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PRECAUTION

PRECAUTIONS

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

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Risk of injury

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

Safety instructions/precautions

- Removed air bag must always be stored with deployment side facing up.
- Acquisition, transportation, storage, testing and assembly work should only be performed or supervised by properly trained personnel.
- Install air bag or seat belt pre-tensioner immediately following retrieval from storage.
- Air bag and seat belt pre-tensioner must be protected from flying sparks, open fires and temperature exceeding 100°C (212°F).
- Never transport air bag and seat belt pre-tensioner in the passenger compartment. Store them securely in the luggage room of the vehicle in their original replacement part packaging and secure them so that they cannot slip around.
- Never allow air bag and seat belt pre-tensioner to come into contact with grease, oil, or cleaning agents.
- Perform system tests using approved testing equipment only, and only when the units are properly installed and the vehicle is unoccupied.
- Before the initial hookup of the battery or an external power supply, the ignition must be switched on and the vehicle unoccupied.
- Air bag and seat belt pre-tensioner that fall from a height of more than 0.5 m must be replaced.
- When scrapping by means of controlled deployment of air bag and seat belt pre-tensioner, a safe distance of at least 10 m must be maintained.
- Before starting work on air bag and seat belt pre-tensioner and work on components that are connected to air bag and seat belt pre-tensioner or require and intervention in their electric circuit (e.g. when removing the steering wheel):

- Disconnect any external power sources (e.g. charger).
- Disconnect and insulate ground line of battery

- Before starting bodywork in combination with welding or retrofitting, during which work is performed on uninsulated, current-carrying lines or require an intervention in their electric circuit (e.g. when removing the steering wheel):

- Disconnect any external power sources (e.g. charger).
- Disconnect and insulate ground line of battery.
- During welding, disconnect plug connection and from control unit of air bag.

- When the air bag deploys, the pyrofuse activates and the power source from the battery is disconnected. This prevents possible fires caused by electric leakage after an accident occurs.

Precautions for Removing Battery Terminal

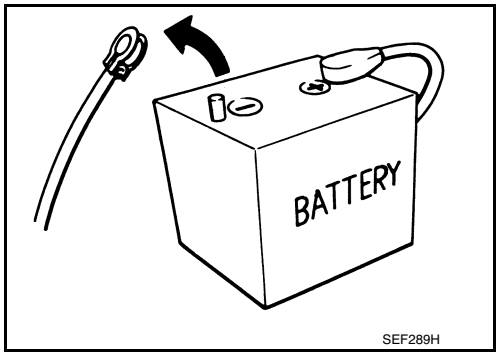
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When disconnecting the battery terminal, pay attention to the following.

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

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

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



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

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

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

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

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

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

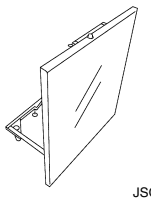
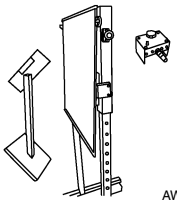
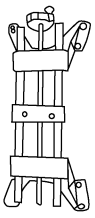
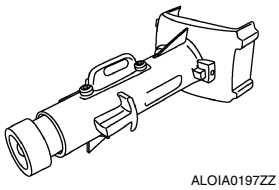
NOTE:
The removal of 12V battery may cause a DTC detection error.

PREPARATION

PREPARATION

Special Service Tools

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Tool number (TechMate No.) Tool name		Description
KV99112700 (—) ICC target board	 JSOIA1012ZZ	Uses for ICC sensor alignment
— (1-20-2851-1) ICC sensor Alignment Kit	 AWOIA0016ZZ	Uses for ICC sensor alignment
— (1-20-2722-1-IF) Wheel Adapter	 AWOIA0017ZZ	Uses for ICC sensor alignment
— (J-51093) ICC sensor cone alignment tool	 ALOIA0197ZZ	Uses for ICC sensor alignment

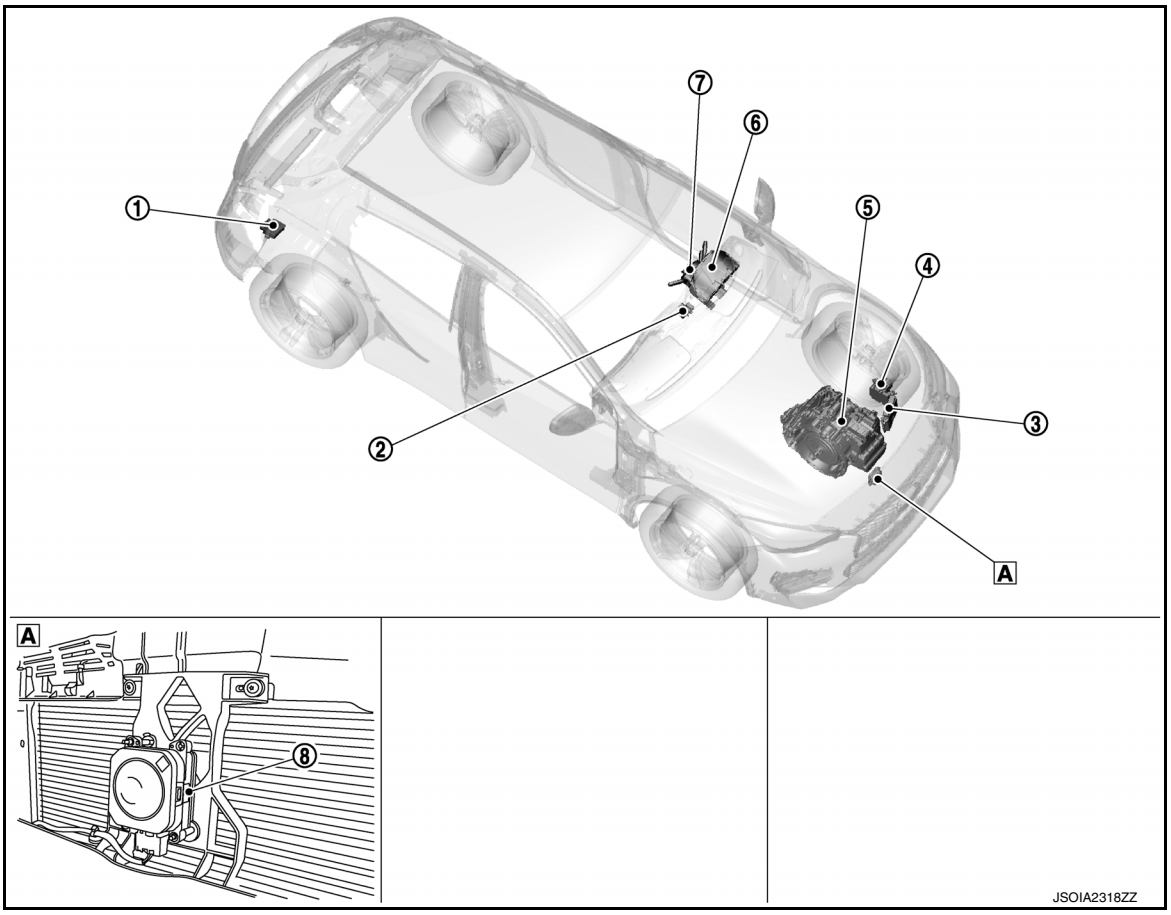
NOTE:
For radar alignment, KV99112700 or a set of TachMate No. SST are to be used.

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000013581291



A Back side of front bumper

No.	Component parts	Function
①	Electric parking brake control module	• Transmits parking brake status signal to ICC sensor. • Refer to PB-7, "Component Parts Location" for detailed installation location
②	Electronic ignition switch control unit	• Receives meter display signal and warning buzzer signal from ICC sensor. • Transmits meter display signal and warning buzzer signal to combination meter. • Refer to PCS-5, "Component Parts Location" for detailed installation location.
③	ECM	• Transmits mainly the following signals to ICC sensor. - Engine running signal - Drivetrain operational signal - Gear range signal - Available torque signal - Accelerator pedal position signal • Refer to EC-27, "Component Parts Location" for detailed installation location.

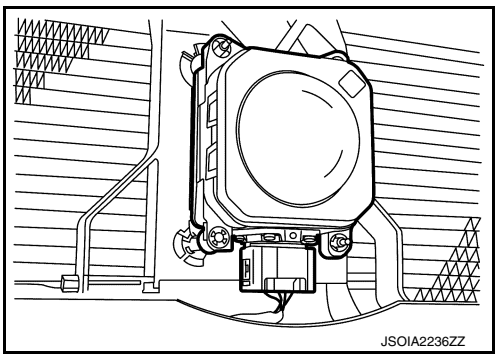
No.	Component parts	Function
④	Electronic stability program control module	• Transmits mainly the following signals to ICC sensor. - Braking torque signal - Body acceleration sensor signal - Wheel speed signal - Brake pedal status signal • Receives mainly the following signals from ICC sensor. - Object information signal - Braking torque reduction request signal - Braking torque increase request signal - Engine torque reduce request signal - Engine torque increase request signal - Engage target gear request signal • Refer to BRC-29, "Component Parts Location" for detailed installation location.
⑤	TCM	• Transmits gear range signal to ICC sensor via ECM. • Receives engage target gear signal from ICC sensor via ECM. • Refer to TM-17, "Component Parts Location" for detailed installation location.
⑥	Combination meter	• Performs the following operations using the signals received from the ICC sensor via electronic ignition switch control unit - Displays the ICC operation status: CCS-32, "INTELLIGENT CRUISE CONTROL : Menu Displayed by Pressing Each Switch" - Operates warning buzzer. • Refer to MWI-7, "METER SYSTEM : Component Parts Location" for detailed installation location.
⑦	Steering column control module	• Transmits mainly the following signals to ICC sensor. - Cruise control lever signal - Steering wheel angle signal - Combination switch signal • Refer to BCS-9, "STEERING COLUMN CONTROL SYSTEM : Component Parts Location" for detailed installation location.
⑧	ICC sensor	CCS-18, "ICC Sensor"

ICC Sensor

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LOCATION

The ICC sensor is located in the middle behind the front brand emblem in the radiator trim. The brand emblem shields the ICC sensor against external effects (for example dirt, ice or insects).



TASK

The ICC sensor assesses the traffic situation ahead of the vehicle through evaluation of the data from the radar. The detected data serve to implement the following functions:

- Cruise control
- Permanent limiter (ASL)
- Intelligent Cruise Control (ICC)
- Forward Emergency Braking (FEB)

The ICC sensor compares the permanent target and actual values with each other and evaluates the respective driver requirements. In order to implement the automatic clearance and speed control the ICC sensor transmits the respective requests for acceleration, deceleration and switching via the CAN communication after evaluation of all input factors.This means that the ICC sensor has the following individual tasks:

- Reception of input factors

- Evaluation of input factors
- Transmission of initial parameters

RECEPTION OF INPUT FACTORS

Amongst others the ICC sensor receives the following input signals via CAN communication:

- Operating condition for engine/drivetrain
- System status of ICC
- Engaged gear range/stage
- Parking brake status
- Engine drive torque
- Braking torque
- Acceleration/yaw rate
- Driver request through the cruise control lever
- Driver request to overtake through setting the turn signal
- Vehicle speed/acceleration
- Steering wheel angle
- Object recognition
- Brake pedal position
- Accelerator pedal position

The resulting functions are described in the respective function descriptions.

EVALUATION OF INPUT FACTORS

The input factors are evaluated by the integrated microprocessors and sending of the respective initial parameters takes place.

Transmission of initial parameters

Amongst other things the ICC sensor transmits the following initial parameters via CAN communication:

- Request to increase/reduce engine torque
- Request to increase/limit stage
- Request to increase/reduce braking torque
- Request to emit warning tones, system or warning messages

The functions that use these signals are described in the individual function descriptions.

BODY

The following components are integrated in the ICC sensor:

- Control unit
- Radar sensor

Properties of the radar sensor:

- Detection range:
  - 30 m (98.4 ft) or less for a detection angle of 30°
  - 30 up to 100 m (98.4 up to 328.1 ft) for a detection angle of 16°
  - 100 up to 200 m (328.1 ft up to 656.2 ft) for a detection angle of 12°
- Carrier frequency: 77 GHz (independent measurement of Radar sensor distance and speed)

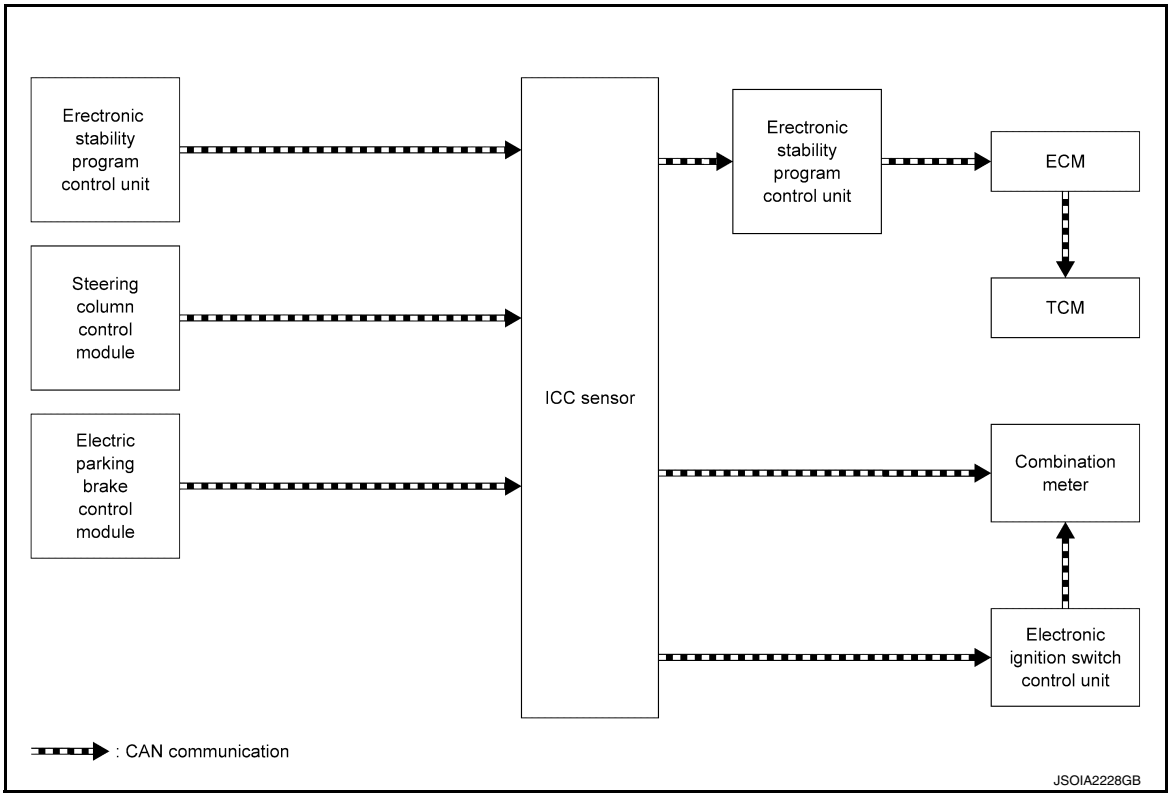
CAUTION:

The ICC sensor must be newly adjusted after Detection range: exchange (e.g. after an accident repair) using the integrated “service adjustment mode”

SYSTEM
INTELLIGENT CRUISE CONTROL
INTELLIGENT CRUISE CONTROL : System Description

INFOID:0000000013581293

SYSTEM DIAGRAM



ICC SENSOR INPUT/OUTPUT SIGNAL ITEM

Input Signal Item

Transmit unit	Signal name		Description
Electronic stability program control unit	CAN communication	Braking torque signal	Receives braking torque state
		Body acceleration sensor signal	Receives body acceleration state
		Wheel speed signal	Receives wheel speed
		Brake pedal status signal	Receives brake pedal state
Steering column control module	CAN communication	Cruise control lever signal	Receives cruise control lever state
		Steering wheel angle signal	Receives steering wheel angle state
		Combination switch status signal	Receives combination switch state
Electric parking brake control module	CAN communication	Parking brake status signal	Receives parking brake state

Output Signal Item

Transmit unit	Reception unit	Signal name		Description
ICC sensor	Electronic stability program control unit	CAN communication	Object information signal	Transmits object information state
			Braking torque reduction request signal	Transmits braking torque reduction request
			Braking torque increase request signal	Transmits braking torque increase request
			Engine torque reduction request signal	Transmits engine torque reduction request
			Engine torque increase request signal	Transmits engine torque increase request
			Engage target gear request signal	Transmits engage target gear request
	Electronic ignition switch control unit	CAN communication	Meter display signal	Transmits meter display request
			Warning buzzer request signal	Transmits warning buzzer request
	Combination meter	CAN communication	Meter display signal	Transmits meter display request
			Warning buzzer request signal	Transmits warning buzzer request
	ECM	CAN communication	Object information signal	Transmits object information state
			Engine torque reduction request signal	Transmits engine torque reduction request
			Engine torque increase request signal	Transmits engine torque increase request
			Engage target gear request signal	Transmits engage target gear request
	TCM	CAN communication	Engage target gear request signal	Transmits engage target gear request

FUNCTION REQUIREMENTS, GENERAL

- No under voltage or over voltage
- Engine running or drivetrain operational
- The ICC sensor is correctly calibrated and coded
- ICC switched on via the cruise control lever
- Parking brake not operated
- Gear range “D” engaged
- Vehicle is not in backward movement
- Soiling and function test of ICC sensor completed successfully

  NOTE:
  The ICC sensor performs a soiling and function test to ensure proper operation after each engine start. This assumes that an object is in the detection range which can be used as a reference object. If a malfunction is established or there is no object in the detection range of the ICC sensor, the ICC cannot be activated.
- No active intervention recognized by the Vehicle dynamics control (VDC)
- Standstill coordinator, enable issued (driver door/driver belt buckle and front passenger door closed)

NOTE:
The ICC is coded in the electronic ignition lock control unit.

ICC, GENERAL

The ICC regulates the speed and distance relative to the vehicle in front in a vehicle speed range of 0 to 200 km/h and 200 to 0 km/h automatically according to the driver's request.
Furthermore, a distance warning function is included which advises the driver about a vehicle in front which is too close and optically and acoustically warns about possible collisions with vehicles or stationary obstacles in the driver's lane.
If the driver reacts to the acoustic warning and brakes, he will be assisted in this by the adaptive Brake Assist. The required brake servo assistance for this will be calculated according to the situation. In this way a possible collision can be prevented or at least its consequences can be mitigated.

The ICC was extended by the function FEB. It includes the functions distance warning, adaptive Brake Assist system and autonomous partial braking (vehicle speed up to 200 km/h). If the driver does not react in an accident-critical situation to the acoustic warning, the ICC sensor initiates an autonomous partial braking.

NOTE:

If ICC is switched off, the situation in front of the vehicle is further monitored and evaluated by the FEB. In dangerous situations warnings are given, as described above, or there is autonomous braking.

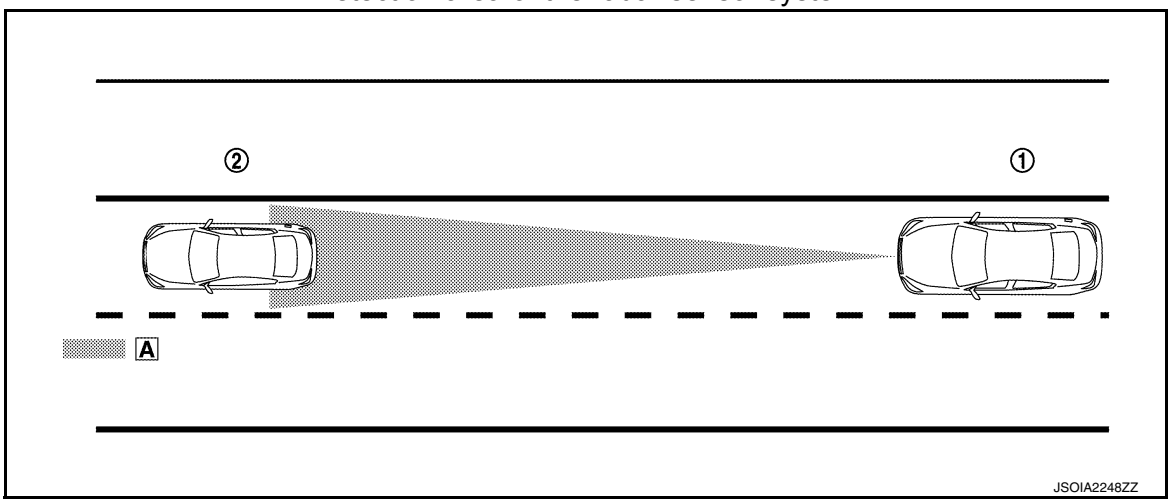
The ICC sensor actively engages in the engine management, in the transmission control and in control of the brake system to implement the ICC.

The following sub functions of the ICC are described in the separate sub function “Cruise control function”:

- Automatic speed control
- Permanent speed limiter

The following graphic represents the mode of function of the ICC:

Detection area of the radar sensor system



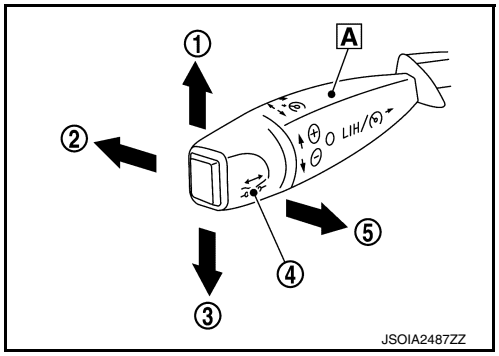
① Own vehicle

② Vehicle driving immediately ahead, detected by the radar sensor

A Detection range of the radar

OPERATION OF THE ICC TAKES PLACE OVER THE CRUISE CONTROL LEVER.

Design Of The Cruise Control Lever



A : Cruise Control Lever

① : Accelerate and set switch

② : Switch OFF switch

③ : Decelerate and set switch

④ : Resume from memory switch

⑤ : Distance control switch

NOTE:

The distance to the vehicle driving immediately ahead is displayed in the multifunction display for 5 s after actuation of the cruise control lever. Through selection of the operating level “ICC” in the menu “Assistance”

the distance graphic is shown permanently. Display of the distance graphic can be switched on or off independently of the activity of the automatic distance control.The distance to the vehicle driving immediately ahead can be switched on or off via the ICC control in seven stages between about 1.0 and 2.0 s. If a distance of 2.0 s is set for example, the vehicle driving immediately ahead will be followed at a temporal distance of 2.0 s. This physical gap increases with increasing speed.

ICC SENSOR EVALUATES THE FOLLOWING INPUT

- Operating condition of engine/drivetrain (function requirements)
- The ICC is switched on over the cruise control lever (function requirements)
- Status of parking brake (function requirements)
- Engaged gear range/stage (function requirements)
- Driver request via the cruise control lever
- Vehicle speed/acceleration
- Object recognition
- Engine drive torque
- Braking torque
- Acceleration/yaw rate
- Steering wheel angle
- Driver request to overtake (sets the turn signals on the combination switch)
- Brake pedal position
- Accelerator pedal position

Operating Condition for Engine/Drivetrain:
The ECM sends the signal “engine running” or “drivetrain operational” via the CAN communication to the ICC sensor.

The ICC Is Switched On Over The Cruise Control Lever:
The steering column tube module control unit directly reads the switch position of the cruise control lever and transmits these via the CAN communication to the ICC sensor.

Parking Brake Status:
The status of the parking brake (activated or deactivated) is sent by the electric parking brake control unit via the CAN communication to the ICC sensor.

Engaged Gear Range/Stage
The fully integrated transmission control unit transmits information about the engaged gear range and about the stage via the ECM and CAN communication to the ICC sensor.

Driver Request via The Cruise Control Lever:
The steering column tube module control unit directly reads in the switch position of the cruise control lever and transmits these via the CAN communication to the ICC sensor.

Vehicle Speed/Acceleration:
The vehicle speed is calculated from the wheel speed. The acceleration is defined over the increase in rotational speed. The electronic stability program control unit sends the wheel speed signals via the CAN communication to the ICC sensor.

Object Recognition:
The ICC sensor monitors the traffic area in front of the vehicle up to a distance of 200 m (656.2 ft) in a corridor of 12.

Engine Drive Torque:
The ECM sends information about the currently available engine torque via the CAN communication to the ICC sensor.

Braking Torque:
The Electronic Stability Program control unit sends information about the currently applied braking torque via the CAN communication to the ICC sensor.

Acceleration/Yaw Rate:
The acceleration/yaw rate is detected from the body acceleration sensor which is integrated in the electronic stability program control unit. The electronic stability program control unit sends this information via the CAN communication to the ICC sensor.
NOTE:

On safety and comfort grounds the maximum (positive) acceleration of the automatic distance control is limited to about 2.5 m/s. It operates anti proportional to the vehicle speed, which means that the positive and negative accelerations reduce with increasing speed.

Steering Wheel Angle:
The steering wheel angle sensor detects/records the steering wheel angle. The steering column tube module control unit directly reads in the signals of the steering wheel angle sensor and sends information about the steering wheel angle via the CAN communication to the ICC sensor.

Driver Request To Overtake (Sets The Turn Signals On The Combination Switch):
The steering column tube module control unit directly reads in the switch position of the combination switch and transmits these via the CAN communication to the ICC sensor.

Brake Pedal Position:
The Electronic Stability Program control unit sends the status of the brake pedal via the CAN communication to the ICC sensor.

Accelerator Pedal Position:
The ECM sends information about the accelerator pedal position via the CAN communication to the ICC sensor.

THE ICC SENSOR ISSUES THE FOLLOWING INITIAL PARAMETERS (REQUESTS)

- Increase/reduce engine torque
- Engage targeted gear (back or upshift)
- Increase/reduce the braking torque
- Object information
- Emit warning tones, system or warning messages

Raise/Reduce Engine Torque:
The ICC sensor transmits the request “increase/reduce engine torque” via the CAN communication to the electronic stability program control unit. The electronic stability program control unit evaluates this request as well as further driving dynamic requests and transmits them via the CAN communication to the ECM.
The ECM implements this request.

Engage Targeted Gear (Downshift Or Upshift):
The ICC sensor transmits the request “engage targeted gear” via the CAN communication to the electronic stability program control unit. The electronic stability program control unit evaluates the input factors as well as further driving dynamic requests and transmits them according to their relevance via CAN communication to the ECM and CAN communication to the TCM.
This request is however to be understood as a switching recommendation. Downshifting or upshifting of the A/T takes place autonomously itself by the TCM, dependent on the current operating condition.

Raise/Reduce Braking Torque:
The ICC sensor transmits the request “increase braking torque” or “reduce braking torque” via the CAN communication to the electronic stability program control unit. The electronic stability program control unit reacts by directly actuating the traction system hydraulic unit, which reacts by increasing or decreasing the braking torque according to the brake torque.

Object Information:
The ICC sensor transmits object information (for example the distance and relative speed to the target vehicle and the movement status of the target vehicle) via the CAN communication to the ECM.

Emit Warning Tones, System Or Warning Messages:
The ICC sensor sends the requests to output warning tones, system or warning messages via CAN communication, electronic ignition lock control unit and CAN communication to the combination meter. The respective system or warning messages are issued over the multifunction display and the warning buzzer is directly actuated.

FUNCTION SEQUENCE FOR ICC

The description of the ICC function takes place, as an example, in the following chronological sequence:

- Activate ICC and drive off automatically
- Automatic distance control
- Change of driving lane (overtaking)
- Automatic speed control
- Going back into a lane/person in the front regulation
- Distance warning

- Adaptive brake assistant
- Autonomous partial braking
- Automated Stop Vehicle

Automated Stop Vehicle

Activate ICC And Drive Off Automatically

The following options are available for activating ICC:

- Using the “Resume from memory” switch on the cruise control lever call up
- Briefly operate accelerator pedal

The vehicle moves off and adapts its speed to the maximum speed of the vehicle immediately ahead up to the selected target speed. If there is no vehicle immediately ahead, the ICC functions like the cruise control.

NOTE:

For vehicles at a standstill a specified distance limit exists beyond which a stationary vehicle is no longer displayed.

Technical implementation

The ICC sensor receives or sends the following information or requests for this: Input factors:

- Accelerator pedal position
- Driver request via the cruise control lever
- Object recognition
- Vehicle speed/acceleration
- Acceleration/yaw rate
- Brake pedal position

Initial parameters:

- Increase/reduce engine torque
- Engage targeted gear
- Object information
- Emit warning tones, system or warning messages

Automatic Distance Control

The automatic distance control can only be activated while driving [(less than 20 km/h (12.4 MPH)] if a vehicle driving immediately ahead was detected. If the vehicle driving immediately ahead brakes or accelerates, the ICC can initiate the following measures for deceleration or acceleration of the vehicle:

- Reduce/increase the engine torque
- Increase/reduce the braking torque

The driver must press on the brake pedal when he sees that the instigated measures are not adequate to avoid any possible collision. If the vehicle driving immediately ahead accelerates again, the engine torque is increased and the vehicle also accelerates. The increase in engine torque is dependent on the ascent or the descent involved, among other things.

The driver furthermore has the option of operating the accelerator pedal to accelerate the vehicle (e.g. when overtaking). The multifunction display shows the message “ICC passive”. If the automatic distance control requires a higher acceleration than the driver prescribes, the driver request is overlaid by the request for automatic distance control and the “ICC passive” message goes off.

NOTE:

The automatic distance control is also active if the acceleration request from the driver is lower than the automatic distance control request.

NOTE:

If the vehicle driving in front leaves the detection range of the ICC sensor, the automatic distance control is deactivated at less than 20 km/h (12.4 MPH).

Technical implementation

The ICC sensor receives or sends the following information or requests for this:

Input factors:

- Object recognition

Initial parameters:

- Increase/reduce engine torque
- Increase/reduce the braking torque
- Engage targeted gear
- Object information
- Emit warning tones, system or warning messages

Change Of Driving Lane (Overtaking)

For overtaking above a speed of 60 km/h (37.2 MPH) the vehicle is also accelerated automatically. To do this the driver must initiate the overtaking maneuver by setting the turn signal. Where the automatic distance con-

trol is activated, the ICC sensor recognizes the intention of the driver to overtake and accelerates the vehicle while taking account of the distance to the vehicle driving in front.
When approaching a slowly moving vehicle and therefore an active automatic intervention by the brake system, this is then canceled insofar as the driver initiates the overtaking procedure by operating the turn signal. If required, the vehicle is additionally accelerated.
After the overtaking maneuver the vehicle accelerates to the set speed (automatic speed control), insofar as no other vehicle driving in front was detected as a target object. If a vehicle driving immediately ahead is subsequently detected as a target object the automatic speed control function changes over again into the automatic distance control function.
The overtaking maneuver is broken off in the following situations:
• Risk of collision with the current target object
• Risk of collision with a vehicle moving directly at the side and ahead
Technical implementation
The ICC sensor receives or sends the following information or requests for this: Input factors:
Input factors:
• Object recognition
• Driver request over the combination switch
• Vehicle speed/acceleration
• Acceleration/yaw rate
• Engine drive torque
• Accelerator pedal position
Initial parameters:
• Increase/reduce engine torque
• Increase/reduce the braking torque
• Engage targeted gear
• Object information
• Emit warning tones, system or warning messages

Automatic Speed Control
If the vehicle is in active distance control and the vehicle driving immediately ahead accelerates above 200 km/h (124.3 MPH) or removes itself from the detection area of the ICC sensor, the automatic distance control switches over into the automatic speed control.
Technical implementation
The ICC sensor receives or sends the following information or requests for this:
Input factors:
• Object recognition
• Driver request via the cruise control lever
• Vehicle speed/acceleration
• Acceleration/yaw rate
• Engine drive torque Accelerator pedal position Brake pedal position
Initial parameters:
• Increase/reduce engine torque
• Engage targeted gear
• Increase/reduce the braking torque
• Object information

Going Back Into A Lane/person In The Front Regulation
If the vehicle driving immediately ahead turns off and there is another vehicle in front, the system only switches over to the new target vehicle if it is moving. The system does not operate for stationary objects unless a preceding vehicle is tracked to a standstill. If while driving a vehicle turns in front within the safe distance to the vehicle driving immediately ahead, the distance to this new vehicle is regulated. If the vehicle is in automatic speed control and a vehicle tuns onto the lane driven in this vehicle is registered as the vehicle driving immediately ahead. If the distance to the moving in vehicle is below the value which was programmed, the ICC function brakes the vehicle. If the requested brake power is not sufficient, a visual and an acoustic warning is issued, and the driver has to press the brake pedal.
ICC is thereby deactivated. This process is signaled to the driver through output of a message “ICC OFF” in the multifunction display of the combination meter. The driver can subsequently reactivate the ICC.
Technical implementation
The ICC sensor receives or sends the following information or requests for this:
Input factors:
• Object recognition
• Vehicle speed

- Brake pedal position

Initial parameters:

- Increase/reduce engine torque
- Increase/reduce the braking torque
- Engage targeted gear
- Object information
- Emit warning tones, system or warning messages

Distance Warning

ICC warns the driver visually and acoustically in a vehicle speed range of 7 to 250 km/h (4.3 to 155.4 MPH) or the vehicle's maximum speed against driving obstacles on his/her lane. ICC differentiates here a collision-critical distance warning.

Collision critical distance warning:

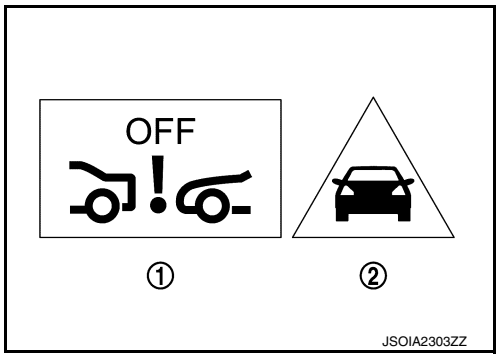
Output of the collision-critical distance warning takes place optically and acoustically.

If an obstacle within the detection range of the ICC sensor is classified as accident-critical (a collision will occur within 2.6 s), the ICC sensor sends the request to output the warning via the CAN communication, electronic ignition lock control unit and CAN communication to the combination meter, which then activates the FEB warning lamp and directly actuates the warning buzzer.

Take-back of the warning only occurs if the situation has been defused.

Warning is only given about stationary obstacles in a vehicle speed range of 7 to about 70 km/h (4.3 to about 43.5 MPH).

Optical Warning Messages In Combination Meter



① : Approach warning indicator

② : FEB warning lamp

This is shown inversely on the multifunction display, i.e. the distance warning readiness indicator (J) is hidden when the distance warning function is active. If the distance warning function is deactivated, the distance warning readiness indicator and the “OFF” lettering are shown.

NOTE:

The distance warning is basically active for an active ICC. If ICC is deactivated, FEB, which also contains a distance warning system, can be separately activated in the “Emergency braking” menu on the combination meter.

NOTE:

The readiness of the approach warning is displayed differently dependent on the installed combination meter. For a multifunction display with a black-white display the warning readiness indicator is faded in as soon as the approach warning is activated. If the approach warning is deactivated, the warning readiness indicator goes out.

For a multifunction display with a color indicator the display is inverse, that is the warning readiness indicator is faded out for an active approach warning. If the distance warning function is deactivated, the distance warning readiness indicator and also the “OFF” lettering is shown.

Adaptive Brake Assistant

If the driver reacts in a critical situation with emergency braking, he is supported by the Adaptive BAS. The ICC sensor calculates the necessary brake force amplification in order to avoid any collision or at least to mitigate its consequences. The adaptive Brake Assist System assists the driver in carrying out hazard braking relating to vehicles driving immediately ahead within a vehicle speed range of 7 to 250 km/h (4.3 to 155.4 MPH) and in a vehicle speed range of 7 to about 70 km/h (4.3 to about 43.5 MPH) for stationary obstacles.

NOTE:

The hazard braking is defined over the actuation speed and the actuation strength with which the brake pedal is actuated.
The ICC sensor takes the current distance and the closing speed to the obstacle into account to permanently calculate the required brake force. If there is no actuation or the intensity of actuation of the brake pedal by the driver considerably decreases, the brake boost on the driver braking is reduced and the Adaptive Brake Assist System is also deactivated. The Brake Assist System will also be deactivated if the driver presses the accelerator pedal.

Additional Function Requirements For Autonomous Partial Braking
- Vehicle speed: 7 to 200 km/h (4.3 to 124.3 MPH) (moving towards vehicles driving immediately ahead and stationary obstacles

Autonomous Partial Braking
If the driver fails to react in an accident-critical situation to the warning, the ICC sensor initiates autonomous partial braking and reduction in engine torque. The ICC sensor calculates the braking torque required (maximum deceleration approx. 6 m/s) taking the following variables into account:
- Relative speed to vehicle or obstacle
- Distance from vehicle or obstacle

The ICC sensor transmits the respective request to increase the braking torque and for engine torque reduction via CAN communication to the electronic stability program control unit. The electronic stability program control unit evaluates the incoming requests, actuates the traction system hydraulic unit directly, and sends the request to reduce engine torque via CAN communication to the ECM.
If the driver then reacts to the autonomous partial braking and brakes, the Adaptive Brake Assist System provides support for the best possible utilization of the braking distance to the obstacle.

Automated Stop Vehicle
For an active ICC the vehicle will follow the vehicle driving immediately ahead to standstill. The deceleration here is due to the service brake. The service brake also secures a stationary vehicle against rolling away.
After a defined time period the electric parking brake is also activated (standstill coordinator safety strategy).
NOTE:
Securing the vehicle using the ICC function (standstill coordinator) does not replace securing the vehicle for parking.
Technical implementation
The ICC sensor receives or sends the following information or requests for this:
Input factors:
- Object recognition
- Vehicle speed
- Brake pedal position

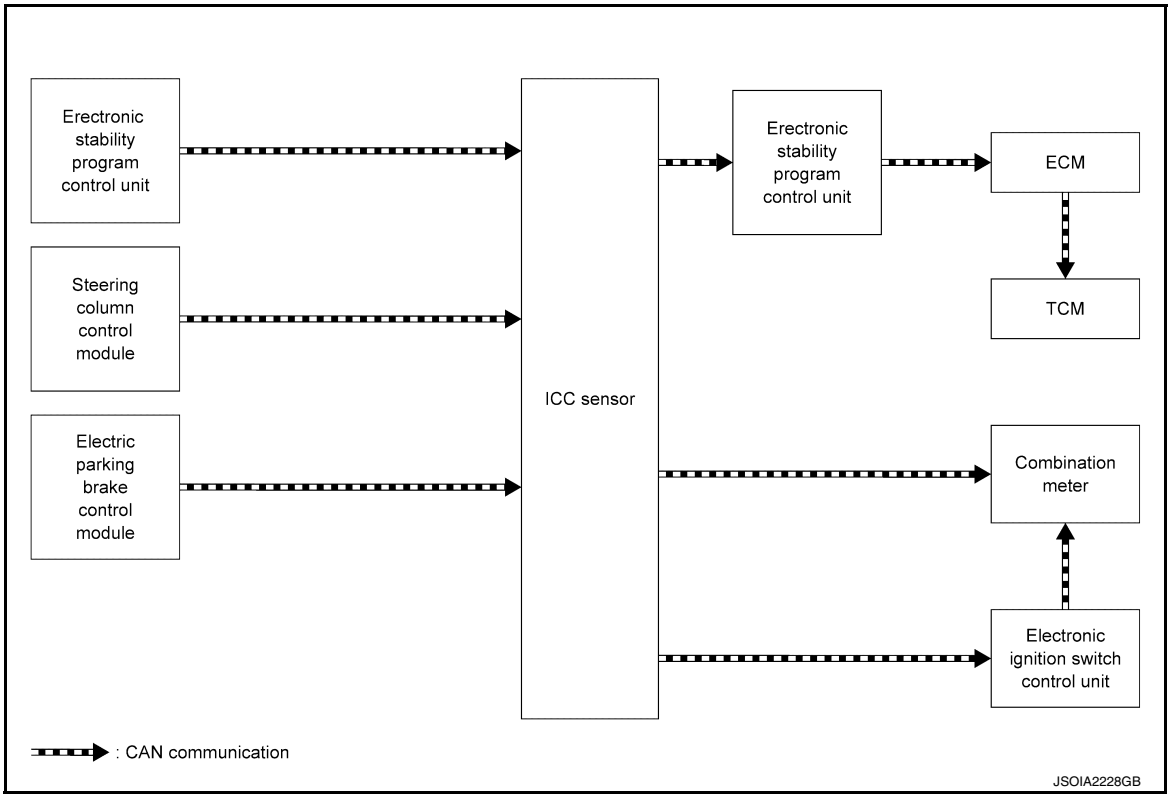
Initial parameters:
- Increase/reduce engine torque
- Engage targeted gear
- Increase/reduce the braking torque
- Object information

SPEED LIMITER

SPEED LIMITER : System Description

INFOID:0000000013581294

SYSTEM DIAGRAM



ICC SENSOR INPUT/OUTPUT SIGNAL ITEM

Input Signal Item

Transmit unit	Signal name		Description
Electronic stability program control unit	CAN communication	Braking torque signal	Receives braking torque state
		Body acceleration sensor signal	Receives body acceleration state
		Wheel speed signal	Receives wheel speed
		Brake pedal status signal	Receives brake pedal state
Steering column control module	CAN communication	Cruise control lever signal	Receives cruise control lever state
		Steering wheel angle signal	Receives steering wheel angle state
		Combination switch status signal	Receives combination switch state
Electric parking brake control module	CAN communication	Parking brake status signal	Receives parking brake state

Output Signal Item

Transmit unit	Reception unit	Signal name		Description
ICC sensor	Electronic stability program control unit	CAN communication	Object information signal	Transmits object information state
			Braking torque reduction request signal	Transmits braking torque reduction request
			Braking torque increase request signal	Transmits braking torque increase request
			Engine torque reduction request signal	Transmits engine torque reduction request
			Engine torque increase request signal	Transmits engine torque increase request
			Engage target gear request signal	Transmits engage target gear request
	Electronic ignition switch control unit	CAN communication	Meter display signal	Transmits meter display request
			Warning buzzer request signal	Transmits warning buzzer request
	Combination meter	CAN communication	Meter display signal	Transmits meter display request
			Warning buzzer request signal	Transmits warning buzzer request
	ECM	CAN communication	Object information signal	Transmits object information state
			Engine torque reduction request signal	Transmits engine torque reduction request
			Engine torque increase request signal	Transmits engine torque increase request
			Engage target gear request signal	Transmits engage target gear request
	TCM	CAN communication	Engage target gear request signal	Transmits engage target gear request

FUNCTION SEQUENCE FOR SPEED LIMITER

The speed limiter function comprises the following sub functions:

- Function sequence for permanent limiter

FUNCTION SEQUENCE FOR PERMANENT LIMITER

The maximum speed of the vehicle can be limited in steps of 10 km/h (6.2 MPH) from 160 km/h (99.4 MPH) to km/h up to the maximum speed.

Adjustment of the maximum speed takes place in the menu “Settings”, “Vehicle” and “Limitation (winter tires)” in the combination meter.

To do this the combination meter sends the set maximum speed via CAN communication, electronic ignition lock control unit and CAN communication to the ICC sensor.

NOTE:

With ICC models: The combination meter sends the set maximum speed via CAN communication, electronic ignition lock control unit and CAN communication to the ICC sensor.

Approximately 10 km/h (6.2 MPH) before reaching the set maximum speed a message appears in the combination meter multifunction display that indicates a maximum speed limitation.

To do this The ICC sensor sends the request to output this message via CAN communication, electronic ignition lock control unit and CAN communication to the combination meter.

NOTE:

The DISTRONIC controller unit transmits the respective request via CAN communication to the combination meter.

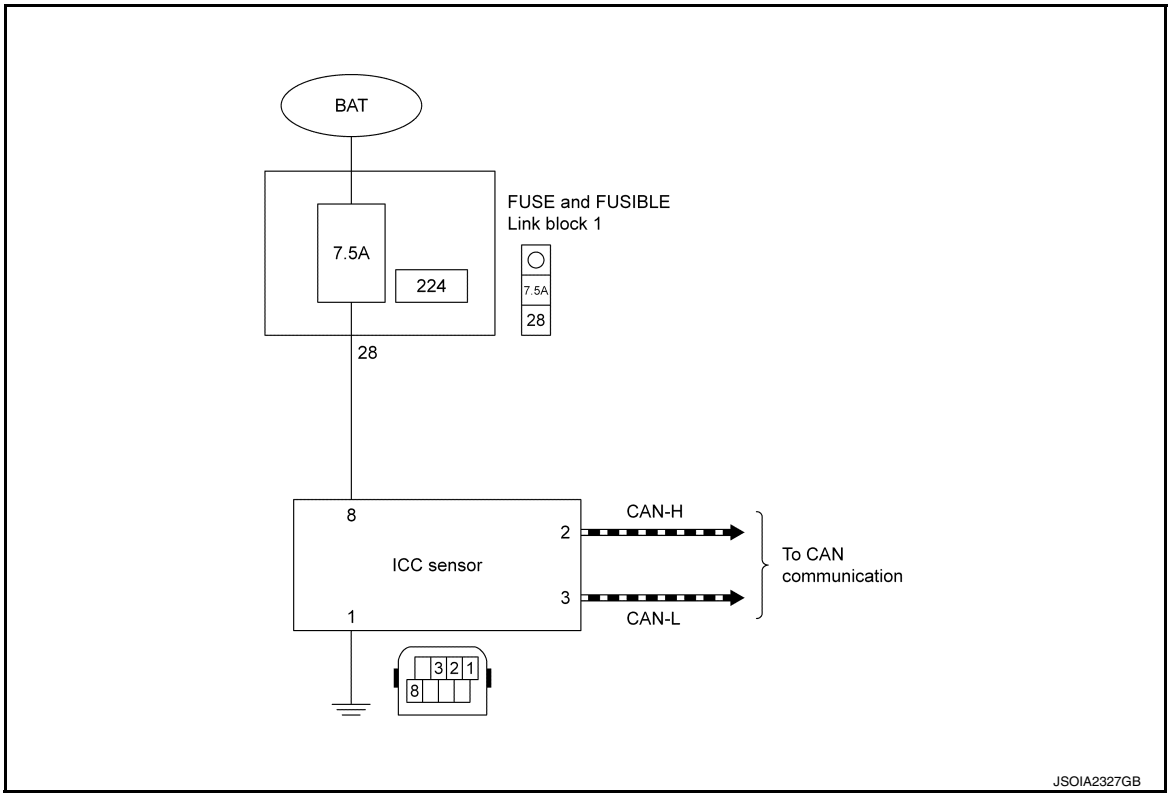
The driver can accelerate the vehicle up to the set maximum speed.

If the maximum speed was reached the following activities are started:

- Reduce engine torque
- Engage targeted gear (shift down)
- Raise braking torque

Circuit Diagram

INFOID:0000000013581295



INFORMATION DISPLAY (COMBINATION METER)

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

INFOID:0000000013581296

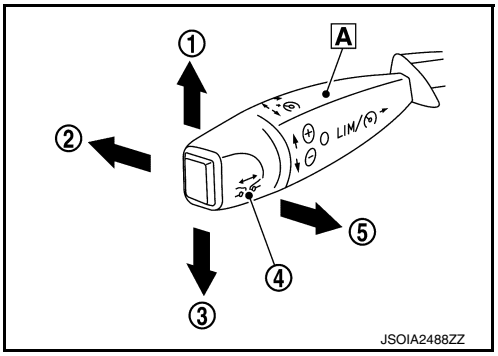
Name	Design	Function
ICC system display	—	CCS-32, "INTELLIGENT CRUISE CONTROL : Menu Displayed by Pressing Each Switch"

OPERATION

INTELLIGENT CRUISE CONTROL

INTELLIGENT CRUISE CONTROL : Switch Name and Function

INFOID:0000000013581297



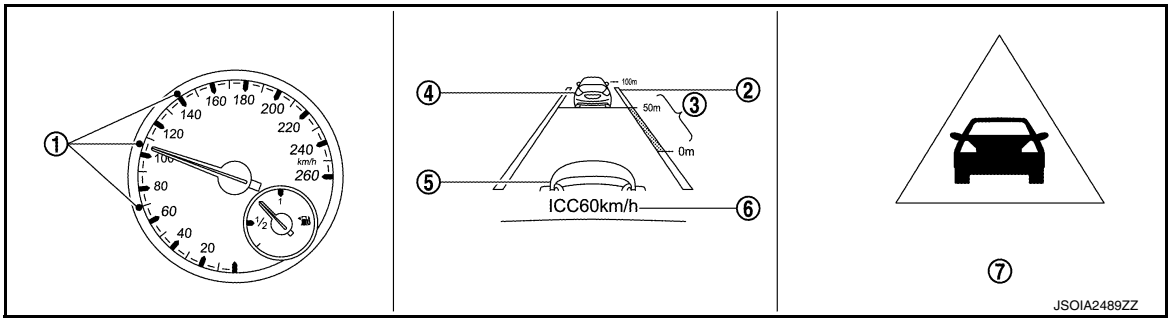
A : Cruise Control Lever

No.	Switch name	Description
①	Accelerate and set switch	Store the current speed or a higher speed
②	Switch OFF switch	Deactive the ICC system
③	Decelerate and set switch	Store the current speed or a lower speed
④	Distance control switch	Set the specified minimum distance
⑤	Resume from memory switch	Store the current speed or call up the last store speed

INTELLIGENT CRUISE CONTROL : Menu Displayed by Pressing Each Switch

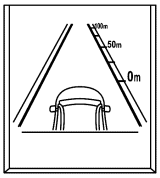
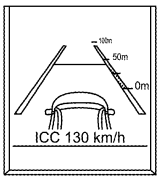
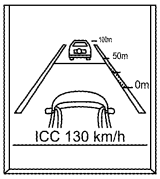
INFOID:0000000013581298

SYSTEM DISPLAY

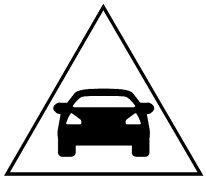


No.	Switch name	Description
①	Segment indicator	• No vehicles detected ahead: One or two segments in the set speed range light up • Detects a vehicle ahead: Segments between speed of the vehicle ahead and stored light up
②	Distance indicator	Current distance to the vehicle ahead
③	Specified minimum distance to the vehicle ahead indicator	Indicates the specified minimum distance to the vehicle ahead
④	Vehicle ahead indicator	Vehicle ahead, if detected
⑤	Own vehicle indicator	Indicates own vehicle
⑥	ICC stored speed	Indicates ICC stored speed
⑦	FEB warning lamp	FEB warning lamp illuminates if the distance to the vehicle in front is too small

SYSTEM CONTROL CONDITION DISPLAY

Condition		Display on ICC system display
System OFF		 JSOIA2331ZZ
Control mode	Without a vehicle ahead	 JSOIA2332ZZ
	With a vehicle ahead	 JSOIA2333ZZ

APPROACH WARNING DISPLAY

Condition	Combination meter
Own vehicle comes closer to the vehicle ahead due to rapid deceleration of the vehicle or if another vehicle cuts in, the system warns the driver with the chime and FEB warning lamp.	 JSOIA2252ZZ

WARNING AND AUTOMATIC CANCELLATION DISPLAY

Condition		Note	Information display
Warning display	An activation condition for the ICC system is not fulfilled.	—	Intelligent Cruise Control - - - km/h
	The ICC system has been deactivated.	If it was not deactivated by the driver, warning buzzer also sounds.	Intelligent Cruise Control off
	The ICC system is operational again after having been temporarily unavailable.	Driver can now reactive the ICC system.	Intelligent Cruise Control available again
	The ICC system is temporarily inoperative.	Possible cause: • The function is impaired due to heavy rain or snow. • The radar sensor system is temporarily inoperative, e.g. due to electromagnetic radiation emitted by nearby TV or radio stations or other sources of electromagnetic radiation. • The on-board voltage is too low. A warning buzzer also sounds.	Intelligent Cruise Control currently unavailable See Owner's Manual
	When the ICC system is malfunctioning	The adaptive brake assist function is also have malfunction. A warning buzzer also sounds.	Intelligent Cruise Control inoperative
	Driver has depressed the accelerator pedal.	—	Intelligent Cruise Control suspended
Automatic cancellation display	• The electric parking brake is applied • The VDC intervenes or the VDC is deactivated • The shift lever is in the P (Park), R (Reverse) or N (Neutral) position • The cruise control lever is pulled in order to pull away but the front passenger door or one of the rear doors is open • The vehicle is skidding • Park assist is activated	—	Intelligent Cruise Control off

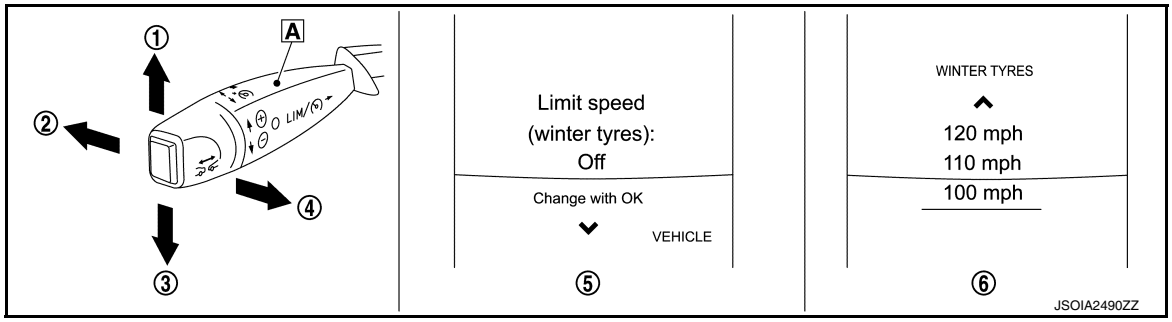
SPEED LIMITER

SPEED LIMITER : Switch Name and Function

INFOID:0000000013581299

SPEED LIMITER SYSTEM DISPLAY

Functions of each switch are listed in the following table.



A : Cruise control lever

Switch Function

No.	Description	Function
①	Permanent speed limiter system setting display (Information display)	The setting of permanent speed limiter system can be switched between ON and OFF
②	Permanent speed limiter speed setting display (Information display)	Changes the setting speed of permanent speed limiter

HANDLING PRECAUTION

Precautions for Intelligent Cruise Control (ICC)

INFOID:0000000013581301

INTELLIGENT CRUISE CONTROL (ICC)

- ICC is not a collision avoidance or warning device. For main road and motor way use only and not intended for congested areas or city driving. Failure to apply the brakes could result in an accident.
- Always observe posted speed limits and do not set the speed over them.
- Always drive carefully and attentively when using the ICC. Read and understand the Owner's Manual thoroughly before using the ICC system. To avoid serious injury or death, do not rely on the system to prevent accidents or to control the vehicle's speed in emergency situations. Do not use the ICC system except in appropriate road and traffic conditions.

When leaving the vehicle even if it is braked only by the ICC system, it could roll away if:

- There is a malfunction in the system or in the voltage supply.
- The ICC system has been deactivated with the cruise control lever, e.g. by a vehicle occupant or from outside the vehicle.
- The electrical system in the engine compartment the battery or the fuses have been tampered with.
- The battery is disconnected.
- The accelerator pedal has been depressed, e.g. by a vehicle occupant.

There is a risk of an accident.
If driver wish to exit the vehicle, always turn off the ICC system and secure the vehicle against rolling away.

ICC LIMITATIONS

- This system is only an aid to assist the driver and is not a collision warning or avoidance device. It is the driver's responsibility to stay alert, drive safely and be in control of the vehicle at all times.
- The system is primarily intended for use on straight, dry, open roads with light traffic. It is not advisable to use the system in city traffic or congested areas.
- This system will not adapt automatically to road conditions. This system should be used in evenly flowing traffic.Do not use the system on roads with sharp curves, or on icy roads, in heavy rain or in fog.
- As there is a performance limit to the distance control function, never rely solely on the ICC system. This system does not correct careless, inattentive or absent-minded driving, or overcome poor visibility in rain, fog, or other bad weather. Decelerate the vehicle speed by depressing the brake pedal, depending on the distance to the vehicle ahead and the surrounding circumstances in order to maintain a safe distance between vehicles.
- If the vehicle ahead comes to a stop, the vehicle decelerates to a standstill within the limitations of the system. Once the vehicle is stationary, it remains stationary and driver do not need to depress the brake pedal.
- Always pay attention to the operation of the vehicle and be ready to manually control the proper following distance. The ICC system may not be able to maintain the selected distance between vehicles (following distance) or selected vehicle speed under some circumstances.
- Normally when controlling the distance to a vehicle ahead, this system automatically accelerates or decelerates own vehicle according to the speed of the vehicle ahead. Depress the accelerator to properly accelerate own vehicle when acceleration is required for a lane change. Depress the brake pedal when deceleration is required to maintain a safe distance to the vehicle ahead due to its sudden braking or if a vehicle cuts in. Always stay alert when using the ICC system.
- The system may not detect the vehicle in front of driver in certain road or weather conditions. To avoid accidents, never use the ICC system under the following conditions:

- On roads where the traffic is heavy or there are sharp curves.
- On slippery road surfaces such as on ice or snow, etc.
- During bad weather (rain, fog, snow, etc.).
- When rain, snow or dirt adhere to the system sensor.
- On steep downhill roads (the vehicle may go beyond the set vehicle speed and frequent braking may result in overheating the brakes).
- On repeated uphill and downhill roads.
- When traffic conditions make it difficult to keep a proper distance between vehicles because of frequent acceleration or deceleration.
- Interference by other radar sources.

- In some road or traffic conditions, a vehicle or object can unexpectedly come into the sensor detection zone and cause automatic braking. Driver may need to control the distance from other vehicles using the accelerator pedal. Always stay alert and avoid using the ICC system when it is not recommended in this section.

The distance sensor will not detect the following objects:
- Stationary and slow moving vehicles.
- Pedestrians or objects in the roadway.
- Oncoming vehicles in the same lane.
- Motorcycles travelling offset in the travel lane.

The following are conditions in which the sensor cannot detect signals:

- When the snow or road spray from traveling vehicles reduces the sensor's visibility.
- When excessively heavy baggage is loaded in the rear seat or the luggage room of own vehicle.

The ICC system is designed to automatically check the sensor's operation within the limitation of the system. When the sensor is covered with dirt or is obstructed, the system will automatically be cancelled. If the sensor is covered with ice, a transparent or translucent vinyl bag, etc., the ICC system may not detect them. In these instances, the ICC system may not cancel and may not be able to maintain the selected following distance from the vehicle ahead. Be sure to check and clean the sensor regularly.

TIPS FOR DRIVING WITH THE ICC SYSTEM

General notes

The following contains descriptions of certain road and traffic conditions in which driver must be particularly attentive. In such situations, brake if necessary. The ICC system is then deactivated

Cornering, entering and exiting a bend

The ability of the ICC system to detect vehicles when cornering is limited. Own vehicle may brake unexpectedly or late.

Vehicles that are not driving in the middle of their lane

The ICC system may not detect vehicles which are not driving in the middle of their lane. The distance to the vehicle in front will be too short.

Other vehicles changing lane

The ICC system has not detected the vehicle cutting in yet. The distance to this vehicle will be too short.

Narrow vehicles

The ICC system has not yet detected the vehicle ahead on the edge of the carriage way because of its narrow width. The distance to the vehicle in front will be too short.

Obstructions and stationary vehicles

The ICC system does not brake for obstacles or stationary vehicles. If, for example, the detected vehicle turns a corner and reveals an obstacle or stationary vehicle The ICC system will not brake for these.

Crossing vehicles

The ICC system may detect vehicles that are crossing own lane by mistake. Activating the ICC system at traffic lights with crossing traffic, for example, could cause own vehicle to pull away unintentionally.

Precautions for Speed Limiter

INFOID:0000000013581302

If driver fail to adapt driving style, the speed limiter can neither reduce the risk of an accident nor override the laws of physics. The speed limiter cannot take into account road, weather or traffic conditions. The speed limiter is only an aid. driver are responsible for the distance to the vehicle in front, for vehicle speed, for braking in good time, and for staying in lane.
If there is a change of drivers, advise the new driver of the speed stored.

- Always observe posted speed limits. Do not set the speed over them.
- Always confirm the setting status of the speed limiter on the vehicle information display.When the speed limiter is on, the cruise control or the Intelligent Cruise Control (ICC) system (where fitted) cannot be operated.

When the speed limiter is on, the cruise control or the Intelligent Cruise Control (ICC) system (where fitted) cannot be operated.
If driver call up the stored speed and it is lower than the current speed, the vehicle decelerates. If driver do not know the stored speed, the vehicle could decelerate unexpectedly. There is a risk of an accident.
Pay attention to the road and traffic conditions before calling up the stored speed. If driver do not know the stored speed, store the desired speed again.

DIAGNOSIS SYSTEM (ICC SENSOR)

CONSULT Function (ICC Sensor)

INFOID:0000000013581303

APPLICATION ITEMS

CONSULT performs the following functions via CAN communication with ICC sensor.

Diagnosis mode	Description
Self Diagnostic Result	Displays malfunctioning system memorized in ICC sensor.
Data Monitor	Displays real-time input/output data of ICC sensor.
Work Support	It can monitor the adjustment direction indication in order to perform the radar alignment operation smoothly.
ECU Identification	Displays ICC sensor part number.
Configuration	Writes the vehicle specification when replacing ICC sensor

SELF DIAGNOSTIC RESULT

Refer to CCS-42, "DTC Index".

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

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

FREEZE FRAME DATA (FFD)

The following vehicle status is recorded when DTC is detected and is displayed on CONSULT.

Freeze Frame Data Item	Unit	Display item
Original Odometer Value	km	Displays the odometer value stored when the respective DTC is detected for the first time.
Most Recent Odometer Value	km	Displays the odometer value stored when the respective DTC is detected for the last time.
Frequency Counter	0 – 255	Displays the frequency counter defined as the total number of times the DTC status has changed from “stored - not active” to “active”.
Ignition cycle counter	0 – 255	Displays the number of consecutive operation cycles recorded since a DTC first became stored -not active and is no longer an active DTC. This information is needed for Self-healing functionality.
Inside temp of cont unit last occurrence	°C	Displays the internal temperature of ICC sensor value stored when the respective DTC is detected for the first time.
Vehicle speed last occurrence	km/h	Displays the last occurrence vehicle speed value stored when the respective DTC is detected for the first time.

DATA MONITOR

NOTE:

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

Monitored item [Unit]	Description
STATUS OF SENS CALIB [Unknown/READY/Running/Cancelled/ finished]	—
PROGRESS OF ADJUSTMENT [Yes/No]	—
Supply voltage of cntrl module [V]	Indicates battery power supply of ICC sensor

Monitored item [Unit]	Description
STATUS OF SEN CALIB HRIZN [NO ADJ1/L ADJ/S ADJ/LA ADJ/SA ADJ/NO ADJ2/NO ADJ3/NO ADJ4/ NO ADJ5]	—
HORIZON MISALIGN ANGLE [°]	—

WORK SUPPORT

Work support items	Description
SENSOR UNLOCK	—
CALBRATION OF LONG RANGE RADAR SENSOR	Outputs millimeter waves, calculates dislocation of the millimeter waves, and indicates adjustment direction.

ICC sensor alignment procedure
Refer to CCS-58, "Application Notice".

DIAGNOSIS SYSTEM (STEERING COLUMN CONTROL MODULE)

CONSULT Function (Steering Column Control Module)

INFOID:0000000013758428

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with steering column control module.

Diagnosis mode	Description
ECU Identification	Allows confirmation of steering column control module part number.
Self Diagnostic Result	Displays the diagnosis results judged by steering column control module.
Data Monitor	Displays the real-time input/output data from steering column control module input/output data.
Active Test	Steering column control module can provide a drive signal to electronic components to check their operations.

SELF DIAGNOSTIC RESULT

Refer to BCS-61, "DTC Index".

DATA MONITOR

NOTE:

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

Monitor	Item Contents
STRG SW CRRNT	—
Current Limitation	—
STEERING SENSOR	—
STEERING ANGLE	—
STEERING ANGLE SENSOR STATUS	—
HIGH BEAM STATUS	Display the status of combination switch (High beam)
FRONT WIPER	Display the status of combination switch (Front wiper)
FR WASHER SW	Display the status of combination switch (Front washer)
RR WIPER	Display the status of combination switch (Rear wiper)
IND SIG	—
HEATED STEERING WHEEL	—
CRUISE CONTROL FUNCTION	Display the status of cruise control lever
UP SW	Display the status of steering switch
DOWN SW	Display the status of steering switch
VOLUME “+” BUTTON	Display the status of steering switch
VOLUME “-” BUTTON	Display the status of steering switch
REPEAT KEY	—
MUTE BUTTON	—
GEAR POSITION	Display the status of paddle shifter
SUPPLY VOLTAGE	—

ACTIVE TEST

Monitor	Item Contents
Speedtronic light emitting diode	—
Steering wheel heater	—

ECU DIAGNOSIS INFORMATION

ICC SENSOR

Reference Value

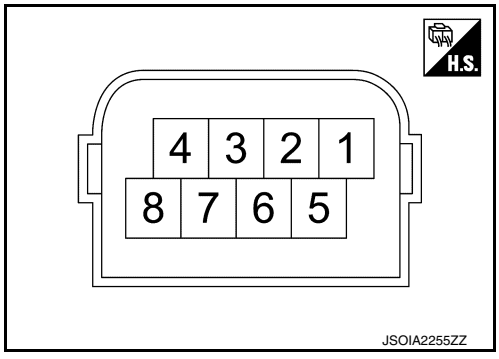
INFOID:0000000013581305

VALUES ON THE DIAGNOSIS TOOL

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

Monitor item	Condition		Value/Status
STATUS OF SENS CALIB	—		Unknown
	—		READY
	—		Running
	—		Cancelled
	—		finished
PROGRESS OF ADJUSTMENT	—		Yes
	—		No
Supply voltage of cntrl module	Ignition switch ON	—	Power supply voltage value
STATUS OF SEN CALIB HRIZN	—		NO ADJ
	—		L ADJ
	—		S ADJ
	—		LA ADJ
	—		SA ADJ
	—		NO ADJ2
	—		NO ADJ3
	—		NO ADJ4
	—		NO ADJ5
HORIZON MISALIGN ANGLE	—		Display the actual angle

TERMINAL LAYOUT



PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition	Standard value	Reference value
+	–	Signal name	Input/ Output			
1 (BR)	Ground	Ground	—	Ignition switch ON	0 - 0.1 V	Approx. 0 V
2 (W)	—	CAN communication-H	—	—	—	—
3 (G)	—	CAN communication-L	—	—	—	—
8 (B)	Ground	Battery power supply	Input	Ignition switch OFF	10 - 16 V	Battery voltage

DTC Index

INFOID:0000000013581306

DTC	Items	Reference
C2200-00	CAN message error (transmission)	CCS-72
C2201-00	Chassis CAN bus OFF malfunction	CCS-73
C2202-00	CAN message error (transmission)	CCS-74
C2203-00	CAN message error (transmission)	CCS-75
C2204-00	Radar is malfunction	CCS-76
C2205-00	Radar is malfunction	CCS-77
C2206-00	Radar is malfunction	CCS-78
C2207-00	Radar is malfunction	CCS-79
C2208-00	Radar is malfunction	CCS-80
C2209-00	Radar is malfunction	CCS-81
C220A-00	Radar is malfunction	CCS-82
C220B-00	Radar is malfunction	CCS-83
C220E-00	Radar is malfunction	CCS-84
C220F-00	Radar is malfunction	CCS-85
C2210-00	Radar is malfunction	CCS-86
C2211-00	Radar is malfunction	CCS-87
C2212-00	Radar is malfunction	CCS-88
C2214-00	Radar is malfunction	CCS-89
C2215-00	Radar is malfunction	CCS-90
C2216-00	Radar is malfunction	CCS-91
C2217-00	Radar is malfunction	CCS-92
C2218-00	Radar is malfunction	CCS-93
C2219-00	Radar is malfunction	CCS-94
C221A-00	Radar is malfunction	CCS-95
C221B-00	Radar is malfunction	CCS-96
C221C-00	Radar is malfunction	CCS-97
C221D-00	Radar is malfunction	CCS-98
C221E-00	Radar is malfunction	CCS-99
C221F-00	Radar is malfunction	CCS-100
C2220-00	Radar is malfunction	CCS-101
C2221-00	Radar is malfunction	CCS-102

DTC	Items	Reference
C2222-00	Radar is malfunction	CCS-103
C2223-00	Radar is malfunction	CCS-104
C2224-00	Radar is malfunction	CCS-105
C2225-00	Radar is malfunction	CCS-106
C2226-00	Radar is malfunction	CCS-107
C2227-00	Radar is malfunction	CCS-108
C2228-00	Radar is malfunction	CCS-109
C2229-00	Radar is malfunction	CCS-110
C222A-00	Radar is malfunction	CCS-111
C222B-00	Radar is malfunction	CCS-112
C222C-00	Radar is malfunction	CCS-113
C222D-00	Radar is blocked by dirt/foreign object	CCS-114
C222E-00	Cruise func is temporarily unavailable	CCS-115
C2233-00	Radar sensor is maladjusted	CCS-116
C2235-00	Radar sensor is maladjusted	CCS-117
C2236-00	Radar sensor is maladjusted	CCS-118
C2237-00	Invalid data received from VDCM	CCS-119
C2238-00	Invalid data received from VDCM	CCS-120
C2239-00	Invalid data received from VDCM	CCS-121
C223A-00	Invalid data received from VDCM	CCS-122
C223B-00	Invalid data received from VDCM	CCS-123
C223C-00	Invalid data received from VDCM	CCS-124
C223D-00	Radar is malfunction	CCS-125
C223E-00	Radar is malfunction	CCS-126
C223F-00	Radar is malfunction	CCS-127
C2240-00	Radar is malfunction	CCS-128
C2241-00	Radar is malfunction	CCS-129
C2242-00	Radar is malfunction	CCS-130
C2243-00	Radar is malfunction	CCS-131
C2244-00	Radar is malfunction	CCS-132
C2245-00	Power supply of radar is not OK	CCS-133
C2246-00	Power supply of radar is not OK	CCS-134
C2247-00	Power supply of radar is not OK	CCS-135
C2248-00	Power supply of radar is not OK	CCS-136
C2249-00	Power supply of radar is not OK	CCS-137
C224A-00	Radar is malfunction	CCS-138
C224B-00	Radar is malfunction	CCS-139
C224C-00	Radar is malfunction	CCS-140
C224D-00	Radar is malfunction	CCS-141
C224E-00	Radar is malfunction	CCS-142
C224F-00	Radar is malfunction	CCS-143
C2250-00	Radar is malfunction	CCS-144
C2251-00	Radar is malfunction	CCS-145
C2252-00	Radar is malfunction	CCS-146

DTC	Items	Reference
C2253-00	Radar is malfunction	CCS-147
C2254-00	Radar is malfunction	CCS-148
C2255-00	Radar is malfunction	CCS-149
C2256-00	CONT MODULE INTERNAL TEMP A	CCS-150
C2257-00	CONT MODULE INTERNAL TEMP A	CCS-151
C2258-00	CONT MODULE INTERNAL TEMP A	CCS-152
C2259-00	Radar is malfunction	CCS-153
C225A-00	INTERNAL CONTROL MODULE	CCS-154
C225B-00	No CAN sig received from motor elec	CCS-155
C225C-00	No CAN sig received from motor elec	CCS-156
C225D-00	No CAN sig received from motor elec	CCS-157
C225E-00	No CAN sig received from motor elec	CCS-158
C2260-00	No CAN signal received from ESP	CCS-159
C2261-00	No CAN signal received from ESP	CCS-160
C2262-00	No CAN signal received from ESP	CCS-161
C2263-00	No CAN signal received from ESP	CCS-162
C2264-00	No CAN signal received from ESP	CCS-163
C2265-00	COMMUNICATION ERROR (INVALID)	CCS-164
C2266-00	COMMUNICATION ERROR (INVALID)	CCS-165
C2267-00	No CAN sig received from comb meter	CCS-166
C2268-00	No CAN signal received from IGN lock	CCS-167
C2269-00	Engine torque request sig implausible	CCS-168
C226A-00	Invalid data received from VDCM	CCS-169
C226C-00	Invalid data received from ECM/PCM A	CCS-170
C226D-00	Invalid data received from ECM/PCM A	CCS-171
C226E-00	Invalid data received from ECM/PCM A	CCS-172
C226F-00	Invalid data received from ECM/PCM A	CCS-173
C2271-00	Invalid data received from VDCM	CCS-174
C2272-00	Invalid data received from VDCM	CCS-175
C2273-00	Invalid data received from VDCM	CCS-176
C2274-00	Invalid data received from VDCM	CCS-177
C2275-00	Invalid data received from VDCM	CCS-178
C2276-00	CAN signal from SCCM is malfunction	CCS-179
C2277-00	CAN signal from SCCM is malfunction	CCS-180
C2278-00	CAN signal from comb meter is malf	CCS-181
C2279-00	CAN signal from IGN lock is malf	CCS-182
C227A-00	Invalid data received from ECM/PCM A	CCS-183
C227B-00	Invalid data received from ECM/PCM A	CCS-184
C227C-00	Invalid data received from ECM/PCM A	CCS-185
C227D-00	Invalid data received from ECM/PCM A	CCS-186
C227F-00	Invalid data received from VDCM	CCS-187
C2280-00	Invalid data received from VDCM	CCS-188
C2281-00	Invalid data received from VDCM	CCS-189
C2282-00	Invalid data received from VDCM	CCS-190

DTC	Items	Reference
C2283-00	CAN signal from SCCM is malfunction	CCS-191
C2284-00	CAN signal from SCCM is malfunction	CCS-192
C2285-00	Invalid data received from ECM/PCM A	CCS-193
C2286-00	Invalid data received from ECM/PCM A	CCS-194
C2287-00	Invalid data received from ECM/PCM A	CCS-195
C2288-00	Invalid data received from ECM/PCM A	CCS-196
C228A-00	Invalid data received from VDCM	CCS-197
C228B-00	Invalid data received from VDCM	CCS-198
C228C-00	Invalid data received from VDCM	CCS-199
C228D-00	CAN signal from SCCM is malfunction	CCS-200
C228E-00	CAN signal from SCCM is malfunction	CCS-201
C2291-00	Vehicle speed signal is implausible	CCS-202
C2293-00	Static engine torque sig is implausible	CCS-203
C2294-00	Max engine torque sig is implausible	CCS-204
C2295-00	Min engine torque sig is implausible	CCS-205
C2296-00	Requested ENG torque is implausible	CCS-206
C2297-00	Engine speed signal is implausible	CCS-207
C2299-00	Crankshaft signal is implausible	CCS-208
C229B-00	Actual gear signal is implausible	CCS-209
C229D-00	Invalid data received from VDCM	CCS-210
C229E-00	REQ BRK TRQ signal is implausible	CCS-211
C229F-00	Cruise shutoff signal is implausible	CCS-212
C22A1-00	Longitudinal acceleration implausible	CCS-213
C22A2-00	Yaw rate sig from ESP is implausible	CCS-214
C22A3-00	STRG sensor signal is implausible	CCS-215
C22A4-00	STRG sensor signal is implausible	CCS-216
C22A5-00	Steering wheel angle is implausible	CCS-217
C22A6-00	Steering angle speed is implausible	CCS-218
C22A7-00	Pulse counter signal is implausible	CCS-219
C22A8-00	Wheel speed from ESP is implausible	CCS-220
C22A9-00	WHL rotation direction sig implausible	CCS-221
C22AA-00	Status signal from meter is implausible	CCS-222
C22AB-00	VHCL SPD DISP signal is implausible	CCS-223
C22AC-00	Accel pedal sensor sig is implausible	CCS-224
C22AD-00	Brake pedal position sig is implausible	CCS-225
C22AE-00	Brake pedal position sig is implausible	CCS-226
C22AF-00	Cruise control lever sig is implausible	CCS-227
C22B0-00	Cruise cont sig from SCM implausible	CCS-228
C22B1-00	Turn signal SW status sig implausible	CCS-229
C22B2-00	Outside temperature sig is implausible	CCS-230
C22B3-00	Outside temperature sig is implausible	CCS-231
C22B6-00	Odo signal from meter is implausible	CCS-232
C22B7-00	Odo signal from meter is implausible	CCS-233
C22BB-00	No CAN signal received from ESP	CCS-234

DTC	Items	Reference
C22BC-00	No CAN sig received from comb meter	CCS-235
C22BE-00	No CAN signal received from IGN lock	CCS-236
C22BF-00	Invalid data received from VDCM	CCS-237
C22C0-00	CAN signal from comb meter is malf	CCS-238
C22C2-00	CAN signal from IGN lock is malf	CCS-239
C22C3-00	Invalid data received from VDCM	CCS-240
C22C4-00	Invalid data received from VDCM	CCS-241
C22C6-00	CAN signal from IGN lock is malf	CCS-242
C22C7-00	Brake signal from ESP is implausible	CCS-243
C22C8-00	Radar is currently nonfunctional	CCS-244
C22C9-00	Radar is currently nonfunctional	CCS-245
C22CA-00	Radar is currently nonfunctional	CCS-246
C22CB-00	Radar is malfunction	CCS-247
C22CD-00	Radar is blocked by dirt/foreign object	CCS-248
C22CE-00	Dynamic braking mode sig implausible	CCS-249
C22CF-00	Dynamic braking mode sig implausible	CCS-250
C22D0-00	No CAN signal received from E-PKB	CCS-251
C22D1-00	CAN signal from E-PKB is malfunction	CCS-252
C22D2-00	CAN signal from E-PKB is malfunction	CCS-253
C22D3-00	CAN signal from E-PKB is malfunction	CCS-254
C22D4-00	No CAN signal received from IGN lock	CCS-255
C22D5-00	CAN signal from IGN lock is malf	CCS-256
C22D6-00	CAN signal from IGN lock is malf	CCS-257
C22D7-00	Country code signal is implausible	CCS-258
C22D9-00	FL tumbler SW status is implausible	CCS-259
C22DA-00	FR tumbler SW status is implausible	CCS-260
C22DB-00	RL tumbler SW status is implausible	CCS-261
C22DC-00	RR tumbler SW status is implausible	CCS-262
C22DD-00	Cruise shutoff signal is implausible	CCS-263
C22DE-00	Brake signal from ESP is implausible	CCS-264
C22DF-00	Braking torque signal is implausible	CCS-265
C22E0-00	Target gear signal is implausible	CCS-266
C22E1-00	COMMUNICATION ERROR (INVALID)	CCS-267
C22E2-00	CAN signal from SCCM is malfunction	CCS-268
C22E3-00	CAN signal from SCCM is malfunction	CCS-269
C22E4-00	CAN signal from SCCM is malfunction	CCS-270
C22E5-00	Steering wheel angle is implausible	CCS-271
C22E6-00	Steering wheel angle is implausible	CCS-272
C22E7-00	Longitudinal acceleration implausible	CCS-273
C22E8-00	CAN signal from comb meter is malf	CCS-274
C22EA-00	Cruise shutoff signal is implausible	CCS-275
C22EB-00	VIN signal from IGN lock is implausible	CCS-276
C22EC-00	SCN coding of radar is malfunction	CCS-277
C22ED-00	Radar sensor is maladjusted	CCS-278

DTC	Items	Reference
C22EE-00	Invalid data received from ECM/PCM A	CCS-279
C22EF-00	Invalid data received from ECM/PCM A	CCS-280
C22F0-00	Invalid data received from ECM/PCM A	CCS-281
C22F1-00	Invalid data received from ECM/PCM A	CCS-282
C22F2-00	No CAN sig received from motor elec	CCS-283
C22F3-00	No CAN sig received from motor elec	CCS-284
C22F4-00	No CAN signal received from IGN lock	CCS-285
C22F5-00	CAN signal from IGN lock is malf	CCS-286
C22F6-00	CAN signal from IGN lock is malf	CCS-287
C22F7-00	CAN signal from IGN lock is malf	CCS-288
C22F9-00	CAN signal from IGN lock is malf	CCS-289
C22FA-00	No CAN signal received from IGN lock	CCS-290
C22FB-00	Steering variant signal is implausible	CCS-291
C22FC-00	Steering variant signal is implausible	CCS-292
C22FD-00	Electric PKB signal is implausible	CCS-293
C22FF-00	Status signal from ESP is implausible	CCS-294
C2303-00	Radar is malfunction	CCS-295
C2304-00	Wheel speed from ESP is implausible	CCS-296
C2305-00	Wheel speed from ESP is implausible	CCS-297
C2306-00	No CAN signal received from IGN lock	CCS-298
C2307-00	No CAN signal received from ESP	CCS-299
C2308-00	No CAN signal received from IGN lock	CCS-300
C2309-00	No CAN signal received from IGN lock	CCS-301
C230A-00	CAN signal from IGN lock is malf	CCS-302
C230B-00	CAN signal from IGN lock is malf	CCS-303
C230C-00	CAN signal from IGN lock is malf	CCS-304
C230D-00	Invalid data received from VDCM	CCS-305
C230E-00	CAN signal from IGN lock is malf	CCS-306
C230F-00	T/M mode signal is implausible	CCS-307
C2310-00	T/M mode signal is implausible	CCS-308
C2311-00	Braking torque signal is implausible	CCS-309
C2312-00	Driver belt buckle signal is implausible	CCS-310
C2313-00	Driver belt buckle signal is implausible	CCS-311
C2314-00	Max speed limit signal is implausible	CCS-312
C2315-00	Invalid data received from VDCM	CCS-313
C2316-00	Invalid data received from VDCM	CCS-314
C2317-00	No CAN signal received from ESP	CCS-315
C2318-00	No CAN signal received from ESP	CCS-316
C2319-00	No CAN sig received from parking sys	CCS-317
C231A-00	Invalid data received from VDCM	CCS-318
C231B-00	Invalid data received from VDCM	CCS-319
C231C-00	CAN signal from E-PKB is malf	CCS-320
C231E-00	Invalid data received from VDCM	CCS-321
C231F-00	Invalid data received from VDCM	CCS-322

DTC	Items	Reference
C2320-00	Invalid data received from VDCM	CCS-323
C2321-00	Invalid data received from VDCM	CCS-324
C2322-00	Brake status from ESP is implausible	CCS-325
C2323-00	Body variant signal is implausible	CCS-326
C2324-00	Model series signal is implausible	CCS-327
C2325-00	Brake status from ESP is implausible	CCS-328
C232C-00	No CAN signal received from IGN lock	CCS-329
C232D-00	CAN signal from IGN lock is malf	CCS-330
C232E-00	CAN signal from IGN lock is malf	CCS-331
C2330-00	No CAN sig received from motor elec	CCS-332
C2331-00	Invalid data received from ECM/PCM A	CCS-333
C2332-00	No CAN signal received from ESP	CCS-334
C2333-00	Invalid data received from VDCM	CCS-335
C2334-00	T/M mode signal is implausible	CCS-336
C2335-00	T/M mode signal is implausible	CCS-337
C2336-00	T/M mode signal is implausible	CCS-338

STEERING COLUMN CONTROL MODULE

List of ECU Reference

INFOID:0000000013581307

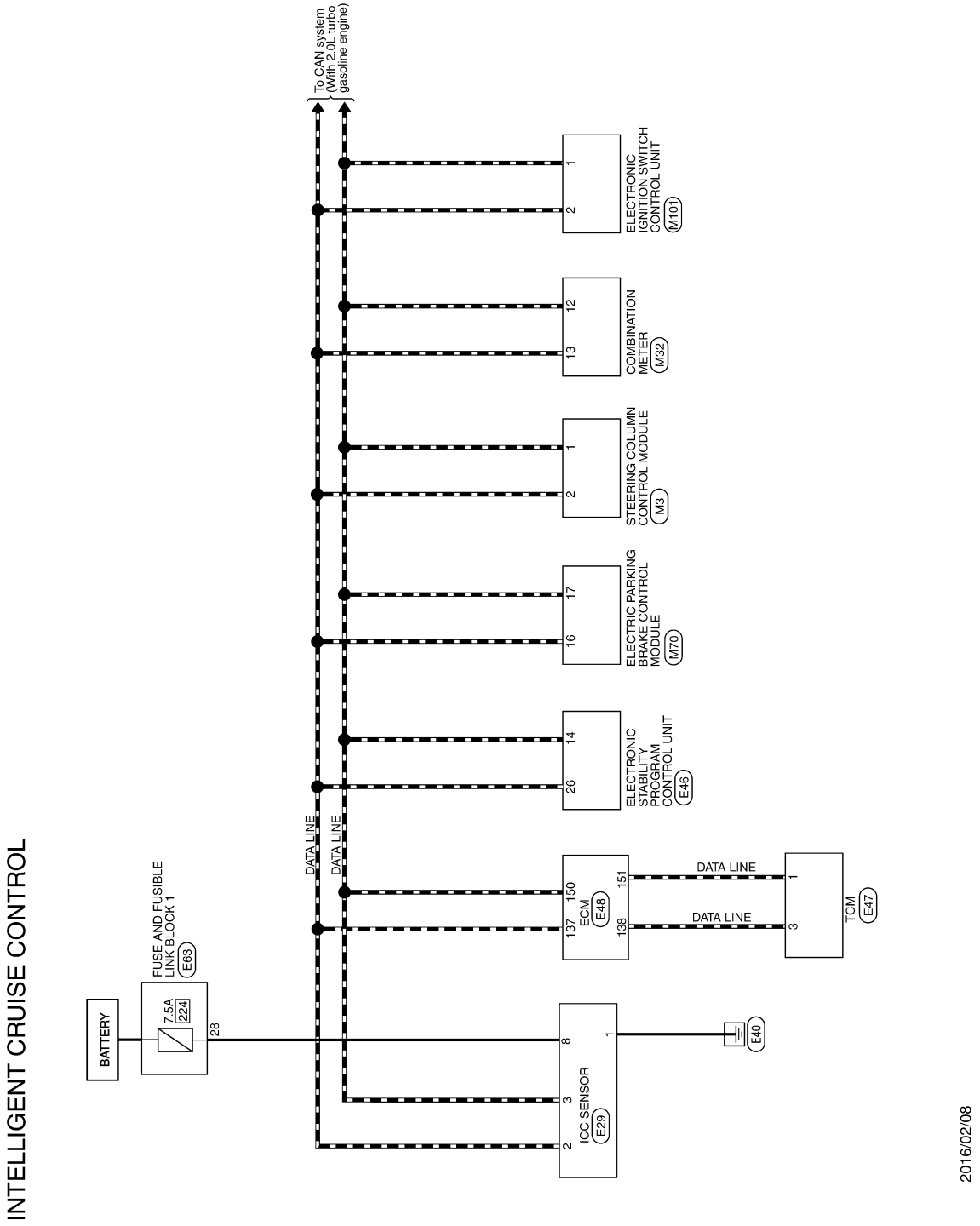
ECU name	Refer to
Steering column control module	BCS-59, "Reference Value"
	BCS-61, "DTC Index"

WIRING DIAGRAM

INTELLIGENT CRUISE CONTROL

Wiring Diagram

INFOID:0000000013581308



INTELLIGENT CRUISE CONTROL

Connector No.	E29
Connector Name	ICC SENSOR
Connector Type	MB_A2105404581

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

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

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

Connector No.	E47
Connector Name	TCM
Connector Type	MB_A2465450026

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

Connector No.	E48
Connector Name	ECM
Connector Type	MB_A0075406981

Terminal No.	Color Of Wire	Signal Name [Specification]
97	R	POWER SUPPLY (ECM)
98	BR	ECM GROUND
99	V	POWER SUPPLY (ECM)
100	BR	ECM GROUND
101	R	POWER SUPPLY (ECM)
102	B	ECM GROUND
103	L	COOLING FAN CONTROL SIGNAL
104	R	SENSOR POWER SUPPLY (ACCELERATOR PEDAL POSITION SENSOR 3)
105	G	SENSOR POWER SUPPLY (ACCELERATOR PEDAL POSITION SENSOR 2)
106	BR	SENSOR GROUND (ACCELERATOR PEDAL POSITION SENSOR1)
111	B	IGNITION SIGNAL
112	Y	POWER SUPPLY (BATTERY)
116	W	STARTER RELAY-L
119	GR	SENSOR GROUND (ACCELERATOR PEDAL POSITION SENSOR 2)
120	O	SENSOR GROUND
122	R	HOT START SIGNAL
123	GR	MOTOR RELAY CONTROL SIGNAL
127	O	FUEL PUMP ON SIGNAL
132	G	ACCELERATOR PEDAL POSITION SENSOR 1
136	Y	POWERTRAIN SENSOR CAN-H
137	W	CAN-H
138	GR	POWERTRAIN CAN-H
141	B	WATER PUMP RELAY CONTROL SIGNAL
145	W	ACCELERATOR PEDAL POSITION SENSOR 2
146	G	FUEL TANK PRESSURE SENSOR
147	L	CRASH SIGNAL
148	W	STARTER RELAY-H
149	B	POWERTRAIN SENSOR CAN-L
150	G	CAN-L
151	L	POWERTRAIN CAN-L
152	V	EVAP CANISTER VENT CONTROL VALVE
153	BR	EVAP PURGE CONTROL VALVE

Connector No.	E63
Connector Name	FUSE AND FUSIBLE LINK BLOCK 1
Connector Type	MB_A0065454101

Terminal No.	Color Of Wire	Signal Name [Specification]
28	B	-

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

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

Connector No.	M32
Connector Name	COMBINATION METER
Connector Type	MB_A0525452726

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

JROWC8898GB

INTELLIGENT CRUISE CONTROL

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

Terminal No.	Color Of Wire	Signal Name [Specification]
9	G	ELECTRIC PARKING BRAKE SWITCH 1
10	P	ELECTRIC PARKING BRAKE SWITCH 2
12	R	MOTOR RH (+)
13	W	MOTOR POWER SUPPLY (RH)
14	R	MOTOR LH (+)
15	R	MOTOR POWER SUPPLY (LH)
16	W	CAN-H
17	G	CAN-L
18	O	ELECTRIC PARKING BRAKE SWITCH 3
19	G	ELECTRIC PARKING BRAKE SWITCH 4
22	B	POWER SUPPLY
27	Y	MOTOR RH (-)
28	BR	GROUND (MOTOR RH)
29	V	MOTOR LH (-)
30	BR	GROUND (MOTOR LH)

9	GR	REMOTE KEYLESS
10	W	POWER SUPPLY
11	BR	DIAGNOSTIC CAN-L
12	L	DIAGNOSTIC CAN-H

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

Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	CHASSIS CAN-L
2	W	CHASSIS CAN-H
3	R	BODY CAN 1-H
4	BR	BODY CAN 1-L
6	W	STEERING LOCK OPERATION

JROWC8899GB

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:0000000013581309

1.INTERVIEW FOR MALFUNCTION

It is also important to clarify the customer concerns before starting the inspection. Interview the customer about their concerns carefully and understand the symptoms fully.

NOTE:

The customers are not professionals. Never assume that “maybe the customer means···” or “maybe the customer mentioned this symptom”.

>> GO TO 2.

2.SELF-DIAGNOSIS WITH CONSULT

1. Perform “All DTC Reading” with CONSULT.
2. Check if the DTC is detected on the self-diagnosis results of “ICC sensor”.

Is any DTC detected?

YES >> Record or print self-diagnosis results and freeze frame data (FFD). GO TO 3.
NO >> GO TO 3.

3.TROUBLE DIAGNOSIS BY DTC

1. Check the DTC in the self-diagnosis results.
2. Perform trouble diagnosis for the detected DTC. Refer to CCS-42, "DTC Index"

NOTE:

If “DTC: U1000” is detected, first diagnose the CAN communication system.

>> GO TO 4.

4.MALFUNCTIONING PART REPAIR

Repair or replace the identified malfunctioning parts.

>> GO TO 5.

5.REPAIR CHECK (SELF-DIAGNOSIS WITH CONSULT)

1. Erases self-diagnosis results.
2. Perform “All DTC Reading” again after repairing or replacing the specific items.
3. Check if any DTC is detected in self-diagnosis results of “ICC sensor”.

Is any DTC detected?

YES >> GO TO 3.
NO >> INSPECTION END

ADDITIONAL SERVICE WHEN REPLACING ICC SENSOR

Description

INFOID:0000000013581310

Always perform the radar alignment after removing and installing or replacing the ICC sensor. Refer to CCS-54, "Work Procedure".

CAUTION:

The system does not operate normally unless the radar alignment is performed. Always perform it.

Work Procedure

INFOID:0000000013581311

1.PERFORM CONFIGURATION (WRITING VECHILE SPECIFICATION)

Perform configration. Refer to CCS-70, "Description".

>> GO TO 2.

2.PERFORM ICC SENSOR INITIAL VERTICAL ALIGNMENT

Perform the ICC sensor initial vertical alignment. Refer to CCS-55, "Description".

>> GO TO 3.

3.PERFORM ICC ALIGNMENT

Perform the ICC alignment. Refer to CCS-58, "Application Notice".

>> GO TO 4.

4.REPAIR CHECK (SELF-DIAGNOSIS WITH CONSULT)

1. Erases self-diagnosis results.
2. Perform “All DTC Reading”.
3. Check if any DTC is detected in self-diagnosis results of “ICC sensor”.

Is any DTC detected?

YES >> Perform trouble diagnosis for the detected DTC. Refer to CCS-42, "DTC Index".
NO >> INSPECTION END

ICC SENSOR INITIAL VERTICAL ALIGNMENT

Description

INFOID:0000000013581312

OUTLINE OF ICC SENSOR INITIAL ALIGNMENT PROCEDURE

Always perform the ICC sensor initial vertical alignment before ICC sensor alignment.

NOTE:

If initial vertical alignment is not performed, the ICC sensor adjustment may not be performed.

1. Required tools, refer to CCS-55, "Required Tools".
2. Preparation, refer to CCS-55, "Preparation".
3. ICC sensor initial vertical alignment, refer to CCS-55, "ICC Sensor Initial Vertical Alignment".

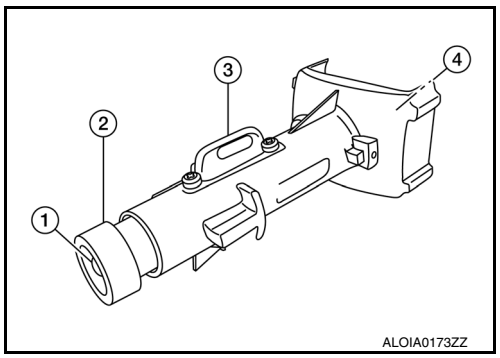
Required Tools

INFOID:0000000013581313

The following tool is necessary to perform the ICC sensor initial vertical alignment:

- ICC sensor cone alignment tool

① Center release button
② Plunger
③ Level
④ Suction cup



Preparation

INFOID:0000000013581314

1. PREPARATION FOR ICC SENSOR INITIAL VERTICAL ALIGNMENT PROCEDURE

1. Verify correct vehicle suspension height. Refer to FSU-23, "Wheelarch Height".
2. Repair or replace any damaged body components.
3. Verify proper tire inflation pressures. Refer to WT-76, "Tire Air Pressure".
4. Remove any accumulations of mud, snow or ice from the vehicle underbody.
5. Verify that there is no load in the vehicle (cargo or passenger).
6. Place the vehicle on a known level horizontal surface such as a wheel or frame alignment rack to achieve satisfactory sensor vertical alignment results.
7. Remove front emblem. Refer to EXT-21, "Removal and Installation".

>> Proceed to CCS-55, "ICC Sensor Initial Vertical Alignment".

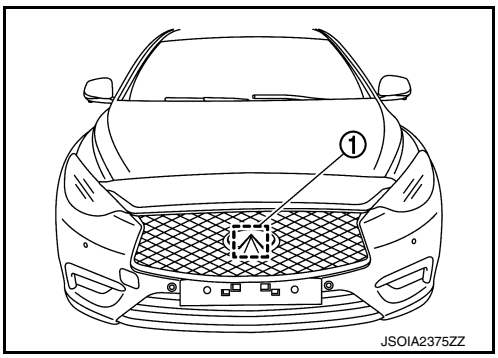
ICC Sensor Initial Vertical Alignment

INFOID:0000000013581315

NOTE:

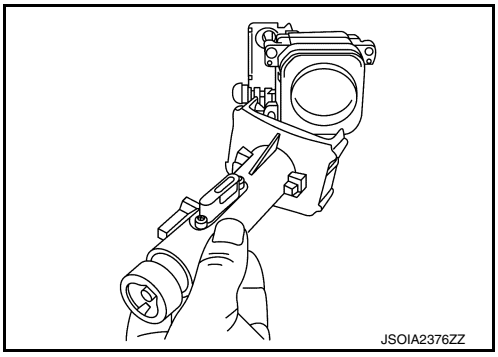
The ICC sensor initial vertical alignment procedure must be performed anytime the ICC sensor is removed and reinstalled.

1. The ICC sensor ① is located behind the front emblem.

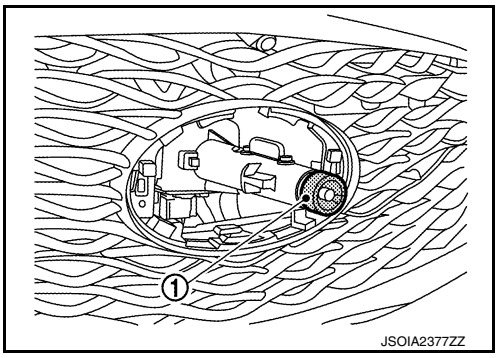


2. Using standard glass cleaner and a clean soft towel, remove any dirt from the ICC sensor lens and from the suction cup of the vertical alignment tool.

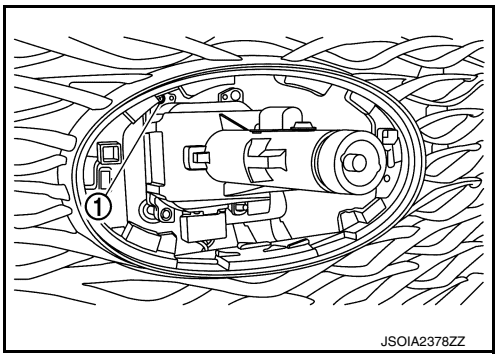
3. With the level indicator facing upward, carefully slide the vertical alignment tool over the sensor housing until the suction cup rests against the lens of the sensor.



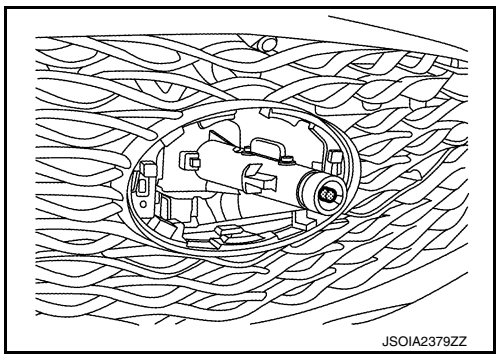
4. Depress the plunger of the vertical alignment tool ① to engage the suction cup and attach the tool securely to the lens of the sensor.
NOTE:
It may take several attempts to get the suction cup of the tool to fasten securely to the sensor. If necessary, lightly wet the suction cup with clean water to help improve adhesion.



5. Turn the ICC sensor adjustment screw ① to level the tool.



6. Depress the center release button of the tool ① to release the suction cup from the sensor lens and remove the tool from the sensor.



7. Insure the ICC sensor electrical connector located on the bottom of the sensor is connected.
8. Reinstall the front emblem.
9. Perform the ICC sensor alignment procedure. Proceed to CCS-58, "Application Notice".

ICC SENSOR ALIGNMENT

Application Notice

INFOID:0000000013581316

Type	Description
TYPE 1	When using following tools for ICC sensor alignment. Refer to CCS-58, "TYPE 1 : Description" • ICC target board (KV99112700) • ICC sensor cone alignment tool (J-50808)
TYPE 2	When using following tools for ICC sensor alignment. Refer to CCS-63, "TYPE 2 : Description" • ICC Alignment Kit (1-20-2721-1-IF) • Wheel Adaptor (1-20-2722-1-IF) • ICC sensor cone alignment tool (J-50808)

TYPE 1

TYPE 1 : Description

INFOID:0000000013581317

OUTLINE OF RADAR ALIGNMENT PROCEDURE

- A 4-wheel vehicle alignment must be performed before proceeding with radar alignment procedure.
- Always perform the radar alignment after removing and installing or replacing the ICC sensor.
- If the ICC sensor was removed and installed or replaced, first perform ICC Sensor Initial Vertical Alignment, refer to CCS-55, "Description".

WARNING:

Radio waves could adversely affect electric medical equipment. Those who use a pacemaker should contact the electric medical equipment manufacturer for the possible influences before use.

CAUTION:

The system does not operate normally unless the radar alignment is performed. Always perform it.

1. Preparation, refer to CCS-59, "TYPE 1 : Work Procedure (Preparation)".
2. Preparation, refer to CCS-59, "TYPE 1 : Work Procedure (Preparation)".
3. Set the ICC sensor target board (SST: KV99112700) to the correct position in front of the vehicle. Refer to CCS-60, "TYPE 1 : Work Procedure (Setting The ICC Target Board)".
4. Set the radar alignment mode (“Calibration of long range radar” on “Work support”) with CONSULT, and then perform the adjustment according to the display. Refer to CCS-62, "TYPE 1 : Work Procedure (Radar Alignment)".

CAUTIONARY POINT FOR RADAR ALIGNMENT PROCEDURE

CAUTION:

- **For radar alignment procedure, choose a level location with a few meter of working space in front and surrounding the vehicle.**
- **Vehicle must be stationary and unoccupied during the whole alignment procedure.**
- **Any slight vibration during the alignment procedure can cause the test to fail. If this happens, you will have to restart the alignment process.**
- **The ignition switch must be in the ON position.**
- **The battery voltage must not fall below 12 volts during the whole alignment procedure. Failure to maintain adequate battery voltage will cause the test to fail. If this happens, you will have to restart the alignment process.**
- **The ICC target board must be set in front of the vehicle facing the sensor.**
- **Adjust the radar alignment with CONSULT. (The radar alignment procedure cannot be adjusted without CONSULT.)**
- **Never enter the vehicle during radar alignment.**
- **Never block the area between the radar and the ICC target board at any time during the alignment process.**
- **Accurate steering wheel setting is crucial. Once set, do not disturb the steering wheel for the remainder of the alignment procedure.**
- **For proper system operation and adjustment, all vehicle wheels must be of the same size.**

TYPE 1 : Work Procedure (Preparation)

INFOID:0000000013581318

1.ADVANCE PREPARATION FOR RADAR ALIGNMENT

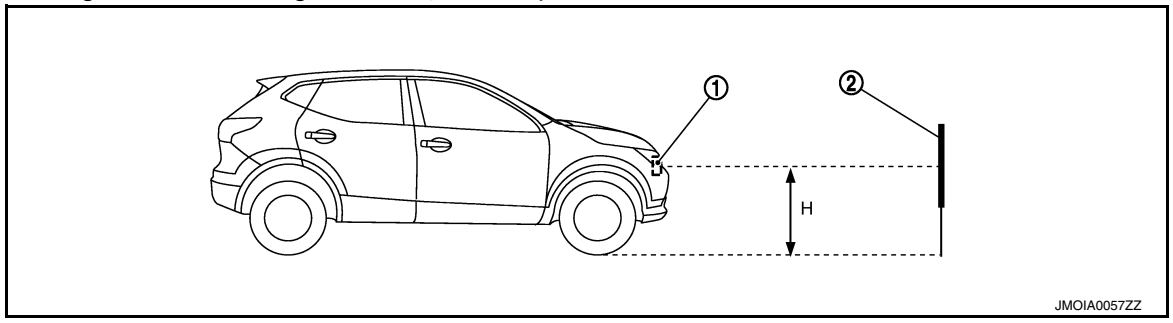
1. Adjust all tire pressure to the specified value.
2. Empty the vehicle. (Remove any luggage from the passenger compartment, trunk room, etc.)
3. Fully fill the fuel tank, and then check that the coolant and oils are filled up to correct level.
4. Shift the selector lever to “P” position, and release the parking brake.
5. Clean the front emblem ①.

NOTE:
Check that the ICC sensor surface is clean.

>> GO TO 2.

2.PREPOSITION TARGET BOARD

Adjust the height of the ICC target board ② center position.



H : 627 mm (24.68 in) (Without roof rail)
H : 662 mm (26.06 in) (With roof rail)
① : ICC sensor

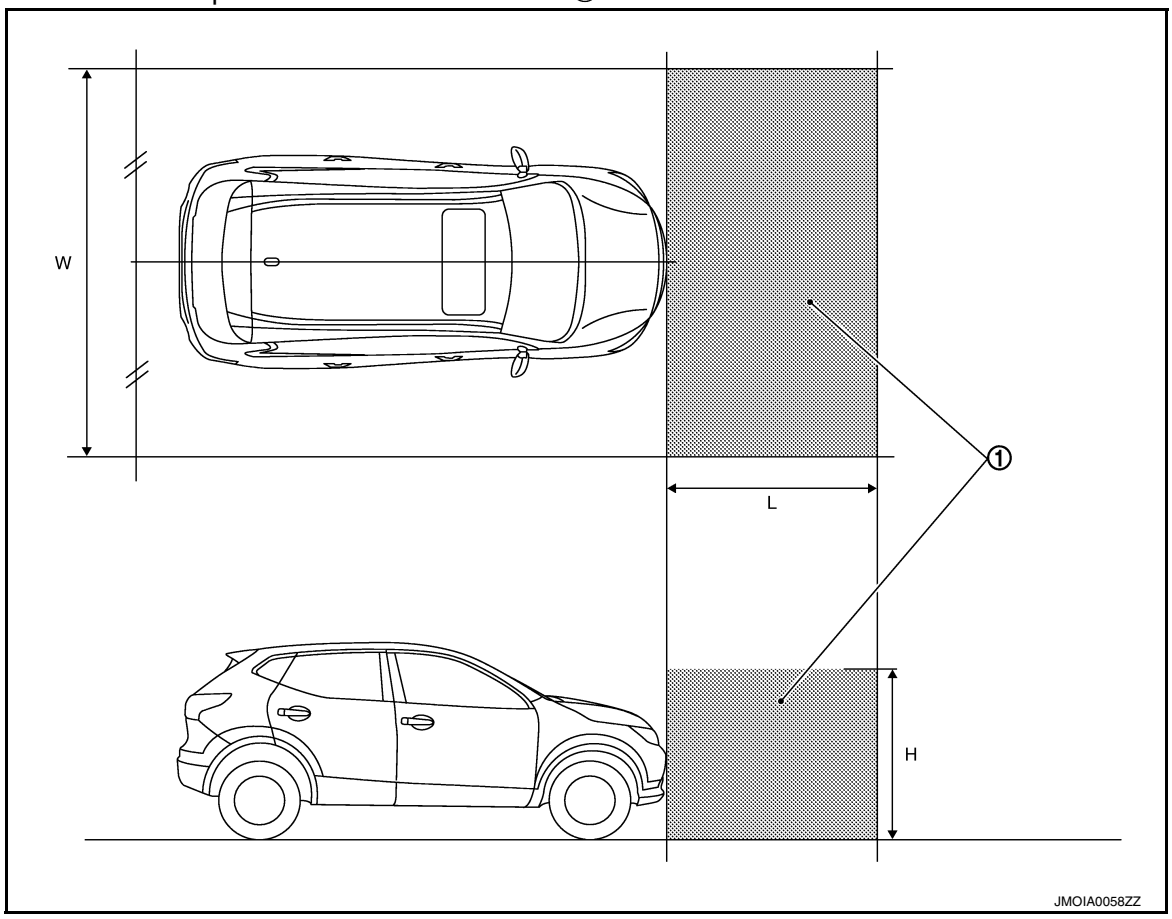
NOTE:
Adjusting the ICC target board height may not allow the center to reach to H. In this case, raise the height to upper limit of the adjustment range.

CAUTION:
To prevent damage to ICC target board, use a weight to protect the board from falling.

>> GO TO 3.

3.RADAR ALIGNMENT OPERATION AREA

Position the vehicle in a place that is level and where ① area can be secured.



W : 3,000 mm (118.11 in)
L : 2,000 mm (78.74 in)
H : 2,000 mm (78.74 in)

NOTE:
① is a no object zone.

>> Proceed to CCS-60, "TYPE 1 : Work Procedure (Setting The ICC Target Board)".

TYPE 1 : Work Procedure (Setting The ICC Target Board)

INFOID:0000000013581319

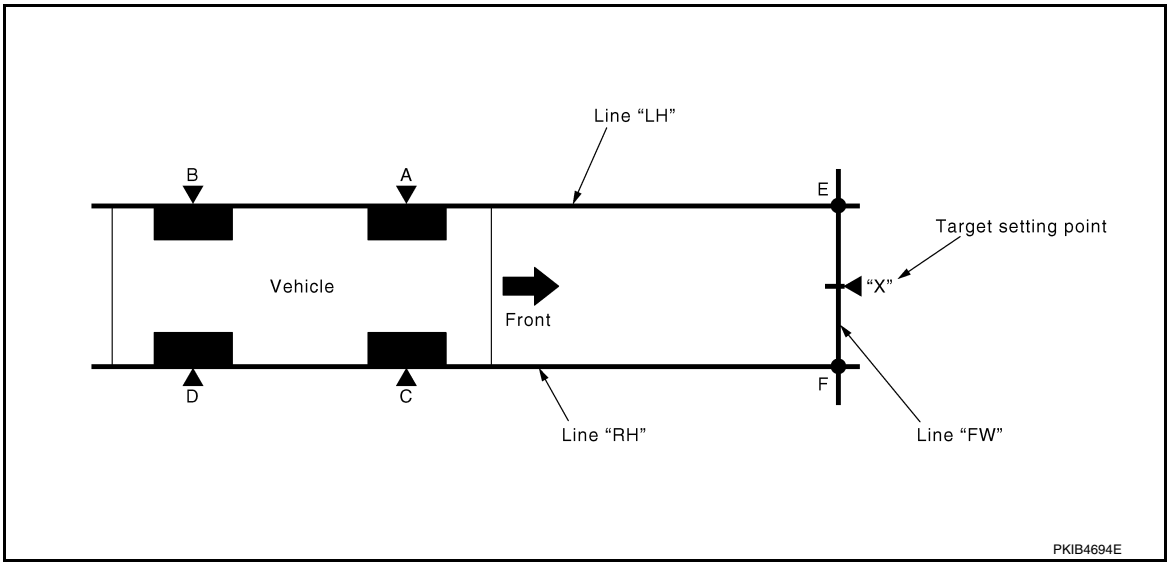
DESCRIPTION

Accurate adjustment of the radar alignment requires that the ICC target board be accurately positioned.

CAUTION:

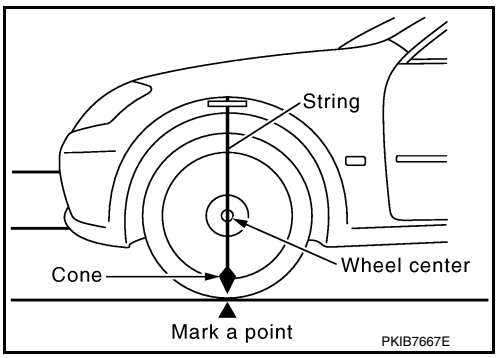
If the radar alignment is adjusted with the ICC target board in the incorrect position, the FEB system does not function normally.

1.PREPARATION OF SETTING ICC TARGET BOARD (1)



“A” – “E” (“C” – “F”) **: 2,017 mm (79.41 in) (Without roof rail)**
: 2,027 mm (79.80 in) (With roof rail)

1. Mark points “A”, “B”, “C” and “D”at the center of the lateral surface of each wheels.
   NOTE:
   Hang a string with a cone from the fender so as to pass through the center of wheel, and then mark a point at the center of the lateral surface of the wheel.
2. Draw line “LH” passing through points “A” and “B” on the left side of vehicle.
   NOTE:
   Approximately 2 m (6.56 ft) or more from the front end of vehicle.
3. Mark point “E” on the line “LH” at the positions 2,017 mm (79.41 in) (without roof rail) or 2,027 mm (79.80 in) (with roof rail) from point “A”.
4. Draw line “RH” passing through points “C” and “D” on the right side of vehicle in the same way as step 2.
   NOTE:
   Approximately 2 m (6.56 ft) or more from the front end of vehicle.
5. Mark point “F” on the line “RH” at the positions 2,017 mm (79.41 in) (without roof rail) or 2,027 mm (79.80 in) (with roof rail) from point “C”.
6. Draw line “FW” passing through the points “E” and “F” on the front side of vehicle.
7. Mark point “X” at the center of point “E” and “F” on the line “FW”.
   CAUTION:
   Make sure that “E” to “X” is equal to “F” to “X”.



>> GO TO 2.

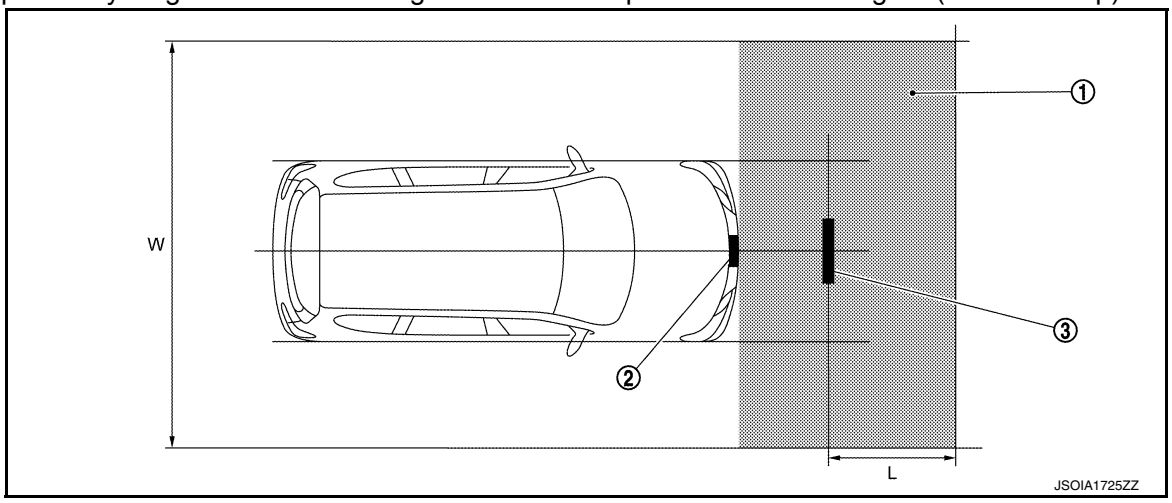
2.SETTING ICC TARGET BOARD

Place the center of ICC target board on point “X” at line “FW” and install the ICC target board.
CAUTION:
For performing the radar alignment correctly, securely install (ICC target board) to be parallel with the “E-F” line.

>> GO TO 3.

3.CHECK THE ICC TARGET BOARD INSTALLATION AREA

Do not place anything other than ICC target board in the space shown in the figure (view from top).



① No object zone ② Distance sensor ③ ICC target board
W. 3,000 mm (118.11 in) L. 1,000 mm (39.37 in)

>> Proceed to CCS-62, "TYPE 1 : Work Procedure (Radar Alignment)".

TYPE 1 : Work Procedure (Radar Alignment)

INFOID:0000000013581320

DESCRIPTION

The radar alignment is performed automatically with CONSULT.

CAUTION:

Perform all necessary work for radar alignment until the adjustment completes as shown in the procedure. If the procedure does not complete, the FEB system is inoperable.

1.PERFORM RADAR ALIGNMENT

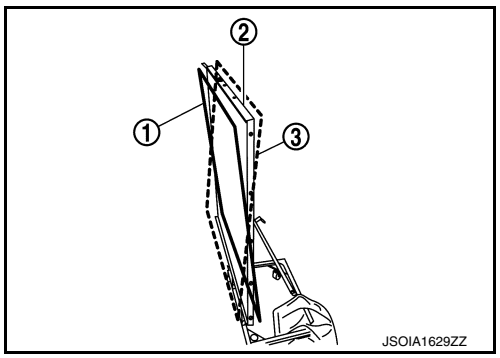
1. Start the engine.
2. Connect CONSULT and select “Work support” of “ICC sensor”.
3. Select “Calibration of long range radar” after the “Work support” screen is displayed.
   NOTE:
   Confirm the following items;
   • The target should be accurately placed.
   • The vehicle should be stopped.
4. Select “Start” after the “Calibration of long range radar” screen is displayed.
   NOTE:
   If the adjustment screen does not appear or an error appears within approximately 10 seconds after “Calibration of long range radar” is selected, the following causes are possible.
   • The ICC target board is not installed in the correct position.
   • Adequate space is not secured around the ICC target board.
   • The radar alignment procedure exceeds its proper installation range.
   - Deformation of vehicle body.
   - Deformation of unit.
   - Deformation of bracket.
   • The area is not suitable for the adjustment work.
   • Front emblem (ICC sensor view) is not clean.
   • ICC system malfunction is displayed.

>> GO TO 2.

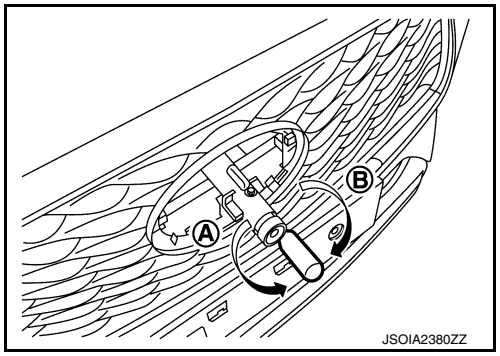
2.RADAR ALIGNMENT

1. Once the radar alignment procedure is started, you will be prompted by the CONSULT for the next instruction is displayed on the CONSULT screen.

2. Check ICC target board position (vertical position).
- Position ① (top tilted toward vehicle) (not used)
- Position ② (vertical position)
- Position ③ (top tilted away from vehicle) (not used)



3. Following instructions to perform physical adjustment to the sensor which may include turning the screw driver (special tool) by a specified number of turns counter-clockwise Ⓐ or clockwise Ⓑ as specified on CONSULT.
CAUTION:
Be careful not to cover the front side of the ICC sensor with a hand or any other body part during adjustment.
NOTE:
Reading on the CONSULT is not real-time and not automatically update while turning the tool. To check the angle, end the alignment and restart the procedure.



>> ALIGNMENT END

TYPE 2

TYPE 2 : Description

INFOID:0000000013581321

WARNING:
Radio waves could adversely affect electric medical equipment. Those who use a pacemaker should contact the electric medical equipment manufacturer for the possible influences before use.

OUTLINE OF RADAR ALIGNMENT PROCEDURE

- 4-wheel vehicle alignment must be performed before proceeding with radar alignment procedure.
- Always perform the radar alignment after removing and installing or replacing the ICC sensor.
- If the ICC sensor was removed and installed or replaced, first perform ICC Sensor Initial Vertical Alignment, refer to CCS-55, "Description".

CAUTION:
The system does not operate normally unless the ICC sensor is aligned properly.

1. Required tools, refer to CCS-64, "TYPE 2 : Work Procedure (Required Tools)".
2. Preparation, refer to CCS-65, "TYPE 2 : Work Procedure (Preparation)".
3. Vehicle set up, refer to CCS-65, "TYPE 2 : Work Procedure (Vehicle Set Up)".
4. Setting the ICC sensor target board, refer to CCS-67, "TYPE 2 : Work Procedure (Setting The ICC Target Board)".
5. ICC sensor adjustment, refer to CCS-68, "TYPE 2 : Work Procedure (ICC Sensor Adjustment)".

CAUTIONARY POINT FOR RADAR ALIGNMENT PROCEDURE

CAUTION:
- **For radar alignment procedure, choose a level location with a few feet of working space in front and surrounding the vehicle.**
- **Vehicle must be stationary and unoccupied during the whole alignment procedure.**
- **Any slight vibration during the alignment procedure can cause the test to be unsuccessful. If this happens, you will have to restart the alignment process.**
- **The ignition switch must be in the ON position.**

- **The battery voltage must not fall below 12 volts during the whole alignment procedure. Failure to maintain adequate battery voltage will cause the test to be unsuccessful. If this happens, you will have to restart the alignment process.**
- **The ICC sensor target board must be set in front of the vehicle facing the sensor.**
- **Adjust the radar alignment with CONSULT. (The radar alignment procedure cannot be adjusted without CONSULT.)**
- **Never enter the vehicle during radar alignment.**
- **Never block the area between the radar and the ICC sensor target board at any time during the alignment process.**
- **Never break the laser beam between the laser assembly and front ICC sensor target board or rear reflector at any time during alignment.**
- **Accurate steering wheel setting is crucial. Once set, do not disturb the steering wheel for the remainder of the alignment procedure.**
- **To avoid physical damage, the ICC sensor adjustment screw must not be forced to either clockwise or counter-clockwise limit. For proper adjustment procedure, follow the directions of the CONSULT exactly as instructed.**
- **For proper system operation and adjustment, all vehicle wheels must be of the same size.**

TYPE 2 : Work Procedure (Required Tools)

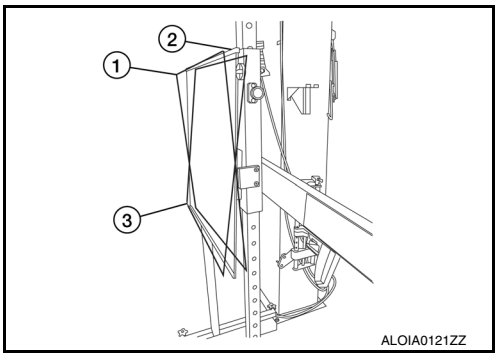
INFOID:0000000013581322

- ICC alignment kit in addition to one of the following:
  a) Hunter self-centering wheel adapter (Hunter wheel alignment tool)
  b) Special Service Tool kit 1-20-2722-1-IF (kit SCA W/Tire Clamp-ICC Aiming)

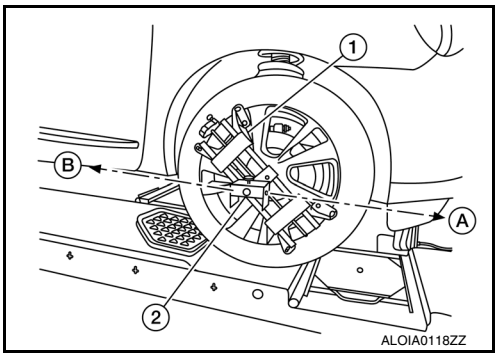
The following ICC alignment kit are necessary to perform the ICC sensor alignment:

- ICC target board.

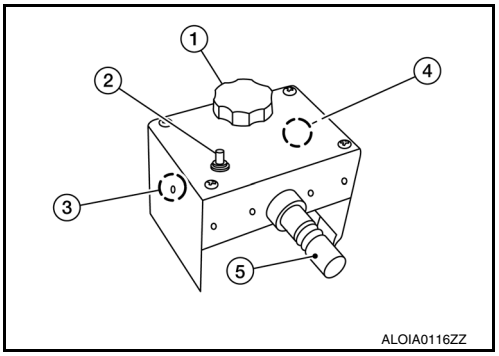
- ①: Position 1, with top tilted 2° toward vehicle (not used).
- ②: Position 2, vertical.
- ③: Position 3, with top tilted 2° away from vehicle (not used).



- Hunter self-centering wheel adapter ① [shown with laser assembly ② installed] (Hunter alignment rack head may be substituted).
  NOTE:
  - Retailers that are not equipped with a Hunter self-centering wheel adapter will require the following kit:
    Part No. 1-20-2722-1-IF (kit SCA W/Tire Clamp-ICC Aiming)
  - Directional arrows Ⓐ and Ⓑ are shown to illustrate the direction of the laser assembly beams.

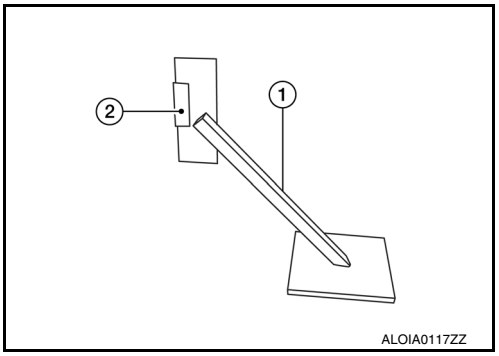


- Laser assembly (with bi-directional laser beam) as shown in the illustration.
- Tightening knob ①
- Power ON/OFF button ②
- Front laser beam opening ③
- Rear laser beam opening ④
- Attaching shaft ⑤



ALOIA0116ZZ

- Stationary target as shown in the illustration.
- Stationary target ①
- Laser signal reception plate ②



ALOIA0117ZZ

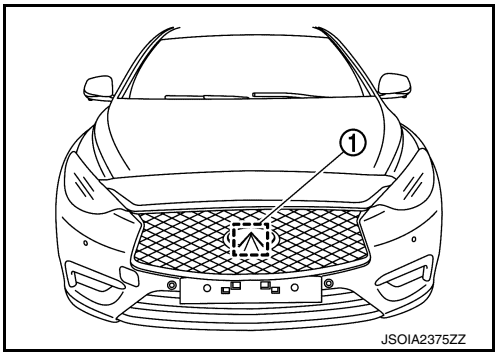
TYPE 2 : Work Procedure (Preparation)

INFOID:0000000013581323

1.ADVANCE PREPARATION FOR RADAR ALIGNMENT PROCEDURE

1. Adjust all tire pressures to the specified value.
2. Empty the vehicle. (Remove any luggage from the passenger compartment, luggage room, etc.)
3. Shift the selector lever to “P” position, and release the parking brake.
4. Fully fill the fuel tank, and then check that the coolant and oils are filled up to correct level.
5. Clean off the front emblem.

① : ICC sensor (Behind of front emblem)



JSOIA2375ZZ

>> Proceed to CCS-65, "TYPE 2 : Work Procedure (Vehicle Set Up)".

TYPE 2 : Work Procedure (Vehicle Set Up)

INFOID:0000000013581324

DESCRIPTION

Accurate adjustment of the radar alignment requires that the ICC sensor target board, wheel adapter, laser assembly, and stationary target be properly positioned.

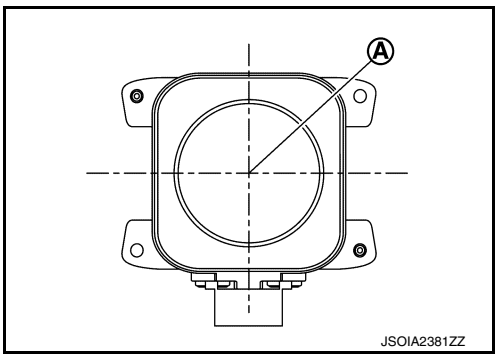
CAUTION:

If the radar alignment is adjusted with the ICC sensor target board, wheel adapter, laser assembly, or stationary target in the incorrect position, the ICC system will not function properly or the alignment procedure may not be completed successfully.

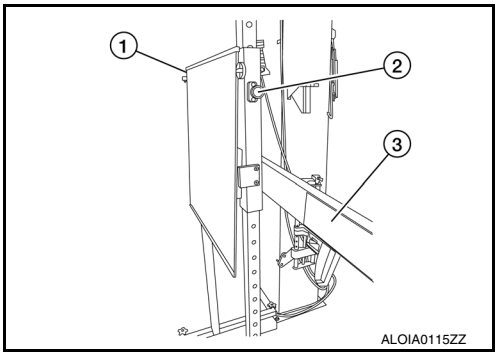
1.PREPOSITION TARGET BOARD

NOTE:

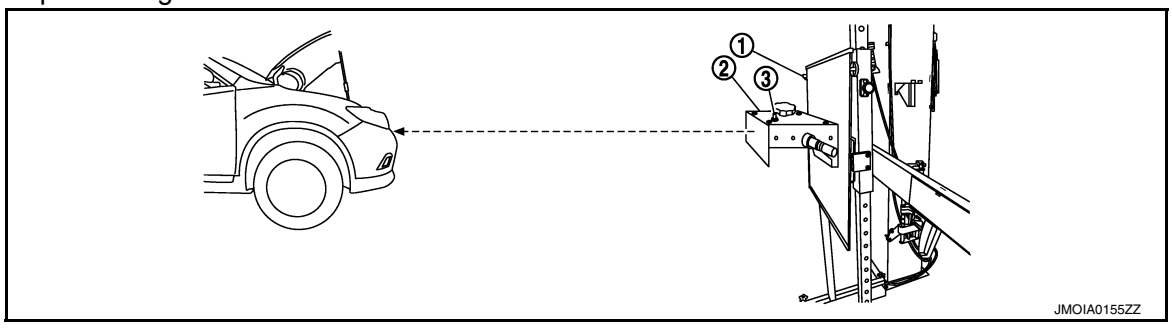
- The center of the ICC sensor Ⓐ.



1. Position the ICC sensor target board in front facing the center of the vehicle:
- Using the full length of the supplied chain for distance, place the marked center of the ICC sensor target board ① 1375 mm (54.1 in) ± 625 mm(24.6 in) facing the ICC sensor.
- Adjust the height of the ICC sensor target board using the adjustable nut ② to achieve the proper height. The up/down tolerance is ± 80 mm (3.15 in).
- Adjust the ICC sensor target board lateral position aligning the marked center of the board horizontally with the center of the ICC sensor front. The right/left tolerance is ± 80 mm (3.15 in).
2. Extend the machined arm of the ICC sensor target board exposing the reflective surface ③ to the right front side of the vehicle.



3. Place one side of the laser assembly ② flush against the center of the ICC sensor target board ① to assist in the positioning.



4. Turn the laser assembly ON ③ allowing the laser beam to emit through the opening of the laser assembly toward the center of the ICC sensor.
5. Move the ICC sensor target board ① as necessary so that center of ICC sensor target board aligns with center of ICC sensor.
6. Turn the laser assembly OFF when done.

Are you using Hunter alignment equipment?

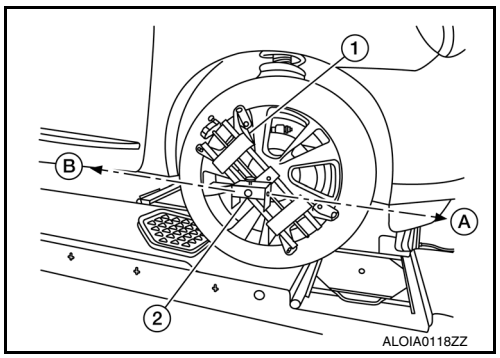
YES >> Refer to Hunter's equipment instructions for complete vehicle set up and ICC sensor target board setting. Then, proceed to CCS-68, "TYPE 2 : Work Procedure (ICC Sensor Adjustment)".

NO >> GO TO 2.

2. INSTALLING LASER ASSEMBLY

NOTE:
- Insure the steering wheel is positioned in the center straight forward position.
- Insure all 4 vehicle wheels do not contain any physical damage.

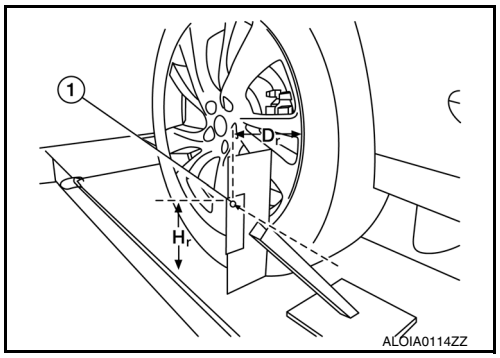
1. Install the wheel adapter ① on the right front wheel.
2. Mount the laser assembly ② to the wheel adapter ① as shown in the figure.
NOTE:
When the power switch is turned ON, the front laser signal Ⓐ will be emitted toward the front ICC sensor target board, and the rear laser signal Ⓑ will be emitted toward the rear of the vehicle.



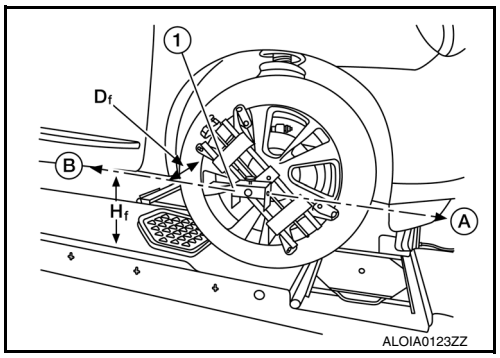
>> GO TO 3.

3.SETTING UP STATIONARY TARGET

1. Place the stationary target next to the right rear tire as shown in the figure.
2. Turn the laser assembly ON allowing the laser beam to be emitted through the front and rear laser assembly openings.
3. Measure and record the distance (D_r) between the edge of the right rear wheel and the laser beam ① on the stationary target (horizontal line).
4. Measure and record the height (H_r) between the laser beam ① on the stationary target and ground level (vertical line).



5. Measure and record the distance (D_f) between the edge of the right front wheel and the laser beam signal/opening ① on the laser assembly (horizontal line).
6. Measure and record the height (H_f) between the laser beam signal/opening ① on the laser assembly and ground level (vertical line).
NOTE:
- Horizontal adjustment [front distance (D_f) and rear distance (D_r)] is accomplished by slowly turning the steering wheel until the 2 distances are the same.
- Vertical adjustment [front height (H_f) and rear height (H_r)] is accomplished by rotating the laser assembly around its axis until the two heights are the same.
- Directional arrows Ⓐ and Ⓑ are shown to illustrate the direction of the laser assembly beams.



7. Adjust laser beam as necessary until the two distances match and the two heights match.
NOTE:
You will have to verify both horizontal and vertical adjustments anytime one adjustment is made.

>> Proceed to CCS-67, "TYPE 2 : Work Procedure (Setting The ICC Target Board)".

TYPE 2 : Work Procedure (Setting The ICC Target Board)

INFOID:0000000013581325

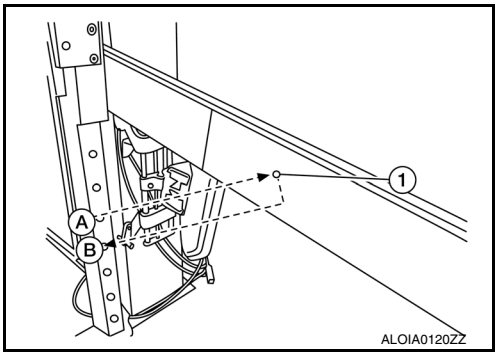
DESCRIPTION

Accurate adjustment of the radar alignment requires that the ICC target board be accurately positioned.

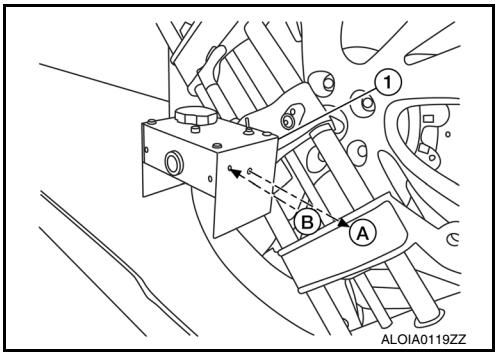
CAUTION:
If the radar alignment is adjusted with the ICC target board in the incorrect position, the ICC system will not function properly or the alignment procedure may not be completed successfully.

1.ICC TARGET BOARD FINAL SETTING

1. With the ICC target board arm extended, the laser beam ① emitted by the laser assembly Ⓐ will be reflected back Ⓑ toward the laser assembly.
   NOTE:
   When adjusted properly, reflected laser beam Ⓑ must align with emitted laser beam Ⓐ and the two laser beams will be seen as one.
2. Rotate the ICC target board to achieve the necessary horizontal adjustment.
3. Adjust the ICC target board leveling screws to achieve the necessary vertical adjustment.



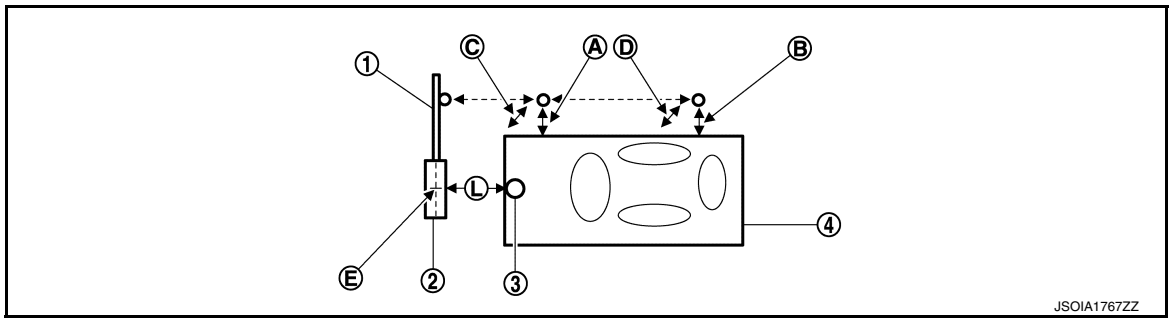
4. The figure shown illustrates the laser beam Ⓐ emitted by the laser assembly ① and its reflection Ⓑ off of the ICC target board arm.



>> GO TO 2.

2. CHECK THE POSITION OF THE ICC TARGET BOARD

Do not place anything other than the ICC target board in the space shown in front of the vehicle (view from top).



① ICC target board arm	② ICC target board	③ ICC sensor
④ Vehicle		
Ⓐ Distance between front wheel and laser beam (D_f)	Ⓑ Distance between rear wheel and laser beam (D_r)	Ⓒ Height between front laser beam and ground (H_f)
Ⓓ Height between rear laser beam and ground (H_r)	Ⓔ ICC target board center position (Position 2)	Ⓛ 1000 - 1500 mm (39.3 - 59 in)

>> Proceed to CCS-68, "TYPE 2 : Work Procedure (ICC Sensor Adjustment)".

TYPE 2 : Work Procedure (ICC Sensor Adjustment)

INFOID:0000000013581326

DESCRIPTION

The radar alignment is performed automatically with CONSULT.

CAUTION:

Perform all necessary work for radar alignment until the adjustment completes as shown in the procedure. If the procedure does not complete, the FEB system is inoperable.

1.PERFORM RADAR ALIGNMENT

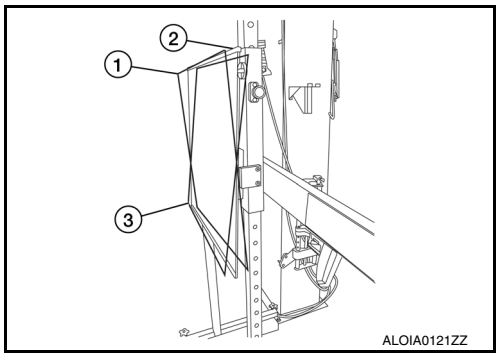
1. Start the engine.
2. Connect CONSULT and select “Work support” of “ICC sensor”.
3. Select “Calibration of long range radar” after the “Work support” screen is displayed.
   NOTE:
   Confirm the following items;
   • The target should be accurately placed.
   • The vehicle should be stopped.
4. Select “Start” after the “Calibration of long range radar” screen is displayed.
   NOTE:
   If the adjustment screen does not appear or an error appears within approximately 10 seconds after “Calibration of long range radar” is selected, the following causes are possible.
   • The ICC target board is not installed in the correct position.
   • Adequate space is not secured around the ICC target board.
   • The radar alignment procedure exceeds its proper installation range.
   - Deformation of vehicle body.
   - Deformation of unit.
   - Deformation of bracket.
   • The area is not suitable for the adjustment work.
   • Front emblem (ICC sensor view) is not clean.
   • ICC system malfunction is displayed.

>> GO TO 2.

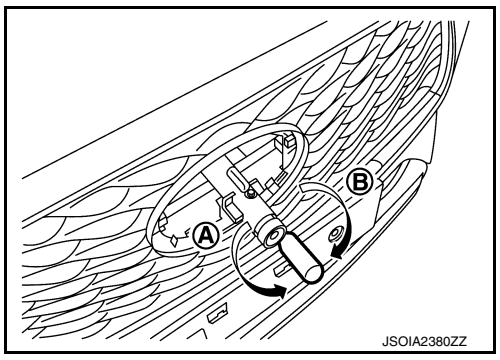
2.RADAR ALIGNMENT

1. Once the radar alignment procedure is started, you will be prompted by the CONSULT for the next instruction is displayed on the CONSULT screen.
2. Check ICC target board position (vertical position).

- Position ① (top tilted toward vehicle) (not used)
- Position ② (vertical position)
- Position ③ (top tilted away from vehicle) (not used)



3. Following instructions to perform physical adjustment to the sensor which may include turning the screw driver (special tool) by a specified number of turns counter-clockwise Ⓐ or clockwise Ⓑ as specified on CONSULT.
   CAUTION:
   Be careful not to cover the front side of the ICC sensor with a hand or any other body part during adjustment.
   NOTE:
   Reading on the CONSULT is not real-time and not automatically update while turning the tool. To check the angle, end the alignment and restart the procedure.



>> ALIGNMENT END

CONFIGURATION

Description

INFOID:0000000013581327

Vehicle specification needs to be written with CONSULT because it is not written after replacing the ICC sensor.
The configuration requires network connection. CONSULT connects to network and then it downloads the configuration data from the server. Then CONSULT writes the vehicle specification to the ICC sensor.
Refer to CCS-70, "Work Procedure".
NOTE:
For details the network connection and operation, refer to “CONSULT Operation Manual”.
The configuration no need to “save” configuration data from the ICC sensor.The configuration data is always generated freshly at the server and then downloaded to the CONSULT.
CAUTION:
Follow the instructions listed below.
- **Complete the procedure of “Read / Write Configuration” in order.**
- **If incorrect “Read / Write Configuration”, incidents might occur.**
- **Never perform “Read / Write Configuration” except for new ICC sensor.**

Work Procedure

INFOID:0000000013581328

1.WRITING VEHICLE SPECIFICATION

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

>> WORK END

SENSOR UNLOCK

Description

INFOID:0000000013581329

- Perform sensor unlock of ICC sensor.
- For work procedure, refer to CCS-71, "Work Procedure".

Work Procedure

INFOID:0000000013581330

1.PERFORM SENSOR UNLOCK

With CONSULT

1. On the CONSULT screen, select “ICC sensor” >> “Work support” >> “Sensor unlock”.
2. Touch “Start”.

>> WORK END

DTC/CIRCUIT DIAGNOSIS

C2200 CAN MESSAGE ERROR (TRANSMISSION)

DTC Description

INFOID:0000000013581331

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2200	00	CAN message error (transmission) [Error on transmission of CAN message]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	CAN buffer malfunction
				Diagnosis delay time	1 s

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2200” detected?

YES >> Proceed to CCS-72, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581332

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2200” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2201 CHASSIS CAN BUS OFF MALFUNCTION

DTC Description

INFOID:0000000013581333

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2201	00	Chassis CAN bus OFF malfunction [Chassis CAN bus OFF malfunction]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	CAN bus off
				Diagnosis delay time	Less than 500 ms

POSSIBLE CAUSE

- Diagnostic CAN communication has a malfunction
- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2201” detected?

YES >> Proceed to CCS-73, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581334

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C2202 CAN MESSAGE ERROR (TRANSMISSION)

DTC Description

INFOID:0000000013581335

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2202	00	CAN message error (transmission) [Error on transmission of CAN message]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	CAN dominant malfunction
				Diagnosis delay time	Less than 50 ms

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2202” detected?

YES >> Proceed to CCS-74, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581336

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2202” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2203 CAN MESSAGE ERROR (TRANSMISSION)

DTC Description

INFOID:0000000013581337

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2203	00	CAN message error (transmission) [Error on transmission of CAN message]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	—
				Threshold	CAN transmission malfunction
				Diagnosis delay time	Less than 100 ms

POSSIBLE CAUSE

- Diagnostic CAN communication has a malfunction
- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2203” detected?

YES >> Proceed to CCS-75, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581338

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to 0000000013768087.

Is the inspection result normal?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C2204 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581339

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2204	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2204” detected?

YES >> Proceed to CCS-76, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581340

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2204” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2205 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581341

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2205	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2205” detected?

YES >> Proceed to CCS-77, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581342

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2205” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2206 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581343

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2206	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	safety controller disabled by diagnostic access (due to flash process)
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2206” detected?

YES >> Proceed to CCS-78, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581344

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2206” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2207 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581345

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2207	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]Radar is malfunction	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	60 ms

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2207” detected?

YES >> Proceed to CCS-79, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581346

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2207” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2208 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581347

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2208	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2208” detected?

YES >> Proceed to CCS-80, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581348

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2208” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2209 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581349

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2209	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	Less than 50 ms

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2209” detected?

YES >> Proceed to CCS-81, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581350

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2209” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C220A RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581351

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C220A	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	Less than 50 ms

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis “ICC sensor”.

Is DTC “C220A” detected?

YES >> Proceed to CCS-82, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581352

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C220A” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C220B RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581353

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C220B	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	Less than 50 ms

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C220B” detected?

YES >> Proceed to CCS-83, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581354

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C220B” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C220E RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581355

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C220E	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C220E” detected?

YES >> Proceed to CCS-84, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581356

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C220E” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C220F RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581357

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C220F	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C220F” detected?

YES >> Proceed to CCS-85, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581358

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C220F” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2210 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581359

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2210	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	Less than 50 ms

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2210” detected?

YES >> Proceed to CCS-86, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581360

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2210” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2211 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581361

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2211	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	Less than 50 ms

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2211 detected?

YES >> Proceed to CCS-87, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581362

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2211” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2212 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581363

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2212	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2212” detected?

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

Diagnosis Procedure

INFOID:0000000013581364

1.REPLACE ICC SENSOR

Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".

>> INSPECTION END

C2214 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581365

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2214	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	Immediately

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2214” detected?

YES >> Proceed to CCS-89, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581366

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2214” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2215 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581367

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2215	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2215” detected?

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

Diagnosis Procedure

INFOID:0000000013581368

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2215” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2216 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581369

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2216	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	Immediately

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2216” detected?

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

Diagnosis Procedure

INFOID:0000000013581370

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2216” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2217 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581371

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2217	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Engine running
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	Less than 1s after engine start

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2217” detected?

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

Diagnosis Procedure

INFOID:0000000013581372

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2217” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2218 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581373

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2218	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Engine running
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	Less than 1s after engine start

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2218” detected?

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

Diagnosis Procedure

INFOID:0000000013581374

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2218” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2219 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581375

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2219	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Engine running
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	Less than 1s after engine start

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2219” detected?

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

Diagnosis Procedure

INFOID:0000000013581376

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2219” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C221A RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581377

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C221A	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Engine running
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	Less than 1s after engine start

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C221A” detected?

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

Diagnosis Procedure

INFOID:0000000013581378

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C221A” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C221B RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581379

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C221B	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Engine running
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	Less than 1s after engine start

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C221B” detected?

YES >> Proceed to CCS-96, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581380

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C221B” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C221C RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581381

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C221C	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	10000 ms

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C221C” detected?

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

Diagnosis Procedure

INFOID:0000000013581382

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C221C” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C221D RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581383

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C221D	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Engine running
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	Less than 1s after engine start

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C221D” detected?

YES >> Proceed to CCS-98, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581384

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C221D” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C221E RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581385

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C221E	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	2500 ms

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C221E” detected?

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

Diagnosis Procedure

INFOID:0000000013581386

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C221E” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C221F RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581387

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C221F	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C221F” detected?

YES >> Proceed to CCS-100, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581388

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C221F” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2220 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581389

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2220	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	10 min

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON and wait for 10 minutes or more.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2220” detected?

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

Diagnosis Procedure

INFOID:0000000013581390

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2220” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2221 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581391

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2221	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2221” detected?

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

Diagnosis Procedure

INFOID:0000000013581392

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2221” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2222 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581393

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2222	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	10 min

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON and wait for 10 minutes or more.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2222” detected?

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

Diagnosis Procedure

INFOID:0000000013581394

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2222” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2223 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581395

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2223	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2223” detected?

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

Diagnosis Procedure

INFOID:0000000013581396

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2223” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2224 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581397

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2224	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2224” detected?

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

Diagnosis Procedure

INFOID:0000000013581398

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2224” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2225 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581399

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2225	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	1,5 min

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON and wait for 2 minutes.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2225” detected?

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

Diagnosis Procedure

INFOID:0000000013581400

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2225” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2226 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581401

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2226	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2226” detected?

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

Diagnosis Procedure

INFOID:0000000013581402

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2226” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2227 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581403

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2227	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	15000 ms

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON and wait for 15 seconds or more.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2227” detected?

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

Diagnosis Procedure

INFOID:0000000013581404

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2227” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2228 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581405

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2228	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	4 min

POSSIBLE CAUSE

- ICC sensor

\FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON and wait for 4 minutes or more.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2228” detected?

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

Diagnosis Procedure

INFOID:0000000013581406

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2228” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2229 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581407

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2229	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	4 min

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON and wait for 4 minutes or more.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2229” detected?

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

Diagnosis Procedure

INFOID:0000000013581408

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2229” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C222A RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581409

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C222A	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Engine running
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	Less than 1s after engine start

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C222A” detected?

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

Diagnosis Procedure

INFOID:0000000013581410

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C222A” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C222B RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581411

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C222B	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	2 min

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON and wait for 2 minutes or more.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C222B” detected?

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

Diagnosis Procedure

INFOID:0000000013581412

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C222B” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C222C RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581413

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C222C	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Engine running
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	Less than 1s after engine start

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C222C” detected?

YES >> Proceed to CCS-113, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581414

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C222C” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C222D RADAR IS BLOCKED BY DIRT/FOREIGN OBJECT

DTC Description

INFOID:0000000013581415

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C222D	00	Radar is blocked by dirt/foreign object [The control unit DISTRONIC is blocked by dirt or by a foreign object.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Engine running
				Signal (terminal)	—
				Threshold	Blindness of radar sensor
				Diagnosis delay time	Less than 50 ms

POSSIBLE CAUSE

- Dirt on the lens

FAIL-SAFE

- ICC not available / without function, speed limiter available

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Start the engine.
2. Turn the ICC system ON.
3. Perform self-diagnosis for “ICC sensor”.

Is DTC “C222D” detected?

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

Diagnosis Procedure

INFOID:0000000013581416

1.VISUAL CHECK

Check the area in front of the ICC sensor for parts causing blockage.

Does contamination or foreign materials adhere?

YES >> Wipe out the contamination and foreign matter on the area in front of the ICC sensor.
NO >> GO TO 2.

2.REPLACE ICC SENSOR

Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".

>> INSPECTION END

C222E CRUISE FUNC IS TEMPORARILY UNAVAILABLE

DTC Description

INFOID:0000000013581417

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C222E	00	Cruise func is temporarily unavailable [Function DISTRONIC PLUS is temporarily unavailable.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Engine running
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	Less than 50 ms

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC not available / without function, speed limiter available

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C222E” detected?

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

Diagnosis Procedure

INFOID:0000000013581418

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C222E” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2233 RADAR SENSOR IS MALADJUSTED

DTC Description

INFOID:0000000013581419

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2233	00	Radar sensor is maladjusted [The radar sensor is maladjusted.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Engine running
				Signal (terminal)	—
				Threshold	Misalignment detection exceeds warning threshold
				Diagnosis delay time	Strongly dependent on misalignment scenario

POSSIBLE CAUSE

- Adjusted sensor for automatic distance control

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Start the engine.
2. Turn the ICC system ON.
3. Drive the vehicle.
   CAUTION:
   Always drive safety.
4. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2233” detected?

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

Diagnosis Procedure

INFOID:0000000013581420

1.ADJUST ICC SENSOR ALIGNMENT

1. Adjust the ICC sensor alignment with CONSULT. Refer to CCS-58, "Application Notice".
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2233” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2235 RADAR SENSOR IS MALADJUSTED

DTC Description

INFOID:0000000013581421

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2235	00	Radar sensor is maladjusted [The radar sensor is maladjusted.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Engine running
				Signal (terminal)	—
				Threshold	Alignment out of time
				Diagnosis delay time	Strongly dependent on misalignment scenario

POSSIBLE CAUSE

- Unsuitable driving profile or traffic scenario

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Start the engine.
2. Turn the ICC system ON.
3. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2235” detected?

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

Diagnosis Procedure

INFOID:0000000013581422

1.ADJUST ICC SENSOR ALIGNMENT

1. Adjust the ICC sensor alignment with CONSULT. Refer to CCS-58, "Application Notice".
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2235” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2236 RADAR SENSOR IS MALADJUSTED

DTC Description

INFOID:0000000013581423

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2236	00	Radar sensor is maladjusted [The radar sensor is maladjusted.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Engine running
				Signal (terminal)	—
				Threshold	radar sensor not yet aligned
				Diagnosis delay time	Less than 50 ms

POSSIBLE CAUSE

- Sensor was never adjusted

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Start the engine.
2. Turn the ICC system ON.
3. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2236” detected?

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

Diagnosis Procedure

INFOID:0000000013581424

1.ADJUST ICC SENSOR ALIGNMENT

1. Adjust the ICC sensor alignment with CONSULT. Refer to CCS-58, "Application Notice".
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2236” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2237 INVALID DATA RECEIVED FROM VDCM

DTC Description

INFOID:0000000013581425

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2237	00	Invalid data received from VDCM [The CAN message from control unit Electronic stability program is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Yaw rate offset exceeds threshold
				Diagnosis delay time	Less than 50 ms

POSSIBLE CAUSE

- Yaw rate signal to high

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2237” detected?

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

Diagnosis Procedure

INFOID:0000000013581426

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C2238 INVALID DATA RECEIVED FROM VDCM

DTC Description

INFOID:0000000013581427

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2238	00	Invalid data received from VDCM [The CAN message from control unit Electronic stability program is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Vehicle deceleration smaller than ICC request
				Diagnosis delay time	2000 ms

POSSIBLE CAUSE

- Functional restriction due to implausible message

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Start the engine.
2. Turn the ICC system ON.
3. Drive the vehicle.
   CAUTION:
   Always drive safety.
4. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2238” detected?

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

Diagnosis Procedure

INFOID:0000000013581428

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C2239 INVALID DATA RECEIVED FROM VDCM

DTC Description

INFOID:0000000013581429

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2239	00	Invalid data received from VDCM [The CAN message from control unit Electronic stability program is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Vehicle deceleration greater than ICC request
				Diagnosis delay time	2000 ms

POSSIBLE CAUSE

- Functional restriction due to implausible message

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Start the engine.
2. Turn the ICC system ON.
3. Drive the vehicle.
   CAUTION:
   Always drive safety.
4. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2239” detected?

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

Diagnosis Procedure

INFOID:0000000013581430

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C223A INVALID DATA RECEIVED FROM VDCM

DTC Description

INFOID:0000000013581431

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C223A	00	Invalid data received from VDCM [The CAN message from control unit Electronic stability program is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Vehicle acceleration greater than ICC request
				Diagnosis delay time	5000 ms

POSSIBLE CAUSE

- Functional restriction due to implausible message

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Start the engine.
2. Turn the ICC system ON.
3. Drive the vehicle.
   CAUTION:
   Always drive safety.
4. Perform self-diagnosis for “ICC sensor”.

Is DTC “C223A” detected?

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

Diagnosis Procedure

INFOID:0000000013581432

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C223B INVALID DATA RECEIVED FROM VDCM

DTC Description

INFOID:0000000013581433

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C223B	00	Invalid data received from VDCM [The CAN message from control unit Electronic stability program is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Vehicle acceleration out of specified range
				Diagnosis delay time	1000 ms

POSSIBLE CAUSE

- Functional restriction due to implausible message

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Start the engine.
2. Turn the ICC system ON.
3. Drive the vehicle.
   CAUTION:
   Always drive safety.
4. Perform self-diagnosis for “ICC sensor”.

Is DTC “C223B” detected?

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

Diagnosis Procedure

INFOID:0000000013581434

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C223C INVALID DATA RECEIVED FROM VDCM

DTC Description

INFOID:0000000013581435

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C223C	00	Invalid data received from VDCM [The CAN message from control unit Electronic stability program is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Vehicle deceleration out of specified range
				Diagnosis delay time	1000 ms

POSSIBLE CAUSE

- Functional restriction due to implausible message

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Start the engine.
2. Turn the ICC system ON.
3. Drive the vehicle.
   CAUTION:
   Always drive safety.
4. Perform self-diagnosis for “ICC sensor”.

Is DTC “C223C” detected?

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

Diagnosis Procedure

INFOID:0000000013581436

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C223D RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581437

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C223D	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C223D” detected?

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

Diagnosis Procedure

INFOID:0000000013581438

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C223D” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C223E RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581439

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C223E	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C223E” detected?

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

Diagnosis Procedure

INFOID:0000000013581440

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C223E” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C223F RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581441

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C223F	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	Less than 1s

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC sensor and limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C223F” detected?

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

Diagnosis Procedure

INFOID:0000000013581442

1.REPLACE ICC SENSOR

Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".

>> INSPECTION END

C2240 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581443

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2240	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	Less than 1s

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2240” detected?

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

Diagnosis Procedure

INFOID:0000000013581444

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2240” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2241 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581445

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2241	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	Less than 1s

POSSIBLE CAUSE

- ICC sensor

FAIL SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2241” detected?

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

Diagnosis Procedure

INFOID:0000000013581446

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2241” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2242 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581447

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2242	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	Less than 1s

POSSIBLE CAUSE

- ICC sensor

FAIL SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2242” detected?

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

Diagnosis Procedure

INFOID:0000000013581448

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2242” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2243 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581449

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2243	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	Less than 1s

POSSIBLE CAUSE

- ICC sensor

FAIL SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2243” detected?

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

Diagnosis Procedure

INFOID:0000000013581450

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2243” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2244 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581451

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2244	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	60 ms

POSSIBLE CAUSE

- ICC sensor

FAIL SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2244” detected?

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

Diagnosis Procedure

INFOID:0000000013581452

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2244” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2245 POWER SUPPLY OF RADAR IS NOT OK

DTC Description

INFOID:0000000013581453

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2245	00	Power supply of radar is not OK [The power supply of control unit (DISTRONIC electric controller unit) is not OK.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Battery power supply signal
				Threshold	External supply voltage too low for specified operation
				Diagnosis delay time	240 ms

POSSIBLE CAUSE

- Functional restriction due to under voltage

FAIL SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2245” detected?

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

Diagnosis Procedure

INFOID:0000000013581454

1.CHECK ICC SENSOR POWER SUPPLY AND GROUND CIRCUIT

Check ICC sensor power supply and ground circuit. Refer to CCS-339, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C2246 POWER SUPPLY OF RADAR IS NOT OK

DTC Description

INFOID:0000000013581455

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2246	00	Power supply of radar is not OK [The power supply of control unit (DISTRONIC electric controller unit) is not OK.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Battery power supply signal
				Threshold	External supply voltage too low for specified operation
				Diagnosis delay time	240 ms

POSSIBLE CAUSE

- Functional restriction due to under voltage

FAIL SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2246” detected?

YES >> Proceed to CCS-134, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581456

1.CHECK ICC SENSOR POWER SUPPLY AND GROUND CIRCUIT

Check ICC sensor power supply and ground circuit. Refer to CCS-339, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C2247 POWER SUPPLY OF RADAR IS NOT OK

DTC Description

INFOID:0000000013581457

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2247	00	Power supply of radar is not OK [The power supply of control unit (DISTRONIC electric controller unit) is not OK.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Battery power supply signal
				Threshold	External supply voltage too high for specified operation
				Diagnosis delay time	320 ms

POSSIBLE CAUSE

- Functional restriction due to over voltage

FAIL SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2247” detected?

YES >> Proceed to CCS-135, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581458

1.CHECK ICC SENSOR POWER SUPPLY AND GROUND CIRCUIT

Check ICC sensor power supply and ground circuit. Refer to CCS-339, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C2248 POWER SUPPLY OF RADAR IS NOT OK

DTC Description

INFOID:0000000013581459

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2248	00	Power supply of radar is not OK [The power supply of control unit (DISTRONIC electric controller unit) is not OK.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	Battery power supply signal
				Threshold	External supply voltage below customer threshold
				Diagnosis delay time	1 min

POSSIBLE CAUSE

- Supply voltage too low

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON and wait for 1 minute.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2248” detected?

YES >> Proceed to CCS-136, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581460

1.CHECK ICC SENSOR POWER SUPPLY AND GROUND CIRCUIT

Check ICC sensor power supply and ground circuit. Refer to CCS-339, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C2249 POWER SUPPLY OF RADAR IS NOT OK

DTC Description

INFOID:0000000013581461

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2249	00	Power supply of radar is not OK [The power supply of control unit (DISTRONIC electric controller unit) is not OK.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	External supply voltage above customer threshold
				Diagnosis delay time	1 min

POSSIBLE CAUSE

- Supply voltage too high

FAIL-SAFE

- no restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON and wait for 1 minute.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2249” detected?

YES >> Proceed to CCS-137, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581462

1.CHECK ICC SENSOR POWER SUPPLY AND GROUND CIRCUIT

Check ICC sensor power supply and ground circuit. Refer to CCS-339, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C224A RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581463

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C224A	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	60 ms

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C224A” detected?

YES >> Proceed to CCS-138, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581464

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C224A” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C224B RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581465

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C224B	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	60 ms

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C224B” detected?

YES >> Proceed to CCS-139, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581466

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C224B” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C224C RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581467

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C224C	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	60 ms

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C224C” detected?

YES >> Proceed to CCS-140, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581468

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C224C” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C224D RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581469

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C224D	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	60 ms

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C224D” detected?

YES >> Proceed to CCS-141, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581470

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C224D” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C224E RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581471

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C224E	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	60 ms

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C224E” detected?

YES >> Proceed to CCS-142, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581472

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C224E” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C224F RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581473

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C224F	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	60 ms

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C224F” detected?

YES >> Proceed to CCS-143, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581474

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C224F” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2250 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581475

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2250	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Engine running
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	Less than 1s

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2250” detected?

YES >> Proceed to CCS-144, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581476

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2250” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2251 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581477

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2251	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Engine running
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	Less than 1s

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2251” detected?

YES >> Proceed to CCS-145, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581478

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2251” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2252 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581479

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2252	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Engine running
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	Less than 1s

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2252” detected?

YES >> Proceed to CCS-146, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581480

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2252” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2253 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581481

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2253	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Engine running
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	Less than 1s

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2253” detected?

YES >> Proceed to CCS-147, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581482

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2253” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2254 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581483

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2254	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Engine running
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	Less than 1s

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC sensor and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2254” detected?

YES >> Proceed to CCS-148, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581484

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2254” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2255 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581485

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2255	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Engine running
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	Less than 1s

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2255” detected?

YES >> Proceed to CCS-149, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581486

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2255” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2256 CONT MODULE INTERNAL TEMP A

DTC Description

INFOID:0000000013581487

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2256	00	CONT MODULE INTERNAL TEMP A [The temperature in the control unit is too high.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Temperature too high for specified operation
				Diagnosis delay time	1,5 min

POSSIBLE CAUSE

- Functional restriction due to over temperature

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON and wait for 1.5 minutes or more.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2256” detected?

YES >> Proceed to CCS-150, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581488

1.COOL DOWN ICC SENSOR

1. Turn the ignition switch OFF.
2. Wait for 10 minutes or more.
3. Turn the ignition switch ON and wait for 2 minutes.
4. Perform self-diagnosis for “ICC sensor”

Is DTC “C2256” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2257 CONT MODULE INTERNAL TEMP A

DTC Description

INFOID:0000000013581489

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2257	00	CONT MODULE INTERNAL TEMP A [The temperature in the control unit is too high.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	5000 ms

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON and wait for 10 seconds.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2257” detected?

YES >> Proceed to CCS-151, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581490

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2257” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2258 CONT MODULE INTERNAL TEMP A

DTC Description

INFOID:0000000013581491

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2258	00	CONT MODULE INTERNAL TEMP A [The temperature in the control unit is too high.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Temperature too high for specified operation
				Diagnosis delay time	5000 ms

POSSIBLE CAUSE

- Functional restriction due to over temperature

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON and wait for 10 seconds.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2258” detected?

YES >> Proceed to CCS-152, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581492

1.COOL DOWN ICC SENSOR

1. Turn the ignition switch OFF.
2. Wait for 10 minutes or more.
3. Turn the ignition switch ON.
4. Perform self-diagnosis for “ICC sensor”

Is DTC “C2258” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2259 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581493

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2259	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	1,5 min

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON and wait for 2 minutes.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2259” detected?

YES >> Proceed to CCS-153, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581494

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2259” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C225A INTERNAL CONTROL MODULE

DTC Description

INFOID:0000000013581495

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C225A	00	INTERNAL CONTROL MODULE [An incorrect variant coding or configuration was detected.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Vehicle not coded for application ICC
				Diagnosis delay time	1500 ms

POSSIBLE CAUSE

- Unsuitable vehicle coding

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C225A” detected?

YES >> Proceed to CCS-154, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581496

1.PERFORM CONFIGURATION OF IGNITION SWITCH CONTROL UNIT

1. Perform configuration of electronic ignition switch control unit.
2. Erase self-diagnosis result.
3. Perform self-diagnosis for “ICC sensor”.

Is DTC “C225A” detected?

YES >> Replace the ICC sensor unit. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C225B NO CAN SIG RECEIVED FROM MOTOR ELEC

DTC Description

INFOID:0000000013581497

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C225B	00	No CAN sig received from motor elec [No CAN message was received from control unit Motor electronics.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	CAN messages from ECM is missing
				Diagnosis delay time	260 ms

POSSIBLE CAUSE

- CAN communication malfunction
- ECM

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C225B” detected?

YES >> Proceed to CCS-155, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581498

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the ECM. Refer to EC-142, "DTC Index".
NO >> Repair or replace the malfunctioning parts.

C225C NO CAN SIG RECEIVED FROM MOTOR ELEC

DTC Description

INFOID:0000000013581499

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C225C	00	No CAN sig received from motor elec [No CAN message was received from control unit Motor electronics.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	CAN messages from ECM is missing
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- CAN communication malfunction
- ECM

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C225C” detected?

YES >> Proceed to CCS-156, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581500

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the ECM. Refer to EC-142, "DTC Index".
NO >> Repair or replace the malfunctioning parts.

C225D NO CAN SIG RECEIVED FROM MOTOR ELEC

DTC Description

INFOID:0000000013581501

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C225D	00	No CAN sig received from motor elec [No CAN message was received from control unit Motor electronics.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	CAN messages from ECM is missing
				Diagnosis delay time	260 ms

POSSIBLE CAUSE

- CAN communication malfunction
- ECM

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C225D” detected?

YES >> Proceed to CCS-157, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581502

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the ECM. Refer to EC-142, "DTC Index".
NO >> Repair or replace the malfunctioning parts.

C225E NO CAN SIG RECEIVED FROM MOTOR ELEC

DTC Description

INFOID:0000000013581503

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C225E	00	No CAN sig received from motor elec [No CAN message was received from control unit Motor electronics.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	CAN messages from ECM is missing
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- CAN communication malfunction
- ECM

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C225E” detected?

YES >> Proceed to CCS-158, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581504

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the ECM. Refer to EC-142, "DTC Index".
NO >> Repair or replace the malfunctioning parts.

C2260 NO CAN SIGNAL RECEIVED FROM ESP

DTC Description

INFOID:0000000013581505

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2260	00	No CAN signal received from ESP [No CAN message was received from control unit ESP.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	CAN messages from electronic stability program control unit is missing
				Diagnosis delay time	260 ms

POSSIBLE CAUSE

- CAN communication malfunction
- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2260” detected?

YES >> Proceed to CCS-159, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581506

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electronic stability program control unit. Refer to BRC-59, "DTC Index".
NO >> Repair or replace the malfunctioning parts.

C2261 NO CAN SIGNAL RECEIVED FROM ESP

DTC Description

INFOID:0000000013581507

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2261	00	No CAN signal received from ESP [No CAN message was received from control unit ESP.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	CAN messages from electronic stability program control unit is missing
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- CAN communication malfunction
- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2261” detected?

YES >> Proceed to CCS-160, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581508

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electronic stability program control unit. Refer to BRC-59, "DTC Index".
NO >> Repair or replace the malfunctioning parts.

C2262 NO CAN SIGNAL RECEIVED FROM ESP

DTC Description

INFOID:0000000013581509

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2262	00	No CAN signal received from ESP [No CAN message was received from control unit ESP.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	CAN messages from electronic stability program control unit is missing
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- CAN communication malfunction
- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2262” detected?

YES >> Proceed to CCS-161, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581510

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electronic stability program control unit. Refer to BRC-59, "DTC Index".
NO >> Repair or replace the malfunctioning parts.

C2263 NO CAN SIGNAL RECEIVED FROM ESP

DTC Description

INFOID:0000000013581511

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2263	00	No CAN signal received from ESP [No CAN message was received from control unit ESP.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	CAN messages from electronic stability program control unit is missing
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- CAN communication malfunction
- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2263” detected?

YES >> Proceed to CCS-162, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581512

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electronic stability program control unit. Refer to BRC-59, "DTC Index".
NO >> Repair or replace the malfunctioning parts.

C2264 NO CAN SIGNAL RECEIVED FROM ESP

DTC Description

INFOID:0000000013581513

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2264	00	No CAN signal received from ESP [No CAN message was received from control unit ESP.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	CAN messages from electronic stability program control unit is missing
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- CAN communication malfunction
- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2264” detected?

YES >> Proceed to CCS-163, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581514

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electronic stability program control unit. Refer to BRC-59, "DTC Index".
NO >> Repair or replace the malfunctioning parts.

C2265 COMMUNICATION ERROR (INVALID)

DTC Description

INFOID:0000000013581515

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2265	00	COMMUNICATION ERROR (INVALID) [No CAN message was received from control unit (Steering column tube module control unit).]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	CAN messages from steering column control module is missing
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- CAN communication malfunction
- Steering column control module

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2265” detected?

YES >> Proceed to CCS-164, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581516

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the steering column control module. Refer to BCS-61, "DTC Index".
NO >> Repair or replace the malfunctioning parts.

C2266 COMMUNICATION ERROR (INVALID)

DTC Description

INFOID:0000000013581517

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2266	00	COMMUNICATION ERROR (INVALID) [No CAN message was received from control unit (Steering column tube module control unit).]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	CAN messages from steering column control module is missing
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- CAN communication malfunction
- Steering column control module

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2266” detected?

YES >> Proceed to CCS-165, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581518

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the steering column control module. Refer to BCS-61, "DTC Index".
NO >> Repair or replace the malfunctioning parts.

C2267 NO CAN SIG RECEIVED FROM COMB METER

DTC Description

INFOID:0000000013581519

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2267	00	No CAN sig received from comb meter [No CAN message was received from control unit (Instrument cluster).]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	CAN messages from combination meter is missing
				Diagnosis delay time	5000 ms

POSSIBLE CAUSE

- CAN communication malfunction
- Combination meter

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON and wait for 10 seconds.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2267” detected?

YES >> Proceed to CCS-166, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581520

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the combination meter. Refer to MWI-85, "DTC Index".
NO >> Repair or replace the malfunctioning parts.

C2268 NO CAN SIGNAL RECEIVED FROM IGN LOCK

DTC Description

INFOID:0000000013581521

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2268	00	No CAN signal received from IGN lock [No CAN message was received from control unit Electronic ignition lock.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	CAN messages from electronic ignition switch control unit is missing
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- CAN communication malfunction
- Electronic ignition switch control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2268” detected?

YES >> Proceed to CCS-167, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> INSPECTION END

Diagnosis Procedure

INFOID:0000000013581522

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electronic ignition switch control unit. Refer to PCS-12, "DTC Index".
NO >> Repair or replace the malfunctioning parts.

C2269 ENGINE TORQUE REQUEST SIG IMPLAUSIBLE

DTC Description

INFOID:0000000013581523

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2269	00	Engine torque request sig implausible [CAN signal Engine torque request from control unit ESP is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2269” detected?

YES >> Proceed to CCS-168, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581524

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C226A INVALID DATA RECEIVED FROM VDCM

DTC Description

INFOID:0000000013581525

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C226A	00	Invalid data received from VDCM [The CAN message from control unit Electronic stability program is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C226A” detected?

YES >> Proceed to CCS-169, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581526

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C226C INVALID DATA RECEIVED FROM ECM/PCM A

DTC Description

INFOID:0000000013581527

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C226C	00	Invalid data received from ECM/PCM A [The CAN message from control unit Motor electronics is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from ECM
				Diagnosis delay time	20 ms

POSSIBLE CAUSE

- ECM

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C226C” detected?

YES >> Proceed to CCS-170, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581528

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C226D INVALID DATA RECEIVED FROM ECM/PCM A

DTC Description

INFOID:0000000013581529

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C226D	00	Invalid data received from ECM/PCM A [The CAN message from control unit Motor electronics is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from ECM
				Diagnosis delay time	20 ms

POSSIBLE CAUSE

- ECM

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C226D” detected?

YES >> Proceed to CCS-171, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581530

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C226E INVALID DATA RECEIVED FROM ECM/PCM A

DTC Description

INFOID:0000000013581531

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C226E	00	Invalid data received from ECM/PCM A [The CAN message from control unit Motor electronics is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from ECM
				Diagnosis delay time	20 ms

POSSIBLE CAUSE

- ECM

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C226E” detected?

YES >> Proceed to CCS-172, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581532

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C226F INVALID DATA RECEIVED FROM ECM/PCM A

DTC Description

INFOID:0000000013581533

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C226F	00	Invalid data received from ECM/PCM A [The CAN message from control unit Motor electronics is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from ECM
				Diagnosis delay time	20 ms

POSSIBLE CAUSE

- ECM

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C226F” detected?

YES >> Proceed to CCS-173, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581534

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C2271 INVALID DATA RECEIVED FROM VDCM

DTC Description

INFOID:0000000013581535

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2271	00	Invalid data received from VDCM [The CAN message from control unit Electronic stability program is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	20 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2271” detected?

YES >> Proceed to CCS-174, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581536

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C2272 INVALID DATA RECEIVED FROM VDCM

DTC Description

INFOID:0000000013581537

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2272	00	Invalid data received from VDCM [The CAN message from control unit Electronic stability program is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	20 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2272” detected?

YES >> Proceed to CCS-175, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581538

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C2273 INVALID DATA RECEIVED FROM VDCM

DTC Description

INFOID:0000000013581539

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2273	00	Invalid data received from VDCM [The CAN message from control unit Electronic stability program is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	20 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2273” detected?

YES >> Proceed to CCS-176, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581540

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C2274 INVALID DATA RECEIVED FROM VDCM

DTC Description

INFOID:0000000013581541

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2274	00	Invalid data received from VDCM [The CAN message from control unit Electronic stability program is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	20 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2274” detected?

YES >> Proceed to CCS-177, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581542

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C2275 INVALID DATA RECEIVED FROM VDCM

DTC Description

INFOID:0000000013581543

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2275	00	Invalid data received from VDCM [The CAN message from control unit Electronic stability program is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	20 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2275” detected?

YES >> Proceed to CCS-178, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581544

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C2276 CAN SIGNAL FROM SCCM IS MALFUNCTION

DTC Description

INFOID:0000000013581545

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2276	00	CAN signal from SCCM is malfunction [The CAN message from control unit Steering column module is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from steering column control module
				Diagnosis delay time	20 ms

POSSIBLE CAUSE

- Steering column control module

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2276” detected?

YES >> Proceed to CCS-179, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581546

1.PERFORM SELF-DIAGNOSIS OF STEERING COLUMN CONTROL MODULE

With CONSULT

Perform self-diagnosis for “Steering column cont module”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-61, "DTC Index".
NO >> INSPECTION END

C2277 CAN SIGNAL FROM SCCM IS MALFUNCTION

DTC Description

INFOID:0000000013581547

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2277	00	CAN signal from SCCM is malfunction [The CAN message from control unit Steering column module is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from steering column control module
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Steering column control module

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2277” detected?

YES >> Proceed to CCS-180, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581548

1.PERFORM SELF-DIAGNOSIS OF STEERING COLUMN CONTROL MODULE

With CONSULT

Perform self-diagnosis for “Steering column cont module”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-61, "DTC Index".
NO >> INSPECTION END

C2278 CAN SIGNAL FROM COMB METER IS MALF

DTC Description

INFOID:0000000013581549

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2278	00	CAN signal from comb meter is malf [The CAN message from control unit Instrument cluster is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from combination meter
				Diagnosis delay time	1000 ms

POSSIBLE CAUSE

- Combination meter

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2278” detected?

YES >> Proceed to CCS-181, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581550

1.PERFORM SELF-DIAGNOSIS OF COMBINATION METER

With CONSULT

Perform self-diagnosis for “METER/M&A”. Refer to MWI-68, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to MWI-85, "DTC Index".
NO >> INSPECTION END

C2279 CAN SIGNAL FROM IGN LOCK IS MALF

DTC Description

INFOID:0000000013581551

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2279	00	CAN signal from IGN lock is malf [The CAN message from control unit Electronic ignition lock is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic ignition switch control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Electronic ignition switch control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2279” detected?

YES >> Proceed to CCS-182, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581552

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch cont unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C227A INVALID DATA RECEIVED FROM ECM/PCM A

DTC Description

INFOID:0000000013581553

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C227A	00	Invalid data received from ECM/PCM A [The CAN message from control unit Motor electronics is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from ECM
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- ECM

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C227A” detected?

YES >> Proceed to CCS-183, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581554

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C227B INVALID DATA RECEIVED FROM ECM/PCM A

DTC Description

INFOID:0000000013581555

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C227B	00	Invalid data received from ECM/PCM A [The CAN message from control unit Motor electronics is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from ECM
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- ECM

FAIL-SAFE

- ICC not available / without function, speed limiter available

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C227B” detected?

YES >> Proceed to CCS-184, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581556

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C227C INVALID DATA RECEIVED FROM ECM/PCM A

DTC Description

INFOID:0000000013581557

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C227C	00	Invalid data received from ECM/PCM A [The CAN message from control unit Motor electronics is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from ECM
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- ECM

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C227C” detected?

YES >> Proceed to CCS-185, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581558

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C227D INVALID DATA RECEIVED FROM ECM/PCM A

DTC Description

INFOID:0000000013581559

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C227D	00	Invalid data received from ECM/PCM A [The CAN message from control unit Motor electronics is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from ECM
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- ECM

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C227D” detected?

YES >> Proceed to CCS-186, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581560

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C227F INVALID DATA RECEIVED FROM VDCM

DTC Description

INFOID:0000000013581561

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C227F	00	Invalid data received from VDCM [The CAN message from control unit Electronic stability program is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C227F” detected?

YES >> Proceed to CCS-187, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581562

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C2280 INVALID DATA RECEIVED FROM VDCM

DTC Description

INFOID:0000000013581563

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2280	00	Invalid data received from VDCM [The CAN message from control unit Electronic stability program is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2280” detected?

YES >> Proceed to CCS-188, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581564

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C2281 INVALID DATA RECEIVED FROM VDCM

DTC Description

INFOID:0000000013581565

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2281	00	Invalid data received from VDCM [The CAN message from control unit Electronic stability program is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2281” detected?

YES >> Proceed to CCS-189, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581566

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C2282 INVALID DATA RECEIVED FROM VDCM

DTC Description

INFOID:0000000013581567

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2282	00	Invalid data received from VDCM [The CAN message from control unit Electronic stability program is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2282” detected?

YES >> Proceed to CCS-190, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581568

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C2283 CAN SIGNAL FROM SCCM IS MALFUNCTION

DTC Description

INFOID:0000000013581569

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2283	00	CAN signal from SCCM is malfunction [The CAN message from control unit Steering column module is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from steering column control module
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Steering column control module

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2283” detected?

YES >> Proceed to CCS-191, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581570

1.PERFORM SELF-DIAGNOSIS OF STEERING COLUMN CONTROL MODULE

With CONSULT

Perform self-diagnosis for “Steering column cont module”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-61, "DTC Index".
NO >> INSPECTION END

C2284 CAN SIGNAL FROM SCCM IS MALFUNCTION

DTC Description

INFOID:0000000013581571

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2284	00	CAN signal from SCCM is malfunction [The CAN message from control unit Steering column module is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from steering column control module
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- Steering column control module

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2284” detected?

YES >> Proceed to CCS-192, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581572

1.PERFORM SELF-DIAGNOSIS OF STEERING COLUMN CONTROL MODULE

With CONSULT

Perform self-diagnosis for “Steering column cont module”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-61, "DTC Index".
NO >> INSPECTION END

C2285 INVALID DATA RECEIVED FROM ECM/PCM A

DTC Description

INFOID:0000000013581573

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2285	00	Invalid data received from ECM/PCM A [The CAN message from control unit Motor electronics is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from ECM
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- ECM

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2285” detected?

YES >> Proceed to CCS-193, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581574

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C2286 INVALID DATA RECEIVED FROM ECM/PCM A

DTC Description

INFOID:0000000013581575

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2286	00	Invalid data received from ECM/PCM A [The CAN message from control unit Motor electronics is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from ECM
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- ECM

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2286” detected?

YES >> Proceed to CCS-194, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581576

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C2287 INVALID DATA RECEIVED FROM ECM/PCM A

DTC Description

INFOID:0000000013581577

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2287	00	Invalid data received from ECM/PCM A [The CAN message from control unit Motor electronics is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from ECM
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- ECM

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2287” detected?

YES >> Proceed to CCS-195, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581578

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C2288 INVALID DATA RECEIVED FROM ECM/PCM A

DTC Description

INFOID:0000000013581579

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2288	00	Invalid data received from ECM/PCM A [The CAN message from control unit Motor electronics is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from ECM
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- ECM

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2288” detected?

YES >> Proceed to CCS-196, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581580

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C228A INVALID DATA RECEIVED FROM VDCM

DTC Description

INFOID:0000000013581581

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C228A	00	Invalid data received from VDCM [The CAN message from control unit Electronic stability program is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C228A” detected?

YES >> Proceed to CCS-197, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581582

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C228B INVALID DATA RECEIVED FROM VDCM

DTC Description

INFOID:0000000013581583

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C228B	00	Invalid data received from VDCM [The CAN message from control unit Electronic stability program is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C228B” detected?

YES >> Proceed to CCS-198, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581584

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C228C INVALID DATA RECEIVED FROM VDCM

DTC Description

INFOID:0000000013581585

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C228C	00	Invalid data received from VDCM [The CAN message from control unit Electronic stability program is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C228C” detected?

YES >> Proceed to CCS-199, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581586

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C228D CAN SIGNAL FROM SCCM IS MALFUNCTION

DTC Description

INFOID:0000000013581587

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C228D	00	CAN signal from SCCM is malfunction [The CAN message from control unit Steering column module is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from steering column control module
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Steering column control module

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C228D” detected?

YES >> Proceed to CCS-200, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581588

1.PERFORM SELF-DIAGNOSIS OF STEERING COLUMN CONTROL MODULE

With CONSULT

Perform self-diagnosis for “Steering column cont module”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-61, "DTC Index".
NO >> INSPECTION END

C228E CAN SIGNAL FROM SCCM IS MALFUNCTION

DTC Description

INFOID:0000000013581589

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C228E	00	CAN signal from SCCM is malfunction [The CAN message from control unit Steering column module is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	CAN communication is active
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from steering column control module
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- Steering column control module

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C228E” detected?

YES >> Proceed to CCS-201, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581590

1.PERFORM SELF-DIAGNOSIS OF STEERING COLUMN CONTROL MODULE

With CONSULT

Perform self-diagnosis for “Steering column cont module”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-61, "DTC Index".
NO >> INSPECTION END

C2291 VEHICLE SPEED SIGNAL IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581591

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2291	00	Vehicle speed signal is implausible [CAN signal Vehicle speed from control unit ESP is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Engine running
				Signal (terminal)	CAN communication signal
				Threshold	Value of displayed vehicle speed from dashboard is not coherent to reference velocity based on wheel speed sensors.
				Diagnosis delay time	2 s

POSSIBLE CAUSE

- Excessive deviation between displayed speed and wheel speeds

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2291” detected?

YES >> Proceed to CCS-202, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581592

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> Replace ICC sensor. Refer to CCS-340, "Removal and Installation".

C2293 STATIC ENGINE TORQUE SIG IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581593

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2293	00	Static engine torque sig is implausible [CAN signal Static engine torque from control unit Motor electronics is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from ECM
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- ECM

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2293” detected?

YES >> Proceed to CCS-203, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581594

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C2294 MAX ENGINE TORQUE SIG IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581595

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2294	00	Max engine torque sig is implausible [CAN signal Maximum engine torque from control unit Motor electronics is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from ECM
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- ECM

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2294” detected?

YES >> Proceed to CCS-204, "DTC Description".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581596

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C2295 MIN ENGINE TORQUE SIG IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581597

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2295	00	Min engine torque sig is implausible [CAN signal Minimum engine torque from control unit Motor electronics is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from ECM
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- ECM

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2295” detected?

YES >> Proceed to CCS-205, "DTC Description".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581598

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C2296 REQUESTED ENG TORQUE IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581599

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2296	00	Requested ENG torque is implausible [CAN signal Requested engine torque from control unit Motor electronics is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from ECM
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- ECM

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2296” detected?

YES >> Proceed to CCS-206, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581600

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C2297 ENGINE SPEED SIGNAL IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581601

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2297	00	Engine speed signal is implausible [CAN signal Engine speed from control unit Motor electronics is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from ECM
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- ECM

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2297” detected?

YES >> Proceed to CCS-207, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581602

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C2299 CRANKSHAFT SIGNAL IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581603

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2299	00	Crankshaft signal is implausible [CAN signal Signal of crankshaft from control unit Motor electronics is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from ECM
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- ECM

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2299” detected?

YES >> Proceed to CCS-208, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581604

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C229B ACTUAL GEAR SIGNAL IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581605

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C229B	00	Actual gear signal is implausible [CAN signal Actual gear from control unit Motor electronics is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from ECM
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- ECM

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C229B” detected?

YES >> Proceed to CCS-209, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581606

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C229D INVALID DATA RECEIVED FROM VDCM

DTC Description

INFOID:0000000013581607

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C229D	00	Invalid data received from VDCM [The CAN message from control unit Electronic stability program is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C229D” detected?

YES >> Proceed to CCS-210, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581608

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C229E REQ BRK TRQ SIGNAL IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581609

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C229E	00	REQ BRK TRQ signal is implausible [CAN signal Requested braking torque from control unit ESP is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC not available / without function, speed limiter available

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C229E” detected?

YES >> Proceed to CCS-211, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581610

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C229F CRUISE SHUTOFF SIGNAL IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581611

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C229F	00	Cruise shutoff signal is implausible [CAN signal Shutoff of function DISTRONIC from control unit ESP is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C229F” detected?

YES >> Proceed to CCS-212, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581612

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C22A1 LONGITUDINAL ACCELERATION IMPLAUSIBLE

DTC Description

INFOID:0000000013581613

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22A1	00	Longitudinal acceleration implausible [CAN signal Longitudinal acceleration from control unit ESP is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22A1” detected?

YES >> Proceed to CCS-213, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581614

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C22A2 YAW RATE SIG FROM ESP IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581615

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22A2	00	Yaw rate sig from ESP is implausible [CAN signal Yaw rate from control unit ESP is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22A2” detected?

YES >> Proceed to CCS-214, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581616

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C22A3 STRG SENSOR SIGNAL IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581617

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22A3	00	STRG sensor signal is implausible [CAN signal Steering wheel angle sensor from control unit Steering column module is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from steering column control module
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Steering column control module

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22A3” detected?

YES >> Proceed to CCS-215, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581618

1.PERFORM SELF-DIAGNOSIS OF STEERING COLUMN CONTROL MODULE

With CONSULT

Perform self-diagnosis for “Steering column cont module”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-61, "DTC Index".
NO >> INSPECTION END

C22A4 STRG SENSOR SIGNAL IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581619

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22A4	00	STRG sensor signal is implausible [CAN signal Steering wheel angle sensor from control unit Steering column module is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from steering column control module
				Diagnosis delay time	1 s

POSSIBLE CAUSE

- Steering column control module

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22A4” detected?

YES >> Proceed to CCS-216, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581620

1.PERFORM SELF-DIAGNOSIS OF STEERING COLUMN CONTROL MODULE

With CONSULT

Perform self-diagnosis for “Steering column cont module”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-61, "DTC Index".
NO >> INSPECTION END

C22A5 STEERING WHEEL ANGLE IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581621

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22A5	00	Steering wheel angle is implausible [CAN signal Steering wheel angle from control unit Steering column module is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from steering column control module
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Steering column control module

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22A5” detected?

YES >> Proceed to CCS-217, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581622

1.PERFORM SELF-DIAGNOSIS OF STEERING COLUMN CONTROL MODULE

With CONSULT

Perform self-diagnosis for “Steering column cont module”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-61, "DTC Index".
NO >> INSPECTION END

C22A6 STEERING ANGLE SPEED IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581623

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22A6	00	Steering angle speed is implausible [CAN signal Steering angle speed from control unit Steering column module is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from steering column control module
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Steering column control module

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22A6” detected?

YES >> Proceed to CCS-218, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581624

1.PERFORM SELF-DIAGNOSIS OF STEERING COLUMN CONTROL MODULE

With CONSULT

Perform self-diagnosis for “Steering column cont module”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-61, "DTC Index".
NO >> INSPECTION END

C22A7 PULSE COUNTER SIGNAL IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581625

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22A7	00	Pulse counter signal is implausible [CAN signal Pulse counter from control unit ESP is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22A7” detected?

YES >> Proceed to CCS-219, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581626

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C22A8 WHEEL SPEED FROM ESP IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581627

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22A8	00	Wheel speed from ESP is implausible [CAN signal Wheel speed from control unit ESP is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22A8” detected?

YES >> Proceed to CCS-220, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581628

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C22A9 WHL ROTATION DIRECTION SIG IMPLAUSIBLE

DTC Description

INFOID:0000000013581629

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22A9	00	WHL rotation direction sig implausible [CAN signal Wheel rotation direction from control unit ESP is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22A9” detected?

YES >> Proceed to CCS-221, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581630

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C22AA STATUS SIGNAL FROM METER IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581631

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22AA	00	Status signal from meter is implausible [CAN signal Status from control unit Instrument cluster is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from combination meter
				Diagnosis delay time	1 s

POSSIBLE CAUSE

- Combination meter

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22AA” detected?

YES >> Proceed to CCS-222, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581632

1.PERFORM SELF-DIAGNOSIS OF COMBINATION METER

With CONSULT

Perform self-diagnosis for “METER/M&A”. Refer to MWI-68, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to MWI-85, "DTC Index".
NO >> INSPECTION END

C22AB VHCL SPD DISP SIGNAL IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581633

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22AB	00	VHCL SPD DISP signal is implausible [CAN signal Vehicle speed displayed from control unit Instrument cluster is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from combination meter
				Diagnosis delay time	5 s

POSSIBLE CAUSE

- Combination meter

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22AB” detected?

YES >> Proceed to CCS-223, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581634

1.PERFORM SELF-DIAGNOSIS OF COMBINATION METER

With CONSULT

Perform self-diagnosis for “METER/M&A”. Refer to MWI-68, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to MWI-85, "DTC Index".
NO >> INSPECTION END

C22AC ACCEL PEDAL SENSOR SIG IS IMPLAUSIBLE

DTC DESCRIPTION

INFOID:0000000013581635

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22AC	00	Accel pedal sensor sig is implausible [CAN signal Value of accelerator pedal sensor from control unit Motor electronics is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from ECM
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- ECM

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch on.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22AC” detected?

YES >> Proceed to CCS-224, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581636

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C22AD BRAKE PEDAL POSITION SIG IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581637

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22AD	00	Brake pedal position sig is implausible [CAN signal Position of brake pedal from control unit ESP is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22AD” detected?

YES >> Proceed to CCS-225, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581638

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C22AE BRAKE PEDAL POSITION SIG IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581639

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22AE	00	Brake pedal position sig is implausible [CAN signal Position of brake pedal from control unit ESP is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22AE” detected?

YES >> Proceed to CCS-226, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581640

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C22AF CRUISE CONTROL LEVER SIG IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581641

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22AF	00	Cruise control lever sig is implausible [CAN signal Cruise control lever from control unit Steering column module is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from steering column control module
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- Steering column control module

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22AF” detected?

YES >> Proceed to CCS-227, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581642

1.PERFORM SELF-DIAGNOSIS OF STEERING COLUMN CONTROL MODULE

With CONSULT

Perform self-diagnosis for “Steering column cont module”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-61, "DTC Index".
NO >> INSPECTION END

C22B0 CRUISE CONT SIG FROM SCM IMPLAUSIBLE

DTC Description

INFOID:0000000013581643

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22B0	00	Cruise cont sig from SCM implausible [CAN signal DISTRONIC from control unit Steering column module is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from steering column control module
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- Steering column control module

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22B0” detected?

YES >> Proceed to CCS-228, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581644

1.PERFORM SELF-DIAGNOSIS OF STEERING COLUMN CONTROL MODULE

With CONSULT

Perform self-diagnosis for “Steering column cont module”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-61, "DTC Index".
NO >> INSPECTION END

C22B1 TURN SIGNAL SW STATUS SIG IMPLAUSIBLE

DTC Description

INFOID:0000000013581645

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22B1	00	Turn signal SW status sig implausible [CAN signal Status of component S4s1 (Turn signal lamps switch) from control unit Steering column module is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from steering column control module
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- Steering column control module

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22B1” detected?

YES >> Proceed to CCS-229, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581646

1.PERFORM SELF-DIAGNOSIS OF STEERING COLUMN CONTROL MODULE

With CONSULT

Perform self-diagnosis for “Steering column cont module”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-61, "DTC Index".
NO >> INSPECTION END

C22B2 OUTSIDE TEMPERATURE SIG IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581647

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22B2	00	Outside temperature sig is implausible [CAN signal Outside temperature from control unit Electronic ignition lock is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic ignition switch control unit
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- Electronic ignition switch control unit

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22B2” detected?

YES >> Proceed to CCS-230, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581648

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch cont unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C22B3 OUTSIDE TEMPERATURE SIG IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581649

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22B3	00	Outside temperature sig is implausible [CAN signal Outside temperature from control unit Electronic ignition lock is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic ignition switch control unit
				Diagnosis delay time	5 s

POSSIBLE CAUSE

- Electronic ignition switch control unit

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22B3” detected?

YES >> Proceed to CCS-231, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581650

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch cont unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C22B6 ODO SIGNAL FROM METER IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581651

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22B6	00	Odo signal from meter is implausible [CAN signal Value of main odometer reading from control unit Instrument cluster is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from combination meter
				Diagnosis delay time	5 s

POSSIBLE CAUSE

- Combination meter

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22B6” detected?

YES >> Proceed to CCS-232, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581652

1.PERFORM SELF-DIAGNOSIS OF COMBINATION METER

With CONSULT

Perform self-diagnosis for “METER/M&A”. Refer to MWI-68, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to MWI-85, "DTC Index".
NO >> INSPECTION END

C22B7 ODO SIGNAL FROM METER IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581653

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22B7	00	Odo signal from meter is implausible [CAN signal Value of main odometer reading from control unit Instrument cluster is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from combination meter
				Diagnosis delay time	5 s

POSSIBLE CAUSE

- Combination meter

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22B7” detected?

YES >> Proceed to CCS-233, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581654

1.PERFORM SELF-DIAGNOSIS OF COMBINATION METER

With CONSULT

Perform self-diagnosis for “METER/M&A”. Refer to MWI-68, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to MWI-85, "DTC Index".
NO >> INSPECTION END

C22BB NO CAN SIGNAL RECEIVED FROM ESP

DTC Description

INFOID:0000000013581655

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22BB	00	No CAN signal received from ESP [No CAN message was received from control unit ESP.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	CAN messages from electronic stability program control unit is missing
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- CAN communication malfunction
- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22BB” detected?

YES >> Proceed to CCS-234, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581656

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C22BC NO CAN SIG RECEIVED FROM COMB METER

DTC Description

INFOID:0000000013581657

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22BC	00	No CAN sig received from comb meter [No CAN message was received from control unit (Instrument cluster).]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	CAN messages from combination meter is missing
				Diagnosis delay time	2 s

POSSIBLE CAUSE

- CAN communication malfunction
- Combination meter

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22BC” detected?

YES >> Proceed to CCS-235, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581658

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the combination meter. Refer to MWI-155, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C22BE NO CAN SIGNAL RECEIVED FROM IGN LOCK

DTC Description

INFOID:0000000013581659

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22BE	00	No CAN signal received from IGN lock [No CAN message was received from control unit Electronic ignition lock.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	CAN messages from electronic ignition switch control unit is missing
				Diagnosis delay time	3 s

POSSIBLE CAUSE

- CAN communication malfunction
- Electronic ignition switch control unit

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22BE” detected?

YES >> Proceed to CCS-236, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581660

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electronic ignition switch control unit. Refer to PCS-47, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C22BF INVALID DATA RECEIVED FROM VDCM

DTC Description

INFOID:0000000013581661

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22BF	00	Invalid data received from VDCM [The CAN message from control unit Electronic stability program is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	20 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22BF” detected?

YES >> Proceed to CCS-237, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581662

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C22C0 CAN SIGNAL FROM COMB METER IS MALF

DTC Description

INFOID:0000000013581663

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22C0	00	No CAN signal received from IGN lock [No CAN message was received from control unit Electronic ignition lock.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from combination meter
				Diagnosis delay time	200 ms

POSSIBLE CAUSE

- Combination meter

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22C0” detected?

YES >> Proceed to CCS-238, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581664

1.PERFORM SELF-DIAGNOSIS OF COMBINATION METER

With CONSULT

Perform self-diagnosis for “METER/M&A”. Refer to MWI-68, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to MWI-85, "DTC Index".
NO >> INSPECTION END

C22C2 CAN SIGNAL FROM IGN LOCK IS MALF

DTC Description

INFOID:0000000013581665

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22C2	00	CAN signal from IGN lock is malf [The CAN message from control unit Electronic ignition lock is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic ignition switch control unit
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- Electronic ignition switch control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22C2” detected?

YES >> Proceed to CCS-239, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581666

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch cont unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C22C3 INVALID DATA RECEIVED FROM VDCM

DTC Description

INFOID:0000000013581667

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22C3	00	CAN signal from IGN lock is malf [The CAN message from control unit Electronic ignition lock is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22C3” detected?

YES >> Proceed to CCS-240, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581668

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C22C4 INVALID DATA RECEIVED FROM VDCM

DTC Description

INFOID:0000000013581669

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22C4	00	No CAN sig received from motor elec [No CAN message was received from control unit Motor electronics.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22C4” detected?

YES >> Proceed to CCS-241, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581670

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C22C6 CAN SIGNAL FROM IGN LOCK IS MALF

DTC Description

INFOID:0000000013581671

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22C6	00	CAN signal from IGN lock is malf [The CAN message from control unit Electronic ignition lock is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic ignition switch control unit
				Diagnosis delay time	1500 ms

POSSIBLE CAUSE

- Electronic ignition switch control unit

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22C6” detected?

YES >> Proceed to CCS-242, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581672

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch cont unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C22C7 BRAKE SIGNAL FROM ESP IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581673

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22C7	00	No CAN signal received from ESP [No CAN message was received from control unit ESP.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22C7” detected?

YES >> Proceed to CCS-243, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581674

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C22C8 RADAR IS CURRENTLY NONFUNCTIONAL

DTC Description

INFOID:0000000013581675

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22C8	00	T/M mode signal is implausible [CAN signal Transmission mode from control unit Motor electronics is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Engine Running
				Signal (terminal)	—
				Threshold	ICC sensor alignment active
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- ICC sensor alignment active

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Start the engine.
2. Turn the ICC system ON.
3. Drive the vehicle.
   CAUTION:
   Always drive safety.
4. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22C8” detected?

YES >> Proceed to CCS-244, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581676

1.ADJUST ICC SENSOR ALIGNMENT

1. Adjust the ICC sensor alignment with CONSULT. Refer to CCS-58, "Application Notice".
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22C8” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C22C9 RADAR IS CURRENTLY NONFUNCTIONAL

DTC Description

INFOID:0000000013581677

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22C9	00	T/M mode signal is implausible [CAN signal Transmission mode from control unit Motor electronics is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Engine running
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	150 ms

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Start the engine.
2. Turn the ICC system ON.
3. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22C9” detected?

YES >> Proceed to CCS-245, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581678

1.ADJUST RADAR AIMING

1. Adjust the radar alignment with CONSULT. Refer to CCS-58, "Application Notice".
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22C9” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C22CA RADAR IS CURRENTLY NONFUNCTIONAL

DTC Description

INFOID:0000000013581679

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22CA	00	Radar is currently non-functional [Control unit (DISTRONIC electric controller unit) is currently nonfunctional.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Tire diameter difference is detected.
				Diagnosis delay time	50 ms or less

POSSIBLE CAUSE

- Excessive pressure difference in the tires.
- Different wear on the tires.
- Incorrect wheels or tires.

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22CA” detected?

YES >> Proceed to CCS-246, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581680

1.CHECK TIRE SIZE AND PRESSURE

Check the tire size and pressure. Refer to WT-76, "Tire Air Pressure".

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace the malfunctioning parts.

C22CB RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581681

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22CB	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	50 ms or less

POSSIBLE CAUSE

- ICC sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22CB” detected?

YES >> Proceed to CCS-247, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581682

1.REPLACE ICC SENSOR

Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".

>> INSPECTION END

C22CD RADAR IS BLOCKED BY DIRT/FOREIGN OBJECT

DTC Description

INFOID:0000000013581683

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22CD	00	Radar is blocked by dirt/foreign object [The control unit DISTRONIC is blocked by dirt or by a foreign object.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Engine running
				Signal (terminal)	—
				Threshold	Free sight-check of radar sensor not yet successfully terminated
				Diagnosis delay time	Less than 50 ms

POSSIBLE CAUSE

- Detected no objects

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Start the engine.
2. Turn the ICC system ON.
3. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22CD” detected?

YES >> Proceed to CCS-248, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581684

1.VISUAL CHECK

Check the area in front of the ICC sensor for parts causing blockage.

Does contamination or foreign materials adhere?

YES >> Wipe out the contamination and foreign matter on the area in front of the ICC sensor.
NO >> GO TO 2.

2.REPLACE ICC SENSOR

Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".

>> INSPECTION END

C22CE DYNAMIC BRAKING MODE SIG IMPLAUSIBLE

DTC Description

INFOID:0000000013581685

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22CE	00	Dynamic braking mode sig implausible [CAN signal Mode Dynamic braking from control unit Electric parking brake is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electric parking brake control module
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- Electric parking brake control module

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22CE” detected?

YES >> Proceed to CCS-249, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581686

1.PERFORM SELF-DIAGNOSIS OF ELECTRIC PARKING BRAKE CONTROL MODULE

With CONSULT

Perform self-diagnosis for “EHS/PKB”. Refer to PB-18, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PB-24, "DTC Index".
NO >> INSPECTION END

C22CF DYNAMIC BRAKING MODE SIG IMPLAUSIBLE

DTC Description

INFOID:0000000013581687

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22CF	00	Dynamic braking mode sig implausible [CAN signal Mode Dynamic braking from control unit Electric parking brake is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electric parking brake control module
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- Electric parking brake control module

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22CF” detected?

YES >> Proceed to CCS-250, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581688

1.PERFORM SELF-DIAGNOSIS OF ELECTRIC PARKING BRAKE CONTROL MODULE

With CONSULT

Perform self-diagnosis for “EHS/PKB”. Refer to PB-18, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PB-24, "DTC Index".
NO >> INSPECTION END

C22D0 NO CAN SIGNAL RECEIVED FROM E-PKB

DTC Description

INFOID:0000000013581689

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22D0	00	No CAN signal received from E-PKB [No CAN message was received from control unit (Electric parking brake control unit).]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	CAN messages from electric parking brake control module is missing
				Diagnosis delay time	1 s

POSSIBLE CAUSE

- CAN communication malfunction
- Electric parking brake control module

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22D0” detected?

YES >> Proceed to CCS-251, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581690

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electric parking brake control module. Refer to PB-130, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C22D1 CAN SIGNAL FROM E-PKB IS MALFUNCTION

DTC Description

INFOID:0000000013581691

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22D1	00	CAN signal from E-PKB is malfunction [The CAN message from control unit Electric parking brake is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electric parking brake control module
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- CAN communication malfunction
- Electric parking brake control module

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22D1” detected?

YES >> Proceed to CCS-252, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581692

1.PERFORM SELF-DIAGNOSIS OF ELECTRIC PARKING BRAKE CONTROL MODULE

With CONSULT

Perform self-diagnosis for “EHS/PKB”. Refer to PB-18, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PB-24, "DTC Index".
NO >> INSPECTION END

C22D2 CAN SIGNAL FROM E-PKB IS MALFUNCTION

DTC Description

INFOID:0000000013581693

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22D2	00	CAN signal from E-PKB is malfunction [The CAN message from control unit Electric parking brake is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electric parking brake control module
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- CAN communication malfunction
- Electric parking brake control module

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22D2” detected?

YES >> Proceed to CCS-253, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581694

1.PERFORM SELF-DIAGNOSIS OF ELECTRIC PARKING BRAKE CONTROL MODULE

With CONSULT

Perform self-diagnosis for “EHS/PKB”. Refer to PB-18, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PB-24, "DTC Index".
NO >> INSPECTION END

C22D3 CAN SIGNAL FROM E-PKB IS MALFUNCTION

DTC Description

INFOID:0000000013581695

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22D3	00	CAN signal from E-PKB is malfunction [The CAN message from control unit Electric parking brake is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electric parking brake control module
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- CAN communication malfunction
- Electric parking brake control module

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22D3” detected?

YES >> Proceed to CCS-254, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581696

1.PERFORM SELF-DIAGNOSIS OF ELECTRIC PARKING BRAKE CONTROL MODULE

With CONSULT

Perform self-diagnosis for “EHS/PKB”. Refer to PB-18, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PB-24, "DTC Index".
NO >> INSPECTION END

C22D4 NO CAN SIGNAL RECEIVED FROM IGN LOCK

DTC Description

INFOID:0000000013581697

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22D4	00	No CAN signal received from IGN lock [No CAN message was received from control unit Electronic ignition lock.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	CAN messages from electronic ignition switch control unit is missing
				Diagnosis delay time	3 s

POSSIBLE CAUSE

- CAN communication malfunction
- Electronic ignition switch control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22D4” detected?

YES >> Proceed to CCS-255, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581698

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electronic ignition switch control unit. Refer to PCS-47, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C22D5 CAN SIGNAL FROM IGN LOCK IS MALF

DTC Description

INFOID:0000000013581699

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22D5	00	CAN signal from IGN lock is malf [The CAN message from control unit Electronic ignition lock is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic ignition switch control unit
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- Electronic ignition switch control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22D5” detected?

YES >> Proceed to CCS-256, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581700

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch cont unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C22D6 CAN SIGNAL FROM IGN LOCK IS MALF

DTC Description

INFOID:0000000013581701

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22D6	00	CAN signal from IGN lock is malf [The CAN message from control unit Electronic ignition lock is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic ignition switch control unit
				Diagnosis delay time	1500 ms

POSSIBLE CAUSE

- Electronic ignition switch control unit

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22D6” detected?

YES >> Proceed to CCS-257, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581702

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch cont unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C22D7 COUNTRY CODE SIGNAL IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581703

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22D7	00	Country code signal is implausible [CAN signal Country code from control unit Electronic ignition lock is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic ignition switch control unit
				Diagnosis delay time	1500 ms

POSSIBLE CAUSE

- Electronic ignition switch control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22D7” detected?

YES >> Proceed to CCS-258, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581704

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch cont unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C22D9 FL TUMBLER SW STATUS IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581705

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22D9	00	FL tumbler SW status is implausible [CAN signal Status of component (Left front door rotary tumbler switch) from control unit Electronic ignition lock is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic ignition switch control unit
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- Electronic ignition switch control unit

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22D9” detected?

YES >> Proceed to CCS-259, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581706

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch cont unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C22DA FR TUMBLER SW STATUS IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581707

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22DA	00	FR tumbler SW status is implausible [CAN signal Status of component (Right front door rotary tumbler switch) from control unit Electronic ignition lock is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic ignition switch control unit
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- Electronic ignition switch control unit

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22DA” detected?

YES >> Proceed to CCS-260, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581708

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch cont unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C22DB RL TUMBLER SW STATUS IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581709

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22DB	00	RL tumbler SW status is implausible [CAN signal Status of component (Left rear door rotary tumbler switch) from control unit Electronic ignition lock is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic ignition switch control unit
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- Electronic ignition switch control unit

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22DB” detected?

YES >> Proceed to CCS-261, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581710

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch cont unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C22DC RR TUMBLER SW STATUS IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581711

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22DC	00	RR tumbler SW status is implausible [CAN signal Status of component (Right rear door rotary tumbler switch) from control unit Electronic ignition lock is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic ignition switch control unit
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- Electronic ignition switch control unit

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22DC” detected?

YES >> Proceed to CCS-262, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581712

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch cont unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C22DD CRUISE SHUTOFF SIGNAL IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581713

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22DD	00	Cruise shutoff signal is implausible [CAN signal Status of component (Right rear door rotary tumbler switch) from control unit Electronic ignition lock is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22DD” detected?

YES >> Proceed to CCS-263, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581714

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C22DE BRAKE SIGNAL FROM ESP IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581715

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22DE	00	Brake signal from ESP is implausible [CAN signal Brake from control unit ESP is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC not available / without function, speed limiter available

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22DE” detected?

YES >> Proceed to CCS-264, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581716

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C22DF BRAKING TORQUE SIGNAL IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581717

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22DF	00	Braking torque signal is implausible [CAN signal Braking torque from control unit ESP is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22DF” detected?

YES >> Proceed to CCS-265, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581718

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C22E0 TARGET GEAR SIGNAL IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581719

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22E0	00	Target gear signal is implausible [CAN signal Target gear from control unit Motor electronics is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from ECM
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- ECM

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22E0” detected?

YES >> Proceed to CCS-266, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581720

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C22E1 COMMUNICATION ERROR (INVALID)

DTC Description

INFOID:0000000013581721

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22E1	00	COMMUNICATION ERROR (INVALID) [No CAN message was received from control unit (Steering column tube module control unit).]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	CAN messages from steering column control module is missing
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- CAN communication malfunction
- Steering column control module

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22E1” detected?

YES >> Proceed to CCS-267, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581722

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the steering column control module. Refer to BCS-250, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C22E2 CAN SIGNAL FROM SCCM IS MALFUNCTION

DTC Description

INFOID:0000000013581723

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22E2	00	CAN signal from SCCM is malfunction [The CAN message from control unit Steering column module is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from steering column control module
				Diagnosis delay time	20 ms

POSSIBLE CAUSE

- CAN communication malfunction
- Steering column control module

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22E2” detected?

YES >> Proceed to CCS-268, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581724

1.PERFORM SELF-DIAGNOSIS OF STEERING COLUMN CONTROL MODULE

With CONSULT

Perform self-diagnosis for “Steering column cont module”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-61, "DTC Index".
NO >> INSPECTION END

C22E3 CAN SIGNAL FROM SCCM IS MALFUNCTION

DTC Description

INFOID:0000000013581725

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22E3	00	CAN signal from SCCM is malfunction [The CAN message from control unit Steering column module is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from steering column control module
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- CAN communication malfunction
- Steering column control module

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22E3” detected?

YES >> Proceed to CCS-269, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581726

1.PERFORM SELF-DIAGNOSIS OF STEERING COLUMN CONTROL MODULE

With CONSULT

Perform self-diagnosis for “Steering column cont module”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-61, "DTC Index".
NO >> INSPECTION END

C22E4 CAN SIGNAL FROM SCCM IS MALFUNCTION

DTC Description

INFOID:0000000013581727

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22E4	00	CAN signal from SCCM is malfunction [The CAN message from control unit Steering column module is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from steering column control module
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- CAN communication malfunction
- Steering column control module

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22E4” detected?

YES >> Proceed to CCS-270, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581728

1.PERFORM SELF-DIAGNOSIS OF STEERING COLUMN CONTROL MODULE

With CONSULT

Perform self-diagnosis for “Steering column cont module”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-61, "DTC Index".
NO >> INSPECTION END

C22E5 STEERING WHEEL ANGLE IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581729

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22E5	00	Steering wheel angle is implausible [CAN signal Steering wheel angle from control unit Steering column module is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from steering column control module
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Steering column control module

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22E5” detected?

YES >> Proceed to CCS-271, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581730

1.PERFORM SELF-DIAGNOSIS OF STEERING COLUMN CONTROL MODULE

With CONSULT

Perform self-diagnosis for “Steering column cont module”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-61, "DTC Index".
NO >> INSPECTION END

C22E6 STEERING WHEEL ANGLE IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581731

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22E6	00	Steering wheel angle is implausible [CAN signal Steering wheel angle from control unit Steering column module is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from steering column control module
				Diagnosis delay time	1 s

POSSIBLE CAUSE

- Steering column control module

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22E6” detected?

YES >> Proceed to CCS-272, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581732

1.PERFORM SELF-DIAGNOSIS OF STEERING COLUMN CONTROL MODULE

With CONSULT

Perform self-diagnosis for “Steering column cont module”. Refer to BCS-30, "CONSULT Function (Steering Column Control Module)".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-61, "DTC Index".
NO >> INSPECTION END

C22E7 LONGITUDINAL ACCELERATION IMPLAUSIBLE

DTC Description

INFOID:0000000013581733

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22E7	00	Longitudinal acceleration implausible [CAN signal Longitudinal acceleration from control unit ESP is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22E7” detected?

YES >> Proceed to CCS-273, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581734

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C22E8 CAN SIGNAL FROM COMB METER IS MALF

DTC Description

INFOID:0000000013581735

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22E8	00	CAN signal from comb meter is malf [The CAN message from control unit Instrument cluster is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from combination meter
				Diagnosis delay time	1 s

POSSIBLE CAUSE

- Combination meter

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22E8” detected?

YES >> Proceed to CCS-274, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581736

1.PERFORM SELF-DIAGNOSIS OF COMBINATION METER

With CONSULT

Perform self-diagnosis for “METER/M&A”. Refer to MWI-68, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to MWI-85, "DTC Index".
NO >> INSPECTION END

C22EA CRUISE SHUTOFF SIGNAL IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581737

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22EA	00	Cruise shutoff signal is implausible [CAN signal Shutoff of function DISTRONIC from control unit ESP is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22EA” detected?

YES >> Proceed to CCS-275, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581738

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C22EB VIN SIGNAL FROM IGN LOCK IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581739

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22EB	00	VIN signal from IGN lock is implausible [CAN signal Vehicle identification number from control unit Electronic ignition lock is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Vehicle configuration is not consistent with data in VIN digits
				Diagnosis delay time	20 ms

POSSIBLE CAUSE

- Data inconsistency

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22EB” detected?

YES >> Proceed to CCS-276, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581740

1.PERFORM CONFIGURATION

Perform configuration of ICC sensor.

>> GO TO 2.

2.ADJUST ICC SENSOR ALIGNMENT

1. Adjust the ICC sensor alignment with CONSULT. Refer to CCS-58, "Application Notice".
2. Perform self-diagnosis for “ICC sensor”

Is DTC “C22EB” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C22EC SCN CODING OF RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581741

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22EC	00	SCN coding of radar is malfunction [The SCN coding of control unit (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	The SCN coding was not yet executed completely
				Diagnosis delay time	Less than 50 ms

POSSIBLE CAUSE

- Data inconsistency

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22EC” detected?

YES >> Proceed to CCS-277, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581742

1.PERFORM CONFIGURATION OF IGNITION SWITCH CONTROL UNIT

1. Perform configuration of electronic ignition switch control unit.
2. Erase self-diagnosis result.
3. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22EC” detected?

YES >> Replace the ICC sensor unit. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C22ED RADAR SENSOR IS MALADJUSTED

DTC Description

INFOID:0000000013581743

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22ED	00	Radar sensor is maladjusted [The radar sensor is maladjusted.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Engine running
				Signal (terminal)	—
				Threshold	Misalignment detection exceeds higher / lower threshold
				Diagnosis delay time	Strongly dependent on misalignment scenario

POSSIBLE CAUSE

- Maladjusted sensor

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Start the engine.
2. Turn the ICC system ON.
3. Drive the vehicle.
   CAUTION:
   Always drive safety.
4. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22ED” detected?

YES >> Proceed to CCS-278, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581744

1.ADJUST ICC SENSOR ALIGNMENT

1. Adjust the ICC sensor alignment with CONSULT. Refer to CCS-58, "Application Notice".
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22ED” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C22EE INVALID DATA RECEIVED FROM ECM/PCM A

DTC Description

INFOID:0000000013581745

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22EE	00	Invalid data received from ECM/PCM A [The CAN message from control unit Motor electronics is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from ECM
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- ECM

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22EE” detected?

YES >> Proceed to CCS-279, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581746

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C22EF INVALID DATA RECEIVED FROM ECM/PCM A

DTC Description

INFOID:0000000013581747

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22EF	00	Invalid data received from ECM/PCM A [The CAN message from control unit Motor electronics is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from ECM
				Diagnosis delay time	20 ms

POSSIBLE CAUSE

- ECM

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22EF” detected?

YES >> Proceed to CCS-280, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581748

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C22F0 INVALID DATA RECEIVED FROM ECM/PCM A

DTC Description

INFOID:0000000013581749

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22F0	00	Invalid data received from ECM/PCM A [The CAN message from control unit Motor electronics is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from ECM
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- ECM

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22F0” detected?

YES >> Proceed to CCS-281, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581750

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C22F1 INVALID DATA RECEIVED FROM ECM/PCM A

DTC Description

INFOID:0000000013581751

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22F1	00	Invalid data received from ECM/PCM A [The CAN message from control unit Motor electronics is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from ECM
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- ECM

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22F1” detected?

YES >> Proceed to CCS-282, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581752

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C22F2 NO CAN SIG RECEIVED FROM MOTOR ELEC

DTC Description

INFOID:0000000013581753

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22F2	00	No CAN sig received from motor elec [No CAN message was received from control unit Motor electronics.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	CAN messages from ECM is missing
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- CAN communication malfunction
- ECM

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22F2” detected?

YES >> Proceed to CCS-283, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581754

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the ECM. Refer to EC-142, "DTC Index".
NO >> Repair or replace the malfunctioning parts.

C22F3 NO CAN SIG RECEIVED FROM MOTOR ELEC

DTC Description

INFOID:0000000013581755

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22F3	00	No CAN sig received from motor elec [No CAN message was received from control unit Motor electronics.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	CAN messages from ECM is missing
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- CAN communication malfunction
- ECM

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22F3” detected?

YES >> Proceed to CCS-284, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581756

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the ECM. Refer to EC-142, "DTC Index".
NO >> Repair or replace the malfunctioning parts.

C22F4 NO CAN SIGNAL RECEIVED FROM IGN LOCK

DTC Description

INFOID:0000000013581757

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22F4	00	No CAN signal received from IGN lock [No CAN message was received from control unit Electronic ignition lock.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	CAN messages from electronic ignition switch control unit is missing
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- CAN communication malfunction
- Electronic ignition switch control unit

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22F4” detected?

YES >> Proceed to CCS-285, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581758

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electronic ignition switch control unit. Refer to PCS-47, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C22F5 CAN SIGNAL FROM IGN LOCK IS MALF

DTC Description

INFOID:0000000013581759

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22F5	00	CAN signal from IGN lock is malf [The CAN message from control unit Electronic ignition lock is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic ignition switch control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- CAN communication malfunction
- Electronic ignition switch control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22F5” detected?

YES >> Proceed to CCS-286, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581760

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch cont unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C22F6 CAN SIGNAL FROM IGN LOCK IS MALF

DTC Description

INFOID:0000000013581761

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22F6	00	CAN signal from IGN lock is malf [The CAN message from control unit Electronic ignition lock is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic ignition switch control unit
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- Electronic ignition switch control unit

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22F6” detected?

YES >> Proceed to CCS-287, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581762

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch cont unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C22F7 CAN SIGNAL FROM IGN LOCK IS MALF

DTC Description

INFOID:0000000013581763

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22F7	00	CAN signal from IGN lock is malf [The CAN message from control unit Electronic ignition lock is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic ignition switch control unit
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- Electronic ignition switch control unit

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22F7” detected?

YES >> Proceed to CCS-288, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581764

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch cont unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C22F9 CAN SIGNAL FROM IGN LOCK IS MALF

DTC Description

INFOID:0000000013581765

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22F9	00	CAN signal from IGN lock is malf [The CAN message from control unit Electronic ignition lock is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic ignition switch control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Electronic ignition switch control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22F9” detected?

YES >> Proceed to CCS-289, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581766

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch cont unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C22FA NO CAN SIGNAL RECEIVED FROM IGN LOCK

DTC Description

INFOID:0000000013581767

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22FA	00	No CAN signal received from IGN lock [No CAN message was received from control unit Electronic ignition lock.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	CAN messages from electronic ignition switch control unit is missing
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- CAN communication malfunction
- Electronic ignition switch control unit

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22FA” detected?

YES >> Proceed to CCS-290, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581768

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electric parking brake control module. Refer to PB-130, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C22FB STEERING VARIANT SIGNAL IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581769

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22FB	00	Steering variant signal is implausible [CAN signal Steering variant from control unit Electronic ignition lock is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic ignition switch control unit
				Diagnosis delay time	1500 ms

POSSIBLE CAUSE

- Electronic ignition switch control unit

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22FB” detected?

YES >> Proceed to CCS-291, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581770

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch cont unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C22FC STEERING VARIANT SIGNAL IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581771

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22FC	00	Steering variant signal is implausible [CAN signal Steering variant from control unit Electronic ignition lock is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic ignition switch control unit
				Diagnosis delay time	1500 ms

POSSIBLE CAUSE

- Electronic ignition switch control unit

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22FC” detected?

YES >> Proceed to CCS-292, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581772

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch cont unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C22FD ELECTRIC PKB SIGNAL IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581773

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22FD	00	Electric PKB signal is implausible [CAN signal Electric parking brake from control unit Electric parking brake is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electric parking brake control module
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- Electric parking brake control module

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22FD” detected?

YES >> Proceed to CCS-293, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581774

1.PERFORM SELF-DIAGNOSIS OF ELECTRIC PARKING BRAKE CONTROL MODULE

With CONSULT

Perform self-diagnosis for “EHS/PKB”. Refer to PB-18, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PB-24, "DTC Index".
NO >> INSPECTION END

C22FF STATUS SIGNAL FROM ESP IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581775

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C22FF	00	Status signal from ESP is implausible [CAN signal Status from control unit ESP is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C22FF” detected?

YES >> Proceed to CCS-294, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581776

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C2303 RADAR IS MALFUNCTION

DTC Description

INFOID:0000000013581777

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2303	00	Radar is malfunction [Component (DISTRONIC electric controller unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	—
				Threshold	Internal malfunction
				Diagnosis delay time	Immediately

POSSIBLE CAUSE

- Internal malfunction

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2303” detected?

YES >> Proceed to CCS-295, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581778

1.CHECK BATTERY VOLTAGE

1. Check the battery voltage must be between 11V and 14V.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.PERFORM CONFIGURATION

Perform the configuration of ICC sensor. Refer to CCS-70, "Description".

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

1. Erase self diagnostic result.
2. Turn ignition switch OFF
3. Start the engine.
4. Perform self-diagnosis again.

Is DTC “C2303” detected?

YES >> Replace the ICC sensor. Refer to CCS-340, "Removal and Installation".
NO >> INSPECTION END

C2304 WHEEL SPEED FROM ESP IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581779

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2304	00	Wheel speed from ESP is implausible [CAN signal Wheel speed from control unit ESP is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	200 – 500 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2304” detected?

YES >> Proceed to CCS-296, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581780

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C2305 WHEEL SPEED FROM ESP IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581781

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2305	00	Wheel speed from ESP is implausible [CAN signal Wheel speed from control unit ESP is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	—

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2305” detected?

YES >> Proceed to CCS-297, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581782

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C2306 NO CAN SIGNAL RECEIVED FROM IGN LOCK

DTC Description

INFOID:0000000013581783

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2306	00	No CAN signal received from IGN lock [No CAN message was received from control unit Electronic ignition lock.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	CAN messages from electronic stability program control unit is missing
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- CAN communication malfunction
- Electronic stability program control unit

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2306” detected?

YES >> Proceed to CCS-298, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581784

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C2307 NO CAN SIGNAL RECEIVED FROM ESP

DTC Description

INFOID:0000000013581785

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2307	00	No CAN signal received from ESP [No CAN message was received from control unit ESP.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	CAN messages from electronic stability program control unit is missing
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- CAN communication malfunction
- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2307” detected?

YES >> Proceed to CCS-299, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581786

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C2308 NO CAN SIGNAL RECEIVED FROM IGN LOCK

DTC Description

INFOID:0000000013581787

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2308	00	No CAN signal received from IGN lock [No CAN message was received from control unit Electronic ignition lock.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	CAN messages from electronic ignition switch control unit is missing
				Diagnosis delay time	3 s

POSSIBLE CAUSE

- CAN communication malfunction
- Electronic ignition switch control unit

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2308” detected?

YES >> Proceed to CCS-300, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581788

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electronic ignition switch control unit. Refer to PCS-47, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C2309 NO CAN SIGNAL RECEIVED FROM IGN LOCK

DTC Description

INFOID:0000000013581789

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2309	00	No CAN signal received from IGN lock [No CAN message was received from control unit Electronic ignition lock.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	CAN messages from electronic ignition switch control unit is missing
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- CAN communication malfunction
- Electronic ignition switch control unit

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2309” detected?

YES >> Proceed to CCS-301, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581790

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electronic ignition switch control unit. Refer to PCS-47, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C230A CAN SIGNAL FROM IGN LOCK IS MALF

DTC Description

INFOID:0000000013581791

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C230A	00	CAN signal from IGN lock is malf The CAN message [The CAN message from control unit Electronic ignition lock is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic ignition switch control unit
				Diagnosis delay time	20 ms

POSSIBLE CAUSE

- CAN communication malfunction
- Electronic ignition switch control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C230A” detected?

YES >> Proceed to CCS-302, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581792

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch cont unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C230B CAN SIGNAL FROM IGN LOCK IS MALF

DTC Description

INFOID:0000000013581793

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C230B	00	CAN signal from IGN lock is malf [The CAN message from control unit Electronic ignition lock is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic ignition switch control unit
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- Electronic ignition switch control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C230B” detected?

YES >> Proceed to CCS-303, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581794

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch cont unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C230C CAN SIGNAL FROM IGN LOCK IS MALF

DTC Description

INFOID:0000000013581795

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C230C	00	CAN signal from IGN lock is malf [The CAN message [The CAN message from control unit Electronic ignition lock is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic ignition switch control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Electronic ignition switch control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C230C” detected?

YES >> Proceed to CCS-304, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581796

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch cont unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C230D INVALID DATA RECEIVED FROM VDCM

DTC Description

INFOID:0000000013581797

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C230D	00	Invalid data received from VDCM [The CAN message from control unit Electronic stability program is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C230D” detected?

YES >> Proceed to CCS-305, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581798

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C230E CAN SIGNAL FROM IGN LOCK IS MALF

DTC Description

INFOID:0000000013581799

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C230E	00	CAN signal from IGN lock is malf [The CAN message from control unit Electronic ignition lock is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic ignition switch control unit
				Diagnosis delay time	1500 ms

POSSIBLE CAUSE

- Electronic ignition switch control unit

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C230E” detected?

YES >> Proceed to CCS-306, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581800

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch cont unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C230F T/M MODE SIGNAL IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581801

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C230F	00	T/M mode signal is implausible [CAN signal Transmission mode from control unit Motor electronics is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from ECM
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- ECM

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C230F” detected?

YES >> Proceed to CCS-307, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581802

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C2310 T/M MODE SIGNAL IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581803

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2310	00	T/M mode signal is implausible [CAN signal Transmission mode from control unit Motor electronics is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from ECM
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- ECM

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2310” detected?

YES >> Proceed to CCS-308, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581804

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C2311 BRAKING TORQUE SIGNAL IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581805

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2311	00	Braking torque signal is implausible [CAN signal Braking torque from control unit ESP is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2311” detected?

YES >> Proceed to CCS-309, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581806

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C2312 DRIVER BELT BUCKLE SIGNAL IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581807

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2312	00	Driver belt buckle signal is implausible [CAN signal Belt buckle Driver from control unit (Supplemental restraint system control unit) is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from air bag diagnosis sensor unit
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- Air bag diagnosis sensor unit

FAIL-SAFE

- ICC not available / without function, speed limiter available

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2312” detected?

YES >> Proceed to CCS-310, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581808

1.PERFORM SELF-DIAGNOSIS OF AIR BAG DIAGNOSIS SENSOR UNIT

With CONSULT

Perform self-diagnosis for “AIR BAG”. Refer to SRC-16, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to SRC-20, "DTC Index".
NO >> INSPECTION END

C2313 DRIVER BELT BUCKLE SIGNAL IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581809

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2313	00	Driver belt buckle signal is implausible [CAN signal Belt buckle Driver from control unit (Supplemental restraint system control unit) is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from air bag diagnosis sensor unit
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- Air bag diagnosis sensor unit

FAIL-SAFE

- ICC not available / without function, speed limiter available

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2313” detected?

YES >> Proceed to CCS-311, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581810

1.PERFORM SELF-DIAGNOSIS OF AIR BAG DIAGNOSIS SENSOR UNIT

With CONSULT

Perform self-diagnosis for “AIR BAG”. Refer to SRC-16, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to SRC-20, "DTC Index".
NO >> INSPECTION END

C2314 MAX SPEED LIMIT SIGNAL IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581811

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2314	00	Max speed limit signal is implausible [CAN signal Maximum vehicle speed limit from control unit Electronic ignition lock is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic ignition switch control unit
				Diagnosis delay time	1500 ms

POSSIBLE CAUSE

- Electronic ignition switch control unit

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2314” detected?

YES >> Proceed to CCS-312, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581812

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch cont unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C2315 INVALID DATA RECEIVED FROM VDCM

DTC Description

INFOID:0000000013581813

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2315	00	Invalid data received from VDCM [The CAN message from control unit Electronic stability program is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	20 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- No restriction system works with replacement strategy

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2315” detected?

YES >> Proceed to CCS-313, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581814

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C2316 INVALID DATA RECEIVED FROM VDCM

DTC Description

INFOID:0000000013581815

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2316	00	Invalid data received from VDCM [The CAN message from control unit Electronic stability program is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2316” detected?

YES >> Proceed to CCS-314, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581816

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C2317 NO CAN SIGNAL RECEIVED FROM ESP

DTC Description

INFOID:0000000013581817

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2317	00	No CAN signal received from ESP [No CAN message was received from control unit ESP.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	CAN messages from electronic stability program control unit is missing
				Diagnosis delay time	1 s

POSSIBLE CAUSE

- CAN communication malfunction
- Electronic stability program control unit

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2317” detected?

YES >> Proceed to CCS-315, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581818

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C2318 NO CAN SIGNAL RECEIVED FROM ESP

DTC Description

INFOID:0000000013581819

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2318	00	No CAN signal received from ESP [No CAN message was received from control unit ESP.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	CAN messages from electronic stability program control unit is missing
				Diagnosis delay time	1 s

POSSIBLE CAUSE

- CAN communication malfunction
- Electronic stability program control unit

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2318” detected?

YES >> Proceed to CCS-316, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581820

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C2319 NO CAN SIG RECEIVED FROM PARKING SYS

DTC Description

INFOID:0000000013581821

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2319	00	No CAN sig received from parking sys [No CAN message was received from control unit (Parking system control unit).]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	CAN messages from sonar control unit is missing
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- CAN communication malfunction
- Sonar control unit

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2319” detected?

YES >> Proceed to CCS-317, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581822

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the sonar control unit. Refer to SN-200, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C231A INVALID DATA RECEIVED FROM VDCM

DTC Description

INFOID:0000000013581823

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C231A	00	Invalid data received from VDCM [The CAN message from control unit Electronic stability program is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	200 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C231A” detected?

YES >> Proceed to CCS-318, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581824

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C231B INVALID DATA RECEIVED FROM VDCM

DTC Description

INFOID:0000000013581825

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C231B	00	Invalid data received from VDCM [The CAN message from control unit Electronic stability program is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	200 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C231B” detected?

YES >> Proceed to CCS-319, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581826

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C231C CAN SIGNAL FROM SONAR IS MALF

DTC Description

INFOID:0000000013581827

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C231C	00	CAN signal from E-PKB is malf [The CAN message from control unit (Parking system control unit) is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from sonar control unit
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- Sonar control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C231C” detected?

YES >> Proceed to CCS-320, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581828

1.PERFORM SELF-DIAGNOSIS OF SONAR CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Parking assist”. Refer to SN-30, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to SN-39, "DTC Index".
NO >> INSPECTION END

C231E INVALID DATA RECEIVED FROM VDCM

DTC Description

INFOID:0000000013581829

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C231E	00	Invalid data received from VDCM [The CAN message from control unit Electronic stability program is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	1 s

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C231E” detected?

YES >> Proceed to CCS-321, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581830

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C231F INVALID DATA RECEIVED FROM VDCM

DTC Description

INFOID:0000000013581831

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C231F	00	Invalid data received from VDCM [The CAN message from control unit Electronic stability program is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	1 s

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C231F” detected?

YES >> Proceed to CCS-322, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581832

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C2320 INVALID DATA RECEIVED FROM VDCM

DTC Description

INFOID:0000000013581833

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2320	00	Invalid data received from VDCM [The CAN message from control unit Electronic stability program is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	1 s

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2320” detected?

YES >> Proceed to CCS-323, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581834

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C2321 INVALID DATA RECEIVED FROM VDCM

DTC Description

INFOID:0000000013581835

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2321	00	Invalid data received from VDCM [The CAN message from control unit Electronic stability program is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	1 s

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2321” detected?

YES >> Proceed to CCS-324, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581836

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C2322 BRAKE STATUS FROM ESP IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581837

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2322	00	Brake status from ESP is implausible [CAN signal Status Brake from control unit ESP is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	3200 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2322” detected?

YES >> Proceed to CCS-325, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581838

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C2323 BODY VARIANT SIGNAL IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581839

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2323	00	Body variant signal is implausible [CAN signal Body variant from control unit Electronic ignition lock is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic ignition switch control unit
				Diagnosis delay time	1500 ms

POSSIBLE CAUSE

- Electronic ignition switch control unit

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2323” detected?

YES >> Proceed to CCS-326, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581840

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch cont unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C2324 MODEL SERIES SIGNAL IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581841

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2324	00	Model series signal is implausible [CAN signal Model series from control unit Electronic ignition lock is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic ignition switch control unit
				Diagnosis delay time	1500 ms

POSSIBLE CAUSE

- Electronic ignition switch control unit

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2324” detected?

YES >> Proceed to CCS-327, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581842

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch cont unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C2325 BRAKE STATUS FROM ESP IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581843

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2325	00	Brake status from ESP is implausible [CAN signal Status Brake from control unit ESP is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	1 s

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2325” detected?

YES >> Proceed to CCS-328, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581844

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C232C NO CAN SIGNAL RECEIVED FROM IGN LOCK

DTC Description

INFOID:0000000013581845

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C232C	00	No CAN signal received from IGN lock [No CAN message was received from control unit Electronic ignition lock.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	CAN messages from electronic ignition switch control unit is missing
				Diagnosis delay time	3 s

POSSIBLE CAUSE

- Electronic ignition switch control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C232C” detected?

YES >> Proceed to CCS-329, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581846

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electronic ignition switch control unit. Refer to PCS-47, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C232D CAN SIGNAL FROM IGN LOCK IS MALF

DTC Description

INFOID:0000000013581847

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C232D	00	CAN signal from IGN lock is malf [The CAN message from control unit Electronic ignition lock is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic ignition switch control unit
				Diagnosis delay time	300 ms

POSSIBLE CAUSE

- Electronic ignition switch control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C232D” detected?

YES >> Proceed to CCS-330, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581848

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch cont unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C232E CAN SIGNAL FROM IGN LOCK IS MALF

DTC Description

INFOID:0000000013581849

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C232E	00	CAN signal from IGN lock is malf [The CAN message from control unit Electronic ignition lock is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic ignition switch control unit
				Diagnosis delay time	1500 ms

POSSIBLE CAUSE

- Electronic ignition switch control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON and wait for 15 seconds.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C232E” detected?

YES >> Proceed to CCS-331, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581850

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC IGNITION SWITCH CONTROL UNIT

With CONSULT

Perform self-diagnosis for “Electric ign switch cont unit”. Refer to PCS-8, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to PCS-12, "DTC Index".
NO >> INSPECTION END

C2330 NO CAN SIG RECEIVED FROM MOTOR ELEC

DTC Description

INFOID:0000000013581851

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2330	00	No CAN sig received from motor elec [No CAN message was received from control unit Motor electronics.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	CAN messages from ECM is missing
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- CAN communication malfunction
- ECM

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2330” detected?

YES >> Proceed to CCS-332, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581852

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the ECM. Refer to EC-142, "DTC Index".
NO >> Repair or replace the malfunctioning parts.

C2331 INVALID DATA RECEIVED FROM ECM/PCM A

DTC Description

INFOID:0000000013581853

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2331	00	Invalid data received from ECM/PCM A [The CAN message from control unit Motor electronics is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from ECM
				Diagnosis delay time	100 ms

POSSIBLE CAUSE

- ECM

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2331” detected?

YES >> Proceed to CCS-333, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581854

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C2332 NO CAN SIGNAL RECEIVED FROM ESP

DTC Description

INFOID:0000000013581855

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2332	00	No CAN signal received from ESP [No CAN message was received from control unit ESP.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	CAN messages from electronic stability program control unit is missing
				Diagnosis delay time	5 s

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- ICC and speed limiter not available / without function

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2332” detected?

YES >> Proceed to CCS-334, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581856

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

Perform the trouble diagnosis for CAN communication system. Refer to LAN-58, "Trouble Diagnosis Flow Chart".

Is the inspection result normal?

YES >> Replace the electronic stability program control unit. Refer to BRC-975, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

C2333 INVALID DATA RECEIVED FROM VDCM

DTC Description

INFOID:0000000013581857

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2333	00	Invalid data received from VDCM [The CAN message from control unit 'Electronic stability program' is malfunction.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2333” detected?

YES >> Proceed to CCS-335, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581858

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

C2334 T/M MODE SIGNAL IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581859

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2334	00	T/M mode signal is implausible [CAN signal Transmission mode from control unit Motor electronics is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from ECM
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- ECM

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2334” detected?

YES >> Proceed to CCS-336, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581860

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C2335 T/M MODE SIGNAL IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581861

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2335	00	T/M mode signal is implausible [CAN signal Transmission mode from control unit Motor electronics is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from ECM
				Diagnosis delay time	500 ms

POSSIBLE CAUSE

- ECM

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2335” detected?

YES >> Proceed to CCS-337, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581862

1.PERFORM SELF-DIAGNOSIS OF ECM

With CONSULT

Perform self-diagnosis for “ENGINE”. Refer to EC-97, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to EC-142, "DTC Index".
NO >> INSPECTION END

C2336 T/M MODE SIGNAL IS IMPLAUSIBLE

DTC Description

INFOID:0000000013581863

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C2336	00	T/M mode signal is implausible [CAN signal Transmission mode from control unit Motor electronics is implausible.]	[NO SUBTYPE INFORMATION] [No subtype information]	Diagnosis condition	Ignition switch ON
				Signal (terminal)	CAN communication signal
				Threshold	Control unit receive the invalid data from electronic stability program control unit
				Diagnosis delay time	2500 ms

POSSIBLE CAUSE

- Electronic stability program control unit

FAIL-SAFE

- No restriction system works with replacement strategy

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION

With CONSULT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Perform self-diagnosis for “ICC sensor”.

Is DTC “C2336” detected?

YES >> Proceed to CCS-338, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013581864

1.PERFORM SELF-DIAGNOSIS OF ELECTRONIC STABILITY PROGRAM CONTROL UNIT

With CONSULT

Perform self-diagnosis for “ABS”. Refer to BRC-49, "CONSULT Function".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-59, "DTC Index".
NO >> INSPECTION END

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000013581865

1.CHECK FUSES

Check if any of the following fuses are blown:

Signal name	Fuse No.
Battery power supply	224

Is the inspection result normal?

YES >> GO TO 2.
NO >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.

2.CHECK ICC SENSOR POWER SUPPLY CIRCUIT

Check voltage between ICC sensor harness connector and ground.

Terminal			Condition	Voltage (Approx.)
(+)		(–)		
ICC sensor		Ground	Ignition switch	
Connector	Terminal			
E29	8		OFF	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair the ICC sensor power supply circuit.

3.CHECK ICC SENSOR GROUND CIRCUIT

1. Disconnect the ICC sensor connector.
2. Check for continuity between ICC sensor harness connector and ground.

ICC sensor		Ground	Continuity
Connector	Terminal		
E29	1		Existed

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair the ICC sensor ground circuit.

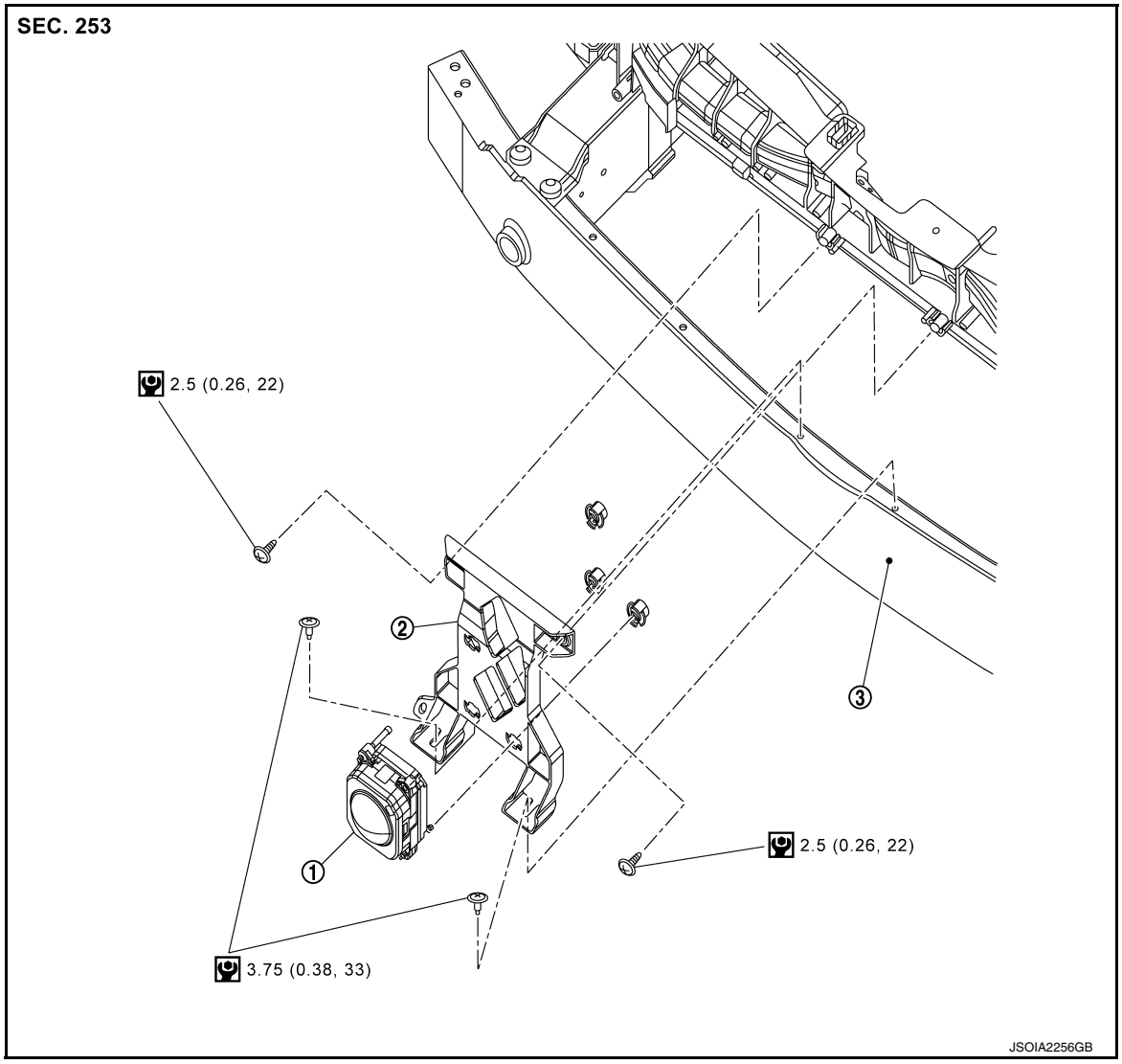
REMOVAL AND INSTALLATION

ICC SENSOR

Exploded View

INFOID:0000000013581866

CAUTION:
Always perform the ICC sensor alignment after the replacement, removal and installation of ICC sensor. Refer to CCS-58, "Application Notice".



① ICC sensor ② Bracket ③ Front bumper reinforcement

: N·m (kg-m, in-lb)

Removal and Installation

INFOID:0000000013581867

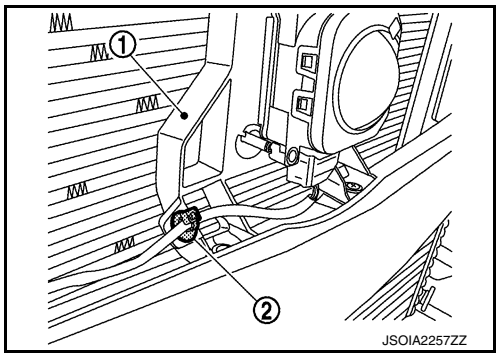
REMOVAL

CAUTION:
Always perform the ICC sensor alignment after the replacement, removal and installation of ICC sensor. Refer to CCS-58, "Application Notice".

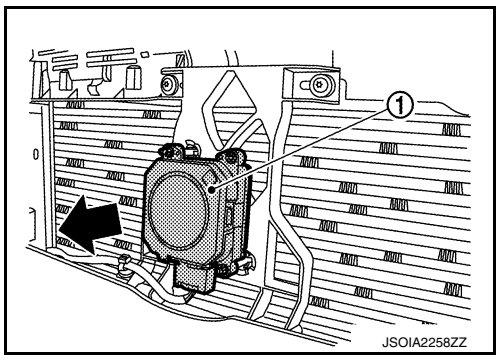
1. Turn ignition switch OFF and remove the key-fob from electronic ignition lock control unit.
2. Remove front bumper fascia. Refer to EXT-21, "Removal and Installation".
   NOTE:

When remove ICC sensor alone, remove front emblem and then proceed to step 4.

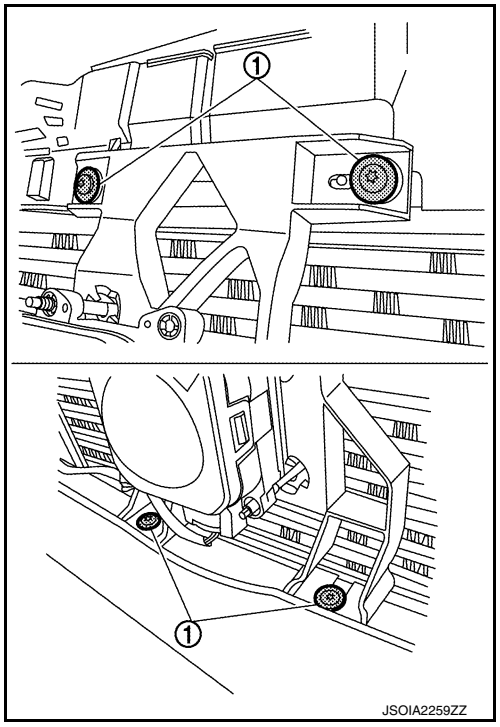
3. Remove ICC sensor harness ② from ICC sensor bracket ①.



4. Pull ICC sensor ① to remove it from the bracket.



5. Disconnect ICC sensor connector.
6. Remove mounting screws ①.



7. Remove ICC sensor bracket.

INSTALLATION

Install in the reverse order of removal.

CAUTION:

- **Always perform the ICC sensor alignment after the replacement, removal and installation of ICC sensor. Refer to CCS-58, "Application Notice".**
- **After replacing ICC sensor, perform additional service when replace ICC sensor. Refer to CCS-54, "Description".**

PRECAUTION

PRECAUTIONS

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

INFOID:0000000013581869

Risk of injury

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

Safety instructions/precautions

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

Precautions for Removing Battery Terminal

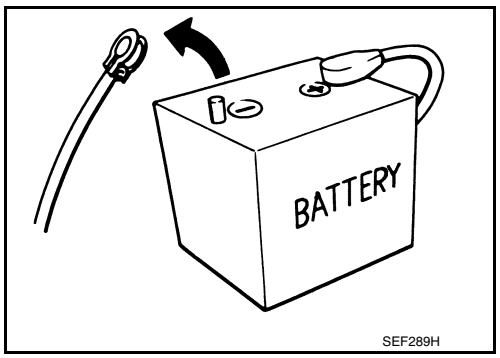
INFOID:0000000013581870

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

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

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

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



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

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

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

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

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

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

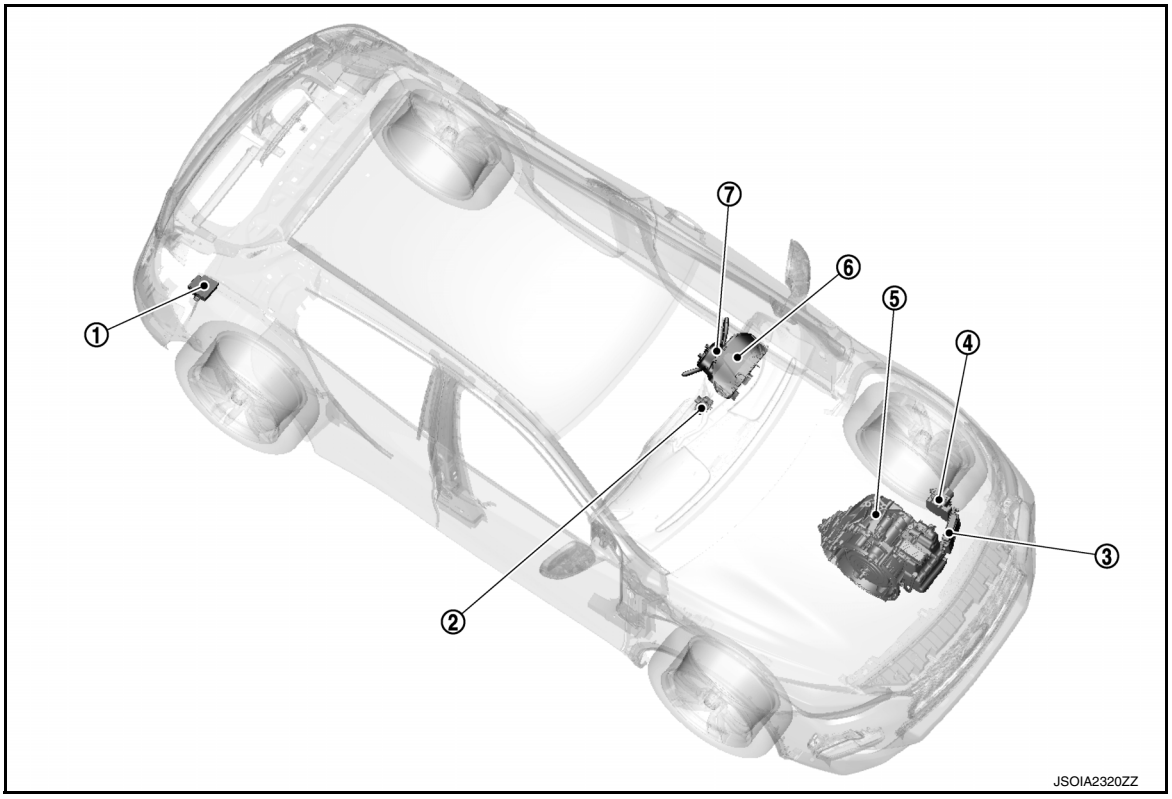
NOTE:
The removal of 12V battery may cause a DTC detection error.

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000013581871



×: Applicable

No.	Component	Description
①	Electric parking brake control module	• Transmits parking brake status signal • Refer to BRC-29, "Component Parts Location" for detailed installation location
②	Electric ignition switch control unit	• Transmits/Receives set maximum speed status signal, speed setting status signal, and meter display signal • Refer to PCS-5, "Component Parts Location" for detailed installation location
③	ECM	• Transmits mainly the following signals - Engine running signal - Drive operational signal - Gear range status signal - Acceleratetor pedal position signal • Refer to EC-27, "Component Parts Location" for detailed installation location
④	Electric stability program control unit	• Electric stability program control unit contains the control for the ASCD and ASL. • Refer to BRC-29, "Component Parts Location" for detailed installation location
⑤	TCM	• Transmits the gear range signal • Refer to TM-17, "Component Parts Location" for detailed installation location
⑥	Combination meter	• Performs the following operations using the received signals - Displays the ASCD or ASL operation status: CCS-351, "AUTOMATIC SPEED CONTROL DEVICE (ASCD) : Menu Displayed by Pressing Each Switch" (ASCD) or CCS-352, "SPEED LIMITER : Menu Displayed by Pressing Each Switch" (ASL) • Operates warning buzzer • Refer to MWI-7, "METER SYSTEM : Component Parts Location" for detailed installation location
⑦	Steering column control module	• Transmits cruise control lever signal • Refer to BCS-8, "BODY CONTROL SYSTEM : Component Parts Location" for detailed installation location

SYSTEM

Cruise Control Function

INFOID:0000000013581872

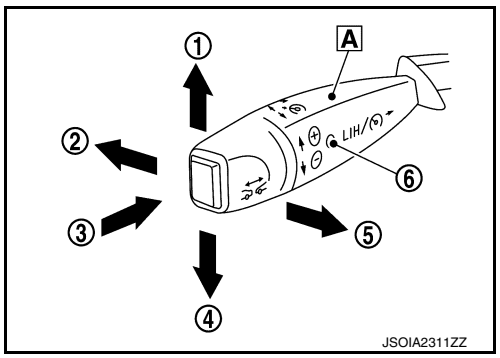
FUNCTION REQUIREMENTS, GENERAL

- Engine running or drivetrain operational
- Gear range D engaged
- Vehicle speed 30 km/h (18.6 MPH) up to the maximum speed

CRUISE CONTROL, GENERAL

The cruise control regulates the vehicle speed constantly and automatically to the desired speed set by the driver. To do this, the cruise control evaluates the driver's commands and the current driving condition.
Evaluation of these variables takes place dependent both model and installed equipment by the Electronic Stability Program control unit.

Operation over the cruise control lever



A : Cruise control lever
① : Accelerate and set switch
② : Switch OFF switch
③ : Speed limiter switch (With variable speed limiter)
④ : Decelerate and set switch
⑤ : Resume from memory switch
⑥ : Speed limiter LED (With variable speed limiter)

The cruise control is activated using the resume from memory switch. Here the last stored or momentary vehicle speed is set as the set speed.
Using the switches decelerate and set and the switches accelerate and set, the target speed can be altered in steps of 1 km/h (0.6 MPH) or 10 km/h (6.2 MPH).
Actuation up to the actuation point increases the set speed by 1km/h (0.6 MPH).
If the switch is pressed beyond the actuation point, the target speed is altered in steps of 10 km/h (6.2 MPH).
If the switch is held at or beyond the actuation point, the target speed is altered every 0.6 s.

THE FOLLOWING INPUT FACTORS ARE EVALUATED TO IMPLEMENT THE CC FUNCTION

- Operating condition of engine/drivetrain (function requirements)
- Engaged gear range (function requirements)
- Vehicle speed (function requirements)
- Driver request via the cruise control lever
- Accelerator pedal position

Operating Condition for Engine/Drivetrain:
The ECM transmits the signal engine running or drivetrain operational via the CAN communication to the electronic stability program control unit.

Engaged Gear Range:
The fully integrated transmission control unit transmits information about the gear range via drive train CAN, the ECM transmits the signal engine running or drivetrain operational via the CAN communication to the electronic stability program control unit.

Vehicle Speed:
The vehicle speed is calculated by the Electronic Stability Program control unit from the wheel speeds.

Driver request via the cruise control lever:
The steering column tube module control unit directly reads in the driver requests via the cruise control lever and transmits this via CAN communication to the electronic stability program control unit.

Accelerator Pedal Position:
The ECM transmits information about the accelerator pedal position via the CAN communication to the Electronic Stability Program control unit.

THE FOLLOWING INITIAL PARAMETERS (REQUEST) ARE ISSUED TO IMPLEMENT THE CRUISE CONTROL FUNCTION
- Increase/reduce engine torque
- Engage targeted gear
- Increase/reduce the braking torque

Raise/Reduce Engine Torque:
The electronic stability program control unit evaluates the input factors as well as further driving dynamic requests and transmits the request increase/reduce engine torque via CAN communication to the ECM.
The ECM implements this request appropriately.

Engage Targeted gear:
The electronic stability program control unit evaluates the input factors as well as further driving dynamic requests and transmits the request engage targeted gear via CAN communication to the ECM and CAN communication to the TCM. The request engage targeted gear should be understood as a switching recommendation. Downshifting or upshifting of the A/T takes place autonomously itself by the TCM, dependent on the current operating condition.

Raise/Reduce Braking Torque:
The electronic stability program control unit evaluates the input factors and actuates the traction system hydraulic unit appropriately. The traction system hydraulic unit reacts by increasing or reducing the braking torque.

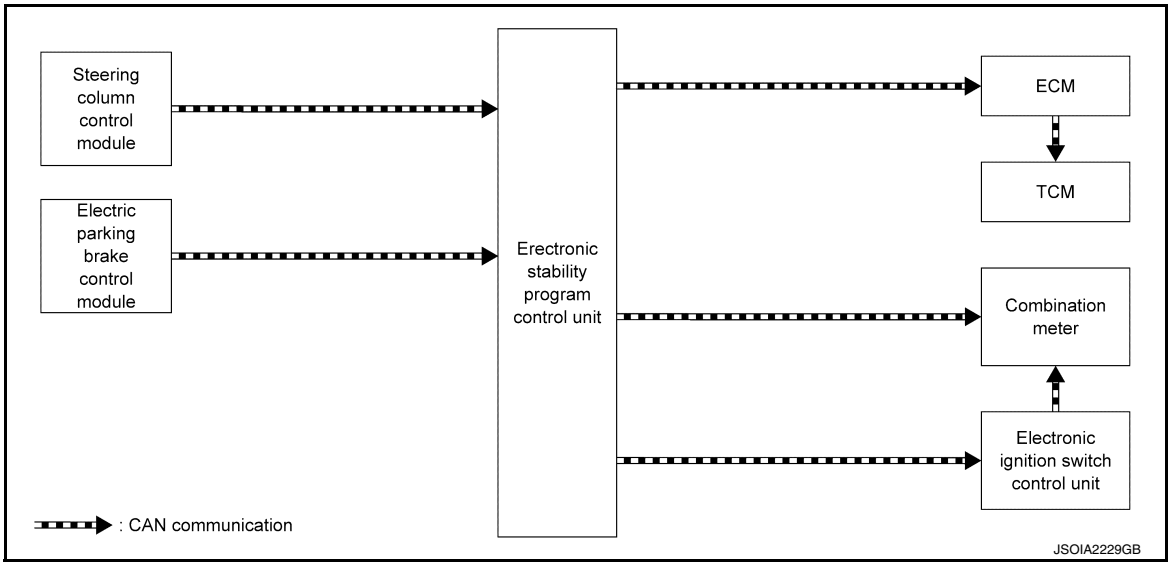
The Cruise Control Function Includes The Following Sub-functions:
- Function sequence for automatic speed control
- Function sequence for speed limiter

AUTOMATIC SPEED CONTROL DEVICE (ASCD)

AUTOMATIC SPEED CONTROL DEVICE (ASCD) : System Description

INFOID:0000000013581873

SYSTEM DIAGRAM



ELECTRIC STABILITY PROGRAM CONTROL UNIT INPUT/OUTPUT SIGNAL ITEM

Input Signal Item

Transmit unit	Signal name		Description
Steering column control module	CAN communication	Cruise control lever signal	Receives cruise control lever state
Electric parking brake control module	CAN communication	Parking brake status signal	Receives parking brake state
ECM	CAN communication	Engine running signal	Receives engine running state
		Drivetrain operation signal	Receives drivetrain operation state
		Gear range signal	Receives gear range signal
		Accelerator pedal position signal	Receives accelerator pedal state
Combination meter	CAN communication	Set maximum speed status signal	Receives maximum speed status

Output Signal Item

Reception unit	Signal name		Description
Electronic ignition switch control unit	CAN communication	Speed setting signal	Transmits setting speed
		Meter display signal	Transmits meter display request
Combination meter	CAN communication	Speed setting signal	Transmits setting speed
		Meter display signal	Transmits meter display request
ECM	CAN communication	Engine torque reduction request signal	Transmits engine torque reduction request
		Engine torque increase request signal	Transmits engine torque increase request
		Engage target gear request signal	Transmits engage target gear request
TCM	CAN communication	Engage target gear request signal	Transmits engage target gear request

ADDITIONAL AUTOMATIC SPEED CONTROL FUNCTION REQUIREMENTS

- Cruise control selected with speed limiter switch (speed limiter light-emitting diode does not light up)
- Vehicle dynamics control (VDC) not switched to passive to the electronic stability program control unit and for mode

FUNCTION SEQUENCE FOR AUTOMATIC SPEED CONTROL

Through actuation of the “Resume from memory” switch the last set speed stored is applied, provided a set speed was stored since the last engine start. If no set speed was stored, the current vehicle speed is set as the set speed. The set speed is displayed in the speedometer. To do this the Electronic Stability Program control unit sends the corresponding information via CAN communication, electronic ignition lock control unit and CAN communication to the instrument cluster.

The following events lead to deactivation of the automatic speed control:

- Operation of the OFF switch
- Depressing the brake pedal
- Active regulation of the VDC
- Speed more than 25 km/h (15.5 MPH)
- Electric parking brake activated
- Gear range is not “D”

The electric parking brake control unit transmits the status of the electric parking brake via CAN communication to the Electronic Stability Program control unit. ECM transmits information about the clutch pedal position via the CAN communication to the electronic stability program control unit.

The following activities are started in order to reach or maintain the set speed:

- Increase/reduce engine torque
- Engage targeted gear (back or upshift)
- Increase/reduce the braking torque

The driver also has the option to accelerate beyond the set target speed through actuation of the accelerator pedal (for example when overtaking).

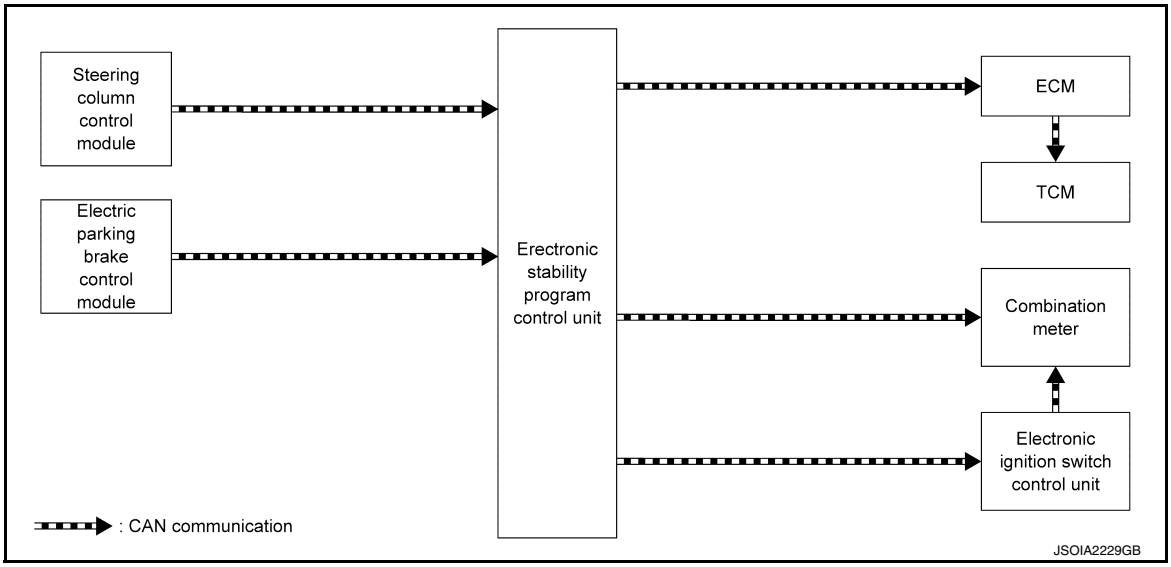
The set speed is regulated again after removal of the acceleration request (releasing the accelerator pedal).

SPEED LIMITER

SPEED LIMITER : System Description

INFOID:0000000013581874

SYSTEM DIAGRAM



ELECTRIC STABILITY PROGRAM CONTROL UNIT INPUT/OUTPUT SIGNAL ITEM (WITHOUT ICC)

Input Signal Item

Transmit unit	Signal name		Description
Steering column control module	CAN communication	Cruise control lever signal	Receives cruise control lever state
Electric parking brake control module	CAN communication	Parking brake status signal	Receives parking brake state
ECM	CAN communication	Engine running signal	Receives engine running state
		Drivetrain operation signal	Receives drivetrain operation state
		Gear range signal	Receives gear range signal
		Accelerator pedal position signal	Receives accelerator pedal state
Combination meter	CAN communication	Set maximum speed status signal	Receives maximum speed status

Output Signal Item

Reception unit	Signal name		Description
Electronic ignition switch control unit	CAN communication	Speed setting signal	Transmits setting speed
		Meter display signal	Transmits meter display request
Combination meter	CAN communication	Speed setting signal	Transmits setting speed
		Meter display signal	Transmits meter display request
ECM	CAN communication	Engine torque reduction request signal	Transmits engine torque reduction request
		Engine torque increase request signal	Transmits engine torque increase request
		Engage target gear request signal	Transmits engage target gear request
TCM	CAN communication	Engage target gear request signal	Transmits engage target gear request

FUNCTION SEQUENCE FOR SPEED LIMITER

The speed limiter function comprises the following sub-functions:

- Function sequence for variable speed limiter (With variable speed limiter)

- Function sequence for permanent limiter

ADDITIONAL FUNCTION REQUIREMENTS FOR VARIABLE SPEED LIMITER

- Variable speed limiter selected with speed limiter switch

NOTE:
The speed limiter light-emitting diode is actuated by the switching logic integrated in the CRUISE CONTROL lever.

- VDC not switched passively
- No “kickdown” recognized

FUNCTION SEQUENCE FOR VARIABLE SPEED LIMITER

The maximum speed of the vehicle can be limited at any time to a freely selectable value [(e.g. 50 km/h (31.1 MPH) in urban traffic] over the variable speed limiter.
The driver can accelerate the vehicle up to the set limit. If the set limit was reached, the following activities are started:

- Reduce engine torque
- Engage targeted gear
- Raise braking torque

NOTE:
If switching takes place on the variable speed limiter on the cruise control lever, the automatic speed control is deactivated.

NOTE:
The following events deactivate the variable speed limiter:

- Operation of the OFF switch
- Kickdown (accelerator pedal pressed by more than 90% and vehicle speed 20 km/h (12.4 MPH) difference from selected maximum speed)

FUNCTION SEQUENCE FOR PERMANENT LIMITER

The maximum speed of the vehicle can be limited in steps of 10 km/h (6.2 MPH) from 160 km/h (99.4 MPH) to km/h up to the maximum speed.
Adjustment of the maximum speed takes place in the menu “Settings”, “Vehicle” and “Limitation (winter tires)” in the combination meter.
To do this the combination meter sends the set maximum speed via CAN communication, electronic ignition lock control unit and CAN communication to the electronic stability program control unit.
Approximately 10 km/h (6.2 MPH) before reaching the set maximum speed a message appears in the combination meter multifunction display that indicates a maximum speed limitation.
To do this The Electronic Stability Program control unit sends the request to output this message via CAN communication, electronic ignition lock control unit and CAN communication to the combination meter.

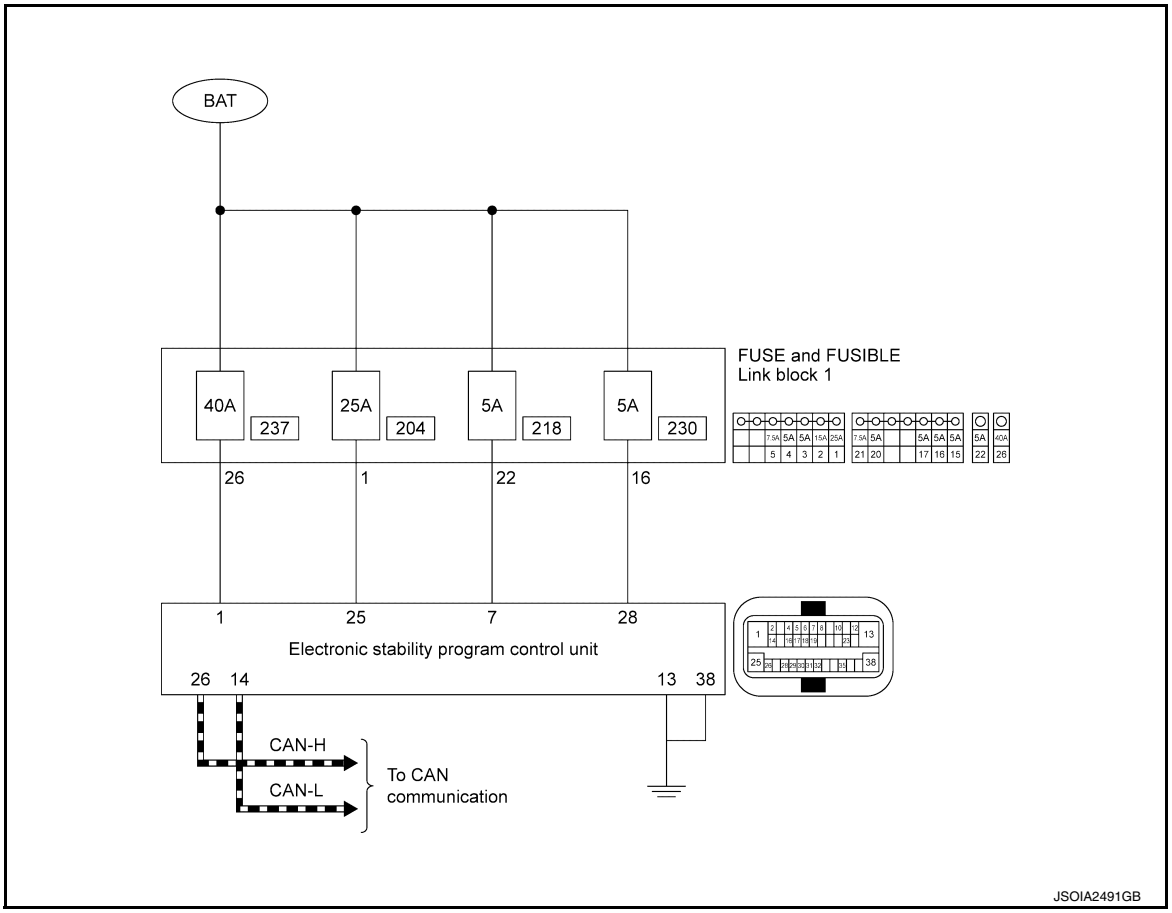
NOTE:
The DISTRONIC controller unit transmits the respective request via CAN communication to the combination meter.

The driver can accelerate the vehicle up to the set maximum speed.
If the maximum speed was reached the following activities are started:

- Reduce engine torque
- Engage targeted gear (shift down)
- Raise braking torque

Circuit Diagram

INFOID:0000000013581875



INFORMATION DISPLAY (COMBINATION METER)

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

INFOID:0000000013581876

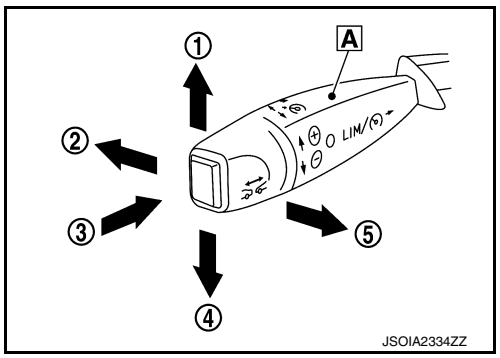
System name	Design	Warning message	Description
ASCD	—	Cruise control inoperative	The ASCD system is temporarily inoperative due to a malfunction.
Speed limiter	—	Speed limiter inoperative	The speed limiter system is temporarily inoperative due to a malfunction.
		Speed limiter suspended	While depressing the accelerator pedal beyond the pressure point (kickdown), speed limiter cannot beactivated. If conditions permit, drive faster than 30km/h (18.6 MPH) and store the speed.

OPERATION

AUTOMATIC SPEED CONTROL DEVICE (ASCD)

AUTOMATIC SPEED CONTROL DEVICE (ASCD) : Switch Name and Function

INFOID:0000000013581877



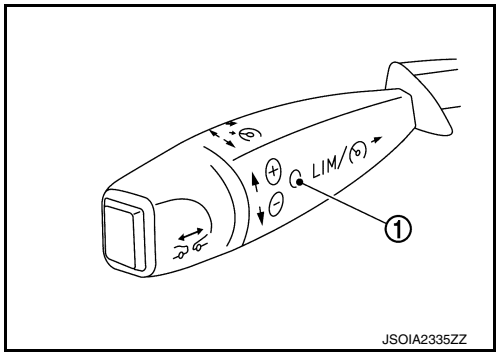
A : Cruise Control Lever

No.	Description	Function
①	Accelerate and set switch	Store the current speed or a higher speed
②	Switch OFF switch	Deactivate the ASCD system
③	Speed limiter switch	Switch between cruise control and variable speed limiter
④	Decelerate and set switch	Store the current speed or a lower speed
⑤	Resume from memory switch	Store the current speed or call up the last store speed

AUTOMATIC SPEED CONTROL DEVICE (ASCD) : Menu Displayed by Pressing Each Switch

INFOID:0000000013581878

ASCD SYSTEM DISPLAY



No.	Description	Function
①	LIM indicator lamp (With variable speed limiter)	Indicates the status of selected system • Lamp ON: Speed limiter is ON • Lamp OFF: ASCD is ON

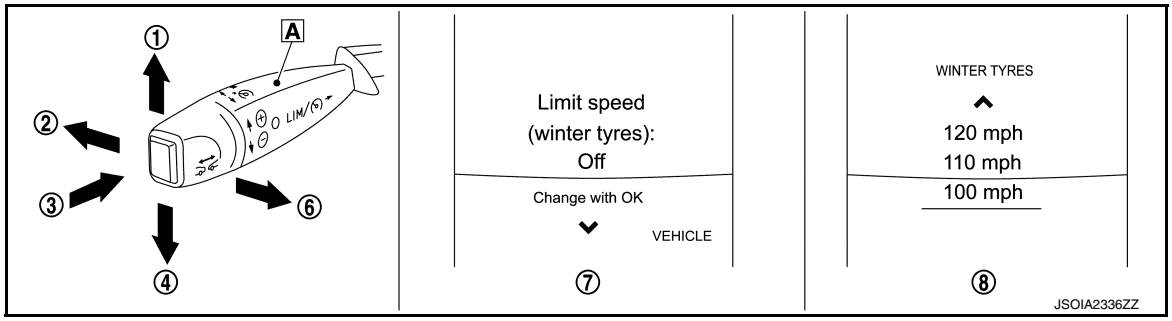
SPEED LIMITER

SPEED LIMITER : Switch Name and Function

INFOID:0000000013581879

SPEED LIMITER SYSTEM DISPLAY

Functions of each switch are listed in the following table.



A : Cruise control lever

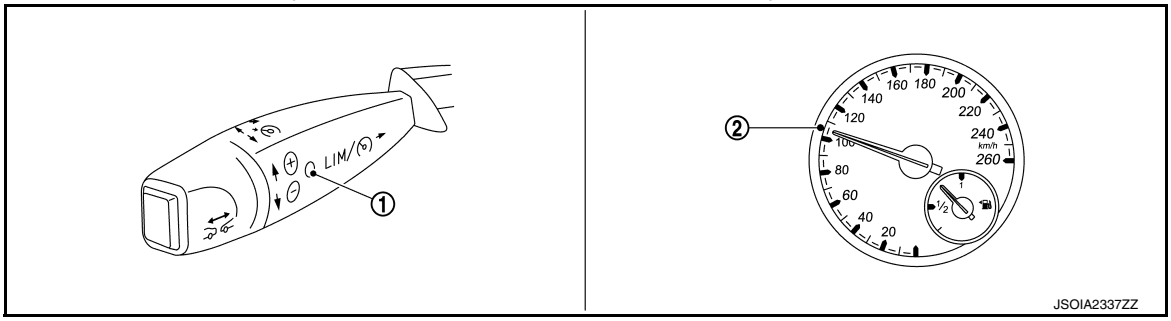
Switch Function

No.	Description	Function
①	Accelerate and set switch	Store the current speed or a higher speed
②	Switch OFF switch	Deactivate the variable speed limiter system
③	Speed limiter switch	Switch between cruise control and variable speed limiter
④	Decelerate and set switch	Store the current speed or a lower speed
⑥	Resume from memory switch	Store the current speed or call up the last store speed
⑦	Permanent speed limiter system setting display (Information display)	The setting of permanent speed limiter system can be switched between ON and OFF
⑧	Permanent speed limiter speed setting display (Information display)	Changes the setting speed of permanent speed limiter

SPEED LIMITER : Menu Displayed by Pressing Each Switch

INFOID:0000000013581880

SPEED LIMITER DISPLAY (ON THE INFORMATION DISPLAY)



No.	Description	Function
①	LIM indicator lamp	Indicates the status of selected system • Lamp ON: Speed limiter is ON • Lamp OFF: ICC is ON
②	Variable speed limiter stored speed	Indicates variable speed limiter stored speed

HANDLING PRECAUTION

Precautions for Automatic Speed Control Device (ASCD)

INFOID:0000000013581881

If driver fail to adapt driving style, cruise control can neither reduce the risk of an accident nor override the laws of physics. Cruise control cannot take into account road, weather or traffic conditions. Cruise control is only an aid. Driver are responsible for the distance to the vehicle in front, for vehicle speed, for braking in good time, and for staying in lane.
If there is a change of drivers, advise the new driver of the speed stored.

- Always observe the posted speed limits and do not set the speed over them.
- Do not use the cruise control when driving under the following conditions. Doing so could cause a loss of vehicle control and result in an accident.

- When it is not possible to keep the vehicle at a constant speed
- When driving in heavy traffic
- When driving in traffic that varies speed
- When driving in windy areas
- When driving on winding or hilly roads
- When driving on slippery (rain, snow, ice, etc.) roads

If driver call up a stored speed and this is different from the current speed, the vehicle accelerates or brakes. If driver do not know what the stored speed is, the vehicle may accelerate or brake unexpectedly. There is a risk of an accident.
Take the traffic conditions into account before calling up the stored speed. If driver do not know what the stored speed is, store the desired speed again.

Precautions for Speed Limiter

INFOID:0000000013581882

If driver fail to adapt driving style, the speed limiter can neither reduce the risk of an accident nor override the laws of physics. The speed limiter cannot take into account road, weather or traffic conditions. The speed limiter is only an aid. driver are responsible for the distance to the vehicle in front, for vehicle speed, for braking in good time, and for staying in lane.
If there is a change of drivers, advise the new driver of the speed stored.

- Always observe posted speed limits. Do not set the speed over them.
- Always confirm the setting status of the speed limiter on the vehicle information display.When the speed limiter is on, the cruise control or the Intelligent Cruise Control (ICC) system (where fitted) cannot be operated.

When the speed limiter is on, the cruise control or the Intelligent Cruise Control (ICC) system (where fitted) cannot be operated.
If driver call up the stored speed and it is lower than the current speed, the vehicle decelerates. If driver do not know the stored speed, the vehicle could decelerate unexpectedly. There is a risk of an accident.
Pay attention to the road and traffic conditions before calling up the stored speed. If driver do not know the stored speed, store the desired speed again.

DIAGNOSIS SYSTEM (ELECTRONIC STABILITY PROGRAM CONTROL UNIT)

CONSULT Function

INFOID:0000000013758525

APPLICATION ITEMS

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

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

*: The following diagnosis information is erased by erasing.

- DTC
- Freeze frame data (FFD)

ECU IDENTIFICATION

Electronic stability program control unit part number can be read.

SELF DIAGNOSTIC RESULT

Refer to CCS-359, "DTC Index".

When “CRNT” is displayed on self-diagnosis result,

- The system is presently malfunctioning.

When “PAST” is displayed on self-diagnosis result,

- System malfunction in the past is detected, but the system is presently normal.

Freeze frame data (FFD)

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

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

DATA MONITOR

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

×: Applicable

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

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

ACTIVE TEST

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

WORK SUPPORT

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

RE/PROGRAMMING, CONFIGURATION

Refer to BRC-86, "Description".

DIAGNOSIS SYSTEM (STEERING COLUMN CONTROL MODULE)

CONSULT Function (Steering Column Control Module)

INFOID:0000000013758547

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with steering column control module.

Diagnosis mode	Description
ECU Identification	Allows confirmation of steering column control module part number.
Self Diagnostic Result	Displays the diagnosis results judged by steering column control module.
Data Monitor	Displays the real-time input/output data from steering column control module input/output data.
Active Test	Steering column control module can provide a drive signal to electronic components to check their operations.

SELF DIAGNOSTIC RESULT

Refer to BCS-61, "DTC Index".

DATA MONITOR

NOTE:

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

Monitor	Item Contents
STRG SW CRRNT	—
Current Limitation	—
STEERING SENSOR	—
STEERING ANGLE	—
STEERING ANGLE SENSOR STATUS	—
HIGH BEAM STATUS	Display the status of combination switch (High beam)
FRONT WIPER	Display the status of combination switch (Front wiper)
FR WASHER SW	Display the status of combination switch (Front washer)
RR WIPER	Display the status of combination switch (Rear wiper)
IND SIG	—
HEATED STEERING WHEEL	—
CRUISE CONTROL FUNCTION	Display the status of cruise control lever
UP SW	Display the status of steering switch
DOWN SW	Display the status of steering switch
VOLUME “+” BUTTON	Display the status of steering switch
VOLUME “-” BUTTON	Display the status of steering switch
REPEAT KEY	—
MUTE BUTTON	—
GEAR POSITION	Display the status of paddle shifter
SUPPLY VOLTAGE	—

ACTIVE TEST

Monitor	Item Contents
Speedtronic light emitting diode	—
Steering wheel heater	—

ECU DIAGNOSIS INFORMATION

ELECTRONIC STABILITY PROGRAM CONTROL UNIT

Reference Value

INFOID:0000000013758526

CONSULT DATA MONITOR STANDARD VALUE

NOTE:

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

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

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

*: Confirm tire pressure is standard value.

Fail-safe

INFOID:0000000013833851

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

DTC Index

INFOID:0000000013758528

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

STEERING COLUMN CONTROL MODULE

List of ECU Reference

INFOID:0000000013581888

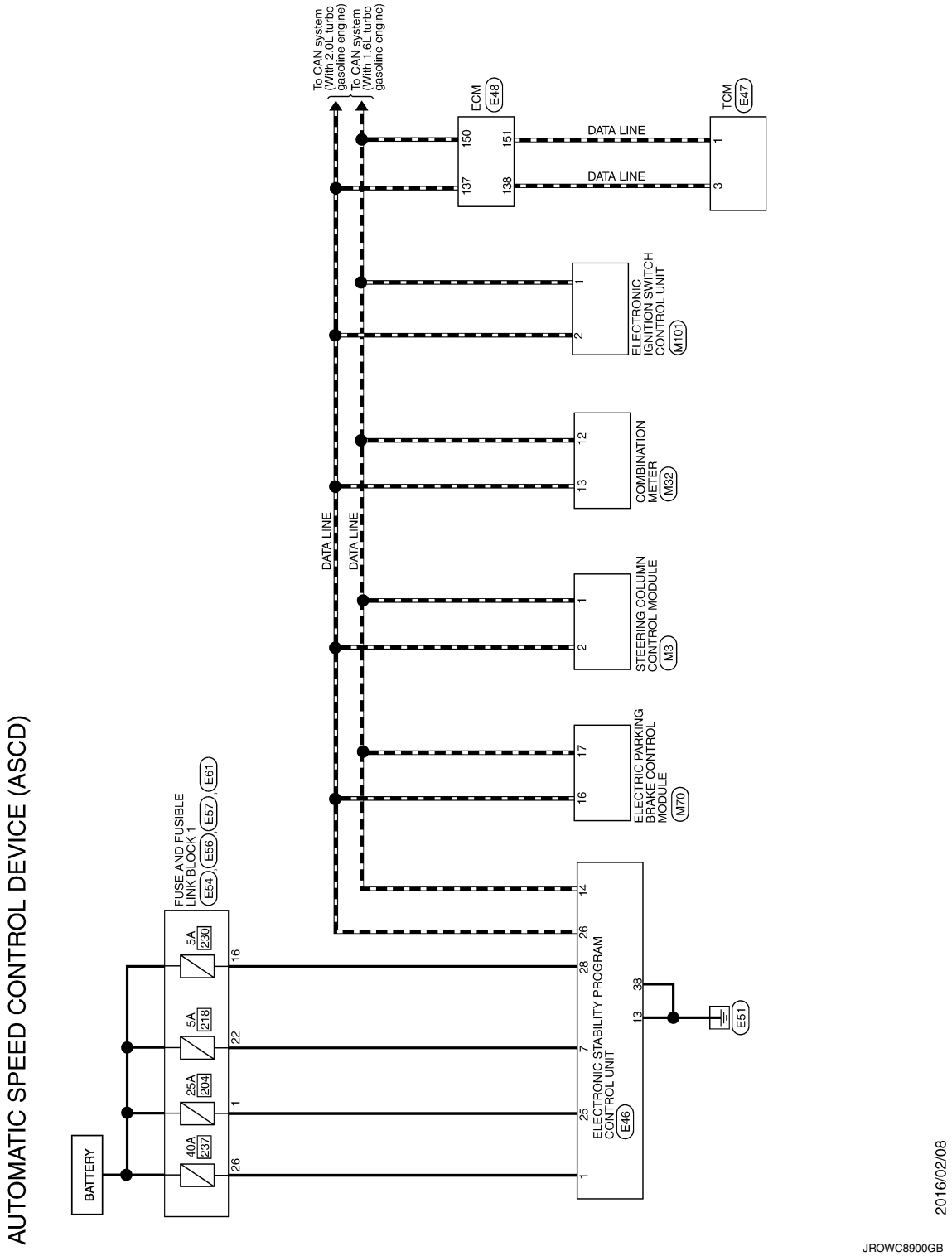
ECU name	Refer to
Steering column control module	BCS-59, "Reference Value"
	BCS-61, "DTC Index"

WIRING DIAGRAM

AUTOMATIC SPEED CONTROL DEVICE (ASCD)/SPEED LIMITER

Wiring Diagram

INFOID:0000000013581889



AUTOMATIC SPEED CONTROL DEVICE (ASCD)

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

H.S.

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

Connector No.	E47
Connector Name	TCM
Connector Type	MB_A2465450026

H.S.

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

Connector No.	E48
Connector Name	ECM
Connector Type	MB_A0075406981

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
97	R	POWER SUPPLY (ECM)
98	BR	ECM GROUND
99	V	POWER SUPPLY (ECM)
100	BR	ECM GROUND
101	R	POWER SUPPLY (ECM)
102	B	ECM GROUND
103	L	COOLING FAN CONTROL SIGNAL
104	R	SENSOR POWER SUPPLY (ACCELERATOR PEDAL POSITION SENSOR 1)
105	G	SENSOR POWER SUPPLY (ACCELERATOR PEDAL POSITION SENSOR 2)
106	BR	SENSOR GROUND (ACCELERATOR PEDAL POSITION SENSOR1)
111	B	IGNITION SIGNAL
112	Y	POWER SUPPLY (BATTERY)
116	W	STARTER RELAY-L
119	GR	SENSOR GROUND (ACCELERATOR PEDAL POSITION SENSOR 2)
120	O	SENSOR GROUND

122	R	HOT START SIGNAL
123	GR	MOTOR RELAY CONTROL SIGNAL
127	O	FUEL PUMP ON SIGNAL
132	G	ACCELERATOR PEDAL POSITION SENSOR 1
136	Y	POWERTRAIN SENSOR CAN-H
137	W	CAN-H
138	GR	POWERTRAIN CAN-H
141	B	WATER PUMP RELAY CONTROL SIGNAL
145	W	ACCELERATOR PEDAL POSITION SENSOR 2
146	G	FUEL TANK PRESSURE SENSOR
147	L	CRASH SIGNAL
148	W	STARTER RELAY-H
149	B	POWERTRAIN SENSOR CAN-L
150	G	CAN-L
151	L	POWERTRAIN CAN-L
152	V	EVAP CANISTER VENT CONTROL VALVE
153	BR	EVAP PURGE CONTROL VALVE

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

H.S.

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

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

H.S.

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

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

H.S.

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

JROWC8901GB

AUTOMATIC SPEED CONTROL DEVICE (ASCD)

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

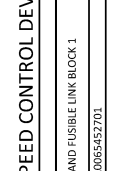
H.S.



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

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

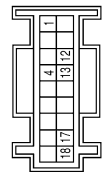
H.S.



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

Connector No.	M32
Connector Name	COMBINATION METER
Connector Type	MB_A0525452726

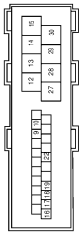
H.S.



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

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

H.S.

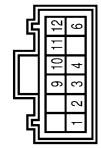


Terminal No.	Color Of Wire	Signal Name [Specification]
9	G	ELECTRIC PARKING BRAKE SWITCH 1
10	P	ELECTRIC PARKING BRAKE SWITCH 2
12	R	MOTOR RH (+)
13	W	MOTOR POWER SUPPLY (RH)
14	R	MOTOR LH (+)
15	R	MOTOR POWER SUPPLY (LH)
16	W	CAN-H
17	G	CAN-L
18	O	ELECTRIC PARKING BRAKE SWITCH 3
19	G	ELECTRIC PARKING BRAKE SWITCH 4
22	B	POWER SUPPLY
27	Y	MOTOR RH (-)
28	BR	GROUND (MOTOR RH)
29	V	MOTOR LH (-)

30	BR	GROUND (MOTOR LH)

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

H.S.



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

JROWC8902GB

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:0000000013581890

1.INTERVIEW FOR MALFUNCTION

It is also important to clarify the customer concerns before starting the inspection. Interview the customer about their concerns carefully and understand the symptoms fully.

NOTE:

The customers are not professionals. Never assume that “maybe the customer means···” or “maybe the customer mentioned this symptom”.

>> GO TO 2.

2.SELF-DIAGNOSIS WITH CONSULT

1. Perform “All DTC Reading” with CONSULT.
2. Check if the DTC is detected on the self-diagnosis results of “ABS”.

Is any DTC detected?

YES >> Record or print self-diagnosis results and freeze frame data (FFD). GO TO 3.
NO >> GO TO 5.

3.TROUBLE DIAGNOSIS BY DTC

1. Check the DTC in the self-diagnosis results.
2. Perform trouble diagnosis for the detected DTC. Refer to BRC-59, "DTC Index"

NOTE:

If “DTC: U1000” is detected, first diagnose the CAN communication system.

>> GO TO 4.

4.MALFUNCTIONING PART REPAIR

Repair or replace the identified malfunctioning parts.

>> GO TO 5.

5.REPAIR CHECK (SELF-DIAGNOSIS WITH CONSULT)

1. Erases self-diagnosis results.
2. Perform “All DTC Reading” again after repairing or replacing the specific items.
3. Check if any DTC is detected in self-diagnosis results of “ABS”.

Is any DTC detected?

YES >> GO TO 3.
NO >> INSPECTION END