SECTION MWI
METER, WARNING LAMP & INDICATOR

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PRECAUTION

PRECAUTIONS

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

INFOID:0000000013612415

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.

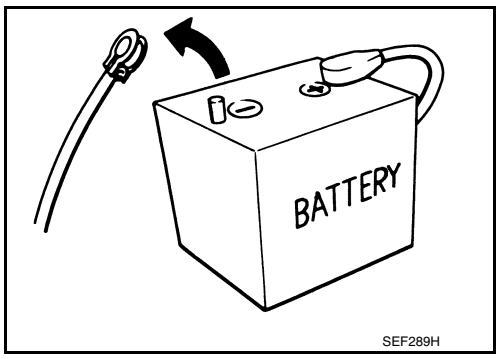
Precautions for Removing Battery Terminal

INFOID:0000000013612416

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

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

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



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

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

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

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

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

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

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

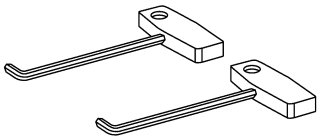
NOTE:
The removal of 12V battery may cause a DTC detection error.

PREPARATION

PREPARATION

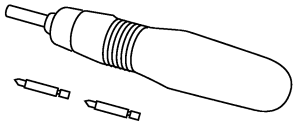
Special Service Tools

INFOID:0000000013612417

Tool number (DAIMLER tool No.) Tool name	Description
KV485H0010 (W140589023300) Pulling hook  JSNIA9121ZZ	For removing combination meter

Commercial Service Tools

INFOID:0000000013695959

Tool name	Description
Power tool  PBIC0191E	Loosening screws

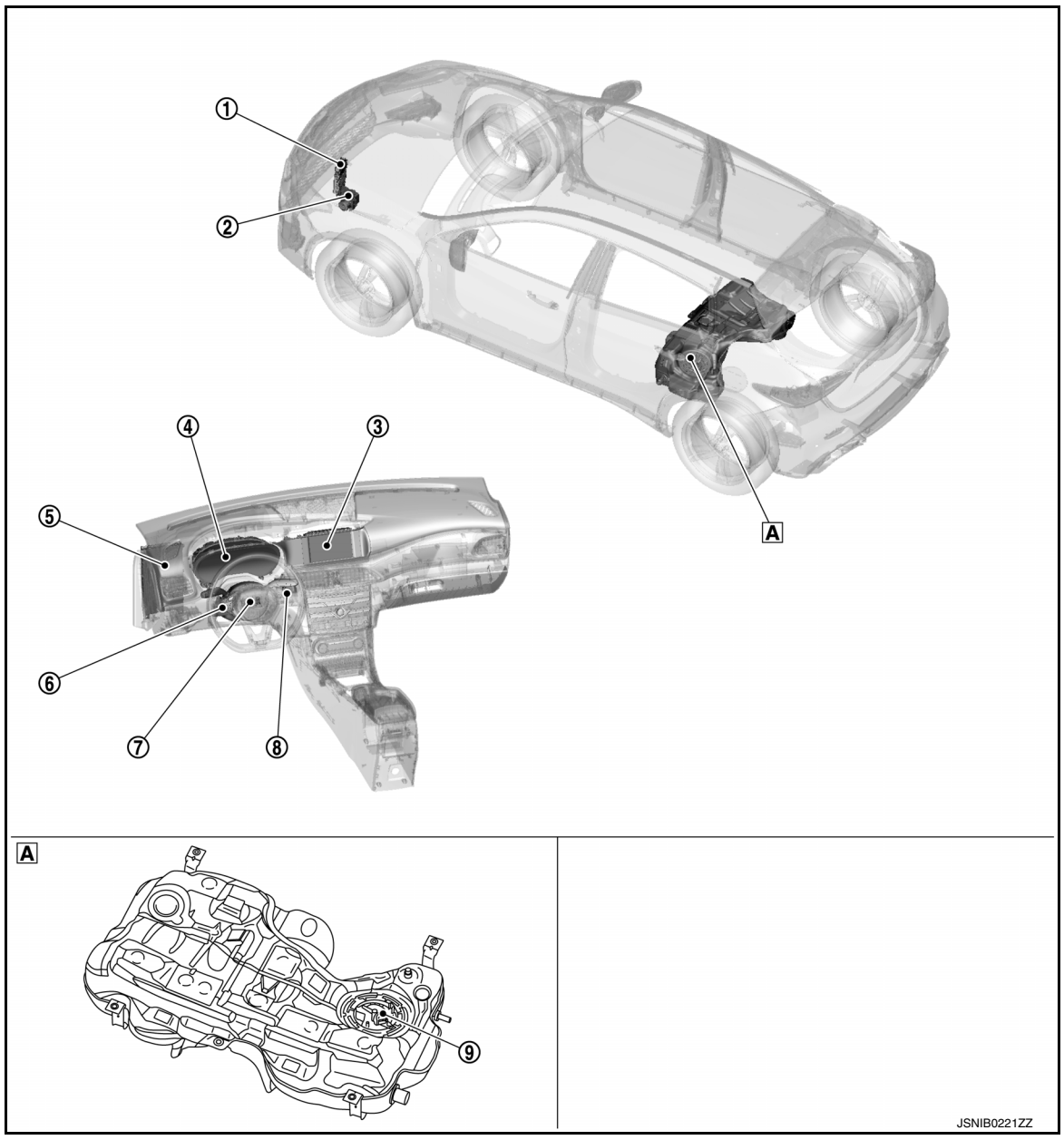
SYSTEM DESCRIPTION

COMPONENT PARTS

METER SYSTEM

METER SYSTEM : Component Parts Location

INFOID:0000000013612418



A Fuel tank removed condition

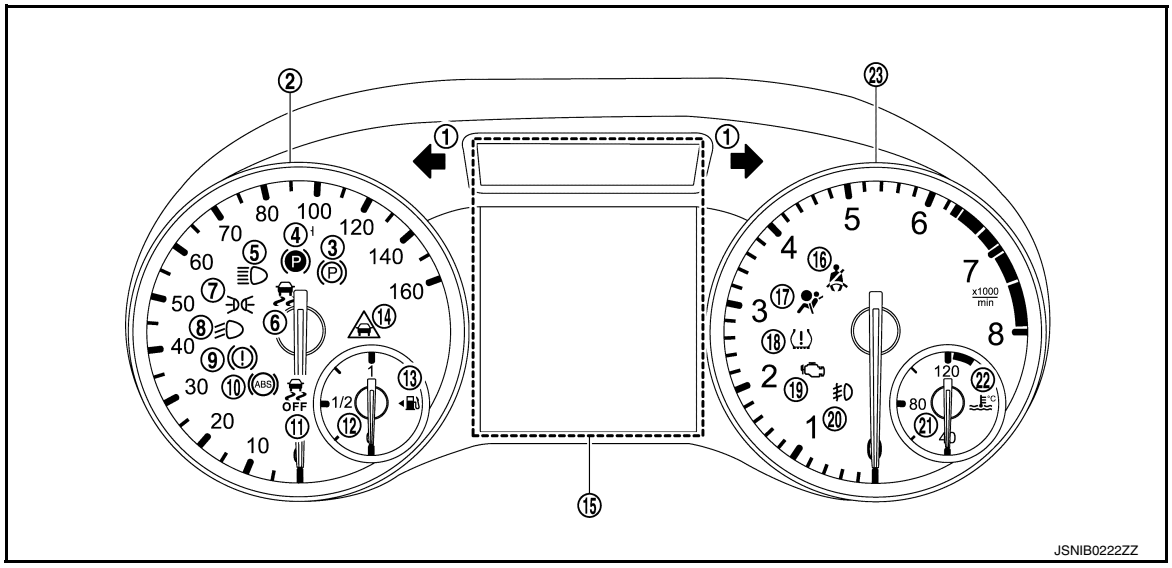
No.	Component	Function
①	ECM	Transmits the following signals to the electronic ignition switch control unit via CAN communication. • Engine speed signal • Engine coolant temperature signal • Fuel consumption monitor signal
②	Electronic stability program control unit	Transmits the wheel speed signal to the electronic ignition switch control unit via CAN communication.

No.	Component	Function
③	Display control unit	Transmits the clock signal to the combination meter via CAN communication.
④	Combination meter	Refer to MWI-9, "METER SYSTEM : Combination Meter".
⑤	BCM	Transmits the following signals to the combination meter via CAN communication. • Ambient sensor signal • Fuel level sensor signal
⑥	Steering switch	Refer to MWI-12, "METER SYSTEM : Steering Switch".
⑦	Steering column control module	Transmits the steering switch signal to the combination meter.
⑧	Electronic ignition switch control unit	Transmits the following signals to the combination meter via CAN communication. • Wheel speed signal • Engine speed signal • Engine coolant temperature signal • Fuel consumption monitor signal
⑨	Fuel level sensor unit and fuel pump	Transmits the fuel level sensor signal to the BCM.

METER SYSTEM : Design

INFOID:0000000013612419

ARRANGEMENT OF COMBINATION METER



No.	Indicator lamp/Warning lamp	Color	Function
①	Turn signal indicator lamp	Green	Refer to MWI-33, "WARNING LAMPS/INDICATOR LAMPS : Turn Signal Indicator Lamp".
②	Speedometer	–	Refer to MWI-18, "SPEEDOMETER : System Description".
③	Electric parking brake warning lamp	Yellow	Refer to MWI-23, "WARNING LAMPS/INDICATOR LAMPS : Electric Parking Brake Warning Lamp".
④	Electric parking brake indicator lamp	Red	Refer to MWI-22, "WARNING LAMPS/INDICATOR LAMPS : Electric Parking Brake Indicator Lamp".
⑤	High beam indicator lamp	Blue	Refer to MWI-26, "WARNING LAMPS/INDICATOR LAMPS : High Beam Indicator Lamp".
⑥	VDC warning lamp	Yellow	Refer to MWI-35, "WARNING LAMPS/INDICATOR LAMPS : VDC Warning Lamp".

No.	Indicator lamp/Warning lamp	Color	Function
⑦	Position lamp indicator lamp	Green	Refer to MWI-30, "WARNING LAMPS/INDICATOR LAMPS : Position Lamp Indicator Lamp".
⑧	Dipped beam indicator lamp	Green	Refer to MWI-21, "WARNING LAMPS/INDICATOR LAMPS : Dipped Beam Indicator Lamp".
⑨	Brake warning lamp	Red	Refer to MWI-20, "WARNING LAMPS/INDICATOR LAMPS : Brake Warning Lamp".
⑩	ABS warning lamp	Yellow	Refer to MWI-20, "WARNING LAMPS/INDICATOR LAMPS : ABS Warning Lamp".
⑪	VDC OFF indicator lamp	Yellow	Refer to MWI-34, "WARNING LAMPS/INDICATOR LAMPS : VDC OFF Indicator Lamp".
⑫	Fuel gauge	–	Refer to MWI-19, "FUEL GAUGE : System Description".
⑬	Low fuel warning lamp	Yellow	Refer to MWI-27, "WARNING LAMPS/INDICATOR LAMPS : Low Fuel Warning Lamp".
⑭	FEB warning lamp	Red	Refer to MWI-24, "WARNING LAMPS/INDICATOR LAMPS : FEB Warning Lamp".
⑮	Information display	–	Refer to MWI-37, "INFORMATION DISPLAY : System Description".
⑯	Seat belt warning lamp	Red	Refer to MWI-30, "WARNING LAMPS/INDICATOR LAMPS : Seat Belt Warning Lamp".
⑰	SRS air bag warning lamp	Red	Refer to MWI-31, "WARNING LAMPS/INDICATOR LAMPS : SRS Air Bag Warning Lamp".
⑱	Low tire pressure warning lamp	Yellow	Refer to MWI-28, "WARNING LAMPS/INDICATOR LAMPS : Low Tire Pressure Warning Lamp".
⑲	Malfunction indicator lamp (MIL)	Yellow	Refer to MWI-29, "WARNING LAMPS/INDICATOR LAMPS : Malfunction Indicator Lamp (MIL)".
⑳	Front fog lamp indicator lamp	Green	Refer to MWI-25, "WARNING LAMPS/INDICATOR LAMPS : Front Fog Lamp Indicator Lamp".
㉑	Engine coolant temperature gauge	–	Refer to MWI-18, "ENGINE COOLANT TEMPERATURE GAUGE : System Description".
㉒	High water temperature warning lamp	Red	Refer to MWI-26, "WARNING LAMPS/INDICATOR LAMPS : High Water Temperature Warning Lamp".
㉓	Tachometer	–	Refer to MWI-18, "TACHOMETER : System Description".

METER SYSTEM : Combination Meter

INFOID:0000000013612420

- The combination meter notifies the driver of all dynamic and static driving conditions as well as about the current condition of the systems installed in the vehicle. In the event of malfunction vehicle functions or functions relevant to safety, corresponding warnings are issued via the combination meter.
- The following displays are incorporated into the combination meter in order to be able to convey information to the driver:

- Permanent displays (e.g. vehicle speed, rotational speed, tank contents)
- Indicator lamps (green, yellow or blue) (e.g. turn signal, high beams)
- Warning lamps (red) (e.g. coolant level, brake fluid level)
- Information display (e.g. outside temperature indicator, travel distance display)

FUNCTION REQUIREMENTS, GENERAL

Ignition switch ON

NOTE:

The electronic ignition switch control unit sends the ignition signal over the CAN communication to the combination meter.

CONTROL/WARNING MESSAGES, GENERAL

The combination meter control/warning messages notify the driver about the current state of the systems installed in the vehicle.
The combination meter can issue indicator and warning messages in the following ways:
• Optical output of control/warning messages:
- Information display
- Indicator/warning lamps
• Acoustic output of control/warning messages
- Warning buzzer
- Turn signal ticking via function check for turn signal lights, acoustic

THE FOLLOWING COMPONENTS INTEGRATED IN THE COMBINATION METER ARE NOT SHOWN:
• Warning buzzer
• Turn signal light function check, acoustic

THE MESSAGES SHOWN ON THE INFORMATION DISPLAY ARE SPLIT UP ACCORDING TO THEIR LEVEL OF URGENCY INTO FOUR CATEGORIES:
• Category 1 (messages with highest priority):
  Category 1 messages refer to states and situations which impair safety, and they take priority over messages with lower priority.
  These messages are displayed and automatically archived in the message memory within a maximum of t = 2 s after they occur, and cannot be acknowledged. When they occur, a brief warning is emitted by the buzzer.
• Category 2 (messages with medium priority):
  Messages in category 2 require the intervention of the driver and appear with a time delay of a maximum of t = 2 s. These messages also include operating feedback. Category 2 messages can be acknowledged. When they occur, a brief warning is emitted by the buzzer.
• Category 3 and 4 (messages with low priority):
  These messages are menu displays and only serve as information for the driver (e.g. low washer fluid level). No warning chime is emitted.

Messages with low priority are overlaid by messages with high priority.
If several messages with the same priority occur, the message currently displayed is overlaid by the new message after the minimum display time has elapsed.

FUNCTION SEQUENCE FOR CONTROL/WARNING MESSAGES

The combination meter informs the driver about the functionality and status of the installed vehicle systems. Safety-relevant system activities and system malfunctions are shown to the driver in the form of control and warning messages.
The following display options are used for this purpose:
• Visual:
- Indicator lamps (green, yellow or blue)
- Warning lamps (red)
- Information display
• Acoustic:
- Warning buzzer
- Turn signal light function check, acoustic

The combination meter is connected to the vehicle electronics via the CAN communication.
Requests to issue control and warning messages from control units that are connected to one of these CANs are read in by the combination meter via the CAN communication.
Requests to issue control and warning messages from control units that are connected to one of the CANs are transmitted by the electronic ignition switch control unit via the CAN communication to the combination meter:
NOTE:
The systems and functions listed in the table below can request the output of control and warning messages via the corresponding control unit.

X: Applicable

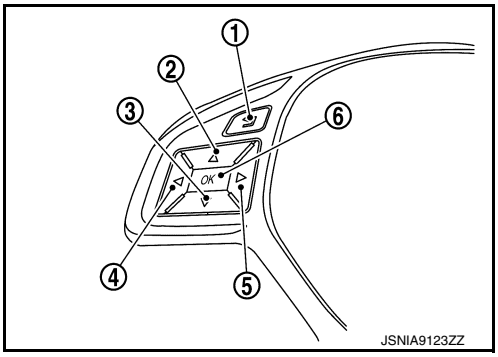
System/Function	Control unit	Connection	Output		
			Indicator lamp	Display	Acoustic
ADAPTIVE BRAKE	Electronic stability program control unit	CAN	ABS warning lamp VDC warning lamp Brake warning lamp	X	—
Audio/Navigation/Communication	Display control unit	CAN	—	X	—
Attention assistance system	Electronic stability program control unit	CAN	—	X	X
Exterior Lights (ABL)	BCM	CAN	Dipped beam indicator lamp High beam indicator lamp Position lamp indicator lamp Front fog lamp indicator lamp	X	X
	Headlamp control unit RH	CAN	—	X	X
	Headlamp control unit LH				
Turn signal confirmation	BCM	CAN	Turn signal indicator lamp	—	X
Lights on warning	BCM	CAN	—	X	—
Automatic transmission control	TCM	CAN	—	X	—
Brake fluid level	BCM	CAN	Brake warning lamp	X	—
Brake wear indicator	BCM	CAN	—	X	—
FEB	Distance sensor	CAN	FEB warning lamp	—	X
ICC	ICC sensor	CAN	FEB warning lamp	X	X
Anti-theft alarm system [ATA (EDW)]	Siren control unit	CAN	—	X	—
Sonar system	Sonar control unit	CAN	—	X	X
Electric power steering	EPS control unit	CAN	—	X	X
VDC	Electronic stability program control unit	CAN	VDC OFF indicator lamp VDC warning lamp	X	—
Parking brake warning	Electronic parking brake control unit	CAN	Electric parking brake warning lamp Electric parking brake indicator lamp	X	—
Windshield washer system fluid level	BCM	CAN	—	X	—
Speed limit Assist Traffic Sign Assist	Front camera unit	CAN	—	X	—
Speed warning	Combination meter	Internal	—	X	X
Seat belt reminder warning	Air bag diagnosis sensor unit	CAN	Seat belt warning lamp	—	X
	BCM	CAN	—	X	—
Intelligent Key	Intelligent Key unit	CAN	—	X	X
Coolant level	BCM	CAN	—	X	—
Coolant temperature	ECM	CAN	High water temperature warning lamp	X	—
Memory setting or electrically adjustable front passenger seat with memory function	Driver seat control unit Passenger seat control unit	CAN	—	—	X
Engine diagnosis	ECM	CAN	Malfunction indicator lamp (MIL)	X	—
	TCM				

System/Function	Control unit	Connection	Output		
			Indicator lamp	Display	Acoustic
Engine oil level warning	ECM	CAN	—	X	—
Tire pressure monitor	Low tire pressure warning control unit	CAN	Low tire pressure warning lamp	X	—
Tire pressure loss warning	Electronic stability program control unit	CAN	—	X	—
Lane keeping assist	Front camera unit	CAN	—	X	—
Supplemental restraint system	Air bag diagnosis sensor unit	CAN	SRS air bag warning lamp	X	—
Filler cap warning	ECM	CAN	Low fuel warning lamp	X	—
ASCD or ICC	Electronic stability program control unit	CAN	Segment ring speedometer	X	X
Blind Spot Assist	Side radar LH Side radar RH	CAN	—	—	X
Doors OPEN warning	BCM Right front door control unit Left front door control unit	CAN	—	X	X
Window wiper system	BCM	CAN	—	X	—

METER SYSTEM : Steering Switch

INFOID:0000000013612421

Operating instructions using the steering switch, various menu levels can be displayed in the information display of the combination meter:



No.	Switch name	Operation	Description
①	Back switch	Press	The back switch can be used in each menu or submenu to jump into the next higher menu level.
②	System selection switch (Up)	Press	It is possible to scroll in the main menu via the system selection switch.
③	System selection switch (Down)	Press	
④	Scroll back switch	Press	It is possible to scroll within a menu in the submenus or in lists using the scroll forward and back switch.
⑤	Scroll forward switch	Press	
⑥	OK switch	Press	The OK switch confirms the corresponding selection or displayed messages.

NOTE:
All the buttons of the left multifunction steering wheel button group are always installed. However the available functions depend on the equipment of the vehicle. Overview of available menus (equipment-dependent):

OVERVIEW OF AVAILABLE MENUS (EQUIPMENT-DEPENDENT)

- “Trip” menu
- “Navi” menu
- “Audio” menu
- “TEL” menu
- “Assist.” menu
- “Service” menu

• “Settings” menu

“Trip” Menu

The following functions can be selected in the "Trip" menu:
• Show standard display or reset trip distance
• Show or reset trip computer "After start"
• Show or reset trip computer "After reset"
• Show range and present consumption display
• Display digital speedometer
• Show "ECO score" display

“Navi” Menu

Navigation notes are displayed in the "Navi" menu when the function is switched on. If the function is deactivated, the direction of travel is shown along with cardinal points, e.g. "NW direction of travel".

“Audio” Menu

The following functions can be selected in the "Audio" menu:
• Select radio station
• Operate CD player/CD changer/DVD changer/DVD audio/MP3
• Operate DVD video
• Operate TV

“TEL” Menu

The name of the selected mobile telephone network is shown in the telephone menu when the function is switched on. It is still possible then to scroll through the stored telephone book and select an entry. When the function is switched off the text "Telephone Off" is displayed.

NOTE:

If a telephone is not detected when the function is switched on, the message "Ready for Bluetooth telephony" appears.

“Assist.” Menu

The following functions can be selected in the "Assist." menu, depending on the equipment installed:
• Switch Speed Limit Assist ON or OFF or switch Traffic Sign Assist ON or OFF
• Show distance chart
• VDC ON or OFF
• Distance warning function ON or OFF
• ATTENTION ASSIST ON or OFF
• Blind Spot Assist ON or OFF
• Lane Keeping Assist ON or OFF

“Service” Menu

The following functions can be selected in the "Service" menu:
• Call up display messages
• Tire pressure loss warning or check tire pressure electronically
• Service interval indicator "MEINTENANCE"

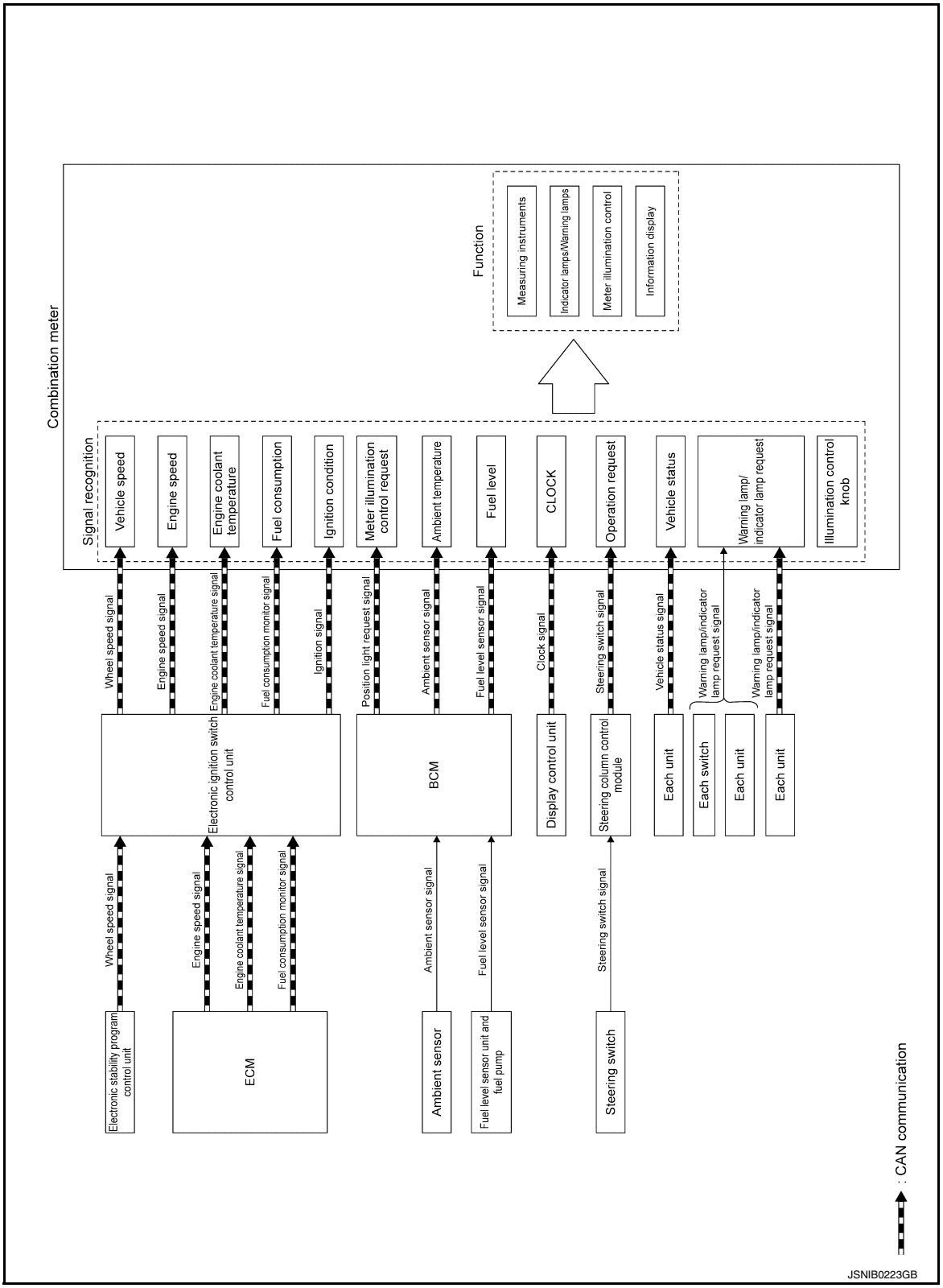
“Settings” Menu

Changes to the following settings can be made in the "Settings" menu:
• "Instrument cluster"
• "Lights"
• "Vehicle"
• "Comfort"
• "Manufacturer default setting"

SYSTEM
METER SYSTEM
METER SYSTEM : System Description

INFOID:0000000013612422

SYSTEM DIAGRAM



DESCRIPTION

Combination Meter

- The combination meter notifies the driver of all dynamic and static driving conditions as well as about the current condition of the systems installed in the vehicle. In the event of malfunction of vehicle functions or functions relevant to safety, corresponding warnings are issued via the combination meter.
- The following displays are incorporated into the combination meter in order to be able to convey information to the driver:

- Permanent displays (e.g. vehicle speed, rotational speed, tank contents)
- Indicator lamps (green, yellow or blue) (e.g. turn signal, high beams)
- Warning lamps (red) (e.g. coolant level, brake fluid level)
- Information display (e.g. outside temperature indicator, travel distance display)

ADDITIONAL FUNCTION REQUIREMENTS FOR INDICATOR LAMP TEST

- Ignition switch ON

NOTE:
The electronic ignition switch control unit sends the ignition switch ON status over the chassis CAN communication to the combination meter.

Function Sequence For Indicator Lamp Test

The indicator lamp test serves the function test of certain warning lamps and indicator lamps in the combination meter. The combination meter performs this test automatically each time ignition switch is switched on. The function of the following warning and indicator lamps is checked during the indicator lamp test:

- Low fuel warning lamp
- Seat belt warning lamp
- Electric parking brake warning lamp
- Electric parking brake indicator lamp
- SRS air bag warning lamp
- ABS warning lamp
- VDC OFF indicator lamp
- VDC warning lamp
- Brake warning lamp
- FEB warning lamp
- High water temperature warning lamp
- Malfunction indicator lamp (MIL)
- Low tire pressure warning lamp

NOTE:

- The indicator lamp test is terminated when the engine is started.
- The function of the following indicator lamps is not checked:

- Turn signal indicator lamp
- High beam indicator lamp
- Position lamp indicator lamp
- Front fog lamp indicator lamp
- Dipped beam indicator lamp

FUNCTION REQUIREMENTS, GENERAL

- Ignition switch ON

NOTE:
The electronic ignition switch control unit sends the ignition switch ON status over the chassis CAN communication to the combination meter.

Display Operating Conditions, General

- The operating conditions display provides the driver with permanent information about the current operating conditions of the vehicle.
- The "display operating conditions" function comprises the following subfunctions:

- Display of speed function sequence
- Function sequence for display of engine rpm
- Function sequence for display of coolant temperature
- Display of travel distance function sequence
- Function sequence for display of fuel quantity
- Function sequence for display of charge level
- Function sequence for power display
- Function sequence for gear and transmission mode display
- Function sequence for "ECO" display
- Function sequence for display of transport mode

FUNCTION SEQUENCE FOR DISPLAYING TRANSPORT MODE

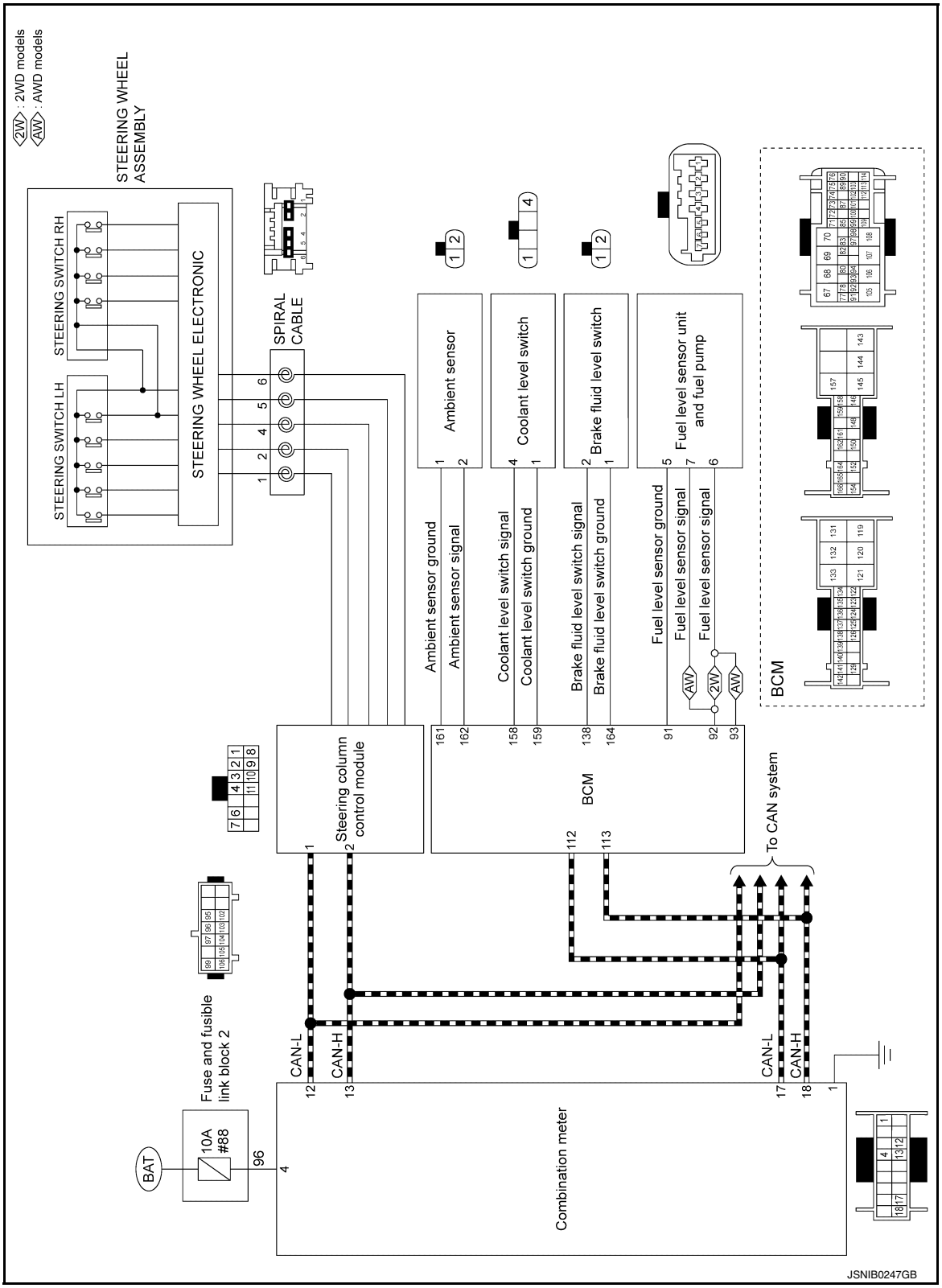
Transport mode is activated at the factory at the end of the product process and sets the entire vehicle to a defined special state (e.g. limited vehicle speed or restricted outside lamp functions)
The transport mode remains active on its way from the production plant to the dealers and company-owned sales and service outlets around the world up to the so-called delivery inspection and the final handover to the end customers.
In active transport mode, the message "Transport mode" is shown in the information display of the combination meter with the charge level of the on-board electrical system battery with 40 stages in the form of a bar graph.

METER CONTROL FUNCTION LIST

System		Description	Reference
Measuring instruments	Speedometer	Indicates vehicle speed.	MWI-18, "SPEEDOMETER : System Description"
	Tachometer	Indicates engine speed.	MWI-18, "TACHOMETER : System Description"
	Engine coolant temperature gauge	Indicates engine coolant temperature.	MWI-18, "ENGINE COOLANT TEMPERATURE GAUGE : System Description"
	Fuel gauge	Indicates fuel level.	MWI-19, "FUEL GAUGE : System Description"
Warning lamp/indicator lamp		The warning lamp/indicator lamp turns ON or turns OFF, according to system malfunction or vehicle condition.	MWI-8, "METER SYSTEM : Design"
Meter illumination control		The operation of the illumination control switch allows the brightness adjustment of meter illumination.	MWI-36, "METER ILLUMINATION CONTROL : System Description"
Information display		The Information display displays status, according to system malfunction or vehicle condition.	MWI-37, "INFORMATION DISPLAY : System Description"

METER SYSTEM : Circuit Diagram

INFOID:0000000013612423

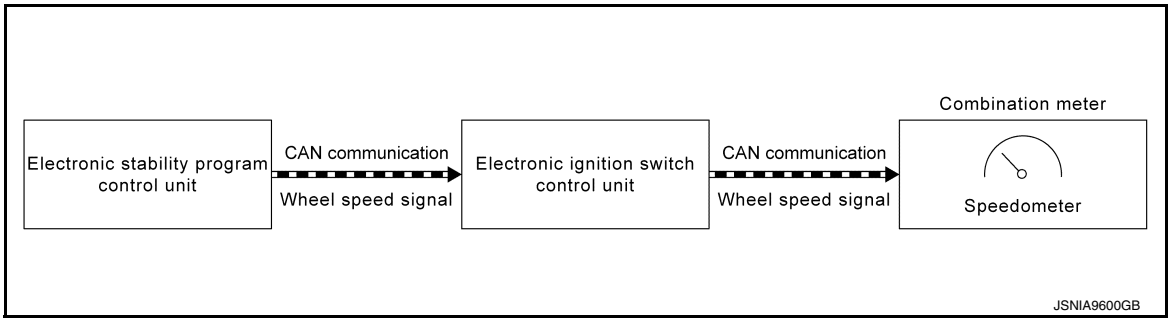


SPEEDOMETER

SPEEDOMETER : System Description

INFOID:0000000013612424

SYSTEM DIAGRAM



DESCRIPTION

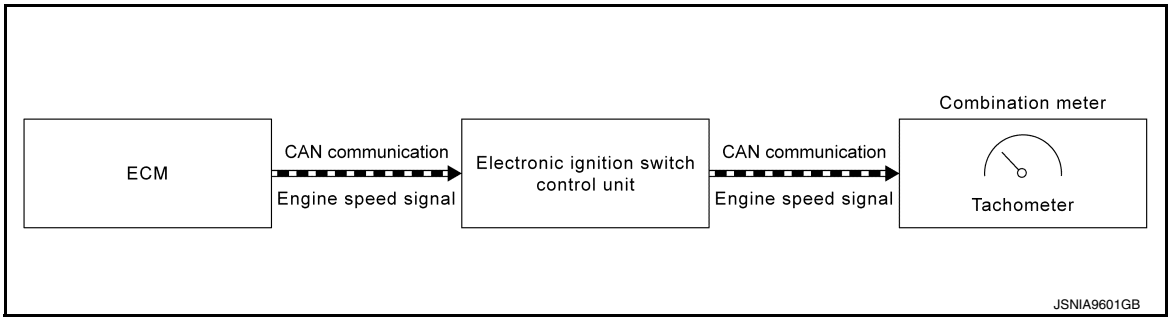
- The combination meter calculates the vehicle speed based on the wheel speeds.
- The electronic stability program control unit sends information on the wheel speeds on vehicles over the electronic ignition switch control unit to the combination meter. The combination meter calculates the vehicle speed, compares it with the internally stored speedometer characteristic, and then actuates the speedometer accordingly by way of a stepper motor.

TACHOMETER

TACHOMETER : System Description

INFOID:0000000013612425

SYSTEM DIAGRAM



DESCRIPTION

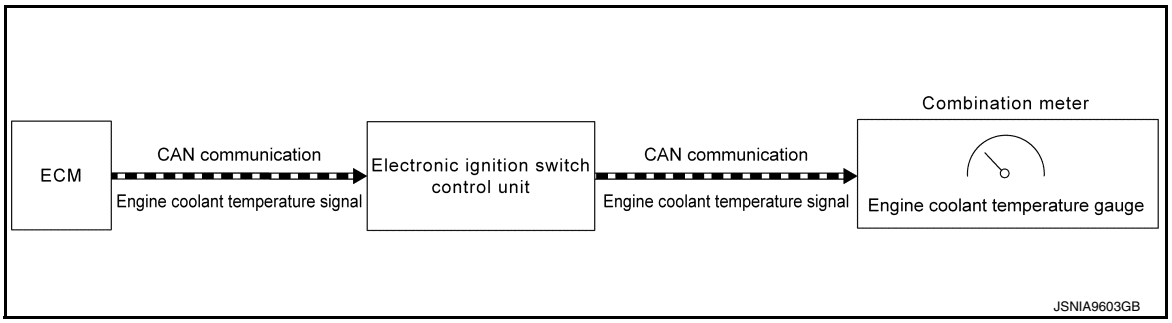
- The ECM sends information on the engine rpm on vehicles the electronic ignition switch control unit to the combination meter.
- The combination meter receives the engine rpm and actuates the tachometer accordingly by means of a stepper motor.

ENGINE COOLANT TEMPERATURE GAUGE

ENGINE COOLANT TEMPERATURE GAUGE : System Description

INFOID:0000000013612426

SYSTEM DIAGRAM



DESCRIPTION

- The ECM sends information on the coolant temperature over electronic ignition switch control unit to the combination meter.

- The combination meter receives the coolant temperature and actuates the coolant temperature gauge accordingly by means of a stepper motor.
- The coolant temperature gage is actuated via a correction characteristic. This correction characteristic defines the following four temperature ranges in which the coolant temperature display is actuated in different ways:

- T = 40 to 80 °C (104 to 176 °F): The coolant temperature gauge shows the actual coolant temperature.
- T = 80 to 115 °C (176 to 239 °F): The coolant temperature gauge constantly shows a value of T = 90 °C (194 °F).
- T = 115 to 120 °C (239 to 248 °F): The coolant temperature reading constantly shows a value of T = 95 °C (203 °F)
- T = 120 to 130 °C (248 to 266 °F) (start of red warning range): The coolant temperature gauge shows the actual coolant temperature.
- At coolant temperatures of T > 130 °C (266 °F), the combination meter actuates the high water temperature warning lamp. A corresponding warning is shown in the information display of the combination meter.

- If the combination meter does not receive any value for the coolant temperature, it actuates the high water temperature warning lamp. The coolant temperature display is not actuated.

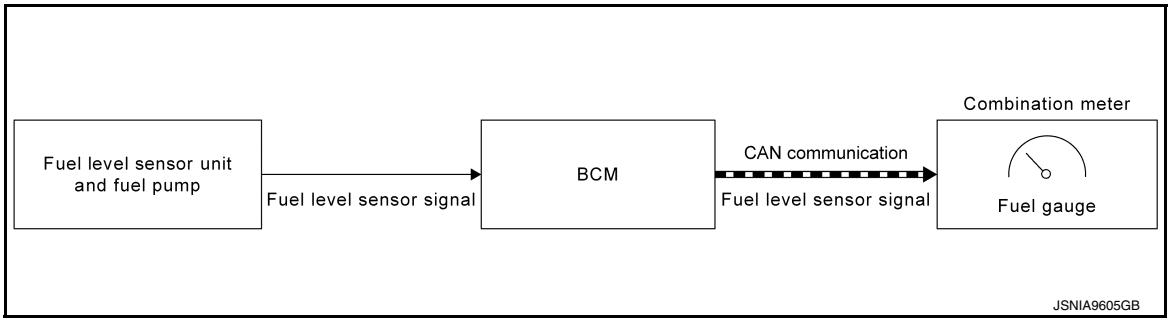
NOTE:
If a fan motor is recognized as malfunction, the actual coolant temperature is displayed on the coolant temperature gauge. The high water temperature warning lamp is also actuated.

FUEL GAUGE

FUEL GAUGE : System Description

INFOID:0000000013612427

SYSTEM DIAGRAM



DESCRIPTION

- Fuel level sensor unit and fuel pump records the fill level in the fuel tank. The BCM reads in the signals from the fuel level sensor unit and fuel pump directly and sends them to the combination meter via CAN communication. The combination meter receives the signals from the fuel level sensor unit and fuel pump, evaluates them and actuates the fuel level indicator accordingly by means of a stepper motor. If the reserve range has been reached (approx. 12.5 % of maximum tank capacity), the combination meter actuates the low fuel warning lamp. A corresponding message is shown in the information display.
- The reserve range is defined by comparing the measured fill level against a stored tank characteristic.
- If the reserve range drops to approx. 50 %, a gas station symbol in the form of a gasoline pump is shown in the Range menu instead of the distance reading.

Display Characteristics of Fuel Gauge

- After ignition switch ON, the current fill level is displayed. In the process the pointer runs up in a buffered manner.
- After an engine start the display value for t = 4 s is updated every t = 0.8 s, to maintain a value below the full on-board electrical system voltage. After this time, or as soon as the vehicle starts off, the display is updated with a delay.
- When ignition switch is switched off, the fuel level indicator pointer moves gradually back to zero.

NOTE:
By comparing the change in the fill level with the calculated composite mileage, it is possible to detect whether the fill level sensors are firmly attached. If the fill level over a certain distance drops more quickly than technically feasible based on composite mileage, the fill level sensor is recognized as being malfunction and the corresponding message is shown in the information display.

WARNING LAMPS/INDICATOR LAMPS

WARNING LAMPS/INDICATOR LAMPS : ABS Warning Lamp

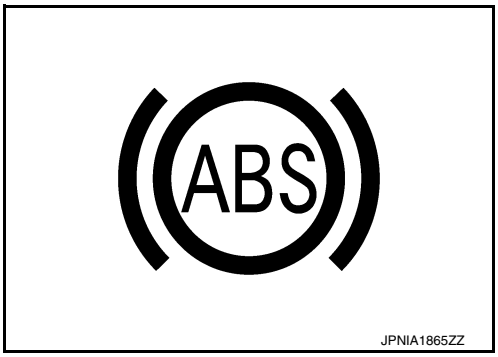
INFOID:0000000013612428

DESIGN/PURPOSE

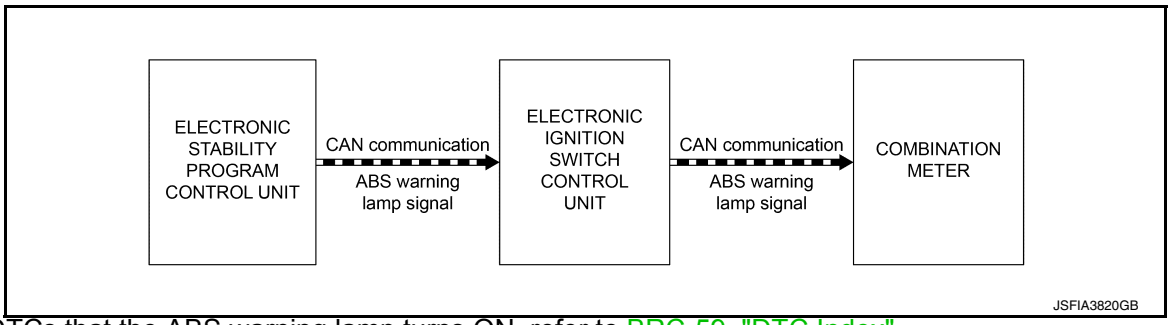
The ABS warning lamp warns the driver of a malfunction in the ABS function of electronic stability program control unit.

NOTE:

The ABS warning lamp may turn ON simultaneously with the brake warning lamp, ESP warning lamp, ESP OFF indicator. For details, refer to BRC-34, "System Description".



SYSTEM DIAGRAM



*: For DTCs that the ABS warning lamp turns ON, refer to BRC-59, "DTC Index".

SIGNAL PATH

- The electronic stability program control unit transmits an ABS warning lamp signal to the combination meter through electronic ignition switch control unit via CAN communication when detecting a malfunction.
- The combination meter turns ON the ABS warning lamp when receiving an ABS warning lamp signal.
- For the relationship between warning lamp and DTC, refer to BRC-59, "DTC Index".

LIGHTING CONDITION

The warning lamp turns ON when:

- A malfunction is detected in the ABS function of the electronic stability program control unit.
- For the relationship between warning lamp and DTC, refer to BRC-59, "DTC Index".

SHUTOFF CONDITION

- When the condition listed below is satisfied while the ignition switch ON:
- Erase DTC
- The ignition switch is in a position other than ON.

WARNING LAMPS/INDICATOR LAMPS : Brake Warning Lamp

INFOID:0000000013612429

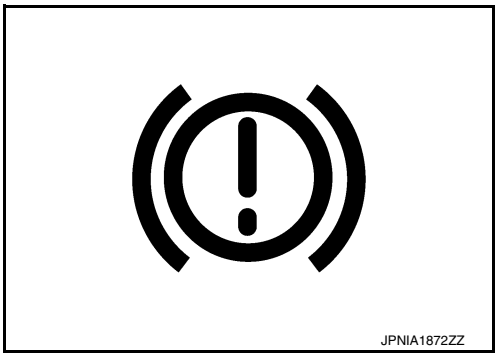
DESIGN/PURPOSE

The brake warning lamp wans the driver of following condition.

- Brake fluid is less than the specified level
- Right front brake pad have reached wear thickness limit
- EBD function is malfunction

NOTE:

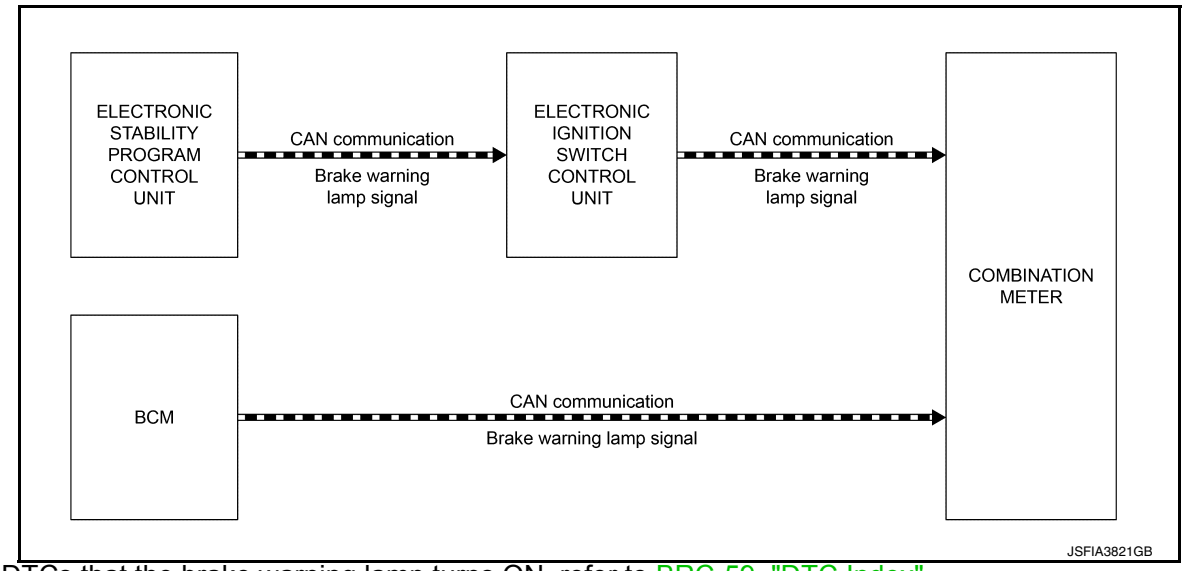
The brake warning lamp may turn ON simultaneously with the ABS warning lamp, ESP warning lamp, ESP OFF indicator lamp. For details, refer to BRC-34, "System Description".



SYNCHRONIZATION WITH WARNING CHIME

Applicable

SYSTEM DIAGRAM



*: For DTCs that the brake warning lamp turns ON, refer to BRC-59, "DTC Index".

SIGNAL PATH

When Brake Fluid is Insufficient

- The BCM transmits a brake warning lamp signal to the combination meter via CAN communication when detecting a brake fluid is less than the specified level (brake fluid level switch ON).
- The combination meter turns ON/OFF the brake warning lamp, according to the ON/OFF state of the brake fluid level switch.

When Brake PAD is Wear Thickness Limit

- The BCM transmits a brake warning lamp signal to the combination meter via CAN communication when detecting a right front have reached wear thickness limit.
- The combination meter turns ON/OFF the brake warning lamp, according to the ON/OFF state of the right front brake wear sensor.

When The EBD Function is In Abnormal State

- The electronic stability program control unit transmits a brake warning lamp signal to the combination meter through electronic ignition switch control unit via CAN communication when detecting a malfunction in the EBD function.
- The combination meter turns ON the brake warning lamp when receiving a brake warning lamp signal.
- For the relationship between warning lamp and DTC, refer to BRC-59, "DTC Index".

LIGHTING CONDITION

When any of the condition listed below is satisfied while the engine is running:

- Brake fluid level switch ON.
- Right front brake pad is less than limit thickness.
- A malfunction is detected in the EBD function of the electronic stability program control unit.
- For the relationship between warning lamp and DTC, refer to BRC-59, "DTC Index".

SHUTOFF CONDITION

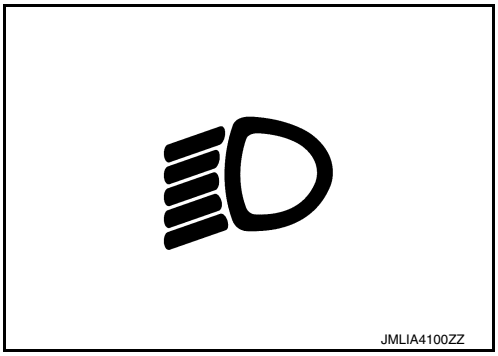
- When the condition listed below is satisfied while the ignition switch ON:
- Brake fluid level switch is OFF.
- Right front brake pad is not less than limit thickness.
- When EBD function of the electronic stability program control unit.
- Erase DTC
- The ignition switch is in a position other than ON (engine stop).

WARNING LAMPS/INDICATOR LAMPS : Dipped Beam Indicator Lamp

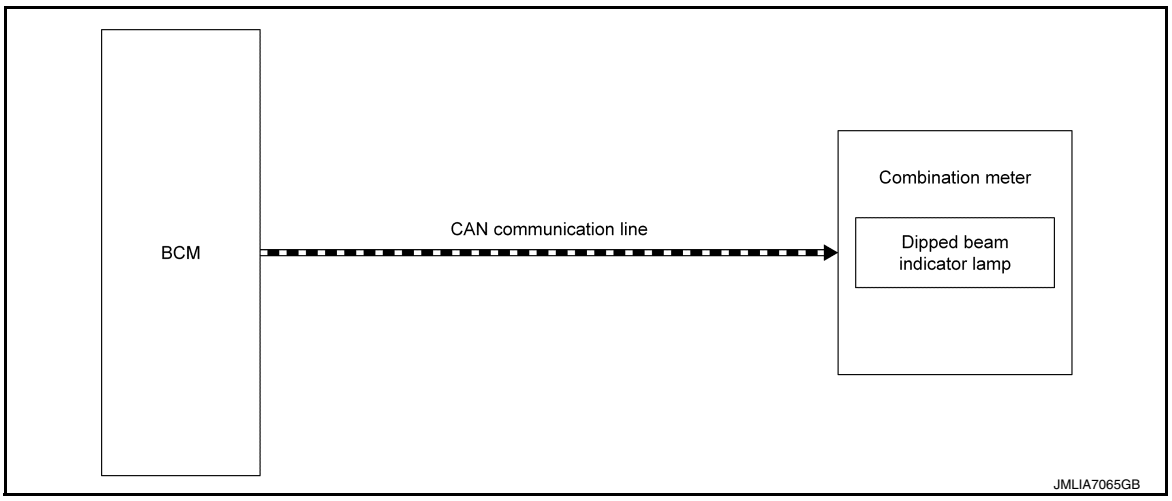
INFOID:0000000013612430

DESIGN/PURPOSE

Dipped beam indicator lamp informs the driver that headlamp (LO) is in ON status.



SYSTEM DIAGRAM



SIGNAL PATH

LED headlamp
- BCM transmits low beam request signal to combination meter via CAN communication when headlamp (LO) is in ON status.
- When combination meter receives low beam request signal, combination meter turns dipped beam indicator lamp ON.

Halogen headlamp
- BCM transmits low beam status signal to combination meter via CAN communication when headlamp (LO) is in ON status.
- When combination meter receives low beam status signal, combination meter turns dipped beam indicator lamp ON.

LIGHTING CONDITION

When headlamp (LO) is turned ON.

SHUTOFF CONDITION

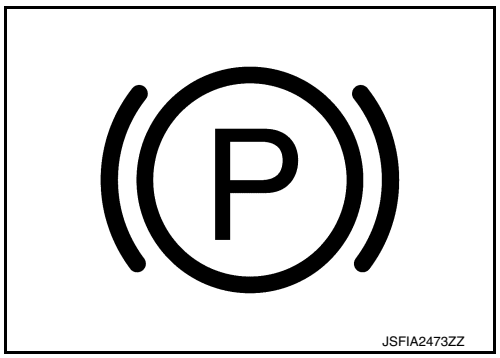
When headlamp (LO) is turned OFF.

WARNING LAMPS/INDICATOR LAMPS : Electric Parking Brake Indicator Lamp

INFOID:0000000013612431

DESIGN/PURPOSE

The electric parking brake indicator lamp (red) warns the driver of following conditions.
- Parking brake is engaged
- Released electric parking brake when ignition switch is OFF
- Condition for automatic release of the electric parking brake is not fulfilled
- Emergency stop using the electric parking
- Malfunction in the electric parking brake system
- Electric parking brake inoperative
- Electric parking brake in child safety lock mode, ignition must be switched ON

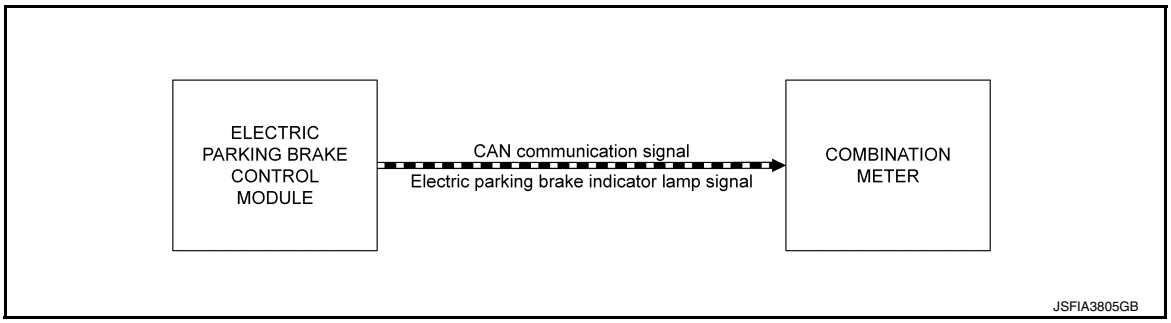


SYNCHRONIZATION WITH WARNING BUZZER

Applicable

For warning buzzer, refer to PB-10, "System Description".

SYSTEM DIAGRAM



SIGNAL PATH

When Operating The Parking Brake
- The electric parking brake control module receives a parking brake switch operation signal from the parking brake switch is pushing.
- The electric parking brake control module transmits a electric parking brake indicator lamp signal to the combination meter via CAN communication according to the received electric parking brake indicator lamp signal.
- The combination meter turns ON the electric parking brake indicator lamp (red) when receiving a electric parking brake indicator lamp signal.

When The Electric Parking Brake System Is In Abnormal State (ON/Flash)
- The electric parking brake control module transmits a electric parking brake indicator lamp signal to the combination meter via CAN communication when detecting a malfunction in the electric parking brake system.
- The combination meter flashes the electric parking brake indicator lamp (red) when receiving a electric parking brake indicator lamp signal.

LIGHTING CONDITION
- Released electric parking brake when ignition switch is OFF
- Electric parking brake inoperative
- Attempted release of electric parking brake in child safety lock mode, ignition must be switched ON

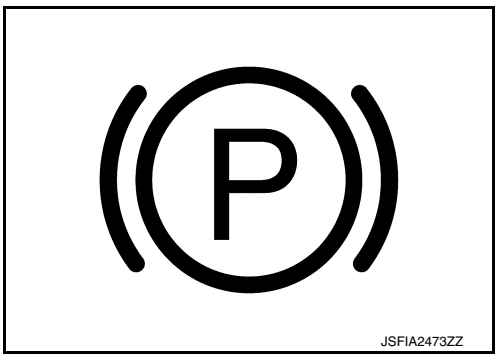
FLASHING CONDITION
- Condition for automatic release of the electric parking brake is not fulfilled
- Emergency stop using the electric parking brake
- Electric parking brake malfunction

WARNING LAMPS/INDICATOR LAMPS : Electric Parking Brake Warning Lamp

INFOID:0000000013612432

DESIGN/PURPOSE

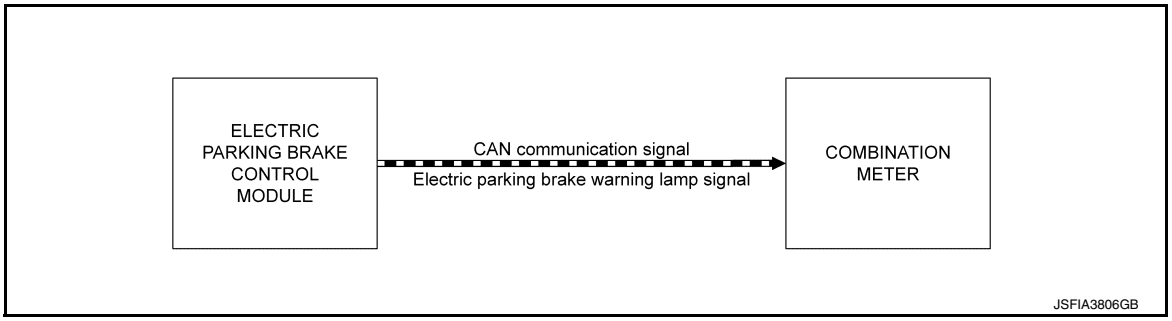
- The electric parking brake warning lamp (yellow) warns the driver of following conditions.
- Emergency stop using the electric parking
- Malfunction in the electric parking brake system
- Electric parking brake inoperative



SYNCHRONIZATION WITH WARNING BUZZER

Not applicable

SYSTEM DIAGRAM



SIGNAL PATH

When The Electric Parking Brake System Is In Abnormal State

- The electric parking brake control module transmits a electric parking brake warning lamp signal to the combination meter via CAN communication when detecting a malfunction in the electric parking brake system.
- The combination meter Turn ON the electric parking brake warning lamp (yellow) when receiving a electric parking brake warning lamp signal.

LIGHTING CONDITION

- Electric parking brake malfunction

FLASHING CONDITION

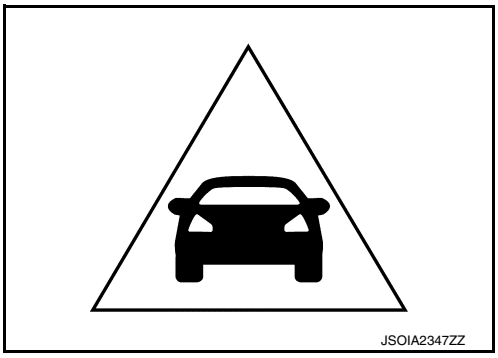
- Electric parking brake inoperative

WARNING LAMPS/INDICATOR LAMPS : FEB Warning Lamp

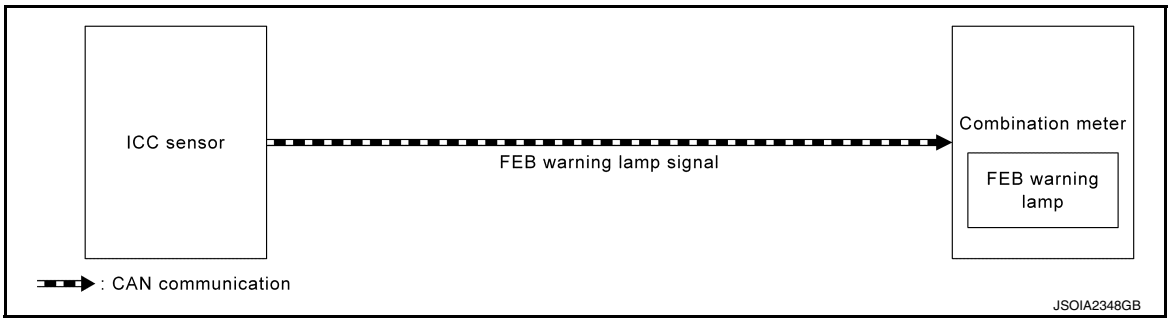
INFOID:0000000013612435

DESIGN/PURPOSE

FEB warning lamp illuminates if the distance to the vehicle in front is too small for the speed selected.



SYSTEM DIAGRAM



SIGNAL PATH

The ICC sensor sends the request to output the warning via the CAN communication, electronic ignition lock control unit and chassis CAN communication to the combination meter. The combination meter reacts by actuating the FEB warning lamp.

LIGHTING CONDITION

When the condition below is satisfied while:

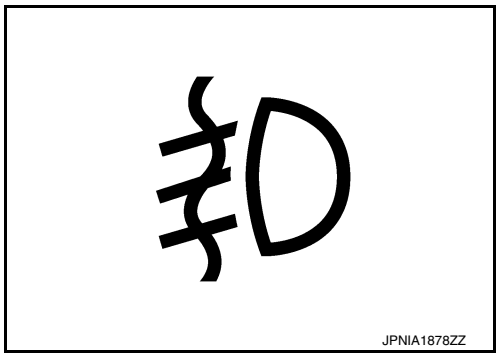
- If the distance to the vehicle in front is too small for the speed selected

WARNING LAMPS/INDICATOR LAMPS : Front Fog Lamp Indicator Lamp

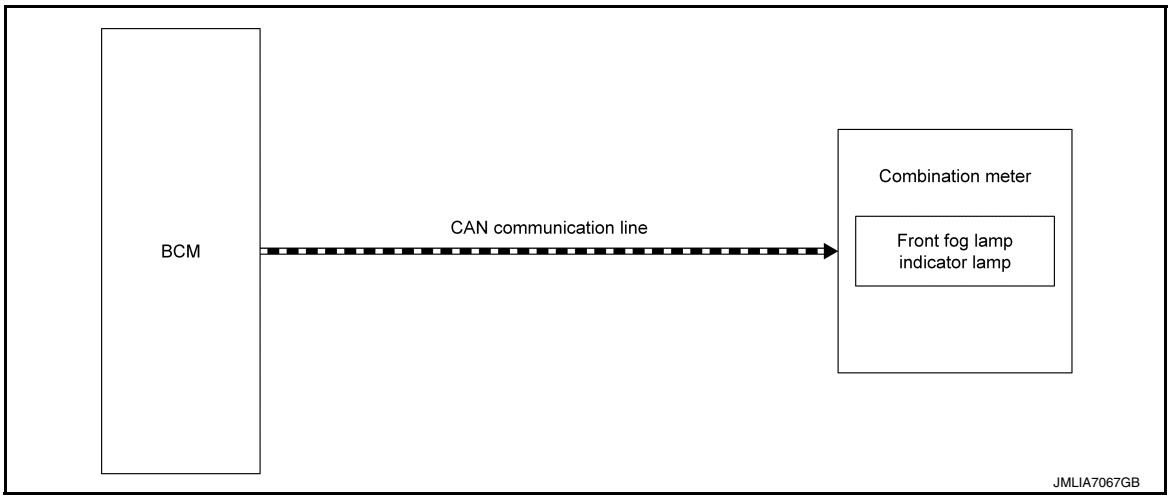
INFOID:0000000013612436

DESIGN/PURPOSE

Front fog lamp indicator lamp informs the driver that front fog lamp is in ON status.



SYSTEM DIAGRAM



SIGNAL PATH

- BCM transmits front fog lamp status signal to combination meter via CAN communication when front fog lamp is in ON status.
- When combination meter receives front fog lamp status signal, combination meter turns front fog lamp indicator lamp ON.

LIGHTING CONDITION

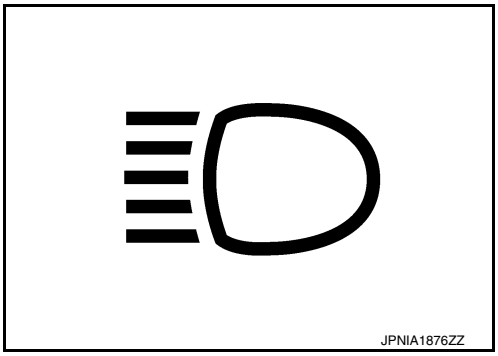
When front fog lamp is turned ON.

SHUTOFF CONDITION
When front fog lamp is turned OFF.

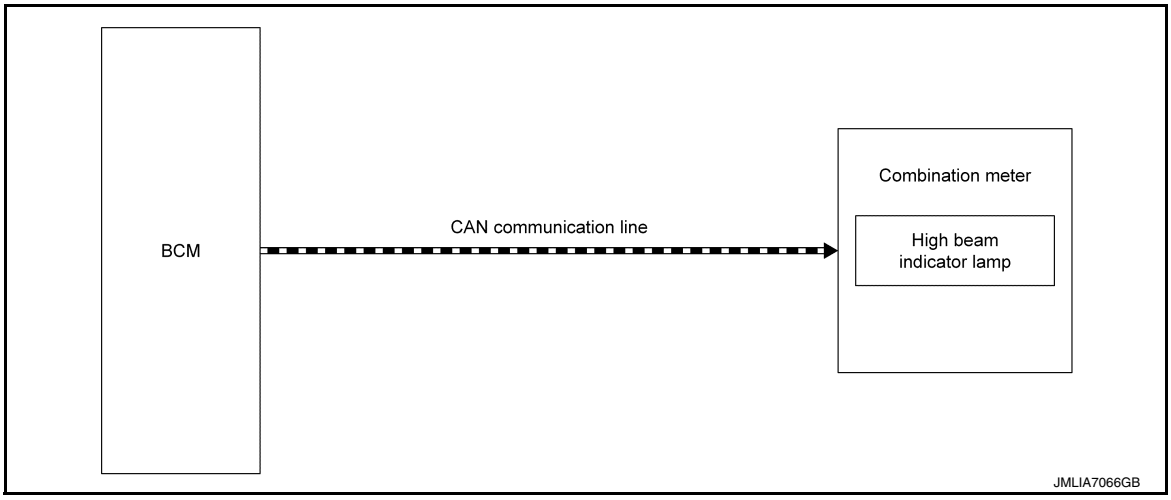
WARNING LAMPS/INDICATOR LAMPS : High Beam Indicator Lamp

INFOID:0000000013612437

DESIGN/PURPOSE
High beam indicator lamp informs the driver that headlamp (HI) is in ON status.



SYSTEM DIAGRAM



SIGNAL PATH

LED headlamp
- BCM transmits high beam request signal to combination meter via CAN communication when headlamp (HI) is in ON status.
- When combination meter receives high beam request signal, combination meter turns high beam indicator lamp ON.

Halogen headlamp
- BCM transmits high beam status signal to combination meter via CAN communication when headlamp (HI) is in ON status.
- When combination meter receives high beam status signal, combination meter turns high beam indicator lamp ON.

LIGHTING CONDITION
When headlamp (HI) is turned ON.

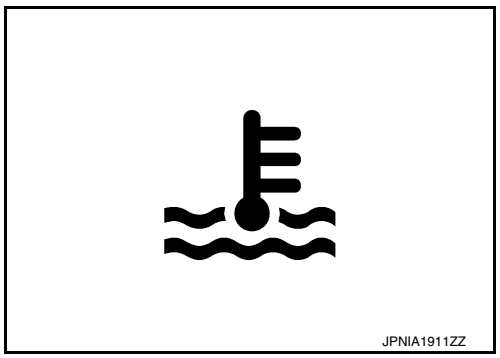
SHUTOFF CONDITION
When headlamp (HI) is turned OFF.

WARNING LAMPS/INDICATOR LAMPS : High Water Temperature Warning Lamp

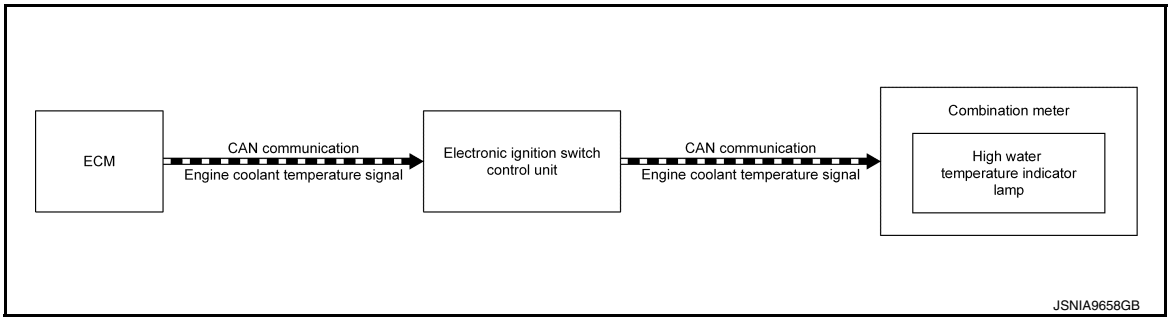
INFOID:0000000013612438

DESIGN/PURPOSE

The state of engine coolant temperature is informed to the driver.


JPNIA1911ZZ

SYSTEM DIAGRAM



JSNIA9658GB

SIGNAL PATH

- The ECM sends information on the coolant temperature over electronic ignition switch control unit to the combination meter.
- The combination meter turns ON/OFF the high water temperature indicator lamp, according to an engine coolant temperature signal.

LIGHTING CONDITION

- At coolant temperatures of T > 130 °C (266 °F), the combination meter actuates the high water temperature warning lamp.
- If the combination meter does not receive any value for the coolant temperature, it actuates the high water temperature warning lamp.

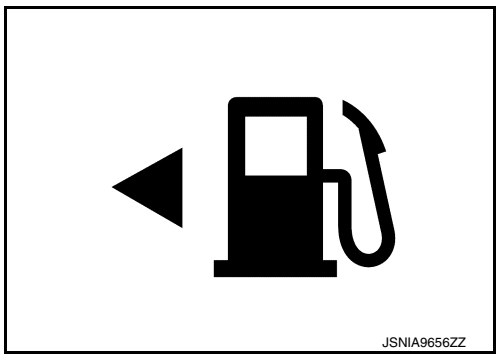
NOTE:
If a fan motor is recognized as malfunction, the actual coolant temperature is displayed on the coolant temperature gauge. The high water temperature warning lamp is also actuated.

WARNING LAMPS/INDICATOR LAMPS : Low Fuel Warning Lamp

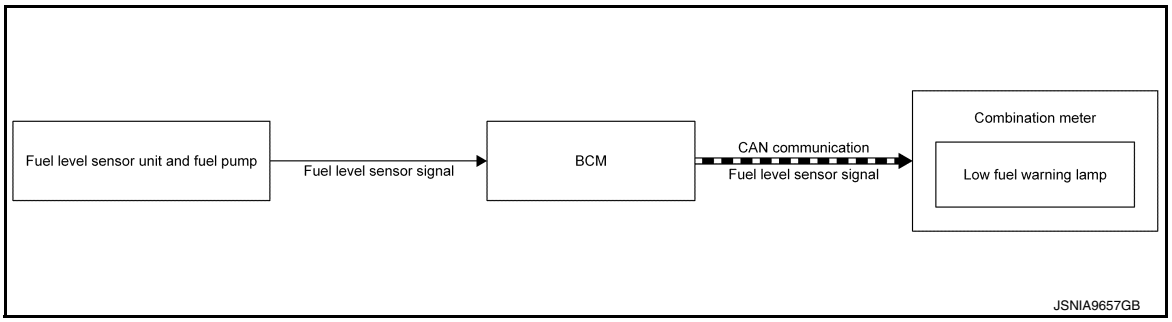
INFOID:0000000013612439

DESIGN/PURPOSE

Low fuel warning lamp warns the driver that the fuel level is low.


JSNIA9656ZZ

SYSTEM SCHEMATIC



SIGNAL PATH

- Fuel level sensor unit and fuel pump records the fill level in the fuel tank. The BCM reads in the signals from the fuel level sensor unit and fuel pump directly and sends them to the combination meter via CAN communication. The combination meter receives the signals from the fuel level sensor unit and fuel pump, evaluates them and actuates the fuel level gauge accordingly by means of a stepper motor. If the reserve range has been reached (approx. 12.5 % of maximum tank capacity), the combination meter actuates the low fuel warning lamp.

LIGHTING CONDITION

The reserve range has been reached (approx. 12.5 % of maximum tank capacity).

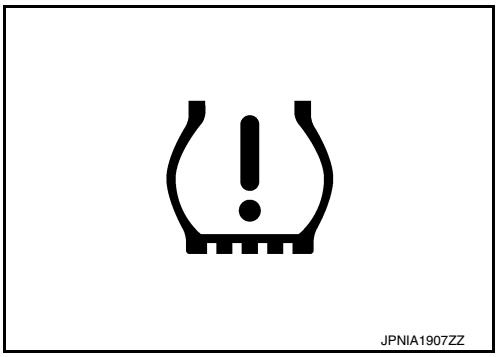
WARNING LAMPS/INDICATOR LAMPS : Low Tire Pressure Warning Lamp

INFOID:0000000013612440

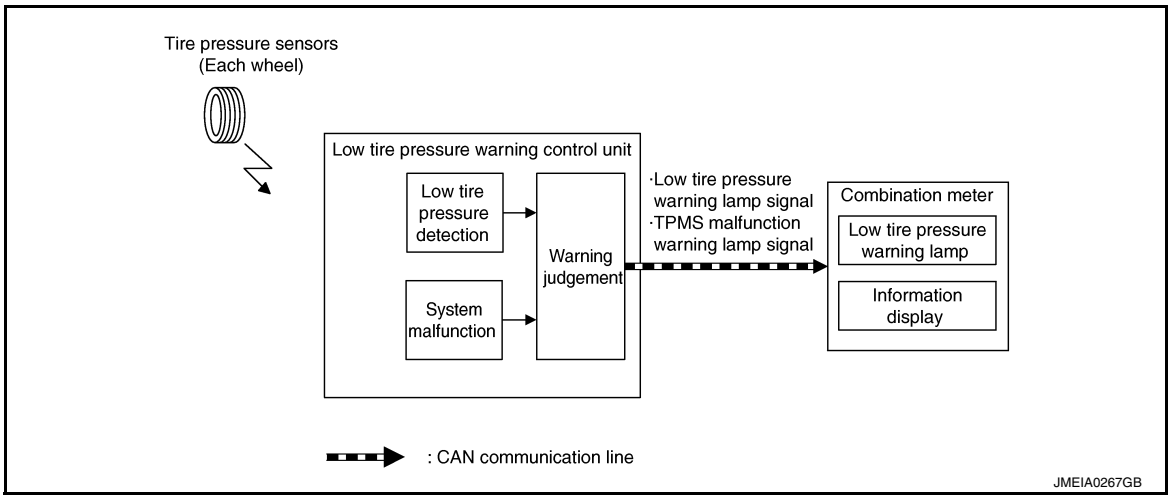
DESIGN/PURPOSE

- When tire pressure is low, TPMS (Tire Pressure Monitoring System) turns low tire pressure warning lamp ON to warn the driver.

Details for TPMS (Tire Pressure Monitoring System), Refer to WT-10, "System Description".



SYSTEM DIAGRAM



SIGNAL PATH

- Low tire pressure warning control unit receives a signal transmitted from the tire pressure sensors/transmitters installed in each wheel.
- If low tire pressure warning control unit detects following condition, it sends the signal to the combination meter via CAN communication.

- Tire pressure is low
- System malfunction is detected
• Combination meter turns the low tire pressure warning lamp ON according to the signal. In addition, warning message will be displayed in the vehicle information display.

LIGHTING CONDITION

When any of the following conditions is satisfied:
• Tire pressure is low.
• System malfunction is detected.
• CAN communication line malfunction is detected.
For DTC, refer to WT-27, "DTC Index".

SHUTOFF CONDITION

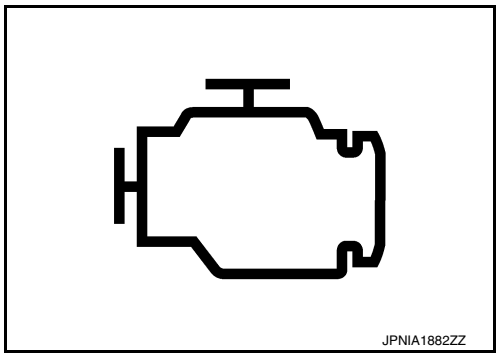
When any of the following conditions is satisfied:
• Ignition switch is not in ON position.
• All tire pressures are normal.
• System malfunction is not detected.

WARNING LAMPS/INDICATOR LAMPS : Malfunction Indicator Lamp (MIL)

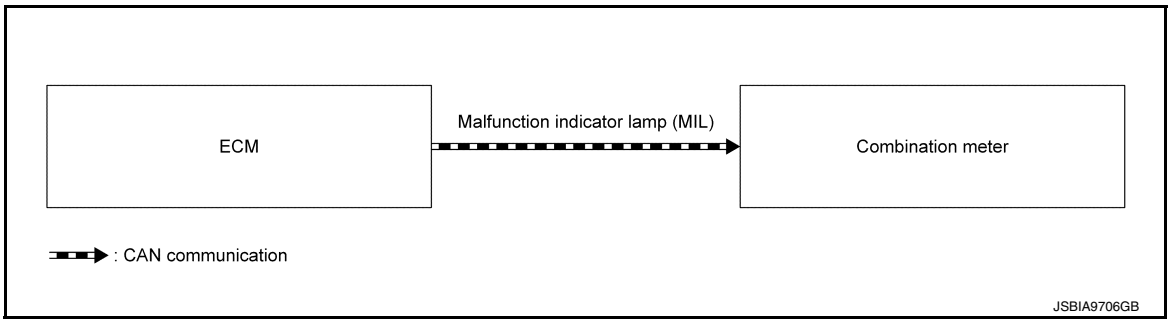
INFOID:0000000013612441

DESIGN/PURPOSE

When a malfunction which increases exhaust gases is detected, ECM turns ON MIL and informs the driver of the necessity of inspection and repair.
When a malfunction which causes damage to the catalyst is detected, ECM immediately blinks MIL to alert the driver.



SYSTEM DIAGRAM



SIGNAL PATH

• When the lighting conditions of the malfunction indicator lamp (MIL) are satisfied, ECM transmits a malfunction indicator lamp (MIL) signal to the combination meter via CAN communication.
• The combination meter turns ON or blinks the malfunction indicator lamp (MIL), according to a signal received from ECM.

LIGHTING CONDITION

When all of the following conditions are satisfied:
• Ignition switch: ON
• DTC which influences on exhaust gasses is judged.

SHUTOFF CONDITION

When any of the following conditions is satisfied:

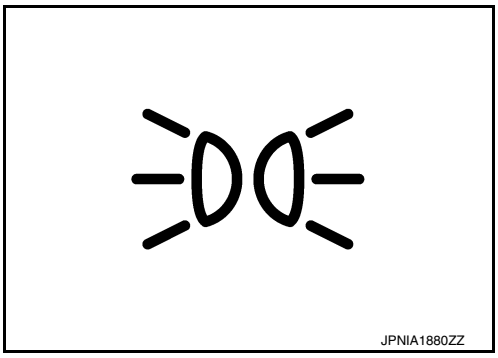
- Ignition switch: OFF
- Erase DTC

WARNING LAMPS/INDICATOR LAMPS : Position Lamp Indicator Lamp

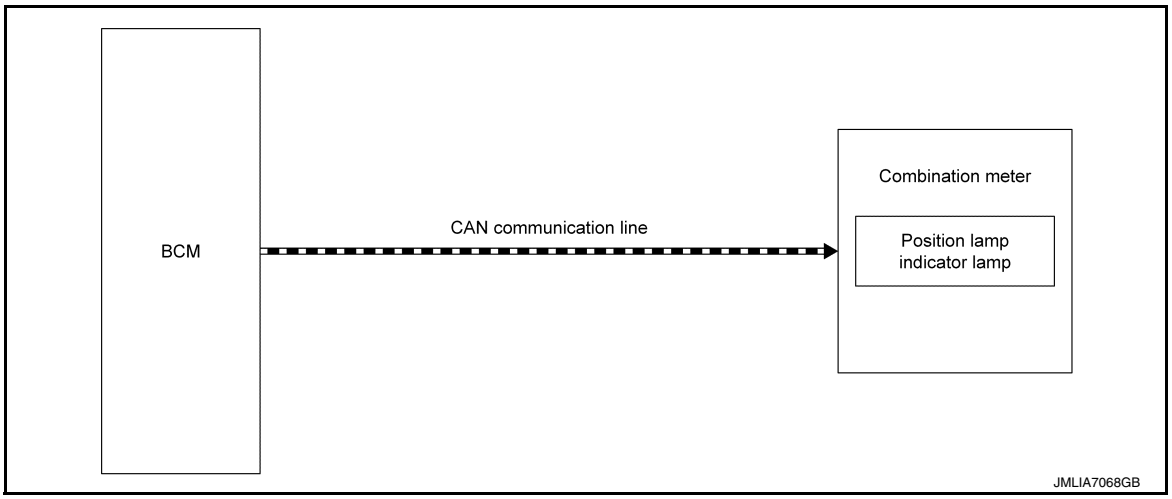
INFOID:0000000013612442

DESIGN/PURPOSE

Position lamp indicator lamp informs the driver that parking lamp, position, license plate lamp and tail lamp are in ON status.



SYSTEM DIAGRAM



SIGNAL PATH

- BCM transmits position light request signal to combination meter via CAN communication when parking lamp, position lamp, license plate lamp and tail lamp are in ON status.
- When combination meter receives position light request signal, combination meter turns position lamp indicator lamp ON.

LIGHTING CONDITION

When parking lamp, position lamp, license plate lamp and tail lamp are turned ON.

SHUTOFF CONDITION

When parking lamp, position lamp, license plate lamp and tail lamp are turned OFF.

WARNING LAMPS/INDICATOR LAMPS : Seat Belt Warning Lamp

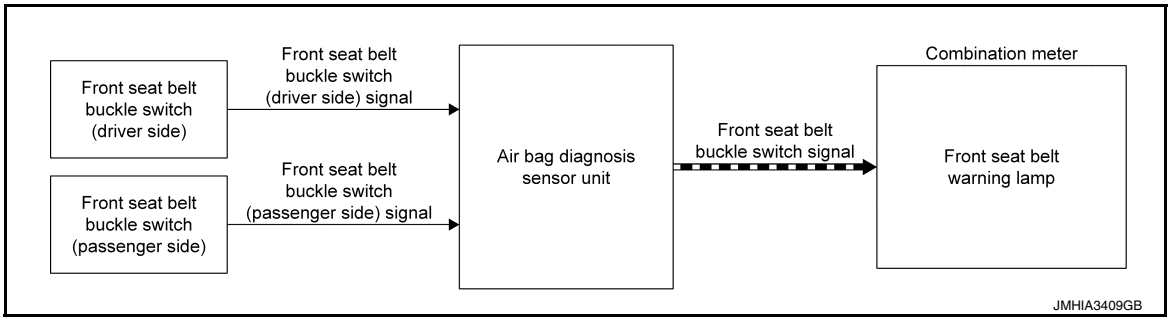
INFOID:0000000013612444

DESIGN/PURPOSE

Seat belt warning lamp warns the driver that driver or passenger seat belt is not fastened.



SYSTEM DIAGRAM



SIGNAL PATH

Combination meter turns seat belt warning lamp ON according to driver or passenger seat belt buckle switch signal from air bag diagnosis sensor unit.

LIGHTING CONDITION

The illumination control that the seat belt warning lamp performs for the driver seat belt and the passenger seat belt each differ. When either the driver seat belt or the passenger seat belt match the lighting conditions, the seat belt warning lamp illuminates.

Driver seat belt

Combination meter turns seat belt warning lamp ON when all of the following conditions are satisfied.

- Ignition switch is ON.
- Driver seat belt is not fastened.

Passenger seat belt

Combination meter turns seat belt warning lamp ON when all of the following conditions are satisfied.

- Ignition switch is ON.
- A person sits in the passenger seat.
- Passenger seat belt is not fastened.

SHUTOFF CONDITION

Combination meter cancels seat belt reminder warning when any of the following conditions are satisfied.

- Ignition switch is other than ON.
- 6 seconds after the start of warning sound.
- When all of the conditions listed below are satisfied while the ignition switch is ON.

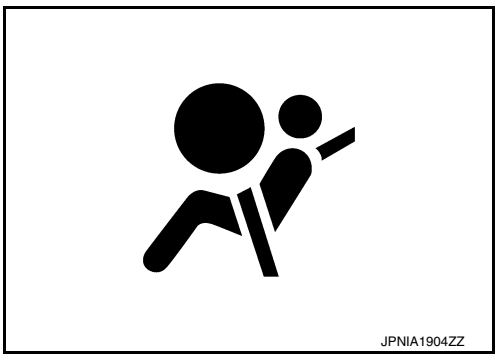
- Driver seat belt is fastened.
- Passenger seat belt is fastened or person does not sit in the passenger seat.

WARNING LAMPS/INDICATOR LAMPS : SRS Air Bag Warning Lamp

INFOID:0000000013612445

DESIGN/PURPOSE

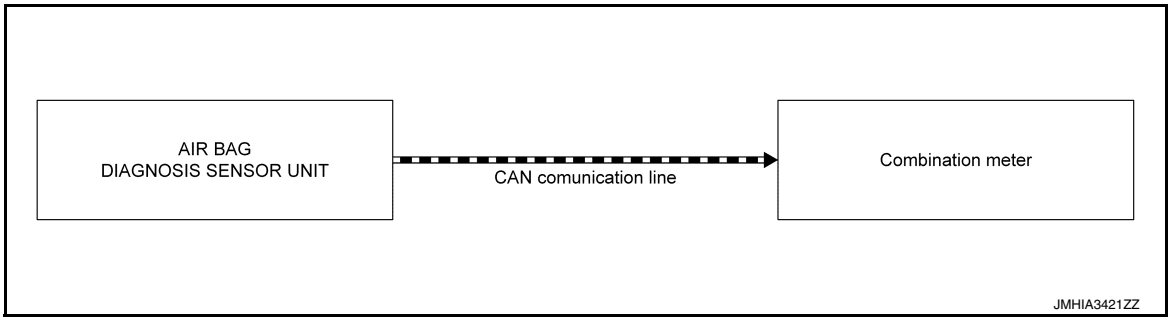
The warning lamp warns the driver that SRS air bag system is not normal.



BULB CHECK

For four seconds after the ignition switch is turned ON.

SYSTEM DIAGRAM



SIGNAL PATH

- When a malfunction is detected, air bag diagnosis sensor unit transmits the warning signal to combination meter.
- Combination meter turns SRS air bag warning lamp ON, according to the received signal.

LIGHTING CONDITION

When a malfunction of the following part or status is detected.

- Deployment of air bag
- Air bag diagnosis sensor unit
- Combination meter
- Circuit between air bag diagnosis sensor unit and combination meter
- Battery voltage not normal (approximately 9 V or less, or 16 V or more)
- Each air bag module main unit
- Each seat belt pre-tensioner main unit
- Crash zone sensor main unit
- Each satellite sensor
- Circuit between each air bag module and air bag diagnosis sensor unit
- Circuit between each seat belt pre-tensioner and air bag diagnosis sensor unit
- Circuit between crash zone sensor and air bag diagnosis sensor unit
- Circuit between each satellite sensor and air bag diagnosis sensor unit

NOTE:

For the relation between warning lamp and DTC, refer to SRC-20, "DTC Index".

SHUTOFF CONDITION

When Being Turned ON Due to Deployment of Air Bag

Replace air bag diagnosis sensor unit.

NOTE:

After air bag deployment, perform collision diagnosis including replacement of each air bag module, refer to SR-13, "For Frontal Collision" (For front collision), and SR-15, "For Side and Rollover Collision" (For side collision).

When Turned ON Due to a Malfunction of SRS Air Bag Warning Lamp Circuit

Repair SRS air bag warning lamp circuit system.

When Turned ON Due to a Malfunction of Air Bag Module or Air Bag Module Circuit

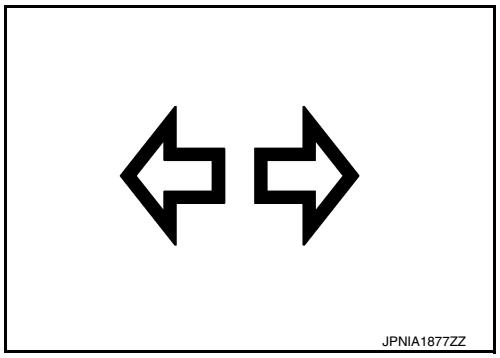
Repair the malfunctioning part. Erase self-diagnosis result memory.

WARNING LAMPS/INDICATOR LAMPS : Turn Signal Indicator Lamp

INFOID:0000000013612446

DESIGN/PURPOSE

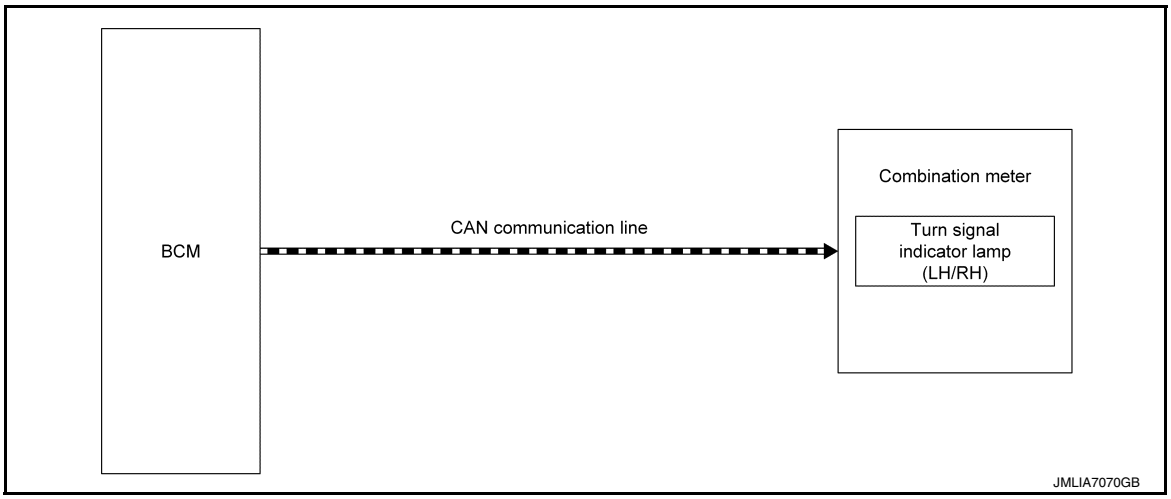
Turn signal indicator lamp informs the driver that turn signal lamp is in ON status.



SYNCHRONIZATION WITH WARNING CHIME

Synchronization is applied.
For warning chime, refer to EXL-34, "TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM : System Description" (LED headlamp) or EXL-327, "TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM : System Description" (Halogen headlamp).

SYSTEM DIAGRAM



SIGNAL PATH

- BCM transmits turn indicator signal to combination meter via CAN communication when turn signal lamp is in ON status.
- When combination meter receives turn indicator signal, combination meter turns turn signal indicator lamp ON.

LIGHTING CONDITION

Turn Signal Indicator Lamp (LH)
When turn signal lamp (LH) is turned ON.

Turn Signal Indicator Lamp (RH)
When turn signal lamp (RH) is turned ON.

SHUTOFF CONDITION

Turn Signal Indicator Lamp (LH)
When turn signal lamp (LH) is turned OFF.

Turn Signal Indicator Lamp (RH)
When turn signal lamp (RH) is turned OFF.

WARNING LAMPS/INDICATOR LAMPS : VDC OFF Indicator Lamp

INFOID:0000000013612433

DESIGN/PURPOSE

The VDC OFF indicator lamp warns the driver of following condition.

- ABS, VDC, BAS, HOLD and hill start assist function are temporarily unavailable
- ABS, VDC, BAS, HOLD and hill start assist are not available due to a malfunction
- VDC, BAS, HOLD and hill start assist function are temporarily unavailable
- VDC, BAS, HOLD and hill start assist are not available due to a malfunction
- EBD, ABS, VDC, BAS, HOLD and hill start assist are not available due to a malfunction
- VDC function is OFF



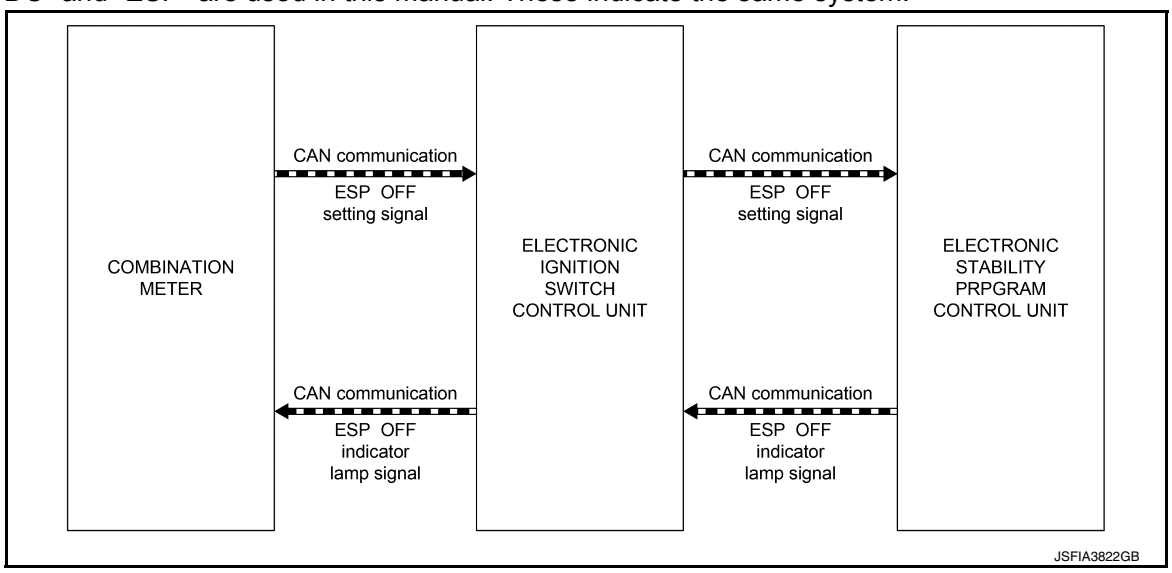
NOTE:

The VDC warning lamp may turn ON when the brake warning lamp or ABS warning lamp turns ON. For details, refer to BRC-34, "System Description".

SYSTEM DIAGRAM

NOTE:

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



SIGNAL PATH

- The electronic stability program control unit receives an VDC setting signal from the combination meter through electronic ignition switch control unit via CAN communication.
- The electronic stability program control unit transmits an VDC OFF indicator lamp signal to the combination meter through electronic ignition switch control unit via CAN communication.
- The combination meter turns ON the VDC OFF indicator lamp when receiving a VDC OFF indicator lamp signal.

LIGHTING CONDITION

When all of the following conditions are satisfied:

- Ignition switch ON
- VDC OFF switch ON (VDC function and TCS function non-operational status)

SHUTOFF CONDITION

When the condition listed below is satisfied while the ignition switch ON:

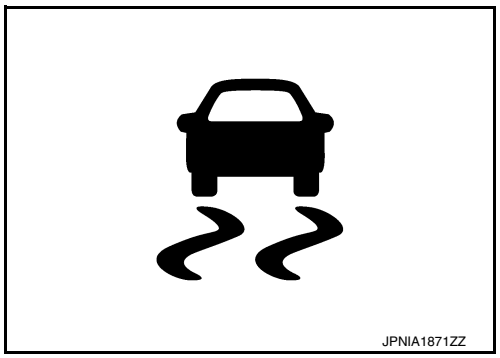
- Ignition switch other than ON
- VDC function is OFF
- Ignition switch OFF

WARNING LAMPS/INDICATOR LAMPS : VDC Warning Lamp

INFOID:0000000013612434

DESIGN/PURPOSE

The VDC warning lamp warns the driver of a malfunction in following functions of electronic stability program control unit.

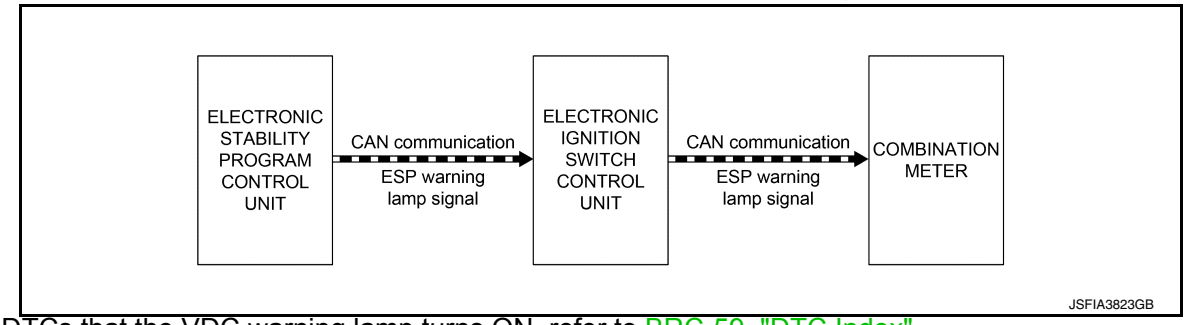


- ABS, VDC, BAS, HOLD and hill start assist function are temporarily unavailable
- ABS, VDC, BAS, HOLD and hill start assist are not available due to a malfunction
- VDC, BAS, HOLD and hill start assist function are temporarily unavailable
- VDC, BAS, HOLD and hill start assist are not available due to a malfunction
- EBD, ABS, VDC, BAS, HOLD and hill start assist are not available due to a malfunction
- VDC or traction control has intervened because there is a risk of skidding or at least one wheel has started to spin.

NOTE:
The VDC warning lamp may turn ON when the brake warning lamp or ABS warning lamp turns ON. For details, refer to BRC-34, "System Description".

SYSTEM DIAGRAM

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



*: For DTCs that the VDC warning lamp turns ON, refer to BRC-59, "DTC Index".

SIGNAL PATH

When Operating VDC Function

- The electronic stability program control unit transmits an VDC warning lamp signal to the combination meter through electronic ignition switch control unit via CAN communication when detecting a malfunction.
- The combination meter Blinking the VDC warning lamp when receiving an VDC warning lamp signal.

When VDC Function Are In Abnormal State

- The electronic stability program control unit transmits an VDC warning lamp signal to the combination meter through electronic ignition switch control unit via CAN communication when detecting a malfunction.
- The combination meter turns ON the VDC warning lamp when receiving a VDC warning lamp signal.
- For the relationship between warning lamp and DTC, refer to BRC-59, "DTC Index".

LIGHTING CONDITION

- A malfunction is detected in the VDC function of the electronic stability program control unit.
- For the relationship between warning lamp and DTC, refer to BRC-59, "DTC Index".

BLINKING CONDITION

When VDC function is under operating conditions.

SHUTOFF CONDITION

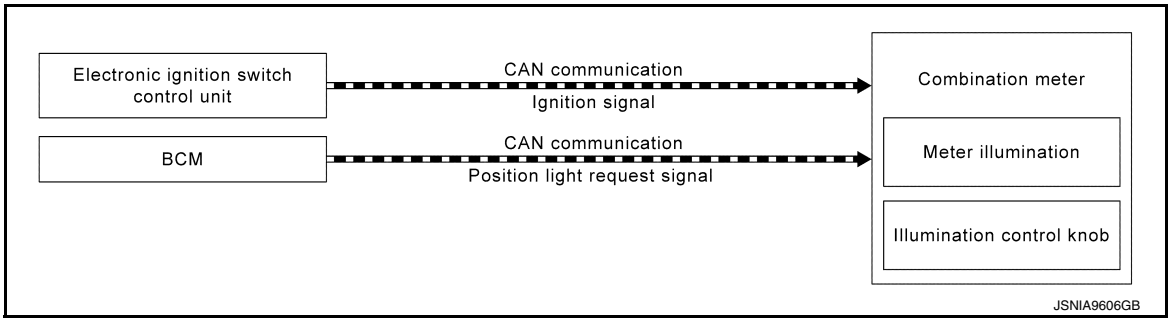
- When the condition listed below is satisfied while the ignition switch ON:
- Erase DTC
- When VDC function is not under operating conditions.
- The ignition switch is in a position other than ON.

METER ILLUMINATION CONTROL

METER ILLUMINATION CONTROL : System Description

INFOID:0000000013612447

SYSTEM DIAGRAM



DESCRIPTION

The scale illumination of the combination meter is activated by switching on the position lights or ignition switch ON.

The BCM sends the status of the position lights actuation over the CAN communication to the combination meter.

The electronic ignition switch control unit sends the ignition switch ON status over the CAN communication to the combination meter.

The combination meter receives these signals and switches on the scale illumination.

The brightness is automatically adjusted to suit the lighting conditions in the vehicle interior by a phototransistor integrated into the combination meter. The brightness can also be personalized by actuating the illumination control knob.

NOTE:

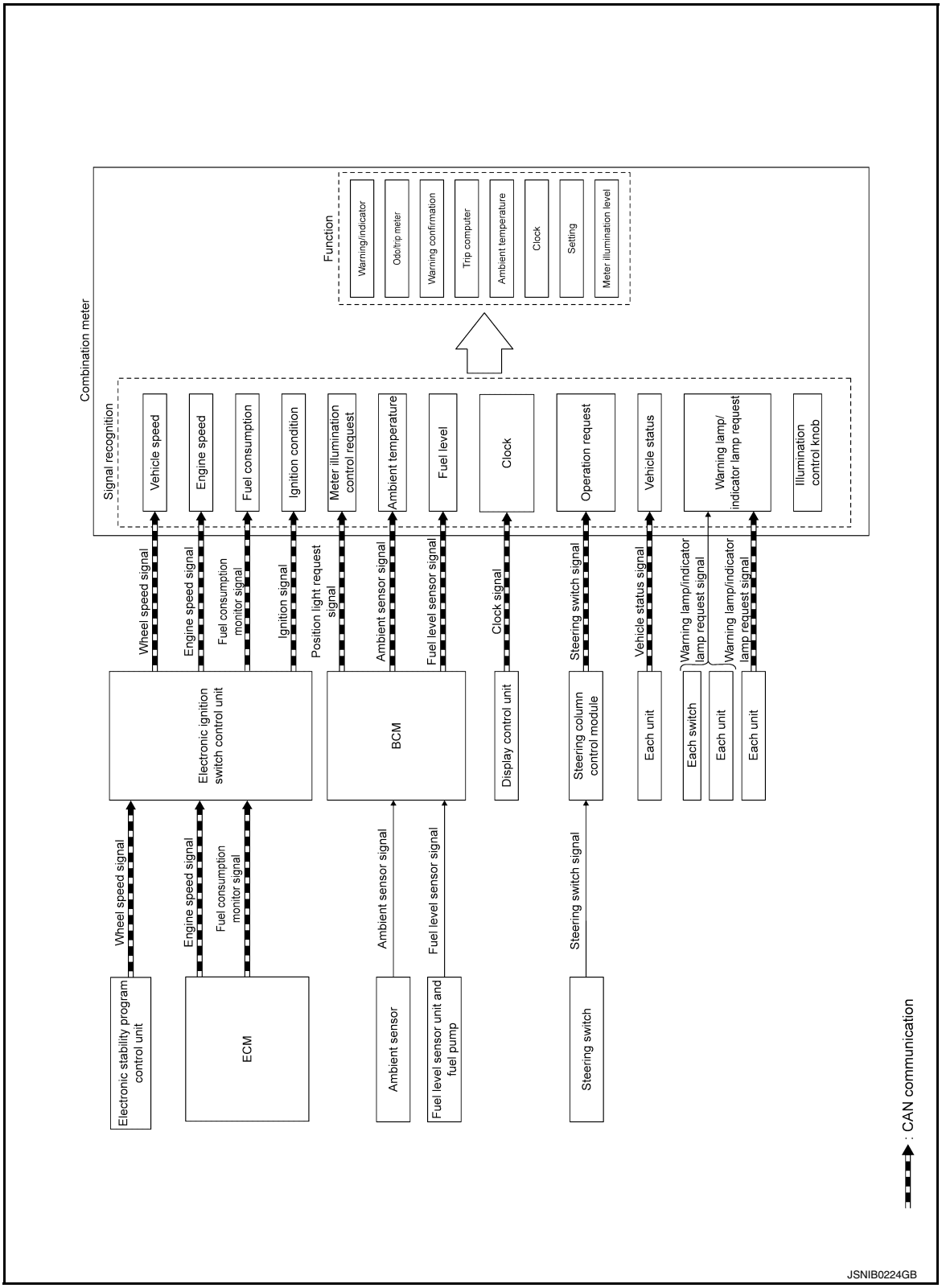
- If the combination meter was activated by the driver door being opened, it only switches on the default screen of the information display. This switches off again after t = 40 s. If an active warning is displayed, the lighting period is extended to t = 120 s.
- If the ambient illumination function is activated using the combination meter, this is automatically switched on when the vehicle is unlocked by radio or infrared. This causes the “Position lights actuation active” status to be set, thereby also activating the scale illumination of the combination meter. If the driver door is then opened, the ambient illumination goes off. The “Position lights actuation active” status is canceled and the combination meter deactivates the scale illumination.

INFORMATION DISPLAY

INFORMATION DISPLAY : System Description

INFOID:0000000013805418

SYSTEM DIAGRAM



DESCRIPTION

- The combination meter receives signals necessary for controlling the operation of the information display from each unit, sensor and switch.
- The combination meter incorporates a trip computer that displays the warning/information according to the information received from each unit, sensor and switch.

- The combination meter shows the following functions on the information display.
- Trip computer
- Audio indicator
- Navigation indicator
- Assyst
- Service
- Setting
- Ambient temperature
- Clock
- Warning/Indicator message
- The items that displayed to information display can be selected by the steering switch. Refer to MWI-67, "Switch Name and Function" for further details.

TRIP COMPUTER

The following functions can be selected in the “Trip” menu:

- Show Odo/trip meter or reset
- Range and present consumption display
- Show trip computer “After start” or reset
- Show trip computer “After reset”
- Average speed display
- Display digital speedometer
- Show “ECO score” display (driving style analysis)
- Remaining distance display
- Display reset

Show Odo/trip Meter or Reset

- The combination meter calculates the traveled distance from the wheel speeds, taking the tire circumference into consideration. The electronic stability program control unit sends information on the wheel speeds on vehicles over the electronic ignition lock control unit to the combination meter.
  NOTE:
  The tire size is coded via the CONSULT.
- The total distance is displayed in the information display of the combination meter. The maximum displayed counter reading of the main odometer reading is 9.999.999. The display then overflows to 0. However, the actual kilometer reading continues to be stored internally in the combination meter.
- The trip distance is displayed in the information display of the combination meter. The maximum displayed counter reading of the trip distance is 9999.9. If this value is reached, the figure returns to 0.
- The main odometer reading is saved continuously to the nonvolatile part of the combination meter's internal memory. This memory guarantees the retention of the counter reading for at least five years even when the on-board electrical system battery is disconnected. The current reading of the trip distance is likewise stored in the nonvolatile memory of the combination meter.

Range and Present Consumption Display

- The trip computer calculates the fuel consumption using the following information:
- : Consumption signal from ECM
- Travel distance covered “After start” or “After reset”
- Depending on the setting (kilometers/miles) and coded national version, the fuel consumption is shown in:
- l/100 km (liters per 100 kilometers)
- mpg (miles per gallon)
- km/l (kilometers per liter)
- The ECM sends the relevant information on vehicles over electronic ignition switch control unit to the combination meter.
  NOTE:
  - The present consumption is displayed as a bar together with the range.
  - In coasting mode, the present consumption indicator is hidden and coasting mode is displayed.
- The expected range is calculated from the ratio between the current tank capacity and the average fuel consumption.
  The current tank capacity is recorded by fuel pump with fuel gauge. The BCM reads in the signals from the fuel pump with fuel gauge directly and sends them to the combination meter via CAN communication. The average fuel consumption is gathered from the short-distance memory or long-distance memory.

Show Trip Computer "After start" or Reset

Travel Distance Display After Start

- The travel distance is calculated on the basis of the wheel speeds.
- The electronic stability program control unit sends information on the wheel speeds on vehicles over the electronic ignition switch control unit to the combination meter. The combination meter calculates the traveled distance from the wheel speeds.
- The travel distance “After start” is displayed in a range of 0 to 9999 km.

NOTE:

- If a period of more than t = 4 h lies between the time when ignition switch is switched off and then switched on again, then the “After start” odometer is automatically reset to “0”.
- If the value for travel distance is between 6213 and 9999 and the distance unit is changed (e.g. from km to miles), the odometer will automatically be reset to “0”. This reset remains active even if the unit is changed again. Distance units can be changed in the “Setup” menu in the “Instrument cluster” submenu. The distance unit can be changed from “km” to “miles” in the “Speedometer/travel distance display unit” display window. Depending on the setting in the combination meter or the coded national version, the travel distance is shown in:
- Kilometers (e.g Economic Commission for Europe (ECE), Japan)
- Miles (e.g. USA, Australia)
- When kilometers are switched over to miles, liters are automatically switched over to gallons.

Time Display After Start

- At ignition switch ON, the “After start” time is added on using a time counter. The display is shown in a range of 0 to 999 h and 59 min.

Show Trip Computer "After reset"

Travel Distance Display After Reset

- The travel distance is calculated on the basis of the wheel speeds.
- The electronic stability program control unit sends information on the wheel speeds on vehicles over the electronic ignition switch control unit to the combination meter. The combination meter calculates the traveled distance from the wheel speeds.

NOTE:

- If the value for travel distance is between 6213 and 9999 and the distance unit is changed (e.g. from km to miles), the odometer will automatically be reset to “0”. This reset remains active even if the unit is changed again. Distance units can be changed in the “Setup“ menu in the “instrument cluster” submenu. The distance unit can be changed from “km” to “miles” in the “Speedometer/travel distance display unit” display window. The “After reset” travel distance is calculated in the same way as the “After start” travel distance. The “After reset” travel distance is shown within a range of between 0 and 99,999 km. Depending on the setting in the combination meter or the coded national version, the travel distance is shown in:
- Kilometers (e.g Economic Commission for Europe (ECE), Japan)
- Miles (e.g. USA, Australia)
- When kilometers are switched over to miles, liters are automatically switched over to gallons.

Time Display After Reset

- The “After reset” time is calculated in the same way as the “After start” time. The “After reset” time is displayed within a range of 0 to 9999 h and 59 minutes.

Average Speed Display

- The combination meter calculates the average speed from the ratio between the driven travel distance and the time that has elapsed since the short-distance or long-distance memory was last reset (trip time).
- The combination meter calculates the travel distance based on the wheel speeds.
- Depending on the setting (kilometers/miles) and the coded national version, the average speed is shown in:
- km/h (kilometers per hour)
- mph (miles per hour)

Display Digital Speedometer

Digital speed meter can be displayed in the information display.

Show "ECO score" Display (Driving Style Analysis)

- The “ECO Score” display graphically displays the individual handling characteristics in the form of a bar graph. The following information is displayed:
- Acceleration characteristic
- Constant driving and coasting
- The mean value of the three disciplines yields the overall score

NOTE:

The data required for evaluation are sent by the ECM for vehicles over the electronic ignition switch control unit to the combination meter.

Remaining Distance Display

The expected range is calculated from the ratio between the current tank capacity and the average fuel consumption.
The current tank capacity is recorded by the fuel level sensor unit and fuel pump.
The BCM reads in the signals from the fuel level sensor unit and fuel pump directly and sends them to the combination meter via CAN communication.
The average fuel consumption is gathered from the short-distance memory or long-distance memory.

Display Reset

- The TRIP computer is reset in the “Reset values” menu by pressing the OK switch in the steering switch. Here, the reset is only carried out for the currently displayed information.
- The steering switch read in the status of the OK switch directly and transmit it to the steering LIN to the steering column control module. The steering column control module sends the status of the OK switch on vehicles over the electronic ignition switch control unit to the combination meter.

AUDIO INDICATOR

The items that displayed to information display. Refer to AV-45, "WITHOUT BOSE SYSTEM : System Description" (Without BOSE system) or AV-47, "WITH BOSE SYSTEM : System Description" (With BOSE system) for further details.

NAVIGATION INDICATOR

The items that displayed to information display. Refer to AV-49, "WITHOUT BOSE SYSTEM : System Description" (Without BOSE system) or AV-52, "WITH BOSE SYSTEM : System Description" (With BOSE system) for further details.

ASSYST

The following functions can be selected in the “Assist.” menu, depending on the equipment installed:

- Assistance graphic
- Traffic Sign
- VDC
- Emergency Brake
- Blind Spot Warning
- Lane Departure Warning

SERVICE

The following functions can be selected in the “Serv.” menu:

- Call up display messages
- Tire pressure
- Service interval indicator “MAINTENANCE”

Service Interval Indicator “MAINTENANCE”

- To reset service interval indicator “MAINTENANCE”, perform on board diagnosis. Refer to MWI-68, "On Board Diagnosis Function".
- MAINTENANCE calculates when the vehicle is due for a service. This is done either after a precisely defined kilometer reading or after a certain time interval, depending on which limit is reached first. In addition, it allows the driver or the service personnel an overview of the expected service operations at the vehicle. The calculation is performed in the MAINTENANCE, which is integrated into the combination meter as a software solution. The MAINTENANCE takes into account the time and distance-dependent additional operations in accordance with the vehicle equipment. The scope and the time of the due service are displayed in the information display of the combination meter.
- MAINTENANCE comprises the following subfunctions:

- Function sequence for determining the remaining distance
- Function sequence for determining the remaining time
- Function sequence for evaluating data
- Function sequence for service indicator
- Function sequence for service interval reset

- Function sequence for determining the remaining distance
  The remaining distance is calculated from the difference of the defined kilometer reading and the distance already traveled. The distance traveled is defined via the wheel speeds.
  The electronic stability program control unit transmits information about the wheel speeds via the electronic ignition switch control unit to the combination meter.

The remaining distance to the next service is determined by means of comparing with the travel distance reading that was reset and stored at the last service. The remaining distance is the primary decisive factor for the service indicator if the remaining distance is reached before the remaining time.

NOTE:

- The service interval based on the remaining distance is permanently stored in the MAINTENANCE.
- "Service A" is defined as short interval and displayed at every engine oil change. "Service B" is defined as long interval and displayed at every two occurrences of engine oil change. For details of periodic maintenance, Refer to MA-8, "FOR NORTH AMERICA : Introduction of Periodic Maintenance" (for NORTH AMERICA) or MA-10, "FOR MEXICO : Periodic Maintenance" (for MEXICO).

- Function sequence for determining the remaining time

The remaining time is determined by MAINTENANCE.

The remaining time to the next service is determined by means of comparing with the point in time that was reset and stored at the last service. The remaining time is the primary decisive factor for the service indicator if the remaining time is reached before the remaining distance.

NOTE:

The service interval based on the remaining time is permanently stored in the MAINTENANCE and it is 12 months for "Service A" and 24 months for "Service B".

- Function sequence for evaluating data

Apart from the evaluation factors which depend on the real-life driving conditions, the MAINTENANCE takes additional quality factors into consideration for determining the service scope and intervals.

The following input factors are taken into account here:

- Engine speed
- Engine oil level
- Engine torque
- Engine temperature
- Engine off time

- Function sequence for service indicator

The following notes with service code can be shown in the information display:

- Service XX in XX days
- Service XX in XXXX km/miles
- Carry out service XX

- Messages are shown:
- Service XX has been due for XX days
- Service XX has been due for XXXX km/miles

NOTE:

The service due date is displayed on a day-by-day basis. The two-digit service code provides information on the scope of the operations to be carried out. The service scope is shown as a service code (e.g. "A1"). The letter denotes the service scope, and the following digit or letter provides the workshop with information about additional operations. This allows the workshop to provide the customer with the most accurate details regarding time and expense involved for the due service in advance when the appointment is made.

- Function sequence for service interval reset

The OK switch in the steering switch, service can be reset. The steering wheel electronics read in the status of the OK switch directly and transmit it to the steering LIN to the steering column control module. The steering column control module transmits the status of the OK switch via the electronic ignition switch control unit to the combination meter. The "Next Service" message is shown in the information display. The message "Reset the maintenance interval" appears if the OK switch is pressed for longer than t = 3 s. The service interval is reset. Should an exchange of the combination meter be necessary, the current service data must be entered manually. The following parameters are required for this:

- Current kilometer reading/mileage reading
- Current date
- Kilometer reading/mileage reading when last oil change took place (from service booklet)
- Date of last oil change (from service booklet)
- Calculation data of the MAINTENANCE

SETTINGS

"Settings" menu Changes to the following settings can be made in the "Settings" menu:

- Instrument cluster
- Lights
- Vehicle
- Convenience
- Factory settings

CLOCK

- The time is displayed by the digital clock in the information display of the combination meter.
- The time can be entered either manually into the system settings or it is updated automatically through the received GPS data. The display control unit sends information on the time over the CAN communication to the combination meter (time synchronization). The combination meter adopts it and displays it in the digital clock.

AMBIENT TEMPERATURE

- The outside temperature is detected by the ambient sensor. The BCM reads in the signal from the ambient sensor directly, calculates the outside temperature and sends it to the combination meter via CAN communication. The outside temperature is displayed to match the country specification in °C or in °F in the information display of the combination meter. In order to compute the correct outside temperature value to be displayed, the following parameters must also be taken into account:

- Vehicle speed (falsification of value through air stream)
- Coolant temperature (falsification of value through radiant heat).

- The vehicle speed is calculated on the basis of the wheel speeds. The electronic stability program control unit sends information on the wheel speeds on vehicles over the electronic ignition switch control unit to the combination meter.
- The ECM sends information on the coolant temperature on vehicles over the electronic ignition switch control unit to the combination meter.
- The coolant temperature exerts the following influence on the outside temperature display:

- Coolant temperature T < 60 °C (140 °F): The current outside temperature is always shown.
- Coolant temperature T > 60 °C (140 °F) and “Engine running” or “Drive train operational” signal is set: At vehicle speeds of v < 20 km/h (12.4 MPH) (with vehicle deceleration), the outside temperature indicator is only changed when the measured outside temperature drops. At vehicle speeds of v = 20 and 45 km/ h (12.4 and 28.0 MPH), rising outside temperatures are displayed after a delay period of t = 3 min. At vehicle speeds of v > 45 km/h (28.0 MPH) rising outside temperatures are displayed after a delay period of t = 90 s.

  NOTE:
  - The ECM sends the “Engine running” or “Drive train operational” signal over electronic ignition switch control unit to the combination meter.
  - If the wheel speed signals are erroneous, increasing outside temperatures are shown every t = 10 minutes in an attenuated manner. Coolant temperature T > 60 °C (140 °F) and “Engine running” or “Drive train operational” signal is not set: A delay period of maximum t = 1 h prevents an apparent increase in outside temperature from being displayed that is caused by heat dissipated from the engine. A rise in display value is not permitted during this delay period. With battery voltage OFF, the last measured outside temperature value is stored and then displayed when the circuit is reactivated.If, in the meantime, the measured outside temperature has dropped below the stored value, the currently measured temperature is displayed after t = 8 seconds.
  - The electronic ignition switch control unit sends the battery voltage status over the CAN communication to the combination meter.

- The display range for the outside temperature is between T = -40 and +85 °C (-40 and +185 °F).

  NOTE:

  If the combination meter receives implausible values or no values at all for coolant temperature, the display of outside temperature is controlled as if the coolant temperature were T > 60 °C (140 °F).

WARNING/INDICATOR MASSAGE LIST

Symbol	Massage	Possible cause/consequences and solutions
 JSNIA9608ZZ	currently unavailable See Owner's Manual	ABS (Anti-Lock Braking System), BAS (Brake Assist System), VDC and hill start assist are temporarily unavailable. Forward Emergency Braking (FEB) may also have malfunction. In addition, the ABS warning lamp, VDC warning lamp and VDC OFF indicator lamp may light up in the combination meter. Possible causes: • Self-diagnosis is not yet complete. • The on-board voltage may be insufficient. **WARNING:** **The brake system continues to function normally, but without the functions listed above. The wheels could therefore lock if you brake hard, for example.** The steering and braking characteristics may be severely affected. The braking distance may increase in an emergency braking situation.If the display message continues to be displayed, drive on carefully and visit an INFINITI centre or qualified workshop. If VDC is not operational, VDC is unable to stabilise the vehicle. There is an increased danger of skidding and risk of an accident. Carefully drive on a suitable stretch of road, making slight steering movements, at a speed above 20 km/h (12.4 MPH). If the display message disappears, the functions mentioned above are available again.
 JSNIA9608ZZ	inoperative See Owner's Manual	ABS (Anti-Lock Braking System), BAS (Brake Assist System), VDC and hill start assist are not available due to a malfunction. Forward Emergency Braking (FEB) may also have malfunction. In addition, the ABS warning lamp, VDC warning lamp, VDC OFF indicator lamp and brake warning lamp may light up in the combination meter. **WARNING:** **The brake system continues to function normally, but without the functions listed above. The wheels could therefore lock if you brake hard, for example.** The steering and braking characteristics may be severely affected. The braking distance may increase in an emergency braking situation. If VDC is not operational, VDC is unable to stabilise the vehicle. There is an increased danger of skidding and risk of an accident. Drive on carefully and visit an INFINITI centre or qualified workshop immediately.
 JSNIA9609ZZ	currently unavailable See Owner's Manual	BAS (Brake Assist System), VDC , and hill start assist are temporarily unavailable. Forward Emergency Braking (FEB) may also have malfunction. In addition, the VDC warning lamp and VDC OFF indicator lamp may light up in the combination meter. The self-diagnosis function, for example, may not be complete. **WARNING:** **The brake system continues to function normally, but without the functions listed above.** The braking distance may increase in an emergency braking situation. If VDC is not operational, VDC is unable to stabilise the vehicle. There is an increased danger of skidding and risk of an accident. Carefully drive on a suitable stretch of road, making slight steering movements, at a speed above 20 km/h (12.4 MPH). If the display message disappears, the functions mentioned above are available again. If the display message continues to be displayed, drive on carefully and visit an INFINITI centre or qualified workshop.

Symbol	Massage	Possible cause/consequences and solutions
 JSNIA9609ZZ	inoperative See Owner's Manual	BAS (Brake Assist System), VDC and hill start assist are not available due to a malfunction. Forward Emergency Braking (FEB) may also have malfunction. In addition, the VDC warning lamp and VDC OFF indicator lamp may light up in the combination meter. **WARNING:** **The brake system continues to function normally, but without the functions listed above.** The braking distance may increase in an emergency braking situation. If VDC is not operational, VDC is unable to stabilise the vehicle. There is an increased danger of skidding and risk of an accident. Drive on carefully and visit an INFINITI centre or qualified workshop.
EBD  JSNIA9610ZZ	inoperative See Owner's Manual	EBD (electronic brake force distribution) ABS (Anti-Lock Braking System), BAS (Brake Assist System), VDC and hill start assist are not available due to a malfunction. Forward Emergency Braking (FEB) may also have malfunction. In addition, the ABS warning lamp, VDC warning lamp and VDC OFF indicator lamp may light up in the combination meter. **WARNING:** **The brake system continues to function normally, but without the functions listed above. The front and rear wheels could therefore lock if you brake hard, for example.** The steering and braking characteristics may be severely affected. The braking distance may increase in an emergency braking situation. If VDC is not operational, VDC is unable to stabilise the vehicle. There is an increased danger of skidding and risk of an accident. Drive on carefully and visit an INFINITI centre or qualified workshop immediately.
 JSNIA9611ZZ	Turn on the ignition to release the parking brake	The red electric parking brake warning lamp lights up. You attempted to release the electric parking brake while the ignition was switched off. Key: turn the key to the ON position in the ignition switch Intelligent key: switch on the ignition
 JSNIA9611ZZ	Release parking brake	The red electric parking brake warning lamp flashes and a warning tone sounds. A condition for automatic release of the electric parking brake is not fulfilled. You are driving with the electric parking brake applied. Release the electric parking brake manually.
		The red electric parking brake warning lamp flashes and a warning tone sounds. You are making an emergency stop using the electric parking brake

Symbol	Massage	Possible cause/consequences and solutions
 JSNIA9611ZZ	Parking brake See Owner's Manual	The yellow electric parking brake indicator lamp lights up. The electric parking brake is malfunctioning. To apply: 1. Switch the ignition off. 2. Press the electric parking brake handle for at least ten seconds. 3. Vehicles with manual transmission: engage first gear. 4. Vehicles with automatic transmission: shift the shift lever to P (Park). 5. Consult an INFINITI centre or qualified workshop.
		The yellow electric parking brake indicator lamp and the red electric parking brake warning lamp are lit. The electric parking brake is malfunctioning. To release: 1. Switch the ignition of and turn it back on. 2. Release the electric parking brake manually. or 3. Vehicles with manual transmission (automatic emergency release): insert the seat belt in the belt buckle and accelerates-lightly more when pulling away. 4. Vehicles with automatic transmission: release the electric parking brake automatically. If the electric parking brake still cannot be released: DO NOT drive on, and consult an INFINITI centre or qualified workshop.
		The yellow electric parking brake indicator lamp is lit. The red electric parking brake warning lamp flashes. The electric parking brake is malfunctioning. To release: 1. Switch the ignition of and turn it back on. 2. Release the electric parking brake manually. or To apply: 1. Switch the ignition of and turn it back on. 2. Release the electric parking brake manually. If the red electric parking brake warning lamp continues to flash: , and consult an INFINITI centre or qualified workshop. 1. DO NOT drive on 2. Secure the vehicle against rolling away 3. Vehicles with manual transmission: engage first gear 4. Vehicles with automatic transmission: shift the selector lever to P (Park) 5. Turn the front wheels towards the kerb. Consult an INFINITI centre or qualified workshop.

Symbol	Massage	Possible cause/consequences and solutions
 JSNIA9611ZZ	Parking brake See Owner's Manual	The yellow electric parking brake indicator lamp is lit. The red electric parking brake warning lamp flashes for about ten seconds after the electric parking brake has been applied or released. It then goes out or remains lit. The electric parking brake is malfunctioning. To apply: 1. Switch the ignition of and turn it back on. 2. Apply the electric parking brake manually. If it is not possible to apply the electric parking brake: 3. Vehicles with manual transmission: engage first gear 4. Vehicles with automatic transmission: shift the selector lever to P (Park). Consult an INFINITI centre or qualified workshop. If it is not possible to release the electric parking brake: 1. Vehicles with manual transmission (automatic emergency release): insert the seat belt in the belt buckle and accelerates lightly more when pulling away. 2. Vehicles with automatic transmission: release the electric parking brake automatically. If the electric parking: brake still cannot be released, consult an INFINITI centre or qualified workshop.
		The yellow electric parking brake indicator lamp is lit. If you manually apply or release the electric parking brake, the red electric parking brake warning lamp flashes. The electric parking brake is malfunctioning. It is not possible to apply the electric parking brake manually. Vehicles with manual transmission: switch off the ignition The electric parking brake is applied automatically. or Insert the seat belt in the belt buckle and accelerate slightly more when pulling away. Vehicles with automatic transmission: shift the shift lever to P (Park), as the electric parking brake is not applied automatically. Visit an INFINITI centre or qualified workshop. If you do not wish the electric parking brake to be applied, leave the ignition switched on, e. g. when washing the vehicle in an automatic car wash or when having the vehicle towed.
 JSNIA9611ZZ	Parking brake inoperative	The yellow electric parking brake indicator lamp is lit. The red electric parking brake warning lamp flashes for about ten seconds after the electric parking brake has been applied or released. It then goes out or remains lit. The electric parking brake is malfunctioning, e.g. because of overvoltage or undervoltage. 1. Rectify the cause of the overvoltage or undervoltage, e.g. by charging the battery or restarting the engine. 2. Apply or release the electric parking brake. If the electric parking brake still cannot be applied or released: 1. Switch the ignition of and turn it back on. 2. Apply or release the electric parking brake manually. If the electric parking brake still cannot be applied or released, consult an INFINITI centre or qualified workshop.
		The yellow electric parking brake indicator lamp is lit. The red electric parking brake warning lamp flashes. It is not possible to apply the electric parking brake manually. 1. Vehicles with manual transmission: engage first gear 2. Vehicles with automatic transmission: shift the selector lever to P (Park) Consult an INFINITI centre or qualified workshop.

Symbol	Massage	Possible cause/consequences and solutions
 JSNIA9612ZZ	Brake immediately	Vehicles with manual transmission: a malfunction has occurred while the HOLD function was activated. A tone may also sound at regular intervals. If you attempt to lock the vehicle, the tone becomes louder. You cannot start the engine. 1. Paying attention to the traffic situation, immediately depress the brake pedal firmly and hold until the display message disappears. 2. Secure the vehicle against rolling away. You can start the engine.
 JSNIA9612ZZ	Check brake fluid level	There is insufficient brake fluid in the brake fluid reservoir. In addition, the red electric parking brake warning lamp lights up in the combination meter and a warning tone sounds. **WARNING:** **Braking efficiency may be impaired.** There is a risk of an accident. 1. Pull over and stop the vehicle safely as soon as possible, paying attention to road and traffic conditions. Do not continue driving under any circumstances. 2. Secure the vehicle against rolling away. 3. Consult an INFINITI centre or qualified workshop. 4. Do not top up the brake fluid. This does not correct the malfunction.
 JSNIA9613ZZ	Check brake pad wear	The brake pads/linings have reached their wear limit. Visit an INFINITI centre or qualified workshop.
—	Emergency Brake currently unavailable See Owner's Manual	Forward Emergency Braking is temporarily inoperative. Possible causes: • 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 system is outside the operating temperature range. • The on-board voltage is too low. Once the causes listed above no longer apply, the display message goes out. Forward Emergency Braking is operational again. If the display message does not disappear: 1. Pull over and stop the vehicle safely as soon as possible, paying attention to road and traffic conditions. 2. Secure the vehicle against rolling away. 3. Restart the engine.
—	Emergency Brake inoperative	Forward Emergency Braking is temporarily inoperative due to a malfunction. Visit an INFINITI centre or qualified workshop.

Symbol	Massage	Possible cause/consequences and solutions
—	Radar sensors dirty See Owner's Manual	At least one of the following driving systems or driving safety systems is temporarily restricted or inoperative: • Forward Emergency Braking • Intelligent Cruise Control Possible causes: • The sensors in the radiator trim and/or in the bumpers are dirty. • The function of the driving system and/or driving safety system is impaired due to heavy rain or snow. A warning tone also sounds. Once the causes listed above no longer apply, the display message goes out. All driving systems/driving safety systems are operative again. If the display message does not disappear: 1. Pull over and stop the vehicle safely as soon as possible, paying attention to road and traffic conditions. 2. Secure the vehicle against rolling away. 3. Switch off the engine. 4. Clean the sensors (see "Parking sensor system (where fitted)" in the "3. Starting and driving" section) in the following locations: - In the radiator trim - In the front bumper - In the rear bumper, particularly in the middle of the rear bumper. 5. Restart the engine The display message disappears.
 JSNIA9614ZZ	—	If this symbol appears in the vehicle information display, a seat belt tongue has been inserted into a rear seat belt buckle. For further information on the status indicator for the rear seat belts. see "Seat belt warnings" in the "1. Safety - seats, seat belts and supplemental restraint system" section.
 JSNIA9615ZZ	—	If this symbol appears in the vehicle information display, a seat belt tongue has not been inserted in a rear seat belt buckle. **WARNING:** **A seat belt which is not worn correctly or which has not been engaged in the seat belt buckle correctly, cannot provide the intended level of protection.** This poses an increased risk of injury. If necessary, ask the occupants in the rear to fasten their seat belts. For further information on the status indicator for the rear seat belts. see "Seat belt warnings" in the "1. Safety - seats, seat belts and supplemental restraint system" section.
 JSNIA9616ZZ	Restraint sys. malfunction Consult workshop	The restraint system is malfunction. The SRS air bag warning lamp also lights up in the combination meter. **WARNING:** **The air bags or belt tensioners may either be triggered unintentionally or, in the event of an accident, may not be triggered.** This poses an increased risk of injury. Visit an INFINITI centre or qualified workshop. For further information about the restraint system, see "Supplemental Restraint System (SRS)" in the "1. Safety - seats, seat belts and supplemental restraint system" section.

Symbol	Massage	Possible cause/consequences and solutions
 JSNIA9616ZZ	[Front left malfunction Consult workshop] or [Front right malfunction Consult workshop]	The restraint system has malfunctioned at the front on the left or right. The SRS air bag warning lamp also lights up in the combination meter. **WARNING:** **The air bags or belt tensioners may either be triggered unintentionally or, in the event of an accident, may not be triggered** This poses an increased risk of injury. Visit an INFINITI centre or qualified workshop.
 JSNIA9616ZZ	[Rear left malfunction Consult workshop] or [Rear right malfunction Consult workshop]	The rear left-hand or right-hand restraint system has malfunctioned. The SRS air bag warning lamp also lights up in the combination meter. **WARNING:** **The air bags or belt tensioners may either be triggered unintentionally or, in the event of an accident, may not be triggered.** This poses an increased risk of injury. Visit an INFINITI centre or qualified workshop.
 JSNIA9616ZZ	[Left windowbag malfunction Consult workshop] or [Right windowbag malfunction Consult workshop]	There is a malfunction in the left or right windowbag. The SRS air bag warning lamp also lights up in the combination meter. **WARNING:** **The left or right windowbag may either be triggered unintentionally or, in the event of an accident, may not be triggered.** This poses an increased risk of injury. Visit an INFINITI centre or qualified workshop.

Symbol	Massage	Possible cause/consequences and solutions
—	Front-passenger airbag disabled See Owner's Manual	The front-passenger front air bag is disabled during the journey although an adult or person of corresponding stature is on the front passenger seat. If additional forces are applied to the seat, the weight the system detects may be too low. **WARNING:** **The front-passenger front air bag does not deploy during an accident.** This poses an increased risk of injury. 1. Pull over and stop the vehicle safely as soon as possible, paying attention to road and traffic conditions. 2. Secure the vehicle against rolling away. 3. Switch the ignition off. 4. Have the occupant on the front-passenger seat step out of the vehicle. 5. Make sure that the seat is unoccupied, close the front passenger door and switch on the ignition. 6. Observe the <PASSENGER AIRBAG> indicator lamps in the centre console and the vehicle information display and check the following. Seat unoccupied and ignition switched on: - The <PASSENGER AIR BAG OFF> and <PASSENGER AIR BAG ON> indicator lamps must light up simultaneously for approximately six seconds. - The <PASSENGER AIRBAG OFF> indicator lamp must then light up and remain lit. If the indicator lamp is on, the automatic front-passenger front air bag deactivation system has disabled the front-passenger front air bag (see “Automatic front-passenger front air bag deactivation” in the “1. Safety - seats, seat belts and supplemental restraint system” section) - The [Front-passenger airbag enabled See Owner's Manual] or [Front-passenger airbag disabled See Owner's Manual] display messages must not be shown in the vehicle information display. 7. Wait for a period of at least 60 seconds until the necessary system checks have been completed. 8. Make sure that the display messages do not appear in the vehicle information display. If these conditions are met, the front-passenger seat can be occupied again. Whether the <PASSENGER AIRBAG OFF> or <ON> indicator lamp remains lit or goes out depends on how the automatic front passenger front air bag deactivation system classifies the occupant. If the conditions are not met, the system is not operating correctly. Visit an INFINITI centre or qualified workshop immediately. For further information on the automatic front-passenger front air bag deactivation feature (see “Automatic front-passenger front air bag deactivation” in the “1. Safety - seats, seat belts and supplemental restraint system” section).

Symbol	Massage	Possible cause/consequences and solutions
—	Front-passenger airbag enabled See Owner's Manual	The front-passenger front airbag is enabled during the journey although: • A child, a small adult or an object weighing less than the system weight threshold is located on the front-passenger seat. or • The front-passenger seat is not occupied. The system may detect objects or forces that are adding to the weight applied to the seat. **WARNING:** **The air bag may deploy unintentionally. This poses an increased risk of injury.** 1. Pull over and stop the vehicle safely as soon as possible, paying attention to road and traffic conditions. 2. Secure the vehicle against rolling away. 3. Switch the ignition off. 4. Open the front-passenger door. 5. Remove the child and the child restraint system from the front passenger seat. 6. Make sure there are no objects applying additional force to the seat. The system may otherwise detect the additional force and interpret the seat occupant's weight as greater than it actually is. 7. Make sure that the seat is unoccupied, close the front passenger door and switch on the ignition. 8. Observe the <PASSENGER AIRBAG> indicator lamps in the centre console and the vehicle information display and check the following. Seat unoccupied and ignition switched on: - The <PASSENGER AIR BAG OFF> and <PASSENGER AIR BAG ON> indicator lamps must light up simultaneously for approximately six seconds. - The <PASSENGER AIRBAG OFF> indicator lamp must then light up and remain lit. If the indicator lamp is on, the automatic front-passenger front air bag deactivation system has disabled the front-passenger front air bag (see "Automatic front-passenger front air bag deactivation" in the "1. Safety - seats, seat belts and supplemental restraint system" section). - The [Front-passenger airbag enabled See Owner's Manual] or [Front-passenger airbag disabled See Owner's Manual] display messages must not be shown in the vehicle information display. 9. Wait for a period of at least 60 seconds until the necessary system checks have been completed. 10. Make sure that the display messages do not appear in the vehicle information display. If these conditions are met, the front-passenger seat can be occupied again. Whether the <PASSENGER AIRBAG OFF> or <ON> indicator lamp remains lit or goes out depends on how the automatic front passenger front air bag deactivation system classifies the occupant. If the conditions are not met, the system is not operating correctly. Visit an INFINITI centre or qualified workshop immediately. For further information on the automatic front-passenger front air bag deactivation feature (see "Automatic front-passenger front air bag deactivation" in the "1. Safety - seats, seat belts and supplemental restraint system" section).
 JSNIA9617ZZ	[Left cornering light] or [Right cornering light]	The left or right-hand cornering lamp is malfunction. Visit an INFINITI centre or qualified workshop.

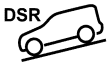
Symbol	Massage	Possible cause/consequences and solutions
 JSNIA9617ZZ	[Left dipped beam] or [Right dipped beam]	The left or right-hand dipped beam headlamp is malfunction. • Check whether you are permitted to replace the bulb yourself (see “Lights” in the “8. Maintenance and do-it-yourself” section). or • Visit an INFINITI centre or qualified workshop.
 JSNIA9617ZZ	[Trailer left tail lamp] or [Trailer right tail lamp]	The left or right hand trailer tail lamp is malfunction. Observe the manufacturer's operating instructions.
 JSNIA9617ZZ	[Trailer left turn signal] or [Trailer right turn signal]	The left or right hand trailer turn signal lamp is malfunction. Observe the manufacturer's operating instructions.
 JSNIA9617ZZ	Trailer brake lamp	The trailer brake lamp is malfunction. Observe the manufacturer's operating instructions.
 JSNIA9617ZZ	[Left cornering light] or [Right cornering light]	The left or right-hand cornering lamp is malfunction. Visit an INFINITI centre or qualified workshop.
 JSNIA9617ZZ	[Rear left indicator] or [Rear right indicator]	The rear left or right-hand turn signal is malfunction. Visit an INFINITI centre or qualified workshop.
 JSNIA9617ZZ	[Front left indicator] or [Front right indicator]	The front left or right-hand turn signal is malfunction. • Check whether you are permitted to replace the bulb yourself (see “Lights” in the “8. Maintenance and do-it-yourself” section). or • Visit an INFINITI centre or qualified workshop.

Symbol	Massage	Possible cause/consequences and solutions
 JSNIA9617ZZ	[Left mirror indicator] or [Right mirror indicator]	The turn signal in the left-hand or right-hand exterior mirror is malfunction. Visit an INFINITI centre or qualified workshop.
 JSNIA9617ZZ	Third brake lamp	The third brake lamp is malfunction. Visit an INFINITI centre or qualified workshop.
 JSNIA9617ZZ	[Left brake lamp] or [Right brake lamp]	The left-hand or right-hand brake lamp is malfunction. Visit an INFINITI centre or qualified workshop.
 JSNIA9617ZZ	[Left cornering light] or [Right cornering light]	The left or right-hand cornering lamp is malfunction. Visit an INFINITI centre or qualified workshop.
 JSNIA9617ZZ	[Left main beam] or [Right main beam]	The left or right-hand main beam head lamp is malfunction. • Check whether you are permitted to replace the bulb yourself (see “Lights” in the “8. Maintenance and do-it-yourself” section). or • Visit an INFINITI centre or qualified workshop.
 JSNIA9617ZZ	Number plate lamp	The left or right-hand number board lamp is malfunction. Visit an INFINITI centre or qualified workshop.
 JSNIA9617ZZ	[Left fog lamp] or [Right fog lamp]	The left or right-hand fog lamp is malfunction. Visit an INFINITI centre or qualified workshop.

Symbol	Massage	Possible cause/consequences and solutions
 JSNIA9617ZZ	[Front left parking lamp] or [Front right parking lamp]	The front left or front right parking lamp is malfunction. Visit an INFINITI centre or qualified workshop.
 JSNIA9617ZZ	Reversing lamp	The reversing lamp is malfunction. Visit an INFINITI centre or qualified workshop.
 JSNIA9617ZZ	[Left cornering light] or [Right cornering light]	The left or right-hand cornering lamp is malfunction. Visit an INFINITI centre or qualified workshop.
 JSNIA9617ZZ	[Left tail lamp] or [Right tail lamp]	The left or right-hand tail lamp is malfunction. Visit an INFINITI centre or qualified workshop.
 JSNIA9617ZZ	[Left daytime driving lamp] or [Right daytime driving lamp]	The left or right-hand daytime driving lamp is malfunction. Visit an INFINITI centre or qualified workshop.
 JSNIA9617ZZ	Intell. Light System inoperative	The Adaptive Front Lighting System is malfunction. The lamps remain available without the Adaptive Front Lighting System. Visit an INFINITI centre or qualified workshop.

Symbol	Massage	Possible cause/consequences and solutions
 JSNIA9617ZZ	Malfunction See Owner's Manual	The exterior lighting is malfunction. Visit an INFINITI centre or qualified workshop. Vehicles with trailer tow hitch: a fuse may have blown. 1. Pull over and stop the vehicle safely as soon as possible, paying attention to road and traffic conditions. 2. Secure the vehicle against rolling away 3. Check the fuses (see "Fuses" in the "8. Maintenance and do-it-yourself" section) 4. If necessary, replace the blown fuse. Observe the warning notes as you do so. If the display message continues to be displayed, visit an INFINITI centre or qualified workshop.
 JSNIA9617ZZ	[Left cornering light] or [Right cornering light]	The left or right-hand cornering lamp is malfunction. Visit an INFINITI centre or qualified workshop.
 JSNIA9617ZZ	AUTO lights inoperative	The light sensor is malfunction. Visit an INFINITI centre or qualified workshop.
 JSNIA9617ZZ	Switch off lights	The lamps are still switched on when you leave the vehicle. A warning tone also sounds. Turn the lamp switch to “AUTO”.
—	High-beam Assist currently unavailable See Owner's Manual	High beam Assist is deactivated and temporarily inoperative. Possible causes: • The windscreen is dirty in the camera's field of vision. • Visibility is impaired due to heavy rain, snow or fog. Clean the windscreen. If the system detects that the camera is fully operational again, the [High beam Assist available again] message is displayed.
—	High beam Assist inoperative	High beam Assist is malfunction.
 JSNIA9618ZZ	Top up coolant See Owner's Manual	The coolant level is too low. **CAUTION:** **Avoid making long journeys with too little coolant in the engine cooling system. The engine will otherwise be damaged.** Top up the coolant, observing the warning notes before doing so (see “If your vehicle overheats” in the “6. In case of emergency” section). If the coolant needs topping up more often than usual. have the engine coolant system checked at an INFINITI centre or qualified workshop.

Symbol	Massage	Possible cause/consequences and solutions
 JSNIA9619ZZ	—	The fan motor is malfunction. If the coolant temperature is below 120°C (248°F), you can continue driving to the nearest INFINITI centre or qualified workshop. Avoid putting the engine under heavy load as you do so, e.g. driving in mountainous terrain and stop-start traffic.
 JSNIA9619ZZ	Coolant Stop vehicle Switch engine off	The coolant is too hot. A warning tone also sounds. **WARNING:** **Never drive with an overheated engine. Driving when your engine is overheated can cause some fluids which may have leaked into the engine compartment to catch fire.** In addition, steam from an overheated engine can cause serious burns, which can occur just by opening the bonnet. There is a risk of injury. 1. Stop the vehicle immediately, paying attention to road and traffic conditions, and switch off the engine. 2. Secure the vehicle against rolling away 3. Wait until the engine has cooled down. 4. Make sure that the air supply to the engine radiator is not blocked, e.g. by frozen slush. 5. Do not start the engine again until the display message goes out and the coolant temperature is below 120°C (248 °F). The engine may otherwise be damaged. 6. Pay attention to the coolant temperature display. 7. If the temperature increases again, visit an INFINITI centre or qualified workshop immediately. Under normal operating conditions and with the specified coolant level, the coolant temperature may rise to 120°C (248°F).
 JSNIA9620ZZ	See Owner's Manual	The battery is not being charged. A warning tone also sounds. Possible causes: • malfunction alternator. • Torn poly-V-belt. • A malfunction in the electronics. **CAUTION:** **Do not continue driving. The engine could otherwise overheat.** 1. Stop the vehicle immediately, paying attention to road and traffic conditions, and switch off the engine. 2. Secure the vehicle against rolling away 3. Consult an INFINITI centre or qualified workshop.
 JSNIA9620ZZ	Stop vehicle See Owner's Manual	The battery is no longer being charged and the battery charge level is too low. A warning tone also sounds. 1. Stop the vehicle immediately, paying attention to road and traffic conditions, and switch off the engine. 2. Secure the vehicle against rolling away 3. Observe the instructions in the display message. 4. Consult an INFINITI centre or qualified workshop.

Symbol	Massage	Possible cause/consequences and solutions
 JSNIA9621ZZ	Check eng. oil lev. when next refuelling	The engine oil level has dropped to the minimum level. A warning tone also sounds. **CAUTION:** **Avoid long journeys when there is too little engine oil in the engine. Otherwise the engine will be damaged.** 1. Check the oil level when next refuelling, at the latest (see “Engine oil” in the “8. Maintenance and do-it-yourself” section). 2. If necessary, top up the engine oil. 3. Have the engine checked at an INFINITI centre or qualified specialist workshop if the engine oil needs topping up more often than usual.
 JSNIA9621ZZ	Add 1 litre engine oil when next refuelling	The engine oil level has dropped to the minimum level. A warning tone also sounds. **CAUTION:** **Avoid long journeys when there is too little engine oil in the engine. Otherwise the engine will be damaged.** 1. Check the oil level when next refuelling, at the latest (see “Engine oil” in the “8. Maintenance and do-it-yourself” section). 2. If necessary, top up the engine oil. 3. Have the engine checked at an INFINITI centre or qualified specialist workshop if the engine oil needs topping up more often than usual.
 JSNIA9621ZZ	Engine oil level Stop vehicle Switch engine off	The engine oil level is too low. There is risk of engine damage. 1. Stop the vehicle immediately, paying attention to road and traffic conditions, and switch off the engine. 2. Secure the vehicle against rolling away 3. Check the engine oil level (see “Engine oil” in the “8. Maintenance and do-it-yourself” section) 4. If necessary, top up the engine oil.
 JSNIA9622ZZ	Reserve fuel level	The fuel level has dropped into the reserve range. Operation of the auxiliary heating is deactivated if the fuel level drops into the reserve range. Refuel at the nearest filling station.
 JSNIA9623ZZ	—	There is very little fuel in the fuel tank. Refuel at the nearest filling station without malfunction.
 JSNIA9627ZZ	inoperative	DSR (Downhill Speed Regulation) is deactivated due to a malfunction.

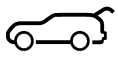
Symbol	Massage	Possible cause/consequences and solutions
—	Lane Departure Warning currently unavailable See Owner's Manual	Lane Departure Warning is deactivated and temporarily inoperative. Possible causes: • The windscreen is dirty in the camera's field of vision. • Visibility is impaired due to heavy rain, snow or fog. • There have been no lane markings for an extended period. • The lane markings are worn, dark or covered, e.g. by dirt or snow. Once the causes listed above no longer apply, the display message goes out. Lane Departure Warning is operational again. If the display message does not disappear: 1. Pull over and stop the vehicle safely as soon as possible, paying attention to road and traffic conditions, and switch off the engine. 2. Secure the vehicle against rolling away. 3. Clean the windscreen
—	Lane Departure Warning inoperative	Lane Departure Warning is malfunction. Visit an INFINITI centre or qualified workshop.
—	Blind Spot Warning currently unavailable See Owner's Manual	Blind Spot Warning is temporarily inoperative. Possible causes: • 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 radar sensor system is outside the operating temperature range. The yellow indicator lamps also light up in the exterior mirrors. Once the causes listed above no longer apply, the display message goes out. Blind Spot Warning is operational again. If the display message does not disappear: 1. Pull over and stop the vehicle safely as soon as possible, paying attention to road and traffic conditions, and switch off the engine. 2. Secure the vehicle against rolling away. 3. Restart the engine
—	Blind Spot Warning not available when towing a trailer See Owner's Manual	Blind Spot Warning is deactivated while towing a trailer. You have established the electrical connection between the trailer and your vehicle. Press <OK> on the steering wheel to confirm the display message.
—	Blind Spot Warning inoperative	Blind Spot Warning is malfunction. The yellow indicator lamps also light up in the exterior mirrors. Visit an INFINITI centre or qualified workshop.
—	Park Assist cancelled	The driver's door is open and the driver's seat belt has not been fastened. Repeat the parking process with the seat belt fastened and the driver's door closed.
		You inadvertently touched the steering wheel while steering intervention was active. While steering intervention is active, make sure not to touch the steering wheel.
		The vehicle has started to skid and VDC has intervened. Use Intelligent Park Assist again later.

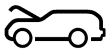
Symbol	Massage	Possible cause/consequences and solutions
—	Park Assist inoperative	You have just carried out a large number of turning or parking manoeuvres. Intelligent Park Assist will become available again after approximately ten minutes. 1. Pull over and stop the vehicle safely as soon as possible, paying attention to road and traffic conditions, and switch off the engine. 2. Restart the engine. If the display message continues to be displayed, visit an INFINITI centre or qualified workshop.
		The parking sensor system is malfunction. Visit an INFINITI centre or qualified workshop.
—	Park Assist switched off	The vehicle is parked. A warning tone also sounds. The display message disappears automatically.
—	Traffic Sign Recognition currently unavailable See Owner's Manual	Traffic Sign Recognition is deactivated and temporarily inoperative. Possible causes: • The windscreen is dirty in the camera's field of vision. • Visibility is impaired due to heavy rain, snow or fog. Clean the windscreen. If the system detects that the camera is fully operational, the display message disappears. Traffic Sign Recognition is operational again.
—	Traffic Sign Recognition inoperative	Traffic Sign Recognition is malfunction. Visit an INFINITI centre or qualified workshop.
—	Intelligent Cruise Control off	Intelligent Cruise Control has been deactivated [see “Intelligent Cruise Control (ICC) system (Full speed range) (where fitted)” in the “5. Starting and driving” section]. If it was not deactivated by the driver, a warning tone also sounds.
—	Intelligent Cruise Control available again	Intelligent Cruise Control is operational again after having been temporarily unavailable. You can now reactivate Intelligent Cruise Control [see “Intelligent Cruise Control (ICC) system (Full speed range) (where fitted)” in the “5. Starting and driving” section].
—	Intelligent Cruise Control currently unavailable See Owner's Manual	Intelligent Cruise Control is temporarily inoperative. Possible causes: • 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 system is outside the operating temperature range. • The on-board voltage is too low. A warning tone also sounds. Once the causes listed above no longer apply, the display message goes out. Intelligent Cruise Control is operational again. If the display message does not disappear: 1. Pull over and stop the vehicle safely as soon as possible, paying attention to road and traffic conditions, and switch off the engine. 2. Secure the vehicle against rolling away 3. Restart the engine
—	Intelligent Cruise Control inoperative	Intelligent Cruise Control is malfunction. Forward Emergency Braking may also have malfunction. A warning tone also sounds. Visit an INFINITI centre or qualified workshop.
—	Intelligent Cruise Control suspended	You have depressed the accelerator pedal. Intelligent Cruise Control is no longer controlling the speed of the vehicle. Remove your foot from the accelerator pedal.

Symbol	Massage	Possible cause/consequences and solutions
—	Intelligent Cruise Control - - - km/h	An activation condition for Intelligent Cruise Control is not fulfilled. Check the activation conditions for Intelligent Cruise Control [see “Intelligent Cruise Control (ICC) system (Full speed range) (where fitted)” in the “5. Starting and driving” section].
—	Intelligent Cruise Control and Speed Limiter inoperative	Intelligent Cruise Control and Speed Limiter are malfunction. A warning tone also sounds. Visit an INFINITI centre or qualified workshop.
—	Cruise Control and SpeedLimiter inoperative	Cruise Control and Speed Limiter are malfunction. A warning tone also sounds. Visit an INFINITI centre or qualified workshop.
—	Speed Limiter suspended	While depressing the accelerator pedal beyond the pressure point (kickdown), Speed Limiter cannot be activated. If conditions permit, drive faster than 30 km/h (19 MPH) and store the speed.
—	Cruise Control - - - km/h	An activation condition for Intelligent Cruise Control is not fulfilled. You have tried to store a speed below 30 km/h (19 MPH), for example. If conditions permit, drive faster than 30 km/h (19 MPH) and store the speed. Check the activation conditions for Intelligent Cruise Control [see “Intelligent Cruise Control (ICC) system (Full speed range) (where fitted)” in the “5. Starting and driving” section].
—	120 km/h! Maximum speed exceeded	Only for certain countries: the maximum speed has been exceeded. In addition, the vehicle information display shows [120 km/h!].
—	Tyre pressure Check tyre(s)	The tire pressure monitoring system has detected a significant loss in pressure. A warning tone also sounds. Possible causes: • You have changed the positions of the wheels and tires or fitted new wheels and tires. • The tire pressure in one or more tires is not correct. **WARNING:** **Underinflated tires pose the following risks:** • The tires may burst, especially as the load and vehicle speed increase. • The tires may wear excessively and/jor unevenly, which may greatly impair tire traction. • The driving characteristics, as well as steering and braking, may be greatly impaired. There is a risk of an accident. 1. Stop the vehicle without making any sudden steering or braking manoeuvres. Pay attention to the traffic conditions as you do so. 2. Secure the vehicle against rolling away. 3. Check the tires and, if necessary, follow the instructions for a flat tire (see “Flat tire” in the “6. In case of emergency” section). 4. Check the tire pressures and, if necessary, correct the tire pressure. 5. Restart the tire pressure monitoring system when the tire pressure is correct (see “Restarting the tire pressure loss warning system” in the “5. Starting and driving” section).
—	Check tyre pressures then restart Run Flat Indicator	The tire pressure monitoring system generated a display message and has not been restarted since. Set the correct tire pressure in all four tires. Restart the tire pressure monitoring system (see “Restarting the tire pressure loss warning system” in the “5. Starting and driving” section).
—	Run Flat Indicator inoperative	The tire pressure monitoring system is malfunction. Visit an INFINITI centre or qualified workshop.

Symbol	Massage	Possible cause/consequences and solutions
—	Please correct tyre pressure	The tire pressure is too low in at least one of the tires, or the tire pressure difference between the wheels is too great. 1. Check the tire pressures at the next opportunity (see “Tires and wheels” in the “8. Maintenance and do-it-yourself” section). 2. If necessary, correct the tire pressure. 3. Restart the tire pressure monitoring system (see “Restarting the tire pressure loss warning system” in the “5. Starting and driving” section).
—	Check tyre(s)	The tire pressure in one or more tires has dropped significantly The wheel position is displayed in the vehicle information display. A warning tone also sounds. **WARNING:** **Underinflated tires pose the following risks:** • The tires may burst, especially as the load and vehicle speed increase. • The tires may wear excessively and/or unevenly, which may greatly impair tire traction. • The driving characteristics, as well as steering and braking, may be greatly impaired. There is a risk of an accident. 1. Stop the vehicle without making any sudden steering or braking manoeuvres. Pay attention to the traffic conditions as you do so. 2. Secure the vehicle against rolling away. 3. Check the tires and, if necessary, follow the instructions for a flat tire (see “Flat tire” in the “6. In case of emergency” section). 4. Check the tire pressures and, if necessary, correct the tire pressure.
—	Warning tyre defect	The tire pressure in one or more tires has dropped suddenly. The wheel position is displayed in the vehicle information display. **WARNING:** **If you drive with a flat tire, there is a risk of the following hazards:** • A flat tire affects the ability to steer or brake the vehicle. • You could lose control of the vehicle. • Continued driving with a flat tire will cause excessive heat build-up and possibly a fire. There is a risk of an accident. 1. Stop the vehicle without making any sudden steering or braking manoeuvres. Pay attention to the traffic conditions as you do so. 2. Secure the vehicle against rolling away. 3. Check the tires and, if necessary, follow the instructions for a flat tire (see “Flat tire” in the “6. In case of emergency” section).
—	Tyre press. monitor currently unavailable	No signals can be received from the tire pressure sensors due to strong RF interference. The tire pressure monitor is temporarily malfunctioning. Drive on. The tire pressure monitoring system restarts automatically as soon as the cause has been rectified.
—	Wheel sensor(s) missing	There is no signal from the tire pressure sensor of one or several wheels. The pressure of the affected tire is not displayed in the vehicle information display. Have the malfunction tire pressure sensor replaced at an INFINITI centre or qualified workshop.
—	Tyre press. monitor inoperative No wheel sensors	The wheels fitted do not have suitable tire pressure sensors. The tire pressure monitoring system is deactivated. Fit wheels with suitable tire pressure sensors The tire pressure monitoring system is activated automatically after driving for a few minutes.

Symbol	Massage	Possible cause/consequences and solutions
—	Tyre press. monitor inoperative	The tire pressure monitoring system is malfunction.
—	Depress brake to start engine	You have attempted to start the engine with the transmission in position N (Neutral) without depressing the brake pedal. Depress the brake pedal.
—	To shift out of P or N, depress brake and start engine	You have attempted to shift the selector lever to position R (Reverse) or D (Drive) without starting the engine. Start the engine and depress the brake pedal. **WARNING:** **It is only possible to move the selector lever from position P (Park) to the desired position if you depress the brake pedal. Only then can the parking lock be deactivated.** **NOTE:** At transmission fluid temperatures below -20°C (-4°F) you can only shift out of position P (Park) into another transmission position when the engine is running.
—	Apply brake to deselect Park (P) position	You have attempted to shift the shift lever to position R (Reverse), N (Neutral) or D (Drive) without depressing the brake pedal. Depress the brake pedal.
—	Risk of vehicle rolling Transmission not in P	The driver's door is open/not fully closed and the shift lever is in position R (Reverse), N (Neutral) or D (Drive). A warning tone also sounds. **WARNING:** **The vehicle may roll away.** There is a risk of an accident. 1. Shift the selector lever to position P (Park). 2. Secure the vehicle against rolling away. 3. Close the driver's door fully.
—	Without changing gear, consult work shop	You cannot change the transmission position due to a malfunction. A warning tone also sounds. If transmission position D (Drive) is selected, Drive to an INFINITI centre or qualified workshop without shifting the transmission from position D (Drive). If transmission position R (Reverse), N (Neutral) or P (Park), secure the vehicle against rolling away and consult an INFINITI centre or qualified workshop.
—	Only select Park (P) when vehicle is stationary	The vehicle is moving. 1. Pull over and stop the vehicle safely as soon as possible, paying attention to road and traffic conditions. 2. Shift the selector lever to position P.
—	Reversing not poss. Consult workshop	The automatic transmission is malfunctioning. You cannot drive in reverse. Visit an INFINITI centre or qualified workshop.
—	Transmission Malfunction	The automatic transmission is malfunctioning. Visit an INFINITI centre or qualified workshop.
—	Transmission Malfunction Stop	The automatic transmission is malfunctioning. 1. Pull over and stop the vehicle safely as soon as possible, paying attention to road and traffic conditions, and switch off the engine. 2. Secure the vehicle against rolling away. 3. Consult an INFINITI centre or qualified workshop.

Symbol	Massage	Possible cause/consequences and solutions
—	Stop vehicle Shift to P Leaveengine running	The automatic transmission has overheated. Drive on carefully. If the display message disappears, the automatic transmission is available again. If the display message continues to be displayed: 1. Pull over and stop the vehicle safely as soon as possible, paying attention to road and traffic conditions, and switch off the engine. 2. Secure the vehicle against rolling away. 3. Wait until the automatic transmission has cooled down and the display message goes out.
—	Auxiliary battery malfunction	The auxiliary battery for the automatic transmission is no longer being charged. 1. Visit an INFINITI centre or qualified workshop at the next opportunity. 2. Until then, set the selector lever to position P (Park) before you switch off the engine. 3. Before leaving the vehicle, apply the electric parking brake.
—	Clutch overheated Avoid pulling away If necessary, quickly release and engage the clutch	The clutch is under considerable load and the permitted operating temperature has been exceeded. A warning tone also sounds. Avoid frequent pulling away and driving at walking pace over longer distances. If the display message continues to be displayed: 1. Pull over and stop the vehicle safely as soon as possible, paying attention to road and traffic conditions. 2. Secure the vehicle against rolling away. 3. Leave the engine running. The clutch is cooled more quickly with the engine running. or 4. If possible, continue driving at a steady speed. 5. Remove your foot from the clutch pedal and do not allow the clutch to slip The clutch may also cool down during the journey. It may take several minutes for it to cool down. When the clutch has cooled down, the display message disappears. The clutch is fully operational again.
—	Trans. oil overheated Drive on with care	Manual drive program M and the temporarily active manual drive program are no longer available. Engine power output is reduced. Allow the vehicle to cool down.
—	AWD system currently unavailable	The AWD system has overheated. The vehicle is only driven by the front wheels. Drive on, the airflow cools the AWD system more quickly. When the display message goes out, the AWD system is available again and the vehicle is driven by all four wheels.
—	AWD system inoperative	The AWD system is malfunctioning. The vehicle is only driven by the front wheels. Visit an INFINITI centre or qualified workshop.
 JSNIA9629ZZ	—	The back door is open. **WARNING:** **When the engine is running, exhaust gases can enter the vehicle interior if the back door is open.** There is a risk of poisoning. Close the back door.

Symbol	Massage	Possible cause/consequences and solutions
 JSNIA9630ZZ	—	The bonnet is open. A warning tone also sounds. **WARNING:** **The open bonnet may then block your view when the vehicle is in motion.** There is a risk of an accident. 1. Pull over and stop the vehicle safely as soon as possible, paying attention to road and traffic conditions. 2. Secure the vehicle against rolling away. 3. Close the bonnet.
—	Active bonnet malfunction See Owner's Manual	The active bonnet (pedestrian protection) is not active due to a malfunction or because it has already been triggered. Visit an INFINITI centre or qualified workshop.
 JSNIA9631ZZ	—	At least one door is open. A warning tone also sounds. Close all doors.
 JSNIA9632ZZ	—	The trailer tow hitch is not correctly engaged. A warning tone also sounds. **WARNING:** **If the ball coupling is not engaged, the trailer may come loose.** **There is a risk of an accident.** 1. Pull over and stop the vehicle safely as soon as possible, paying attention to road and traffic conditions, and switch off the engine. 2. Secure the vehicle against rolling away. 3. Engage the trailer coupling's ball coupling in the end position.
 JSNIA9634ZZ	Power steering malfunction See Owner's Manual	The power steering assistance is malfunction. A warning tone also sounds. **WARNING:** **You will need to use more force to steer.** There is a risk of an accident. 1. Check whether you are able to apply the extra force required. 2. If you are able to steer safely: carefully drive on to a qualified specialist workshop. 3. If you are unable to steer safely: do not drive on. Contact the nearest INFINITI centre or qualified workshop.
 JSNIA9634ZZ	Steering malfunction See Owner's Manual	The electric steering lock is malfunctioning. **WARNING:** **The steering may be locked by the electric steering lock.** There is a risk of an accident. 1. Pull over and stop the vehicle safely as soon as possible, paying attention to road and traffic conditions. 2. Secure the vehicle against rolling away. 3. Do not drive on. Contact the nearest INFINITI centre or qualified workshop.
 JSNIA9635ZZ	—	The electric steering lock was unable to unlock the steering. 1. Remove the key from the ignition switch. 2. To unlock the steering, move the steering wheel slightly. 3. Insert the key into the ignition lock again.

Symbol	Massage	Possible cause/consequences and solutions
—	Telephone No service	Your vehicle is outside the network provider's transmitter / receiver range. Wait until the mobile phone operational readiness symbol appears in the vehicle information display.
 JSNIA9636ZZ	Top up washer fluid	The washer fluid level in the washer fluid reservoir has dropped below the minimum. Top up the washer fluid (see “Window washer fluid” in the “8. Maintenance and do-it-yourself” section).
—	Wiper malfunctioning	The windscreen wipers are malfunction. Visit an INFINITI centre or qualified workshop.
—	Hazard warning lamps malfunctioning	The hazard warning lamps are malfunction. Visit an INFINITI centre or qualified workshop.
 JSNIA9637ZZ	Key does not belong to vehicle	You have put the wrong key in the ignition switch. Use the correct key.
 JSNIA9637ZZ	Replace key	The key needs to be replaced. Visit an INFINITI centre or qualified workshop.
 JSNIA9637ZZ	Change key batteries	The key battery is discharged. Replace the battery (see “Integrated key fob/Intelligent Key battery replacement” in the “8. Maintenance and do-it-yourself” section).
 JSNIA9637ZZ	Key not detected (red display message)	The key is not in the vehicle. A warning tone also sounds. If the engine is switched off, you can no longer lock the vehicle centrally or start the engine. 1. Pull over and stop the vehicle safely as soon as possible, paying attention to road and traffic conditions. 2. Secure the vehicle against rolling away. 3. Insert the key into the ignition lock and bring into key mode.
		Because there is interference from a strong source of radio waves, the key is not detected whilst the engine is running. A warning tone also sounds. If the engine is switched off, you can no longer lock the vehicle centrally or start the engine. 1. Pull over and stop the vehicle safely as soon as possible, paying attention to road and traffic conditions. 2. Secure the vehicle against rolling away. 3. Insert the key into the ignition lock and bring into key mode.

Symbol	Massage	Possible cause/consequences and solutions
 JSNIA9637ZZ	Key not detected (white display message)	The key is currently undetected. Change the location of the key in the vehicle. If the key still cannot be detected, operate the vehicle with the key in the ignition switch if necessary.
 JSNIA9637ZZ	Remove starting button then insert key	The key is continually undetected. The Intelligent key is temporarily malfunctioning or is malfunction. A warning tone also sounds. 1. Insert the key into the ignition lock and turn it to the desired position. 2. Visit a qualified workshop.

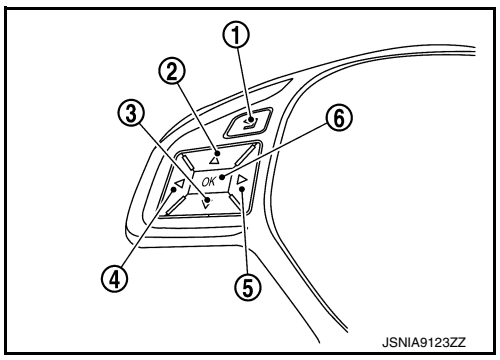
OPERATION

Switch Name and Function

INFOID:0000000013612449

STEERING SWITCH

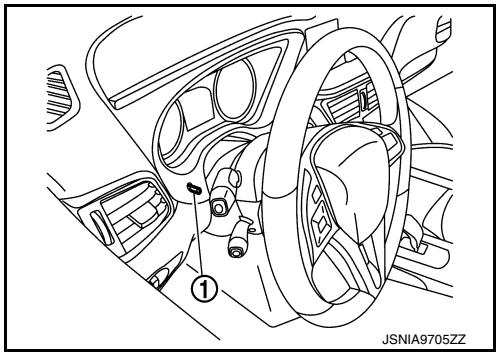
Operating instructions using the steering switch, various menu levels can be displayed in the information display of the combination meter:



No.	Switch name	Operation	Description
①	Back switch	Press	The back switch can be used in each menu or submenu to jump into the next higher menu level.
②	System selection switch (Up)	Press	It is possible to scroll in the main menu via the system selection switch.
③	System selection switch (Down)	Press	
④	Scroll back switch	Press	It is possible to scroll within a menu in the submenus or in lists using the scroll forward and back switch.
⑤	Scroll forward switch	Press	
⑥	OK switch	Press	The OK switch confirms the corresponding selection or displayed messages.

ILLUMINATION CONTROL KNOB

The illumination control knob is located on the combination meter.



No.	Switch name	Operation	Description
①	Illumination control knob	Clockwise/counter-clockwise	An illuminance level of the back light of the combination meter can be adjusted.

DIAGNOSIS SYSTEM (COMBINATION METER)

On Board Diagnosis Function

INFOID:0000000013612450

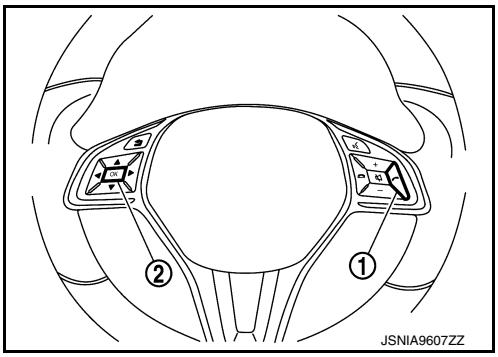
ON BOARD DIAGNOSIS ITEM

The combination meter allows the following diagnosis items with the on-board diagnosis function.

Test item	Description
Vehicle data	The following data can be called up in the “vehicle data” menu: • Voltage (in V) and amp draw (in A) in on-board electrical system • Data from combination meter (e.g. version numbers, software releases) • Engine data (e.g. engine number) • Vehicle identification number (VIN)
Roller test	Activating the “Roller test” prevents malfunctions being entered in the electronic stability program control unit during the brake test on the “Roller test”. The following settings can be selected in the “Roller test” menu: • On • Off when ign. off **NOTE:** If the “Roller test” menu is not deactivated before the on-board diagnosis menu is exited, it will automatically be called up upon the next ignition cycle.
Pad replacement	In the “Pad replacement” menu, the following settings can be selected: • OK • Move to fitting position
MAINTENANCE	The following data can be called up in the “MAINTENANCE” menu: • Service data • Full service **NOTE:** After a service is performed, the service interval is reset in this menu.

METHOD OF STARTING

1. Turn the ignition switch ACC.
2. Select “Trip” menu.
3. Keep pressing the switch ① and OK switch ② for 3 seconds or more.



4. The display in the information display changes to the on-board diagnosis. It is possible to scroll between the respective menus and submenus or through the different lists by pressing the scroll forward/back switch. Selection is then made by pressing the OK switch.
   The steering wheel electronics read in the control signals from the steering switch directly and sends them to the steering column control module. The steering column control module sends them over the CAN communication and the electronic ignition lock control unit to the combination meter.

CONSULT Function

INFOID:0000000013612451

APPLICATION ITEMS

CONSULT can perform the following diagnosis modes via CAN communication and the combination meter.

System	Diagnosis mode	Description
METER/M&A	Self Diagnostic Result	The combination meter checks the conditions and displays memorized errors.
	Data Monitor	Displays the combination meter input/output data in real time.
	Work Support	Displays diagnosis procedure of each work item.
	Active Test	Operation of electrical loads can be checked by sending driving signal to them.
	ECU Identification	The combination meter part number is displayed.
	Configuration	Automatically writes the vehicle specification when replacing combination meter.

SELF DIAGNOSTIC RESULT

Refer to MWI-85, "DTC Index".

- When “CRNT” is displayed on “Self Diagnostic Result”
- The system is presently malfunctioning.
- When “PAST” is displayed on “Self Diagnostic Result”
- System malfunction in the past is detected, but the system is presently normal.

Freeze Frame Data (FFD)

When DTC is detected, a vehicle state shown below is recorded and displayed on CONSULT.

Item name	Display item
Original Odometer Value	Odometer value stored when the respective DTC is detected for the first time.
Most Recent Odometer Value	Odometer value stored or updated when the DTC was detected the last time.
Frequency Counter	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.

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.

Display Item List

X: Applicable

Display item [Unit]	MAIN SIGNALS	Description
Main odometer reading [km]		Odometer value indicated on combination meter.
Adaptation drive authorization [Not learn/Learn]		Status of adaptation drive authorization
Drive authorization data [Different/Identical]		Status of drive authorization data.
Trip distance [km]		Trip distance indicated on combination meter.
TANK CAPACITY [L]		Status of tank capacity.
Vehicle speed displayed [km/h]		Vehicle speed indicated on combination meter.
FUEL LEVEL [L]		Fuel level indicated on combination meter.
Distance until next service [km]		Status of distance until next service.
Days until next service date [Day]		Status of days until next service.
Maintenance position 1 [Inactive/ACTIVE]		Status of maintenance position 1.

Display item [Unit]	MAIN SIGNALS	Description
Maintenance position 2 [Inactive/ACTIVE]		Status of maintenance position 2.
Maintenance position 3 [Inactive/ACTIVE]		Status of maintenance position 3.
Maintenance position 4 [Inactive/ACTIVE]		Status of maintenance position 4.
Maintenance position 5 [Inactive/ACTIVE]		Status of maintenance position 5.
Maintenance position 6 [Inactive/ACTIVE]		Status of maintenance position 6.
Maintenance position 7 [Inactive/ACTIVE]		Status of maintenance position 7.
Maintenance position 8 [Inactive/ACTIVE]		Status of maintenance position 8.
Maintenance position 9 [Inactive/ACTIVE]		Status of maintenance position 9.
Maintenance position 10 [Inactive/ACTIVE]		Status of maintenance position 10.
Maintenance position 11 [Inactive/ACTIVE]		Status of maintenance position 11.
Maintenance position 12 [Inactive/ACTIVE]		Status of maintenance position 12.
Maintenance position 13 [Inactive/ACTIVE]		Status of maintenance position 13.
Maintenance position 14 [Inactive/ACTIVE]		Status of maintenance position 14.
Maintenance position 15 [Inactive/ACTIVE]		Status of maintenance position 15.
Maintenance position 16 [Inactive/ACTIVE]		Status of maintenance position 16.
Maintenance position 17 [Inactive/ACTIVE]		Status of maintenance position 17.
Maintenance position 18 [Inactive/ACTIVE]		Status of maintenance position 18.
Maintenance position 19 [Inactive/ACTIVE]		Status of maintenance position 19.
Maintenance position 20 [Inactive/ACTIVE]		Status of maintenance position 20.
Maintenance position 21 [Inactive/ACTIVE]		Status of maintenance position 21.
Maintenance position 22 [Inactive/ACTIVE]		Status of maintenance position 22.
Maintenance position 23 [Inactive/ACTIVE]		Status of maintenance position 23.
Maintenance position 24 [Inactive/ACTIVE]		Status of maintenance position 24.
Maintenance position 25 [Inactive/ACTIVE]		Status of maintenance position 25.
Maintenance position 26 [Inactive/ACTIVE]		Status of maintenance position 26.
Maintenance position 27 [Inactive/ACTIVE]		Status of maintenance position 27.

Display item [Unit]	MAIN SIGNALS	Description
Maintenance position 28 [Inactive/ACTIVE]		Status of maintenance position 28.
Maintenance position 29 [Inactive/ACTIVE]		Status of maintenance position 29.
Maintenance position 30 [Inactive/ACTIVE]		Status of maintenance position 30.
Maintenance position 31 [Inactive/ACTIVE]		Status of maintenance position 31.
Maintenance position 32 [Inactive/ACTIVE]		Status of maintenance position 32.
Maintenance position 33 [Inactive/ACTIVE]		Status of maintenance position 33.
Maintenance position 34 [Inactive/ACTIVE]		Status of maintenance position 34.
Maintenance position 35 [Inactive/ACTIVE]		Status of maintenance position 35.
Maintenance position 36 [Inactive/ACTIVE]		Status of maintenance position 36.
Maintenance position 37 [Inactive/ACTIVE]		Status of maintenance position 37.
Maintenance position 38 [Inactive/ACTIVE]		Status of maintenance position 38.
Maintenance position 39 [Inactive/ACTIVE]		Status of maintenance position 39.
Maintenance position 40 [Inactive/ACTIVE]		Status of maintenance position 40.
Maintenance position 41 [Inactive/ACTIVE]		Status of maintenance position 41.
Maintenance position 42 [Inactive/ACTIVE]		Status of maintenance position 42.
Maintenance position 43 [Inactive/ACTIVE]		Status of maintenance position 43.
Maintenance position 44 [Inactive/ACTIVE]		Status of maintenance position 44.
Maintenance position 45 [Inactive/ACTIVE]		Status of maintenance position 45.
Maintenance position 46 [Inactive/ACTIVE]		Status of maintenance position 46.
Maintenance position 47 [Inactive/ACTIVE]		Status of maintenance position 47.
Maintenance position 48 [Inactive/ACTIVE]		Status of maintenance position 48.
AdBlue® range via CAN bas [km]		Status of AdBlue® range via CAN bas.
Internal AdBlue® range [km]		Status of internal AdBlue® range.
Qualityfactor engine [-]		Status of qualityfactor engine.
Qualityfactor fuel [-]		Status of qualityfactor fuel.
Qualityfactor authority [-]		Status of qualityfactor authority.

Display item [Unit]	MAIN SIGNALS	Description
Qualityfactor reserve [-]		Status of qualityfactor reserve.
Qualityfactor oil 1 [-]		Status of qualityfactor oil 1.
Qualityfactor oil 2 [-]		Status of qualityfactor oil 2.
Qualityfactor oil 3 [-]		Status of qualityfactor oil 3.
Qualityfactor oil 4 [-]		Status of qualityfactor oil 4.
Qualityfactor oil 5 [-]		Status of qualityfactor oil 5.
Startrunningcourse [km]		Status of startrunningcourse.
Oil quality 229.1 [Not allowed/ALLOWED]		Status of oil quality 229.1.
Oil quality 229.3 [Not allowed/ALLOWED]		Status of oil quality 229.3.
Oil quality 229.5 [Not allowed/ALLOWED]		Status of oil quality 229.5.
Oil quality 229.31 [Not allowed/ALLOWED]		Status of oil quality 229.31.
Oil quality 229.51 [Not allowed/ALLOWED]		Status of oil quality 229.51.
Qualityfactor oil [-]		Status of qualityfactor oil.
Qualityfactor country [-]		Status of qualityfactor country.
Index servicememory [-]		Status of index servicememory.
Remaining time [Day]		Status of remaining time.
LZ with enginerun [Day]		Status of LZ with enginerun.
Distance since last service [km]		Status of distance since last service.
Sum flue drive [km]		Status of sum flue drive.
Sum flue idle [km]		Status of sum flue idle.
LZ without enginerun [Day]		Status of LZ without enginerun.
Day shift counter [D]		Status of day shift counter.

WORK SUPPORT

Work support item	Description
TEACH IN COMBINATION METER	— **NOTE:** This item is performed automatically by configulation of CONSULT.
TABLE INITIALIZATION ASSYST	This is an assist function that calculates the new service interval in the background if parameters were changed before (e.g. oil grad factor change). **NOTE:** This item is performed automatically by configulation of CONSULT.
TRANSFER OF MANUFACTURER DEFAULT SETTINGS	This function sets all parameters in the combination meter to default values.
CHECK CONTROL UNIT STATUS	This function checks whether the control unit is in bootloader status.
Re learning	This function reads the odometer value and the vehicle key ID from the electronic ignition switch control unit and writes the information to new combination meter.
Oil grade factor	The oil grade factor can be set after an oil change and according to this factor the service interval will be calculated.
Service interval settings	Actuation after oil change. If the oil grade factor were entered and when this factor was incorrect, there is an opportunity to correct this factor with the actuation “service interval setting”.

ACTIVE TEST

Display item	Description
Instrument illumination	The combination meter illumination operation can be checked by operating the relevant function.
Warning buzzer	The warning buzzer operation can be checked by operating the relevant function.
INDICATOR LAMP	The indicator lamps can be checked by operating the relevant function.
Mechanical instrument pointers	The combination meter pointers can be checked by operating the relevant function.
Multifunction display	The information display can be checked by operating the relevant function.
Confirmation of general maintenance	The confirmation of general maintenance can be checked by operating the relevant function.
Segments on speedometer	The segments on speedometer can be checked by operating the relevant function.
Control unit reset	The control unit can be reseted by operating the relevant function.
Reset general maintenance	The general maintenance can be reseted by operating the relevant function.

NOTE:
Some items are not available according to vehicle specification.

ECU IDENTIFICATION

The combination meter part number is displayed.

CONFIGURATION

Refer to MWI-99, "Description".

DIAGNOSIS SYSTEM (BCM)

CONSULT Function (BCM)

INFOID:0000000013698612

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

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

SELF DIAGNOSTIC RESULT

Refer to BCS-51, "DTC Index".

WORK SUPPORT

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

DATA MONITOR

NOTE:

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

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

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

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

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

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

ACTIVE TEST

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

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

DIAGNOSIS SYSTEM (STEERING COLUMN CONTROL MODULE)

CONSULT Function (Steering Column Control Module)

INFOID:0000000013698614

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

COMBINATION METER

Reference Value

INFOID:0000000013612454

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.

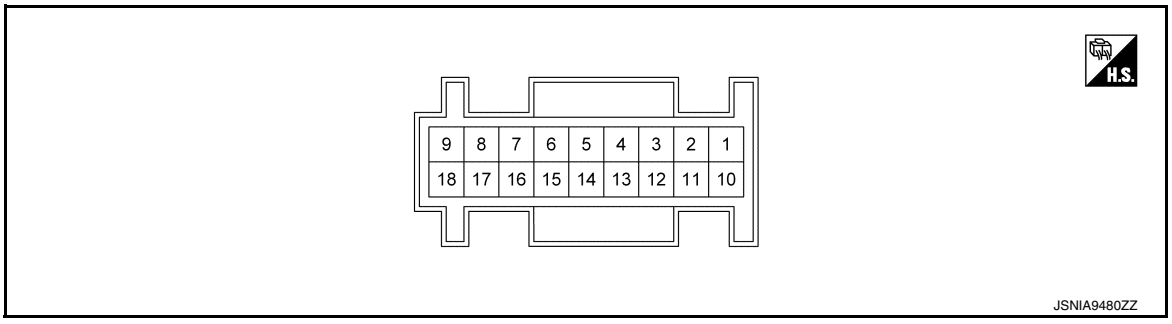
Monitor Item	Condition		Value/Status
Main odometer reading [km]	Ignition switch ON	—	Value of odometer
Adaptation drive authorization	Ignition switch ON	—	Not learn
			Learn
Drive authorization data	Ignition switch ON	—	Different
			Identical
Trip distance [km]	Ignition switch ON	—	Value of trip distance
TANK CAPACITY [L]	Ignition switch ON	—	Value of tank capacity
Vehicle speed displayed [km/h]	Ignition switch ON	While driving	Value of vehicle speed
FUEL LEVEL [L]	Ignition switch ON	—	Value of fuel level sensor signal
Distance until next service [km]	Ignition switch ON	—	Value of distance until next service
Days until next service date [Day]	Ignition switch ON	—	Value of days until next service date
Maintenance position 1	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 2	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 3	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 4	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 5	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 6	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 7	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 8	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 9	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 10	Ignition switch ON	—	Inactive
			ACTIVE

Monitor Item	Condition		Value/Status
Maintenance position 11	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 12	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 13	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 14	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 15	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 16	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 17	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 18	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 19	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 20	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 21	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 22	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 23	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 24	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 25	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 26	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 27	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 28	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 29	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 30	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 31	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 32	Ignition switch ON	—	Inactive
			ACTIVE

Monitor Item	Condition		Value/Status
Maintenance position 33	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 34	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 35	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 36	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 37	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 38	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 39	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 40	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 41	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 42	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 43	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 44	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 45	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 46	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 47	Ignition switch ON	—	Inactive
			ACTIVE
Maintenance position 48	Ignition switch ON	—	Inactive
			ACTIVE
AdBlue® range via CAN bas [km]	Ignition switch ON	—	—
Internal AdBlue® range [km]	Ignition switch ON	—	—
Qualityfactor engine [-]	Ignition switch ON	—	—
Qualityfactor fuel [-]	Ignition switch ON	—	—
Qualityfactor authority [-]	Ignition switch ON	—	—
Qualityfactor reserve [-]	Ignition switch ON	—	—
Qualityfactor oil 1 [-]	Ignition switch ON	—	—

Monitor Item	Condition		Value/Status
Qualityfactor oil 2 [-]	Ignition switch ON	—	—
Qualityfactor oil 3 [-]	Ignition switch ON	—	—
Qualityfactor oil 4 [-]	Ignition switch ON	—	—
Qualityfactor oil 5 [-]	Ignition switch ON	—	—
Startrunningcourse [km]	Ignition switch ON	—	—
Oil quality 229.1	Ignition switch ON	—	Not allowed
			ALLOWED
Oil quality 229.3	Ignition switch ON	—	Not allowed
			ALLOWED
Oil quality 229.5	Ignition switch ON	—	Not allowed
			ALLOWED
Oil quality 229.31	Ignition switch ON	—	Not allowed
			ALLOWED
Oil quality 229.51	Ignition switch ON	—	Not allowed
			ALLOWED
Qualityfactor oil [-]	Ignition switch ON	—	—
Qualityfactor country [-]	Ignition switch ON	—	—
Index servicememory [-]	Ignition switch ON	—	—
Remaining time [Day]	Ignition switch ON	—	—
LZ with enginerun [Day]	Ignition switch ON	—	—
Distance since last service [km]	Ignition switch ON	—	—
Sum flue drive [km]	Ignition switch ON	—	—
Sum flue idle [km]	Ignition switch ON	—	—
LZ without enginerun [Day]	Ignition switch ON	—	—
Day shift counter [D]	Ignition switch ON	—	—

TERMINAL LAYOUT



PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition		Standard	Value (Approx.)
+	–	Signal name	Input/ Output				
1 (BR)	Ground	Ground	—	—	—		0 V
4 (R)	Ground	Battery power supply	—	Ignition switch OFF	—	11 V - 15.5 V	Battery voltage
12 (GR)	Ground	CAN-L	—	—	—		—
13 (W)	Ground	CAN-H	—	—	—		—
17 (BR)	Ground	CAN-L	—	—	—		—
18 (R)	Ground	CAN-H	—	—	—		—

DTC Index

INFOID:0000000013612455

DTC	CONSULT display	Refer to
B1276	CONFIGURATION	MWI-103, "DTC Description"
B1277	CONFIGURATION	MWI-105, "DTC Description"
B1279	CONFIGURATION	MWI-107, "DTC Description"
B1289	CONFIGURATION	MWI-108, "DTC Description"
B210A	POWER SUPPLY CIRCUIT	MWI-112, "DTC Description"
B210B	POWER SUPPLY CIRCUIT	MWI-114, "DTC Description"
B210D	POWER SUPPLY CIRCUIT	MWI-116, "DTC Description"
B210E	POWER SUPPLY CIRCUIT	MWI-118, "DTC Description"
B2213	COMBINATION METER	MWI-120, "DTC Description"
B2266	DRIVE AUTHORIZATION DATA	MWI-124, "DTC Description"
B2282	MAIN ODOMETER	MWI-126, "DTC Description"
P0461	FUEL LEVEL SENSOR LH	MWI-131, "DTC Description"
P2066	FUEL LEVEL SENSOR RH	MWI-132, "DTC Description"
U0019	INTERIOR CAN	MWI-133, "DTC Description"
U0101	TCM	MWI-134, "DTC Description"
U0127	TIRE PRESSURE MONITORING SYSTEM	MWI-135, "DTC Description"
U0128	ELECTRIC PARKING BRAKE	MWI-136, "DTC Description"
U0131	POWER STEERING	MWI-137, "DTC Description"
U0140	BCM	MWI-138, "DTC Description"
U0146	CENTRAL GATEWAY	MWI-140, "DTC Description"
U0151	SRS AIRBAG CONTROL SYSTEM	MWI-141, "DTC Description"
U0168	ELECTRONIC IGNITION SWITCH	MWI-142, "DTC Description"
U0212	STEERING COLUMN MODULE	MWI-143, "DTC Description"
U1032	CHASSIS CAN	MWI-144, "DTC Description"
U1145	INTELLIGENT KEY	MWI-146, "DTC Description"
U118F	TCU	MWI-147, "DTC Description"

DTC	CONSULT display	Refer to
U11A3	CAMERA SYSTEM	MWI-148, "DTC Description"
U11A4	HEADLAMP LEVEL	MWI-149, "DTC Description"
U11A6	RADAR	MWI-150, "DTC Description"
U1203	FUEL SYSTEM CONTROL UNIT	MWI-152, "DTC Description"
U1403	FUEL LEVEL	MWI-153, "DTC Description"

BCM

List of ECU Reference

INFOID:0000000013612456

ECU name	Refer to
Body control module (BCM)	BCS-32, "Reference Value"
	BCS-50, "Fail-safe"
	BCS-51, "DTC Index"

STEERING COLUMN CONTROL MODULE

List of ECU Reference

INFOID:0000000013612457

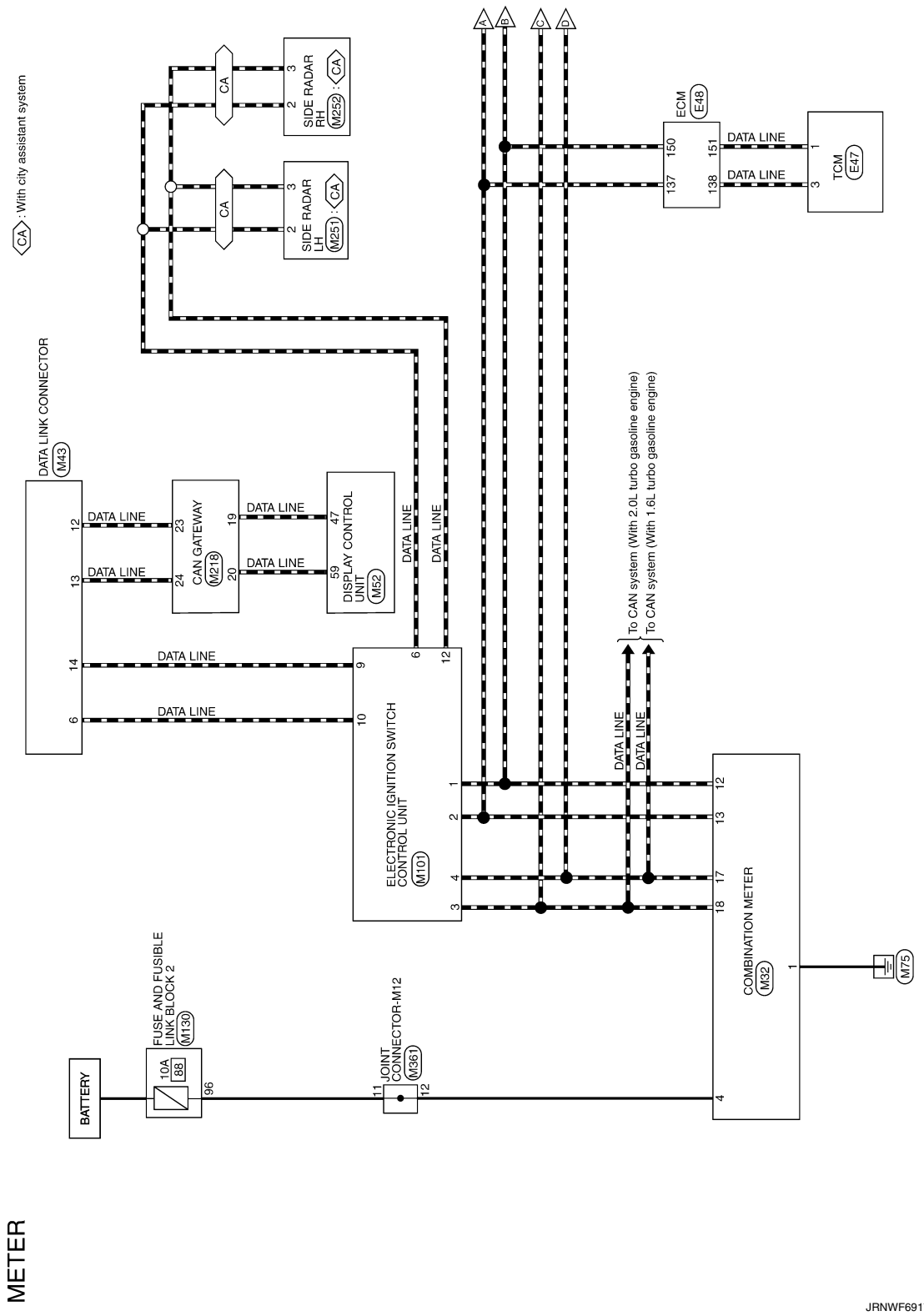
ECU name	Refer to
Body control module (BCM)	BCS-59, "Reference Value"
	BCS-61, "DTC Index"

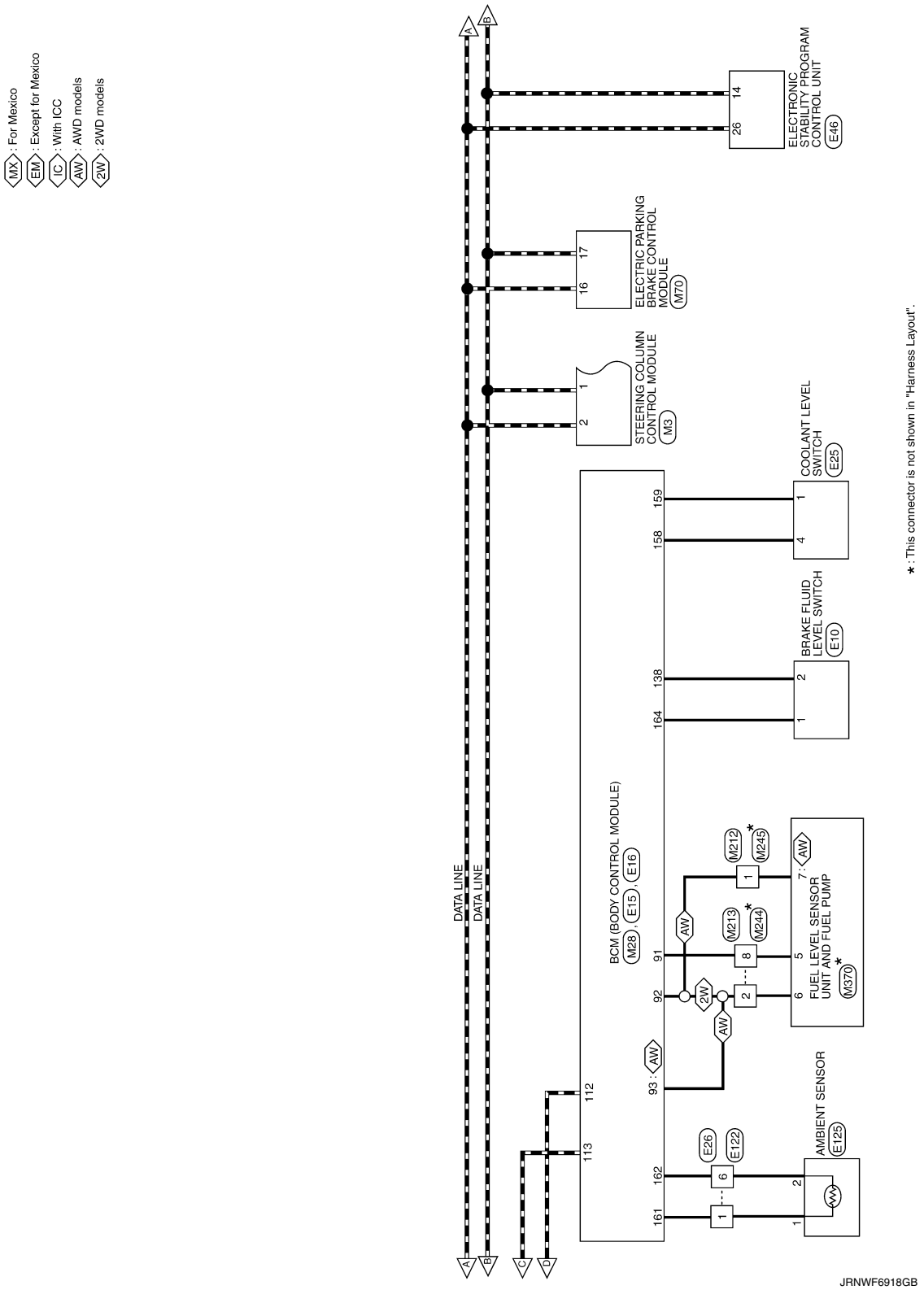
WIRING DIAGRAM

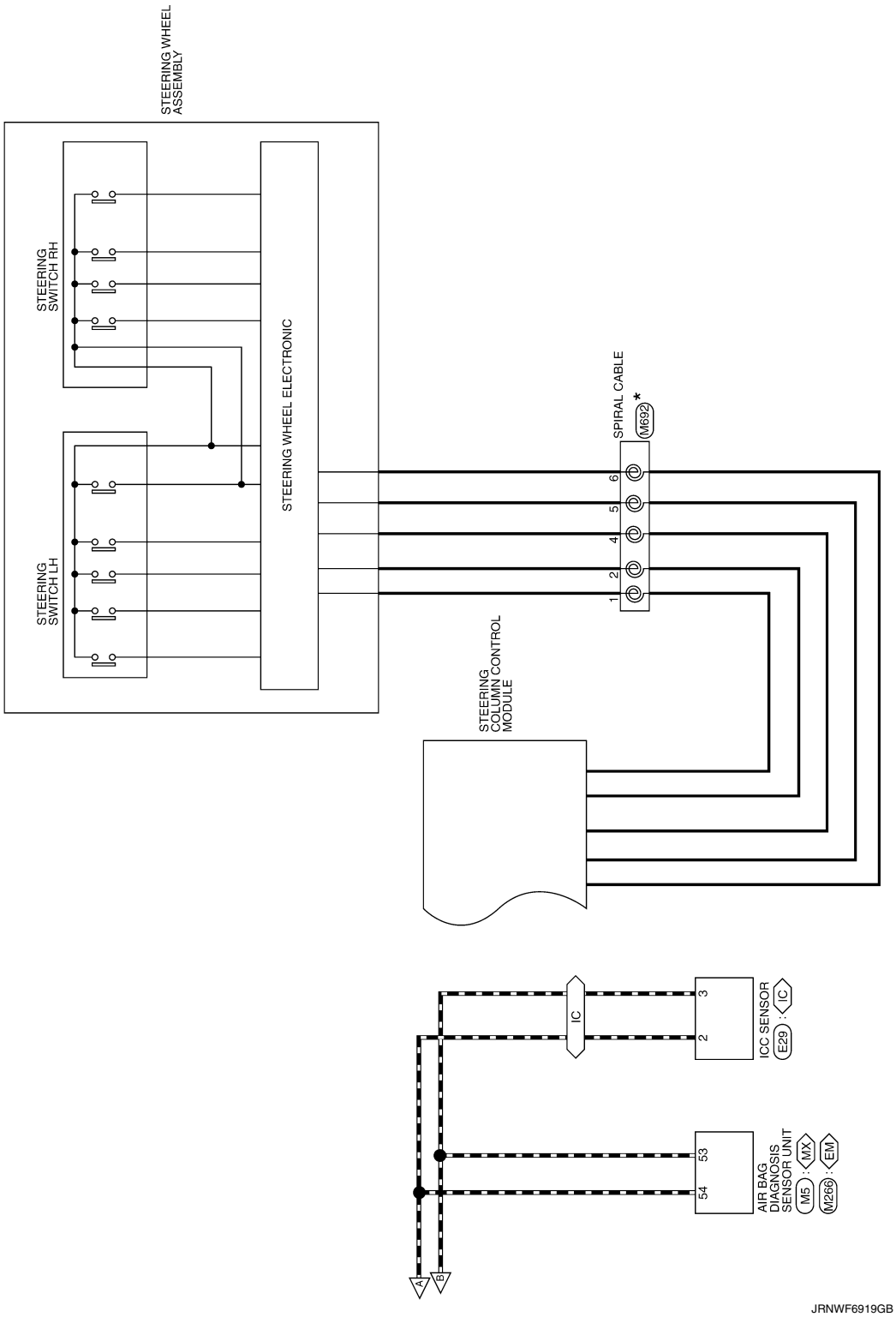
METER

Wiring Diagram

INFOID:0000000013612458




MX : For Mexico
EM : Except for Mexico
IC : With ICC
AW : AWD models
2W : 2WD models
DATA LINE
DATA LINE
BCM (BODY CONTROL MODULE)
M28, E15, E16
STEERING COLUMN CONTROL MODULE
M3
ELECTRIC PARKING BRAKE CONTROL MODULE
M70
ELECTRONIC STABILITY PROGRAM CONTROL UNIT
E46
COOLANT LEVEL SWITCH
E25
BRAKE FLUID LEVEL SWITCH
E10
FUEL LEVEL SENSOR UNIT AND FUEL PUMP
M370
AMBIENT SENSOR
E125
E26
E122
M212
M245
M213
M244
* : This connector is not shown in "Harness Layout".
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STEERING WHEEL ASSEMBLY
STEERING SWITCH RH
STEERING SWITCH LH
STEERING WHEEL ELECTRONIC
SPIRAL CABLE
M692
*
6
5
4
2
1
STEERING COLUMN CONTROL MODULE
IC
3
2
ICC SENSOR
E29
IC
53
54
AIR BAG DIAGNOSIS SENSOR UNIT
M5
MX
M266
EM
A
B
JRNWF6919GB

METER

Connector No.	E10
Connector Name	BRAKE FLUID LEVEL SWITCH
Connector Type	MB_A2105402081

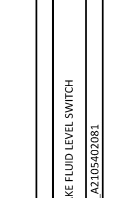
H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
1	O	-
2	G	-

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

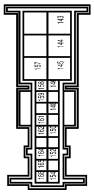
H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
119	V	RR WASHER CONT
120	GR	FR WASHER CONT
121	W	BRAKE PEDAL
122	Y	SPARY NOZZLE HOSE HEATER POWER SUPPLY
123	G	INJECTION RELAY CONT
124	BR	HOOD SWITCH STATUS 1
125	B	KI.15 MOTORST
126	GR	PARKING LAMP LH
129	G	FRONT WIPER STOP POSITION
131	Y	FRONT FOG LAMP LH
132	O	HIGH BEAM LH
133	L	LOW BEAM RH [With halogen lamp]
133	Y	LOW BEAM RH [With LED lamp]
134	BR	WASHER LEVEL SW GND
135	P	HORN CONT
136	R	FR WIPER RELAY CONT
137	V	FR WIPER HI/LO RELAY CONT
138	G	BRAKE FLUID LEVEL SW SIG
139	L	WASHER LEVEL SW SIG
140	Y	HOOD SWITCH STATUS 2
141	R	WARM START
142	V	FRONT TURN SIGNAL LH

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

H.S.



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

Connector No.	E25
Connector Name	COOLANT LEVEL SWITCH
Connector Type	MB_A0285452726

H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	-
4	R	-

Connector No.	E26
Connector Name	WIRE TO WIRE
Connector Type	RH10MB

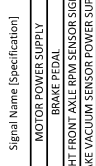
H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	-
2	R	-
3	B	-
6	G	-
7	W	-
8	V	-

Connector No.	E29
Connector Name	ICC SENSOR
Connector Type	MB_A2105404581

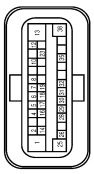
H.S.



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

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	LEFT 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

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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	LEFT 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.	E122
Connector Name	WIRE TO WIRE
Connector Type	RH10FB

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	R	-
3	B	-
6	G	-
7	W	-
8	V	-

Connector No.	E125
Connector Name	AMBIENT SENSOR
Connector Type	MB_A2105402081

H.S.

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

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	KL30S
6	R	KL30
7	BR	GND
8	L	AB1+
9	Y	AB1-
10	V	AB2+
11	G	AB2-

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

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	BUMPER SENSOR RH GROUND
2	W	BUMPER SENSOR RH SIGNAL
3	B	BUMPER SENSOR LH SIGNAL
4	W	BUMPER SENSOR LH GROUND
9	L/G	POP-UP ENGINE HOOD ACTUATOR RH (-)
10	BR/B	POP-UP ENGINE HOOD ACTUATOR RH (+)
11	O	POP-UP ENGINE HOOD ACTUATOR LH (+)
12	BR/W	POP-UP ENGINE HOOD ACTUATOR LH (-)
37	V	FUSE(-)
38	W	FUSE(+)
40	Y	OCCUPANT LIN SIGNAL
41	V/G	RPRH(+)
42	BR/Y	RPRH(-)
43	BR/Y	RPLH(-)
44	V/G	RPLH(+)
45	B	REAR BUCKLE SWITCH RH(-)
46	G	REAR BUCKLE SWITCH RH(+)
47	B	REAR BUCKLE SWITCH CENTER(-)
48	G	REAR BUCKLE SWITCH CENTER(+)
49	B	REAR BUCKLE SWITCH RH(-)
50	G	REAR BUCKLE SWITCH RH(+)
51	Y	AIR BAG SIGNAL
52	P	AIR BAG SIGNAL
53	G	CAN-L
54	W	CAN-H
57	R	B-SATELITE LH(+)
58	B	B-SATELITE LH(-)
59	BR	B-SATELITE RH(-)
60	L	B-SATELITE RH(+)
61	BR	FRONT DOOR SATELLITE RH(-)
62	G	FRONT DOOR SATELLITE RH(+)
63	B	FRONT DOOR SATELLITE LH(+)
64	BR	FRONT DOOR SATELLITE LH(-)
67	W	REAR DOOR SATELLITE RH(-)
68	B	REAR DOOR SATELLITE RH(+)
69	R	REAR DOOR SATELLITE LH(+)

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70	W	REAR DOOR SATELLITE LH(-)
71	Y	BUCKLE SWITCH AS(+)
72	O	BUCKLE SWITCH AS(-)
73	Y	BUCKLE SWITCH DR(+)
74	O	BUCKLE SWITCH DR(-)
75	V/G	CLH(+)
76	BR/Y	CLH(-)
77	W/BR	CRH(+)
78	R/Y	CRH(-)
85	P	CZS RH(-)
86	W	CZS RH(+)
87	BR	CZS LH(-)
88	L	CZS LH(+)
89	O	SAB AS(-)
90	Y	SAB AS(+)
93	Y	SAB DR(+)
94	O	SAB DR(-)
95	BR	FPRH(-)
96	L/W	FPRH(+)
97	G	FPLH(+)
98	V	FPLH(-)
100	BR	GND
101	BR	GND
103	Y	KI.15R
104	G	KI.30

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

H.S.

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

Connector No.	M32
Connector Name	COMBINATION METER
Connector Type	MB_A0525452726

H.S.

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

Connector No.	M43
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
4	B	CHASSIS_GND
5	B	ELECTRONICS_GND
6	GR	DIAGNOSTICS-CAN_H_DAI
8	W	IGN_SW
12	L	DIAGNOSTIC-CAN-L_NIS
13	V	DIAGNOSTIC-CAN_H_NIS
14	GR	DIAGNOSTICS-CAN_L_DAI
16	R	BATTERY

Connector No.	M52
Connector Name	DISPLAY CONTROL UNIT
Connector Type	TH24FW-NH

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
46	G	AV COMMUNICATION SIGNAL (L)
47	P	CAN-L
49	R	DIMMER SIGNAL
50	BR	REVERSE SIGNAL
52	B	GROUND
56	BR	CAMERA SWITCH SIGNAL
58	Y	AV COMMUNICATION SIGNAL (H)
59	L	CAN-H
60	W	IGNITION SIGNAL
61	R	VEHICLE SPEED SIGNAL [8-PULSE]
63	L	ACC POWER SUPPLY
64	Y	BATTERY POWER SUPPLY

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

H.S.

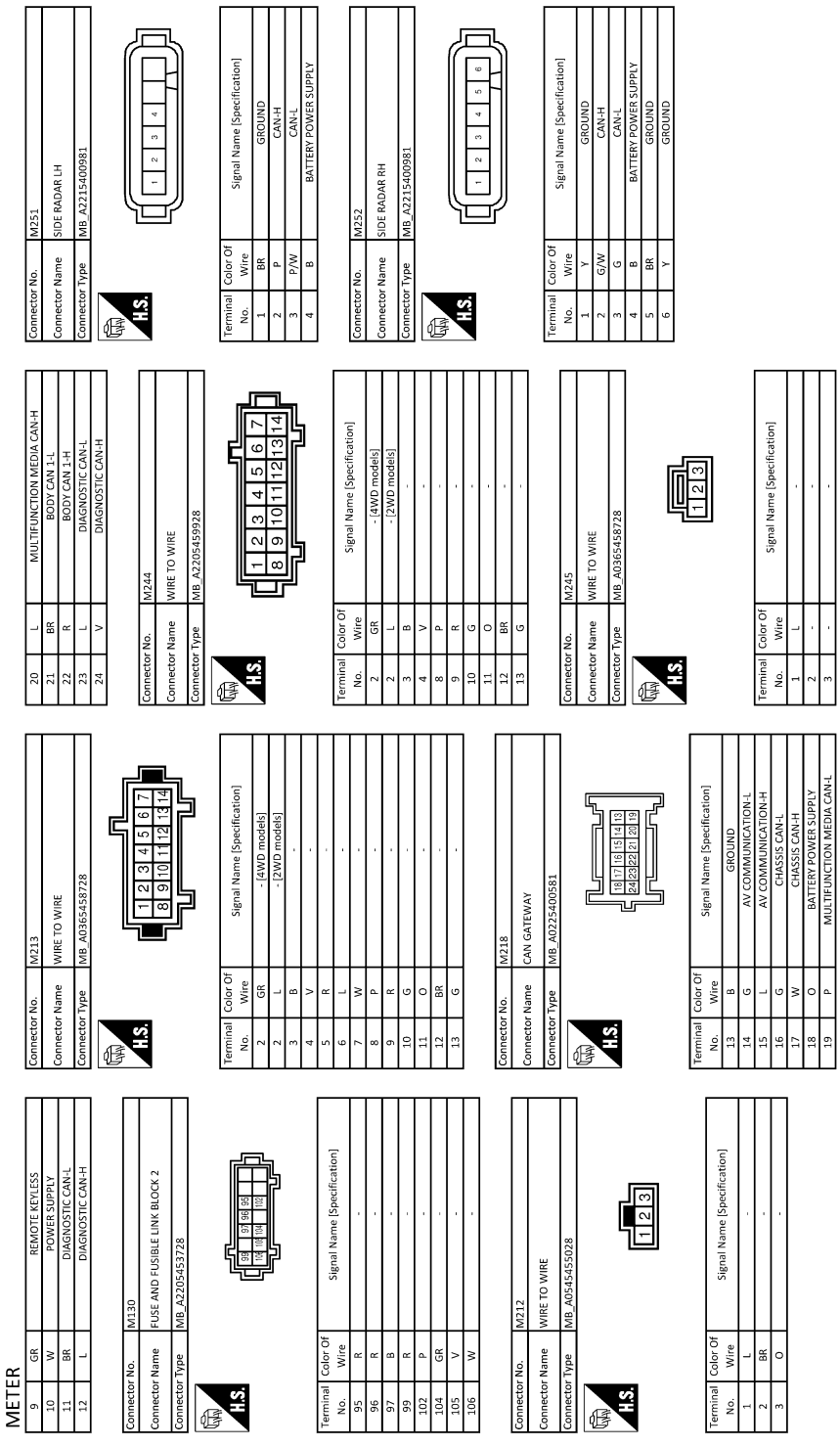
Terminal No.	Color Of Wire	Signal Name [Specification]
9	G	ELECTRIC PARKING BRAKE SWITCH 1
10	P	ELECTRIC PARKING BRAKE SWITCH 2
12	R	MOTOR RH (+)
13	W	MOTOR POWER SUPPLY (RH)
14	R	MOTOR LH (+)
15	R	MOTOR POWER SUPPLY (LH)
16	W	CAN-H
17	G	CAN-L
18	O	ELECTRIC PARKING BRAKE SWITCH 3
19	G	ELECTRIC PARKING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

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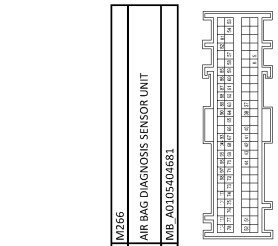


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METER

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

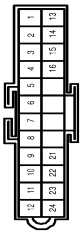
H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
5	B	ACTIVE VENT PS(-)
6	Y	ACTIVE VENT PS(+)
37	V	FUSE-
38	W	FUSE+
40	Y	OCCUPANT LIN SIGNAL
41	V/G	RPRH(+)
42	BR/Y	RPRH(-)
43	BR/Y	RPLH(-)
44	V/G	RPLH(+)
51	Y	AIR BAG SIGNAL
52	P	AIR BAG SIGNAL
53	G	CAN-L
54	W	CAN-H
57	R	B-SATELITE LH(+)
58	B	B-SATELITE LH(-)
59	BR	B-SATELITE RH(-)
60	L	B-SATELITE RH(+)
61	BR	FRONT DOOR SATELLITE RH(-)
62	G	FRONT DOOR SATELLITE RH(+)
63	B	FRONT DOOR SATELLITE LH(+)
64	BR	FRONT DOOR SATELLITE LH(-)
65	G	SEAT POS PS(+)
66	BR	SEAT POS PS(-)
67	W	REAR DOOR SATELLITE RH(-)
68	B	REAR DOOR SATELLITE RH(+)
69	R	REAR DOOR SATELLITE LH(+)
70	W	REAR DOOR SATELLITE LH(-)
71	Y	BUCKLE_SWITCH_PS+
72	O	BUCKLE_SWITCH_PS-
73	Y	BUCKLE_SWITCH_DR+
74	O	BUCKLE_SWITCH_DR-
75	V/G	CLH(+)
76	BR/Y	CLH(-)
77	W/BR	CRH(+)
78	R/V	CRH(-)
81	R	FORCE LIMITER PS(-)
82	B	FORCE LIMITER PS(+)
85	P	CZS RH(-)
86	W	CZS RH(+)
87	BR	CZS LH(-)
88	L	CZS LH(+)
89	O	SAB AS(-)
90	Y	SAB AS(+)
93	Y	SAB DR(+)
94	O	SAB DR(-)
95	BR	FPRH(-)
96	L/W	FPRH(+)
97	G	FPLH(+)
98	V	FPLH(-)
100	BR	GND
101	BR	GND
103	Y	KL15R
104	G	KL30

Connector No.	M361
Connector Name	JOINT CONNECTOR-M12
Connector Type	FEA24G

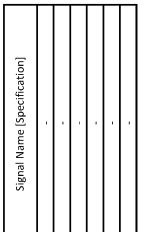
H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	W	-
3	W	-
4	W	-
5	Y	-
6	Y	-
7	O	-
8	O	-
9	R	-
10	R	-
11	R	-
12	R	-
13	G	-
14	W	-
15	P	-
16	P	-
21	L	-
22	L	-
23	W	-
24	W	-

Connector No.	M370
Connector Name	FUEL LEVEL SENSOR UNIT AND FUEL PUMP
Connector Type	Tyco_1-969474-1-1

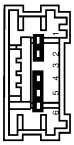
H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-

Connector No.	M692
Connector Name	SPIRAL CABLE
Connector Type	A2040041699BLATT2

H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-

JRNWF6924GB

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:0000000013612459

DETAILED FLOW

1.OBTAIN INFORMATION ABOUT SYMPTOM

Interview the customer to obtain as much information as possible about the conditions and environment under which the malfunction occurred.

>> GO TO 2.

2.CHECK SYMPTOM

- Check the symptom based on the information obtained from the customer.
- Check that any other malfunctions are present.

>> GO TO 3.

3.CHECK ON BOARD DIAGNOSIS OPERATION

Check that the on board diagnosis function operates. Refer to MWI-68, "On Board Diagnosis Function".

Does the on board diagnosis function operate normally?

YES >> GO TO 5.
NO >> GO TO 4.

4.CHECK CONSULT SELF-DIAGNOSIS RESULTS OF SCCM

1. Connect CONSULT and perform “Self-Diagnostic Result” of “SCCM”. Refer to BCS-61, "DTC Index".
2. When DTC is detected, follow the instructions below:

- Record DTC and Freeze Frame Data.

>> GO TO 6.

5.CHECK CONSULT SELF-DIAGNOSIS RESULTS OF COMBINATION METER

1. Connect CONSULT and perform “Self-Diagnostic Result” of “METER M&A”. Refer to MWI-85, "DTC Index".
2. When DTC is detected, follow the instructions below:

- Record DTC and Freeze Frame Data.

>> GO TO 6.

6.REPAIR OR REPLACE MALFUNCTIONING PARTS

Repair or replace the malfunctioning parts.

NOTE:

If DTC is displayed, erase DTC after repair or replace malfunctioning parts.

>> GO TO 7.

7.FINAL CHECK

Check that the combination meter operates normally.

Do they operate normally?

YES >> INSPECTION END
NO >> GO TO 1.

ADDITIONAL SERVICE WHEN REPLACING COMBINATION METER

Description

INFOID:0000000013612460

AFTER REPLACEMENT

After replacing combination meter, the following items must be performed;
- Write Configuration
- Re learning

For work procedure, refer to MWI-98, "Work Procedure".

Work Procedure

INFOID:0000000013612461

1.REPLACE COMBINATION METER

Replace combination meter. Refer to MWI-155, "Removal and Installation".

>> GO TO 2.

2.WRITING VEHICLE SPECIFICATION

CONSULT Configuration
Perform “Read / Write Configuration”. Refer to MWI-99, "Description".

>> GO TO 3.

3.PERFORM RE LEARNING

With CONSULT
Perform “Re learning”. Refer to MWI-100, "Description".

>> GO TO 4.

4.CHECK ALL ECU SELF-DIAGNOSIS RESULTS

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

>> WORK END

CONFIGURATION (COMBINATION METER)

Description

INFOID:0000000013612462

Vehicle specification needs to be written with CONSULT because it is not written after replacing the combination meter.
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 combination meter.
Refer to MWI-99, "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 combination meter.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 combination meter.**

Work Procedure

INFOID:0000000013612463

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

RE LEARNING

Description

INFOID:0000000013612464

- Perform re learning of combination meter. This function reads the odometer value and the vehicle key ID from the electronic ignition switch control unit and writes the information to new combination meter.
- For work procedure, refer to MWI-100, "Work Procedure".

Work Procedure

INFOID:0000000013612465

1.PERFORM RE LEARNING

With CONSULT

1. On the CONSULT screen, select “METER/M&A” >> “Work support” >> “Re learning”.
2. Touch “Start”.

>> WORK END

VEHICLE HANDOVER PROCEDURE

Description

INFOID:0000000014291714

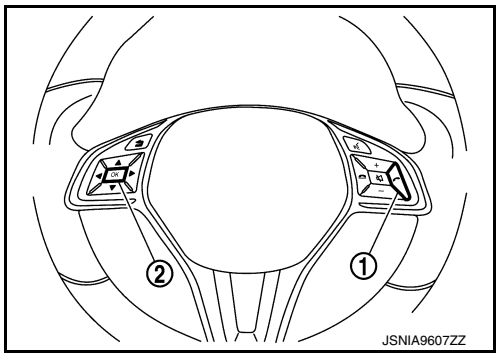
The service indicator “MAINTENANCE” must be reset when vehicle handover.
For work procedure, refer to MWI-101, "Work Procedure".
NOTE:
If the vehicle handover procedure is not performed within 250 km, the service indicator “MAINTENANCE” is reset to default automatically.

Work Procedure

INFOID:0000000014291715

1.PERFORM VEHICLE HANDOVER

1. Close the hood.
2. Close the all doors.
3. Turn the ignition switch ACC.
4. Select “Trip” menu.
5. Keep pressing the switch ① and OK switch ② for 3 seconds or more.



6. Select “MAINTENANCE” >> “Veh. Handover”
7. Select “Yes”, then “Veh. Handover” disappears on information display and the service indicator “MAINTENANCE” is reset to correct time parameters.

>> WORK END

MAINTENANCE RESET PROCEDURE

Description

INFOID:0000000014291716

The service indicator “MAINTENANCE” must be reset after each maintenance. For details of the service indicator “MAINTENANCE”, Refer to MWI-37, "INFORMATION DISPLAY : System Description".
For work procedure, refer to MWI-102, "Work Procedure".

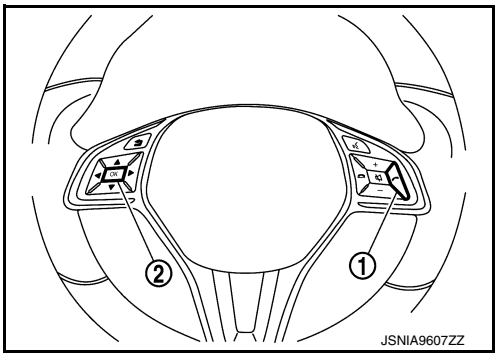
Work Procedure

INFOID:0000000014291717

1.PERFORM MAINTENANCE RESET

With CONSULT
1. Select “Active test” of the “METER/M&A.”
2. Perform “Confirmation of genaral maintenance” according to CONSULT guidance.

Without CONSULT
1. Close the hood.
2. Close the all doors.
3. Turn the ignition switch ACC.
4. Select “Trip” menu.
5. Keep pressing the switch ① and OK switch ② for 3 seconds or more.



6. Select “MAINTENANCE” >> “Full service” >> “Conf. full serv.”
7. Select oil grade of used engine oil.
8. Select “Confirm.”

NOTE:
If the service is not performed or only partly performed after resetting the maintenance computer has to be reset to the default value again.
Perform “Reset general maintenance” of “Active test” using CONSULT. Refer to MWI-68, "CONSULT Function".

>> WORK END

DTC/CIRCUIT DIAGNOSIS

B1276 CONFIGURATION

DTC Description

INFOID:0000000013612466

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
B1276	55	Service memory maintenance full (The service memory in the maintenance program is full)	NOT CONFIGURED	Diagnosis condition	When the following conditions are satisfied • Ignition switch is ON • Combination meter power supply voltage: 10 V < voltage < 16 V
				Signal (terminal)	—
				Threshold	Service memory entry in EEPROM (electrically erasable programmable read only memory) the error is stored.
				Diagnosis delay time	1 second or less

NOTE:
The service memory can contain a maximum of 50 entries.

POSSIBLE CAUSE

55 Not Configured
- 49 service memory entries are already stored in the combination meter.

FAIL-SAFE

No immediate experienced symptom, after the confirmation of the after next service MAINTENANCE isn't functioning anymore.

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn the ignition switch ON and wait at least 1 seconds or more.
2. Perform self-diagnosis for “METER/M&A”.

Is DTC “B1276-55” detected?

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

Diagnosis Procedure

INFOID:0000000013612467

1. CHECK SELF-DIAGNOSIS RESULTS

With CONSULT
Check if any DTC other than “B1276-55” is detected in “Self Diagnostic Result” of “METER/M&A”.

Is any DTC detected?

YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to MWI-85, "DTC Index".
NO >> GO TO 2.

2. CHECK NUMBER OF ENTRIES IN SERVICE MEMORY

With CONSULT
Check “Index servicememory” in “DATA MONITOR”. Refer to MWI-81, "Reference Value".

NOTE:
The service memory contains fewer than 47 entries.

Does the service memory contain more than 47 entries?

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

3. PERFORM DTC CONFIRMATION PROCETURE AGAIN

With CONSULT
1. Erase DTC.
2. Perform DTC confirmation procedure again. Refer to MWI-103, "DTC Description".

Is DTC “B1276-55” detected as the current malfunction?

YES >> Replace combination meter. Refer to MWI-155, "Removal and Installation".
NO >> INSPECTION END

B1277 CONFIGURATION

DTC Description

INFOID:0000000013612468

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]		DTC detection condition	
B1277	55	Maintenance variant unknown (The maintenance program variant is unknown)	NOT CONFIGURED	1	Diagnosis condition	• Ignition switch is ON • Combination meter power supply voltage: 10 V < voltage < 16 V
					Signal (terminal)	—
					Threshold	The WIA (maintenance interval display) WP (maintenance program) 3 is not activated in the equipment list or the package number is higher than 7 (the package number is set on 0 for an affected maintenance position and the maintenance position is not deactivated).
					Diagnosis delay time	1 second or less
B1277	55	Maintenance variant unknown (The maintenance program variant is unknown)	NOT CONFIGURED	2	Diagnosis condition	Ignition switch is ON
					Signal (terminal)	—
					Threshold	The maintenance position 3 oil service hasn't the package number 0.
					Diagnosis delay time	1 second or less

POSSIBLE CAUSE

55 Not Configured
- the WIA (maintenance interval display) WP (maintenance program) 3 is not activated in the equipment list or the package number is higher than 7 (the package number is set 0 for a corresponding maintenance position and the maintenance position is not getting deactivated).
- The maintenance position 3 oil service has not the package number 0.
- A heavy EEPROM (electrically erasable programmable read only memory) -error occurred.

FAIL-SAFE

- Wrong indication of the following items are displayed.
- Remaining time
- Remaining distance
- Not all due maintenance positions
- The following items differ from the maintenance positions of a package.
- Time
- Route potential
- Service configuration

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn the ignition switch ON and wait at least 1 second or more.
2. Perform self-diagnosis for “METER/M&A”.

Is DTC “B1277-55” detected?

YES >> Refer to MWI-106, "Diagnosis Procedure".

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

Diagnosis Procedure

INFOID:0000000013612469

1.PERFORM CONFIGURATION

With CONSULT
Perform “configuration” with CONSULT. Refer to MWI-99, "Description".

>> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCETURE AGAIN

With CONSULT
1. Erase DTC.
2. Perform DTC confirmation procedure again. Refer to MWI-105, "DTC Description".

Is DTC “B1277-55” detected as the current malfunction?

YES >> Replace combination meter. Refer to MWI-155, "Removal and Installation".
NO >> INSPECTION END

B1279 CONFIGURATION

DTC Description

INFOID:0000000013612470

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
B1279	55	Maintenance data implausible (The maintenance program data are implausible)	NOT CONFIGURED	Diagnosis condition	When the following conditions are satisfied • Ignition switch is ON • Combination meter power supply voltage: 10 V < voltage < 16 V
				Signal (terminal)	—
				Threshold	Check sum test on initialization from the EEPROM (electrically erasable programmable read only memory) for service position N detects error.
				Diagnosis delay time	After reset/no debouncing

POSSIBLE CAUSE

55 Not Configured
- Check sum verification on initialization out of the EEPROM (electrically erasable programmable read only memory) for the service memory entry N detected error.

FAIL-SAFE

Wrong indication of the due maintenance positions (implausible maintenance scope) is displayed.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn the ignition switch ON.
2. Perform self-diagnosis for “METER/M&A”.

Is DTC “B1279-55” detected?

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

Diagnosis Procedure

INFOID:0000000013612471

1.PERFORM INITIAL STARTUP

Initial startup of already installed combination meter.
NOTE:
Commissioning of combination meter has not yet been performed.

>> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCETURE AGAIN

With CONSULT
1. Erase DTC.
2. Perform DTC confirmation procedure again. Refer to MWI-107, "DTC Description".

Is DTC “B1279-55” detected as the current malfunction?

YES >> Replace combination meter. Refer to MWI-155, "Removal and Installation".
NO >> INSPECTION END

B1289 CONFIGURATION

DTC Description

INFOID:0000000013612472

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
B1289	55	Assyst plus not coded (The ASSYST PLUS basic parameter was not coded)	NOT CONFIGURED	Diagnosis condition	When the following conditions are satisfied • Ignition switch is ON • Combination meter power supply voltage: 10 V < voltage < 16 V
				Signal (terminal)	—
				Threshold	Initialization detects basic parameter MAINTENANCE with default values.
				Diagnosis delay time	1 second or less

POSSIBLE CAUSE

55 Not Configured
- The parameter set “basic parameter MAINTENANCE” was not coded
- Heavy EEPROM (electrically erasable programmable read only memory) -error occurred.

FAIL-SAFE

Implausible behavior of MAINTENANCE

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn the ignition switch ON and wait at least 1 seconds or more.
2. Perform self-diagnosis for “METER/M&A”.

Is DTC “B1289-55” detected?

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

Diagnosis Procedure

INFOID:0000000013612473

1.PERFORM CONFIGURATION

With CONSULT
Perform “configuration” with CONSULT. Refer to MWI-99, "Description".

>> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCETURE AGAIN

With CONSULT
1. Erase DTC.
2. Perform DTC confirmation procedure again. Refer to MWI-108, "DTC Description".

Is DTC “B1289-55” detected as the current malfunction?

YES >> Replace combination meter. Refer to MWI-155, "Removal and Installation".
NO >> INSPECTION END

B1504 STEERING SWITCH LH

DTC Description

INFOID:0000000013612474

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
B1504	00	Steering switch left (The left steering switch group has a malfunction)	NO SUBTYPE INFORMATION	Diagnosis condition	Ignition switch is ON (When all switch keys from the left block are pressed)
				Signal (terminal)	—
				Threshold	Switch key detected as pressed over a period of time larger than 45 seconds
				Diagnosis delay time	45 seconds or more

POSSIBLE CAUSE

Steering switch is stuck.

FAIL-SAFE

The function activated through steering column control module cannot be executed.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT

1. Turn ignition switch ON.
2. Press the steering switch LH button and wait at least 45 seconds or more.
3. Select “Self-diagnostic Result” mode of “SCCM” using CONSULT.
4. Check DTC.

Is DTC “B1504-00” detected?

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

Diagnosis Procedure

INFOID:0000000013612475

1.REPLACE STEERING SWITCH

Replace steering switch. Refer to MWI-157, "Removal and Installation".

>> INSPECTION END

P2065 FUEL LEVEL SENSOR

DTC Description

INFOID:0000000013612476

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
P2065	1A	Fuel level sensor rh (The right fuel level sensor has an electrical malfunction.)	CIRC RESIST BE-LOW THRESHLD	Diagnosis condition	Ignition switch is ON
				Signal (terminal)	Fuel level sensor signal
				Threshold	Resistance value of the magnetic passive position sensor (MAPPS)-fuel level sensor is smaller than 25 Ω
				Diagnosis delay time	2 seconds or more
P2065	1B	Fuel level sensor rh (The right fuel level sensor has an electrical malfunction.)	CIRC RESIST ABOVE THRESHLD	Diagnosis condition	Ignition switch is ON
				Signal (terminal)	Fuel level sensor signal
				Threshold	Resistance value of the magnetic passive position sensor (MAPPS)-fuel level sensor is larger than 1150 Ω
				Diagnosis delay time	2 seconds or more

POSSIBLE CAUSE

1A Circ Resist Be Low Threshld
- Cable of the fuel level sensor has a short circuit to ground.
- Fuel level sensor has a short circuit to ground.

1B Circ Resist Above Threshld
- Cable of the fuel level sensor has a short circuit to positive or an open circuit.
- Fuel level sensor has a short circuit to positive or an open circuit.

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn ignition switch ON and wait for 2 seconds or more.
2. Check “Self Diagnostic Result” of “BCM”

Is “P2065-1A” or “P2065-1B”displayed?

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

Diagnosis Procedure

INFOID:0000000013612477

P2065-1A, P2065-1B

1.CHECK POWER SUPPLY VOLTAGE OF BCM

Check power supply and ground circuit of BCM. Refer to BCS-141, "Diagnosis Procedure".

Is the inspection result normal?

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

2.CHECK FUEL GAUGE

1. Turn the ignition switch OFF.
2. Fully fill the fuel tank.
3. Disconnect the fuel level sensor unit and fuel pump harness connector.
4. Check the resistance between fuel level sensor unit and fuel pump.

Actual value : 48 Ω

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace fuel level sensor unit and fuel pump or fuel tank assembly. Refer to FL-18, "Removal and Installation".

3. CHECCK FUEL LEVEL SENSOR UNIT AND FUEL PUMP CIRCUIT

1. Disconnect the BCM harness connector.
2. Check the continuity between fuel level sensor unit and fuel pump harness connector and BCM harness connector.

2WD models

Fuel level sensor unit and fuel pump		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M370	5	M28	91	Existed
	6		92	

AWD models

Fuel level sensor unit and fuel pump		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M370	5	M28	91	Existed
	6		93	
	7		92	

3. Check the continuity between fuel level sensor unit and fuel pump harness connector and ground.

2WD models

Fuel level sensor unit and fuel pump		—	Continuity
Connector	Terminal		
M370	6	Ground	Not existed

AWD models

Fuel level sensor unit and fuel pump		—	Continuity
Connector	Terminal		
M370	6	Ground	Not existed
	7		

Is the inspection result normal?

YES >> Replace fuel level sensor unit and fuel pump or fuel tank assembly. Refer to FL-18, "Removal and Installation".
NO >> Repair harness or connector.

B210A POWER SUPPLY CIRCUIT

DTC Description

INFOID:0000000013612478

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
B210A	84	Power Supply circuit (The power supply in the system is too low)	SIG BELOW ALLOWABLE RANGE	Diagnosis condition	Ignition switch is ON
				Signal (terminal)	Battery voltage signal (CAN message from electronic ignition switch control unit)
				Threshold	Battery voltage signal < 10 V ± 0.2 V
				Diagnosis delay time	60 seconds or more

NOTE:
The DTC is set if the value for the battery power supply voltage received via the CAN bus is below the permissible voltage range.

POSSIBLE CAUSE

- Battery voltage too low (Battery voltage signal too low)

FAIL-SAFE

Error message of battery or generator is displayed on information display.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT

1. Turn the ignition switch ON and wait at least 60 seconds.
2. Perform self-diagnosis for “METER/M&A”.

Is DTC “B210A-84” detected?

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

Diagnosis Procedure

INFOID:0000000013612479

B210A-84

1.CHECK BATTERY VOLTAGE

Check battery voltage.

Is the inspection result normal?

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

2.CHECK FUSE

Check that the following fuse are not blown.

Signal name	Fuse No.
Battery power supply	88

Is the fuse blown (open)?

YES >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.
NO >> GO TO 3.

3.CHECK COMBINATION METER POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect combination meter connector.
3. Turn ignition switch ON.
4. Check the voltage between combination meter harness connector and ground.

Probe			Standard	Voltage (Approx.)
(+)		(-)		
Combination meter				
Connector	Terminal			
M32	4	Ground	11.0 V – 15.5 V	Battery voltage

Is the inspection result normal?

YES >> Check electrical lines and connectors for loose contact and corrosion.
NO >> GO TO 4.

4. CHECK BATTERY

Check battery. Refer to PG-102, "MAIN BATTERY : Work Procedure".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Repair or replace the malfunctioning parts.

5. CHECK CHARGING SYSTEM

Check charging system condition. Refer to CHG-21, "Work Flow (With EXP-800 NI or GR8-1200 NI)" (With EXP-800 NI or GR8-1200 NI) or CHG-25, "Work Flow (Without EXP-800 NI or GR8-1200 NI)" (Without EXP-800 NI or GR8-1200 NI).

Is the inspection result normal?

YES >> Replace combination meter. Refer to MWI-155, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

B210B POWER SUPPLY CIRCUIT

DTC Description

INFOID:0000000013612480

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
B210B	85	Power Supply circuit (The power supply in the system is too high)	SIG ABOVE ALLOWABLE RANGE	Diagnosis condition	Ignition switch is ON
				Signal (terminal)	Battery voltage signal (CAN message from electronic ignition switch control unit)
				Threshold	Battery voltage signal > 16 V ± 0.2 V
				Diagnosis delay time	60 seconds or more

POSSIBLE CAUSE

- Battery voltage too high (Battery voltage signal too high)

FAIL-SAFE

Error message of battery or generator is displayed on information display.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT

1. Turn the ignition switch ON and wait at least 60 seconds.
2. Perform self-diagnosis for “METER/M&A”.

Is DTC “B210B-85” detected?

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

Diagnosis Procedure

INFOID:0000000013612481

B210B-85

1.CHECK BATTERY VOLTAGE

Check battery voltage.

Is the inspection result normal?

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

2.CHECK FUSE

Check that the following fuse are not blown.

Signal name	Fuse No.
Battery power supply	88

Is the fuse blown (open)?

YES >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.
NO >> GO TO 3.

3.CHECK COMBINATION METER POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect combination meter connector.
3. Turn ignition switch ON.
4. Check the voltage between combination meter harness connector and ground.

Probe			Standard	Voltage (Approx.)
(+)		(-)		
Combination meter				
Connector	Terminal			
M32	4	Ground	11.0 V – 15.5 V	Battery voltage

Is the inspection result normal?

YES >> Check electrical lines and connectors for loose contact and corrosion.
NO >> GO TO 4.

4.CHECK BATTERY

Check battery. Refer to PG-102, "MAIN BATTERY : Work Procedure".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Repair or replace the malfunctioning parts.

5.CHECK CHARGING SYSTEM

Check charging system condition. Refer to CHG-21, "Work Flow (With EXP-800 NI or GR8-1200 NI)" (With EXP-800 NI or GR8-1200 NI) or CHG-25, "Work Flow (Without EXP-800 NI or GR8-1200 NI)" (Without EXP-800 NI or GR8-1200 NI).

Is the inspection result normal?

YES >> Replace combination meter. Refer to MWI-155, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

B210D POWER SUPPLY CIRCUIT

DTC Description

INFOID:0000000013612482

DTC DETECTION LOGIC

DTC		CONSULT screen terms		DTC detection condition	
		(Trouble diagnosis content)	[Malfunction type]		
B210D	16	Power supply (The power supply is too low)	CIRC VOLT BELOW THRESHOLD	Diagnosis condition	Ignition switch is ON (no engine start) 5 seconds after engine start
				Signal (terminal)	Battery voltage signal
				Threshold	Battery voltage signal < 10 V ± 0.2 V
				Diagnosis delay time	60 seconds or more

POSSIBLE CAUSE

- Battery voltage too low (Battery voltage signal too low)

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT

1. Turn the ignition switch ON and wait at least 60 seconds.
2. Start the engine and wait at least 5 seconds.
3. Perform self-diagnosis for “METER/M&A”.

Is DTC “B210D-16” detected?

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

Diagnosis Procedure

INFOID:0000000013612483

B210D-16

1.CHECK BATTERY VOLTAGE

Check battery voltage.

Is the inspection result normal?

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

2.CHECK FUSE

Check that the following fuse are not blown.

Signal name	Fuse No.
Battery power supply	88

Is the fuse blown (open)?

YES >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.
NO >> GO TO 3.

3.CHECK COMBINATION METER POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect combination meter connector.
3. Turn ignition switch ON.
4. Check the voltage between combination meter harness connector and ground.

Probe			Standard	Voltage (Approx.)
(+)		(-)		
Combination meter				
Connector	Terminal			
M32	4	Ground	11.0 V – 15.5 V	Battery voltage

Is the inspection result normal?

YES >> Check electrical lines and connectors for loose contact and corrosion.
NO >> GO TO 4.

4.CHECK BATTERY

Check battery. Refer to PG-102, "MAIN BATTERY : Work Procedure".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Repair or replace the malfunctioning parts.

5.CHECK CHARGING SYSTEM

Check charging system condition. Refer to CHG-21, "Work Flow (With EXP-800 NI or GR8-1200 NI)" (With EXP-800 NI or GR8-1200 NI) or CHG-25, "Work Flow (Without EXP-800 NI or GR8-1200 NI)" (Without EXP-800 NI or GR8-1200 NI).

Is the inspection result normal?

YES >> Replace combination meter. Refer to MWI-155, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

B210E POWER SUPPLY CIRCUIT

DTC Description

INFOID:0000000013612484

DTC DETECTION LOGIC

DTC		CONSULT screen terms		DTC detection condition	
		(Trouble diagnosis content)	[Malfunction type]		
B210E	17	Power supply (The power supply is too high)	CIRC VOLT ABOVE THRESHOLD	Diagnosis condition	Ignition switch is ON (no engine start) 5 soconds after engine start
				Signal (terminal)	Battery voltage signal
				Threshold	Battery voltage signal > 16 V ± 0.2 V
				Diagnosis delay time	60 seconds or more

POSSIBLE CAUSE

- Battery voltage too high (Battery voltage signal too high)

FAIL-SAFE

Error memory is temporarily deactivated.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT

1. Turn the ignition switch ON and wait at least 60 seconds.
2. Start the engine and wait at least 5 seconds.
3. Perform self-diagnosis for “METER/M&A”.

Is DTC “B210E–17” detected?

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

Diagnosis Procedure

INFOID:0000000013612485

B210E-17

1.CHECK BATTERY VOLTAGE

Check battery voltage.

Is the inspection result normal?

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

2.CHECK FUSE

Check that the following fuse are not blown.

Signal name	Fuse No.
Battery power supply	88

Is the fuse blown (open)?

YES >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.
NO >> GO TO 3.

3.CHECK COMBINATION METER POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect combination meter connector.
3. Turn ignition switch ON.
4. Check the voltage between combination meter harness connector and ground.

Probe			Standard	Voltage (Approx.)
(+)		(-)		
Combination meter				
Connector	Terminal			
M32	4	Ground	11.0 V – 15.5 V	Battery voltage

Is the inspection result normal?

YES >> Check electrical lines and connectors for loose contact and corrosion.
NO >> GO TO 4.

4.CHECK BATTERY

Check battery. Refer to PG-102, "MAIN BATTERY : Work Procedure".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Repair or replace the malfunctioning parts.

5.CHECK CHARGING SYSTEM

Check charging system condition. Refer to CHG-21, "Work Flow (With EXP-800 NI or GR8-1200 NI)" (With EXP-800 NI or GR8-1200 NI) or CHG-25, "Work Flow (Without EXP-800 NI or GR8-1200 NI)" (Without EXP-800 NI or GR8-1200 NI).

Is the inspection result normal?

YES >> Replace combination meter. Refer to MWI-155, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

B2213 COMBINATION METER

DTC Description

INFOID:0000000013612486

DTC DETECTION LOGIC

DTC		CONSULT screen terms		DTC detection condition	
		(Trouble diagnosis content)	[Malfunction type]		
B2213	51	Internal error in combination meter (There is an internal error in the instrument cluster)	NOT PROGRAMMED	Diagnosis condition	When the following conditions are satisfied • Ignition switch is ON • Combination meter power supply voltage: 10 V < voltage < 16 V
				Signal (terminal)	—
				Threshold	The application software incompatible to software status of the display resources
				Diagnosis delay time	1 second or less
B2213	96	Internal error in combination meter (There is an internal error in the instrument cluster)	CMPNENT INTERNAL MLFNCTN	Diagnosis condition	When the following conditions are satisfied • Ignition switch is ON • Combination meter power supply voltage: 10 V < voltage < 16 V
				Signal (terminal)	—
				Threshold	HW (hardware) error intern identified
				Diagnosis delay time	1 second or less

POSSIBLE CAUSE

51 Not Programmed
- Combination meter

96 Cmpnent Internal Mlfnctn
- Combination meter

FAIL-SAFE

51 Not Programmed
- Incorrect display indicates.

96 Cmpnent Internal Mlfnctn
- The following items are not activated.
- Indicator lamp
- Display indicators
- Instrument lighting
- Analogue displays

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn the ignition switch ON and wait at least 1 seconds or more.
2. Perform self-diagnosis for “METER/M&A”.

Is DTC “B2213-51” or “B2213-96” detected?

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

Diagnosis Procedure

INFOID:0000000013612487

B2213-51

1.REPLACE COMBINATION METER

Replace combination meter. Refer to MWI-155, "Removal and Installation".

>> INSPECTION END

B2213-96

1.CHECK FREQUENCY COUNTER OF COMBINATION METER

Check frequency counter of combination meter with CONSULT. Refer to MWI-68, "CONSULT Function".

Is value of the frequency counter > 10?

YES >> Replace combination meter. Refer to MWI-155, "Removal and Installation".
NO >> Erase DTC.

P2556 COOLANT LEVEL SWITCH

DTC Description

INFOID:0000000013612488

DTC DETECTION LOGIC

DTC		CONSULT screen terms		DTC detection condition	
		(Trouble diagnosis content)	[Malfunction type]		
P2556	7B	Coolant level sensor (Sensor "Coolant level" has a malfunction.)	LOW FLUID LEVEL	Diagnosis condition	Ignition switch is ON
				Signal (terminal)	Coolant level sensor signal
				Threshold	No dampening of the output impulses corresponding to an analog ohmic resistance of 65 kΩ or larger.
				Diagnosis delay time	15 seconds

POSSIBLE CAUSE

- Sensor "Coolant level" has a malfunction.
- The fluid level is low.

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT

1. Turn ignition switch ON and wait for 15 seconds or more.
2. Check “Self Diagnostic Result” of “BCM”

Is “P2556-7B” displayed?

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

Diagnosis Procedure

INFOID:0000000013612489

P2556-7B

1.CHECK POWER SUPPLY VOLTAGE OF BCM

Check power supply and ground circuit of BCM. Refer to BCS-141, "Diagnosis Procedure".

Is the inspection result normal?

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

2.CHECK ENGINE COOLANT LEVEL

1. Turn the ignition switch OFF.
2. Check the engine coolant level. Refer to CO-7, "Inspection".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Refill the engine coolant, and GO TO 3.
- Refer to CO-9, "Refilling".

3.PERFORM DTC CONFIRMATION PROCEDURE AGAIN

Perform DTC confirmation procedure again. Refer to MWI-122, "DTC Description"

Is DTC P2556 detected again?

YES >> GO TO 4.
NO >> INSPECTION END

4.CHECK COOLANT LEVEL SWITCH

1. Turn the ignition switch OFF.
2. Disconnect the coolant level switch harness connector.
3. Insert jumper on the coolant level switch harness connector.

Coolant level switch		Specified value
Terminal		
1	4	OK

4. Remove jumper on the coolant level switch harness connector.

Coolant level switch		Specified value
Terminal		
1	4	Not OK

Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace reservoir tank. Refer to CO-13, "Removal and Installation".

5.CHECK COOLANT LEVEL SWITCH CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect the BCM harness connector.
3. Check the continuity between coolant level switch harness connector and BCM harness connector.

Coolant level switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
E25	1	E16	159	Existed
	4		158	Existed

4. Check the continuity between coolant level switch harness connector and ground.

Coolant level switch		—	Continuity
Connector	Terminal		
E25	4	Ground	Not existed

Is the inspection result normal?

YES >> GO TO 6.
NO >> Repair harness or connector.

6.CHECK COOLANT LEVEL SWITCH

1. Drain engine coolant from reservoir tank.
2. Check the continuity between coolant level switch connector.

Coolant level switch		Continuity
Terminal		
1	4	Not existed

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace reservoir tank. Refer to CO-13, "Removal and Installation".

B2266 DRIVE AUTHORIZATION DATA

DTC Description

INFOID:0000000013612490

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
B2266	29	Drive authorization data implausible (The drive authorization data are implausible)	SIGNAL INVALID	Diagnosis condition	Ignition switch ON (After ignition switch ON, wait for 5 seconds to start the engine)
				Signal (terminal)	—
				Threshold	Combination meter has been taught and key ID is not consistent
				Diagnosis delay time	10 times comparison after NM (network management) stable

POSSIBLE CAUSE

29 Signal Invalid
- Combination meter has not yet been taught, drive authorization system has not yet been taught; the combination meter has been already taught with another drive authorization system.

FAIL-SAFE

- The total travel distance is not indicated.
- It is indicated with lines.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn the ignition switch ON and wait 5 second or more.
2. Start the engine.
3. Perform self-diagnosis for “METER/M&A”.

Is DTC “B2266-29” detected?

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

Diagnosis Procedure

INFOID:0000000013612491

B2266-29

1.CHECK DATA MONITOR ITEM

1. Check that “Adaptation drive authorization” operates normally in “DATA MONITOR” of “METER/M&A”. Refer to MWI-81, "Reference Value".
2. Check that “Drive authorization data” operates normally in “DATA MONITOR” of “METER/M&A”. Refer to MWI-81, "Reference Value".

Is the inspection result normal?

YES >> This DTC can be ignored and erased.
NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCETURE AGAIN

With CONSULT
1. Perform function check.
2. Erase DTC.
3. Perform DTC confirmation procedure again. Refer to MWI-124, "DTC Description".

Is DTC “B2266-29” detected as the current malfunction?

YES >> Replace combination meter. Refer to MWI-155, "Removal and Installation".
NO >> INSPECTION END

B2282 MAIN ODOMETER

DTC Description

INFOID:0000000013612492

DTC DETECTION LOGIC

DTC		CONSULT screen terms		DTC detection condition	
		(Trouble diagnosis content)	[Malfunction type]		
B2282	00	Main odometer reading implausible (The value of the main odometer reading is implausible)	NO SUBTYPE INFORMATION	Diagnosis condition	Ignition switch ON (After ignition switch ON, wait for 5 seconds to start the engine)
				Signal (terminal)	—
				Threshold	Received route is bigger than the intern calculated route
				Diagnosis delay time	3 seconds or more

POSSIBLE CAUSE

—

FAIL-SAFE

Display of the total travel distance changes jumpy.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT

1. Turn the ignition switch ON and wait 5 seconds or more.
2. Start the engine.
3. Perform self-diagnosis for “METER/M&A”.

Is DTC “B2282-00” detected?

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

Diagnosis Procedure

INFOID:0000000013612493

B2282-00

1.CHECK DATA MONITOR ITEM

1. Check that “Adaptation drive authorization” operates normally in “DATA MONITOR” of “METER/M&A”. Refer to MWI-81, "Reference Value".
2. Check that “Drive authorization data” operates normally in “DATA MONITOR” of “METER/M&A”. Refer to MWI-81, "Reference Value".

Is the inspection result normal?

YES >> This DTC can be ignored and erased.
NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCETURE AGAIN

With CONSULT

1. Perform function check.
2. Erase DTC.
3. Perform DTC confirmation procedure again. Refer to MWI-126, "DTC Description".

Is DTC “B2282-00” detected as the current malfunction?

YES >> Replace combination meter. Refer to MWI-155, "Removal and Installation".
NO >> INSPECTION END

C0049 BLAKE FLUID LEVEL SWITCH

DTC Description

INFOID:0000000013612494

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
C0049	15	Brake fluid level switch (Switch "Brake fluid level" has a malfunction.)	CIRC SHORT TO BATT OR OPEN	Diagnosis condition	Ignition switch is ON
				Signal (terminal)	Brake fluid level switch signal
				Threshold	Measuring value larger (PBFST_ThresholdLineBreakage).
				Diagnosis delay time	1 second or less
C0049	7B	Brake fluid level switch (Switch "Brake fluid level" has a malfunction.)	LOW FLUID LEVEL	Diagnosis condition	Ignition switch is ON
				Signal (terminal)	Brake fluid level switch signal
				Threshold	Measuring value smaller than (PBFST_ThresholdNIO).
				Diagnosis delay time	10 seconds or more

POSSIBLE CAUSE

15 Circ Short To Batt or Open
There is a short circuit to positive or an open circuit.

7B Low Fluid Level
The fluid level is too low

FAIL-SAFE

15 Circ Short To Batt or Open
—

7B Low Fluid Level
In the combination meter the signal “Low brake fluid level” is displayed.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn ignition switch ON and wait for 10 seconds or more.
2. Check “Self Diagnostic Result” of “BCM”

Is “C0049-15” or “C0049-7B”displayed?

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

Diagnosis Procedure

INFOID:0000000013612495

C0049-15, C0049-7B

1.CHECK POWER SUPPLY VOLTAGE OF BCM

Check power supply and ground circuit of BCM. Refer to BCS-141, "Diagnosis Procedure".

Is the inspection result normal?

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

2.CHECK BRAKE FLUID LEVEL

1. Turn the ignition switch OFF.
2. Check the brake fluid level. Refer to BR-11, "Inspection".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Refill the brake fluid, and GO TO 3.
- Refer to BR-11, "Refilling".

3.PERFORM DTC CONFIRMATION PROCEDURE AGAIN

Perform DTC confirmation procedure again. Refer to MWI-127, "DTC Description".

Is DTC C0049 detected again?

YES >> GO TO 4.
NO >> INSPECTION END

4.CHECK BRAKE FLUID LEVEL SWITCH

1. Turn the ignition switch off.
2. Disconnect the brake fluid level switch harness connector.
3. Connect decade resistor to the brake fluid level switch connector.
4. Check resistance brake fluid level switch.

Check result	Specified value
10 kΩ	OK
1 Ω	Not OK

Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace brake master cylinder. Refer to BR-26, "Removal and Installation".

5.CHECK BRAKE FLUID LEVEL SWITCH CIRCUIT

1. Disconnect the BCM harness connector.
2. Check the continuity between brake fluid level switch harness connector and BCM harness connector.

Brake fluid level switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
E10	1	E16	164	Existed
	2	E15	138	Existed

3. Check the continuity between brake fluid level switch harness connector and ground.

Brake fluid level switch		—	Continuity
Connector	Terminal		
E10	2	Ground	Not existed

Is the inspection result normal?

YES >> Replace brake master cylinder. Refer to BR-26, "Removal and Installation".
NO >> Repair harness or connector.

P0460 FUEL LEVEL SENSOR

DTC Description

INFOID:0000000013612496

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
P0460	1A	Fuel level sensor lh (The left fuel level sensor has an electrical malfunction.)	CIRC RESIST BE-LOW THRESHLD	Diagnosis condition	Ignition switch is ON
				Signal (terminal)	Fuel level sensor signal
				Threshold	Resistance value of the magnetic passive position sensor (MAPPS)-fuel level sensor is smaller than 25 Ω
				Diagnosis delay time	2 seconds or more
P0460	1B	Fuel level sensor lh (The left fuel level sensor has an electrical malfunction.)	CIRC RESIST ABOVE THRESHLD	Diagnosis condition	Ignition switch is ON
				Signal (terminal)	Fuel level sensor signal
				Threshold	Resistance value of the magnetic passive position sensor (MAPPS)-fuel level sensor is larger than 1150 Ω
				Diagnosis delay time	2 seconds or more

POSSIBLE CAUSE

1A Circ Resist Be Low Threshld
- Cable of the fuel level sensor has a short circuit to ground.
- Fuel level sensor has a short circuit to ground.

1B Circ Resist Above Threshld
- Cable of the fuel level sensor has a short circuit to positive or an open circuit.
- Fuel level sensor has a short circuit to positive or an open circuit.

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn ignition switch ON and wait for 2 seconds or more.
2. Check “Self Diagnostic Result” of “BCM”

Is “P0460-1A” or “P0460-1B”displayed?

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

Diagnosis Procedure

INFOID:0000000013612497

P0460-1A, P0460-1B

1.CHECK POWER SUPPLY VOLTAGE OF BCM

Check power supply and ground circuit of BCM. Refer to BCS-141, "Diagnosis Procedure".

Is the inspection result normal?

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

2.CHECK FUEL GAUGE

1. Turn the ignition switch OFF.
2. Fully fill the fuel tank.
3. Disconnect the fuel level sensor unit and fuel pump harness connector.
4. Check the resistance between fuel level sensor unit and fuel pump.

Actual value : 48 Ω

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace fuel level sensor unit and fuel pump or fuel tank assembly. Refer to FL-18, "Removal and Installation".

3. CHECCK FUEL LEVEL SENSOR UNIT AND FUEL PUMP CIRCUIT

1. Disconnect the BCM harness connector.
2. Check the continuity between fuel level sensor unit and fuel pump harness connector and BCM harness connector.

2WD models

Fuel level sensor unit and fuel pump		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M370	5	M28	91	Existed
	6		92	

AWD models

Fuel level sensor unit and fuel pump		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M370	5	M28	91	Existed
	6		93	
	7		92	

3. Check the continuity between fuel level sensor unit and fuel pump harness connector and ground.

2WD models

Fuel level sensor unit and fuel pump		—	Continuity
Connector	Terminal		
M370	6	Ground	Not existed

AWD models

Fuel level sensor unit and fuel pump		—	Continuity
Connector	Terminal		
M370	6	Ground	Not existed
	7		

Is the inspection result normal?

YES >> Replace fuel level sensor unit and fuel pump or fuel tank assembly. Refer to FL-18, "Removal and Installation".
NO >> Repair harness or connector.

P0461 FUEL LEVEL SENSOR LH

DTC Description

INFOID:0000000013612498

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
P0461	64	Left fuel level sensor malf (The left fuel level sensor has a malfunction)	SIGNAL PLAUSIBILITY ERROR	Diagnosis condition	vehicle drives and has made a way of > 1km (0.6 mile)
				Signal (terminal)	Fuel level sensor signal (CAN message from BCM)
				Threshold	Receive error message from BCM
				Diagnosis delay time	—

POSSIBLE CAUSE

- Fuel level sensor on the left stuck
- BCM

FAIL-SAFE

- Fuel level indicator indicates 0 liter.
- Fuel reserve indicator massage turns OFF.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Driving at least 1 km (0.6 mile).
3. Check “Self Diagnostic Result” of “METER/M&A.”

Is “P0461-64” displayed?

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

Diagnosis Procedure

INFOID:0000000013612499

P0461-64

1.PERFORM SELF-DIAGNOSIS OF BCM

Perform “Self Diagnostic Result” of “BCM.”

Is DTC detected?

YES >> Perform diagnosis procedure on the detected DTC. Refer to BCS-51, "DTC Index".
NO >> INSPECTION END

P2066 FUEL LEVEL SENSOR RH

DTC Description

INFOID:0000000013612500

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
P2066	64	Right fuel level sensor malf (The right fuel level sensor has a malfunction)	SIGNAL PLAUSIBILITY ERROR	Diagnosis condition	vehicle drives and has made a way of > 1km (0.6 mile)
				Signal (terminal)	Fuel level sensor signal (CAN message from BCM)
				Threshold	Received error message from BCM
				Diagnosis delay time	—

POSSIBLE CAUSE

64 Signal Plausibility Error
- Fuel level sensor on the right stuck
- BCM

FAIL-SAFE
- Fuel level indicator indicates 0 liter.
- Fuel reserve indicator massage turns OFF.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Driving at least 1 km (0.6 mile).
3. Check “Self Diagnostic Result” of “METER/M&A.”

Is “P2066-64” displayed?

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

Diagnosis Procedure

INFOID:0000000013612501

P2066-64

1.PERFORM SELF-DIAGNOSIS OF BCM

Perform “Self Diagnostic Result” of “BCM.”

Is DTC detected?

YES >> Perform diagnosis procedure on the detected DTC. Refer to BCS-51, "DTC Index".
NO >> INSPECTION END

U0019 INTERIOR CAN

DTC Description

INFOID:0000000013612502

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition		
U0019	88	Interior CAN communication (Interior CAN communication has a malfunction)	BUS OFF	1	Diagnosis condition	Ignition switch ON (After ignition switch ON, wait for 5 seconds to start the engine)
					Signal (terminal)	CAN communication signal
					Threshold	Bus-off the CAN communication
					Diagnosis delay time	5 seconds or more
				2	Diagnosis condition	Network communication
					Signal (terminal)	CAN communication signal
					Threshold	CAN controller reports Bus-off
					Diagnosis delay time	5 seconds or more

NOTE:
- The affected control unit must not be replaced.
- A bus OFF error code is set if the control unit cannot transmit a certain number of messages to the CAN bus or if the messages are incomplete.
- The control unit then shuts itself off from the CAN bus for a short time.

POSSIBLE CAUSE

88 Bus Off
- Error in the CAN controller combination meter
- Combination meter

FAIL-SAFE

- Display “Display defect”.
- Fuel-level indicator indicates 0 liter.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn the ignition switch ON and wait at least 5 seconds or more
2. Start the engine.
3. Perform self-diagnosis for “METER/M&A”.

Is DTC “U0019-88” detected?

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

Diagnosis Procedure

INFOID:0000000013612503

U0019-88

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.

U0101 TCM

DTC Description

INFOID:0000000013612504

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
U0101	00	COMMUNICATION ERROR (LOST) (Communication with control unit “Transmission” has a malfunction.)	NO SUBTYPE INFORMATION	Diagnosis condition	Ignition switch ON (After ignition switch ON, wait for 5 seconds to start the engine)
				Signal (terminal)	CAN communication signal
				Threshold	At least one of messages is missing in the bus
				Diagnosis delay time	According to every specific signal applications requirement

POSSIBLE CAUSE

00 No Subtype Information
- CAN communication has a malfunction
- TCM

FAIL-SAFE

- Incorrect indication of drive program
- Selector lever position no gear indication

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn the ignition switch ON and wait 5 seconds or more.
2. Start the engine.
3. Perform self-diagnosis for “METER/M&A”.

Is DTC “U0101-00” detected?

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

Diagnosis Procedure

INFOID:0000000013612505

U0101-00

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 TCM. Refer to TM-232, "Disassembly and Assembly".
NO >> Repair or replace the malfunctioning parts.

U0127 TIRE PRESSURE MONITORING SYSTEM

DTC Description

INFOID:0000000013612506

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
U0127	87	Comm tire pres monitor malf (Communication with the tire pressure monitor has a malfunction)	MISSING MESSAGE	Diagnosis condition	Ignition switch ON (After ignition switch ON, wait for 5 seconds to start the engine)
				Signal (terminal)	CAN communication signal
				Threshold	At least one of messages is missing in the bus
				Diagnosis delay time	According to every specific signal applications requirement

POSSIBLE CAUSE

87 Missing Message
- CAN communication has a malfunction
- Low tire pressure monitoring control unit

FAIL-SAFE

Warning message on information display indicates malfunction.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn the ignition switch ON and wait 5 seconds or more.
2. Start the engine.
3. Perform self-diagnosis for “METER/M&A”.

Is DTC “U0127-87” detected?

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

Diagnosis Procedure

INFOID:0000000013612507

U0127-87

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 low tire pressure warning control unit. Refer to WT-72, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

U0128 ELECTRIC PARKING BRAKE

DTC Description

INFOID:0000000013612508

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
U0128	87	COMMUNICATION ERROR (LOST) (Communication with the electric parking brake has a malfunction.)	MISSING MESSAGE	Diagnosis condition	Ignition switch ON (After ignition switch ON, wait for 5 seconds to start the engine)
				Signal (terminal)	CAN communication signal
				Threshold	At least one of messages is missing in the bus
				Diagnosis delay time	According to every specific signal applications requirement

POSSIBLE CAUSE

87 Missing Message
- CAN communication has a malfunction
- Electric parking brake control module

FAIL-SAFE

Warning message on information display and indicator lamp illuminates.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn the ignition switch ON and wait 5 seconds or more.
2. Start the engine.
3. Perform self-diagnosis for “METER/M&A”.

Is DTC “U0128-87” detected?

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

Diagnosis Procedure

INFOID:0000000013612509

U0128-87

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.

U0131 POWER STEERING

DTC Description

INFOID:0000000013612510

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
U0131	87	Comm ECU power steering malf (Communication with control unit “Power steering” has a mal-function.)	MISSING MESSAGE	Diagnosis condition	Ignition switch ON (After ignition switch ON, wait for 5 seconds to start the engine)
				Signal (terminal)	CAN communication signal
				Threshold	At least one of messages is missing in the bus
				Diagnosis delay time	5 seconds or more

POSSIBLE CAUSE

87 Missing Message
- CAN communication has a malfunction
- EPS control unit

FAIL-SAFE

Error message of EPS system is displayed.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn the ignition switch ON and wait 5 seconds or more.
2. Start the engine.
3. Perform self-diagnosis for “METER/M&A”.

Is DTC “U0131-87” detected?

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

Diagnosis Procedure

INFOID:0000000013612511

U0131-87

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

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

Is the inspection result normal?

YES >> Replace the EPS control unit. Refer to STC-57, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

U0140 BCM

DTC Description

INFOID:0000000013612512

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
U0140	87	Communication error (Communication with the signal acquisition and actuation module has a malfunction.)	MISSING MESSAGE	Diagnosis condition	Ignition switch ON (After ignition switch ON, wait for 5 seconds to start the engine)
				Signal (terminal)	CAN communication signal
				Threshold	At least one of messages is missing in the bus
				Diagnosis delay time	According to every specific signal applications requirement

POSSIBLE CAUSE

87 Missing Message
- CAN communication has a malfunction
- BCM

FAIL-SAFE

If DTC is detected, perform the following operations. (One or plural)
- Warning message light sensor malfunction as well as lighting behavior not correct.
- Turn signal function with doubled flashing frequency.
- Warning message display malfunction with lamp symbol
- Brake indicator lamp illuminates
- High beam indicator lamp illuminates
- Outside temperature indicator +85°C (185°F)
- Automatic high beam without function
- Fuel gage > 0 liter, fuel reserve indicator is off
- Belt warning rear without function
- Indication of the battery voltage

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn the ignition switch ON and wait 5 seconds or more.
2. Start the engine.
3. Perform self-diagnosis for “METER/M&A”.

Is DTC “U0140-87” detected?

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

Diagnosis Procedure

INFOID:0000000013612513

U0140-87

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

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

Is the inspection result normal?

YES >> Replace the BCM. Refer to BCS-248, "Removal and Installation".

NO >> Repair or replace the malfunctioning parts.

U0146 CENTRAL GATEWAY

DTC Description

INFOID:0000000013612514

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
U0146	87	Communication error (Communication with the central gateway has a malfunction)	MISSING MESSAGE	Diagnosis condition	Ignition switch ON (After ignition switch ON, wait for 5 seconds to start the engine)
				Signal (terminal)	CAN communication signal
				Threshold	At least one of messages is missing in the bus
				Diagnosis delay time	According to every specific signal applications requirement

POSSIBLE CAUSE

87 Missing Message
- CAN communication has a malfunction
- Electronic ignition switch control unit

FAIL-SAFE

If DTC is detected, perform the following operations. (One or plural)
- Not operates / indicates the function based on the signal from electronic ignition switch control unit.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn the ignition switch ON and wait 5 seconds or more.
2. Start the engine.
3. Perform self-diagnosis for “METER/M&A”.

Is DTC “U0146-87” detected?

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

Diagnosis Procedure

INFOID:0000000013612515

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.

U0151 SRS AIRBAG CONTROL SYSTEM

DTC Description

INFOID:0000000013612516

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
U0151	87	Comm SRS malf (Communication with the supplemental restraint system (SRS) has a malfunction)	MISSING MESSAGE	Diagnosis condition	Ignition switch ON (After ignition switch ON, wait for 5 seconds to start the engine)
				Signal (terminal)	CAN communication signal
				Threshold	At least one of messages is missing in the bus
				Diagnosis delay time	According to every specific signal applications requirement

POSSIBLE CAUSE

87 Missing Message
- CAN communication has a malfunction
- Air bag diagnosis sensor unit

FAIL-SAFE

- SRS air bag warning lamp illuminates.
- Warning message on information display is displayed.
- No seat occupancy recognition at co-driver's seat

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn the ignition switch ON and wait 5 seconds or more.
2. Start the engine.
3. Perform self-diagnosis for “METER/M&A”.

Is DTC “U0151-87” detected?

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

Diagnosis Procedure

INFOID:0000000013612517

U0151-87

1.CAN COMMUNICATION SYSTEM DIAGNOSIS

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

Is the inspection result normal?

YES >> Replace the air bag diagnosis sensor unit. Refer to SR-41, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

U0168 ELECTRONIC IGNITION SWITCH

DTC Description

INFOID:0000000013612518

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
U0168	87	COMMUNICATION ERROR (LOST) (Communication with the electronic ignition lock has a malfunction)	MISSING MESSAGE	Diagnosis condition	Ignition switch ON (After ignition switch ON, wait for 5 seconds to start the engine)
				Signal (terminal)	CAN communication signal
				Threshold	At least one of messages is missing in the bus
				Diagnosis delay time	According to every specific signal applications requirement

POSSIBLE CAUSE

87 Missing Message
- CAN communication has a malfunction
- Electronic ignition switch control unit

FAIL-SAFE

- Warning message on information display is displayed.
- Delayed behavior on change of the key position.
- No condition change on change of the key position and on change of the setting of the automatic door lock.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn the ignition switch ON and wait 5 seconds or more.
2. Start the engine.
3. Perform self-diagnosis for “METER/M&A”.

Is DTC “U0168-87” detected?

YES >> Refer to MWI-142, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013612519

U0168-87

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.

U0212 STEERING COLUMN MODULE

DTC Description

INFOID:0000000013612520

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
U0212	87	Communication error (Communication with the steering column module has a malfunction)	MISSING MESSAGE	Diagnosis condition	Ignition switch ON (After ignition switch ON, wait for 5 seconds to start the engine)
				Signal (terminal)	CAN communication signal
				Threshold	At least one of messages is missing in the bus
				Diagnosis delay time	According to every specific signal applications requirement

POSSIBLE CAUSE

87 Missing Message
- CAN communication has a malfunction
- Steering column control module

FAIL-SAFE

No response on the handling of the steering switches

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn the ignition switch ON and wait 5 seconds or more.
2. Start the engine.
3. Perform self-diagnosis for “METER/M&A”.

Is DTC “U0212-87” detected?

YES >> Refer to MWI-143, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013612521

U0212-87

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.

U1032 CHASSIS CAN

DTC Description

INFOID:0000000013612524

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition		
U1032	88	Chassis CAN malf (Chassis CAN communication has a malfunction.)	BUS OFF	1	Diagnosis condition	Ignition switch ON (After ignition switch ON, wait for 5 seconds to start the engine)
					Signal (terminal)	CAN communication signal
					Threshold	Bus-off the CAN communication
					Diagnosis delay time	5 seconds or more
				2	Diagnosis condition	Ignition switch ON (After ignition switch ON, wait for 5 seconds to start the engine)
					Signal (terminal)	CAN communication signal
					Threshold	CAN controller reports Bus-off
					Diagnosis delay time	5 seconds or more

NOTE:
- The affected control unit must not be replaced.
- A bus OFF error code is set if the control unit cannot transmit a certain number of messages to the CAN bus or if the messages are incomplete.
- The control unit then shuts itself off from the CAN bus for a short time.

POSSIBLE CAUSE

88 Bus Off
- Chassis CAN communication has a malfunction
- Combination meter

FAIL-SAFE

- Display “DIsplay defect”
- Tachometer display 0 1 /min
- Speed display 0 km/h (0 MPH)

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn the ignition switch ON and wait at least 5 seconds or more.
2. Start the engine.
3. Perform self-diagnosis for “METER/M&A”.

Is DTC “U1032-88” detected?

YES >> Refer to MWI-144, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013612525

U1032-88

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.

U1145 INTELLIGENT KEY

DTC Description

INFOID:0000000013612526

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
U1145	87	Comm keyless go malf (Communication with KEYLESS GO has a malfunction)	MISSING MESSAGE	Diagnosis condition	Ignition switch ON (After ignition switch ON, wait for 5 seconds to start the engine)
				Signal (terminal)	CAN communication signal
				Threshold	At least one of messages is missing in the bus
				Diagnosis delay time	According to every specific signal applications requirement

POSSIBLE CAUSE

87 Missing Message
- CAN communication has a malfunction
- Intelligent Key unit

FAIL-SAFE

Warning message on display Intelligent Key without function.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn the ignition switch ON and wait 5 seconds or more.
2. Start the engine.
3. Perform self-diagnosis for “METER/M&A”.

Is DTC “U1145-87” detected?

YES >> Refer to MWI-146, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013612527

U1145-87

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 Intelligent Key unit. Refer to DLK-285, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

U118F TCU

DTC Description

INFOID:0000000013695496

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
U118F	87	Comm ECU telematics malf. (Communication with control unit for telematics services has a malfunction.)	MISSING MESSAGE	Diagnosis condition	Ignition switch ON (After ignition switch ON, wait for 5 seconds to start the engine)
				Signal (terminal)	CAN communication signal
				Threshold	At least one of messages is missing in the bus
				Diagnosis delay time	According to every specific signal applications requirement

POSSIBLE CAUSE

87 Missing Message
- CAN communication has a malfunction
- TCU

FAIL-SAFE

Warning message on information display is displayed.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn the ignition switch ON and wait 5 seconds or more.
2. Start the engine.
3. Perform self-diagnosis for “METER/M&A”.

Is DTC “U118F-87” detected?

YES >> Refer to MWI-147, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013695497

U118F-87

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 TCU. Refer to AV-459, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

U11A3 CAMERA SYSTEM

DTC Description

INFOID:0000000013612528

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
U11A3	87	Communication error (Communication with control unit 'Multifunction camera' has a malfunction.)	MISSING MESSAGE	Diagnosis condition	Ignition switch ON (After ignition switch ON, wait for 5 seconds to start the engine)
				Signal (terminal)	CAN communication signal
				Threshold	At least one of messages is missing in the bus
				Diagnosis delay time	According to every specific signal applications requirement

POSSIBLE CAUSE

87 Missing Message
- CAN communication has a malfunction
- Around view monitor control unit

FAIL-SAFE

No operability and status indication of the track switching assistant and/or speed limit assistant

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn the ignition switch ON and wait 5 seconds or more.
2. Start the engine.
3. Perform self-diagnosis for "METER/M&A".

Is DTC "U11A3-87" detected?

YES >> Refer to MWI-148, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013612529

U11A3-87

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 around view monitor control unit. Refer to AV-347, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

U11A4 HEADLAMP LEVEL

DTC Description

INFOID:0000000013612530

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
U11A4	00	Comm ECU H/L range adjust malf (Communication with control unit 'Headlamp range adjustment' has a malfunction.)	NO SUBTYPE INFORMATION	Diagnosis condition	Ignition switch ON (After ignition switch ON, wait for 5 seconds to start the engine)
				Signal (terminal)	CAN communication signal
				Threshold	At least one of messages is missing in the bus
				Diagnosis delay time	According to every specific signal applications requirement

POSSIBLE CAUSE

00 No Subtype Information
- CAN communication has a malfunction
- Front combination lamp

FAIL-SAFE

Warning message on information display is displayed.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn the ignition switch ON and wait 5 seconds or more.
2. Start the engine.
3. Perform self-diagnosis for "METER/M&A".

Is DTC "U11A4-00" detected?

YES >> Refer to MWI-149, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-56, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013612531

U11A4-00

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 front combination lamp. Refer to EXL-290, "Removal and Installation" (LED headlamp) or EXL-514, "Removal and Installation" (Halogen headlamp).
NO >> Repair or replace the malfunctioning parts.

U11A6 RADAR

DTC Description

INFOID:0000000013612532

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
U11A6	87	Comm ECU radar sensorics malf (Communication with control unit 'Radar sensorics' has a malfunction.)	MISSING MESSAGE	Diagnosis condition	Ignition switch ON (After ignition switch ON, wait for 5 seconds to start the engine)
				Signal (terminal)	CAN communication signal
				Threshold	At least one of messages is missing in the bus
				Diagnosis delay time	According to every specific signal applications requirement

POSSIBLE CAUSE

87 Missing Message
- CAN communication has a malfunction
- Side radar LH
- Side radar RH
- ICC sensor
- Distance sensor

FAIL-SAFE

Warning message on information display is displayed.

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn the ignition switch ON and wait 5 seconds or more.
2. Start the engine.
3. Perform self-diagnosis for “METER/M&A”.

Is DTC “U11A6-87” detected?

YES >> Refer to MWI-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:0000000013612533

U11A6-87

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

2.PERFORM SELF-DIAGNOSIS OF SIDE RADAR LH

Perform “Self Diagnostic Result” of “Side radar LH”.

Is DTC detected?

YES >> Perform diagnosis procedure on the detected DTC. Refer to DAS-46, "DTC Index".
NO >> GO TO 3.

3.PERFORM SELF-DIAGNOSIS OF SIDE RADAR RH

Perform “Self Diagnostic Result” of “Side radar RH”.

Is DTC detected?

YES >> Perform diagnosis procedure on the detected DTC. Refer to DAS-49, "DTC Index".
NO-1 >> GO TO 4.

4.PERFORM SELF-DIAGNOSIS OF ICC SENSOR

Perform “Self Diagnostic Result” of “ICC sensor”.

Is DTC detected?

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

U1203 FUEL SYSTEM CONTROL UNIT

DTC Description

INFOID:0000000013612534

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
U1203	87	COMMUNICATION ERROR (LOST) (Communication with control unit “Fuel pump” has a malfunction.)	MISSING MESSAGE	Diagnosis condition	Ignition switch ON (After ignition switch ON, wait for 5 seconds to start the engine)
				Signal (terminal)	CAN communication signal
				Threshold	At least one of messages is missing in the bus
				Diagnosis delay time	According to every specific signal applications requirement

POSSIBLE CAUSE

87 Missing Message
- CAN communication has a malfunction
- Fuel pump control module

FAIL-SAFE

- Incorrect fuel gage
- Fuel level indicator indicates 0 liter.
- Fuel reserve indicator massage turns OFF.
- Transmission value of fuel level sensor signal via CAN communication = 127 dez

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn the ignition switch ON and wait 5 seconds or more.
2. Start the engine.
3. Perform self-diagnosis for “METER/M&A”.

Is DTC “U1203-87” detected?

YES >> Refer to MWI-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:0000000013612535

U1203-87

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 fuel pump control module. Refer to EC-964, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

U1403 FUEL LEVEL

DTC Description

INFOID:0000000013612536

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	CONSULT screen terms [Malfunction type]	DTC detection condition	
U1403	29	Implausible sig fuel level received (Implausible signal “Fuel level” was re-ceived.)	SIGNAL INVALID	Diagnosis condition	Ignition switch ON (After ignition switch ON, wait for 5 seconds to start the engine)
				Signal (terminal)	Fuel level sensor signal (CAN message from BCM)
				Threshold	Received error message from BCM
				Diagnosis delay time	1 minute or more

POSSIBLE CAUSE

29 Signal Invalid
- BCM
- Fuel level sensor

FAIL-SAFE

- Incorrect fuel gage
- Fuel level indicator indicates 0 liter.
- Fuel reserve indicator massage turns OFF.
- Transmission value of fuel level sensor signal via CAN communication = 127 dez

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT
1. Turn the ignition switch ON and wait 5 seconds or more.
2. Start the engine and wait for 1 minute or more.
3. Perform self-diagnosis for “METER/M&A”.

Is DTC “U1403-29” detected?

YES >> Refer to MWI-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:0000000013612537

U1403-29

1.PERFORM SELF-DIAGNOSIS OF BCM

Perform “Self Diagnostic Result” of “BCM.”

Is DTC detected?

YES >> Perform diagnosis procedure on the detected DTC. Refer to BCS-51, "DTC Index".
NO >> INSPECTION END

POWER SUPPLY AND GROUND CIRCUIT
COMBINATION METER

COMBINATION METER : Diagnosis Procedure

INFOID:0000000013612538

1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	88

Is the inspection result normal?

YES >> GO TO 2.
NO >> Be sure to eliminate cause of malfunction before installing new fuse.

2.CHECK POWER SUPPLY CIRCUIT

Check voltage between combination meter harness connector and ground.

Probe			Ignition switch position	Voltage (Approx.)
+		–		
Combination meter				
Connector	Terminal			
M32	4	Ground	OFF	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.
NO >> Check harness between combination meter and fuse.

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect combination meter connector.
3. Check continuity between combination meter harness connector and ground.

Combination meter		Ground	Continuity
Connector	Terminal		
M32	1		Existed

Is the inspection result normal?

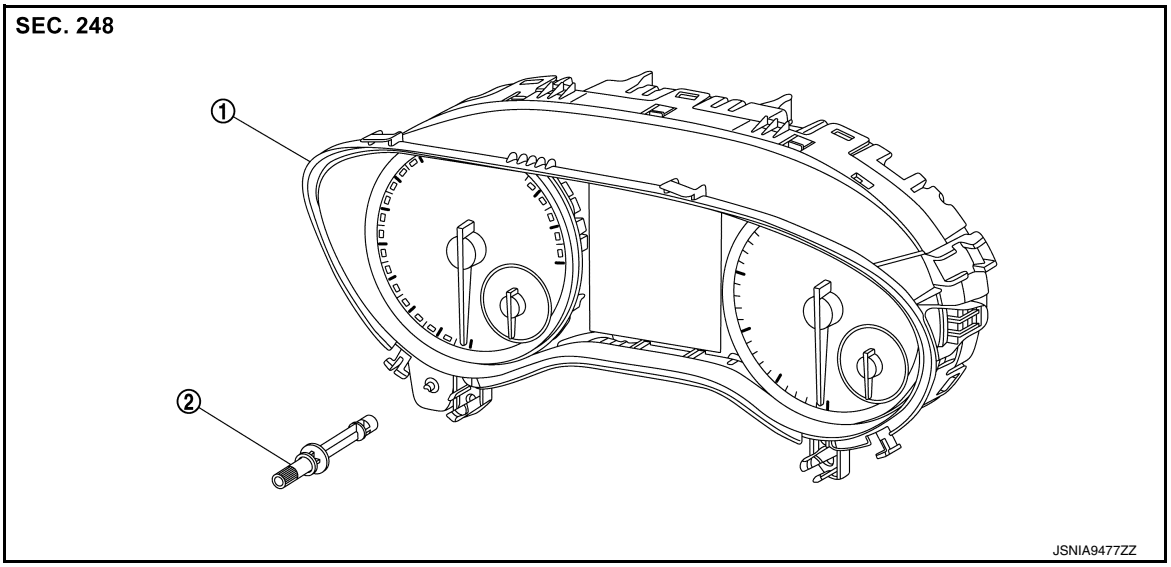
YES >> Check intermittent incident. Refer to GI-56, "Intermittent Incident".
NO >> Repair harness or connector.

REMOVAL AND INSTALLATION

COMBINATION METER

Exploded View

INFOID:0000000013612539



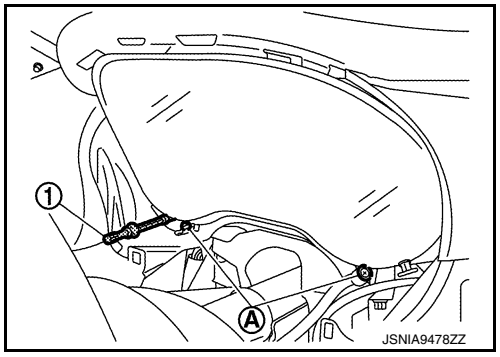
① Combination meter ② Illumination control knob

Removal and Installation

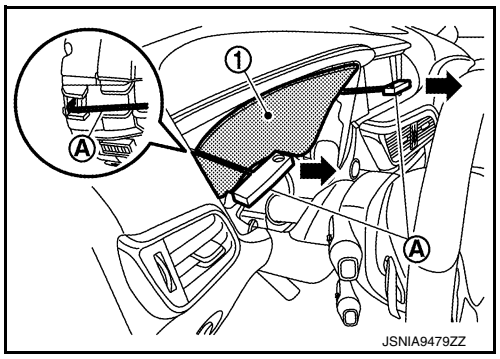
INFOID:0000000013612540

REMOVAL

1. Remove the cluster lid A. Refer to IP-13, "Removal and Installation".
2. Remove the illumination control knob ①.
3. Loosen the mounting screws Ⓐ.



4. Pull the pulling hooks Ⓐ (SST: KV485H0010) in the direction shown by arrow and disconnect the connector to remove combination meter ① from vehicle.
   CAUTION:
   Never damage the front cover.



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- **After replacing combination meter, perform additional service when replace combination meter. Refer to MWI-98, "Description".**
- **Never damage the front cover.**

STEERING SWITCH

Exploded View

INFOID:0000000013612541

Refer to ST-8, "Exploded View".

Removal and Installation

INFOID:0000000013612542

REMOVAL

Refer to ST-8, "Removal and Installation".

NOTE:

Always remove steering switch together with steering wheel.

INSTALLATION

Install in the reverse order of removal.