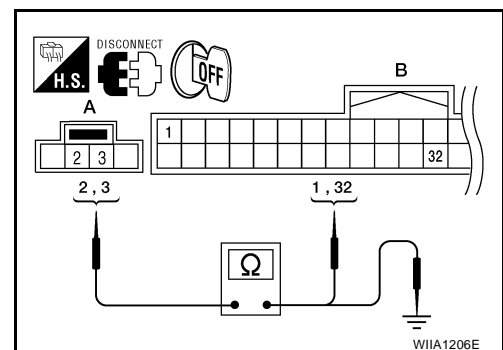
3. Check continuity between steering lock solenoid harness connector M27 (A) terminals 2, 3 and ground.

2 - Ground : Continuity should not exist.

3 - Ground : Continuity should not exist.

OK or NG

- OK >> Replace steering lock solenoid.
 • After replacing steering lock solenoid, perform registration procedure. Refer to [BL-88, "STEERING LOCK SOLENOID REGISTRATION"](#) .
- NG >> Repair or replace harness between steering lock solenoid and Intelligent Key unit.



INTELLIGENT KEY SYSTEM

EIS00BC0

Stop Lamp Switch Check

1. CHECK STOP LAMP SWITCH INPUT SIGNAL

With CONSULT-III

Check stop lamp switch ("STOP LAMP SW") in "DATA MONITOR" mode with CONSULT-III.

Monitor item	Condition
STOP LAMP SW	Brake pedal depressed: ON
	Brake pedal released: OFF

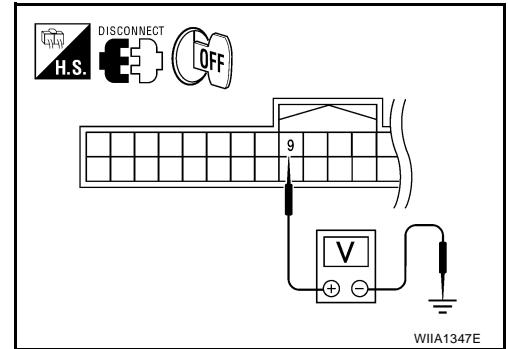
Without CONSULT-III

- Turn ignition switch OFF.
- Disconnect BCM.
- Check voltage between BCM connector M18 terminal 9 and ground.

Connector	Terminals		Condition	Voltage (V) (Approx.)
	(+)	(-)		
M18	9	Ground	Brake pedal depressed	Battery voltage
			Brake pedal released	0

OK or NG

- OK >> Stop lamp switch circuit is OK.
 NG >> GO TO 2.



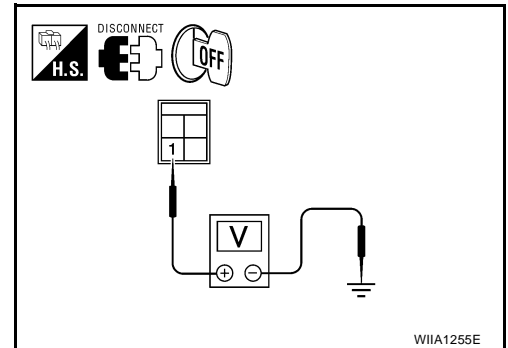
2. CHECK STOP LAMP SWITCH POWER SUPPLY CIRCUIT

Check voltage between stop lamp switch harness connector E60 terminal 1 and ground.

1 - Ground : Battery voltage

OK or NG

- OK >> GO TO 3.
 NG >> Repair or replace harness between stop lamp switch power supply circuit and fuse.



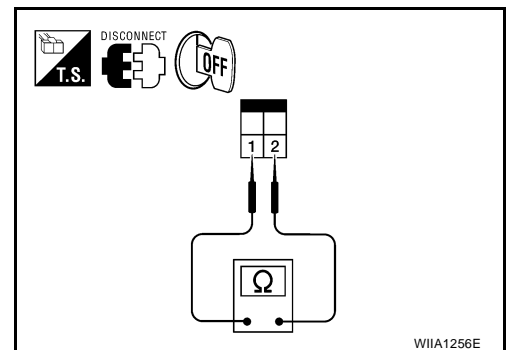
3. CHECK STOP LAMP SWITCH OPERATION

Check continuity between stop lamp switch terminals 1 and 2.

Component	Terminals		Condition	Continuity
Stop lamp switch	1	2	Brake pedal depressed	Yes
			Brake pedal not depressed	No

OK or NG

- OK >> GO TO 4.
 NG >> Replace stop lamp switch.



INTELLIGENT KEY SYSTEM

4. CHECK STOP LAMP SWITCH CIRCUIT

1. Check continuity between BCM connector M18 (A) terminal 9 and stop lamp switch connector E60 (B) terminal 2.

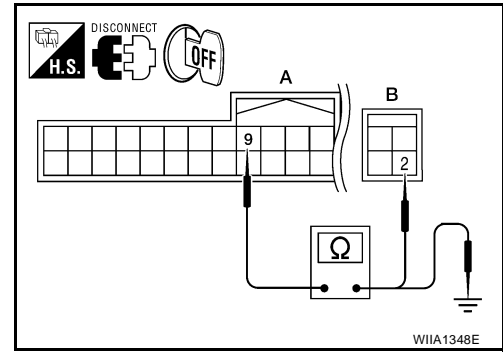
9 - 2 : Continuity should exist.

2. Check continuity between BCM connector M18 (A) terminal 9 and ground.

9 - Ground : Continuity should not exist.

OK or NG

- OK >> Check condition of harness and connector.
 NG >> Repair or replace harness.



EIS00BCP

CVT Device (Park Position Switch) Check

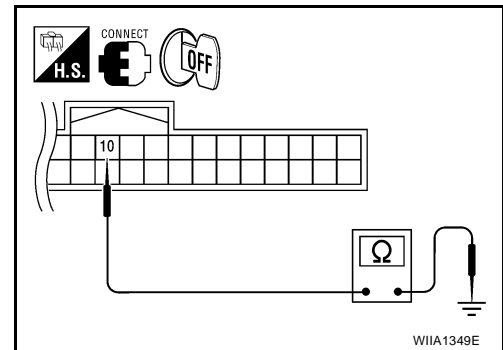
1. CHECK CVT DEVICE (PARK POSITION SWITCH) INPUT SIGNAL

1. Turn ignition switch OFF.
2. Check for continuity between Intelligent Key unit harness connector M42 terminal 10 and ground.

Connector	Terminals		Condition	Continuity
	(+)	(-)		
M42	10	Ground	Selector lever is in "P" position	Yes
			Other than above	No

OK or NG

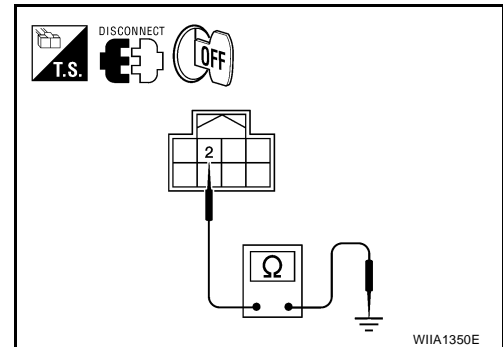
- OK >> Replace Intelligent Key unit. Refer to [BL-143, "Removal and Installation of Intelligent Key Unit"](#) .
 NG >> GO TO 2.



2. CHECK CVT DEVICE (PARK POSITION SWITCH) GROUND CIRCUIT

1. Disconnect CVT device (park position switch) connector.
2. Check for continuity between CVT device (park position switch) harness connector M38 terminal 2 and ground.

2 - Ground : Continuity should exist.



OK or NG

- OK >> GO TO 3.
 NG >> Repair or replace harness.

INTELLIGENT KEY SYSTEM

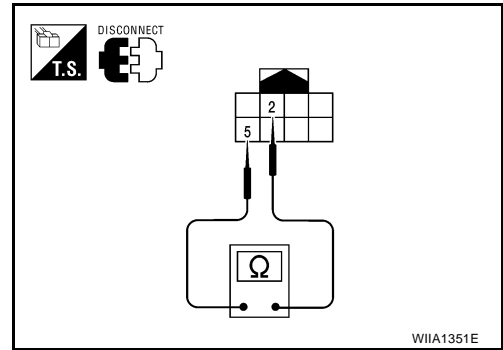
3. CHECK CVT DEVICE (PARK POSITION SWITCH)

Check continuity between CVT device (park position switch) terminals 2 and 5.

Component	Terminals		Condition	Continuity
CVT device (park position switch)	2	5	Selector lever is in "P" position	Yes
			Other than above	No

OK or NG

- OK >> Repair or replace harness.
- NG >> Replace CVT device (park position switch).



EIS00BCQ

“P-SHIFT” Warning Lamp Check

1. CHECK WARNING LAMP OPERATION

With CONSULT-III

- Check “INDICATOR” in “ACTIVE TEST” mode with CONSULT-III.
- Select “KNOB ON”.

“P-SHIFT” warning lamp should illuminate.

Without CONSULT-III

1. Turn ignition switch OFF.
2. While monitoring the combination meter warning lamps, turn ignition switch ON. “P-SHIFT” warning lamp should illuminate for 1 second to perform a bulb check.

OK or NG

- OK >> Inspection end.
- NG >> Check combination meter. Refer to [DI-5, "COMBINATION METERS"](#).

“KEY” Warning Lamp (RED) Check

1. CHECK WARNING LAMP OPERATION

With CONSULT-III

- Check “INDICATOR” in “ACTIVE TEST” mode with CONSULT-III.
- Select “RED ON”.

“KEY” warning lamp (red) should illuminate.

Without CONSULT-III

1. Turn ignition switch OFF.
2. Ensure Intelligent Key is outside and away from the vehicle.
3. While monitoring the combination meter warning lamps, push the ignition knob switch.
4. The “KEY” warning lamp (red) should illuminate indicating that the Intelligent Key is not nearby.

OK or NG

- OK >> Inspection end.
- NG >> Check combination meter. Refer to [DI-5, "COMBINATION METERS"](#).

INTELLIGENT KEY SYSTEM

“KEY” Warning Lamp (GREEN) Check

EIS00BCS

1. CHECK WARNING LAMP OPERATION

④ With CONSULT-III

- Check “INDICATOR” in “ACTIVE TEST” mode with CONSULT-III.
- Select “BLUE ON”.

“KEY” warning lamp (green) should illuminate.

⊗ Without CONSULT-III

1. Turn ignition switch OFF.
2. Ensure Intelligent Key is in your possession inside the vehicle.
3. While monitoring the combination meter warning lamps, push the ignition knob switch.
4. The “KEY” warning lamp (green) should illuminate indicating that the Intelligent Key is nearby.

OK or NG

OK >> Inspection end.

NG >> Check combination meter. Refer to [DI-5, "COMBINATION METERS"](#) .

Hazard Function Check

EIS00BCT

1. CHECK HAZARD WARNING LAMP

Does hazard warning lamp flash with hazard switch?

YES or NO

YES >> Hazard warning lamp circuit is OK.

NO >> Check hazard circuit. Refer to [LT-48, "TURN SIGNAL AND HAZARD WARNING LAMPS"](#) .

Check Horn Function

EIS00BCU

First perform the “SELF-DIAG RESULTS” in “BCM” with CONSULT-III, then perform the trouble diagnosis of malfunction system indicated “SELF-DIAG RESULTS” of “BCM”. Refer to [BCS-19, "CAN Communication Inspection Using CONSULT-III \(Self-Diagnosis\)"](#) .

1. CHECK HORN FUNCTION

Does horn sound with horn switch?

YES or NO

YES >> Horn circuit is OK.

NO >> Check horn circuit. Refer to [WW-28, "HORN"](#) .

IPDM E/R Operation Check

EIS00BCV

1. CHECK IPDM E/R INPUT SIGNAL

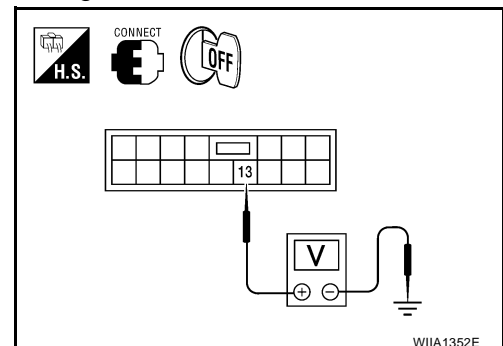
Check voltage between IPDM E/R harness connector E43 terminal 13 and ground.

13 – Ground : Battery voltage

OK or NG

OK >> Replace IPDM E/R. Refer to [PG-30, "Removal and Installation of IPDM E/R"](#) .

NG >> GO TO 2.



INTELLIGENT KEY SYSTEM

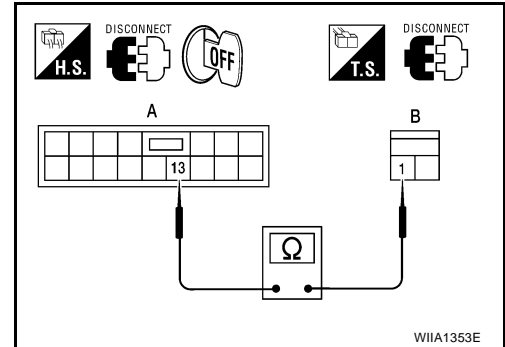
2. CHECK IPDM E/R CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R and horn relay connector.
3. Check continuity between IPDM E/R harness connector E43 (A) terminal 13 and horn relay harness connector H-1 (B) terminal 1.

13 – 1 : Continuity should exist.

OK or NG

- OK >> Check harness connection.
- NG >> Repair or replace harness.



A
B
C
D
E
F
G
H
J
K
L
M

BL

INTELLIGENT KEY SYSTEM

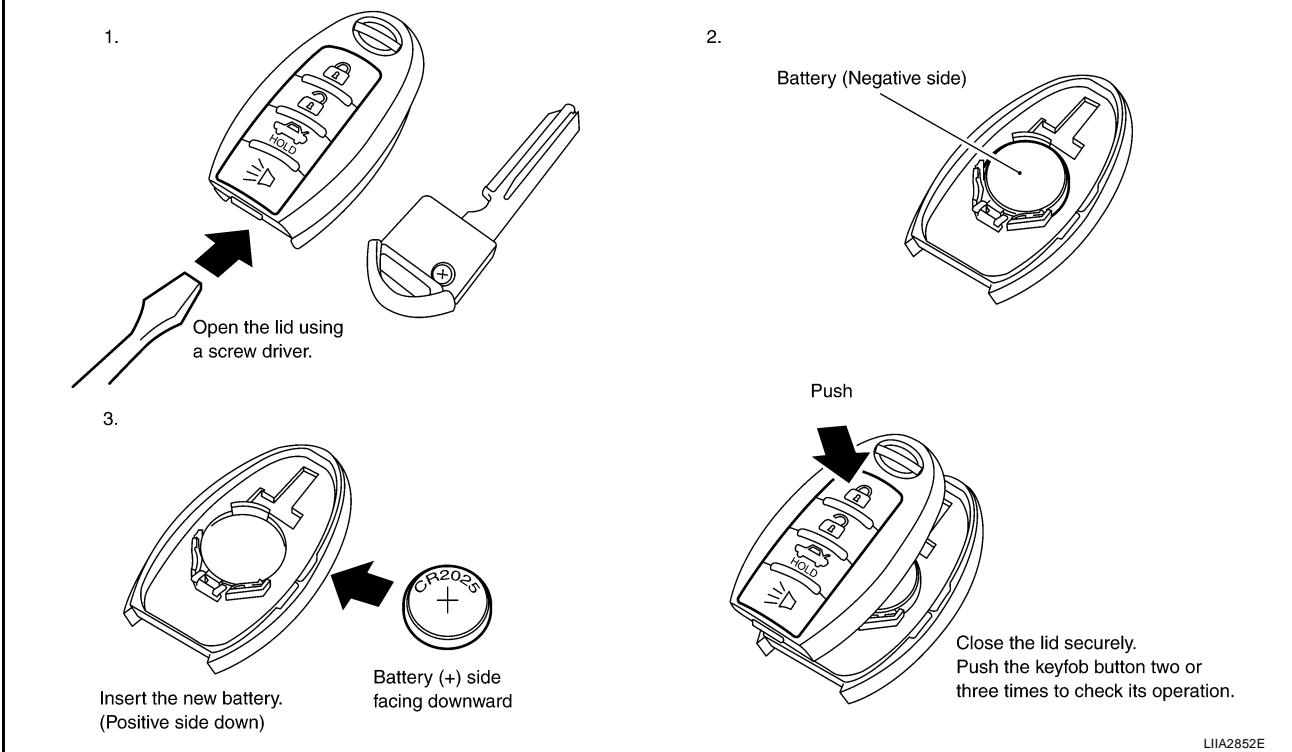
Intelligent Key Battery Replacement

EIS00BCW

SEC. 998

NOTE:

Be careful not to touch the circuit board or battery terminal.
The keyfob is water-resistant. However, if it does get wet, immediately wipe it dry.



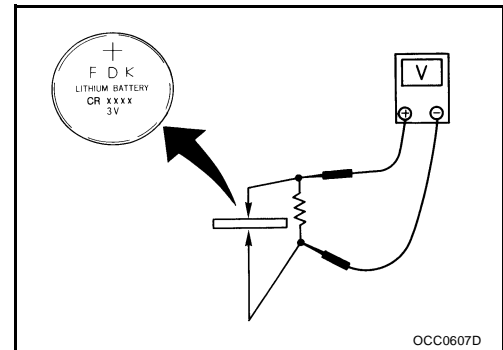
INTELLIGENT KEY BATTERY INSPECTION

1. Remove battery to measure voltage across battery positive (+) and negative (-) terminals.
2. Check by connecting a resistance (approximately 300Ω) so that the current value becomes about 10 mA.

Standard : Approx. 2.5 - 3.0V

NOTE:

Key fob does not function if battery is not installed correctly.



Remote Keyless Entry Function

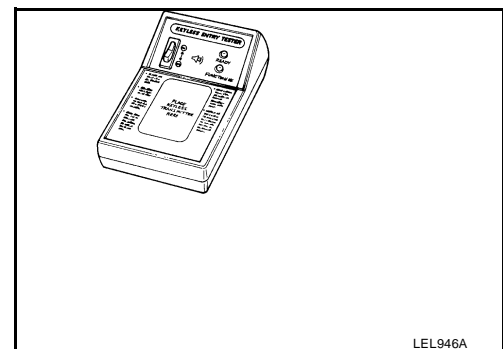
1. CHECK KEYFOB FUNCTION

Check keyfob function using Remote Keyless Entry Tester J-43241.
Does the test pass?

YES or NO

YES >> Keyfob is OK.

NO >> Replace keyfob. Refer to [BL-88, "INTELLIGENT KEY REGISTRATION"](#) .



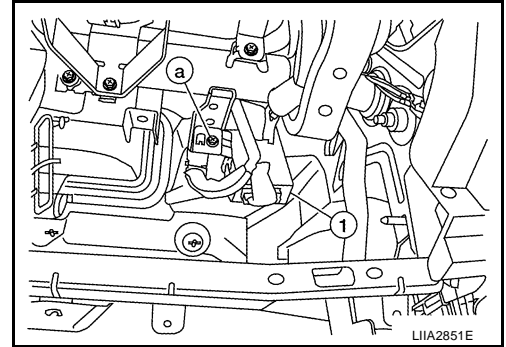
INTELLIGENT KEY SYSTEM

Removal and Installation of Intelligent Key Unit

EIS00BCZ

REMOVAL

1. Disconnect the battery negative terminal.
2. Remove the glove box assembly. Refer to [IP-15, "GLOVE BOX ASSEMBLY"](#) .
3. Remove the screw (a), disconnect and remove the Intelligent Key unit (1).



INSTALLATION

Installation is in the reverse order of removal.

A
B
C
D
E
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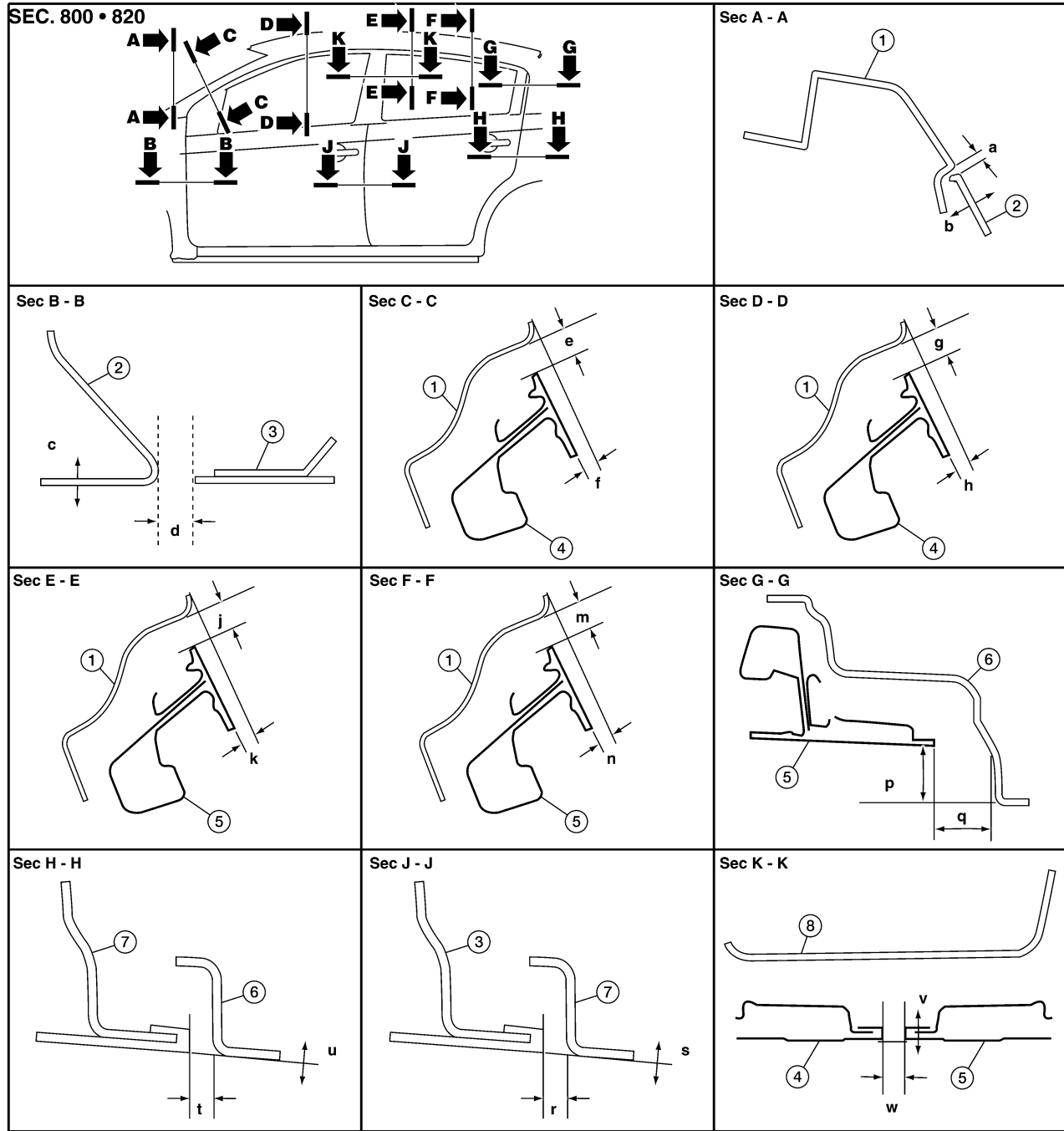
DOOR

PFP:80100

EIS00B9Z

DOOR

Fitting Adjustment



L1/A2811E

- | | | |
|---|---|---|
| 1. Body side outer | 2. Front fender | 3. Front door outer |
| 4. Front door sash | 5. Rear door sash | 6. Rear pillar |
| 7. Rear door outer | 8. Center pillar | a. 2.0 ± 1.0 mm (0.08 ± 0.04 in) |
| b. 0.0 ± 1.0 mm (0.0 ± 0.04 in) | c. 0.0 ± 1.0 mm (0.0 ± 0.04 in) | d. 4.6 ± 1.0 mm (0.18 ± 0.04 in) |
| e. 7.0 ± 1.0 mm (0.28 ± 0.04 in) | f. -3.6 ± 1.5 mm (-0.14 ± 0.06 in) | g. 6.8 ± 1.0 mm (0.27 ± 0.04 in) |
| h. -5.5 ± 1.5 mm (-0.22 ± 0.06 in) | j. 6.8 ± 1.0 mm (0.27 ± 0.04 in) | k. -5.3 ± 1.5 mm (-0.21 ± 0.06 in) |
| m. 7.0 ± 1.0 mm (0.28 ± 0.04 in) | n. -4.7 ± 2.0 mm (-0.19 ± 0.08 in) | p. -8.9 ± 2.0 mm (-0.35 ± 0.08 in) |
| q. 22.1 ± 1.0 mm (0.87 ± 0.04 in) | r. 4.5 ± 1.0 mm (0.18 ± 0.04 in) | s. 0.0 ± 1.0 mm (0.0 ± 0.04 in) |
| t. 4.6 ± 1.0 mm (0.18 ± 0.04 in) | u. 0.0 ± 1.0 mm (0.0 ± 0.04 in) | v. 0.0 ± 1.0 mm (0.0 ± 0.04 in) |
| w. 5.5 ± 1.5 mm (0.22 ± 0.06 in) | | |

DOOR

FRONT DOOR

Longitudinal Clearance

1. Remove the front fender. Refer to [BL-20, "FRONT FENDER"](#) .
2. Loosen the front door hinge bolts.
3. Install the front fender. Refer to [BL-20, "FRONT FENDER"](#) .
4. Open the front door and adjust up or down at the rear edge according to specification.
5. Remove the front fender. Refer to [BL-20, "FRONT FENDER"](#) .
6. Tighten the front door hinge bolts.

Front door hinge bolts **23.7 N-m (2.4 kg-m, 17 ft-lb)**

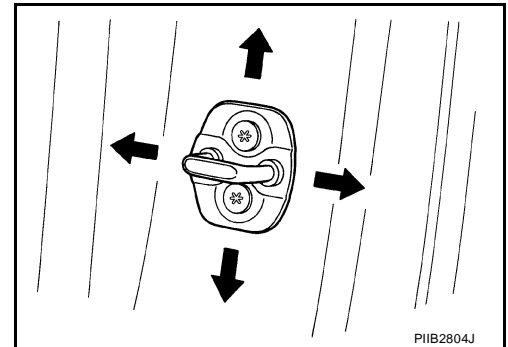
7. Install the front fender. Refer to [BL-20, "FRONT FENDER"](#) .

Surface Height Adjustment

1. Loosen the front door hinge nuts.
2. Adjust the surface height difference of the fender and the front door according to specification.
3. Tighten the front door hinge nuts. Refer to [BL-146, "FRONT DOOR"](#) .

Striker Adjustment

Striker screws **16.7 N-m (1.7 kg-m, 12 ft-lb)**



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DOOR

REAR DOOR

Longitudinal Clearance

1. Remove the center pillar upper and lower garnishes. Refer to [EI-32, "BODY SIDE TRIM"](#) .
2. Open the front door and loosen the rear door hinge bolts.
3. From inside the vehicle, loosen the upper hinge nut. Open the rear door, and raise or lower the rear door at the rear edge according to specification.
4. Tighten the rear door hinge bolts and nut.

Rear door hinge bolts **23.7 N·m (2.4 kg-m, 17 ft-lb)**

Rear door hinge to center pillar nut **28.8 N·m (2.9 kg-m, 21 ft-lb)**

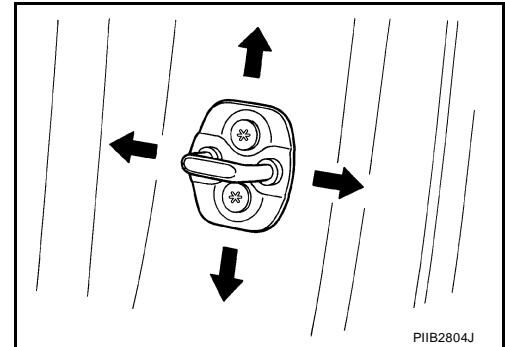
5. Install the center pillar upper and lower garnishes. Refer to [EI-32, "BODY SIDE TRIM"](#) .

Surface Height Adjustment

1. Loosen the rear door hinge nuts.
2. Adjust the surface height difference of front and rear doors according to specification.
3. Tighten the rear door hinge nuts. Refer to [BL-147, "REAR DOOR"](#) .

Striker Adjustment

Striker screws **16.7 N·m (1.7 kg-m, 12 ft-lb)**



EIS00BA0

Removal and Installation FRONT DOOR

CAUTION:

- When removing and installing the front door assembly, support the door with a jack and cloth to protect the door and body.
- When removing and installing front door assembly, be sure to carry out the fitting adjustment. Refer to [BL-144, "Fitting Adjustment"](#) .
- After installing, apply touch-up paint onto the head of the hinge nuts.
- Check the hinge rotating part for lubrication. If necessary, apply "body grease".
- Operate with two workers, because of its heavy weight.
- Check front door open/close operation after installation.

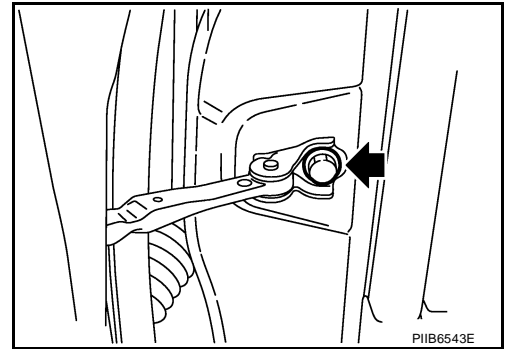
Removal

1. Remove dash side finisher. Refer to [EI-32, "Removal and Installation"](#) .
2. Disconnect the front door harness connectors.
3. Remove the front door harness grommet, and then remove the harness from the front pillar.

DOOR

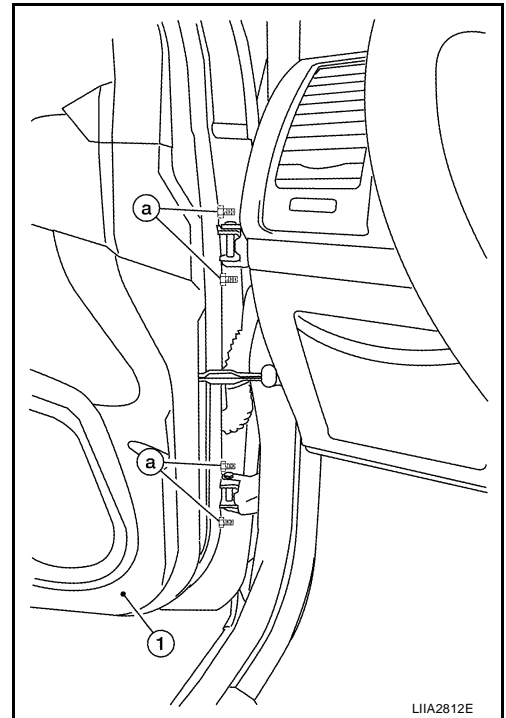
4. Remove the check link bolt from the front pillar.

Front door check link bolt 14.7 N·m (1.5 kg-m, 11 ft-lb)



5. Remove the front door hinge nuts (a) and the door assembly (1).

Front door hinge nuts 28.0 N·m (2.9 kg-m, 21 ft-lb)



Installation

Installation is in the reverse order of removal.

REAR DOOR

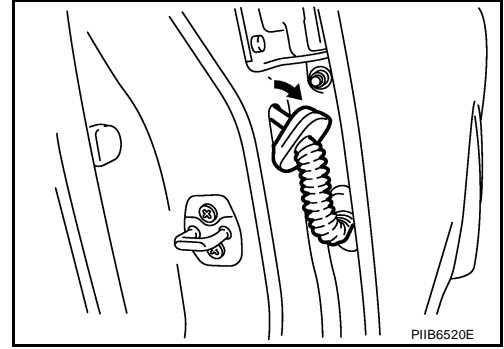
CAUTION:

- When removing and installing the rear door assembly, support the door with a jack and cloth to protect the door and body.
- When removing and installing rear door assembly, be sure to carry out the fitting adjustment. Refer to [BL-144, "Fitting Adjustment"](#) .
- After installing, apply touch-up paint onto the head of the hinge nuts.
- Check the hinge rotating part for poor lubrication. If necessary, apply "body grease".
- Operate with two workers, because of its heavy weight.
- Check rear door open/close operation after installation.

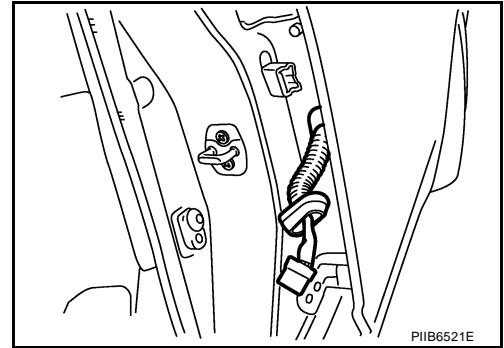
DOOR

Removal

1. Remove the rear door harness grommet.

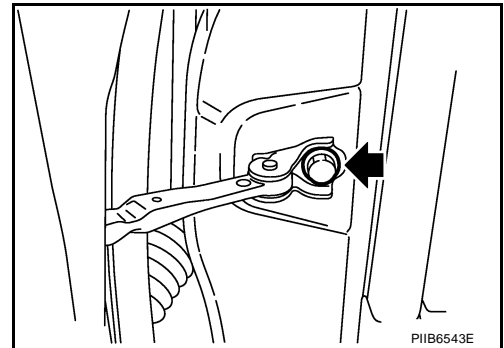


2. Disconnect the rear door harness connector.



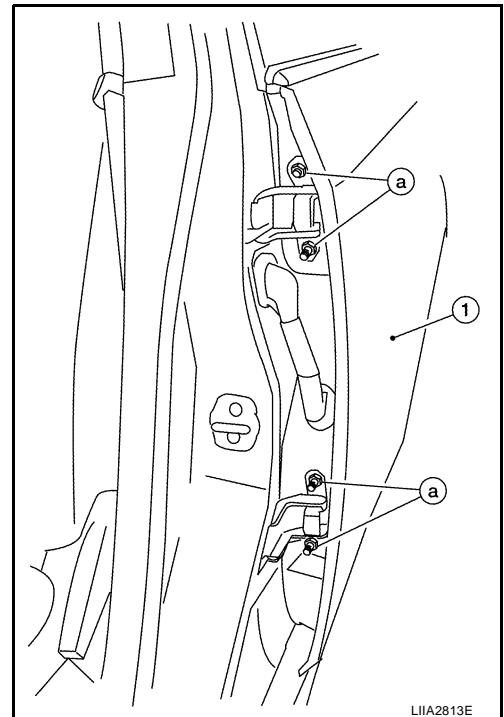
3. Remove the check link bolt from the center pillar.

Rear door check link bolt 14.7 N·m (1.5 kg-m, 11 ft-lb)



4. Remove the rear door hinge nuts (a) and the door assembly (1).

Rear door hinge nuts 28.0 N·m (2.9 kg-m, 21 ft-lb)



DOOR

Installation

Installation is in the reverse order of removal.

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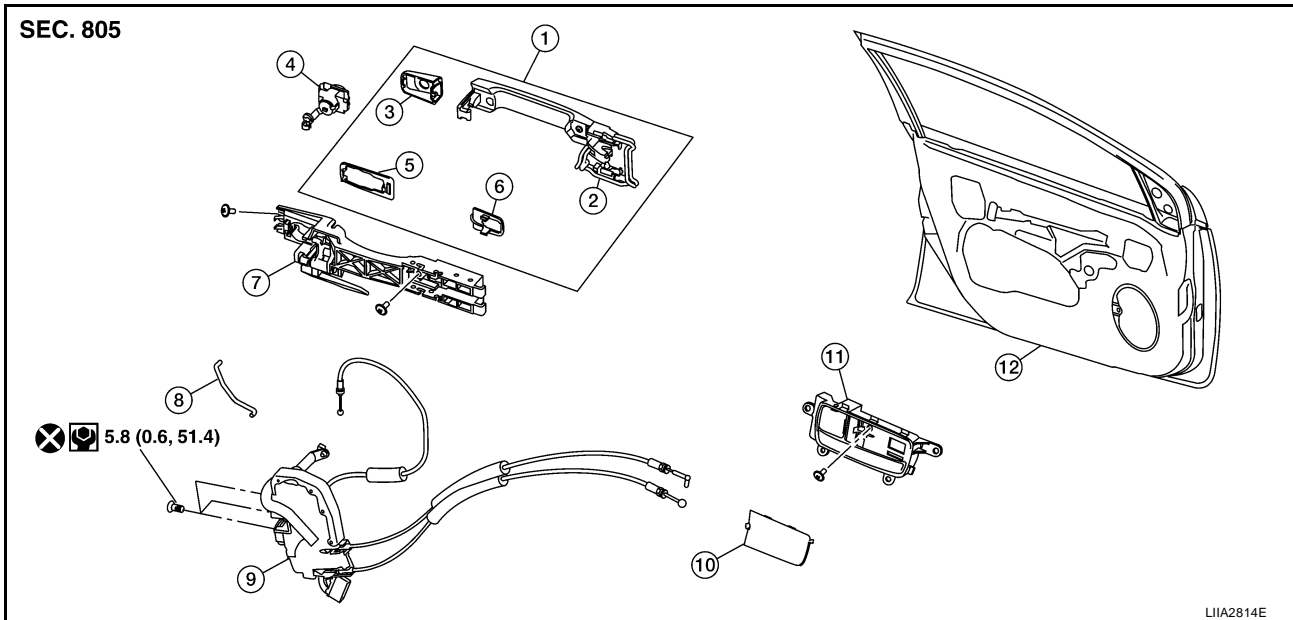
FRONT DOOR LOCK

PF80502

FRONT DOOR LOCK

Component Parts Location

EIS00BA1



- | | | |
|---------------------------------------|---------------------------------------|---|
| 1. Front door outside handle assembly | 2. Front door outside handle assembly | 3. Door key cylinder assembly (Driver's side)
Outside handle escutcheon (passenger's side) |
| 4. Key cylinder assembly | 5. Rear gasket | 6. Front gasket |
| 7. Outside handle bracket | 8. Key cylinder connecting rod | 9. Door lock assembly |
| 10. Inside door handle cap | 11. Inside door handle assembly | 12. Front door assembly |

Removal and Installation

EIS00BA2

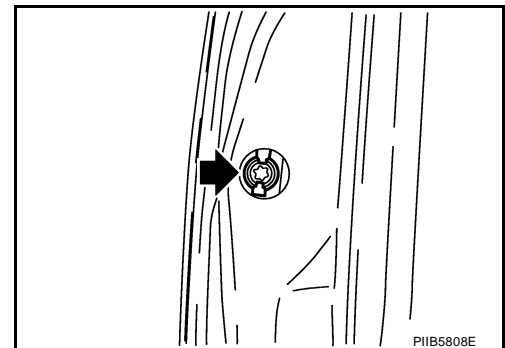
REMOVAL

1. Remove front door finisher. Refer to [EI-29, "FRONT DOOR"](#).
2. Temporarily reconnect the battery and the power window switch. Fully close front door window.
3. Disconnect the battery negative terminal and remove the power window switch.
4. Remove the front door sealing screen.

NOTE:

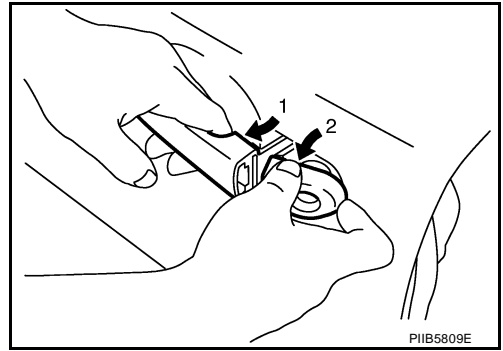
If the sealing screen is to be reused, pull it and the adhesive at approximately a 30 degree angle from the metal to remove it cleanly.

5. Remove front door rear glass run channel. Refer to [GW-48, "FRONT DOOR GLASS AND REGULATOR"](#).
6. Remove the door side grommet, and the door key cylinder mask (escutcheon) bolt.
7. Disconnect the key cylinder connecting rod (key cylinder side).
8. If equipped, disconnect the door antenna, the door request switch connector and remove the harness clamp. (Vehicle with intelligent key systems only).

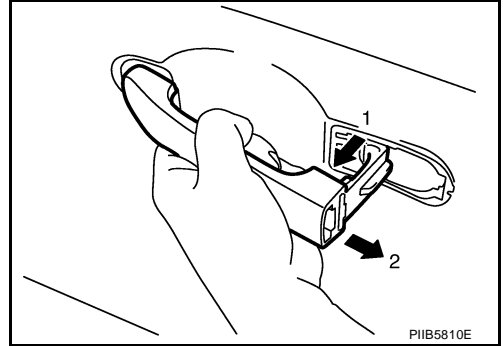


FRONT DOOR LOCK

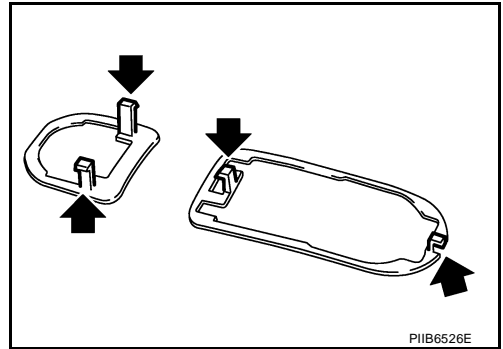
9. Remove the door cylinder and mask assembly while pulling the outside handle forward.



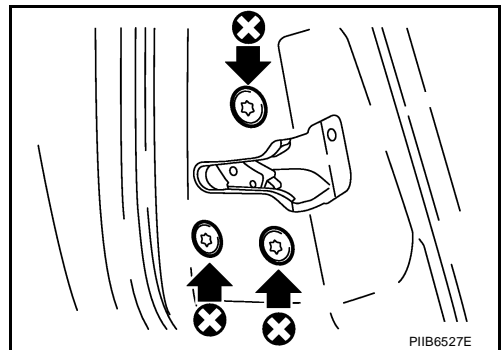
10. Pull the outside door handle out and then slide it toward the rear of the vehicle to remove.



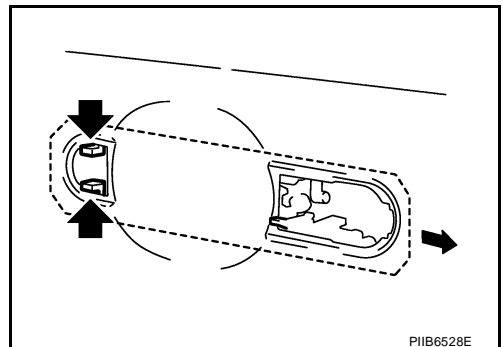
11. Remove the front and rear gaskets.



12. Remove the door lock assembly bolts.
5.8 N-m (0.6 kg-m, 51.4 in-lb)



13. Slide the outside handle bracket toward the rear of the vehicle, and remove the assembly.

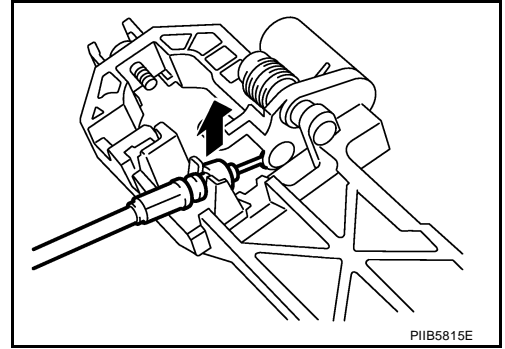


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FRONT DOOR LOCK

14. If equipped, disconnect the door lock assembly electrical connector.
15. Separate the outside handle cable from the outside handle bracket.



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- To install the rod, be sure to rotate the rod holders until a click is felt.

REAR DOOR LOCK

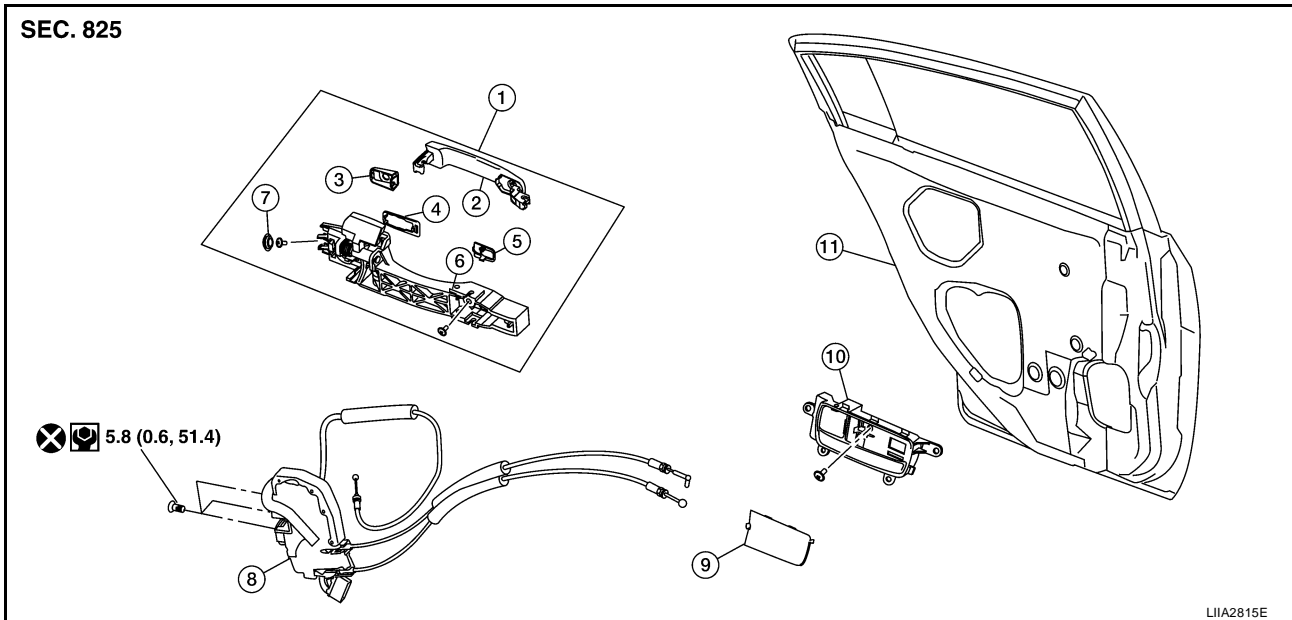
PFP:82502

REAR DOOR LOCK

Component Parts Location

EIS00BA3

SEC. 825



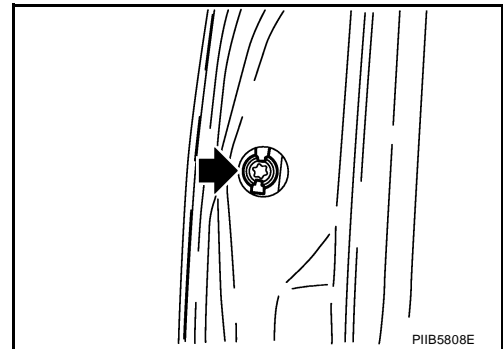
- | | | |
|---------------------------------|----------------------------|------------------------------|
| 1. Outside door handle assembly | 2. Outside handle | 3. Outside handle escutcheon |
| 4. Rear gasket | 5. Front gasket | 6. Outside handle bracket |
| 7. Grommet | 8. Rear door lock assembly | 9. Inside door handle cap |
| 10. Inside door handle assembly | 11. Rear door assembly | |

Removal and Installation

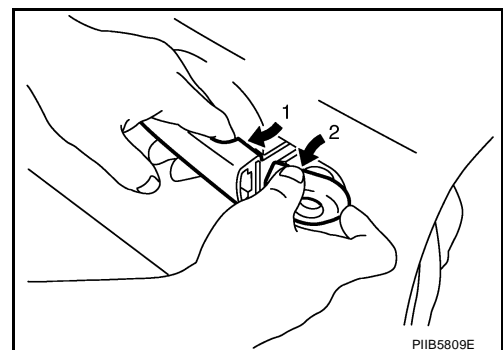
REMOVAL

EIS00BA4

1. Remove the partition glass. Refer to [GW-52. "REAR DOOR GLASS AND REGULATOR"](#).
2. Support door glass while lifting it up to the door window completely closed position.
3. Remove the door side grommet, and the outside handle escutcheon screw.



4. Pull the outside handle forward (1), while removing outside handle escutcheon (2).

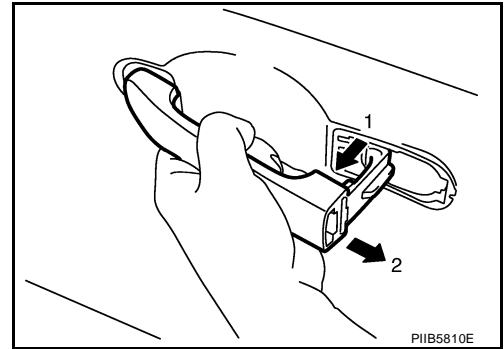


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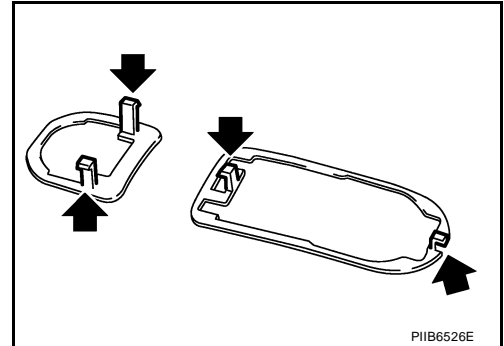
BL

REAR DOOR LOCK

5. Pull outside door handle forward (1), and slide it toward the rear of the vehicle to remove (2).

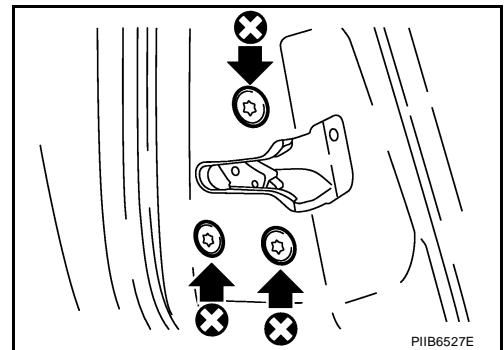


6. Remove the front and rear gaskets.

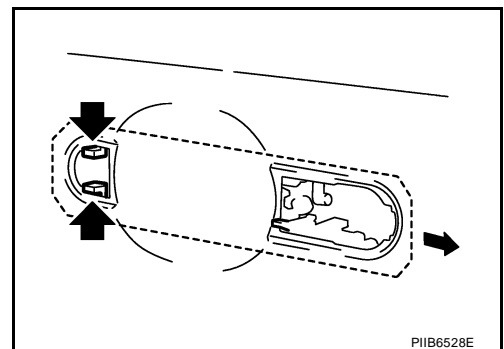


7. Remove the door lock assembly screws.

 : 5.8 N·m (0.6 kg·m, 51.4 in·lb)



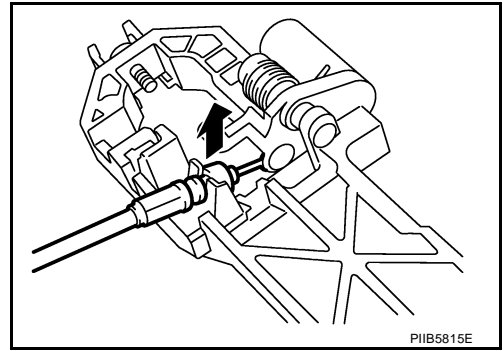
8. Slide the outside handle bracket toward the rear of vehicle, remove the outside handle bracket and the door lock assembly.



9. If equipped, disconnect the door lock assembly electrical connector.

REAR DOOR LOCK

10. Disconnect the outside handle cable from the outside handle bracket.



INSTALLATION

Installation is in the reverse order of removal.

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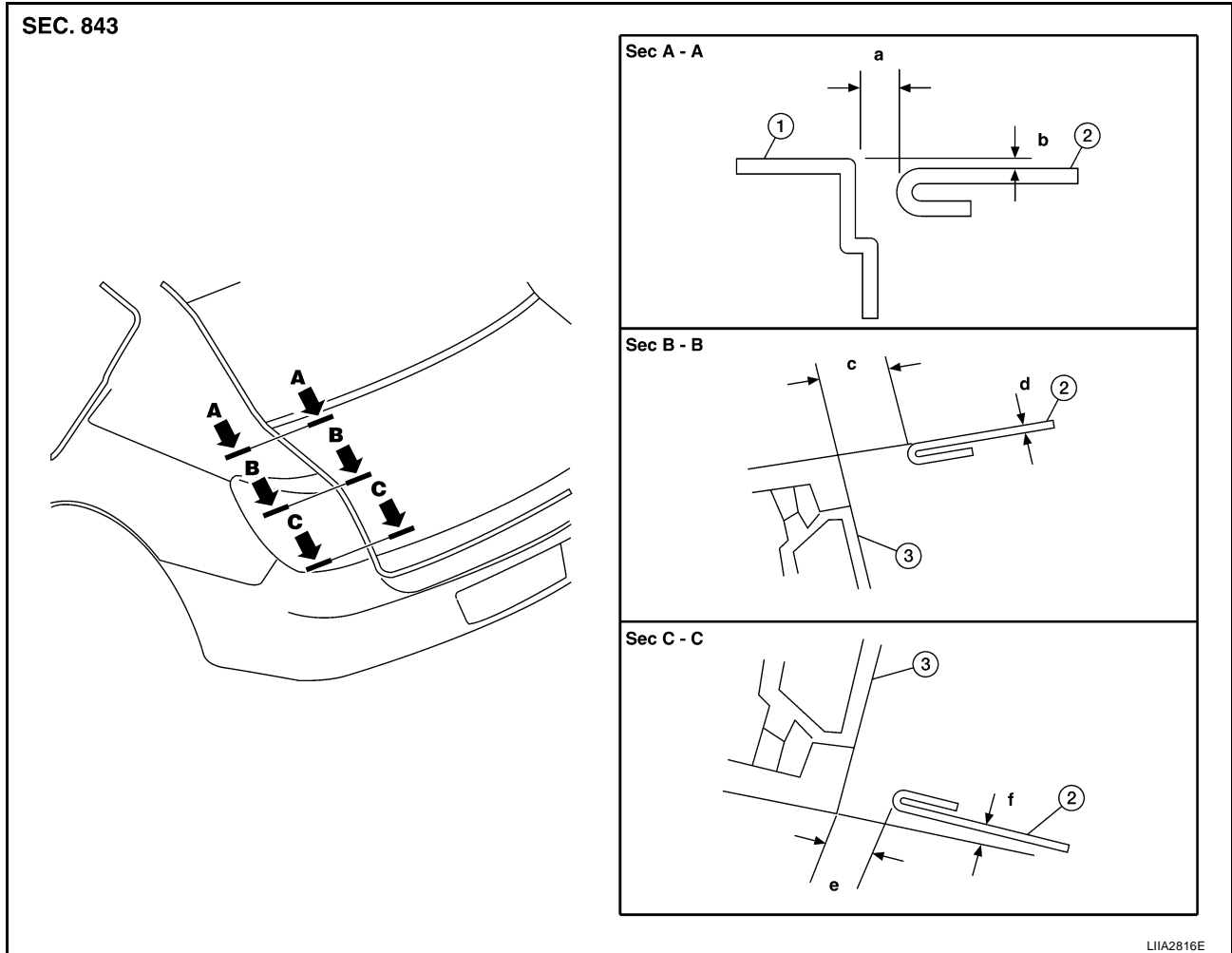
TRUNK LID

TRUNK LID

PFPH4300

Fitting Adjustment

EIS00BD6



LONGITUDINAL AND LATERAL CLEARANCE ADJUSTMENT

1. With the striker released, loosen the trunk lid hinge nuts and close the trunk lid.
2. Make the lateral clearance and the clearance to the rear window glass equal. Then open the trunk lid to tighten the nuts.

SURFACE HEIGHT ADJUSTMENT

1. Loosen the striker bolts. Raise the striker to the top position, and temporarily tighten the upper bolt.
2. Close the trunk lid lightly and adjust the surface height. Then open the trunk lid and tighten the striker bolts.

TRUNK LID

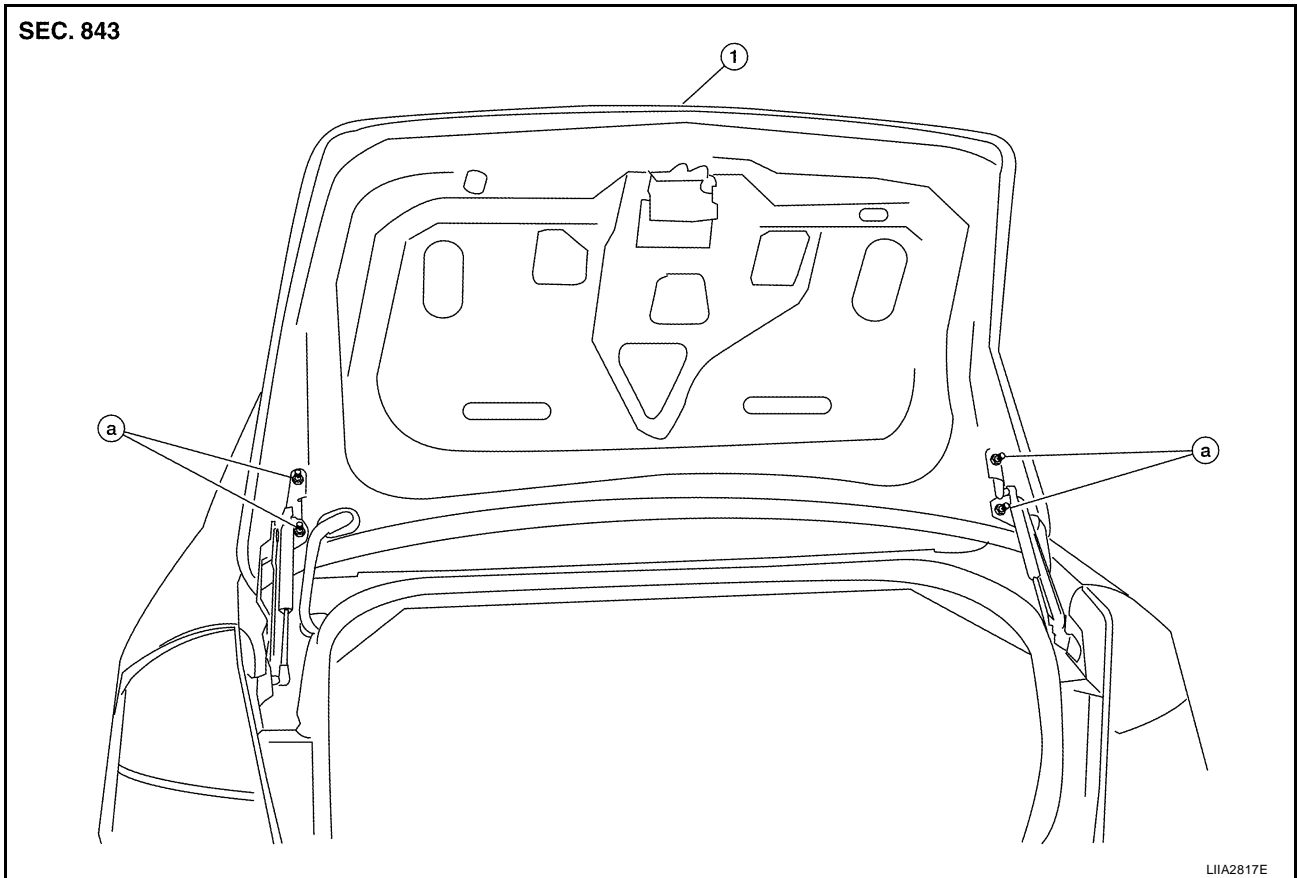
EIS00BD7

Trunk Lid Assembly

REMOVAL

1. Remove the trunk lid finisher. Refer to [EI-42, "TRUNK ROOM TRIM & TRUNK LID FINISHER"](#) .
2. Remove the trunk lid wire harness.
3. Remove the nuts (a) and the trunk lid assembly (1).

SEC. 843



LIA2817E

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

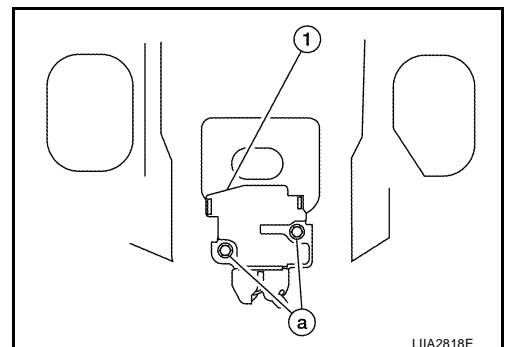
After installing, apply touch-up paint (body color) to the head of the hinge nuts.

Trunk Lid Lock

REMOVAL

1. Remove the trunk lid finisher. Refer to [EI-42, "TRUNK ROOM TRIM & TRUNK LID FINISHER"](#) .
2. If equipped, disconnect the trunk lid lock cylinder rod.
3. Remove the release cable.
4. Remove the bolts (a) and the trunk lid lock (1).

EIS00BD8



LIA2818E

INSTALLATION

Installation is in the reverse order of removal.

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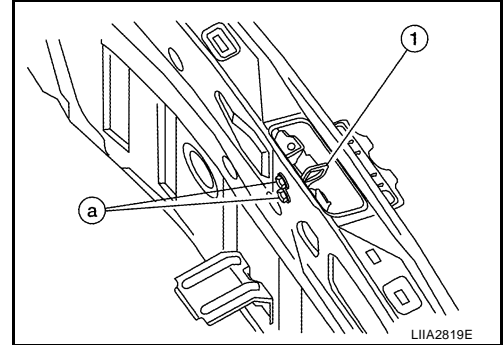
TRUNK LID

EIS00BDB

Trunk Lid Striker

REMOVAL

1. Remove the trunk rear plate and trunk rear finisher. Refer to [EI-42, "TRUNK ROOM TRIM & TRUNK LID FINISHER"](#) .
2. Remove the bolts, disconnect the electrical connector and remove the trunk lock actuator.
3. Remove the bolt and disconnect the trunk lid release cable.
4. Remove the bolts (a) and the trunk lid striker (1).



INSTALLATION

Installation is in the reverse order of removal.

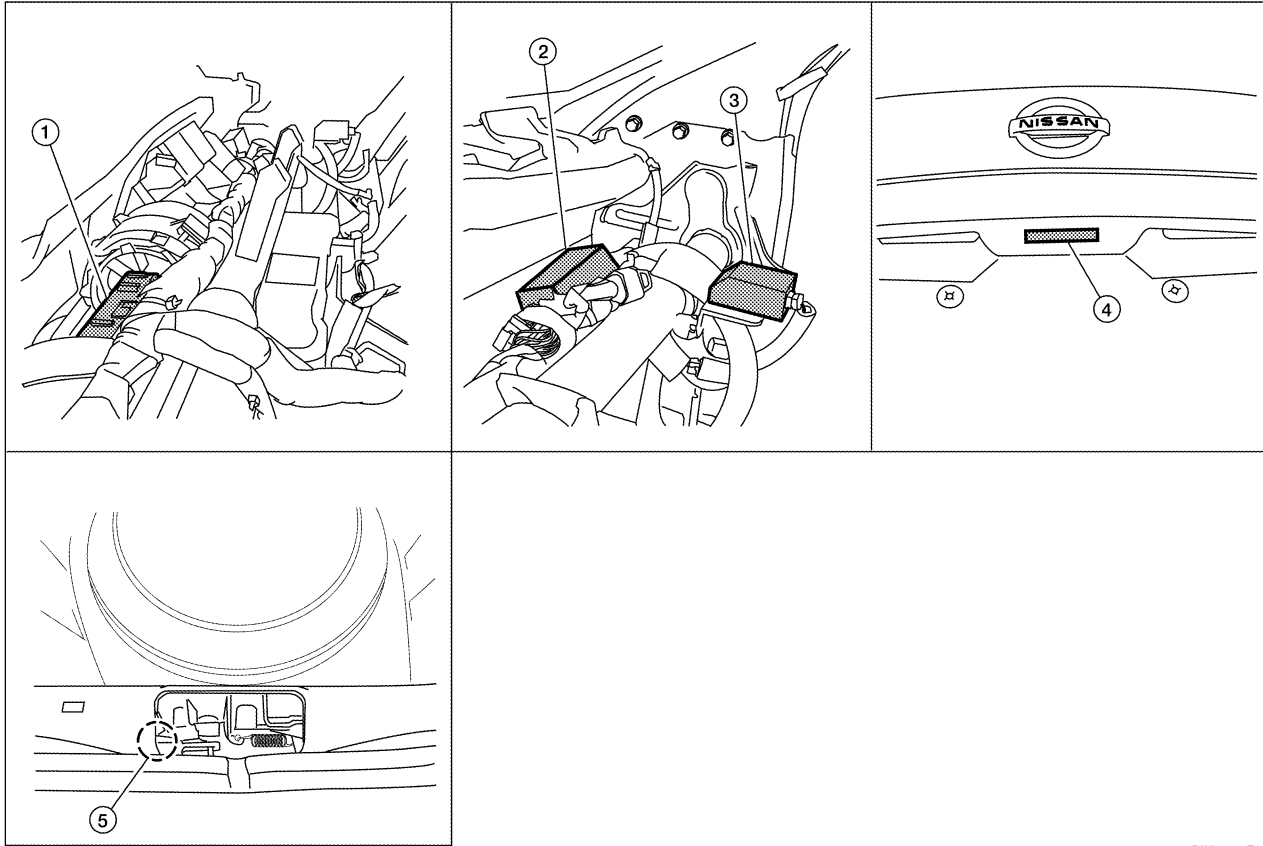
TRUNK LID OPENER

PFP:84640

TRUNK LID OPENER

Component Parts and Harness Connector Location

EIS00BA5



1. BCM M18, M19, M20
(view with instrument panel removed)

2. Intelligent Key unit M42
(with Intelligent Key)
(view with instrument panel removed)

3. Remote keyless entry receiver M15
(without Intelligent Key)

4. Trunk opener request switch T5
(with Intelligent Key)

5. Trunk lid opener actuator B59

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TRUNK LID OPENER

EIS00BA6

System Description

Power is supplied at all times

- through 50A fusible link (letter j, located in fuse and fusible link box)
- to BCM terminal 70
- through 10A fuse [No. 21, located in fuse block (J/B)]
- to BCM terminal 57
- through 10A fuse [No. 9, located in fuse block (J/B)]
- to Intelligent Key unit terminal 11 (with Intelligent Key).

Ground is supplied

- to BCM terminal 67 and
- to Intelligent Key unit terminal 12 (with Intelligent Key)
- through body grounds M57 and M61.

Then power is supplied

- through BCM terminal 53
- to trunk lid opener actuator terminal 1.

Ground is supplied

- to trunk lid opener actuator terminal 2
- through body grounds B7 and B19.

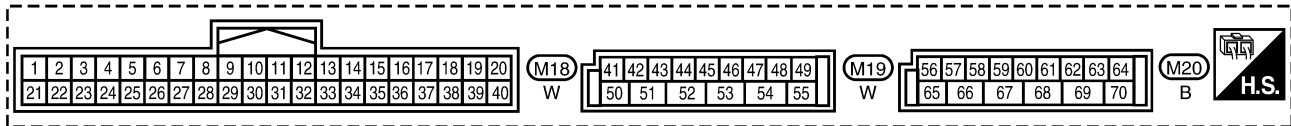
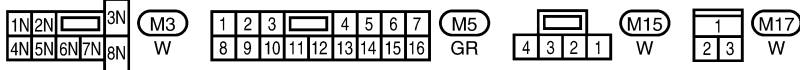
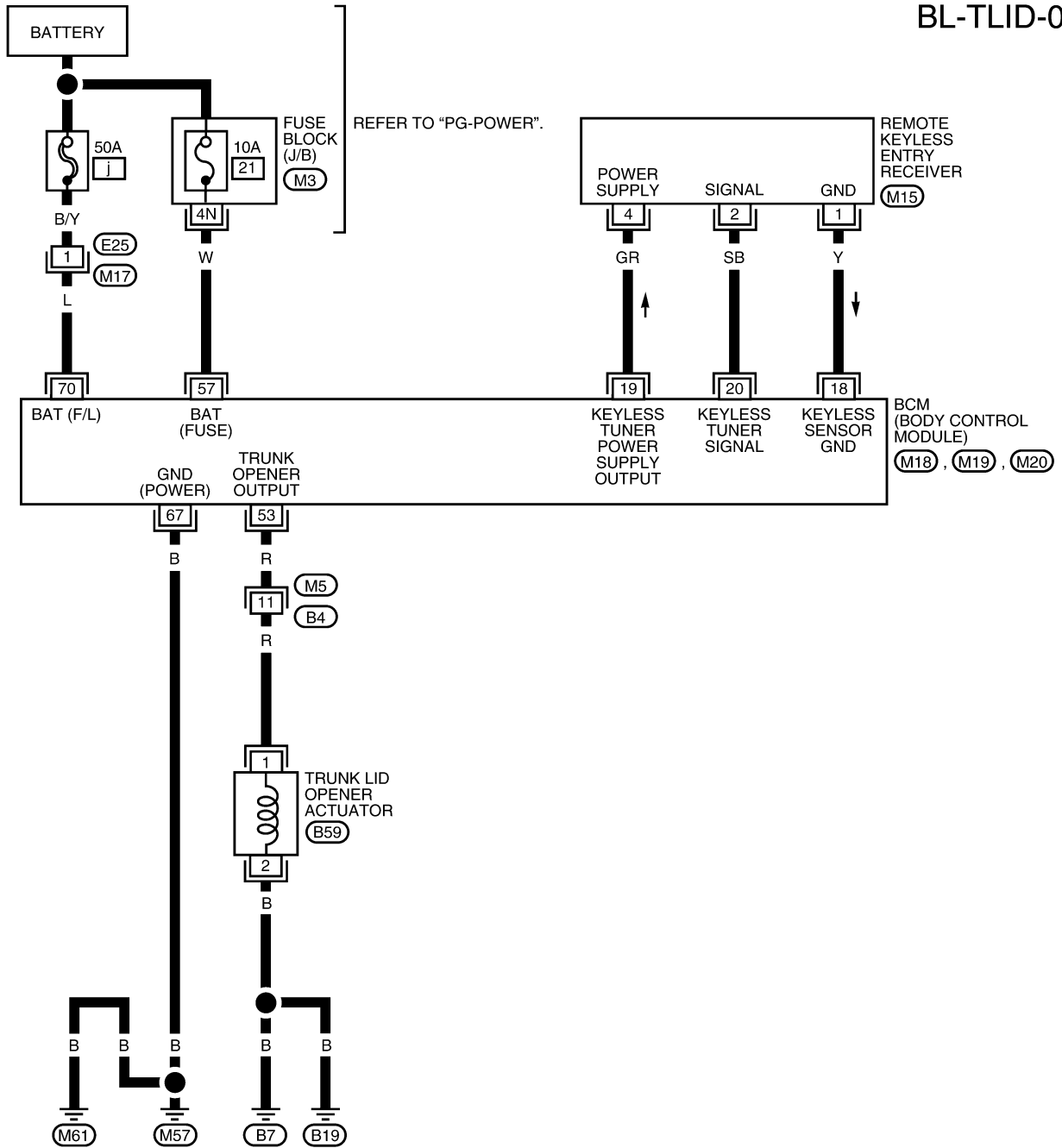
Then BCM operates trunk lid opener actuator.

TRUNK LID OPENER

EIS00BA7

Wiring Diagram — TLID — WITHOUT INTELLIGENT KEY

BL-TLID-01



WIWA2204E

TRUNK LID OPENER

Terminals and Reference Values for BCM

EIS00BA8

Refer to [BCS-13, "Terminals and Reference Values for BCM"](#) .

Terminals and Reference Values for Intelligent Key Unit

EIS00BA9

Refer to [BL-100, "Terminals and Reference Values for Intelligent Key Unit"](#) .

CONSULT-III Function (BCM)

EIS00BAA

CONSULT-III can display each diagnostic item using the diagnostic test modes shown following.

BCM diagnostic test item	Diagnostic mode	Description
Inspection by part	WORK SUPPORT	Supports inspections and adjustments. Commands are transmitted to the BCM for setting the status suitable for required operation, input/output signals are received from the BCM and received date is displayed.
	DATA MONITOR	Displays BCM input/output data in real time.
	ACTIVE TEST	Operation of electrical loads can be checked by sending drive signal to them.
	SELF-DIAG RESULTS	Displays BCM self-diagnosis results.
	CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.
	ECU PART NUMBER	BCM part number can be read.
	CONFIGURATION	Performs BCM configuration read/write functions.

CONSULT-III APPLICATION ITEMS

Data Monitor

Monitor item	Content
IGN ON SW	Indicates [ON/OFF] condition of ignition switch.
KEYLESS TRUNK**	Indicates [ON/OFF] condition of trunk release signal from keyfob.
I-KEY TRUNK*	Momentarily indicates [ON/OFF] condition of trunk open signal from trunk opener request switch.
TRNK OPNR SW**	This is displayed even when it is not equipped.
VEHICLE SPEED	Indicates vehicle speed.

* : With Intelligent Key system

** : Without Intelligent Key system

Active Test

Test item	Content
TRUNK/BACK DOOR	This test is able to check trunk lid opener actuator unlock operation. Actuator opens trunk lock assembly when "OPEN" on CONSULT-III screen is touched.

Work Flow

EIS00BAB

1. Check the symptom and customer's requests.
2. Understand the outline of system. Refer to [BL-160, "System Description"](#) .
3. Repair or replace any malfunctioning parts. Refer to [BL-164, "Trouble Diagnosis Chart by Symptom"](#) .
4. Does trunk lid opener operate normally? If Yes, GO TO 5. If No, GO TO 3.
5. Inspection end.

TRUNK LID OPENER

Trouble Diagnosis Chart by Symptom

EIS00BAC

Symptom	Diagnoses/service procedure	Reference page
Trunk lid release switch does not operate. (Without Intelligent Key system)	1. Check BCM power supply and ground circuit.	BCS-16
	2. Check keyfob battery and function. NOTE: If the result of keyfob function check with CONSULT-III is OK, keyfob is not malfunctioning.	BL-64
	3. Check remote keyless entry receiver.	BL-70
	4. Check trunk lid opener actuator.	BL-167
	5. Replace BCM.	BCS-21
Trunk lid release does not operate. (With Intelligent Key system)	1. Check Intelligent Key power supply and ground circuit.	BL-117
	2. Check BCM power supply and ground circuit.	BCS-16
	3. Intelligent Key battery inspection check.	BL-142
	4. Remote Keyless Entry Function check.	BL-142
	5. Check trunk opener request switch.	BL-165
	6. Check trunk lid opener actuator.	BL-167
	7. Replace Intelligent Key unit.	BL-143

Terminals and Reference Values for BCM

EIS00BD9

Refer to [BCS-13, "Terminals and Reference Values for BCM"](#) .

Terminals and Reference Values for Intelligent Key Unit

EIS00BD9

Refer to [BL-100, "Terminals and Reference Values for Intelligent Key Unit"](#) .

BCM Power Supply and Ground Circuit Check

EIS00BAD

Refer to [BCS-16, "BCM Power Supply and Ground Circuit Check"](#) .

Intelligent Key Unit Power Supply and Ground Circuit Check

EIS00BAD

Refer to [BL-117, "Power Supply and Ground Circuit Check"](#) .

TRUNK LID OPENER

EIS00BAG

Check Trunk Opener Request Switch Circuit (With Intelligent Key)

1. CHECK TRUNKOPENER REQUEST SWITCH SIGNAL

With CONSULT-III

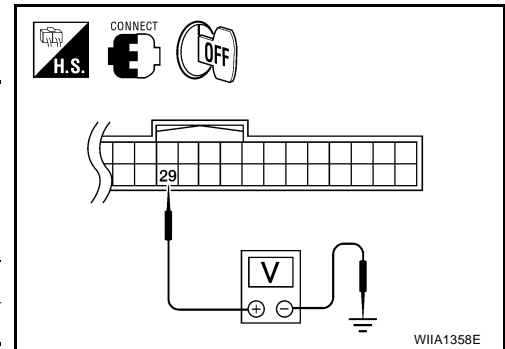
Check trunk opener request switch ("I-KEY TRNK") in "DATA MONITOR" mode with CONSULT-III.

Test item	Condition
I-KEY TRNK	trunk opener request switch is pushed: ON (momentarily)
	trunk opener request switch is released: OFF

Without CONSULT-III

Check voltage between Intelligent Key unit connector M42 terminal 29 and ground.

Terminals		Door condition	Voltage (V) (Approx.)	
(+)	(-)			
Intelligent Key unit connector	Terminal			
M42	29	Ground	trunk opener request switch Pushed	0
			Released	5



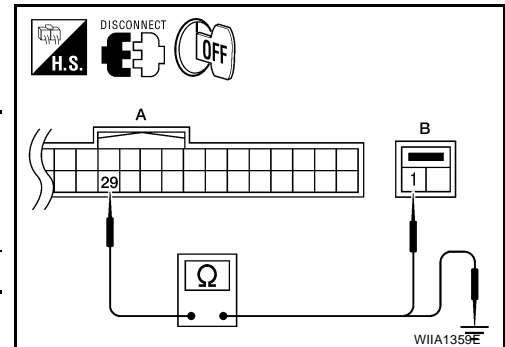
OK or NG

- OK >> Trunk opener request switch is OK.
- NG >> GO TO 2.

2. CHECK TRUNK OPENER REQUEST SWITCH CIRCUIT 1

1. Turn ignition switch OFF.
2. Disconnect Intelligent Key unit and trunk opener request switch connector.
3. Check continuity between Intelligent Key unit connector M42 (A) terminal 29 and trunk opener request switch connector T5 (B) terminal 1.

A		B		Continuity
Intelligent Key unit connector	Terminal	Trunk opener request switch connector	Terminal	
M42	29	T5	1	Yes



4. Check continuity between Intelligent Key unit connector M42 (A) terminal 29 and ground.

A		Ground	Continuity
Intelligent Key unit connector	Terminal		
M42	29		No

OK or NG

- OK >> GO TO 3.
- NG >> Repair or replace harness.

TRUNK LID OPENER

3. CHECK TRUNK OPENER REQUEST SWITCH

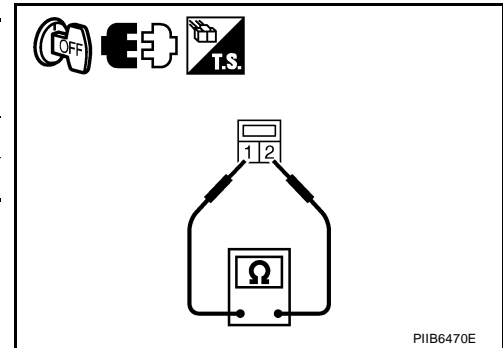
Check continuity between trunk opener request switch terminals 1 and 2.

Terminal		Trunk opener request switch condition	Continuity
Trunk opener request switch			
1	2	Pushed	Yes
		Released	No

OK or NG

OK >> GO TO 4.

NG >> Replace trunk opener request switch.



4. CHECK TRUNK OPENER REQUEST SWITCH GROUND CIRCUIT

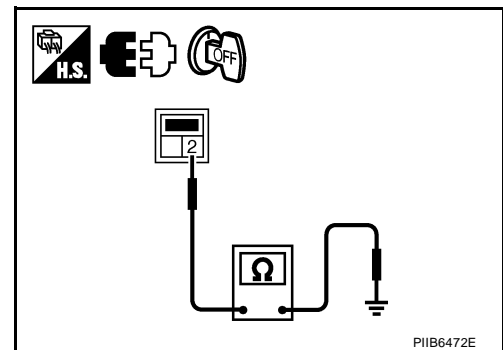
Check continuity between trunk opener request switch connector terminal 2 and ground.

Trunk opener request switch connector	Terminal	Ground	Continuity
T5	2		Yes

OK or NG

OK >> GO TO 5.

NG >> Repair or replace harness.



5. CHECK INTELLIGENT KEY UNIT OUTPUT SIGNAL

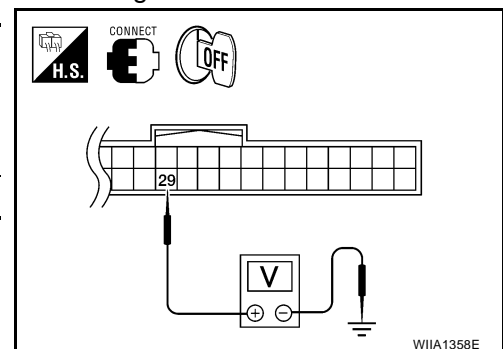
1. Connect Intelligent Key unit connector.
2. Check voltage between Intelligent Key unit connector M42 terminal 29 and ground.

Terminals		Voltage (V) (Approx.)
(+)	(-)	
Intelligent Key unit connector	Terminal	
M42	29	Ground
		5

OK or NG

OK >> Check the condition of harness and connector.

NG >> Replace Intelligent Key unit. Refer to [BL-143, "Removal and Installation of Intelligent Key Unit"](#) .



TRUNK LID OPENER

EIS00BAH

Check Trunk Lid Opener Actuator Circuit

1. CHECK TRUNK LID OPENER ACTUATOR FUNCTION

With CONSULT-III

Check the operation with ("TRUNK/BACK DOOR") in the ACTIVE TEST.

Does trunk lid opener actuator operate normally?

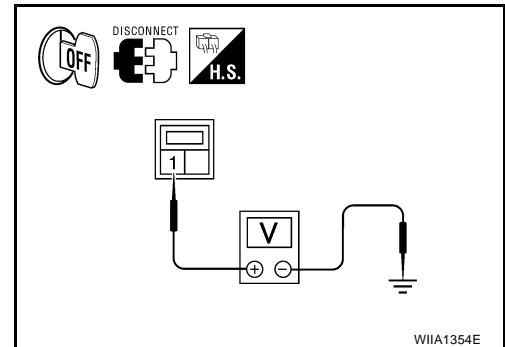
YES or NO

- YES >> Trunk lid opener actuator circuit is OK.
- NO >> GO TO 2.

2. CHECK TRUNK LID OPENER ACTUATOR POWER SUPPLY

1. Turn ignition switch OFF.
2. Disconnect trunk lid opener actuator connector.
3. Check voltage between trunk lid opener actuator connector B59 terminal 1 and ground.

Terminals		Condition	Voltage (V) (Approx.)
(+)	(-)		
Trunk lid opener actuator connector	Terminal		
B59	1	Keyfob trunk release button Pushed	0 ↓ Battery voltage ↓ 0
		Released	0



OK or NG

- OK >> GO TO 3.
- NG >> GO TO 4.

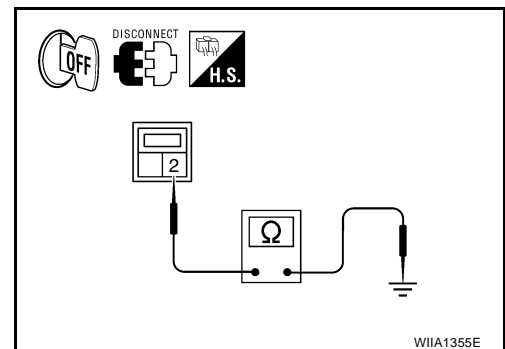
3. CHECK TRUNK LID OPENER ACTUATOR GROUND CIRCUIT

Check continuity between trunk lid opener actuator connector B59 terminal 2 and ground.

Trunk lid opener actuator connector	Terminal	Ground	Continuity
B59	2		Yes

OK or NG

- OK >> Replace trunk lid opener actuator. Refer to [BL-157](#), "Trunk Lid Lock".
- NG >> Repair or replace harness.



TRUNK LID OPENER

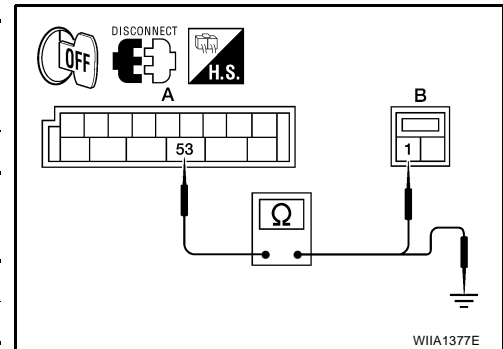
4. CHECK TRUNK LID OPENER ACTUATOR CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between BCM connector M19 (A) terminal 53 and trunk lid opener actuator connector B59 (B) terminal 1.

A		B		Continuity
BCM connector	Terminal	Trunk lid opener actuator connector	Terminal	
M19	53	B59	1	Yes

3. Check continuity between BCM connector M19 (A) terminal 53 and ground.

BCM connector	Terminal	Ground	Continuity
M19	53		No



OK or NG

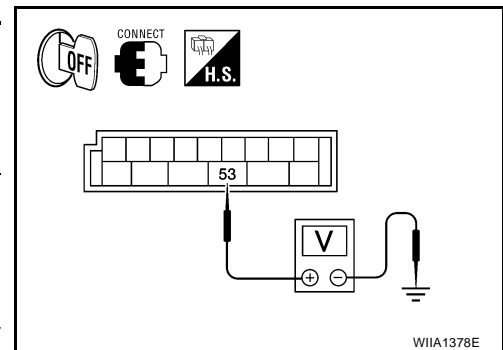
OK >> GO TO 5.

NG >> Repair or replace harness between BCM and trunk lid opener actuator.

5. CHECK BCM OUTPUT SIGNAL

1. Reconnect BCM connector.
2. Check voltage between BCM connector M19 terminal 53 and ground.

Terminals			Condition	Voltage (V) (Approx.)	
(+)		(-)			
BCM connector	Terminal				
M19	53	Ground	Keyfob trunk release button	Pushed	0 ↓ Battery voltage ↓ 0
				Released	0



OK or NG

OK >> Check the condition of harness and connector.

NG >> Replace BCM. Refer to [BCS-21, "Removal and Installation of BCM"](#) .

FUEL FILLER LID OPENER

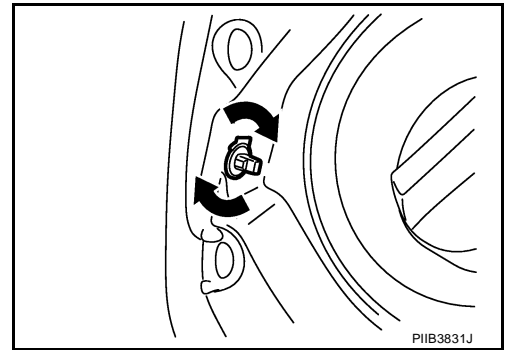
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FUEL FILLER LID OPENER

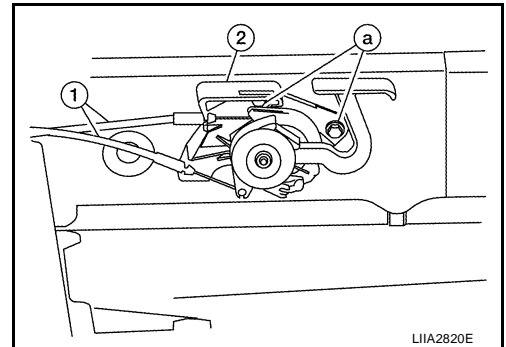
Removal

EIS00BAI

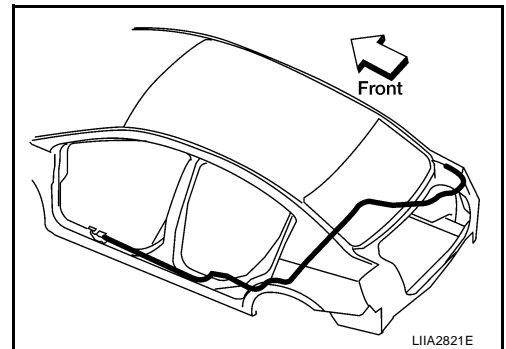
1. Remove trunk side finisher (RH). Refer to [EI-42, "TRUNK ROOM TRIM & TRUNK LID FINISHER"](#).
2. Remove fuel filler lock.
3. Remove rear seat cushion assembly. Refer to [SE-16, "REAR SEAT"](#).



4. Remove front kicking plate and rear kicking plate. Refer to [EI-32, "BODY SIDE TRIM"](#).
5. Remove the trunk and fuel lid opener control cover.
6. Remove the bolts (a), disconnect the cables (1), and remove the trunk and fuel lid opener control (2).



7. Remove fuel filler lid opener cable and clips from the vehicle.



Installation

EIS00BD5

Installation is in the reverse order of removal.

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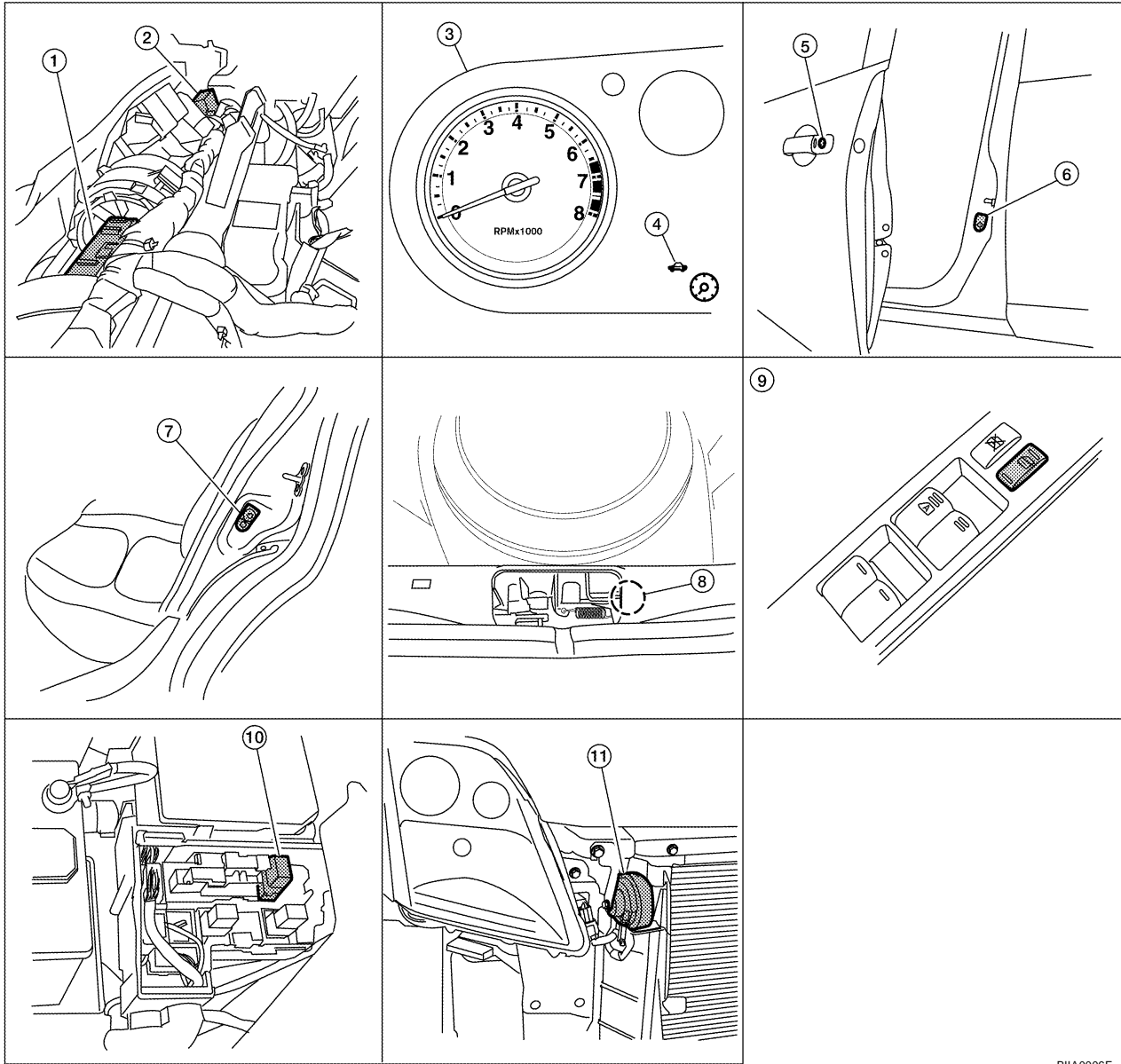
VEHICLE SECURITY (THEFT WARNING) SYSTEM

VEHICLE SECURITY (THEFT WARNING) SYSTEM

PF:28491

Component Parts and Harness Connector Location

EIS00BAJ



BIIA0006E

- | | | |
|--|---|--|
| 1. BCM M18, M19, M20
(view with instrument panel removed) | 2. Intelligent Key unit M42 | 3. Combination meter M24 |
| 4. Security indicator lamp | 5. Front door key cylinder switch LH D9 | 6. Front door switch LH B21, RH B28 |
| 7. Rear door switch LH B26, RH B41 | 8. Trunk room lamp switch B57 | 9. Main power window and door lock/
unlock switch D5
Power window and door lock/unlock
switch RH D104 |
| 10. Horn relay H-1 | 11. Horn E57, E58 | |

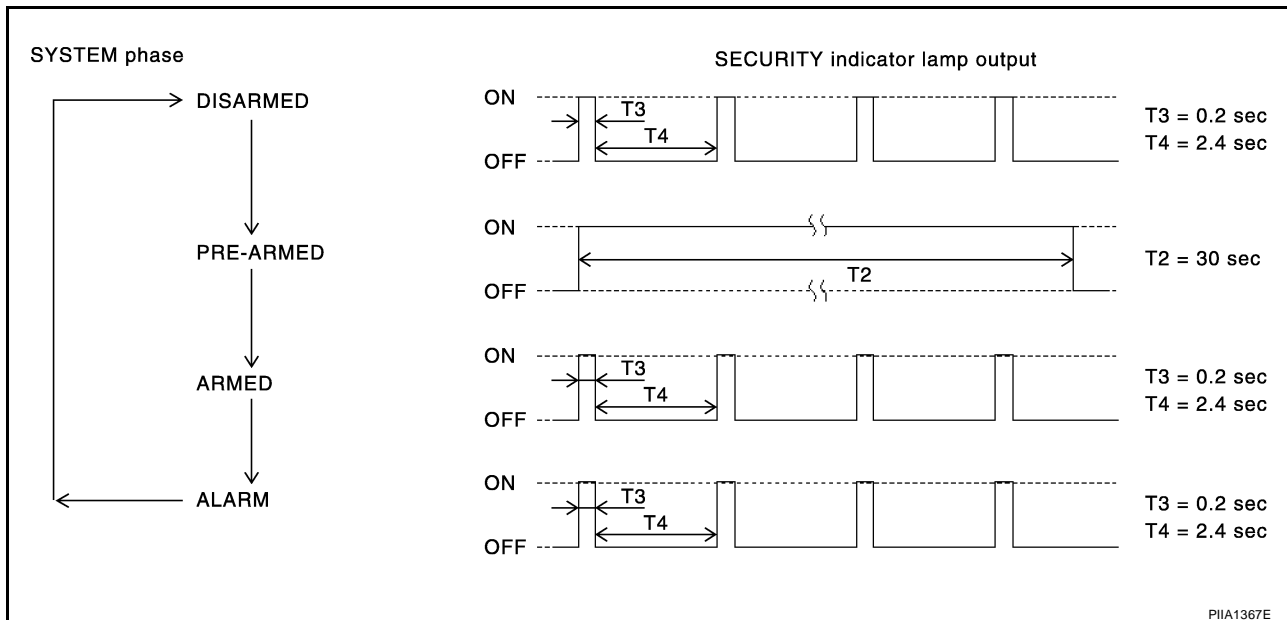
VEHICLE SECURITY (THEFT WARNING) SYSTEM

EIS00BAK

System Description

DESCRIPTION

Operation Flow



Setting the vehicle security system

Initial condition

- Ignition switch is in OFF position.

Disarmed phase

- When the vehicle is being driven or when any door is open, the vehicle security system is set in the disarmed phase on the assumption that the owner is inside or near the vehicle.

Pre-armed phase and armed phase

- The vehicle security system turns into the "pre-armed" phase (security lamp illuminates) when the BCM receives LOCK signal from front door key cylinder switch, keyfob or Intelligent Key after all doors are closed.
- All doors are closed after front doors are locked by key or door lock and unlock switch.

The security indicator lamp illuminates for 30 seconds. then, the system automatically shifts into the "armed" phase.

Canceling the set vehicle security system

The armed phase is canceled when the driver unlocks the doors with the key, keyfob or Intelligent Key.

Activating the alarm operation of the vehicle security system

Make sure the system is in the armed phase.

When one of the following operations is performed, the system sounds the horn and flashes the headlamps for about 50 seconds.

1. Any door is opened before unlocking door with key, keyfob or Intelligent Key.
2. Door is unlocked without using key, keyfob or Intelligent Key.

POWER SUPPLY AND GROUND

Power is supplied at all times

- through 10A fuse [No.19, located in the fuse block (J/B)]
- to combination meter terminal 1 (security indicator lamp)
- through 50A fusible link (letter j , located in the fuse and fusible link box)
- to BCM terminal 70
- through 10A fuse [No. 21, located in the fuse block (J/B)]
- to BCM terminal 57

VEHICLE SECURITY (THEFT WARNING) SYSTEM

- through 10A fuse (No. 25, located in the fuse and fusible link box)
- to horn relay terminal 2
- through 15A fuse (No. 52, located in the IPDM E/R)
- to IPDM E/R internal CPU
- through 20A fuse (No. 53, located in the IPDM E/R)
- to IPDM E/R internal CPU.

With the ignition switch in the ACC or ON position, power is supplied

- through 10A fuse [No. 6, located in the fuse block (J/B)]
- to BCM terminal 11.

With the ignition switch in the ON or START position, power is supplied

- through 10A fuse [No. 12, located in the fuse block (J/B)]
- to BCM terminal 38.

Ground is supplied

- to BCM terminal 67
- through body grounds M57 and M61.

INITIAL CONDITION TO ACTIVATE THE SYSTEM

The operation of the vehicle security system is controlled by the doors and trunk.

To activate the vehicle security system, BCM must receive signals indicating the ignition switch is OFF, doors and trunk are closed and locked.

When a door or trunk is open, BCM terminal 12, 13, 42, 47 or 48 receives a ground signal from each switch.

When front door LH is unlocked, BCM terminal 46 receives a signal from terminal 11 of main power window and door lock/unlock switch.

When front door RH is unlocked, BCM terminal 46 receives a signal from terminal 2 of power window and door lock/unlock switch RH.

VEHICLE SECURITY SYSTEM ALARM OPERATION

The vehicle security system is triggered by

- opening a door
- opening the trunk
- unlocking door or trunk without using the key, keyfob or Intelligent Key.

The vehicle security system will be triggered once the system is in armed phase,

- when BCM receives a ground signal at terminals 12, 13, 47, 48 (front or rear door switch), or terminal 42 (trunk switch).

When the vehicle security system is triggered, ground is supplied intermittently

- from IPDM E/R terminal 13
- to horn relay terminal 1.

The headlamps flash and the horn sounds intermittently.

The alarm automatically turns off after 50 seconds, but will reactivate if the vehicle is tampered with again.

VEHICLE SECURITY SYSTEM DEACTIVATION

To deactivate the vehicle security system, a door must be unlocked with the key, keyfob or Intelligent Key.

When the key is used to unlock the driver door, BCM terminal 7 receives signal

- from terminal 5 of the front door key cylinder switch LH.

When the BCM receives this signal or unlock signal from keyfob or Intelligent Key or front door key cylinder switch LH, the vehicle security system is deactivated. (Disarmed phase)

PANIC ALARM OPERATION

Intelligent Key and remote keyless entry system may or may not operate vehicle security system (horn and headlamps) as required.

When the remote keyless entry system is triggered, ground is supplied intermittently

- from IPDM E/R terminal 13
- to horn relay terminal 1.

The headlamp flashes and the horn sounds intermittently.

VEHICLE SECURITY (THEFT WARNING) SYSTEM

The alarm automatically turns off after 25 seconds or when BCM receives any signal from keyfob or Intelligent Key.

CAN Communication System Description

EIS00BAL

Refer to [LAN-4, "SYSTEM DESCRIPTION"](#) .

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VEHICLE SECURITY (THEFT WARNING) SYSTEM

Wiring Diagram — VEHSEC —

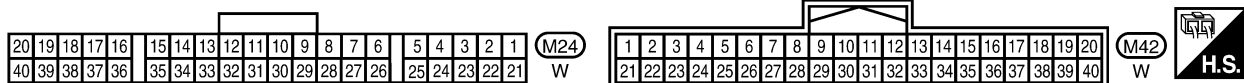
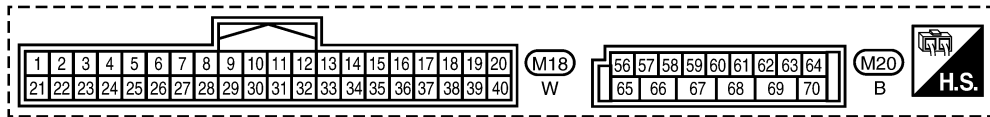
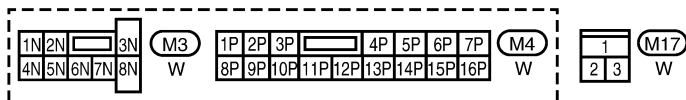
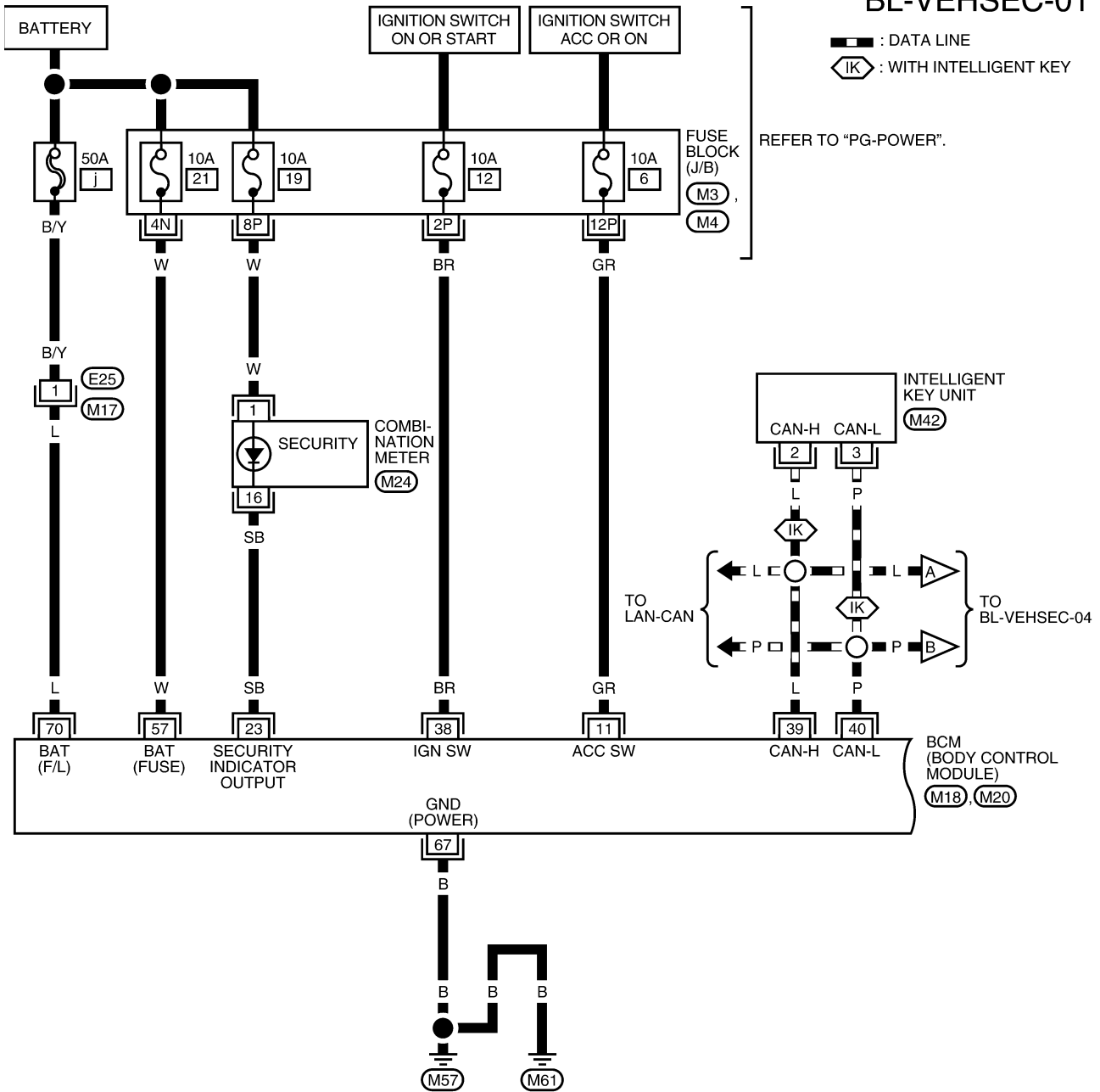
EIS00BAN

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BL-VEHSEC-01

— : DATA LINE
 IK : WITH INTELLIGENT KEY

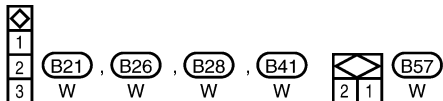
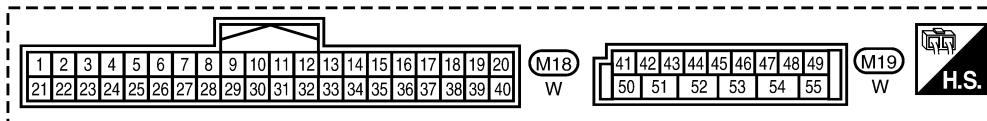
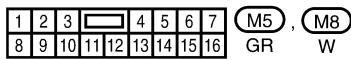
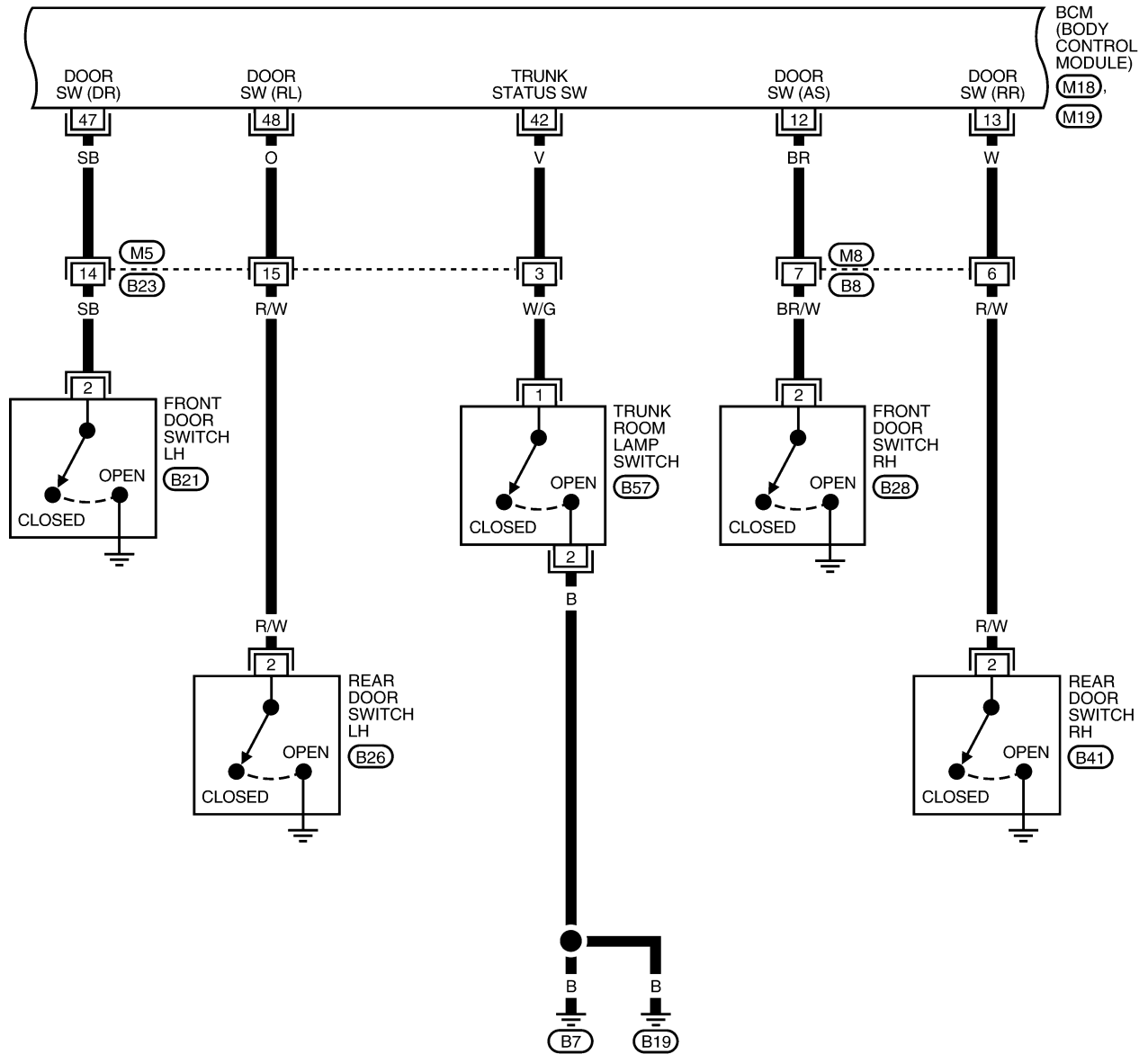
REFER TO "PG-POWER".



WIWA2191E

VEHICLE SECURITY (THEFT WARNING) SYSTEM

BL-VEHSEC-02

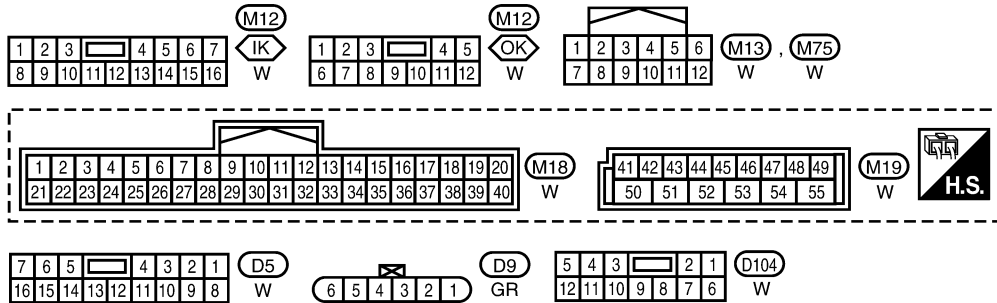
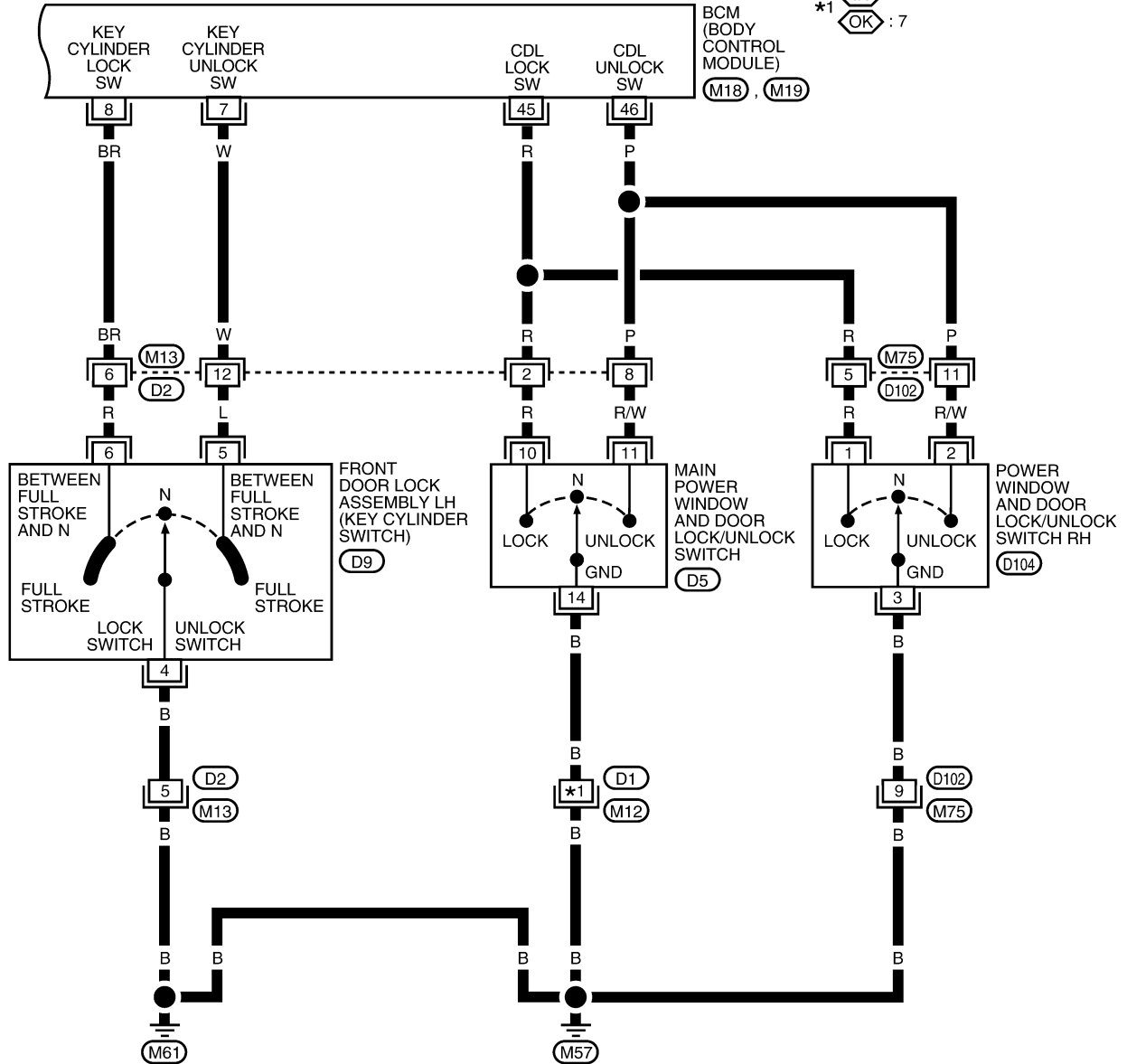


WIWA2192E

VEHICLE SECURITY (THEFT WARNING) SYSTEM

BL-VEHSEC-03

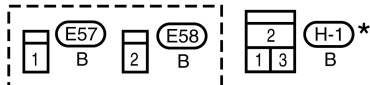
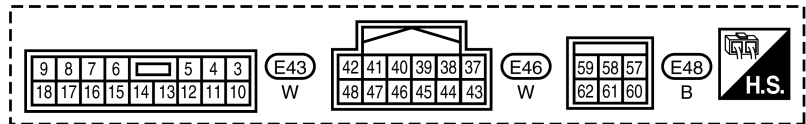
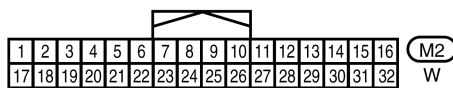
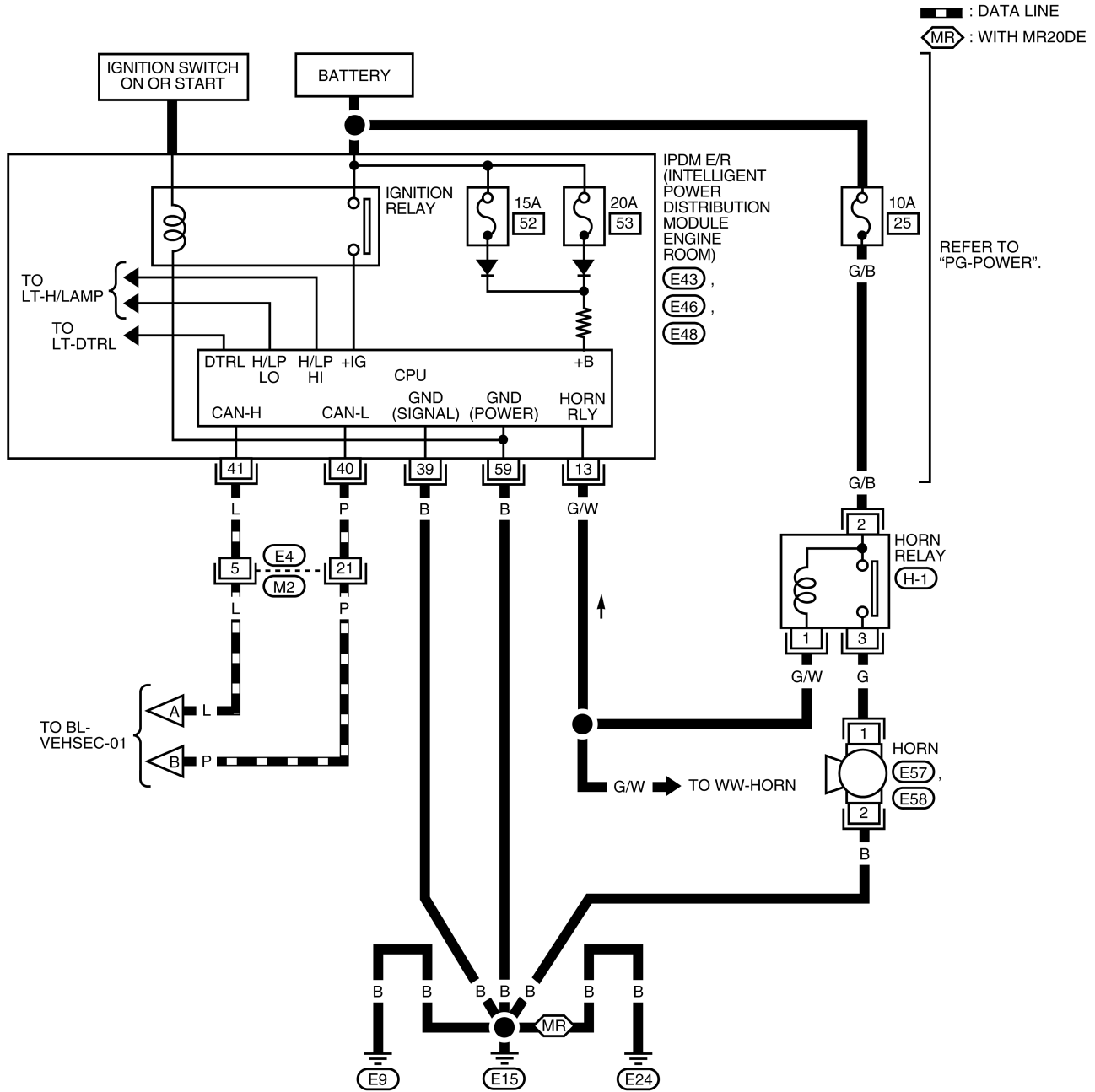
IK : WITH INTELLIGENT KEY
OK : WITHOUT INTELLIGENT KEY
 *1 IK : 9
OK : 7



W1WA2193E

VEHICLE SECURITY (THEFT WARNING) SYSTEM

BL-VEHSEC-04



*: THIS CONNECTOR IS NOT SHOWN IN "HARNES LAYOUT" OF PG SECTION.

WIWA2325E

VEHICLE SECURITY (THEFT WARNING) SYSTEM

Terminals and Reference Values for BCM

EIS00BA0

Refer to [BCS-13, "Terminals and Reference Values for BCM"](#) .

Terminals and Reference Values for Intelligent Key Unit

EIS00BAP

Refer to [BL-100, "Terminals and Reference Values for Intelligent Key Unit"](#) .

CONSULT-III Function (BCM)

EIS00BAQ

CONSULT-III can display each diagnostic item using the diagnostic test modes shown following.

BCM diagnostic test item	Diagnostic mode	Description
Inspection by part	WORK SUPPORT	Supports inspections and adjustments. Commands are transmitted to the BCM for setting the status suitable for required operation, input/output signals are received from the BCM and received date is displayed.
	DATA MONITOR	Displays BCM input/output data in real time.
	ACTIVE TEST	Operation of electrical loads can be checked by sending drive signal to them.
	SELF-DIAG RESULTS	Displays BCM self-diagnosis results.
	CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.
	ECU PART NUMBER	BCM part number can be read.
	CONFIGURATION	Performs BCM configuration read/write functions.

CONSULT-III APPLICATION ITEM

Work Support

Test Item	Description
SECURITY ALARM SET	This mode can confirm and change security alarm ON-OFF setting.
THEFT ALM TRG	The switch which triggered vehicle security alarm is recorded. This mode is able to confirm and erase the record of vehicle security alarm. The trigger data can be erased by touching "CLEAR" on CONSULT-III screen.

Data Monitor

Monitored Item	Description
IGN ON SW	Indicates [ON/OFF] condition of ignition switch.
ACC ON SW	Indicates [ON/OFF] condition of ignition switch in ACC position.
I-KEY LOCK	Indicates [ON/OFF] condition of lock signal from keyfob.
I-KEY UNLOCK	Indicates [ON/OFF] condition of unlock signal from keyfob.
I-KEY TRUNK	Indicates [ON/OFF] condition of trunk open signal from keyfob.
TRNK OPNR SW	Indicates [ON/OFF] condition of trunk opener switch.
TRUNK CYL SW	Indicates [ON/OFF] condition of trunk key cylinder switch.
TRNK OPN MNTR	Indicates [ON/OFF] condition of trunk lid status.
DOOR SW-DR	Indicates [ON/OFF] condition of front door switch LH.
DOOR SW-AS	Indicates [ON/OFF] condition of front door switch RH.
DOOR SW-RR	Indicates [ON/OFF] condition of rear door switch RH.
DOOR SW-RL	Indicates [ON/OFF] condition of rear door switch LH.
BACK DOOR SW	Indicates [ON/OFF] condition of back door switch.
KEY CYL LK SW	Indicates [ON/OFF] condition of lock signal from key cylinder switch.
KEY CYL UN SW	Indicates [ON/OFF] condition of unlock signal from key cylinder switch.
CDL LOCK SW	Indicates [ON/OFF] condition of lock signal from door lock/unlock switch LH and RH.
CDL UNLOCK SW	Indicates [ON/OFF] condition of unlock signal from door lock/unlock switch LH and RH.

VEHICLE SECURITY (THEFT WARNING) SYSTEM

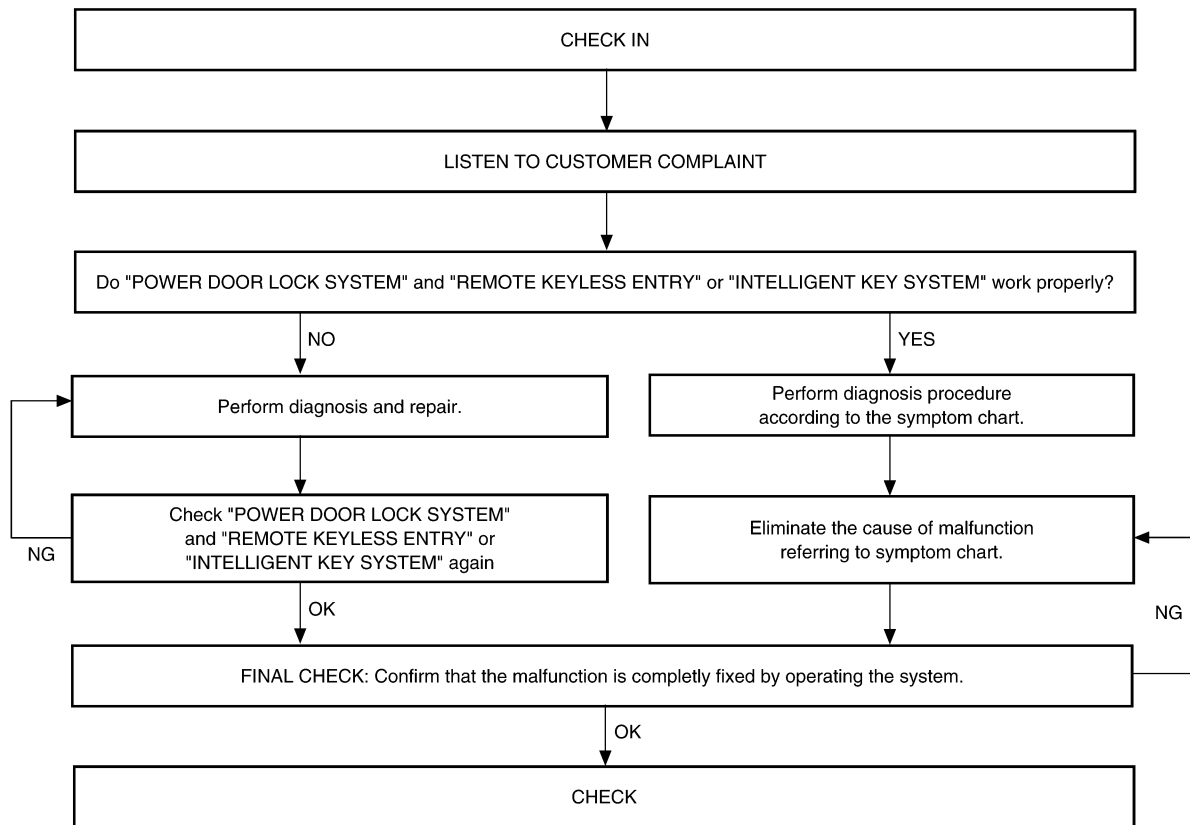
Active Test

Test Item	Description
THEFT IND	This test is able to check security indicator lamp operation. The lamp will be turned on when "ON" on CONSULT-III screen is touched.
VEHICLE SECURITY HORN	This test is able to check vehicle security horn operation. The horns will be activated for 0.5 seconds after "ON" on CONSULT-III screen is touched.
HEADLAMP (HI)	This test is able to check vehicle security lamp operation. The headlamps will be activated for 0.5 seconds after "ON" on CONSULT-III screen is touched.

VEHICLE SECURITY (THEFT WARNING) SYSTEM

Trouble Diagnosis WORK FLOW

EIS00BAR



LIA2635E

- For "POWER DOOR LOCK SYSTEM" diagnosis, refer to [BL-21, "POWER DOOR LOCK SYSTEM"](#) .
- For "INTELLIGENT KEY SYSTEM" diagnosis, refer to [BL-77, "INTELLIGENT KEY SYSTEM"](#) .
- For "REMOTE KEYLESS ENTRY SYSTEM" diagnosis, refer to [BL-52, "REMOTE KEYLESS ENTRY SYSTEM"](#) .

VEHICLE SECURITY (THEFT WARNING) SYSTEM

EIS00BAS

Preliminary Check

1. CHECK BCM CONFIGURATION

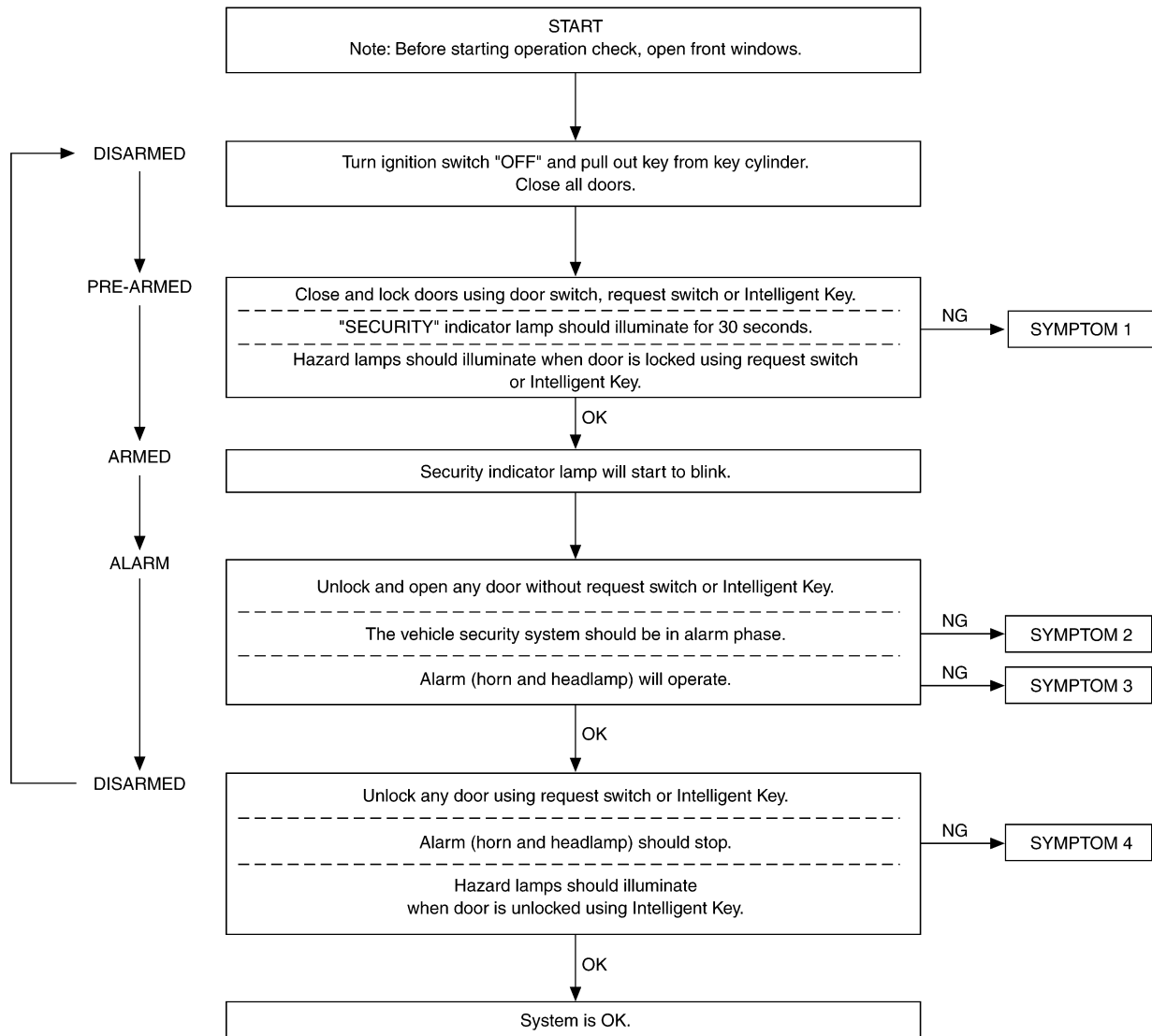
Confirm BCM configuration for "THEFT ALARM" is set to "WITH". Refer to [BCS-20, "Configuration"](#).

OK or NG

OK >> Proceed with the preliminary check to verify system operation.

NG >> Change BCM configuration for "THEFT ALARM" to "WITH". Refer to [BCS-20, "Configuration"](#).

The system operation is canceled by turning ignition switch to ACC at any step between START and ARMED in the following flow chart.



LIA2636E

After performing preliminary check, go to symptom chart. Refer to [BL-183, "Symptom Chart"](#).

VEHICLE SECURITY (THEFT WARNING) SYSTEM

Symptom Chart

E/IS00BAT

	SYMPTOM	PROCEDURE	Diagnostic procedure
1	Vehicle security system cannot be set by	All items	Diagnostic Procedure 1 (Door switch check) Refer to BL-184, "Diagnostic Procedure 1" .
			Diagnostic Procedure 7 (Trunk room lamp switch check) Refer to BL-187, "Diagnostic Procedure 7" .
			If the above systems are "OK", replace BCM. Refer to BCS-21, "Removal and Installation of BCM" .
		Lock/unlock switch	Diagnostic Procedure 6 (Door lock/unlock switch check) Refer to BL-187, "Diagnostic Procedure 6" .
			If the above systems are "OK", check main power window and door lock/unlock switch. Refer to GW-15, "POWER WINDOW SYSTEM" .
		Door outside key (driver)	Diagnostic Procedure 3 (Door key cylinder switch check) Refer to BL-186, "Diagnostic Procedure 3" .
If the above systems are "OK", check main power window and door lock/unlock switch. Refer to GW-15, "POWER WINDOW SYSTEM" .			
Keyfob	Check remote keyless entry function. Refer to BL-112, "REMOTE KEY-LESS ENTRY FUNCTION MALFUNCTION" .		
	If the above systems are "OK", replace BCM. Refer to BCS-21, "Removal and Installation of BCM" .		
2	Security indicator does not turn "ON".	Security indicator lamp	Diagnostic Procedure 2 (Security indicator lamp check) Refer to BL-186, "Diagnostic Procedure 2" .
			If the above systems are "OK", replace BCM. Refer to BCS-21, "Removal and Installation of BCM" .
3	*1 Vehicle security system does not alarm when	Any door or trunk is opened.	Diagnostic Procedure 1 (Door switch check) Refer to BL-184, "Diagnostic Procedure 1" .
			Diagnostic Procedure 7 (Trunk room lamp switch check) Refer to BL-187, "Diagnostic Procedure 7" .
			If the above systems are "OK", replace BCM. Refer to BCS-21, "Removal and Installation of BCM" .
4	Vehicle security alarm does not activate.	Horn alarm	Diagnostic Procedure 4 (Vehicle security horn alarm check). Refer to BL-187, "Diagnostic Procedure 4" .
			If the above systems are "OK", check horn system. Refer to WW-28, "HORN" .
		Head lamp alarm	Diagnostic Procedure 5 (Head lamp alarm check). Refer to BL-187, "Diagnostic Procedure 5" .
			If the above systems are "OK", replace BCM. Refer to BCS-21, "Removal and Installation of BCM" .
5	Vehicle security system cannot be canceled by	Door outside key (driver)	Diagnostic Procedure 3 (Door key cylinder switch check). Refer to BL-186, "Diagnostic Procedure 3" .
			If the above systems are "OK", check main power window and door lock/unlock switch. Refer to GW-15, "POWER WINDOW SYSTEM" .
		Intelligent key	Check Intelligent Key entry function. Refer to BL-79, "System Description" .
			If the above systems are "OK", replace BCM. Refer to BCS-21, "Removal and Installation of BCM" .
		Keyfob	Check remote keyless entry function. Refer to BL-112, "REMOTE KEY-LESS ENTRY FUNCTION MALFUNCTION" .
			If the above systems are "OK", replace BCM. Refer to BCS-21, "Removal and Installation of BCM" .

*1 : Make sure the system is in the armed phase.

VEHICLE SECURITY (THEFT WARNING) SYSTEM

EIS00BAU

Diagnostic Procedure 1

DOOR SWITCH CHECK

1. CHECK DOOR SWITCHES INPUT SIGNAL

 With CONSULT-III

Check door switches ("DOOR SW-DR", "DOOR SW-AS", "DOOR SW-RL", "DOOR SW-RR") in DATA MONITOR mode with CONSULT-III. Refer to [BL-36, "DATA MONITOR"](#).

- When any doors are open:

DOOR SW-DR : ON
DOOR SW-AS : ON
DOOR SW-RL : ON
DOOR SW-RR : ON

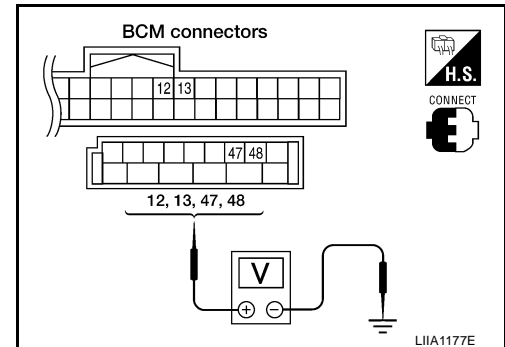
- When any doors are closed:

DOOR SW-DR : OFF
DOOR SW-AS : OFF
DOOR SW-RL : OFF
DOOR SW-RR : OFF

 Without CONSULT-III

Check voltage between BCM connector M18 or M19 terminals 12, 13, 47, 48 and ground.

Connector	Item	Terminals		Condition	Voltage (V) (Approx.)
		(+)	(-)		
M19	Front door switch LH	47	Ground	Open ↓ Closed	0 ↓ Battery voltage
	Rear door switch LH	48			
M18	Front door switch RH	12			
	Rear door switch RH	13			



OK or NG

- OK >> Door switch circuit is OK.
 NG >> GO TO 2.

VEHICLE SECURITY (THEFT WARNING) SYSTEM

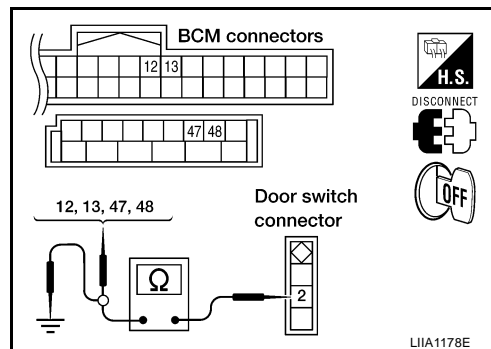
2. CHECK DOOR SWITCH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect door switch and BCM.
3. Check continuity between door switch connector B21 (Front LH), B28 (Front RH), B26 (Rear LH), B41 (Rear RH) terminal 2 and BCM connector M18, M19 terminals 12, 13, 47 and 48.

- 2 - 47 : Continuity should exist.**
2 - 12 : Continuity should exist.
2 - 48 : Continuity should exist.
2 - 13 : Continuity should exist.

4. Check continuity between door switch connector B21 (Front LH), B28 (Front RH), B26 (Rear LH), B41 (Rear RH) terminal 2 and ground.

- 2 - Ground : Continuity should not exist.**



OK or NG

- OK >> GO TO 3.
 NG >> Repair or replace harness.

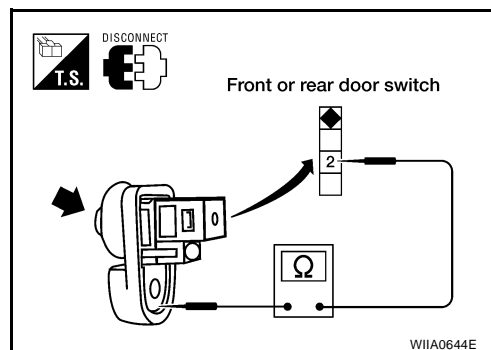
3. CHECK DOOR SWITCHES

Check continuity between door switch terminals.

Door switch (front or rear)	Terminals	Condition	Continuity
		2 - Ground	Pressed
		Released	Yes

OK or NG

- OK >> GO TO 4.
 NG >> Replace door switch.



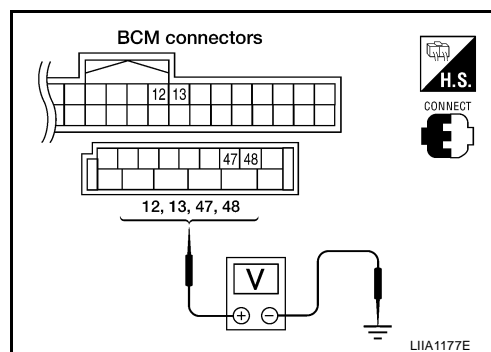
4. CHECK BCM OUTPUT VOLTAGE

1. Reconnect BCM connectors.
2. Check voltage between BCM connector M18, M19 terminals 12, 13, 47, 48 and ground.

- 12 - Ground : Battery voltage**
13 - Ground : Battery voltage
47 - Ground : Battery voltage
48 - Ground : Battery voltage

OK or NG

- OK >> Door switch circuit is OK.
 NG >> Replace BCM. Refer to [BCS-21, "Removal and Installation of BCM"](#).



VEHICLE SECURITY (THEFT WARNING) SYSTEM

EIS00BAV

Diagnostic Procedure 2

SECURITY INDICATOR LAMP CHECK

1. SECURITY INDICATOR LAMP ACTIVE TEST

With CONSULT-III

Check "THEFT IND" in "ACTIVE TEST" mode with CONSULT-III.

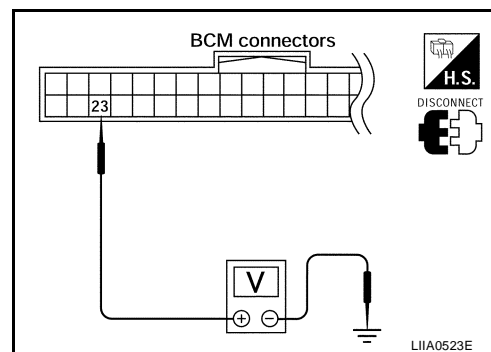
Without CONSULT-III

1. Disconnect BCM.
2. Check voltage between BCM harness connector M18 terminal 23 and ground.

Connector	Terminals		Condition	Voltage (V) (Approx.)
	(+)	(-)		
M18	23	Ground	ON	0
			OFF	Battery voltage

OK or NG

- OK >> Security indicator lamp is OK.
NG >> GO TO 2.



2. SECURITY INDICATOR LAMP CHECK

Check security indicator lamp condition.

OK or NG

- OK >> GO TO 3.
NG >> Replace security indicator lamp.

3. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect BCM and combination meter.
3. Check continuity between BCM connector M18 (A) terminal 23 and combination meter connector M24 (B) terminal 16.

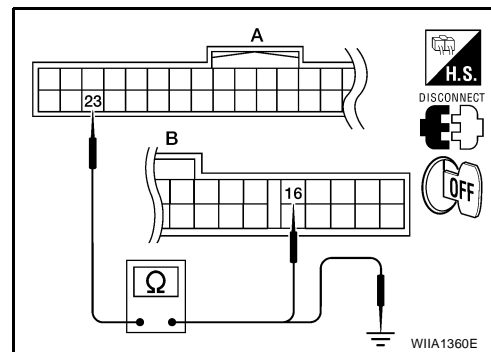
23 - 16 : Continuity should exist.

4. Check continuity between BCM connector M18 (A) terminal 23 and ground.

23 - Ground : Continuity should not exist.

OK or NG

- OK >> Check the following:
- 10A fuse [No. 19, located in fuse block (J/B)]
 - Harness for open or short between combination meter and fuse
- NG >> Repair or replace harness.



Diagnostic Procedure 3

EIS00BAW

FRONT DOOR LOCK ASSEMBLY LH (KEY CYLINDER SWITCH) CHECK

1. FRONT DOOR LOCK ASSEMBLY LH (KEY CYLINDER SWITCH) CHECK

Check front door lock assembly LH (key cylinder switch) with key.

Do doors lock/unlock when using the key?

- YES >> Front door lock assembly LH (key cylinder switch) is OK.
NO >> Check front door lock assembly LH (key cylinder switch) circuit. Refer to [BL-150, "FRONT DOOR LOCK"](#).

VEHICLE SECURITY (THEFT WARNING) SYSTEM

Diagnostic Procedure 4

EIS00BAX

VEHICLE SECURITY HORN ALARM CHECK

1. CHECK HORN OPERATION

Check if horn sounds with horn switch.

Does horn operate?

YES >> Check harness for open or short between IPDM E/R and horn relay.

NO >> Check horn circuit. Refer to [WW-28, "HORN"](#).

Diagnostic Procedure 5

EIS00BAY

VEHICLE SECURITY HEADLAMP ALARM CHECK

1. CHECK VEHICLE SECURITY HEADLAMP ALARM OPERATION

Check if headlamps operate with lighting switch.

Do headlamps come on when turning switch ON?

YES >> Headlamp alarm is OK.

NO >> Check headlamp system. Refer to [LT-5, "HEADLAMP \(FOR USA\)"](#) or [LT-27, "HEADLAMP \(FOR CANADA\) - DAYTIME LIGHT SYSTEM -"](#).

Diagnostic Procedure 6

EIS00BAZ

DOOR LOCK/UNLOCK SWITCH CHECK

1. CHECK DOOR LOCK/UNLOCK SWITCH INPUT SIGNAL

Check if power door lock operates with door lock/unlock switch.

Do doors lock/unlock when using each door lock/unlock switch?

YES >> Door lock/unlock switch is OK.

NO >> Refer to [BL-42, "Door Lock and Unlock Switch Check"](#).

Diagnostic Procedure 7

EIS00BDA

TRUNK ROOM LAMP SWITCH CHECK

1. CHECK TRUNK ROOM LAMP SWITCH INPUT SIGNAL

With CONSULT-III

Check ("TRUNK SW") in "DATA MONITOR" mode with CONSULT-III.

Monitor item	Trunk condition	
TRUNK SW	OPEN	: ON
	CLOSED	: OFF

Without CONSULT-III

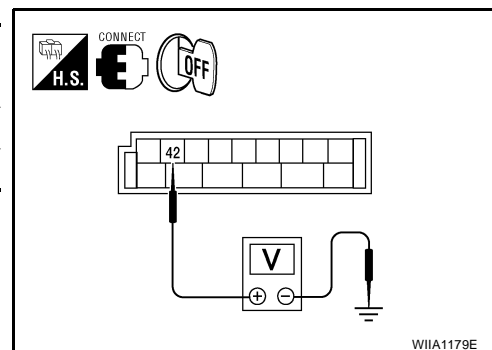
1. Turn ignition switch OFF.
2. Check voltage between BCM harness connector M19 terminal 42 and ground.

Connector	Terminals		Trunk condition	Voltage (V) (Approx.)
	(+)	(-)		
M19	42	Ground	CLOSED	Battery voltage
			OPEN	0

OK or NG

OK >> Trunk room lamp switch circuit is OK.

NG >> GO TO 2.



VEHICLE SECURITY (THEFT WARNING) SYSTEM

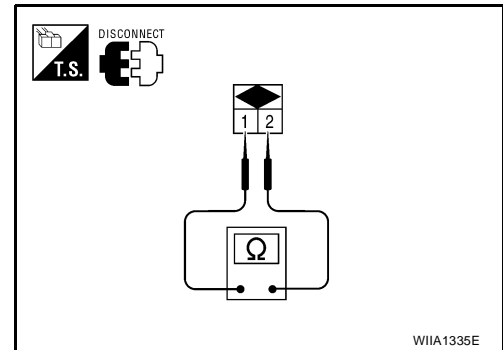
2. CHECK TRUNK ROOM LAMP SWITCH

1. Turn ignition switch OFF.
2. Disconnect trunk room lamp switch connector.
3. Check continuity between trunk room lamp switch terminals 1 and 2.

Terminals		Trunk condition	Continuity
1	2	CLOSED	No
		OPEN	Yes

OK or NG

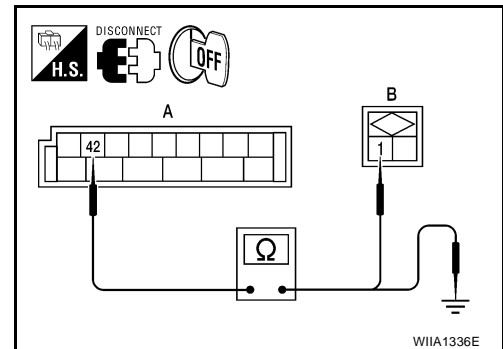
- OK >> GO TO 3.
 NG >> Replace trunk room lamp switch.



3. CHECK TRUNK ROOM LAMP SWITCH CIRCUIT

1. Disconnect BCM connector M19.
2. Check continuity between BCM harness connector M19 (A) terminal 42 and trunk room lamp switch harness connector B57 (B) terminal 1.

42 – 1 : Continuity should exist.



3. Check continuity between BCM harness connector M19 (A) terminal 42 and ground.

42 – Ground : Continuity should not exist.

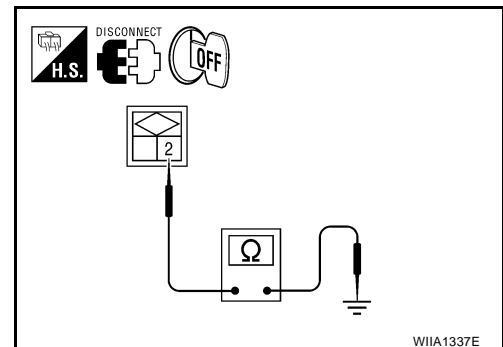
OK or NG

- OK >> GO TO 4.
 NG >> Repair or replace harness between BCM and trunk room lamp switch.

4. CHECK TRUNK ROOM LAMP SWITCH GROUND CIRCUIT

Check continuity between trunk room lamp switch harness connector B57 terminal 2 and ground.

2 – Ground : Continuity should exist.



OK or NG

- OK >> Check connection of harness and connector.
 NG >> Repair or replace trunk room lamp switch ground circuit.

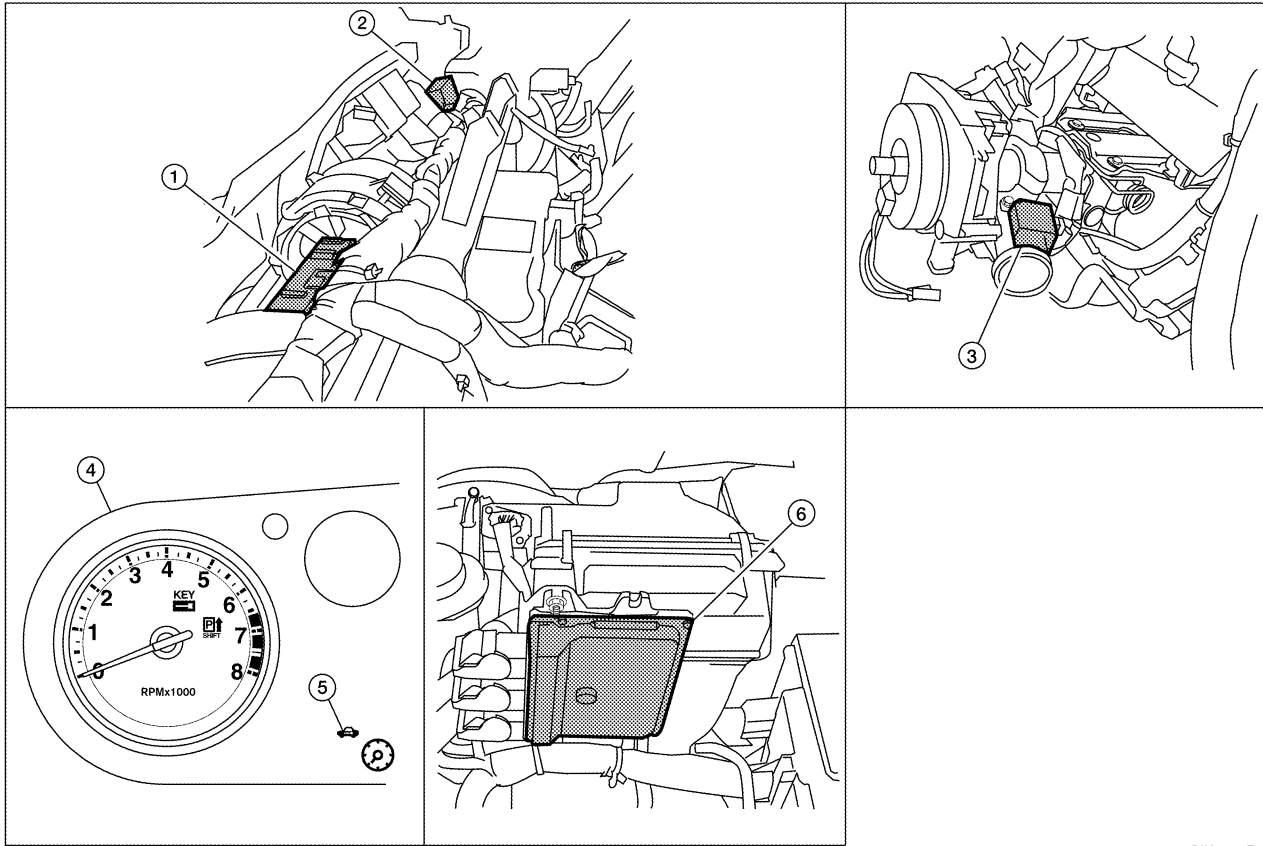
NATS (NISSAN ANTI-THEFT SYSTEM)

PFP:28591

NATS (NISSAN ANTI-THEFT SYSTEM)

Component Parts and Harness Connector Location

EIS00BB0



- | | | |
|---|---|--|
| 1. BCM M18, M20
(view with instrument panel removed) | 2. Intelligent Key unit M42
(with Intelligent Key) | 3. NATS antenna amp. M21
(inside steering column) |
| 4. Combination meter M24 | 5. Security indicator lamp | 6. ECM E16 |

BIAA007E

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NATS (NISSAN ANTI-THEFT SYSTEM)

EIS00BB1

System Description DESCRIPTION

NOTE:

If customer reports a “No start” condition, request ALL KEYS to be brought to a Nissan dealer in case of a NATS malfunction.

NATS (Nissan Anti-Theft System) has the following functions:

- NATS shows a higher anti-theft performance at preventing engine to be started by an unregistered key. (registered key: mechanical key and Intelligent Key).
- Only a key with key ID registered in BCM and ECM can start engine, it has a higher protection against auto theft that duplicates keys.
- If a malfunction has been detected, security indicator will illuminate when ignition switch is in ON position.
- If the owner requires, mechanical key can be registered for up to 5 keys.
- During trouble diagnosis or when the following parts have been replaced, and if mechanical key is added, registration* is required.
*: All mechanical keys of the vehicle should be registered.

– ECM

– BCM

– Mechanical key

- NATS trouble diagnoses, system initialization and additional registration of other NATS mechanical key IDs must be carried out using CONSULT-III. When NATS initialization has been completed, the ID of the inserted mechanical key can be displayed.
Regarding the procedures of NATS initialization and mechanical key ID registration, refer to CONSULT-III operation manual.

SECURITY INDICATOR

- Forewarns that the vehicle is equipped with NATS.
- Security indicator will not blink while the ignition knob is in ON or START state.

NOTE:

Because security indicator is highly efficient, the battery is barely affected.

Condition of Security Indicator

- When operating the ignition switch with Intelligent Key, security indicator lamp will turn off at once if ignition switch is pressed and blinks when ignition switch is released.
- When operating the ignition switch with mechanical key security indicator will turn off at once if mechanical key is inserted into key cylinder and blinks when mechanical key is removed.
(Once the mechanical key is inserted into key cylinder, BCM will only perform the key ID verification with mechanical key)

System Composition

EIS00BB2

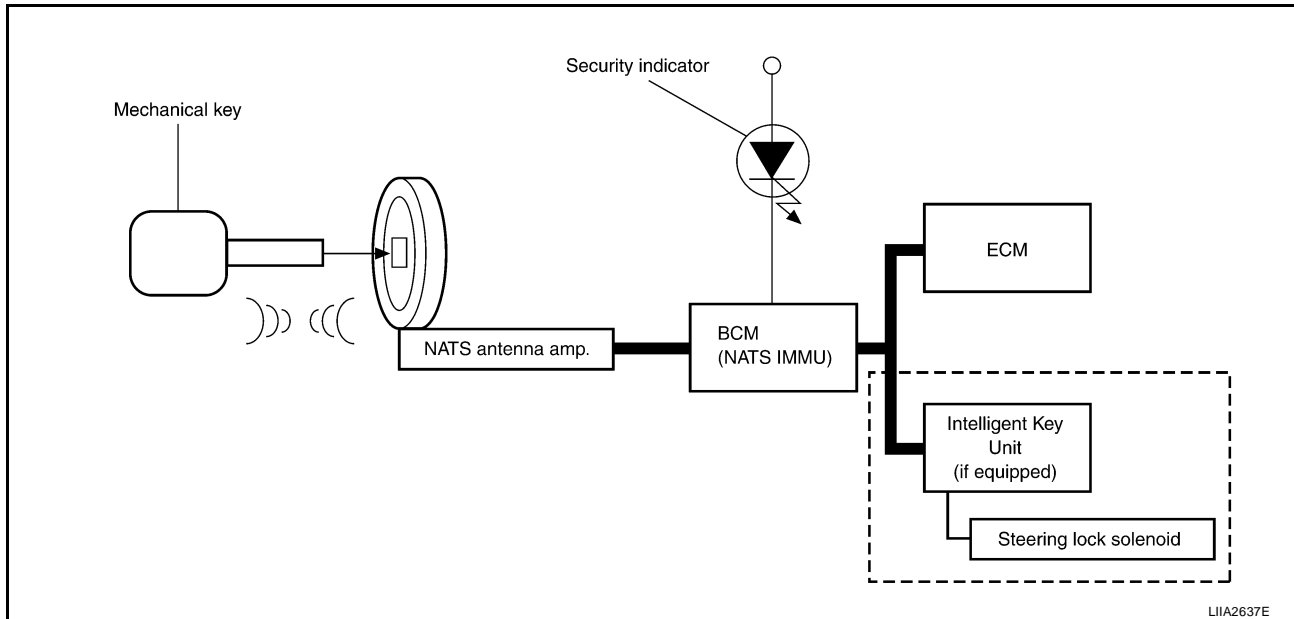
The function of the NATS consists of the following:

- Mechanical key
- NATS antenna amp. located in the ignition key cylinder
- BCM
- ECM (Engine control module)
- Security indicator
- Intelligent Key unit (with Intelligent Key)

NATS (NISSAN ANTI-THEFT SYSTEM)

NOTE:

The communication between ECM, BCM and/or Intelligent Key unit uses the CAN communication system.



ECM Re-communicating Function

EIS00BB3

Performing the following procedure can automatically perform re-communication of ECM and BCM or Intelligent Key unit, but only when the ECM has been replaced with a new one which has never been energized on-board.

(In this step, initialization procedure by CONSULT-III is not necessary)

NOTE:

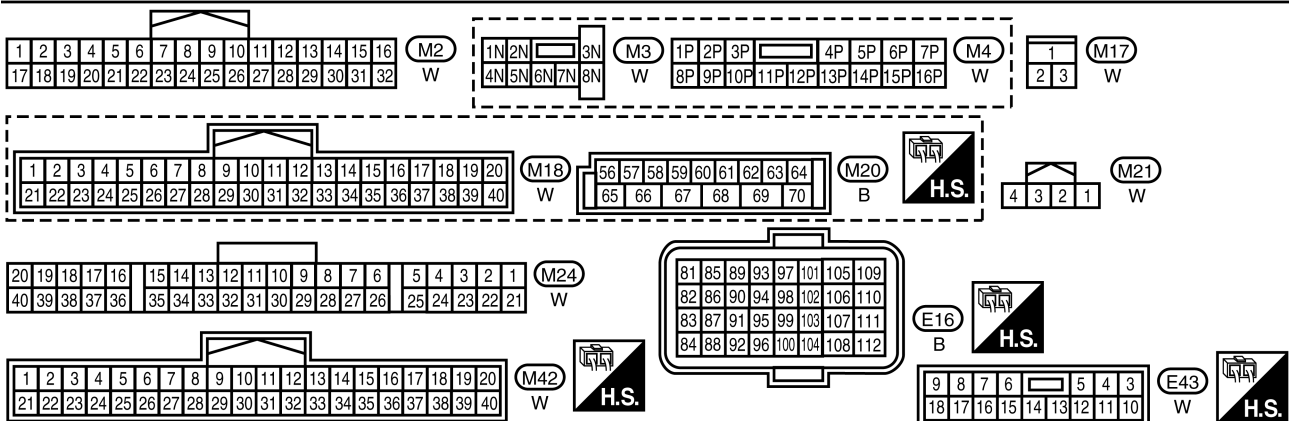
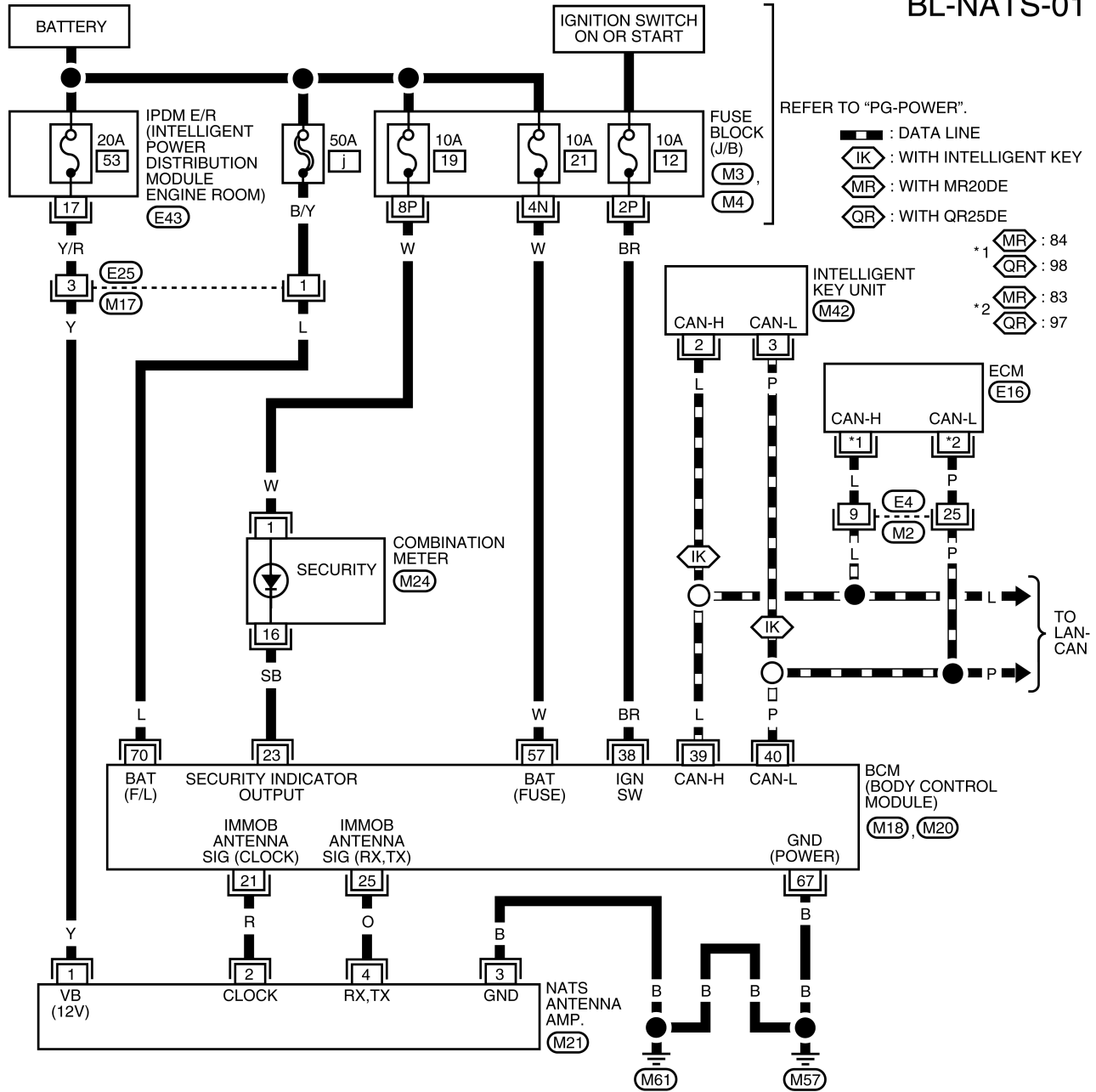
- When registering new Key IDs or replacing the ECM other than brand new, refer to CONSULT-III Operation Manual.
 - If multiple keys are attached to the key holder, separate them before work.
 - Distinguish keys with unregistered key ID from those with registered ID.
1. Install ECM.
 2. Use a registered key (*), turn ignition switch to "ON".
*: To perform this step, use the key that has been used before to perform ECM replacement.
 3. Maintain ignition switch in "ON" position for at least 5 seconds.
 4. Turn ignition switch to "OFF".
 5. Start engine.
If engine can be started, procedure is completed.
If engine cannot be started, refer to CONSULT-III Operation Manual and initialize control unit.

NATS (NISSAN ANTI-THEFT SYSTEM)

EIS00BB4

Wiring Diagram — NATS —

BL-NATS-01



WIWA2326E

NATS (NISSAN ANTI-THEFT SYSTEM)

Terminals and Reference Values for BCM

E/S00BB5

Refer to [BCS-13, "Terminals and Reference Values for BCM"](#) .

CONSULT-III Function

E/S00BB6

CONSULT-III DIAGNOSTIC TEST MODE FUNCTION

CONSULT-III DIAGNOSTIC TEST MODE	Description
C/U INITIALIZATION	When replacing any of the following components, C/U initialization and re-registration of all NATS mechanical keys are necessary. [NATS mechanical key/ BCM/ ECM*]
SELF-DIAG RESULTS	Detected items (screen terms) are as shown in the chart. Refer to BL-193, "NATS SELF-DIAGNOSTIC RESULTS ITEM CHART" .

*: When replace ECM, refer to [BL-191, "ECM Re-communicating Function"](#) .

NOTE:

- When any initialization is performed, all ID previously registered will be erased and all NATS mechanical keys must be registered again.
- The engine cannot be started with an unregistered key. In this case, the system will show "DIFFERENCE OF KEY" or "LOCK MODE" as a self-diagnostic result on the CONSULT-III screen.
- In rare case, "CHAIN OF ECM-IMMU" might be stored as a self-diagnostic result during key registration procedure, even if the system is not malfunctioning.

NATS SELF-DIAGNOSTIC RESULTS ITEM CHART

Detected items [NATS program card screen terms]	P No. Code (Self-diagnostic result of "ENGINE")	Malfunction is detected when.....	Reference page
CHAIN OF ECM-IMMU [P1612]	NATS MAL-FUNCTION P1612	Communication impossible between ECM and BCM In rare case, "CHAIN OF ECM-IMMU" might be stored during key registration procedure, even if the system is not malfunctioning.	BL-198
CHAIN OF IMMU-KEY [P1614]	NATS MAL-FUNCTION P1614	BCM cannot receive the key ID signal.	BL-200
ID DISCORD, IMM-ECM [P1611]	NATS MAL-FUNCTION P1611	The result of ID verification between BCM and ECM is NG. System initialization is required.	BL-202
LOCK MODE [P1610]	NATS MAL-FUNCTION P1610	When the starting operation is carried out five or more times consecutively under the following conditions, NATS will shift the mode to one which prevents the engine from being started. <ul style="list-style-type: none"> ● Unregistered mechanical key is used. ● BCM or ECM's malfunctioning. 	BL-204
DON'T ERASE BEFORE CHECKING ENG DIAG	—	All engine trouble codes except NATS trouble code has been detected in ECM.	BL-195

NATS (NISSAN ANTI-THEFT SYSTEM)

EIS00BB7

Trouble Diagnosis Procedure

PRELIMINARY CHECK

1. GET SYMPTOMS

Listen to customer complaints request. (Get symptoms)

NOTE:

If customer reports a "No start" condition, request all Intelligent Keys to be brought to the dealer in case of Intelligent Key system malfunction.

Intelligent Key or mechanical key service request>> For further information, refer to CONSULT-III operation manual.

Malfunctions>>GO TO 2.

2. START ENGINE WITH INTELLIGENT KEY (WITH INTELLIGENT KEY)

Check if the engine could be started by all registered Intelligent Keys.

The engine cannot be started by some Intelligent Keys>>Intelligent Key is low battery or malfunction. Refer to [BL-142, "Intelligent Key Battery Replacement"](#).

The engine cannot be started by all Intelligent Keys>>GO TO 3.

The engine can be started by all Intelligent Keys>>GO TO 4.

3. CHECK "KEY" WARNING LAMP ILLUMINATION

When pushing the ignition switch, check if "KEY" warning lamp in combination meter illuminates.

KEY warning lamp illuminates green>>GO TO [BL-140, "KEY" Warning Lamp \(GREEN\) Check"](#).

KEY warning lamp illuminates red>>GO TO [BL-139, "KEY" Warning Lamp \(RED\) Check"](#).

Does not illuminate>>GO TO [BL-110, "KEY WARNING LAMP DOES NOT ILLUMINATE"](#).

4. START ENGINE WITH MECHANICAL KEY

Check if the engine could be started by all registered mechanical keys.

The engine can not be started by some mechanical keys>>Register mechanical key. Refer to CONSULT-III operation manual.

The engine cannot be started by all mechanical keys>> [BL-195, "WORK FLOW"](#).

The engine can be started by all mechanical keys>>GO TO 5.

5. PERFORM SELF-DIAGNOSIS

1. Turn ignition switch to ON by carrying the Intelligent Key.
2. Perform self-diagnosis of Intelligent Key system with CONSULT-III.

Malfunction is detected>>GO TO [BL-105, "SELF-DIAGNOSTIC RESULTS"](#).

No malfunction is detected>>GO TO [BL-104, "WORK FLOW"](#).

NATS (NISSAN ANTI-THEFT SYSTEM)

WORK FLOW

1. STARTING ENGINE

Check if the engine could be started by inserting the mechanical key into the ignition key cylinder and operate ignition switch.

OK >> System is normal.
NG >> GO TO 2.

2. PERFORM SELF DIAGNOSIS

Perform SELF-DIAGNOSIS "NATS V5.0" using CONSULT-III.

NOTE:

NATS program card is necessary to display the "SELF-DIAGNOSIS".

No malfunction is detected>>Recheck the starting engine section GO TO 1.

Malfunction related to NATS is detected>>GO TO 3.

Malfunctions related to "DON'T ERASE BEFORE CHECKING ENG DIAG" and NATS are detected>>GO TO 7.

3. IDENTIFYING NATS MALFUNCTION

Self-diagnosis results referring to NATS, but no information about engine self-diagnosis result is displayed on CONSULT-III. Refer to [BL-197, "SYMPTOM MATRIX CHART 1"](#).

>> GO TO 4.

4. NATS TROUBLE DIAGNOSIS

Repair NATS (if necessary, perform "C/U INITIALIZATION" with CONSULT-III.)

>> GO TO 5.

5. ERASE SELF-DIAGNOSIS

Erase the record of "SELF-DIAGNOSIS" by using CONSULT-III.

>> GO TO 6.

6. STARTING ENGINE

Check if the engine could be started by inserting the mechanical key into the ignition key cylinder and operate ignition switch.

NG >> GO TO 2.
OK >> End of inspection.

7. IDENTIFYING NATS AND ENGINE CONTROL MALFUNCTION

NATS malfunction and "DON'T ERASE BEFORE CHECKING ENG DIAG" are displayed on the CONSULT-III screen.

NOTE:

This indication means that malfunction have been detected in NATS and engine control system.

>> GO TO 8.

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NATS (NISSAN ANTI-THEFT SYSTEM)

8. NATS TROUBLE DIAGNOSIS

Repair NATS according to self-diagnosis results refer to NATS (if necessary, perform "C/U INITIALZATIN" with CONSULT-III.)

NOTE:

Do not erase "SELF-DIAGNOSIS" by using CONSULT-III.

>> GO TO 9.

9. IDENTIFYING ENGINE CONTROL MALFUNCTION

Check engine "SELF-DIAGNOSIS" records with a generalized program card instead of the NATS program card.

>> GO TO 10.

10. ENGINE CONTROL SYSTEM TROUBLE DIAGNOSIS

Repair engine control system if engine related malfunction is detected.

With engine diagnostic codes present, refer to [EC-14, "INDEX FOR DTC"](#) .

Without engine diagnostic codes present, refer to [EC-26, "ENGINE CONTROL SYSTEM"](#) .

NOTE:

If only "NATS MALFUNCTION" is displayed, erase the self-diagnosis results.

>> GO TO 11.

11. STARTING ENGINE

Check if the engine could be started by inserting the mechanical key into the ignition key cylinder and operate ignition switch.

OK >> GO TO 12.

NG >> GO TO 2.

12. ERASE SELF-DIAGNOSIS

Erase both NATS and ENGINE "SELF-DIAGNOSIS" records by using CONSULT-III NATS program card and generalized program card.

>> GO TO 13

13. CONFIRMATION

Perform running test with CONSULT-III in engine "SELF-DIAGNOSIS" mode.

"NO DTC" is displayed>> End of inspection.

Malfunction information is displayed>> GO TO 2.

NATS (NISSAN ANTI-THEFT SYSTEM)

E/S00BB8

Trouble Diagnoses SYMPTOM MATRIX CHART 1

Self-diagnosis related item

SYMPTOM	Displayed "SELF-DIAG RESULTS" on CONSULT-III screen.	DIAGNOSTIC PROCEDURE (Reference page)	SYSTEM (Malfunctioning part or mode)
<ul style="list-style-type: none"> ● Security indicator lighting up* ● Engine cannot be started 	CHAIN OF ECM-IMMU [P1612]	PROCEDURE 1 (BL-198)	In rare case, "CHAIN OF ECM-IMMU" might be stored during key registration procedure, even if the system is not malfunctioning.
			Open circuit in battery voltage line of BCM circuit
			Open circuit in ignition line of BCM circuit
			Open circuit in ground line of BCM circuit
			Open or short circuit between BCM and ECM communication line
			ECM
			BCM
	CHAIN OF IMM-KEY [P1614]	PROCEDURE 2 (BL-200)	Malfunction of key ID chip
			Communication line between ANT/ AMP and BCM: Open circuit or short circuit of battery voltage line or ground line
			Open circuit in power source line of ANT/ AMP circuit
			Open circuit in ground line of ANT/ AMP circuit
			NATS antenna amp.
	ID DISCORD, IMM-ECM [P1611]	PROCEDURE 3 (BL-202)	System initialization has not yet been completed.
ECM			
LOCK MODE [P1610]	PROCEDURE 5 (BL-204)	When the starting operation is carried out five or more times consecutively under the following conditions, NATS will shift the mode to one which prevents the engine from being started. <ul style="list-style-type: none"> ● Unregistered ignition key is used. ● BCM or ECM's malfunctioning. 	
Security indicator lighting up*	DON'T ERASE BEFORE CHECKING ENG DIAG	WORK FLOW (BL-195)	Engine trouble data and NATS trouble data have been detected in ECM

- *: When NATS detects trouble, the security indicator lights up while ignition key is in the "ON" position.

SYMPTOM MATRIX CHART 2

Non self-diagnosis related item

SYMPTOM	DIAGNOSTIC PROCEDURE (Reference page)	SYSTEM (Malfunctioning part or mode)
Security indicator does not light up*.	PROCEDURE 4 (BL-203)	Security indicator.
		Open circuit between Fuse and BCM
		BCM

*: CONSULT-III self-diagnostic results display screen "no malfunction is detected".

NATS (NISSAN ANTI-THEFT SYSTEM)

EIS00BB9

Diagnostic Procedure 1

Self-diagnostic results:

“CHAIN OF ECM-IMMU” displayed on CONSULT-III screen

First perform the “SELF-DIAG RESULTS” in “BCM” with CONSULT-III, then perform the trouble diagnosis of malfunction system indicated “SELF-DIAG RESULTS” of “BCM”. Refer to [BCS-19, "CAN Communication Inspection Using CONSULT-III \(Self-Diagnosis\)"](#).

1. CONFIRM SELF-DIAGNOSTIC RESULTS

Confirm SELF-DIAGNOSTIC RESULTS “CHAIN OF ECM-IMMU” displayed on CONSULT-III screen.

NOTE:

In rare case, “CHAIN OF ECM-IMMU” might be stored during key registration procedure, even if the system is not malfunctioning.

Is CONSULT-III screen displayed as shown above [P1612]?

Yes >> GO TO 2.

No >> GO TO [BL-197, "SYMPTOM MATRIX CHART 1"](#).

2. CHECK POWER SUPPLY CIRCUIT FOR BCM

1. Turn ignition switch OFF.
2. Check voltage between BCM and ground with CONSULT-III or tester.

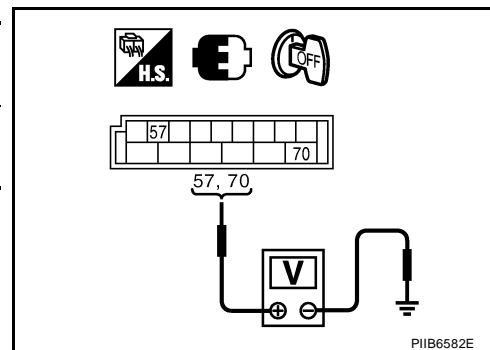
BCM connector	Terminals		Voltage [V] (Approx.)
	(+)	(-)	
M20	57	Ground	Battery voltage
	70		

OK or NG

OK >> GO TO 3.

NG >> Check the following.

- 50A fusible link (letter j , located in the fuse and fusible link box).
- 10A fuse [No.21, located in the fuse block (J/B)].
- Harness for open or short between fusible link and BCM.
- Harness for open or short between fuse and BCM.



3. CHECK IGNITION SWITCH ON SIGNAL

1. Turn ignition switch ON.
2. Check voltage between BCM connector and ground with CONSULT-III or tester.

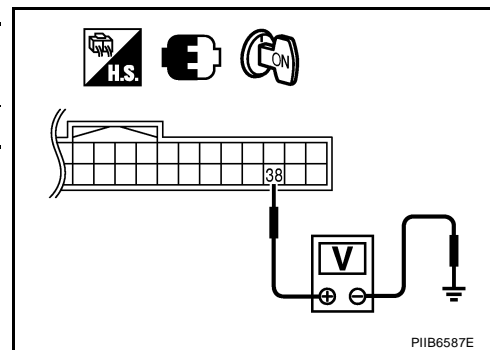
BCM connector	Terminal		Voltage [V] (Approx.)
	(+)	(-)	
M18	38	Ground	Battery voltage

OK or NG

OK >> GO TO 4.

NG >> Check the following.

- 10A fuse [No. 12, located in the fuse block (J/B)].
- Harness for open or short between fuse and BCM.



NATS (NISSAN ANTI-THEFT SYSTEM)

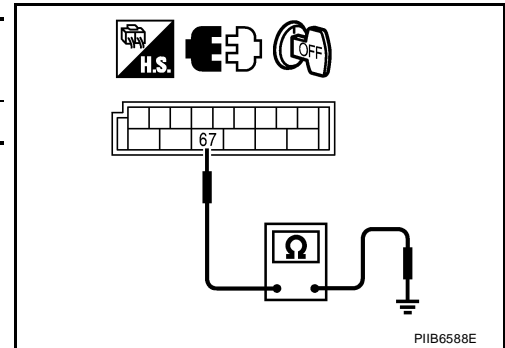
4. CHECK GROUND CIRCUIT FOR BCM

1. Turn ignition switch OFF.
2. Disconnect BCM connector.
3. Check continuity between BCM connector and ground.

BCM connector	Terminal		Continuity
	(+)	(-)	
M20	67	Ground	Yes

OK or NG

- OK >> GO TO 5.
NG >> Repair or replace harness.



5. REPLACE BCM

1. Replace BCM.
2. Perform initialization with CONSULT-III.
For initialization, refer to "CONSULT-III Operation Manual".

Does the engine start?

- Yes >> BCM is malfunctioning.
- Replace BCM. Refer to [BCS-21, "Removal and Installation of BCM"](#).
 - Perform initialization with CONSULT-III
 - For initialization, refer to "CONSULT-III Operation Manual"
- No >> ECM is malfunctioning.
- Replace ECM.
 - Perform initialization or re-communicating function
 - For initialization, refer to "CONSULT-III Operation Manual"
 - For re-communicating function, refer to [BL-191, "ECM Re-communicating Function"](#)

NATS (NISSAN ANTI-THEFT SYSTEM)

EIS00BBA

Diagnostic Procedure 2

Self-diagnostic results:

“CHAIN OF IMMU-KEY” displayed on CONSULT-III screen

1. CONFIRM SELF-DIAGNOSTIC RESULTS

Confirm SELF-DIAGNOSTIC RESULTS “CHAIN OF IMMU-KEY” displayed on CONSULT-III screen.

Is CONSULT-III screen displayed as shown above [P1614]?

Yes >> GO TO 2.

No >> GO TO [BL-197, "SYMPTOM MATRIX CHART 1"](#)

2. CHECK NATS ANTENNA AMP. INSTALLATION

Check NATS antenna amp. installation. Refer to [BL-205, "How to Replace NATS Antenna Amp."](#) .

OK or NG

OK >> GO TO 3.

NG >> Reinstall NATS antenna amp. correctly.

3. CHECK NATS IGNITION KEY ID CHIP

Start engine with another registered NATS ignition key.

Does the engine start?

Yes >> Ignition key ID chip is malfunctioning.

- Replace the ignition key
- Perform initialization with CONSULT-III
For initialization, refer to “CONSULT-III Operation Manual”

No >> GO TO 4.

4. CHECK POWER SUPPLY FOR NATS ANTENNA AMP.

1. Turn ignition switch “OFF”.

2. Check voltage between NATS antenna amp. connector and ground.

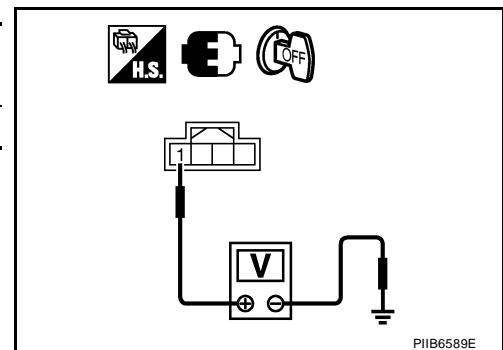
NATS antenna amp. connector	Terminal		Voltage [V] (Approx.)
	(+)	(-)	
M21	1	Ground	Battery voltage

OK or NG

OK >> GO TO 5.

NG >> Check the following.

- 20A fuse [No. 53, located in IPDM E/R]
- Harness for open or short between fuse and NATS antenna amp.

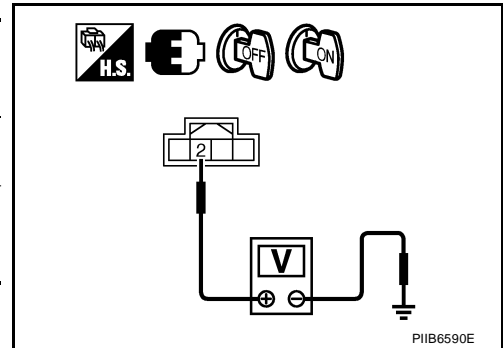


NATS (NISSAN ANTI-THEFT SYSTEM)

5. CHECK NATS ANTENNA AMP. SIGNAL LINE- 1

Check voltage between NATS antenna amp. connector and ground with analog tester.

NATS antenna amp. connector	Terminal		Conditions	Status of Voltage and tester
	(+)	(-)		
M21	2	Ground	Before tuning ignition switch to ON	Approx. 0 [V]
			Right after tuning ignition switch to ON	Pointer of tester should move



OK or NG

OK >> GO TO 6.

NG >> ● Check harness for open or short between NATS antenna amp. and BCM.

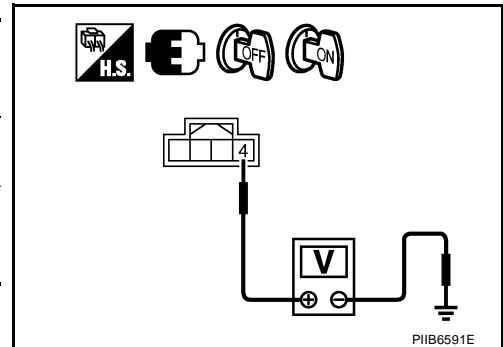
NOTE:

If harness is OK, replace BCM, perform initialization with CONSULT-III. For initialization, refer to "CONSULT-III Operation Manual".

6. CHECK NATS ANTENNA AMP. SIGNAL LINE- 2

Check voltage between NATS antenna amp. connector and ground with analog tester.

NATS antenna amp. connector	Terminal		Conditions	Status of Voltage and tester
	(+)	(-)		
M21	4	Ground	Before tuning ignition switch to ON	Approx. 0 [V]
			Right after tuning ignition switch to ON	Pointer of tester should move



OK or NG

OK >> GO TO 7.

NG >> ● Check harness for open or short between NATS antenna amp. and BCM.

NOTE:

If harness is OK, replace BCM, perform initialization with CONSULT-III. For initialization, refer to "CONSULT-III Operation Manual".

7. CHECK NATS ANTENNA AMP. GROUND LINE CIRCUIT

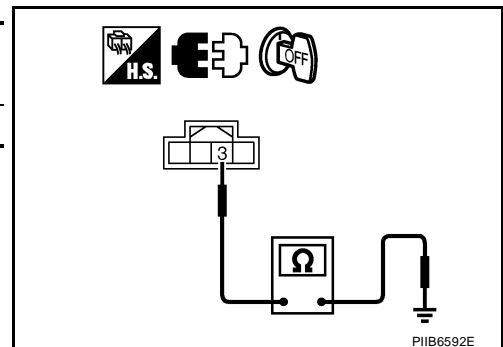
1. Turn ignition switch "OFF".
2. Disconnect NATS antenna amp. connector.
3. Check continuity between NATS antenna amp. connector and ground.

NATS antenna amp. connector	Terminal		Continuity
	(+)	(-)	
M21	3	Ground	Yes

OK or NG

OK >> NATS antenna amp. is malfunctioning, reinstall antenna or replace it.

NG >> Repair or replace NATS antenna amp. ground circuit.



NATS (NISSAN ANTI-THEFT SYSTEM)

EIS00BBB

Diagnostic Procedure 3

Self-diagnostic results:

“ID DISCORD, IMM-ECM” displayed on CONSULT-III screen

1. CONFIRM SELF-DIAGNOSTIC RESULTS

Confirm SELF-DIAGNOSTIC RESULTS “ID DISCORD, IMM-ECM” displayed on CONSULT-III screen.

NOTE:

“ID DISCORD IMM-ECM”:

Registered ID of BCM is in discord with that of ECM.

Is CONSULT-III screen displayed as shown above [P1611]?

Yes >> GO TO 2.

No >> GO TO [BL-197, "SYMPTOM MATRIX CHART 1"](#) .

2. PERFORM INITIALIZATION WITH CONSULT-III

Perform initialization with CONSULT-III. Re-register all NATS ignition key IDs.

For initialization, refer to “CONSULT-III Operation Manual”.

NOTE:

If the initialization is not completed or malfunctions, CONSULT-III shows message on the screen [INITIALIZATION FAIL].

Can the system be initialized?

Yes >> ● Start engine. (END)

- (System initialization had not been completed.)

No >> ECM is malfunctioning.

- Replace ECM.
- Perform initialization with CONSULT-III
For initialization, refer to “CONSULT-III Operation Manual”

NATS (NISSAN ANTI-THEFT SYSTEM)

EIS00BBC

Diagnostic Procedure 4

“COMBINATION METER (SECURITY) DOES NOT LIGHT UP”

1. CHECK FUSE

Check 10A fuse [No.19, located in the fuse block (J/B)]

OK or NG

- OK >> GO TO 2.
- NG >> Replace fuse.

2. CHECK COMBINATION METER (SECURITY)

1. Install 10A fuse.
2. Start engine and turn ignition switch OFF.
3. Check if the combination meter (security) lights up.

Combination meter (security) should light up.

OK or NG

- OK >> INSPECTION END.
- NG >> GO TO 3.

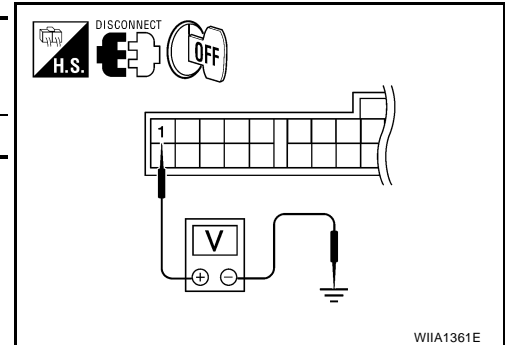
3. CHECK COMBINATION METER (SECURITY) POWER SUPPLY CIRCUIT

1. Disconnect combination meter (security) connector.
2. Check voltage between combination meter (security) connector and ground.

Combination meter (security) connector	Terminal		Voltage [V] (Approx.)
	(+)	(-)	
M24	1	Ground	Battery voltage

OK or NG

- OK >> GO TO 4.
- NG >> Check harness for open or short between fuse and combination meter (security).



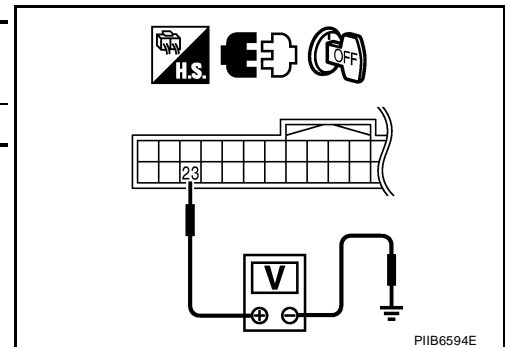
4. CHECK BCM FUNCTION

1. Connect combination meter (security) connector.
2. Disconnect BCM connector.
3. Check voltage between BCM connector and ground.

BCM connector	Terminal		Voltage [V] (Approx.)
	(+)	(-)	
M18	23	Ground	Battery voltage

OK or NG

- OK >> BCM is malfunctioning.
 - Replace BCM. Refer to [BCS-21, "Removal and Installation of BCM"](#).
 - Perform initialization with CONSULT-III
 - For initialization, refer to “CONSULT-III Operation Manual”
- NG >> Check the following.
 - Harness for open or short between combination meter (security) and BCM
 - Indicator lamp condition



NATS (NISSAN ANTI-THEFT SYSTEM)

EIS00BBD

Diagnostic Procedure 5

Self-diagnostic results:

“LOCK MODE” displayed on CONSULT-III screen

1. CONFIRM SELF-DIAGNOSTIC RESULTS

Confirm SELF-DIAGNOSTIC RESULTS “LOCK MODE” is displayed on CONSULT-III screen.

Is CONSULT-III screen displayed as shown above [P1610]?

Yes >> GO TO 2.

No >> GO TO [BL-197, "SYMPTOM MATRIX CHART 1"](#).

2. ESCAPE FROM LOCK MODE

1. Turn ignition switch OFF.
2. Turn ignition switch ON with registered key. (Do not start engine.) Wait 5 seconds.
3. Return the key to OFF position. Wait 5 seconds.
4. Repeat steps 2 and 3 twice (total of three cycles).
5. Start the engine.

Does engine start?

Yes >> System is OK (Now system is escaped from “LOCK MODE”).

No >> GO TO 3.

3. PERFORM INITIALIZATION WITH CONSULT-III

Perform initialization with CONSULT-III.

For initialization, refer to “CONSULT-III Operation Manual”.

NOTE:

If the initialization is not completed or malfunctions, CONSULT-III shows the message on the screen [INITIALIZATION FAIL].

Can the system be initialized?

Yes >> System is OK.

No >> GO TO 4.

4. PERFORM INITIALIZATION WITH CONSULT-III AGAIN

1. Replace BCM.
2. Perform initialization with CONSULT-III.
For initialization, refer to “CONSULT-III Operation Manual”.

NOTE:

If the initialization is not completed or malfunctions, CONSULT-III shows the message on the screen [INITIALIZATION FAIL].

Can the system be initialized?

Yes >> System is OK. (BCM is malfunctioning.)

No >> ECM is malfunctioning.

- Replace ECM.
- Perform initialization with CONSULT-III
- For initialization, refer to “CONSULT-III Operation Manual”

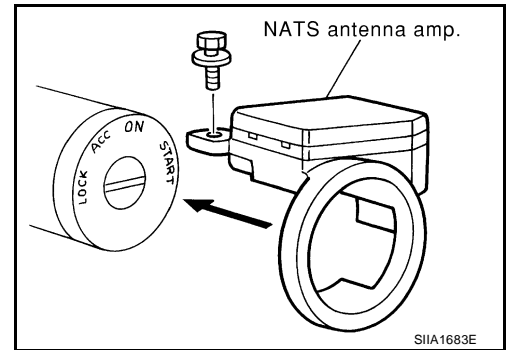
NATS (NISSAN ANTI-THEFT SYSTEM)

How to Replace NATS Antenna Amp.

EIS00BBE

NOTE:

- If NATS antenna amp. is not installed correctly, NATS system will not operate properly and SELF-DIAG RESULTS on CONSULT-III screen will show "LOCK MODE" or "CHAIN OF IMMU-KEY".
- Initialization is not necessary only when NATS antenna amp. is replaced with a new one.



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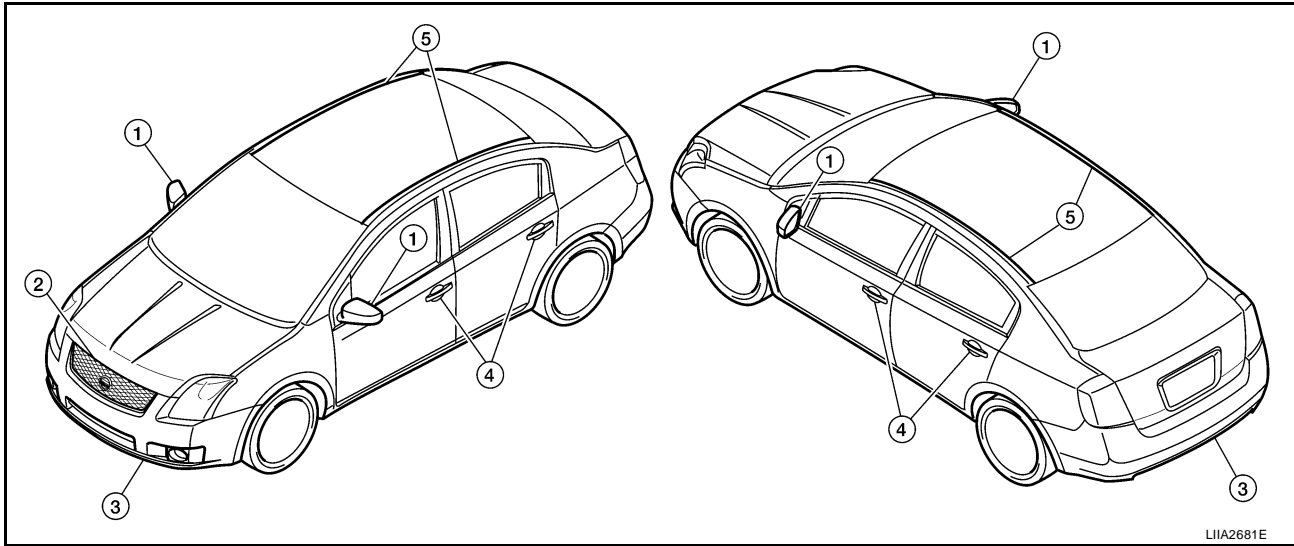
BODY REPAIR

BODY REPAIR

PF:60100

Body Exterior Paint Color

EIS00BBF



LIA2681E

Component		Color code	A15	B23	J40	K23	K32	K36	K37	KH3	QM1
		Description	Sonoma Sunset	Blue Onyx	Metallic Jade	Brilliant Silver	Sandstone	Magnetic Grey	Polished Granite	Super Black	Fresh Powder
		Paint type	PM	2M	PM	2M	TM	2M	2M	2S	S
		Hard clear coat	--	--	--	--	--	--	--	--	--
1	Outside mirror	Body color	A15	B23	J40	K23	K32	K36	K37	KH3	QM1
2	Radiator grille	Chromium-plate + Black	Cr2P + G02-1	Cr2P + G02-1	Cr2P + G02-1	Cr2P + G02-1	Cr2P + G02-1	Cr2P + G02-1	Cr2P + G02-1	Cr2P + G02-1	Cr2P + G02-1
3	Bumper fascia	Body color	A15	B23	J40	K23	K32	K36	K37	KH3	QM1
4	Outside handle	Body color	A15	B23	J40	K23	K32	K36	K37	KH3	QM1
5	Roof ditch molding	Body color	A15	B23	J40	K23	K32	K36	K37	KH3	QM1

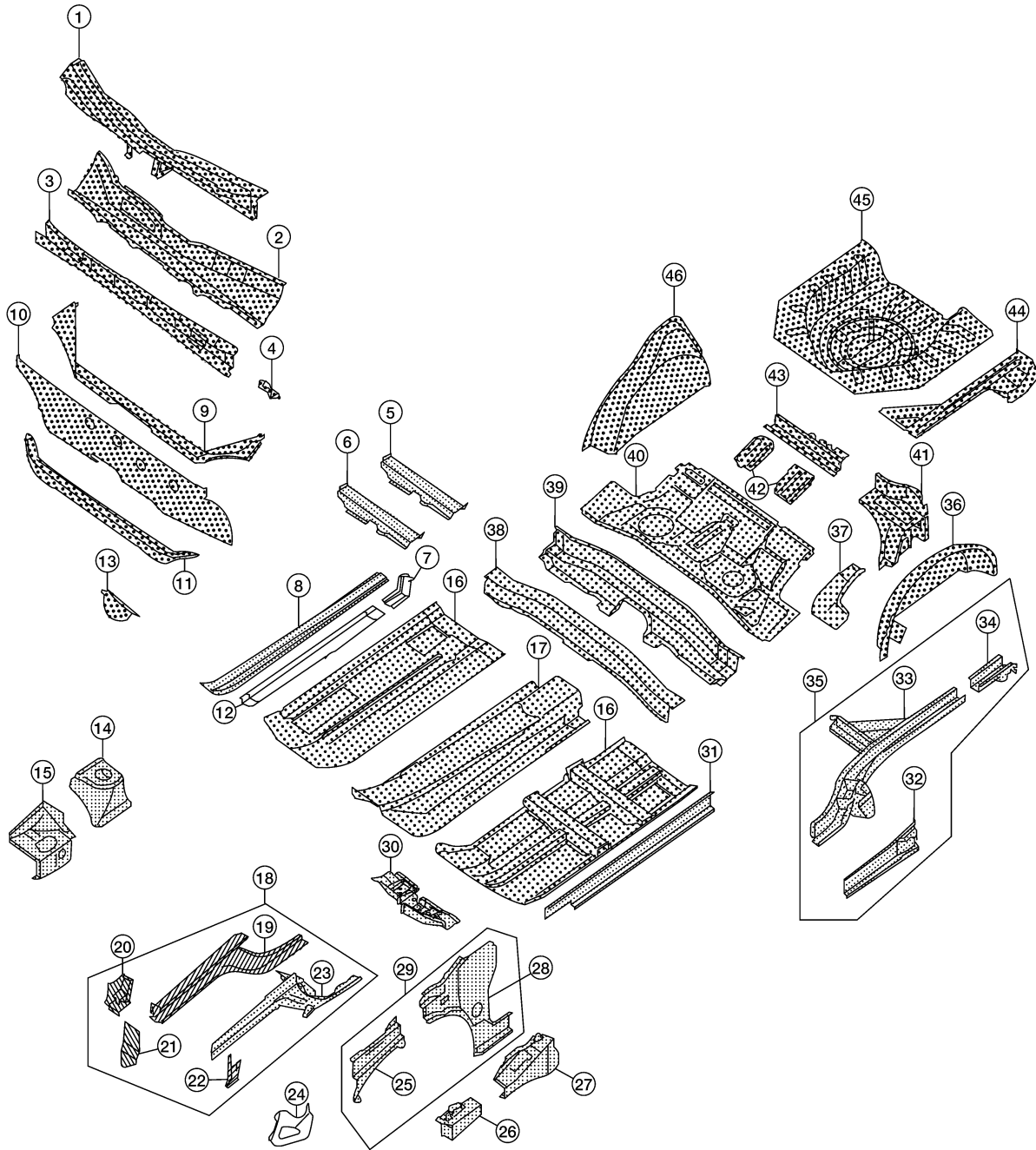
M: Metallic; 2S: 2-Coat Solid, 2P: 2-Coat Pearl; 3P: 3-Coat Pearl; PM: Pearl Metallic; TM: Micro Titanium Metallic; G01-1: Material color; G02-1: Material color

BODY REPAIR

Body Component Parts UNDERBODY COMPONENT PARTS

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- : Indicates bothsided anti-corrosive precoated steel portions
- : Indicates high strength steel (HSS) portions
- : Indicates both sided anti-corrosive steel and HSS portions
- : Indicates aluminum portion

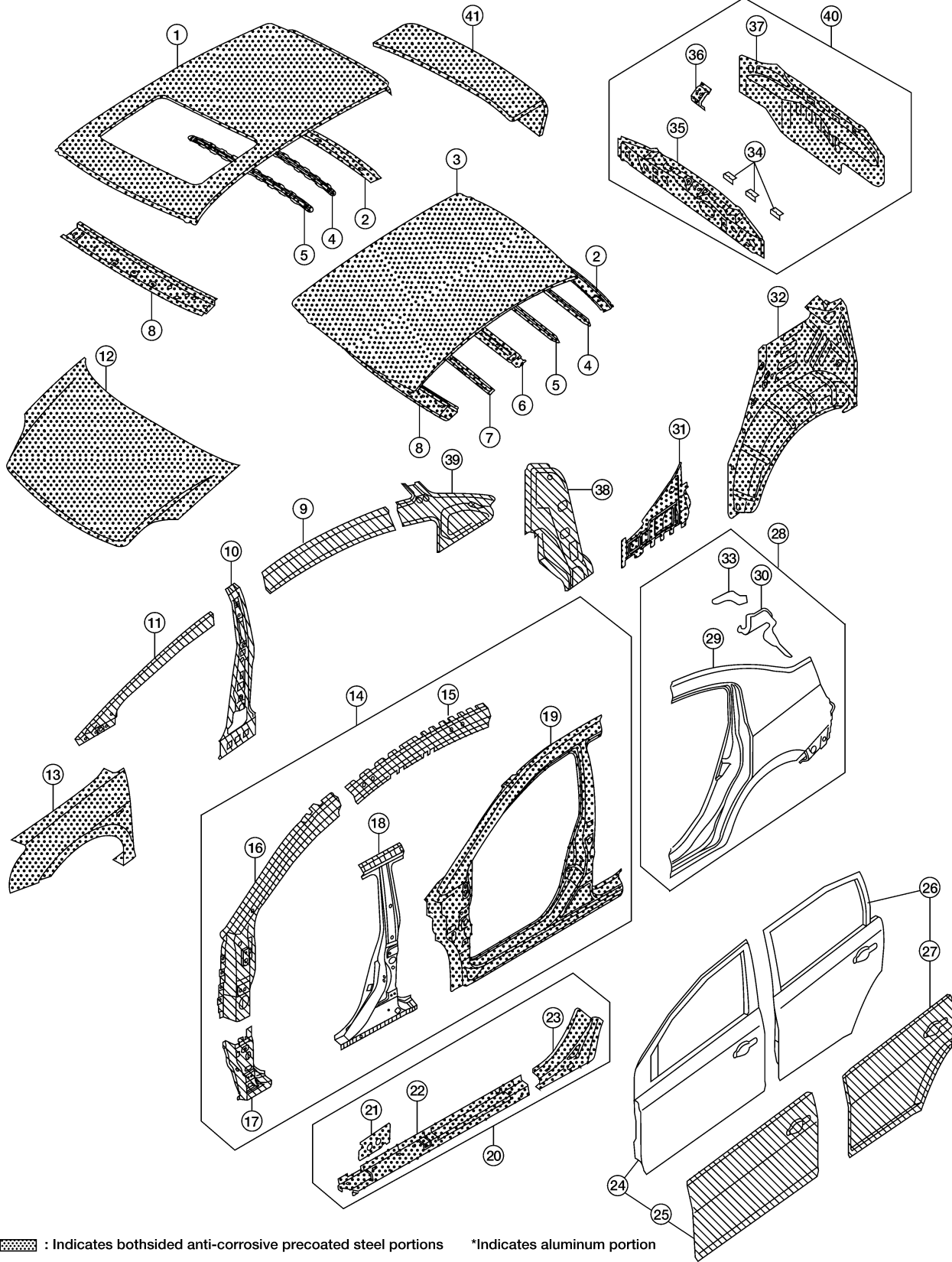
LIA2682E

BODY REPAIR

1. Cowl top assembly
2. Upper dash assembly
3. Upper dash crossmember
4. Cowl top extension member (RH & LH)
5. 3rd crossmember assembly (RH & LH)
6. 2nd crossmember (RH & LH)
7. Fuel tank protector (RH & LH)
8. Front side member extension rear (RH & LH)
9. Lower dash crossmember assembly
10. Lower dash assembly
11. Lower dash crossmember
12. Side member center assembly (RH & LH)
13. Steering hole cover
14. Front strut housing assembly (RH & LH)
15. Engine mounting bracket
16. Front floor assembly
17. Center floor assembly
18. Front side member assembly (RH & LH)
19. Front side member (RH & LH)
20. Front suspension member mounting bracket assembly (RH & LH)
21. Front side member connector (RH & LH)
22. Outside front suspension member mounting bracket (RH & LH)
23. Front side member closing plate (RH & LH)
24. Hoodledge connector (RH & LH)
25. Hoodledge upper (RH & LH)
26. Hoodledge front reinforcement (RH & LH)
27. Hoodledge rear reinforcement (RH & LH)
28. Dash side panel (RH & LH)
29. Dash side assembly (RH & LH)
30. Front side member outrigger (RH & LH)
31. Sill inner assembly (RH & LH)
32. Sill inner extension (RH & LH)
33. Rear side member (RH & LH)
34. Rear side member extension (RH & LH)
35. Rear side member assembly (RH & LH)
36. Inner rear wheel housing assembly LH
37. Rear seat crossmember
38. Rear floor front extension
39. Rear floor front
40. Rear floor front side extension (RH & LH)
41. Rear seat back side support (RH & LH)
42. Rear seat belt anchor inner reinforcements
43. Rear center crossmember
44. Rear floor side assembly (RH & LH)
45. Rear floor rear
46. Inner rear wheel housing assembly RH

BODY REPAIR

BODY COMPONENT PARTS



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LIA2683E

BODY REPAIR

1. Sunroof panel assembly
2. Rear roof rail assembly
3. Standard roof panel assembly
4. 4th roof bow assembly
5. 3rd roof bow assembly
6. 2nd roof bow assembly
7. 1st roof bow assembly
8. Front roof rail assembly
9. Inner side roof rail (RH & LH)
10. Center pillar inner reinforcement (RH & LH)
11. Front pillar inner (RH & LH)
12. Hood assembly
13. Front fender assembly (RH & LH)
14. Front body side assembly (RH & LH)
15. Outer roof side reinforcement (RH & LH)
16. Front pillar upper reinforcement (RH & LH)
17. Front pillar lower reinforcement (RH & LH)
18. Center pillar reinforcement (RH & LH)
19. Front body side outer (RH & LH)
20. Sill reinforcement assembly (RH & LH)
21. Front sill reinforcement (RH & LH)
22. Sill reinforcement (RH & LH)
23. Rear sill reinforcement (RH & LH)
24. Front door assembly (RH & LH)
25. Front door outer panel (RH & LH)
26. Rear door assembly (RH & LH)
27. Rear door outer panel (RH & LH)
28. Rear body side assembly (RH & LH)
29. Rear body side outer (RH & LH)
30. Rear combination lamp base (RH & LH)
31. Rear wheel housing outer extension (RH & LH)
32. Outer rear wheel housing (RH & LH)
33. Trunk hinge reinforcement (RH & LH)
34. Rear fascia brackets
35. Rear panel upper reinforcement
36. Jack mounting bracket
37. Rear panel
38. Rear pillar reinforcement (RH & LH)
39. Inner rear pillar reinforcement (RH & LH)
40. Rear panel assembly
41. Trunk lid assembly

BODY REPAIR

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Corrosion Protection

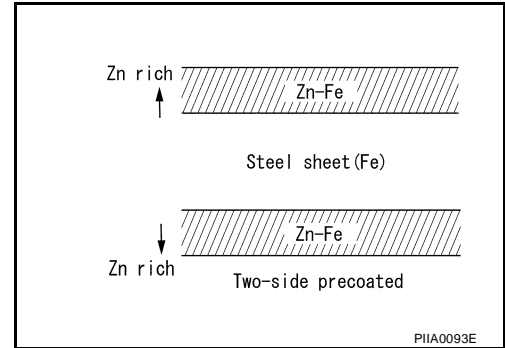
DESCRIPTION

To provide improved corrosion prevention, the following anti-corrosive measures have been implemented in NISSAN production plants. When repairing or replacing body panels, it is necessary to use the same anti-corrosive measures.

ANTI-CORROSIVE PRECOATED STEEL (GALVANNEALED STEEL)

To improve repairability and corrosion resistance, a new type of anti-corrosive precoated steel sheet has been adopted replacing conventional zinc-coated steel sheet.

Galvannealed steel is electroplated and heated to form Zinc-iron alloy, which provides excellent and long term corrosion resistance with cationic electrodeposition primer.



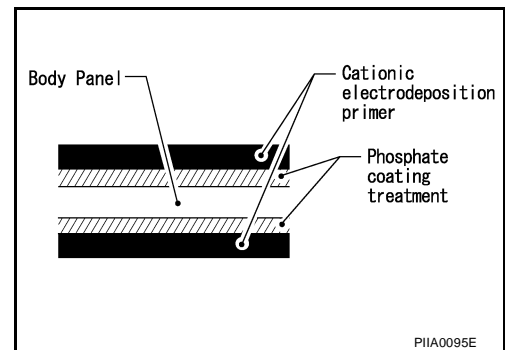
Nissan Genuine Service Parts are fabricated from galvannealed steel. Therefore, it is recommended that GENUINE NISSAN PARTS or equivalent be used for panel replacement to maintain the anti-corrosive performance built into the vehicle at the factory.

PHOSPHATE COATING TREATMENT AND CATIONIC ELECTRODEPOSITION PRIMER

A phosphate coating treatment and a cationic electrode position primer, which provide excellent corrosion protection, are employed on all body components.

CAUTION:

Confine paint removal during welding operations to an absolute minimum.

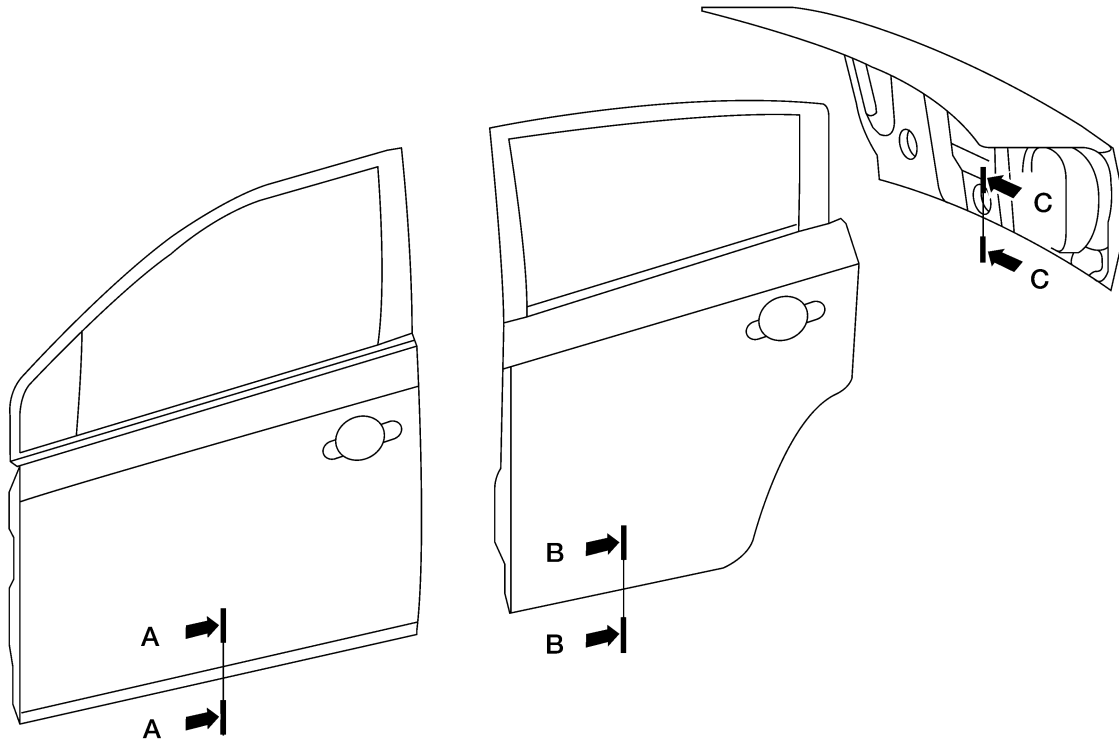




Nissan Genuine Service Parts are also treated in the same manner. Therefore, it is recommended that GENUINE NISSAN PARTS or equivalent be used for panel replacement to maintain anti-corrosive performance built into the vehicle at the factory.

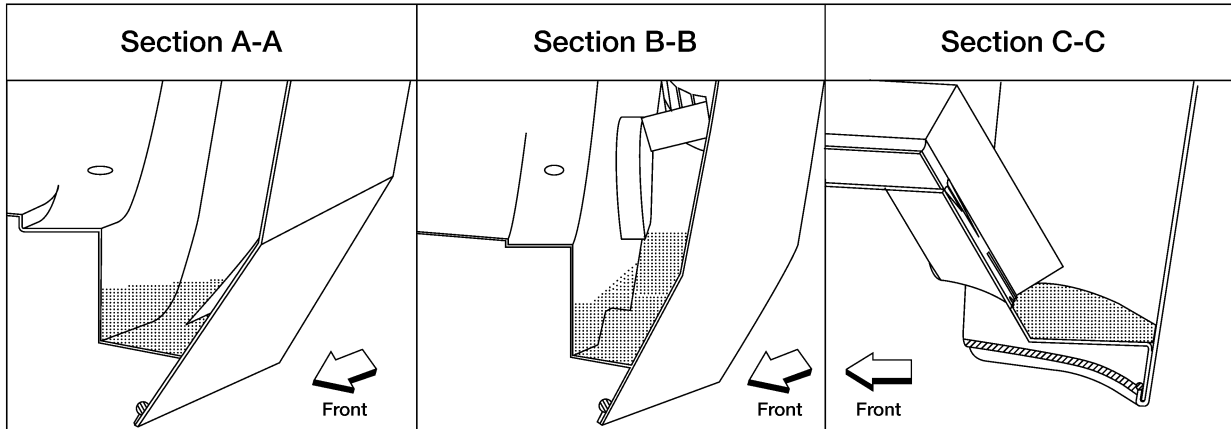
BODY REPAIR

ANTI-CORROSIVE WAX

To improve corrosion resistance, anti-corrosive wax is applied inside the body sill and inside other closed sections. Accordingly, when replacing these parts, be sure to apply anti-corrosive wax to the appropriate areas of the new parts. Select an excellent anti-corrosive wax which will penetrate after application and has a long shelf life.



 : indicates outside body sealant
 : Indicates anti-corrosive wax coated portions



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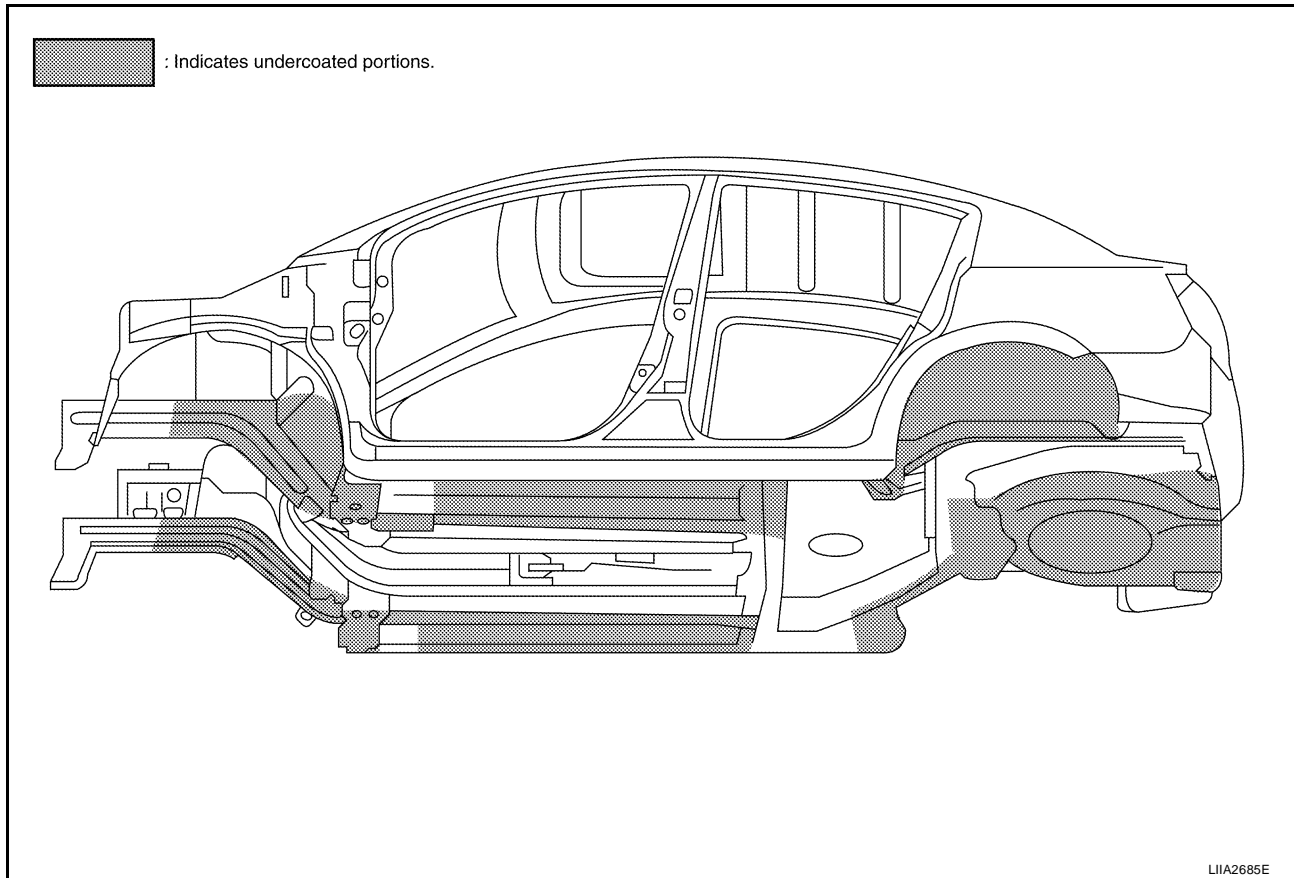
BODY REPAIR

UNDERCOATING

The underside of the floor and wheelhouse are undercoated to prevent rust, vibration, noise and stone chipping. Therefore, when such a panel is replaced or repaired, apply undercoating to that part. Use an undercoating which is rust preventive, soundproof, vibration-proof, shock-resistant, adhesive, and durable.

Precautions in undercoating

1. Do not apply undercoating to any place unless specified (such as the areas above the muffler and three way catalyst which are subjected to heat).
2. Do not undercoat the exhaust pipe or other parts which become hot.
3. Do not undercoat rotating parts.



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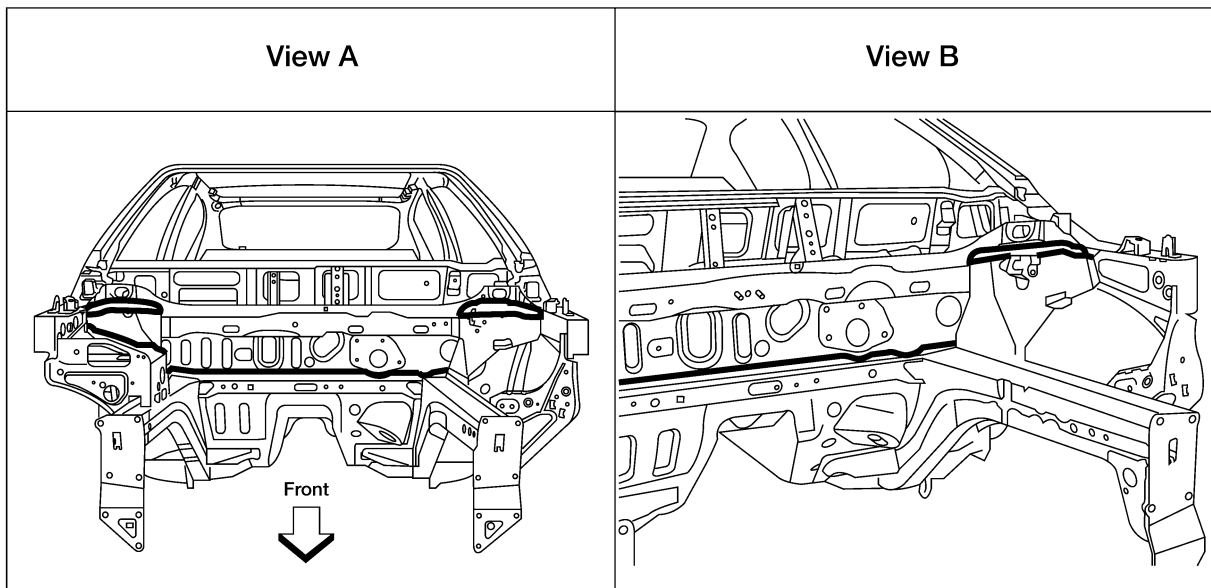
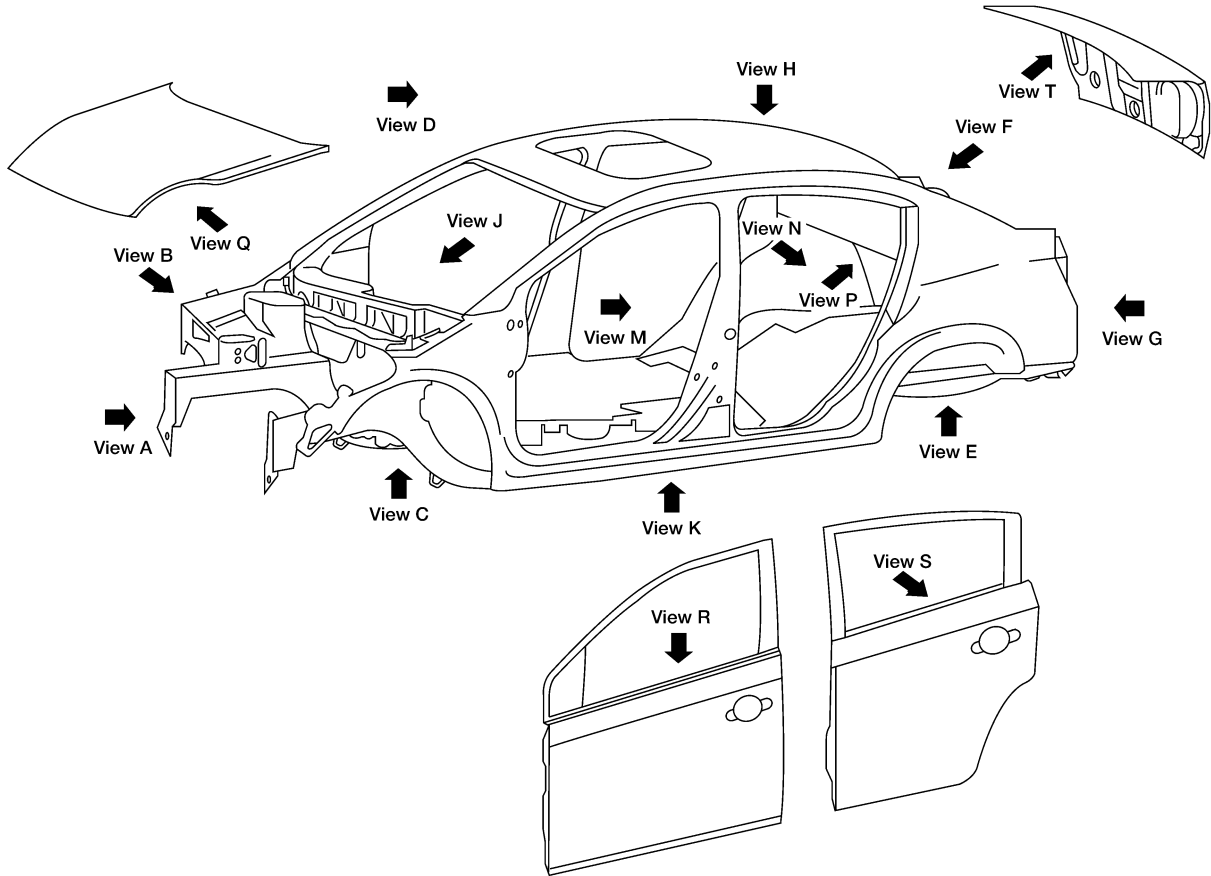
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BODY REPAIR

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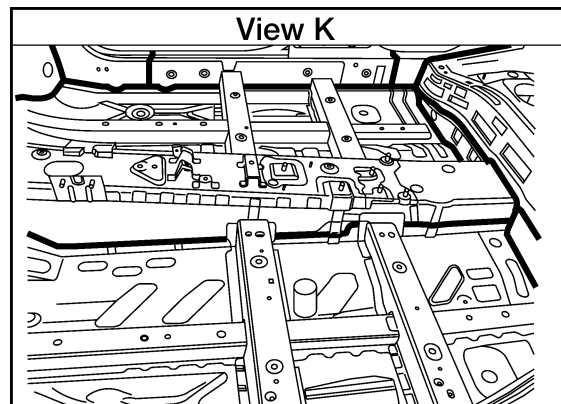
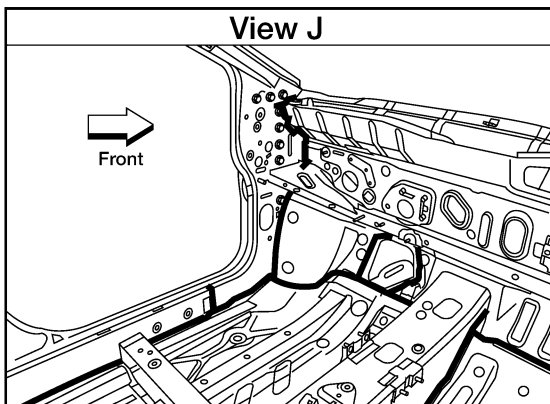
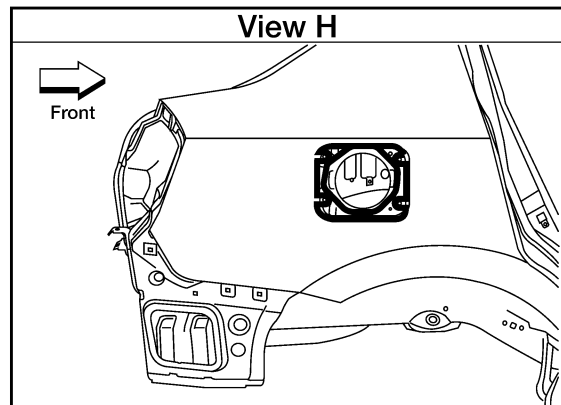
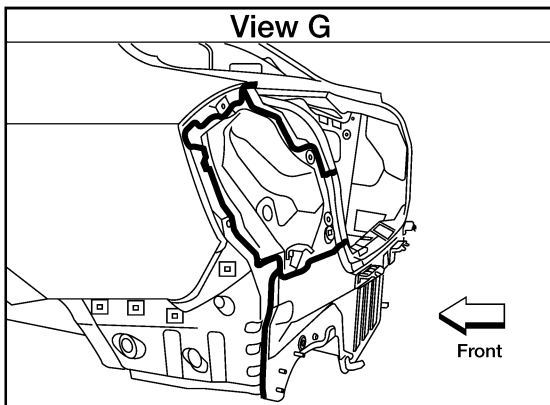
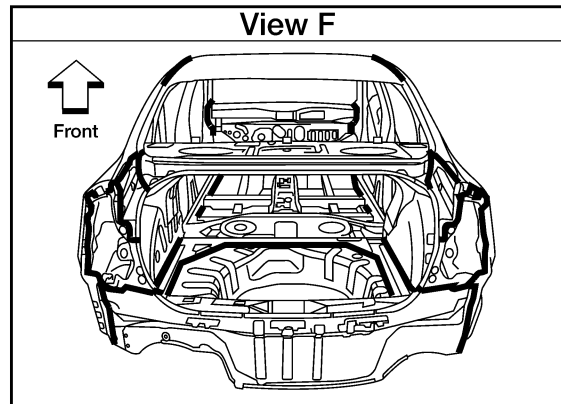
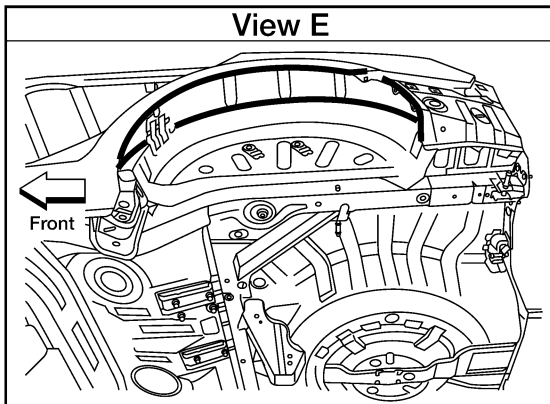
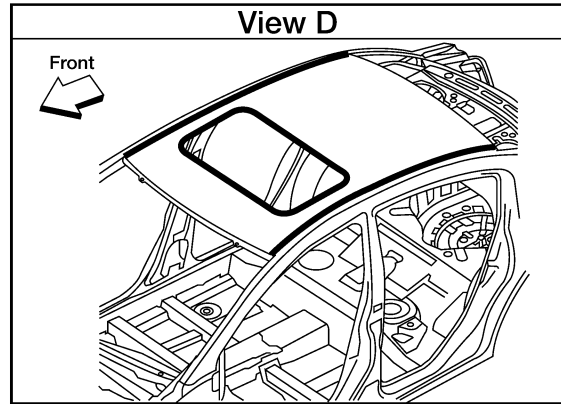
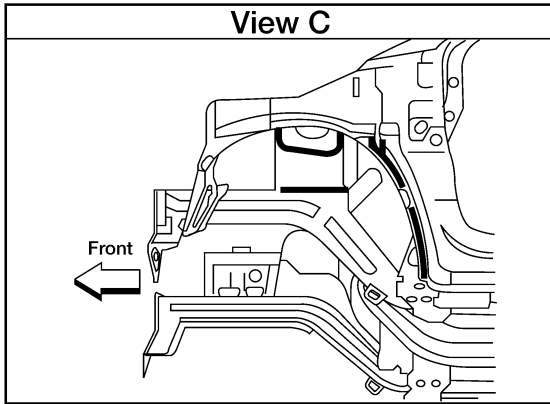
Body Sealing DESCRIPTION

The following figure shows the areas which are sealed at the factory. Sealant which has been applied to these areas should be smooth and free from cuts or gaps. Care should be taken not to apply an excess amount of sealant and not to allow other unaffected parts to come into contact with the sealant.



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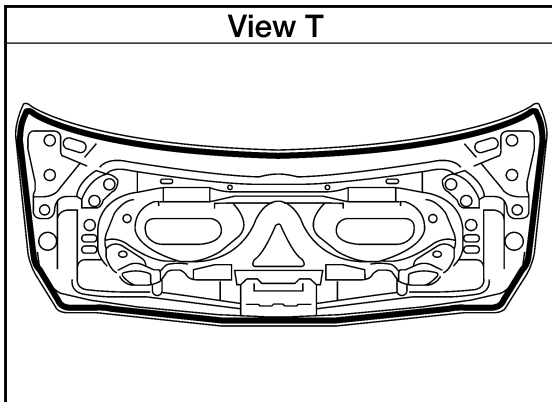
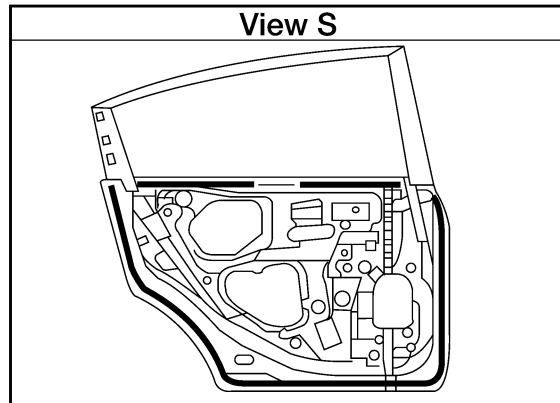
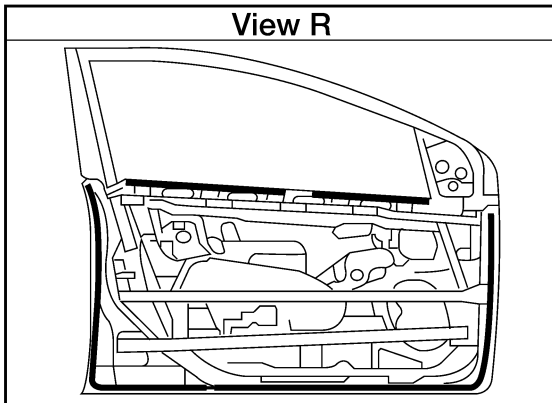
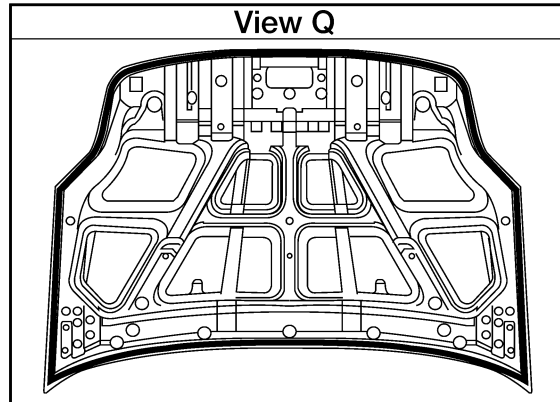
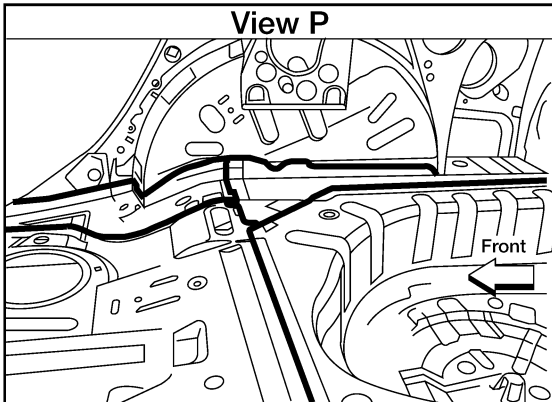
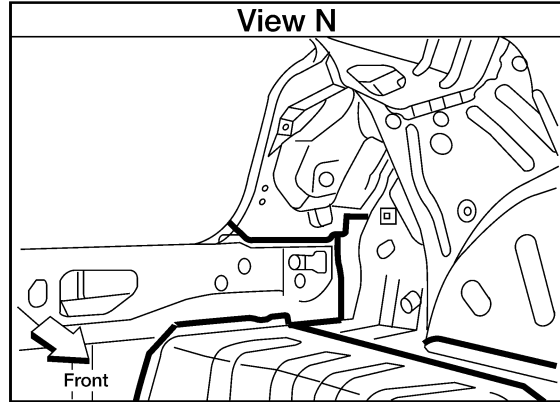
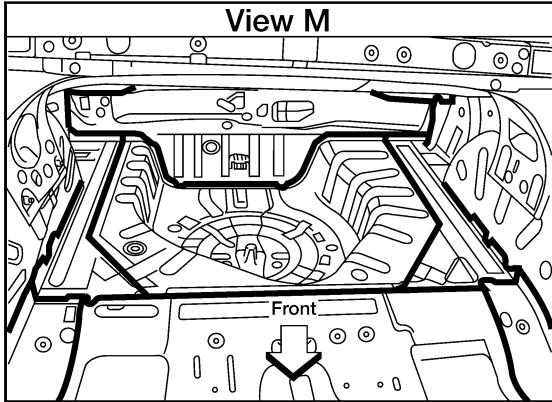
BODY REPAIR



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BODY REPAIR

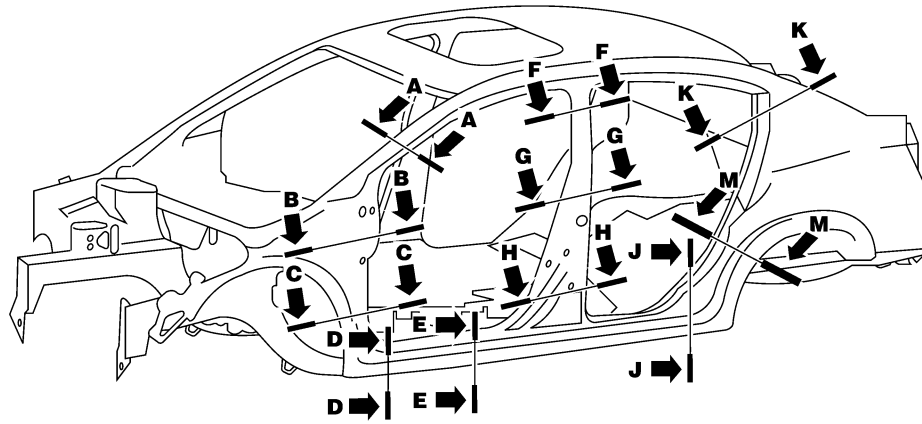


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BODY REPAIR

Body Construction BODY CONSTRUCTION

EIS00BBJ



Section A - A	Section B - B	Section C - C	Section D - D
Section E - E	Section F - F	Section G - G	Section H - H
Section J - J	Section K - K	Section M - M	

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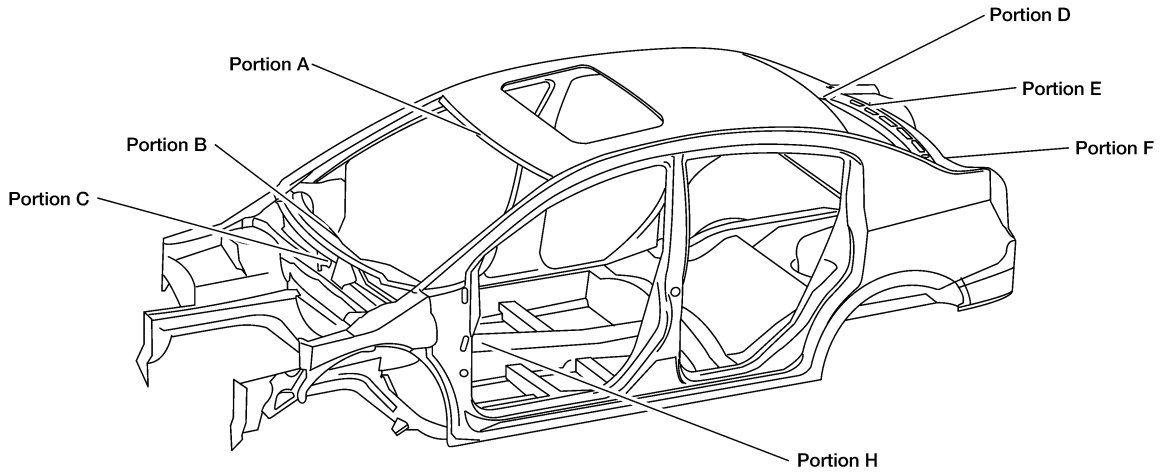
BODY REPAIR

Body Alignment **BODY CENTER MARKS**

EIS00BBK

A mark has been placed on each part of the body to indicate the vehicle center. When repairing parts damaged by an accident which might affect the vehicle frame (members, pillars, etc.), more accurate and effective repair will be possible by using these marks together with body alignment specifications.

BODY REPAIR



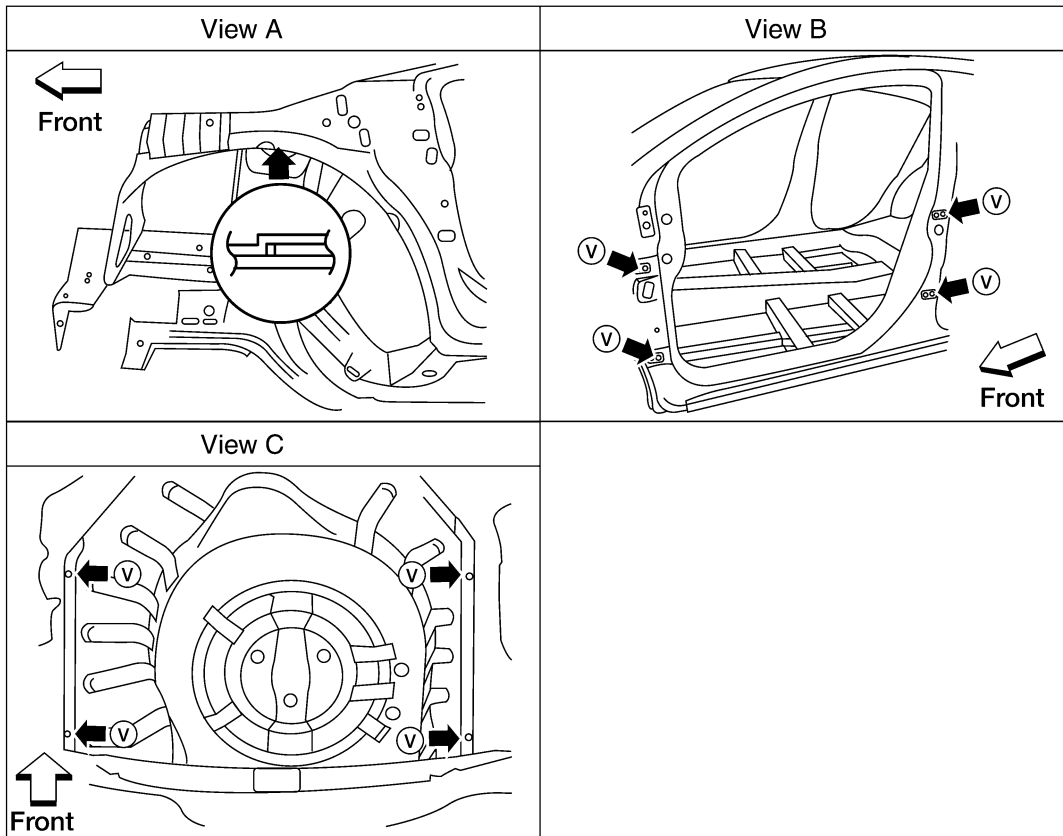
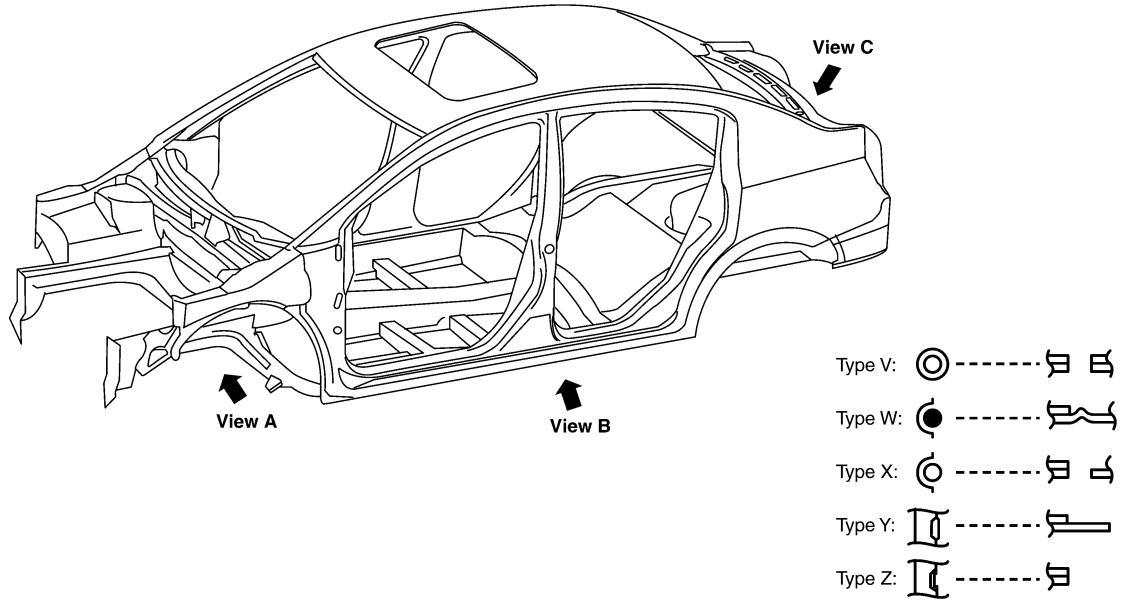
<p>Portion A</p> <p>(A) : Roof flange end of center positioning mark</p>	<p>Portion B</p> <p>(B) : Bottom center of windshield opening</p>	<p>Portion C</p> <p>(C) : Cowl top flange end of center positioning mark</p>
<p>Portion D</p> <p>(D) : Roof flange end of center positioning mark</p>	<p>Portion E</p> <p>(E) : Rear waist panel flange end</p>	<p>Portion F</p>
<p>Portion H</p> <p>Hole (12dia.)</p>		

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BODY REPAIR

PANEL PARTS MATCHING MARKS

A mark has been placed on each body panel to indicate the parts matching positions. When repairing parts damaged by an accident which might affect the vehicle structure (members, pillars, etc.), more accurate and effective repair will be possible by using these marks together with body alignment specifications.



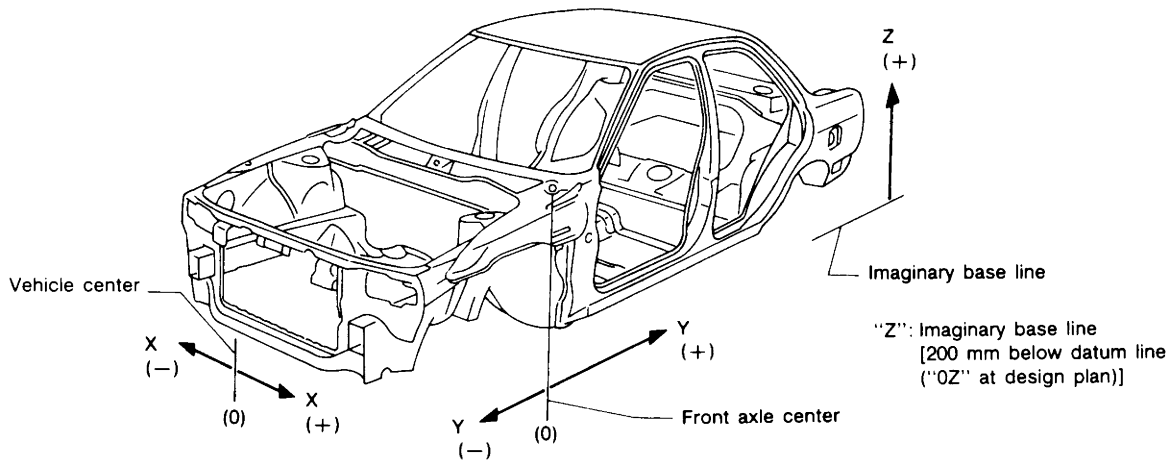
LIA2691E

DESCRIPTION

- All dimensions indicated in the figures are actual.

BODY REPAIR

- When using a tracking gauge, adjust both pointers to equal length. Then check the pointers and gauge itself to make sure there is no free play.
- When a measuring tape is used, check to be sure there is no elongation, twisting or bending.
- Measurements should be taken at the center of the mounting holes.
- An asterisk (*) following the value at the measuring point indicates that the measuring point on the other side is symmetrically the same value.
- The coordinates of the measurement points are the distances measured from the standard line of "X", "Y" and "Z".



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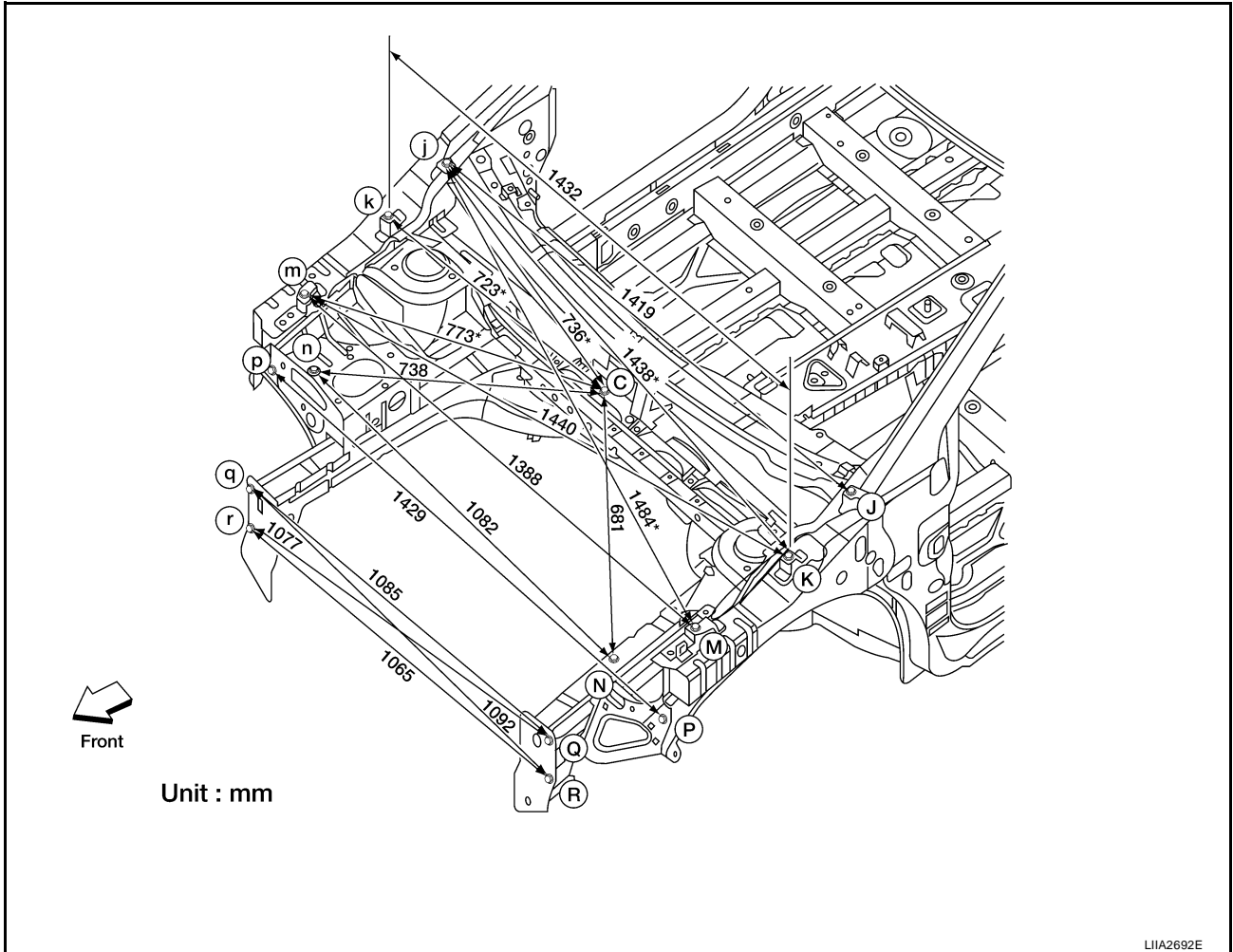
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BODY REPAIR

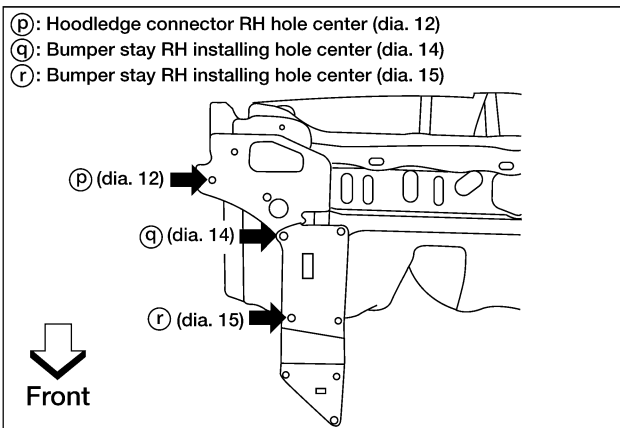
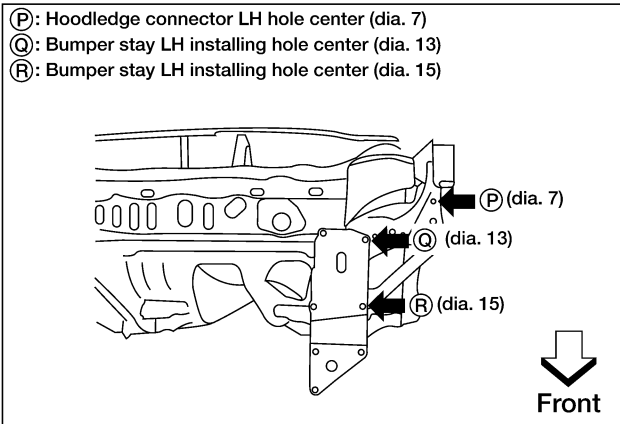
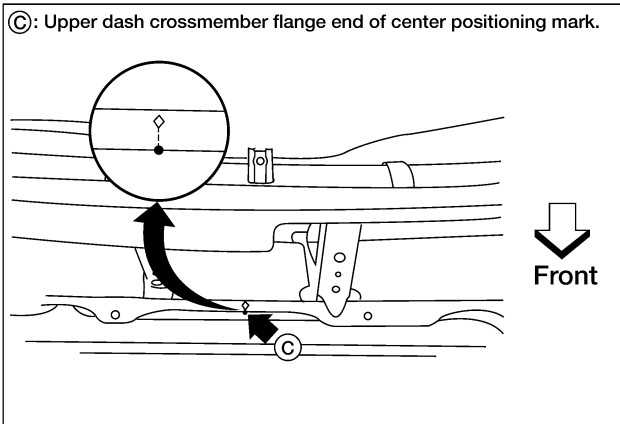
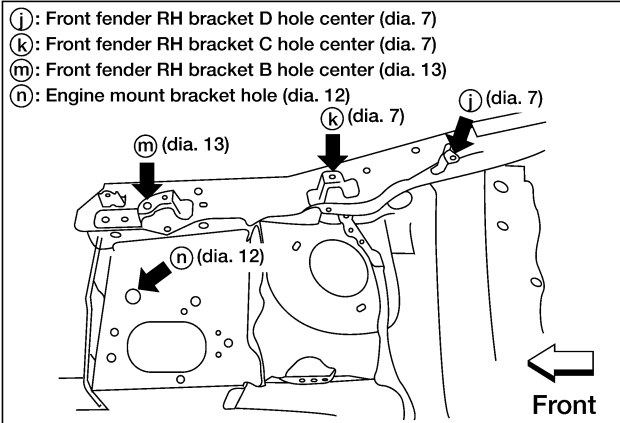
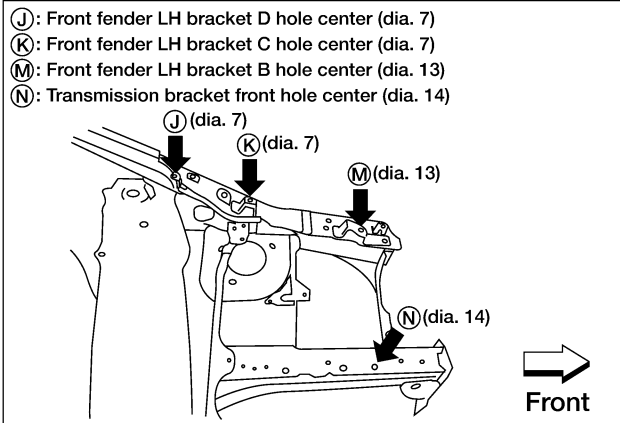
ENGINE COMPARTMENT

Measurement



BODY REPAIR

Measurement Points



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BODY REPAIR

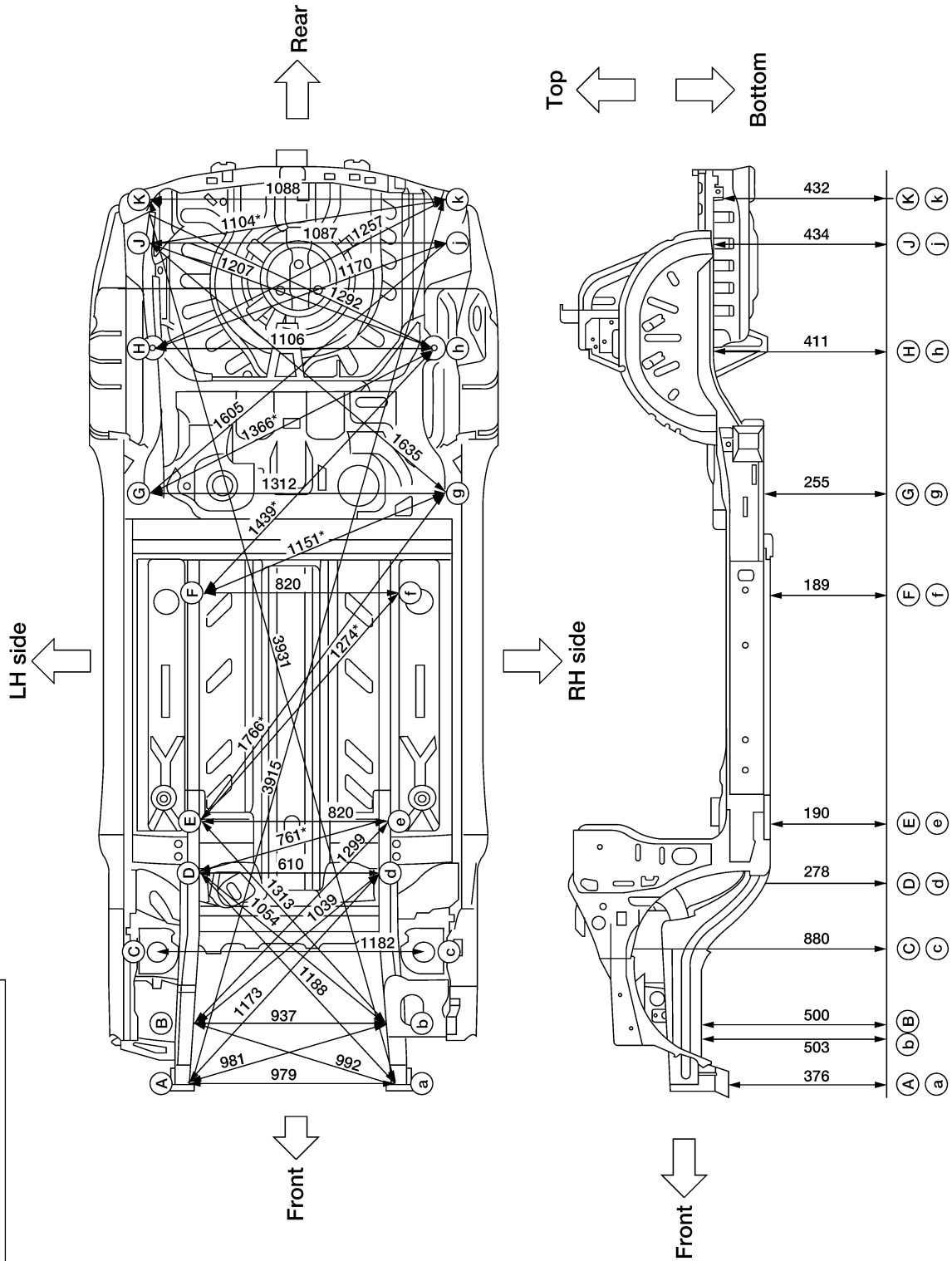
UNDERBODY Measurement

Unit: mm

Figures marked with a (*) indicate symmetrically identical dimensions on both right and left hand sides of the vehicle.

As viewed from underside.

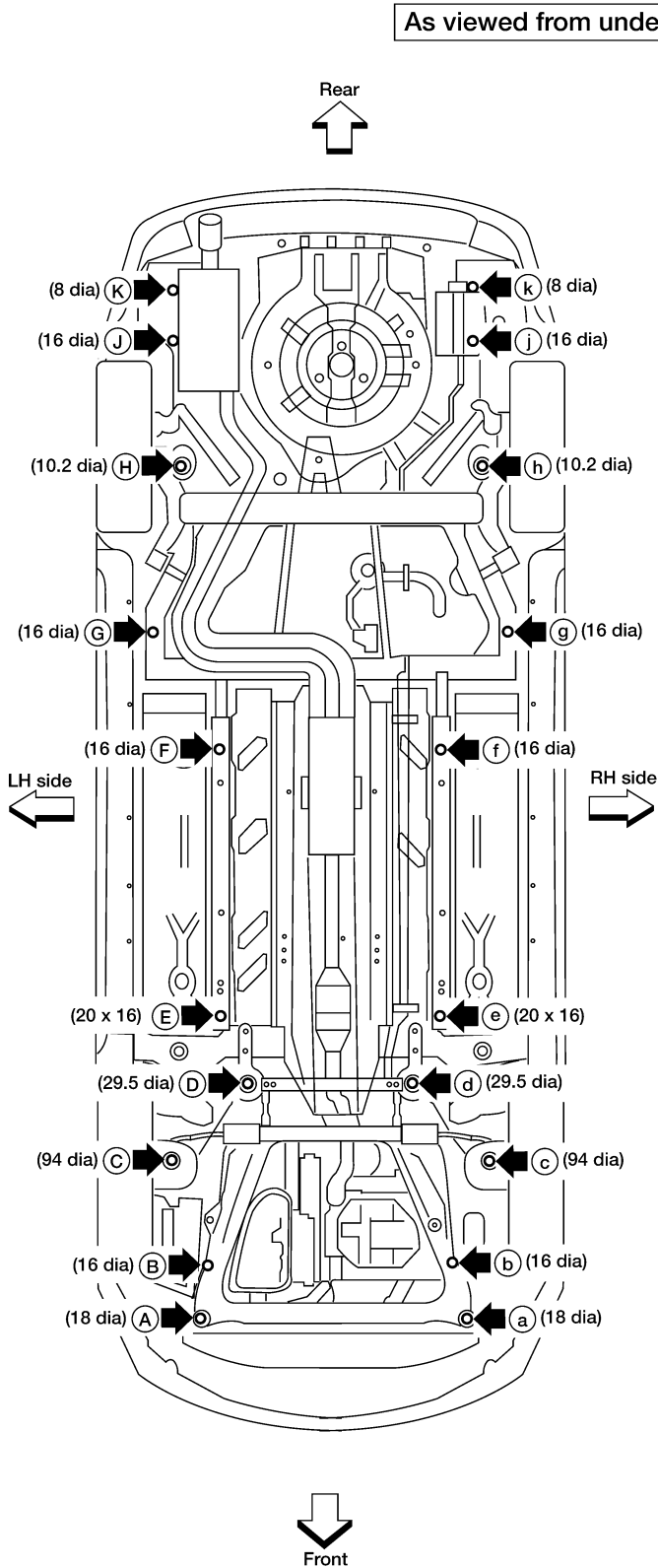
All dimensions indicated in this figure are actual.



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BODY REPAIR

Measurement Points



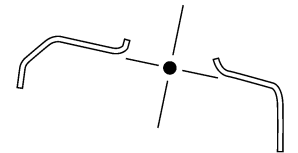
Coordinates:

(A)	(a)
X : -566.6	X : -566.6
Y : -478	Y : 501
Z : 175.5	Z : 175.5
(B)	(b)
X : -364	X : -372
Y : -462.4	Y : 474.4
Z : 299.5	Z : 302.5
(D, d)	
X : 301	
Y : ±305	
Z : 77.8	
(E)	(e)
X : -547	X : 547
Y : -410	Y : 410
Z : -9.8	Z : -9.6
(F, f)	
X : 1522.5	
Y : ±410	
Z : -10.8	
(G, g)	
X : 1953	
Y : ±656	
Z : 54.5	
(H, h)	
X : 2568.2	
Y : ±553	
Z : 211.1	
(J)	(j)
X : 3027	X : 3027
Y : -563.5	Y : 523.5
Z : 234	Z : 234
(K)	(k)
X : 3217.3	X : 3217.3
Y : -564	Y : 523.5
Z : 232.4	Z : 232.4

Strut tower centers

Coordinates:

(C, c) Front
X : 13.7
Y : ±591.1
Z : 679.7



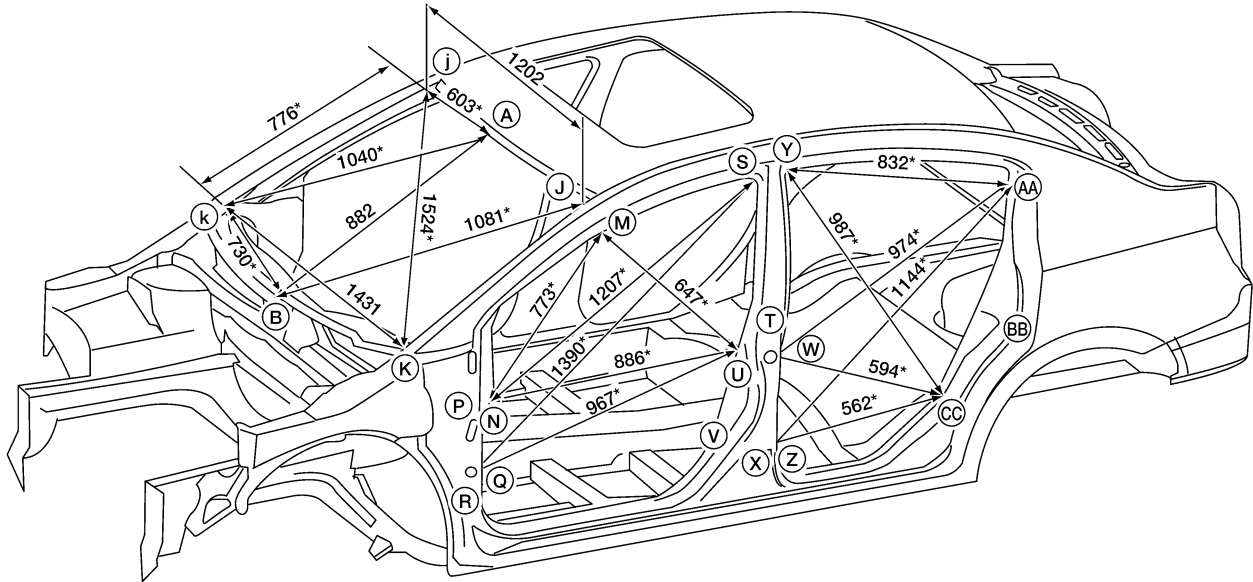
Unit: mm

LIA2695E

BODY REPAIR

PASSENGER COMPARTMENT

Measurement



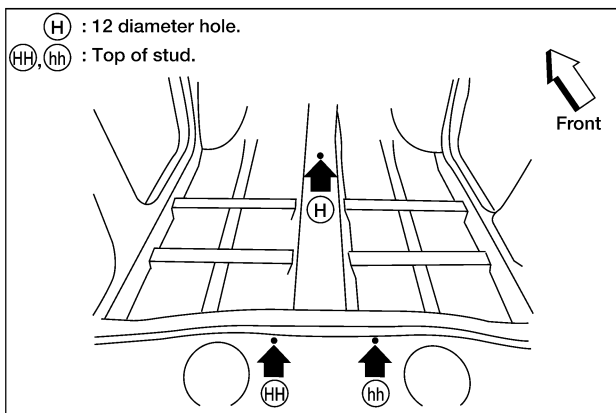
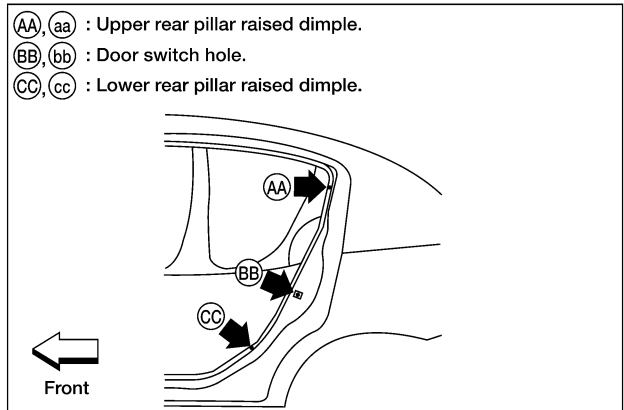
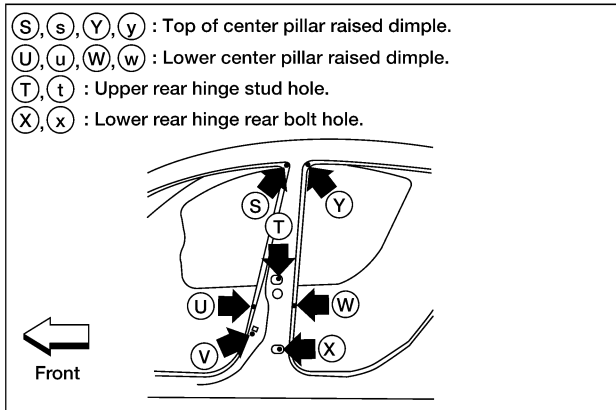
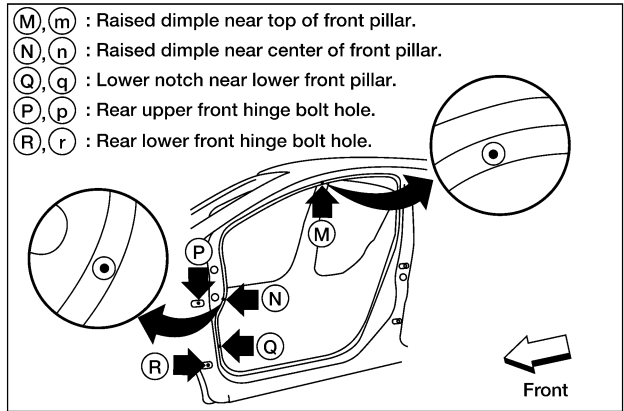
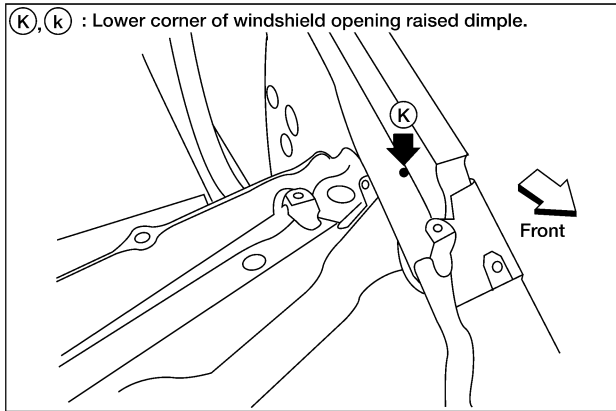
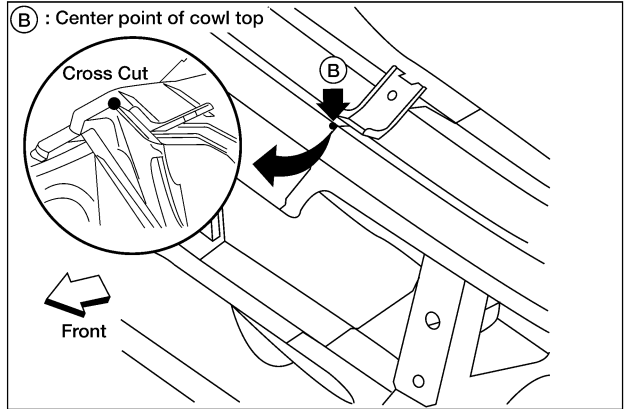
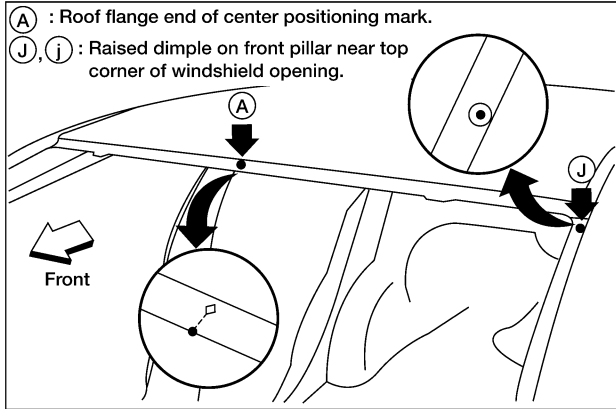
Point	Dimension	Point	Dimension	Point	Dimension	Point	Dimension
AA-aa	1,292	CC-cc	1,460	H-Q	778*	R-V	978*
AA-CC	767*	CC-w	1,566*	H-U	1,063*	R-X	1,095*
AA-cc	1573*	CC-z	1,562*	M-m	1,254	T-BB	810*
AA-w	1,657*	hh-aa	1,039*	N-n	1,446	T-X	339*
AA-z	1,786*	hh-cc	620*	P-R	1,118*	U-n	1,695*
A-D	1685	hh-D	1,131	P-T	1,118*	U-q	1,740*
A-E	2,212	H-hh	1,213*	P-V	996*	U-u	1,444
A-H	1,019	hh-w	752*	P-X	1,131*	W-w	1,438
B-D	2504	hh-z	703*	Q-n	1,473*	X-BB	853*
B-E	2986	H-M	1,171*	Q-q	1,450	Z-z	1,456
B-H	883	H-N	848*	R-T	1,179*		

Unit : mm

LIA2696E

BODY REPAIR

Measurement Points



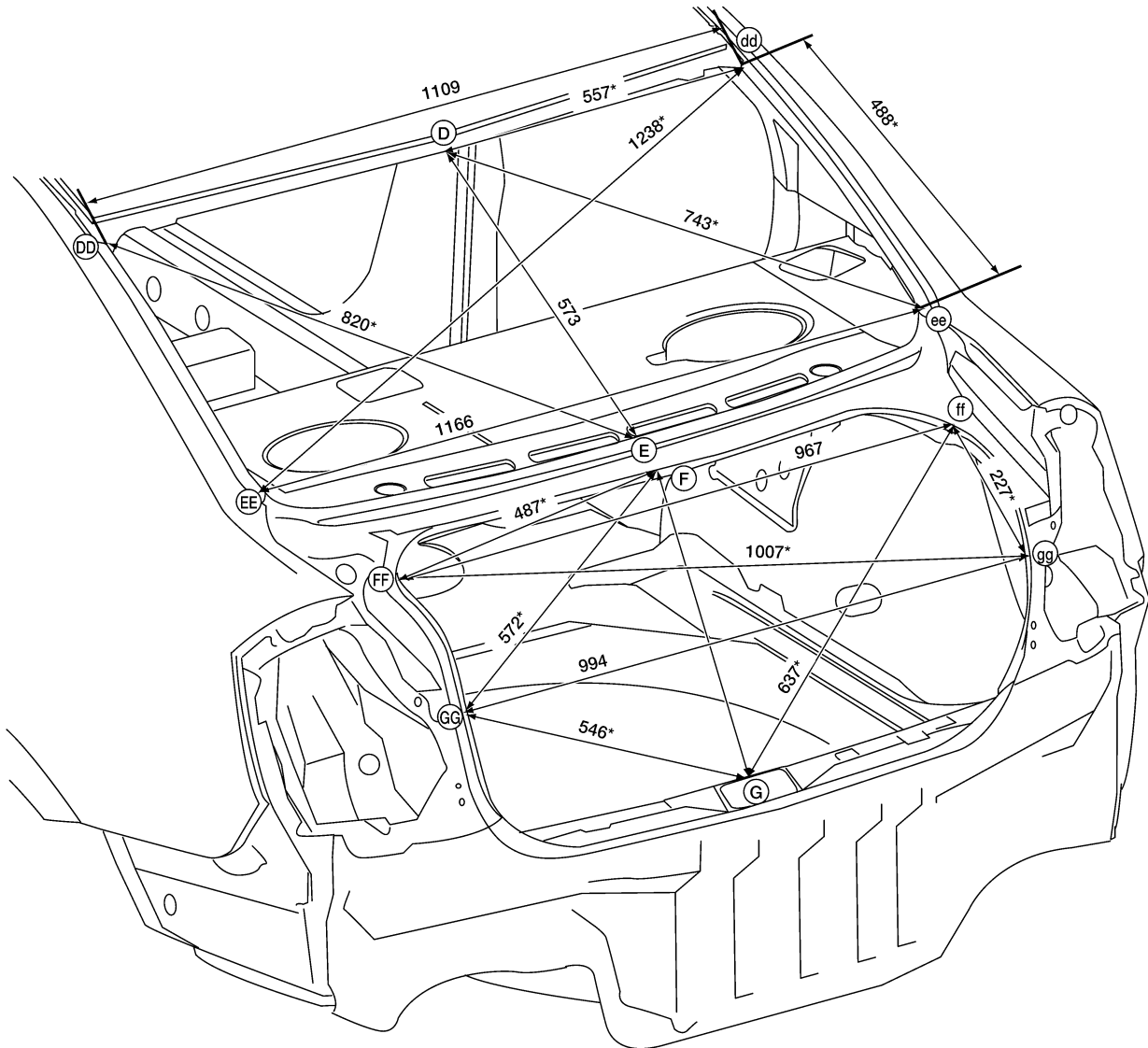
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BODY REPAIR

REAR BODY Measurement

Figures marked with a (*) indicate symmetrically identical dimensions on both right and left sides of the vehicle.

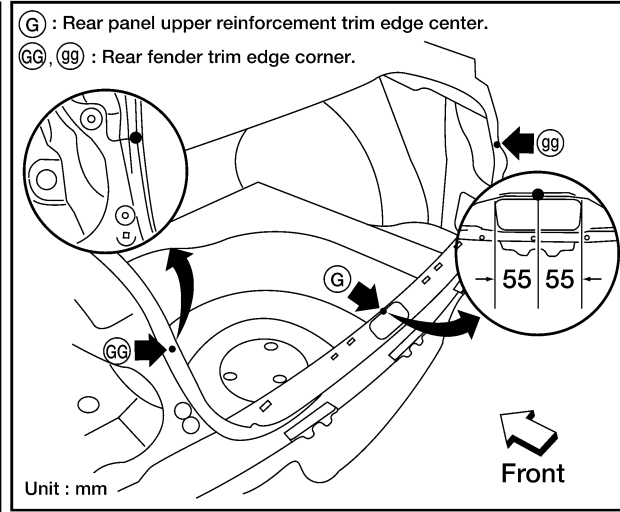
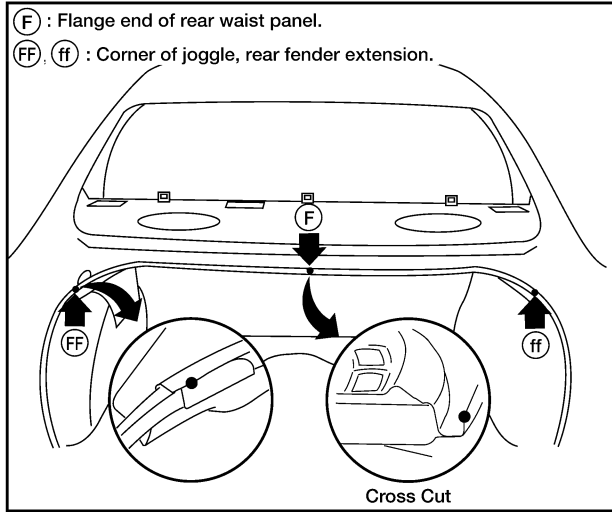
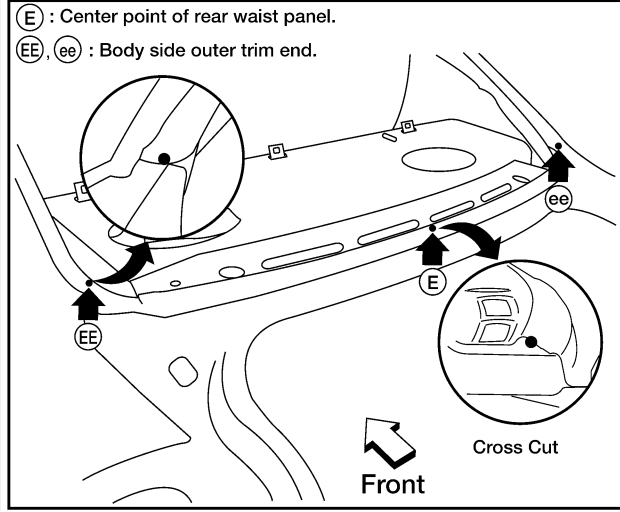
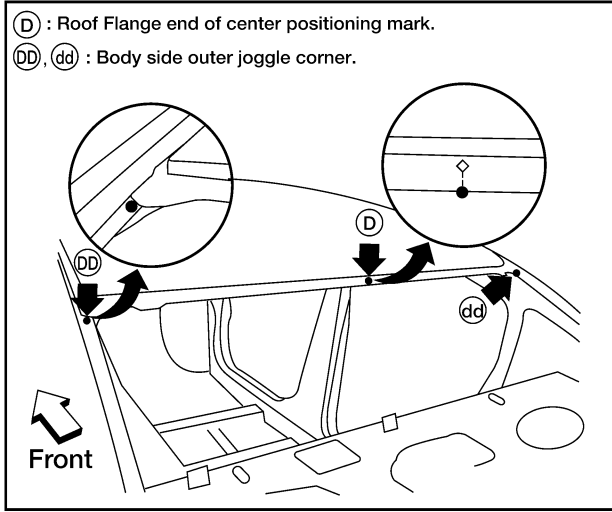


Unit: mm

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BODY REPAIR

Measurement Points



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BODY REPAIR

EIS00BBL

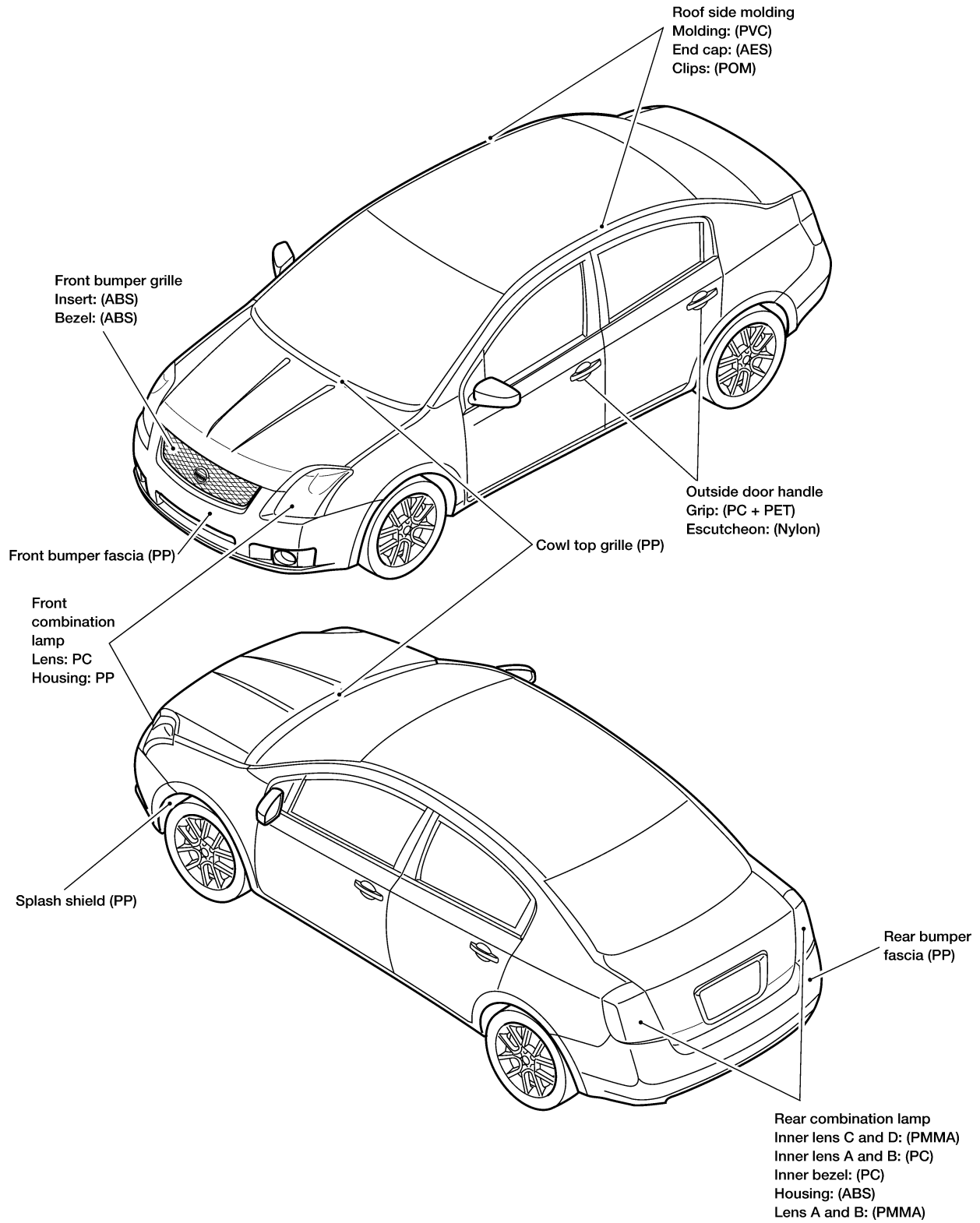
Handling Precautions for Plastics HANDLING PRECAUTIONS FOR PLASTICS

Abbreviation	Material name	Heat resisting temperature °C (°F)	Resistance to gasoline and solvents	Other cautions
PE	Polyethylene	60 (140)	Gasoline and most solvents are harmless if applied for a very short time (wipe up quickly).	Flammable
PVC	Polyvinyl Chloride	80 (176)	Same as above.	Poison gas is emitted when burned.
EPM/EPDM	Ethylene Propylene (Diene) rubber	80 (176)	Same as above.	Flammable
TPO/TPR	Thermoplastic Olefine/Thermoplastic Rubber	80 (176)	Same as above.	Flammable
PP	Polypropylene	90 (194)	Same as above.	Flammable, avoid battery acid.
UP	Polyester thermoset	90 (194)	Same as above.	Flammable
PS	Polystyrene	80 (176)	Avoid solvents.	Flammable
ABS	Acrylonitrile Butadiene Styrene resin	80 (176)	Avoid gasoline and solvents.	
AES	Acrylonitrile Ethylene Styrene	80 (176)	Same as above.	
PMMA	Polymethyl Methacrylate	85 (185)	Same as above.	
AAS	Acrylonitrile Acrylic Styrene	85 (185)	Same as above.	
AS	Acrylonitrile Styrene	85 (185)	Same as above.	
EVA	Polyvinyl Ethyl Acetate	90 (194)	Same as above.	
ASA	Acrylonitrile Styrene Acrylate	100 (222)	Same as above.	Flammable
PPO/PPE	Polyphenylene Oxide/Polyphenylene Ether	110 (230)	Same as above.	
PC	Polycarbonate	120 (248)	Same as above.	
PAR	Polyacrylate	180 (356)	Same as above.	
L-LDPE	Linear Low Density PE	45 (100)	Gasoline and most solvents are harmless.	Flammable
PUR	Polyurethane	90 (194)	Same as above.	
TPU	Thermoplastic Urethane	110 (230)	Same as above.	
PPC	Polypropylene Composite	115 (239)	Same as above.	Flammable
POM	Polyacetal	120 (248)	Same as above.	Avoid battery acid.
PBT+PC	Polybutylene Terephthalate+Polycarbonate	120 (248)	Same as above.	Flammable
PA	Polyamide (Nylon)	140 (284)	Same as above.	Avoid immersing in water.
PBT	Polybutylene Terephthalate	140 (284)	Same as above.	
FRP	Fiber Reinforced Plastics	170 (338)	Same as above.	Avoid battery acid.
PET	Polyethylene Terephthalate	180 (356)	Same as above.	
PEI	Polyetherimide	200 (392)	Same as above.	

1. When repairing and painting a portion of the body adjacent to plastic parts, consider their characteristics (influence of heat and solvent) and remove them if necessary or take suitable measures to protect them.
2. Plastic parts should be repaired and painted using methods suiting the materials' characteristics.

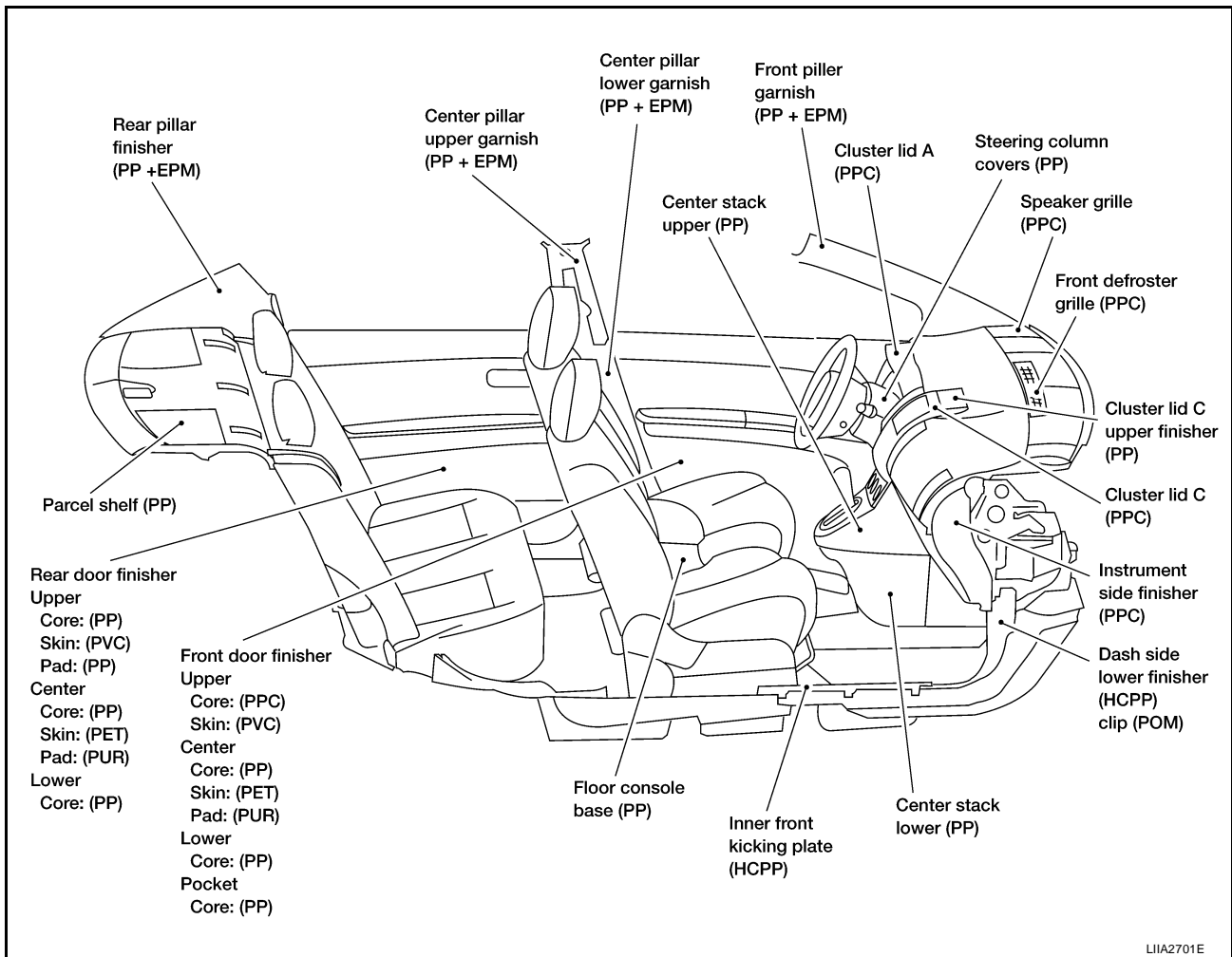
BODY REPAIR

LOCATION OF PLASTIC PARTS



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BODY REPAIR



LIA2701E

BODY REPAIR

EIS00BBM

Precautions in Repairing High Strength Steel

High strength steel is used for body panels in order to reduce vehicle weight. Accordingly, precautions in repairing automotive bodies made of high strength steel are described below:

HIGH STRENGTH STEEL (HSS) USED IN NISSAN VEHICLES

Tensile strength	Nissan/Infiniti designation	Major applicable parts
373 N/mm ² (38kg/mm ² ,54klb/sq in)	SP130	<ul style="list-style-type: none">● Front & rear side member assembly● Front side member closing plate assembly● Front strut housing● Lower dash● Rear seat crossmember● Other reinforcements
785-1350 N/mm ² (80-138kg/mm ² , 114-196klb/sq in)	SP150	<ul style="list-style-type: none">● Center pillar reinforcement (Component part)● Outer roof side rail reinforcement (Component part)

SP130 is the most commonly used HSS.

SP150 HSS is used only on parts that require much more strength.

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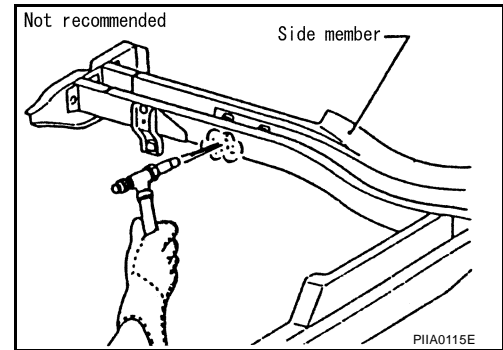
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BODY REPAIR

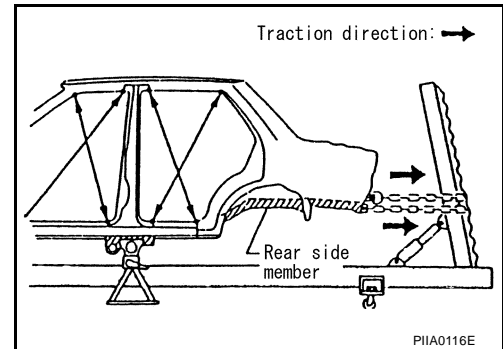
Read the Following Precautions When Repairing HSS:

1. Additional points to consider

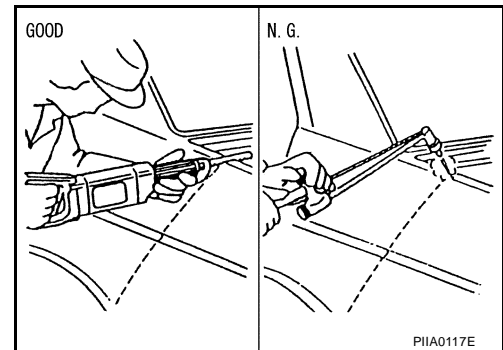
- The repair of reinforcements (such as side members) by heating is not recommended since it may weaken the component. When heating is unavoidable, do not heat HSS parts above 550°C (1,022°F). Verify heating temperature with a thermometer. (Crayon-type and other similar type thermometer are appropriate.)



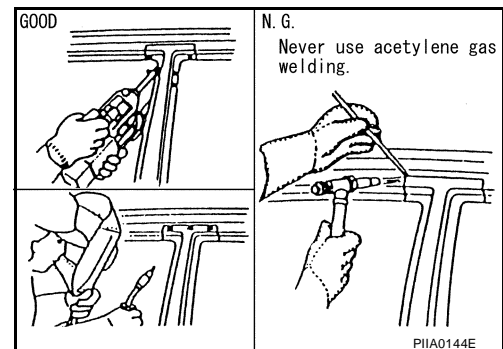
- When straightening body panels, use caution in pulling any HSS panel. Because HSS is very strong, pulling may cause deformation in adjacent portions of the body. In this case, increase the number of measuring points, and carefully pull the HSS panel.



- When cutting HSS panels, avoid gas (torch) cutting if possible. Instead, use a saw to avoid weakening surrounding areas due to heat. If gas (torch) cutting is unavoidable, allow a minimum margin of 50 mm (1.97in).

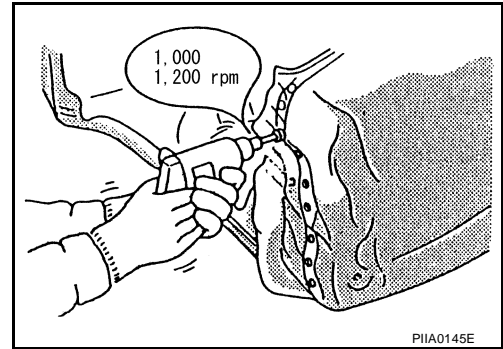


- When welding HSS panels, use spot welding whenever possible in order to minimize weakening surrounding areas due to heat. If spot welding is impossible, use M.I.G. welding. Do not use gas (torch) welding because it is inferior in welding strength.



BODY REPAIR

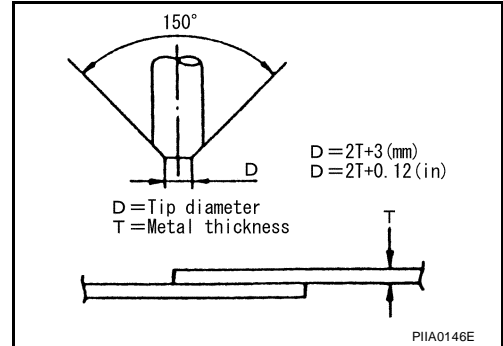
- The spot weld on HSS panels is harder than that of an ordinary steel panel. Therefore, when cutting spot welds on a HSS panel, use a low speed high torque drill (1,000 to 1,200 rpm) to increase drill bit durability and facilitate the operation.



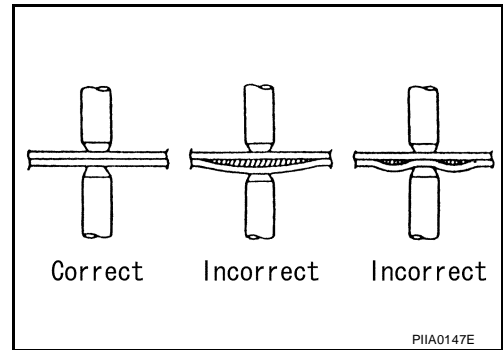
2. Precautions in spot welding HSS

This work should be performed under standard working conditions. Always note the following when spot welding HSS:

- The electrode tip diameter must be sized properly according to the metal thickness.



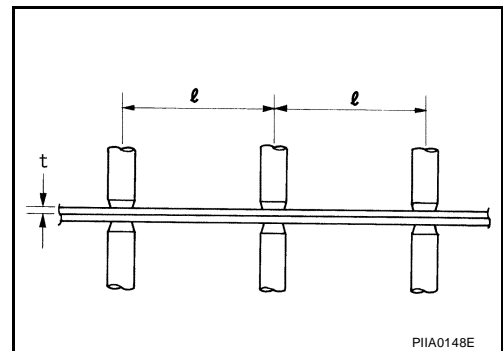
- The panel surfaces must fit flush to each other, leaving no gaps.



- Follow the specifications for the proper welding pitch.

Unit: mm

Thickness (t)	Minimum pitch (ℓ)
0.6 (0.024)	10 (0.39) or over
0.8 (0.031)	12 (0.47) or over
1.0 (0.039)	18 (0.71) or over
1.2 (0.047)	20 (0.79) or over
1.6 (0.063)	27 (1.06) or over
1.8 (0.071)	31 (1.22) or over



BODY REPAIR

Rear fender hemming process

1. A wheel arch is to be installed and hemmed over left and right outer wheel house.
2. In order to hem the wheel arch, it is necessary to repair any damaged or defaced parts around outer wheel house.

CAUTION:

Ensure that the area that is to be glued around outer wheelhouse is undamaged or defaced.

Procedure of the hemming process

- Peel off old bonding material on the surface of outer wheelhouse and clean thoroughly.
- Peel off a primer coat in the specified area where new adhesive is to be applied on rear fender (the replacing part).
- Apply new adhesive to both specified areas of outer wheelhouse and rear fender.

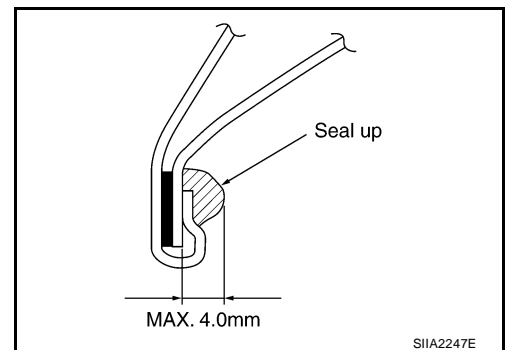
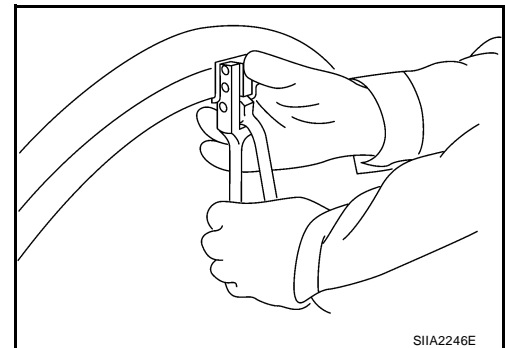
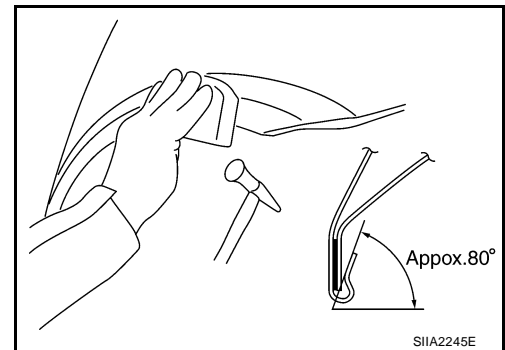
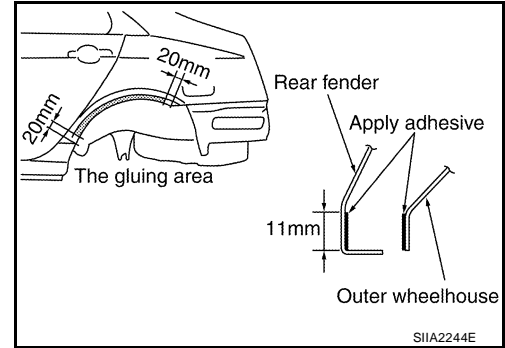
<Adhesive> **3M automix panel bond 8115, or any equivalents**

- Attach rear fender to the body of the car, and weld the required part except the hemming part.

- Bend the welded part starting from the center of the wheel arch gradually with a hammer and a dolly. (Also hem the end of the flange.)
- Hemming with a hammer is conducted to an approximate angle of 80 degrees.

- Starting from the center, hem the wheel arch gradually, using slight back and forth motion with a hemming tool.

- Seal up the area around the hemmed end of the flange.



BODY REPAIR

EIS00BBN

Foam Repair

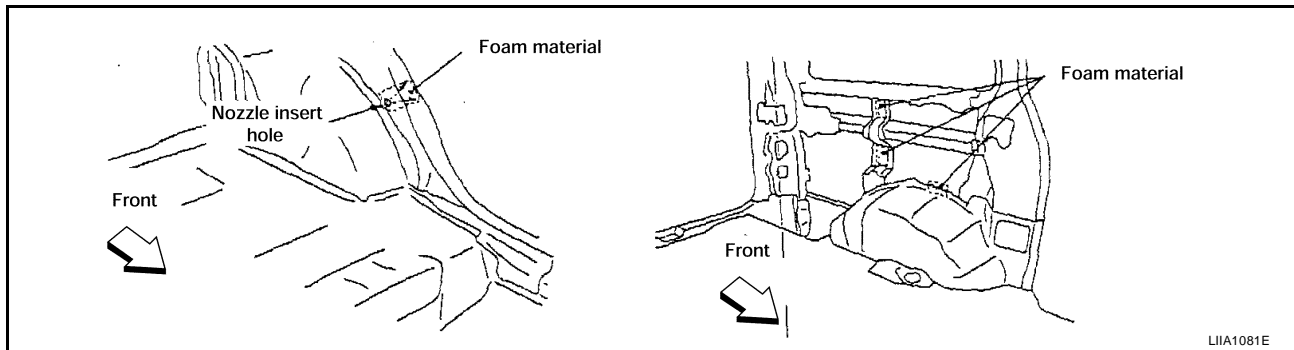
During factory body assembly, foam insulators are installed in certain body panels and locations around the vehicle. Use the following procedure(s) to replace any factory-installed foam insulators.

URETHANE FOAM APPLICATIONS

Use commercially available spray foam for sealant (foam material) repair of material used on vehicle. Read instructions on product for fill procedures.

FILL PROCEDURES

1. Fill procedures after installation of service part.
 - Remove foam material remaining on vehicle side.
 - Clean area in which foam was removed.
 - Install service part.
 - Insert nozzle into hole near fill area and fill foam material or fill in enough to close gap with the service part.



2. Fill procedures before installation of service part.
 - Remove foam material remaining on vehicle side.
 - Clean area in which foam was removed.
 - Fill foam material on wheelhouse outer side.

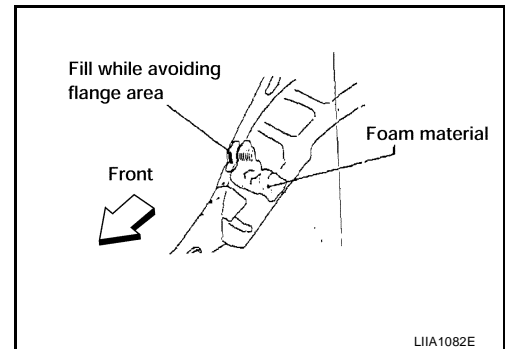
NOTE:

Fill in enough to close gap with service part while avoiding flange area.

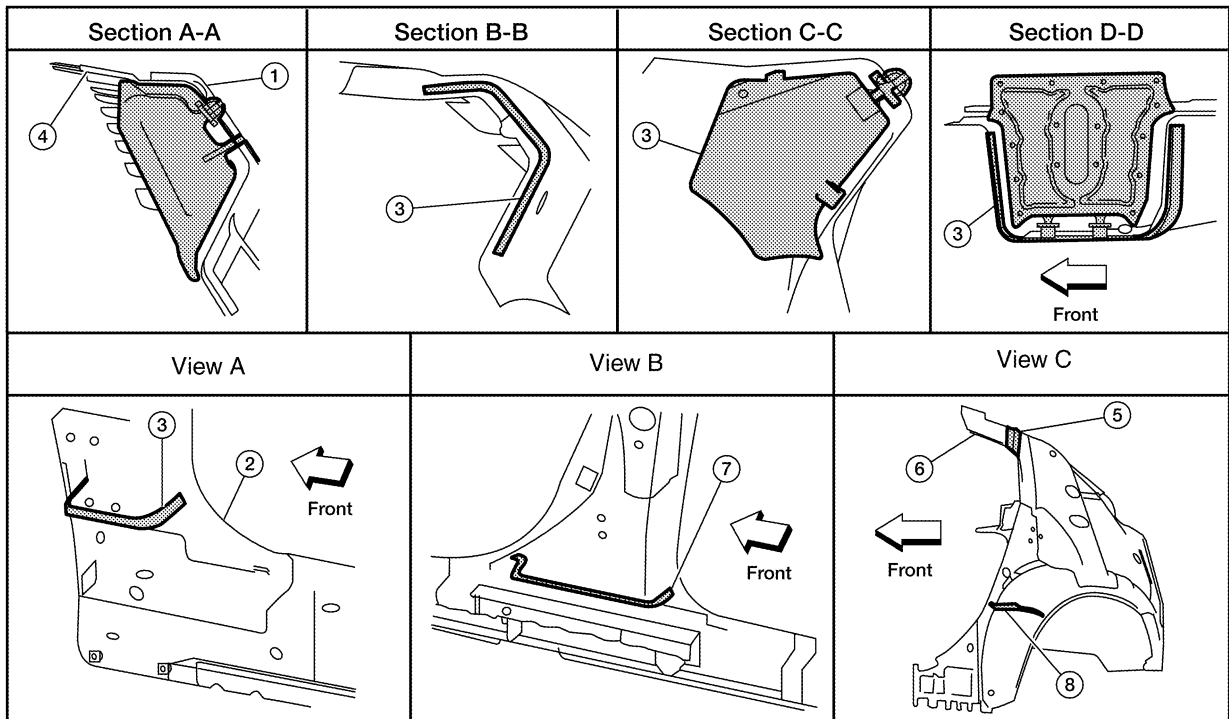
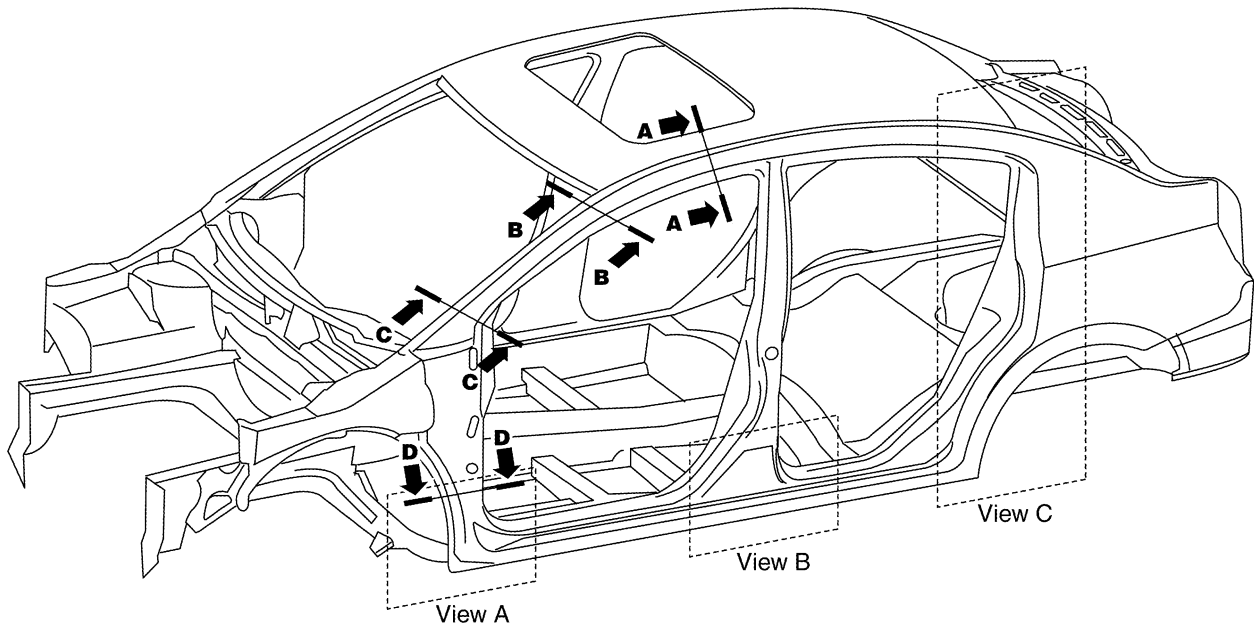
- Install service part.

NOTE:

Refer to label for information on working times.



BODY REPAIR



- | | | |
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| 1. Body side outer | 2. Front pillar lower reinforcement | 3. Body side insulation (foam) front pillar |
| 4. Roof panel assembly | 5. Body side insulation (Foam) rear roof rail | 6. Rear roof rail assembly |
| 7. Body side insulation strip, center pillar | 8. Body side insulation strip, rear pillar lower | 9. Body side insulation strip, rear pillar upper |

LIA2702E

BODY REPAIR

Replacement Operations

EIS00BBO

DESCRIPTION

This section is prepared for technicians who have attained a high level of skill and experience in repairing collision-damaged vehicles and also use modern service tools and equipment. Persons unfamiliar with body repair techniques should not attempt to repair collision-damaged vehicles by using this section.

Technicians are also encouraged to read Body Repair Manual (Fundamentals) in order to ensure that the original functions and quality of the vehicle can be maintained. The Body Repair Manual (Fundamentals) contains additional information, including cautions and warnings, that are not including in this manual. Technicians should refer to both manuals to ensure proper repairs.


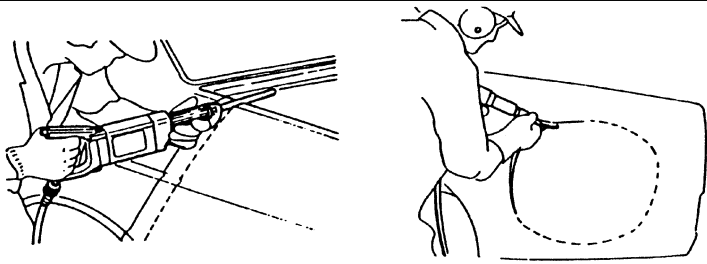





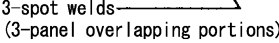
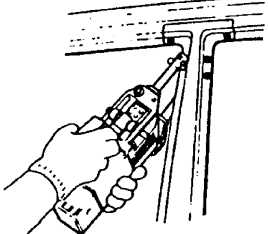


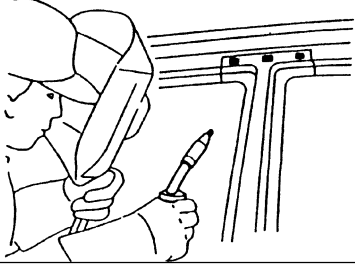
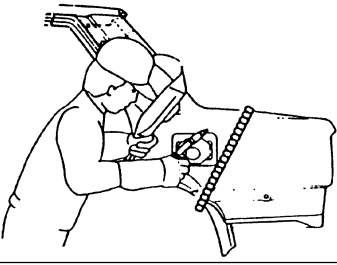



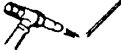
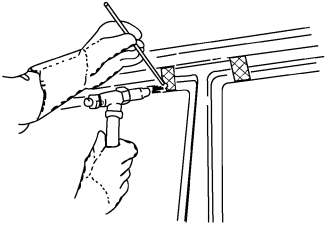


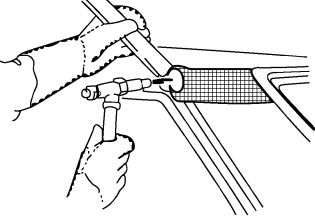
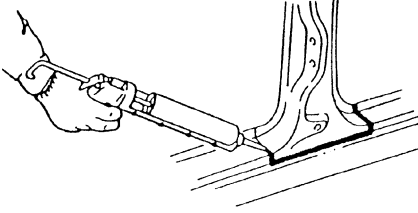
Please note that this information is prepared for worldwide usage, and as such, certain procedures may not apply in some regions or countries.

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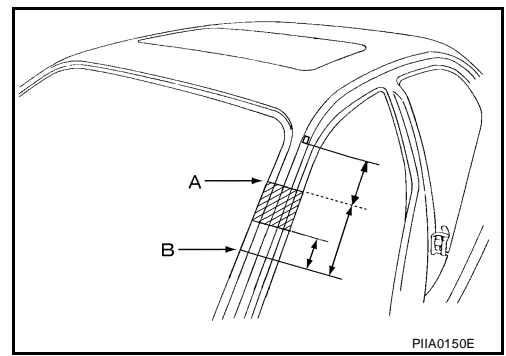
BODY REPAIR

The symbols used in this section for cutting and welding / brazing operations are shown below.

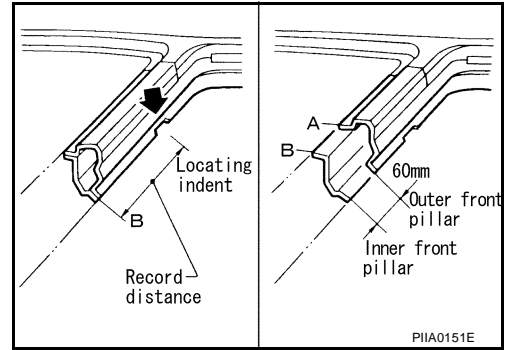
 <p>Saw cut or air chisel cut</p>		
<p>Spot weld</p> <p>● ● ● ● 2-spot welds</p>   <p>● ● ● ● 3-spot welds</p>  	<p>2-spot welds (2-panel overlapping portions)</p>  <p>3-spot welds (3-panel overlapping portions)</p> 	
<p>■ ■ ■ ■ MIG plug weld</p>  		
<p>~~~~~ MIG seam weld/ Point weld</p>  		
<p>▨ ▨ ▨ ▨ Brazing</p>  		
<p>▩ ▩ ▩ ▩ Soldering</p>  		
<p>————— Sealing</p>		

BODY REPAIR

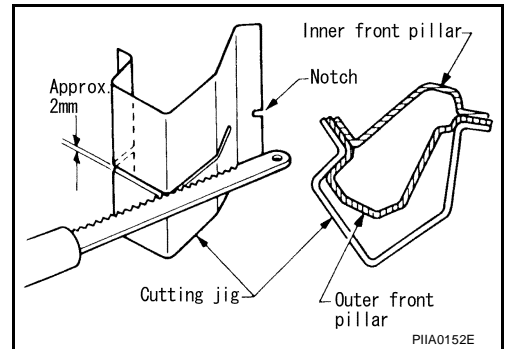
- Front pillar butt joint can be determined anywhere within shaded area as shown in the figure. The best location for the butt joint is at position A due to the construction of the vehicle. Refer to the front pillar section.



- Determine cutting position and record distance from the locating indent. Use this distance when cutting the service part. Cut outer front pillar over 60 mm above inner front pillar cut position.

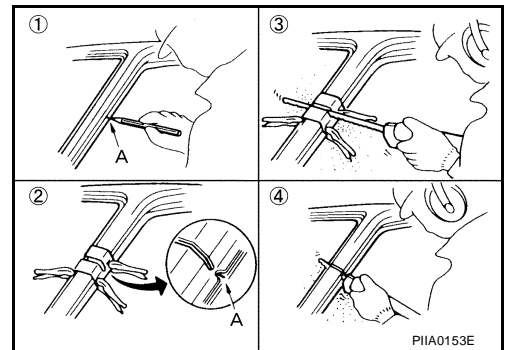


- Prepare a cutting jig to make outer pillar easier to cut. Also, this will permit service part to be accurately cut at joint position.



- An example of cutting operation using a cutting jig is as follows.

1. Mark cutting lines.
A: Cut position of outer pillar
B: Cut position of inner pillar
2. Align cutting line with notch on jig. Clamp jig to pillar.
3. Cut outer pillar along groove of jig. (At position A)
4. Remove jig and cut remaining portions.
5. Cut inner pillar at position B in same manner.

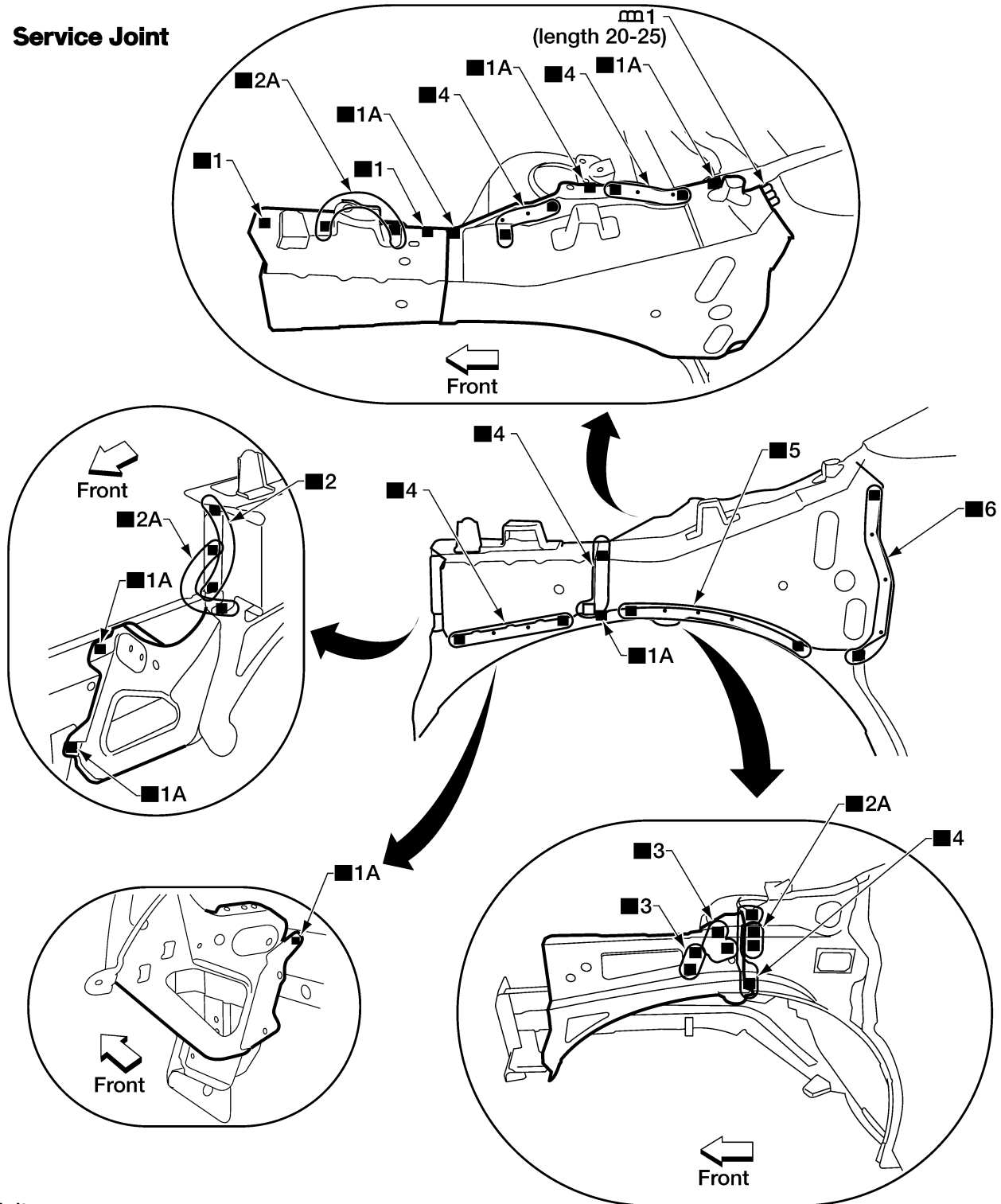


BODY REPAIR

HOODLEDGE LH

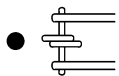
- Work after radiator core support upper and lower have been removed.

Service Joint

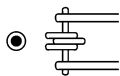


Unit: mm

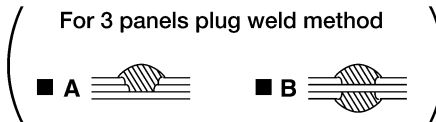
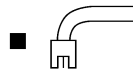
2-spot welds



3-spot welds



MIG Plug weld



MIG seam weld/
Point weld



LIA2705E

BODY REPAIR

Change Parts

- Hoodledge reinforcement assembly
- Hoodledge connector
- Fender bracket
- Cowl top side upper
- Hoodledge upper

A

B

C

D

E

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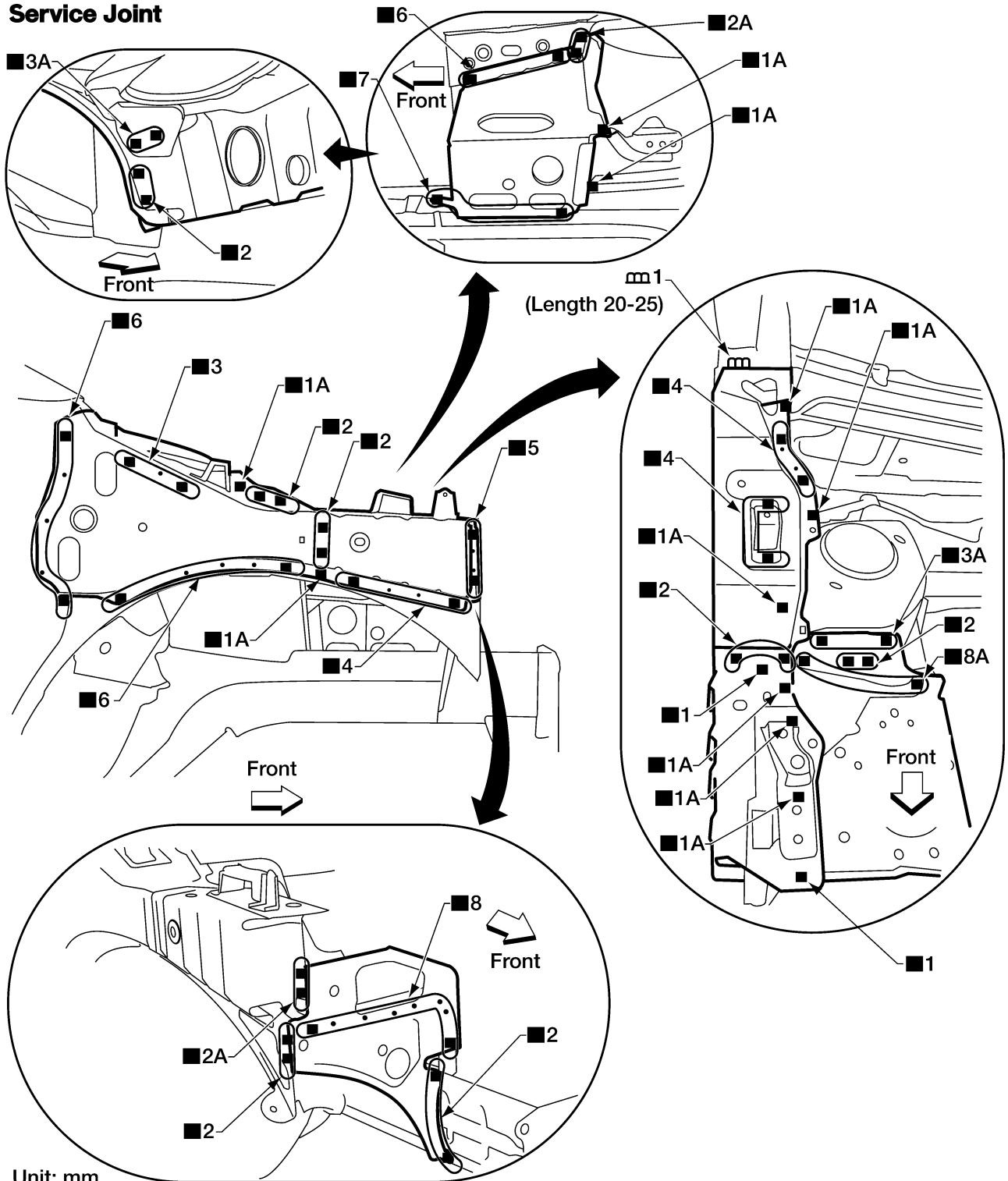
M

BODY REPAIR

HOODLEDGE RH

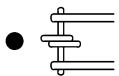
- Work after radiator core support upper and lower have been removed.

Service Joint

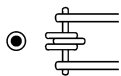


Unit: mm

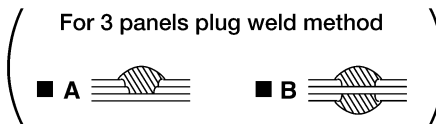
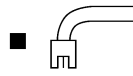
2-spot welds



3-spot welds



MIG Plug weld



MIG seam weld/
Point weld



LIA2706E

BODY REPAIR

Change Parts

- Hoodledge reinforcement assembly
- Hoodledge connector
- Fender bracket
- Cowl top side upper
- Hoodledge upper
- Engine mounting bracket

A

B

C

D

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G

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BL

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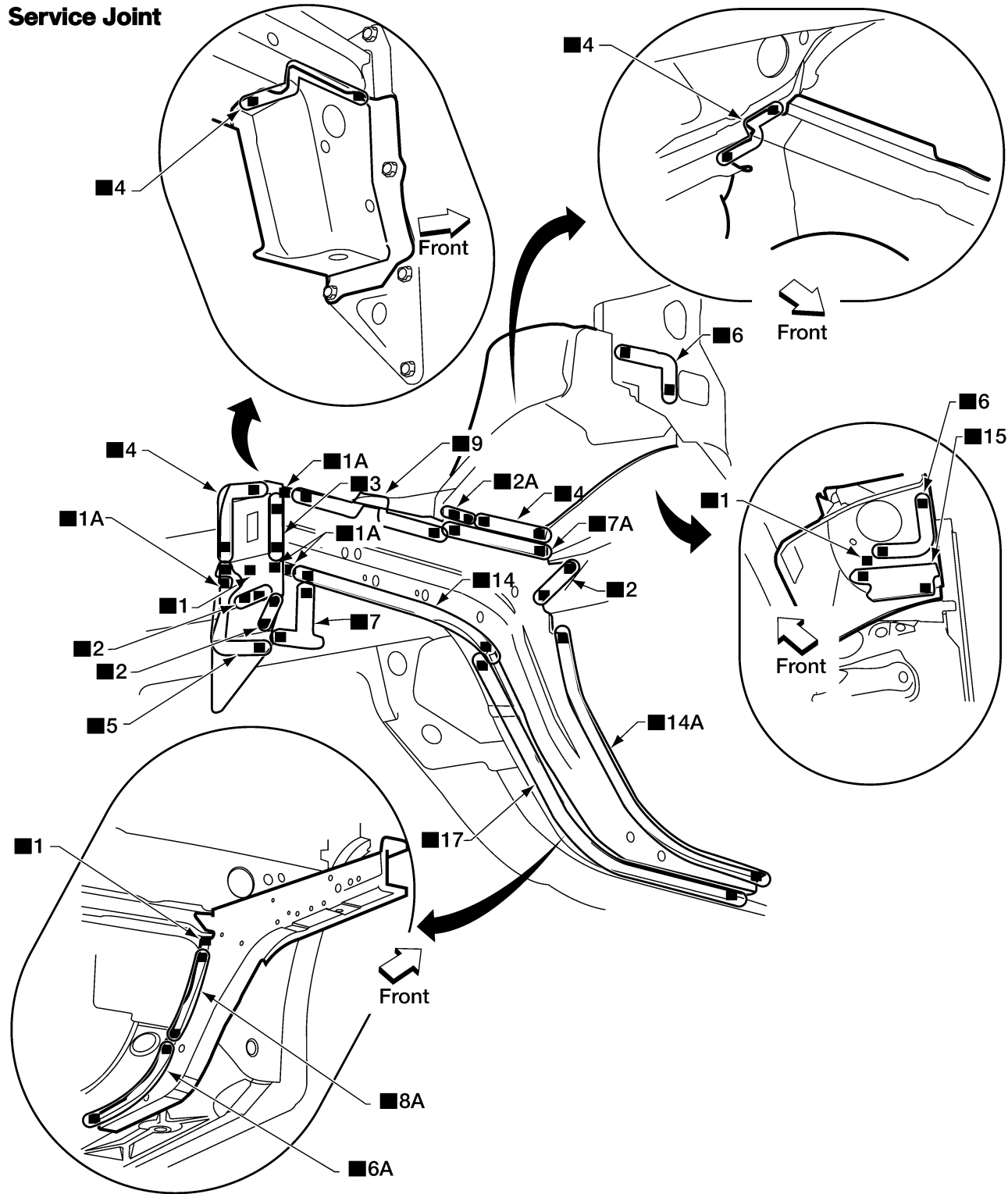
M

BODY REPAIR

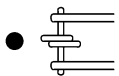
FRONT SIDE MEMBER

- Work after hoodledge, radiator core support and outrigger have been removed.

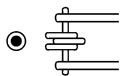
Service Joint



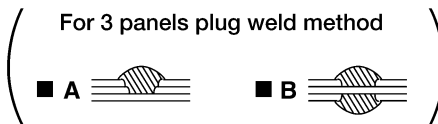
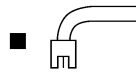
2-spot welds



3-spot welds



MIG Plug weld



MIG seam weld/
Point weld



LIA2707E

BODY REPAIR

Change parts

- Front side member
- Front side member closing plate
- Front side member outrigger
- Frame bracket outer
- Front strut housing

A

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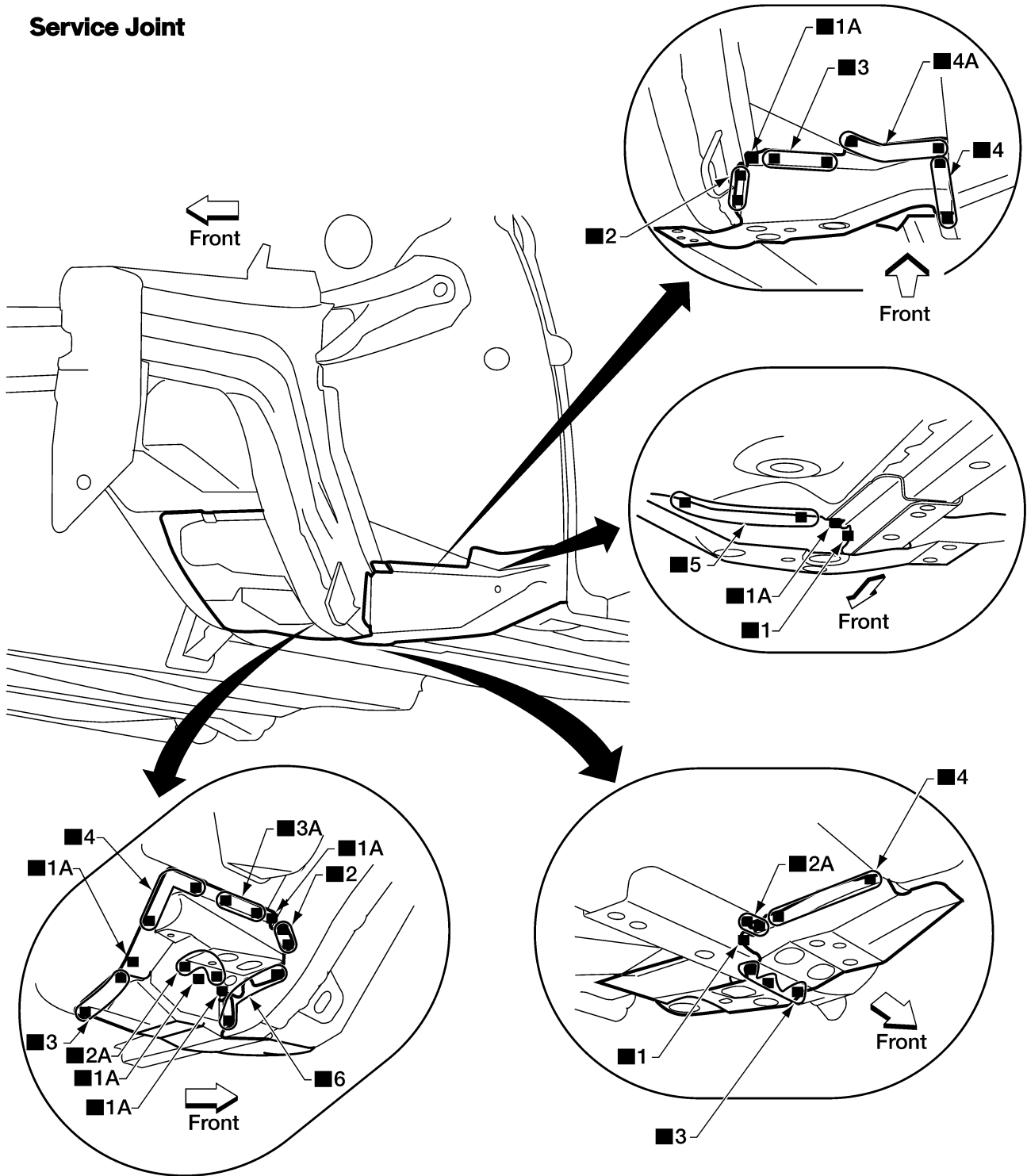
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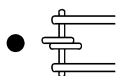
BODY REPAIR

OUTRIGGER

Service Joint



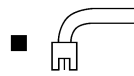
2-spot welds



3-spot welds

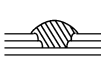


MIG Plug weld

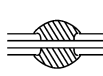


(For 3 panels plug weld method)

■ A



■ B



MIG seam weld/
Point weld



LIA2708E

Change parts

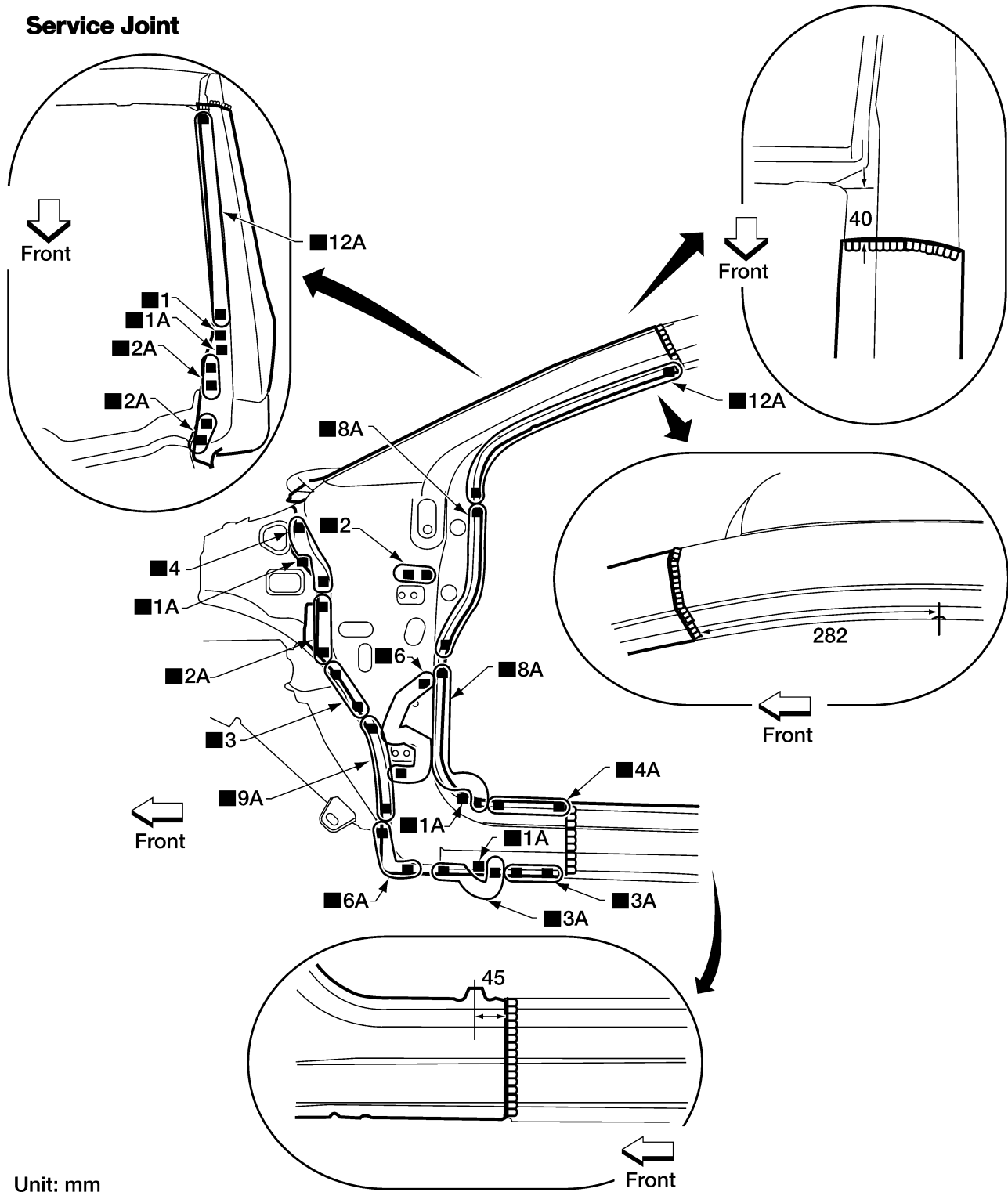
● Outrigger

BODY REPAIR

FRONT PILLAR

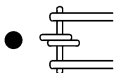
- Work after the rear hoodledge reinforcement has been removed.

Service Joint

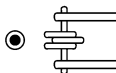


Unit: mm

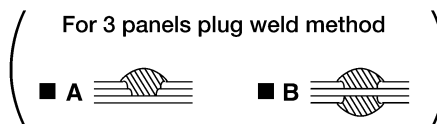
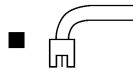
2-spot welds



3-spot welds



MIG Plug weld



MIG seam weld/
Point weld



LIIA2709E

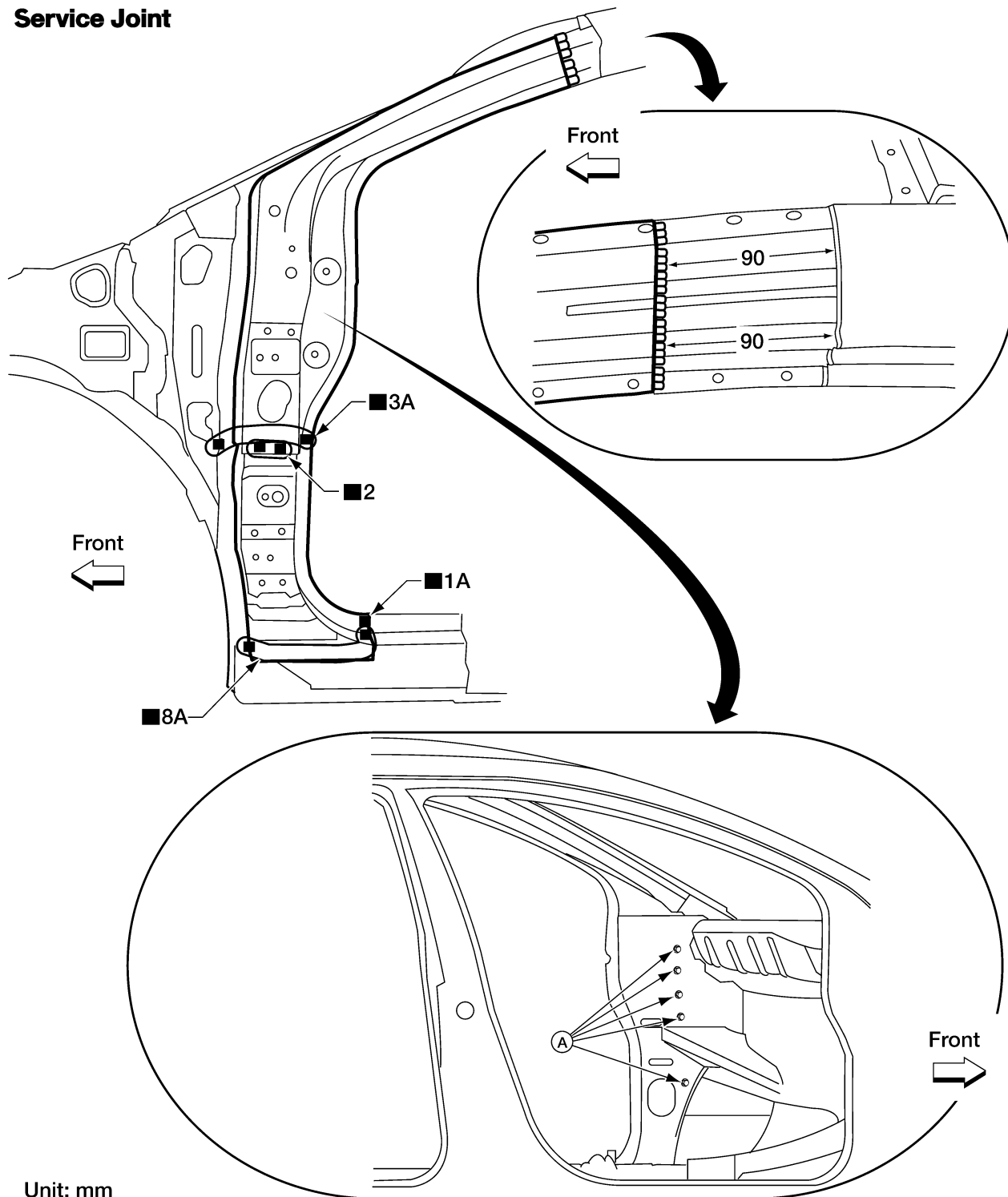
BODY REPAIR

Change parts

- Front pillar section of body side outer

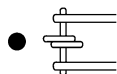
BODY REPAIR

Service Joint

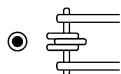


Unit: mm

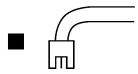
2-spot welds



3-spot welds



MIG Plug weld



(For 3 panels plug weld method)



MIG seam weld/
Point weld



Change parts

● Front pillar upper reinforcement

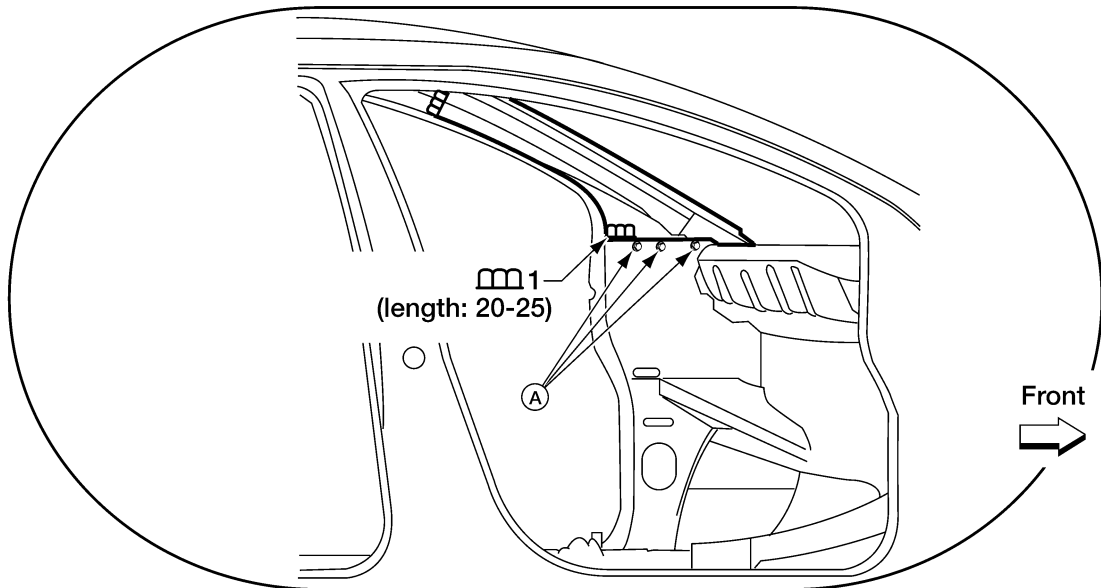
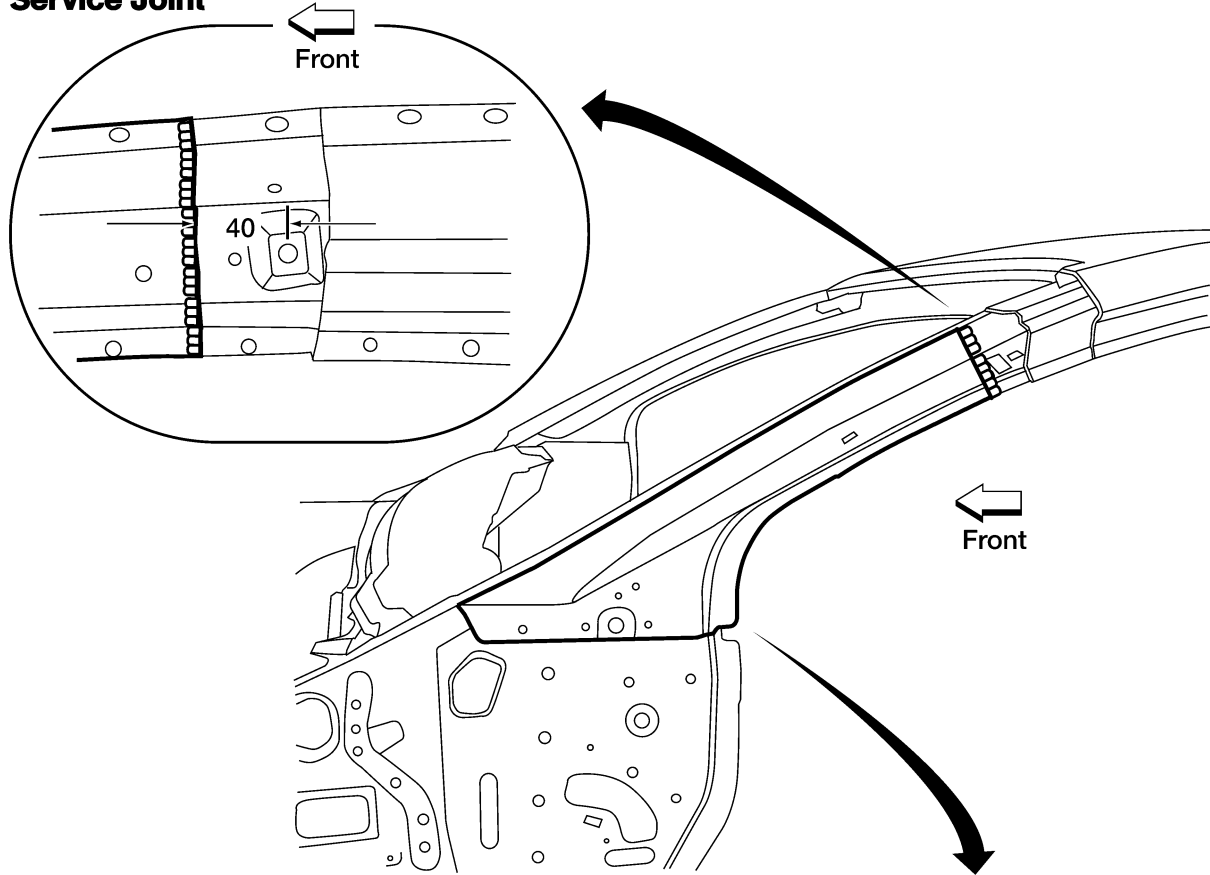
● Front pillar lower reinforcement

A. Body assembly bolts
24 Nm (2.4 kg-m, 18 ft-lb)

LIIA2710E

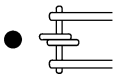
BODY REPAIR

Service Joint

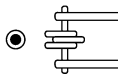


Unit mm

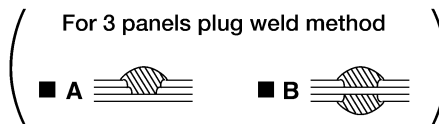
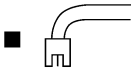
2-spot welds



3-spot welds



MIG Plug weld



MIG seam weld/
Point weld



Change parts

● Front pillar inner reinforcement

A. Body assembly bolts
24 Nm (2.4 kg-m, 18 ft-lb)

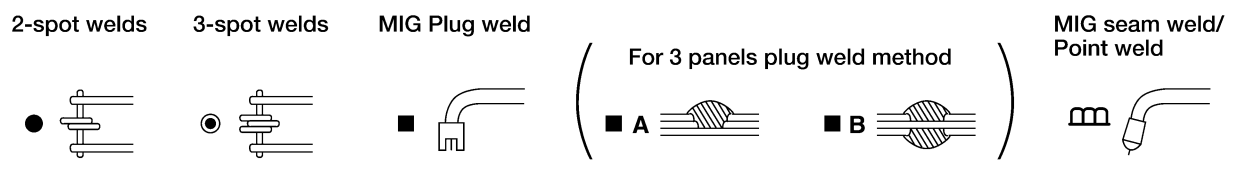
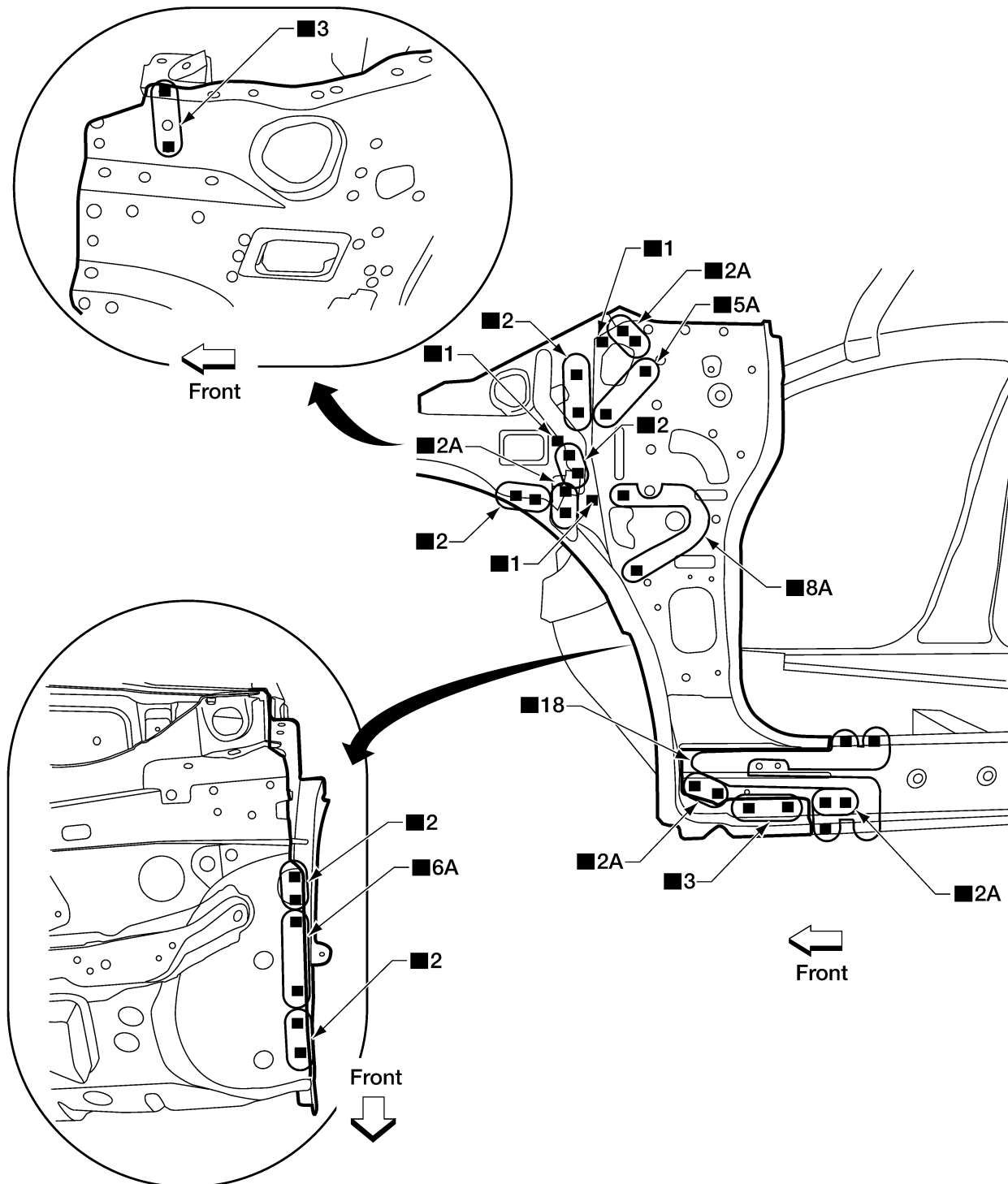
LIA2711E

BODY REPAIR

DASH SIDE

Work after front pillar and outer sill reinforcement have been removed.

Service Joint



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BODY REPAIR

Change parts

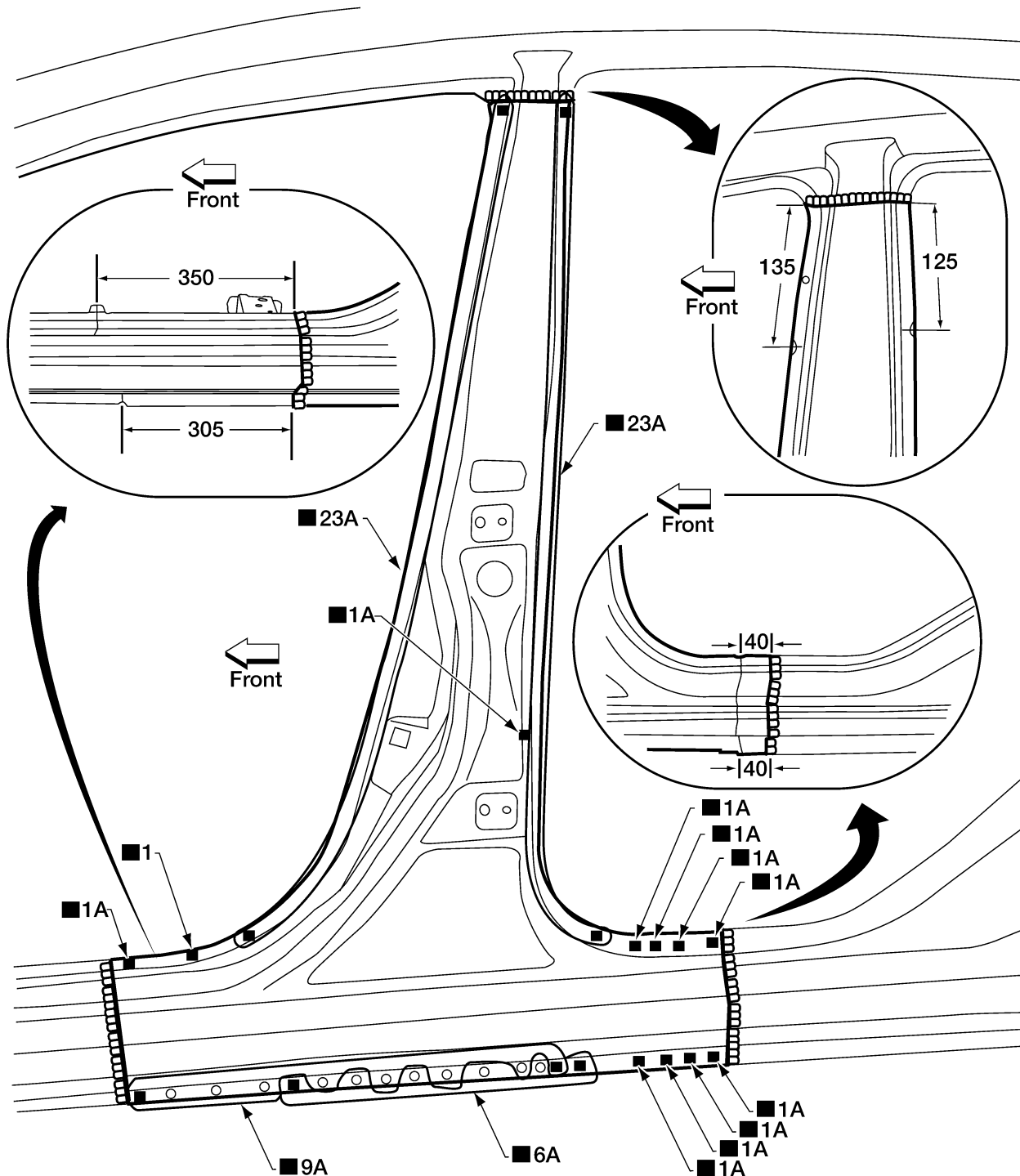
- Dash side

BODY REPAIR

CENTER PILLAR

Outer

Service Joint



Unit: mm

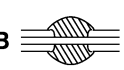
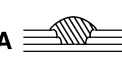
2-spot welds

3-spot welds

MIG Plug weld

(For 3 panels plug weld method)

MIG seam weld/
Point weld



LIIA2713E

BODY REPAIR

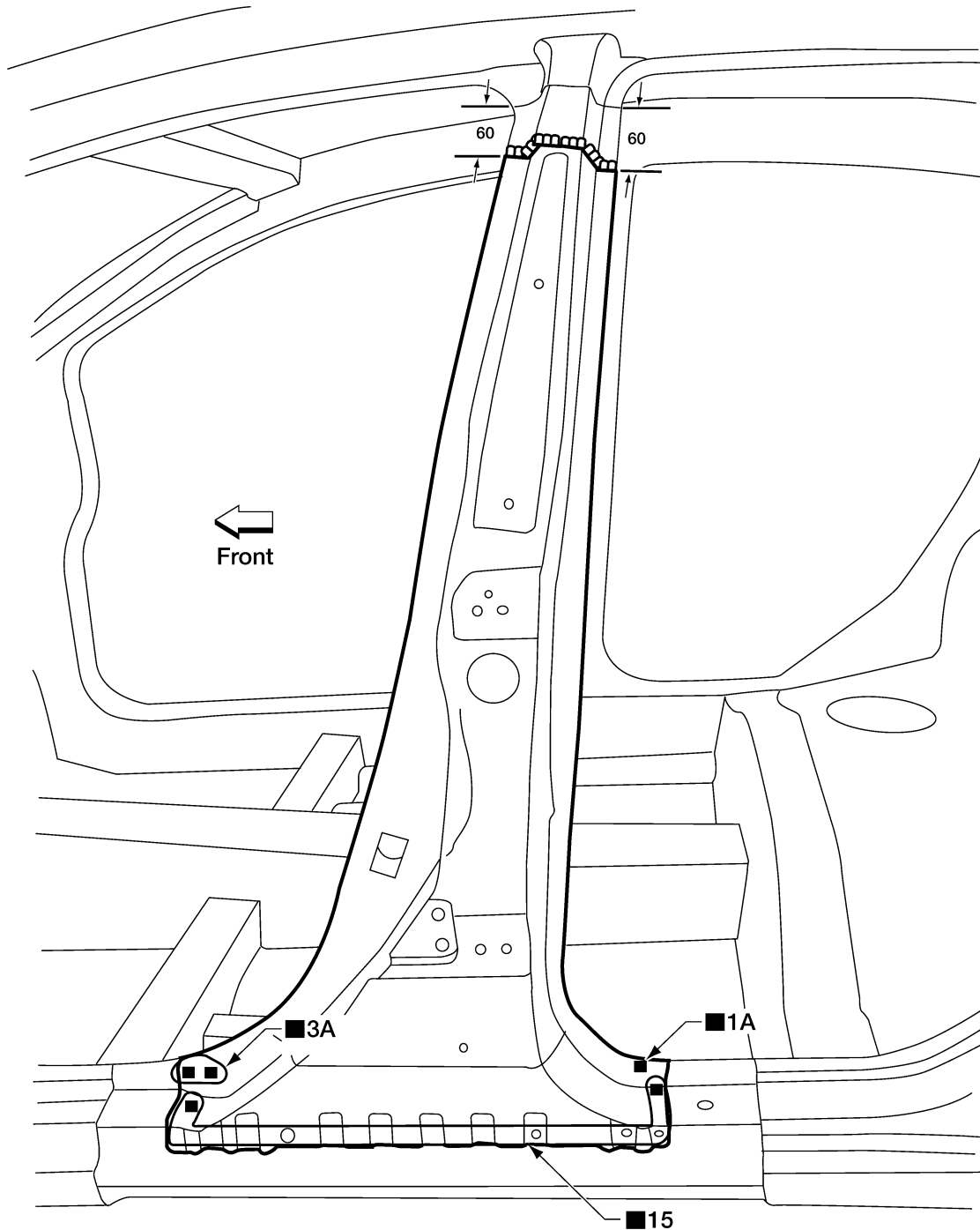
Change parts

- Center pillar portion of body side outer

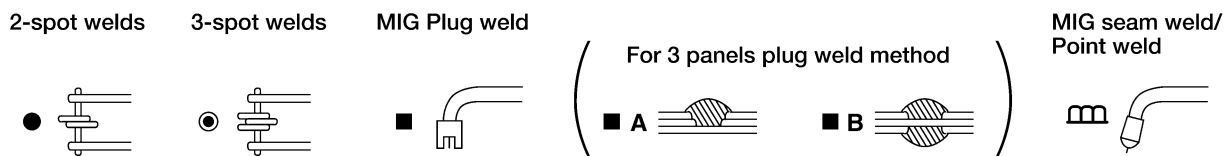
BODY REPAIR

Reinforcement

Service Joint



Unit: mm



Change parts

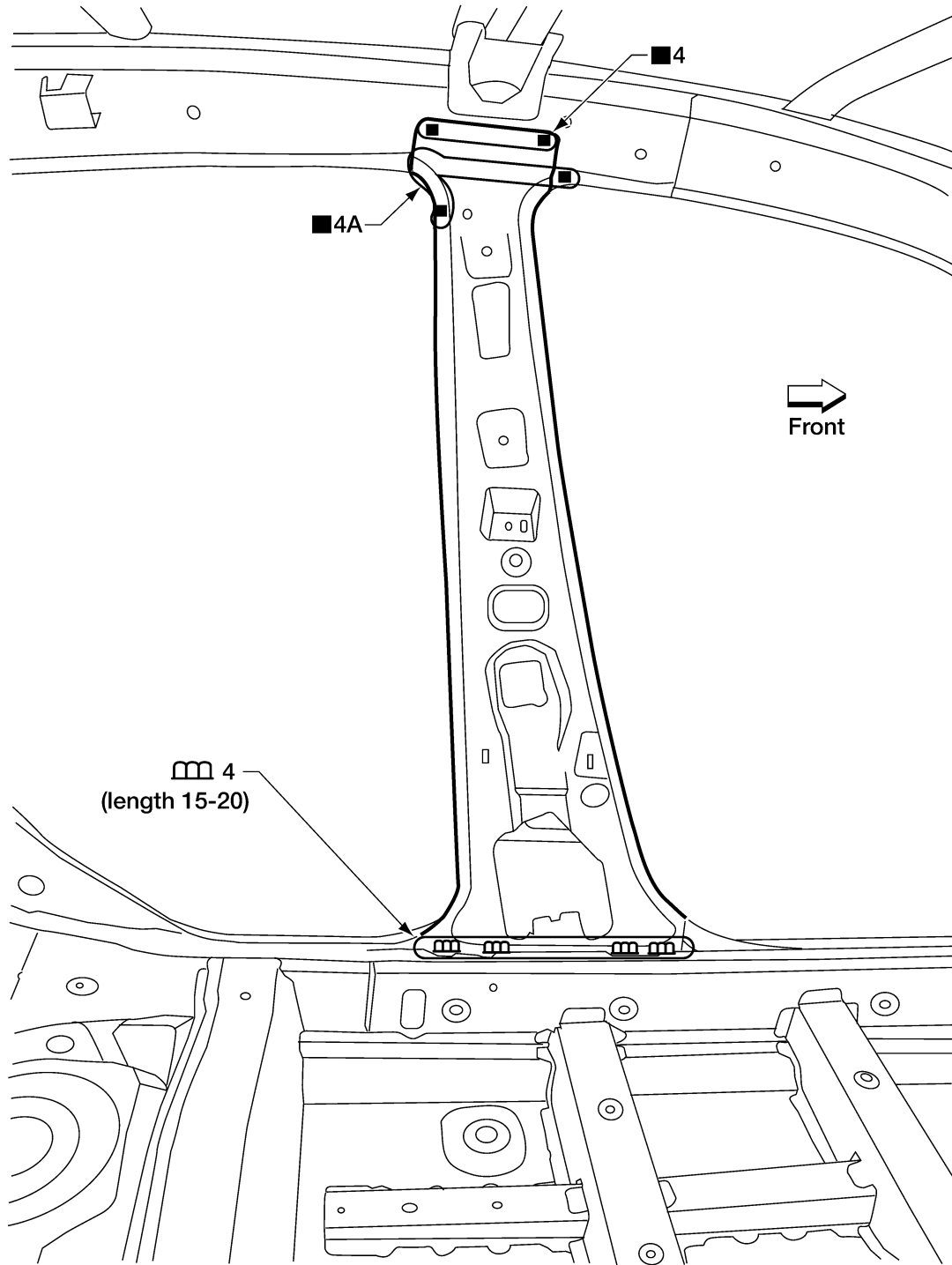
- Center pillar reinforcement

LIIA2714E

BODY REPAIR

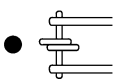
Inner

Service Joint

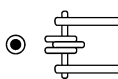


Unit mm

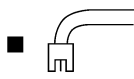
2-spot welds



3-spot welds



MIG Plug weld



For 3 panels plug weld method



MIG seam weld/
Point weld



Change parts

- Inner center pillar

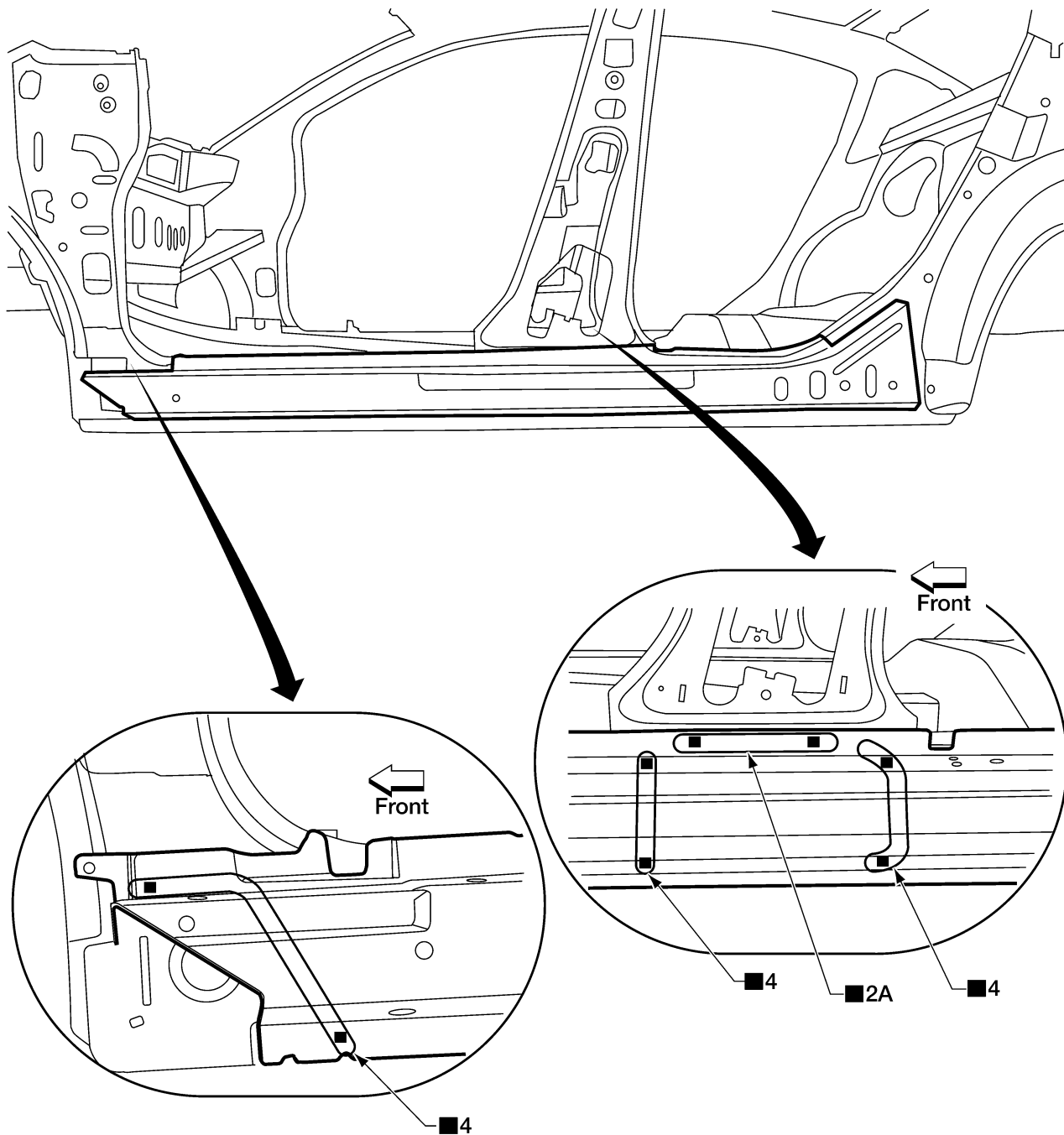
LIA2765E

BODY REPAIR

OUTER SILL REINFORCEMENT

Work after lower front pillar reinforcement, center pillar reinforcement, and rear fender have been removed.

Service Joint

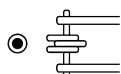


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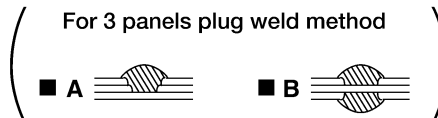
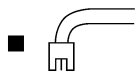
2-spot welds



3-spot welds



MIG Plug weld



MIG seam weld/
Point weld



LIIA2766E

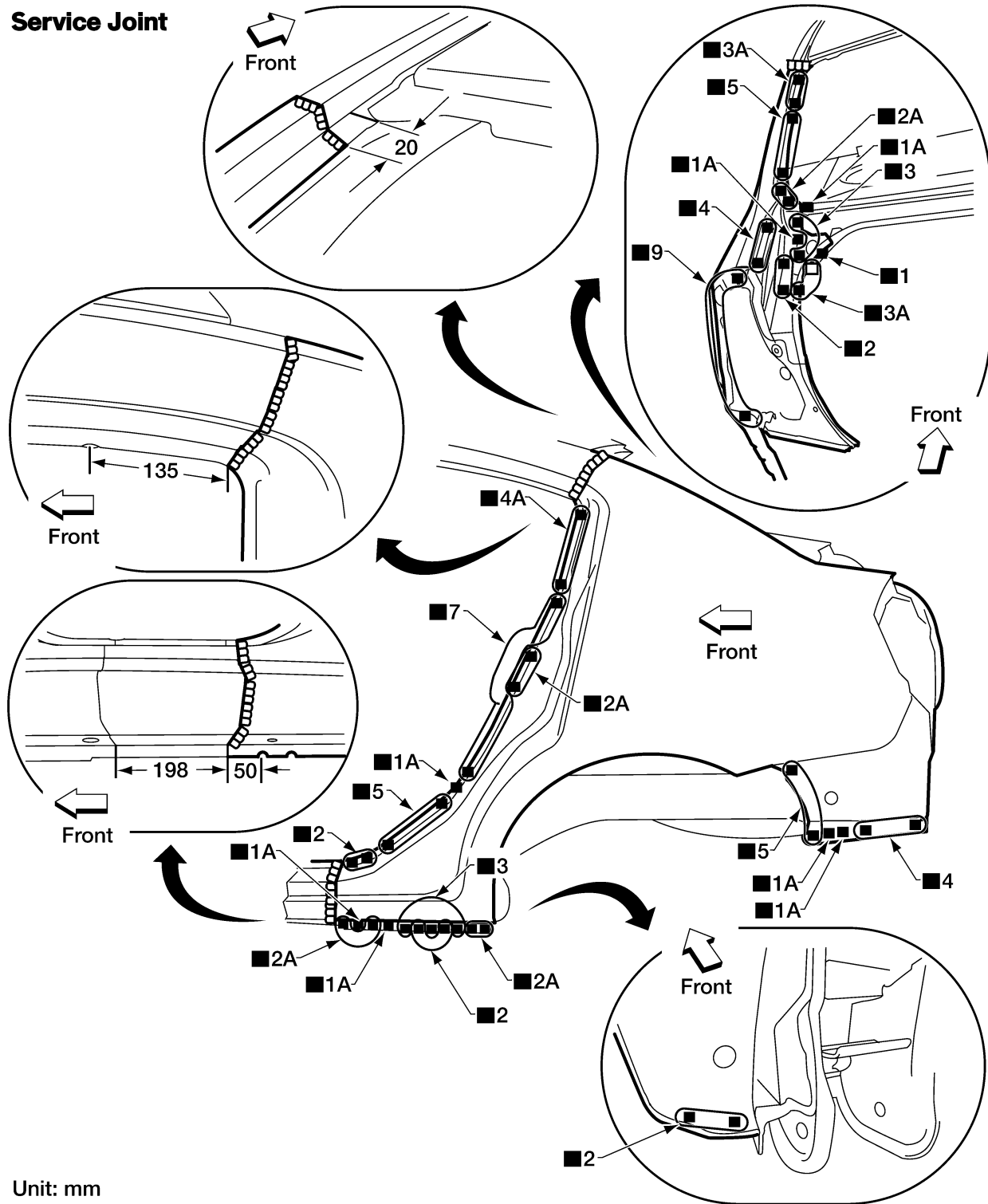
BODY REPAIR

Change parts

- Outer sill reinforcement

REAR FENDER

Service Joint



Unit: mm

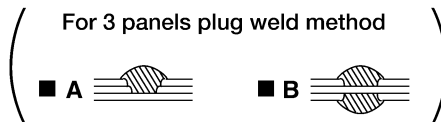
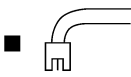
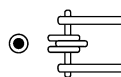
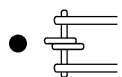
2-spot welds

3-spot welds

MIG Plug weld

(For 3 panels plug weld method)

MIG seam weld/
Point weld



LIA2767E

BODY REPAIR

Change parts

● Rear fender

● Rear fender corner

● Rear combination lamp base

A

B

C

D

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G

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J

K

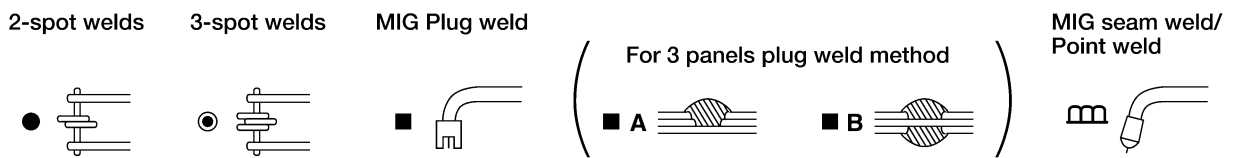
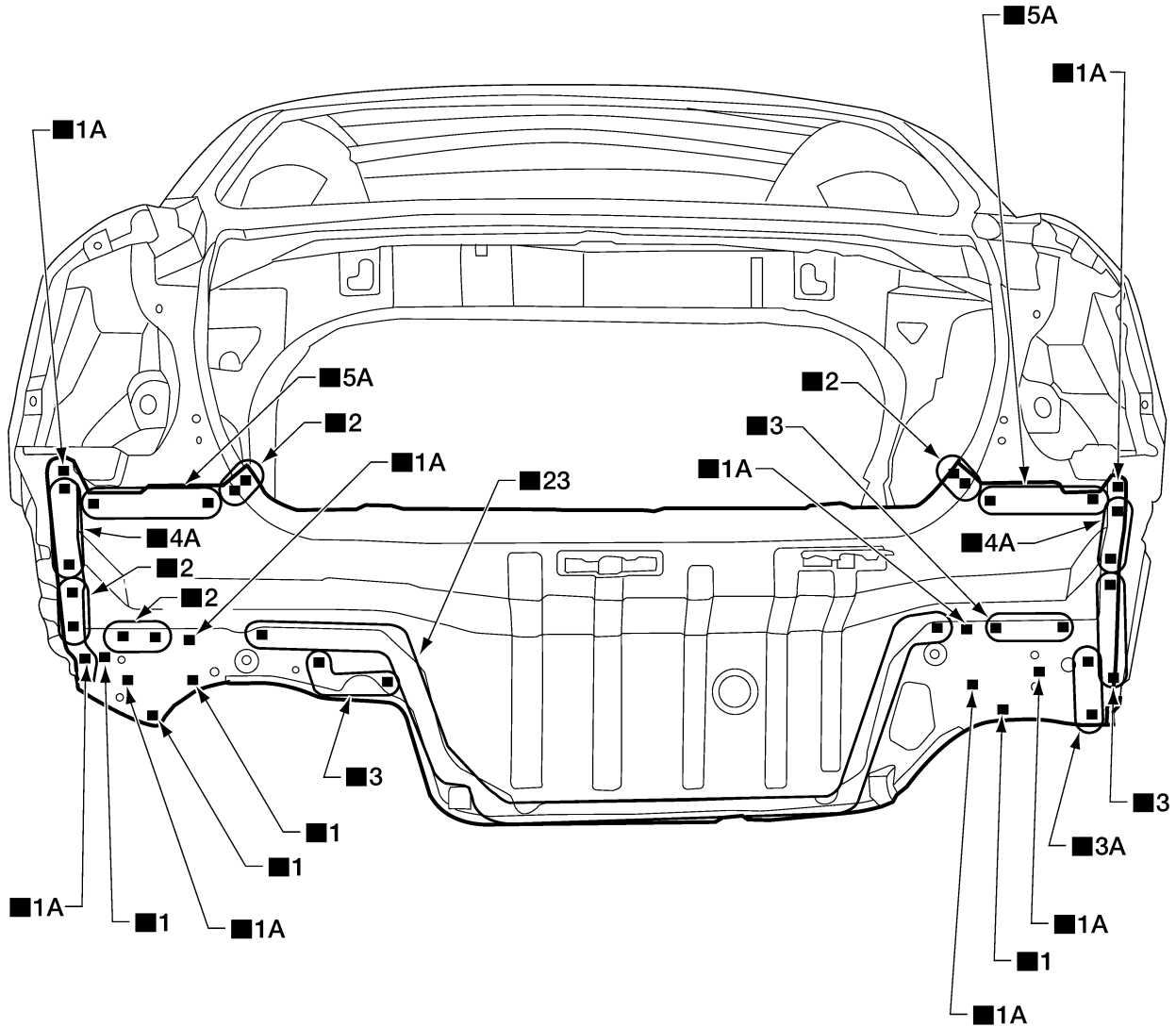
L

M

BODY REPAIR

REAR PANEL

Service Joint



LIA2768E

Change parts

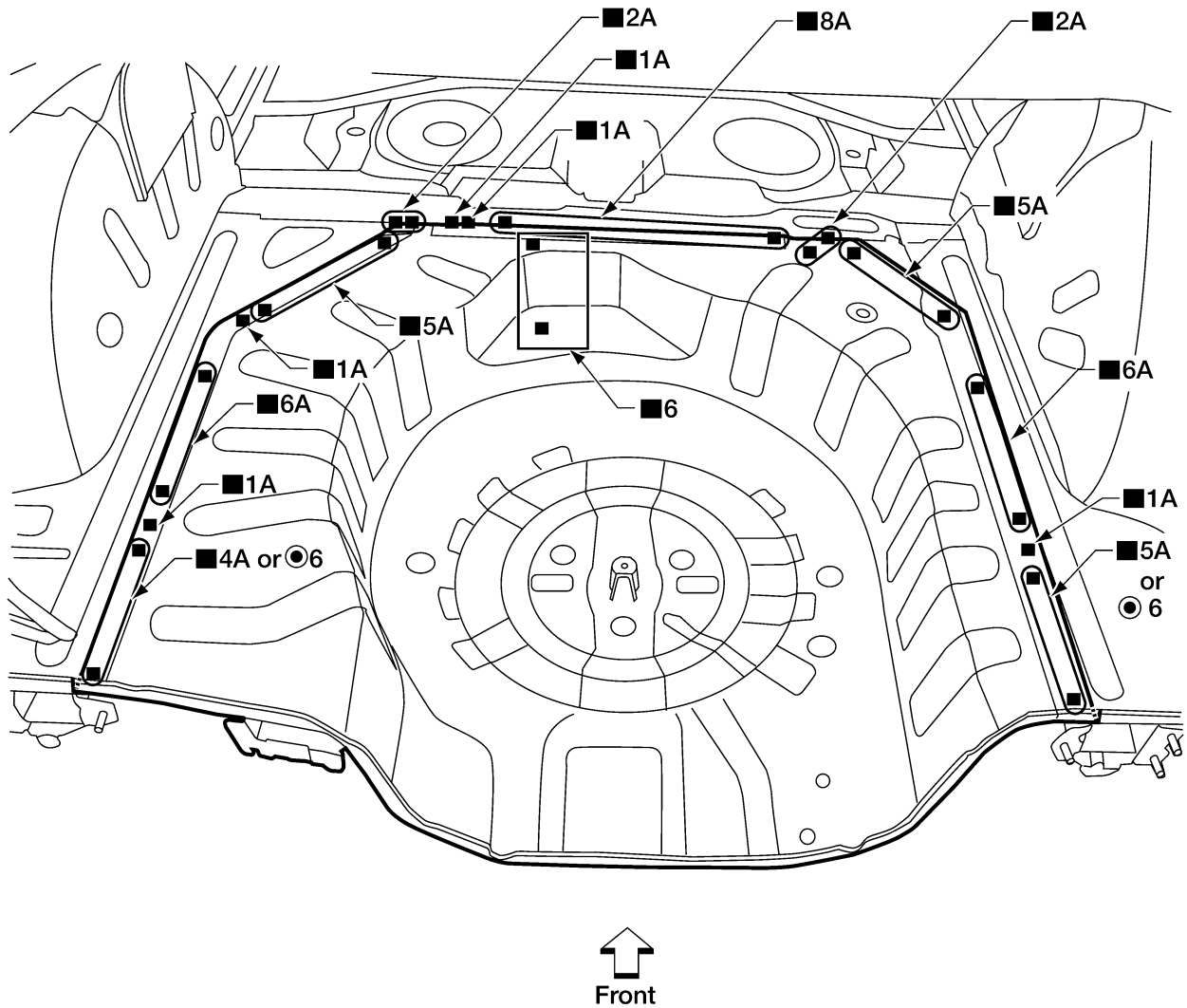
- Rear end crossmember
- Rear panel assembly
- Rear bumper fascia brackets

BODY REPAIR

REAR FLOOR REAR

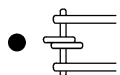
- Work after rear panel assembly has been removed.

Service Joint

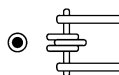


A
B
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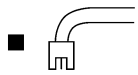
2-spot welds



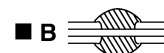
3-spot welds



MIG Plug weld



(For 3 panels plug weld method)



MIG seam weld/
Point weld



LIIA2769E

BODY REPAIR

Change parts

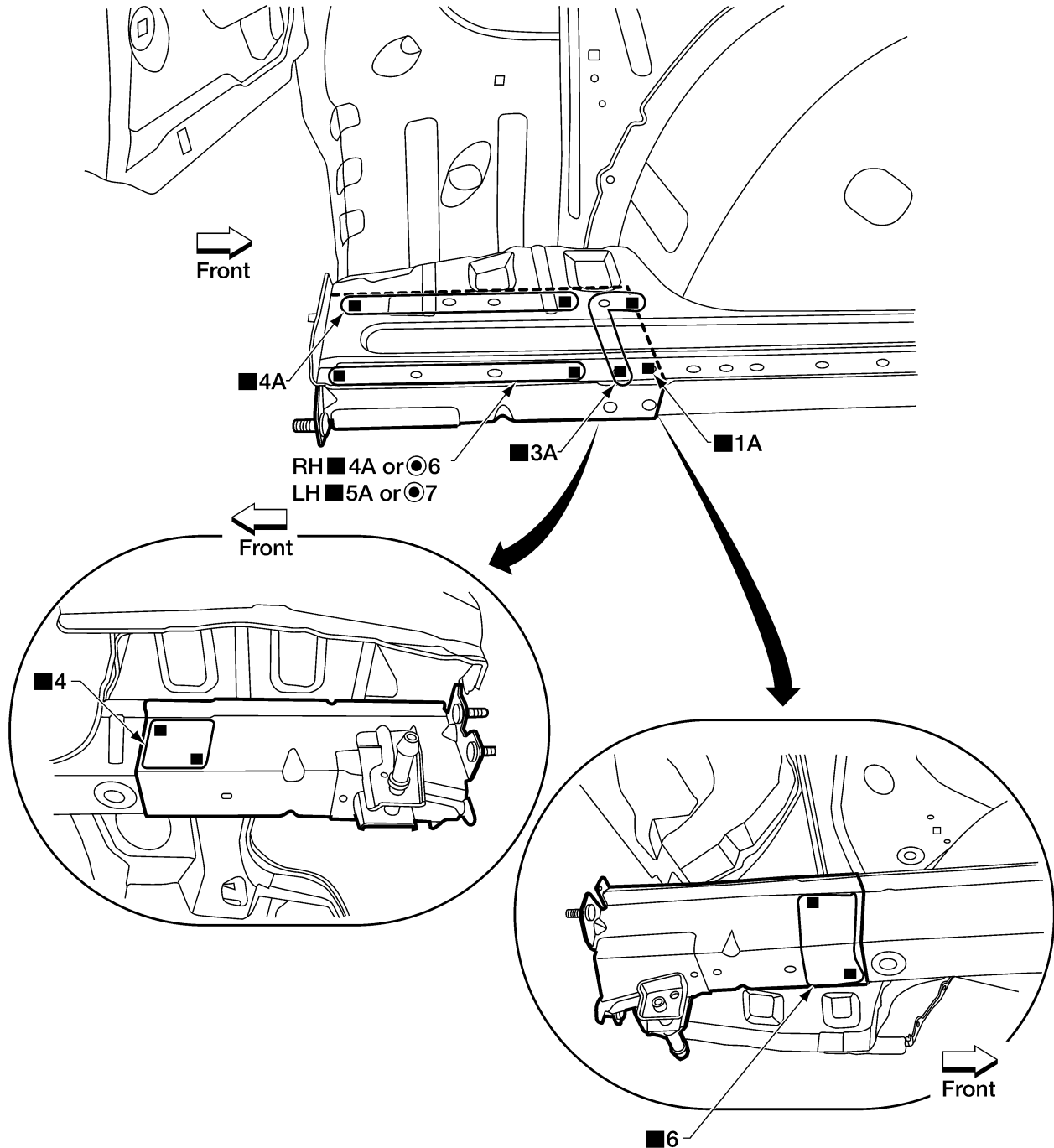
- Rear floor rear

BODY REPAIR

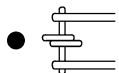
REAR SIDE MEMBER EXTENSION

- Work after rear panel assembly and rear floor rear have been removed.

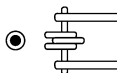
Service Joint



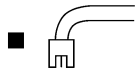
2-spot welds



3-spot welds



MIG Plug weld



(For 3 panels plug weld method)



MIG seam weld/
Point weld



LIA2770E

BODY REPAIR

Change parts

- Rear side member extension