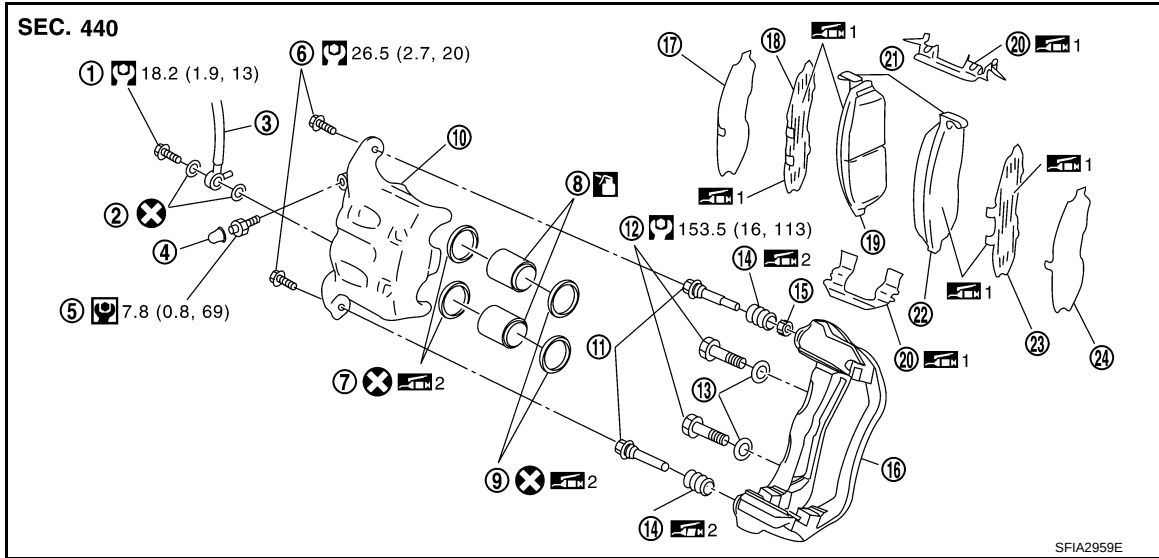


HOW TO USE THIS MANUAL

< HOW TO USE THIS MANUAL >



- | | | |
|-------------------|----------------------|---------------------------------|
| 1. Union bolt | 2. Copper washer | 3. Brake hose |
| 4. Cap | 5. Bleed valve | 6. Sliding pin bolt |
| 7. Piston seal | 8. Piston | 9. Piston boot |
| 10. Cylinder body | 11. Sliding pin | 12. Torque member mounting bolt |
| 13. Washer | 14. Sliding pin boot | 15. Bushing |
| 16. Torque member | 17. Inner shim cover | 18. Inner shim |
| 19. Inner pad | 20. Pad retainer | 21. Pad wear sensor |
| 22. Outer pad | 23. Outer shim | 24. Outer shim cover |
- 1: PBC (Poly Butyl Cuprysil) grease or silicone-based grease
 2: Rubber grease
 : Brake fluid

Refer to GI section for additional symbol definitions.

SYMBOLS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	Tightening torque The tightening torque specifications of bolts and nuts may be presented as either a range or a standard tightening torque.		Always replace after every disassembly.
	: N•m (kg-m, ft-lb) : N•m (kg-m, in-lb)		Apply petroleum jelly.
	Should be lubricated with grease. Unless otherwise indicated, use recommended multi-purpose grease.		Apply molybdenum added petroleum jelly.
	Should be lubricated with oil.		Apply ATF.
	Sealing point		Select with proper thickness.
	Sealing point with locking sealant.		Adjustment is required.
	Checking point		

SAIA0749E

TIGHTENING TORQUE OF STANDARD BOLTS

< HOW TO USE THIS MANUAL >

DISCRIMINATION OF BOLTS AND NUTS

GI

BOLTS

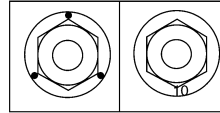
	Grade (Strength)	Discrimination	
Previous standard	4T (392N/mm ²)		 (No number/ symbol)
	7T (686N/mm ²)		
	9T (883N/mm ²)		
New Standard	4.8 (420N/mm ²)		 (No number/ symbol)
	8.8 (800N/mm ²)		
	10.9 (1040N/mm ²)		

NUTS

	Grade (Proof load stress)	Discrimination		
Previous standard	7N (686N/mm ²)	 (No number/ symbol)		
	9N (883N/mm ²)			
New Standard	8 (800N/mm ²)			 (No number/ symbol)
	10 (1040N/mm ²)			

NOTICE:

- A number is assigned on the side of the nuts in some cases.
- A number or symbol is assigned on the upper surface of the flange for the nut with flange.



MACHINE SCREWS AND TAPPING SCREWS

Shape of the head :

Cross recess for the previous standard
Torx recess for the new standard

Screw size	Screw diameter	Torx size
M4	4.0	T20
M5	5.0	T20
M6	6.0	T30

NOTICE:

Use torx size T20 (united with M4 screw) for M5 screw although ISO standard specifies T25.

SAIA0453E

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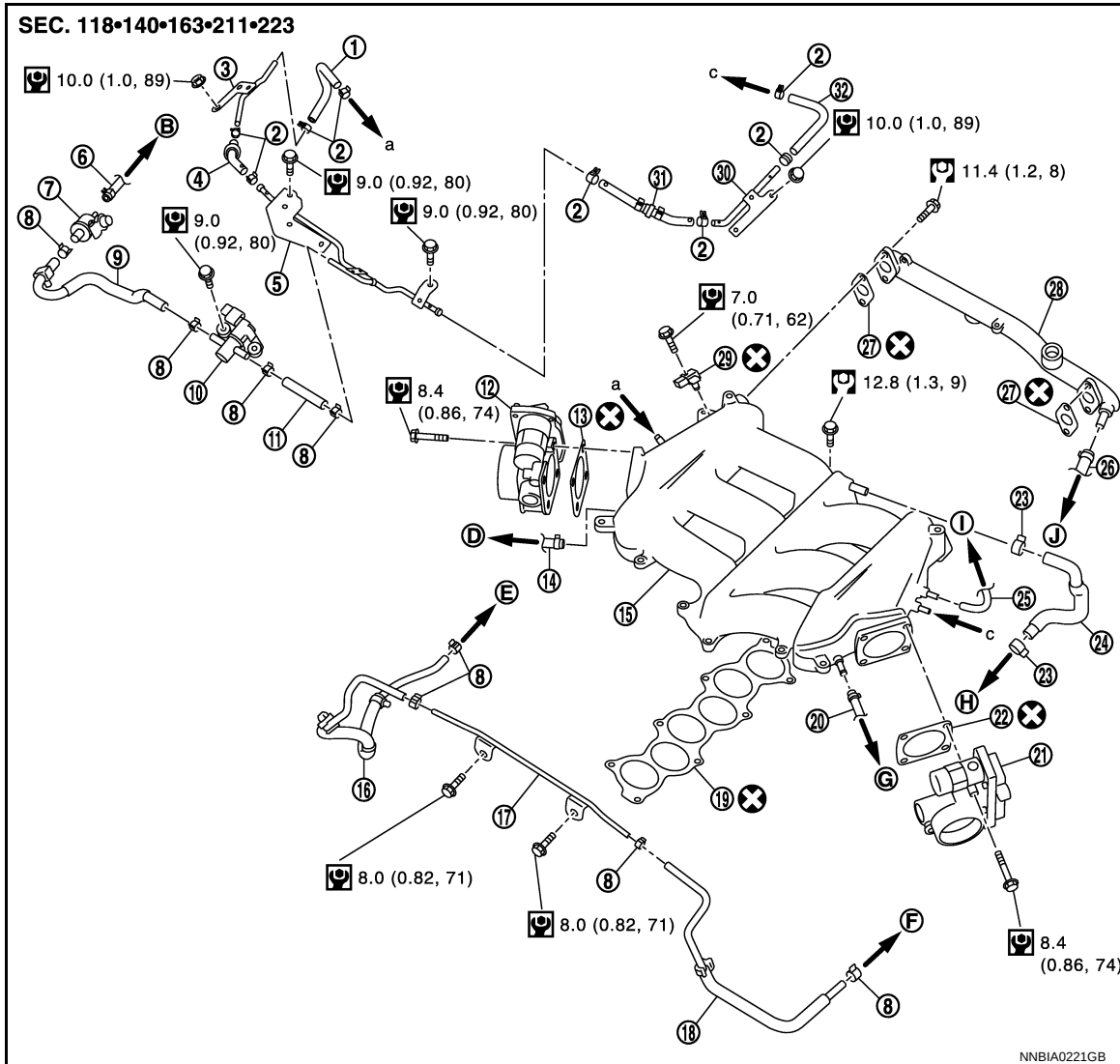
INTAKE MANIFOLD COLLECTOR

< REMOVAL AND INSTALLATION >

INTAKE MANIFOLD COLLECTOR

Exploded View

INFOID:000000009162837



- | | | |
|---|---|--|
| 1. EVAP hose | 2. Clamp | 3. EVAP tube (bank 1) |
| 4. EVAP connector hose | 5. EVAP tube (front) | 6. EVAP hose |
| 7. Vacuum tank (service port) | 8. Clamp | 9. EVAP hose |
| 10. EVAP canister purge control solenoid valve | 11. EVAP hose | 12. Electric throttle control actuator (bank 1) |
| 13. Gasket | 14. Vacuum hose | 15. Intake manifold collector |
| 16. Vacuum hose | 17. Vacuum tube assembly | 18. Vacuum hose |
| 19. Gasket | 20. Vacuum hose | 21. Electric throttle control actuator (bank 2) |
| 22. Gasket | 23. Clamp | 24. PCV hose |
| 25. Vacuum hose | 26. Vacuum hose | 27. Gasket |
| 28. Balance tube | 29. Manifold absolute pressure (MAP) sensor | 30. EVAP tube (bank 2) |
| 31. EVAP connector hose | 32. EVAP hose | |
| B. To centralized under-floor piping | D. To recirculation valve (bank 1) | E. To exhaust manifold and turbocharger (bank 1) |
| F. To turbocharger boost control solenoid valve | G. To recirculation valve (bank 2) | H. To breather separator assembly |

PRECAUTION

PRECAUTIONS

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

INFOID:000000009162733

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

WARNING:

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see "SRS AIR BAG".
- Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

Precaution for Battery Service

INFOID:000000009162734

Before disconnecting the battery, lower both the driver and passenger windows. This will prevent any interference between the window edge and the vehicle when the door is opened/closed. During normal operation, the window slightly raises and lowers automatically to prevent any window to vehicle interference. The automatic window function will not work with the battery disconnected.

Aluminum Die-Casting Parts Handling

INFOID:000000009162735

PROHIBITION OF WELDING OR BEATING REPAIR

- Material made of aluminum die-casting parts is heat-treated and loses strength when being exposed to welding heat. Do not perform welding repair for cracks, damage or others.
- For aluminum die-casting parts deformation, do not perform repair by beating. Always repair by replacement as an assembly.

CRACK CHECK

When the vehicle is damaged, always perform a visual deformation check and a crack check.

Crack Check Procedures

For a crack check, use dye penetrant inspection fluid (pre-cleaning fluid, penetrant fluid and developer fluid).

CAUTION:

Always perform a crack check in accordance with the procedures specified by the manufacturer of the dye penetrant inspection fluid.

1. Spray pre-cleaning fluid on the checking surface for cleaning.
2. Spray penetrant fluid on the checking surface and wait until the penetrant fluid soaks into any cracks.

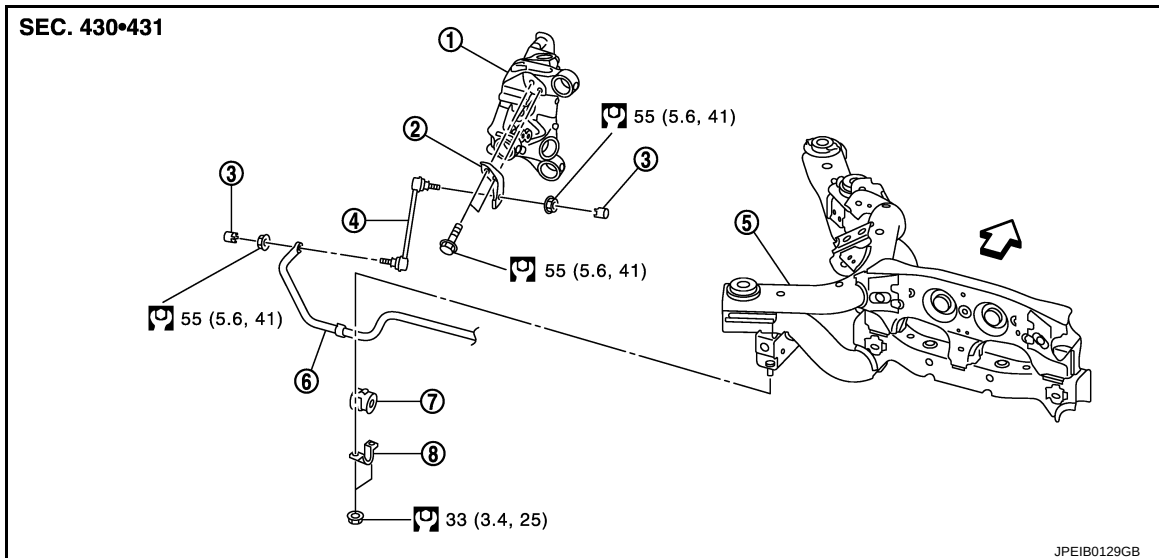
REAR STABILIZER

< REMOVAL AND INSTALLATION >

REAR STABILIZER

Exploded View

INFOID:000000009163950



- | | | |
|------------------------------|---|-------------------|
| 1. Axle housing | 2. Stabilizer connecting rod mounting bracket | 3. Cap |
| 4. Stabilizer connecting rod | 5. Rear suspension member | 6. Stabilizer bar |
| 7. Stabilizer bushing | 8. Stabilizer clamp | |

↩: Vehicle front

Refer to [GI-4, "Components"](#) for the symbols in the figure.

DIAGNOSIS SENSOR UNIT

< ECU DIAGNOSIS INFORMATION >

ECU DIAGNOSIS INFORMATION

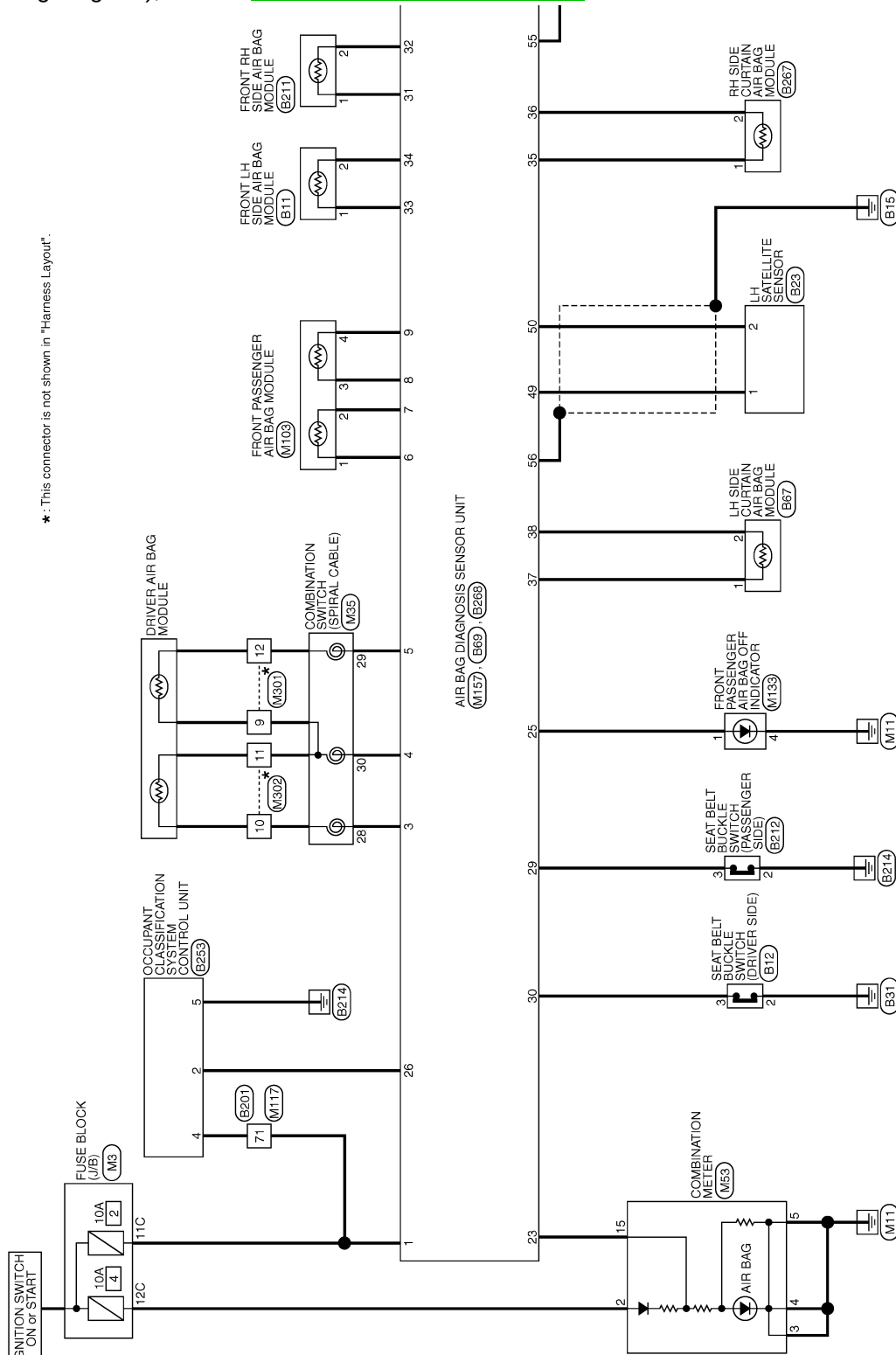
DIAGNOSIS SENSOR UNIT

Wiring Diagram - SRS AIR BAG CONTROL SYSTEM -

INFOID:000000009161823

For connector terminal arrangements, harness layouts, and alphabets in a  (option abbreviation; if not described in wiring diagram), refer to [GI-12. "Connector Information"](#).

SRS AIR BAG CONTROL SYSTEM



2012/10/26

JRHWC0358GB

SBC

PRECAUTION

PRECAUTIONS

Precaution for Working Range at a Regular Dealership

INFOID:0000000009196925

CAUTION:

The service items unmentioned on this manual are recommended to be performed by a GT-R certified NISSAN dealer. Because those service items require special equipment and a GT-R certified technical staff who completed special training.

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

INFOID:0000000009164048

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

WARNING:

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see "SRS AIR BAG".
- Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

Precaution for Battery Service

INFOID:0000000009164049

Before disconnecting the battery, lower both the driver and passenger windows. This will prevent any interference between the window edge and the vehicle when the door is opened/closed. During normal operation, the window slightly raises and lowers automatically to prevent any window to vehicle interference. The automatic window function will not work with the battery disconnected.

General Precautions

INFOID:0000000009164050

CAUTION:

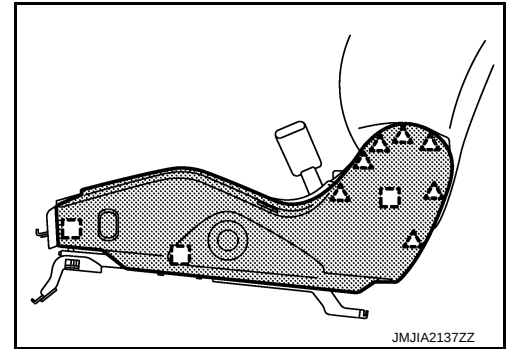
After finishing servicing, check that all the tools and waste are stored in a customary place.

FRONT SEAT

< REMOVAL AND INSTALLATION >

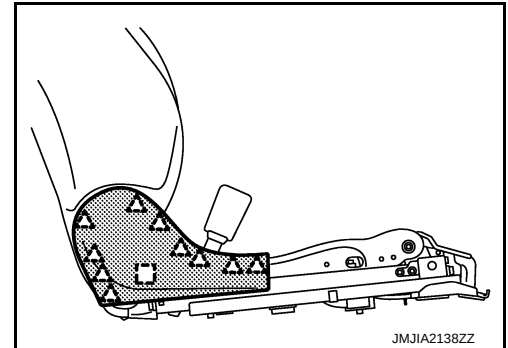
2. Remove the seat cushion outer finisher outside.

□ : Metal clip
△ : Pawl

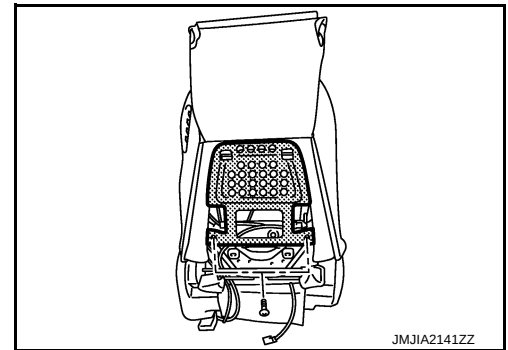


3. Disconnect the connectors of seat control switch, heater switch, and thigh support (driver seat only) switch.
4. Remove the seat cushion inner finisher outside.

□ : Metal clip
△ : Pawl



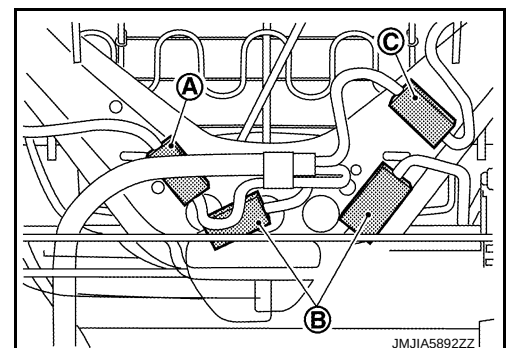
5. Remove the seatback trim retainer.
6. Remove the seatback panel.
 - Unfasten the seatback trim fastener.
 - Remove the seatback cover panel mounting screws, and then remove the seatback cover panel.



7. Disconnect the harness connector.

Driver side

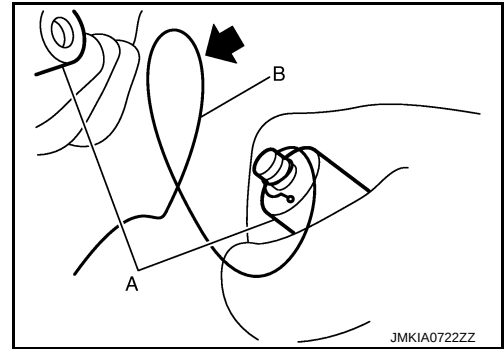
1. Disconnect the reclining limit switch harness connector (A), the heater unit harness connectors (B), and the reclining motor harness connector (C).



WINDSHIELD GLASS

< REMOVAL AND INSTALLATION >

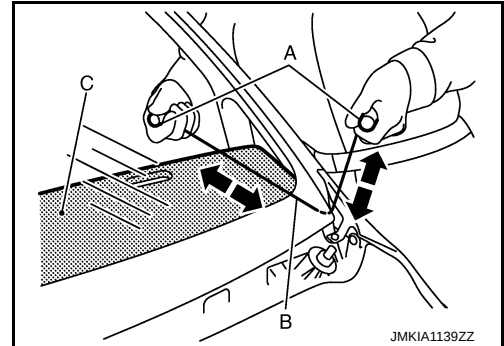
- ii. Tie both ends of the piano wire (B) to the wire grip (A), etc.



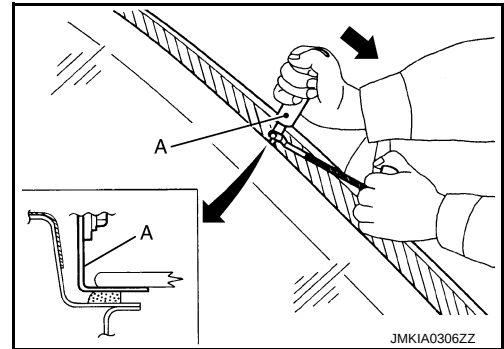
- iii. With 2 persons, one holding the piano wire (B) inside the vehicle along with the glass and the other holding it outside the vehicle along with the gap between the body and glass, pull it to cut off the adhesive.

CAUTION:

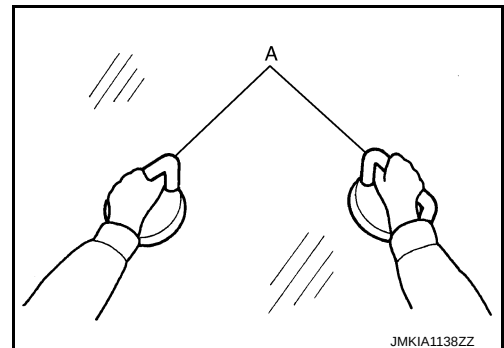
Always use a Standish cover (C) to keep the piano wire clear of plastic parts such as the instrument panel.



- b. With a windshield cutter (A) (when replacing glass)
- i. Apply soapy water around the bonded area on the body for smooth movement of the windshield cutter.
- ii. Insert the windshield cutter into the bonded area. Cut the adhesive by pulling the knife, keeping the tip parallel to the edge of the glass.



12. Use rubber suction cups or suction lifter (A), etc. to remove glass from the vehicle.



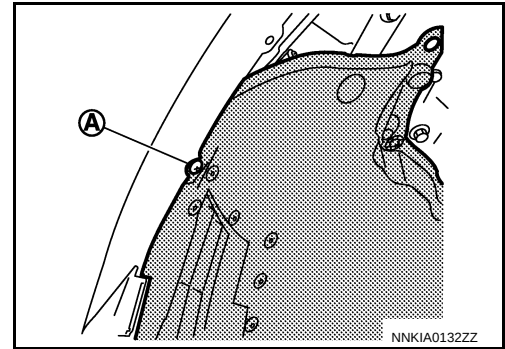
INSTALLATION

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FENDER PROTECTOR

< REMOVAL AND INSTALLATION >

6. Remove the screw (A) connecting the fender protector (front).



7. Remove the clips of the fender protector (front).
8. Remove the fender clips from wheel house arches, and then remove fender protector (front) from wheel house.
9. Remove the fender clips after removing the fender protector.

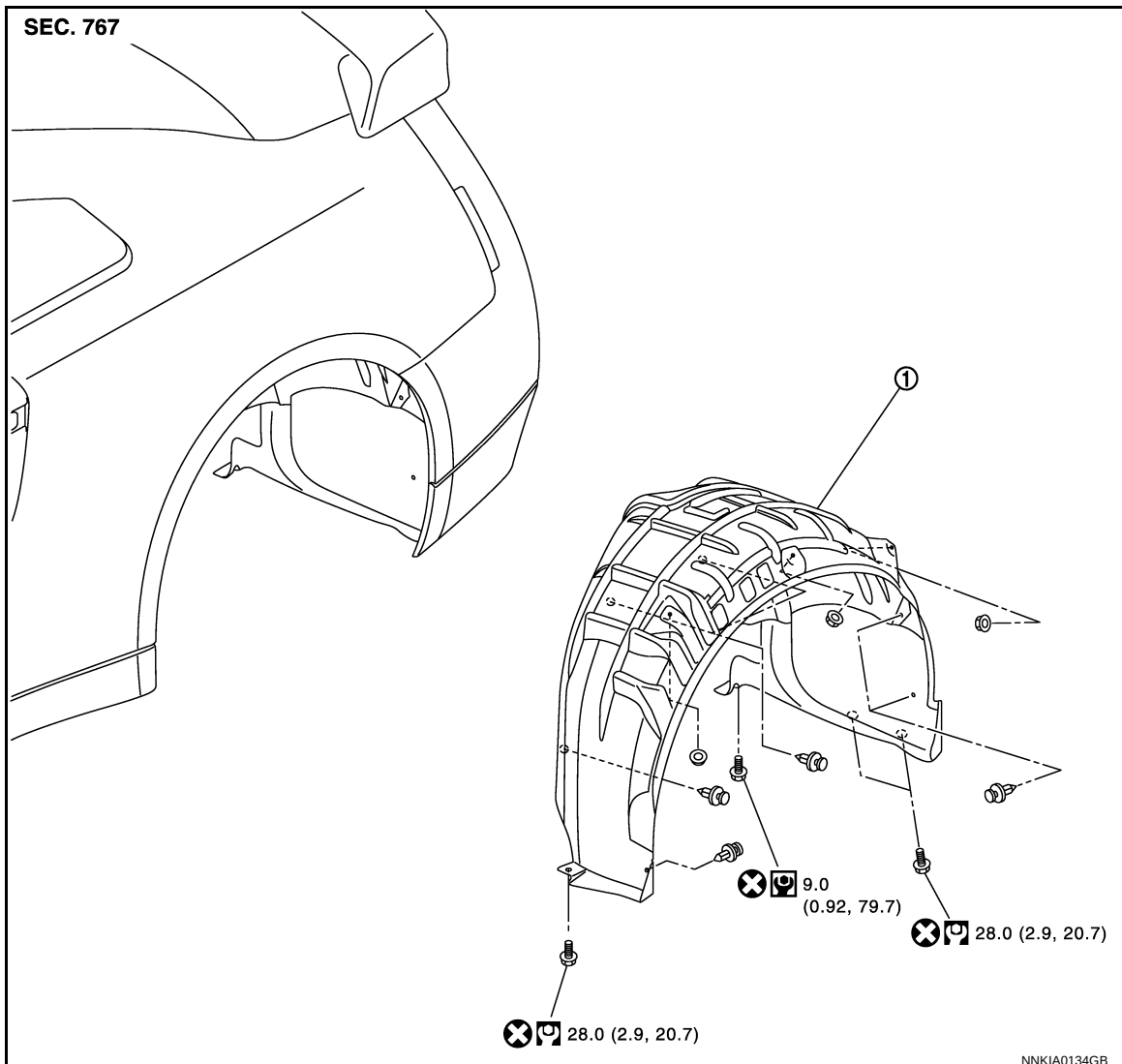
INSTALLATION

Install in the reverse order of removal.

REAR WHEEL HOUSE PROTECTOR

REAR WHEEL HOUSE PROTECTOR : Exploded View

INFOID:0000000009161561



FRONT SIDE MARKER LAMP

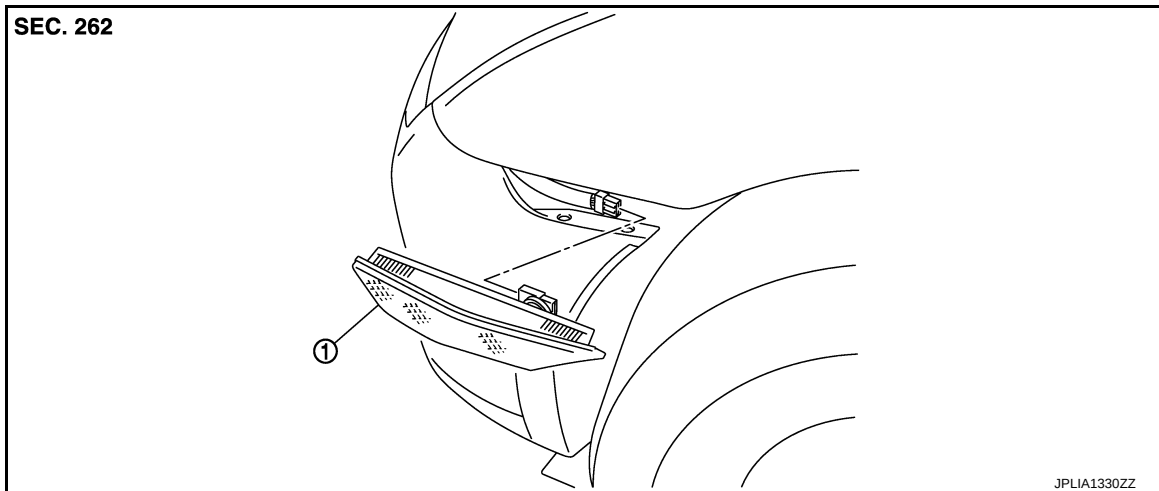
< REMOVAL AND INSTALLATION >

[XENON TYPE]

FRONT SIDE MARKER LAMP

Exploded View

INFOID:000000009160386



1. Front side marker lamp

Removal and Installation

INFOID:000000009160387

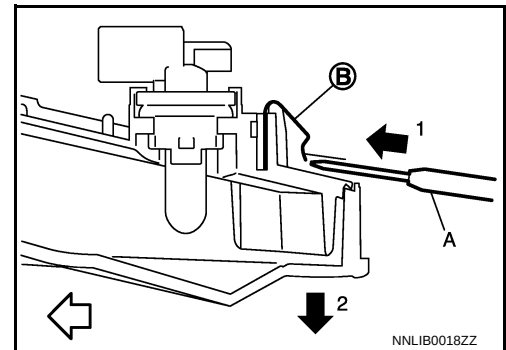
CAUTION:

Disconnect the battery negative terminal or remove the fuse.

REMOVAL

1. Insert any appropriate tool (A) into the gap between the side turn signal lamp and fender protector.
2. Pull the side turn signal lamp toward vehicle outside while pushing metal clip (B) toward vehicle front, and then remove side turn signal lamp from vehicle.

← : Vehicle front



3. Disconnect the side turn signal lamp connector. Remove the side turn signal lamp.

NOTE:

Support the vehicle-side harness of the side turn signal lamp with tape so that it does not drop inside the front fender.

INSTALLATION

1. Connect the side turn signal lamp connector.
2. Fix the pawl side. And then push the clip side.

Replacement

INFOID:000000009160388

CAUTION:

- **Disconnect the battery negative terminal or remove the fuse.**
- **Never touch the glass of bulb directly by hand. Keep grease and other oily matters away from it.**
- **Never touch bulb by hand while it is lit or right after being turned off.**
- **Never leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect the performance of lamp. When replacing bulb, be sure to replace it with new one.**

FRONT SIDE MARKER LAMP BULB

PRECAUTIONS

< PRECAUTION >

PRECAUTION

PRECAUTIONS

Precaution for Working Range at a Regular Dealership

INFOID:000000009166467

CAUTION:

The service items unmentioned on this manual are recommended to be performed by a GT-R certified NISSAN dealer. Because those service items require special equipment and a GT-R certified technical staff who completed special training.

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

INFOID:000000009161620

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

WARNING:

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see "SRS AIR BAG".
- Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

Precautions Necessary for Steering Wheel Rotation After Battery Disconnection

INFOID:000000009161621

CAUTION:

Comply with the following cautions to prevent any error and malfunction.

- Before removing and installing any control units, first turn the ignition switch to the LOCK position, then disconnect both battery cables.
- After finishing work, confirm that all control unit connectors are connected properly, then re-connect both battery cables.
- Always use CONSULT to perform self-diagnosis as a part of each function inspection after finishing work. If a DTC is detected, perform trouble diagnosis according to self-diagnosis results.

For vehicle with steering lock unit, if the battery is disconnected or discharged, the steering wheel will lock and cannot be turned.

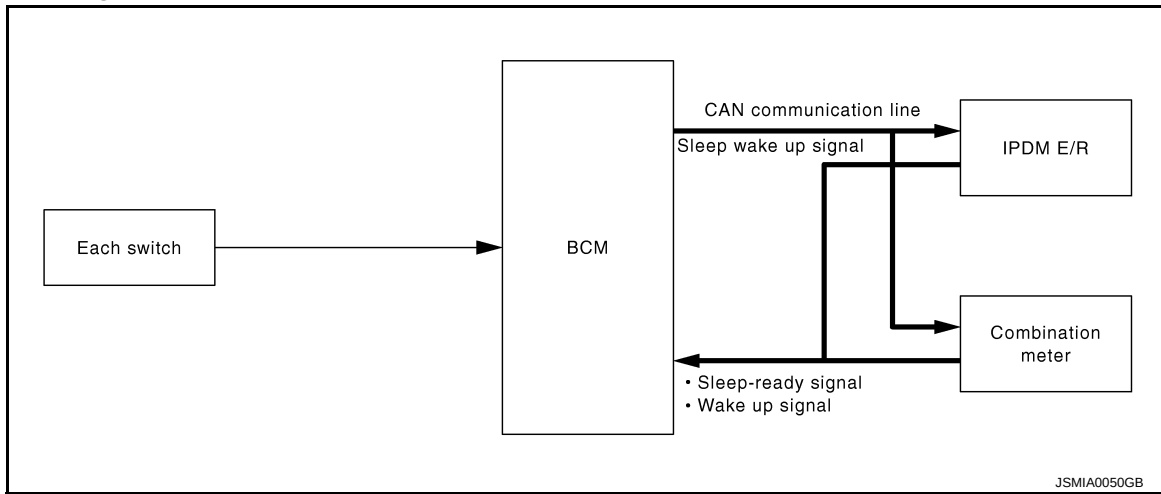
If turning the steering wheel is required with the battery disconnected or discharged, follow the operation procedure below before starting the repair operation.

OPERATION PROCEDURE

1. Connect both battery cables.

POWER CONSUMPTION CONTROL SYSTEM

System Diagram



System Description

INFOID:000000009163849

OUTLINE

- IPDM E/R incorporates a power consumption control function that reduces the power consumption according to the vehicle status.
- IPDM E/R changes its status (control mode) with the sleep wake up signal received from BCM via CAN communication.

Normal mode (wake-up)

- CAN communication is normally performed with other control units.
- Individual unit control by IPDM E/R is normally performed.

Low power consumption mode (sleep)

- Low power consumption control is active.
- CAN transmission is stopped.

SLEEP MODE ACTIVATION

- IPDM E/R judges that the sleep-ready conditions are fulfilled when the ignition switch is OFF and none of the conditions below are present. Then it transmits a sleep-ready signal (ready) to BCM via CAN communication.
- Outputting signals to actuators
- Switches or relays operating
- Hood switch status is kept 50 ms or less.
- Output requests are being received from control units via CAN communication.
- IPDM E/R stops CAN communication and enters the low power consumption mode when it receives a sleep wake up signal (sleep) from BCM and the sleep-ready conditions are fulfilled.

WAKE-UP OPERATION

- IPDM E/R changes from the low power consumption mode to the normal mode when it receives a sleep wake-up signal (wake up) from BCM or any of the following conditions is fulfilled. In addition, it transmits a sleep-ready signal (not-ready) to BCM via CAN communication to report the CAN communication start.
- Ignition switch ON
- The hood switch status changes.
- An output request is received from a control unit via CAN communication.

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PCS

METER CONTROL SWITCH

< REMOVAL AND INSTALLATION >

METER CONTROL SWITCH

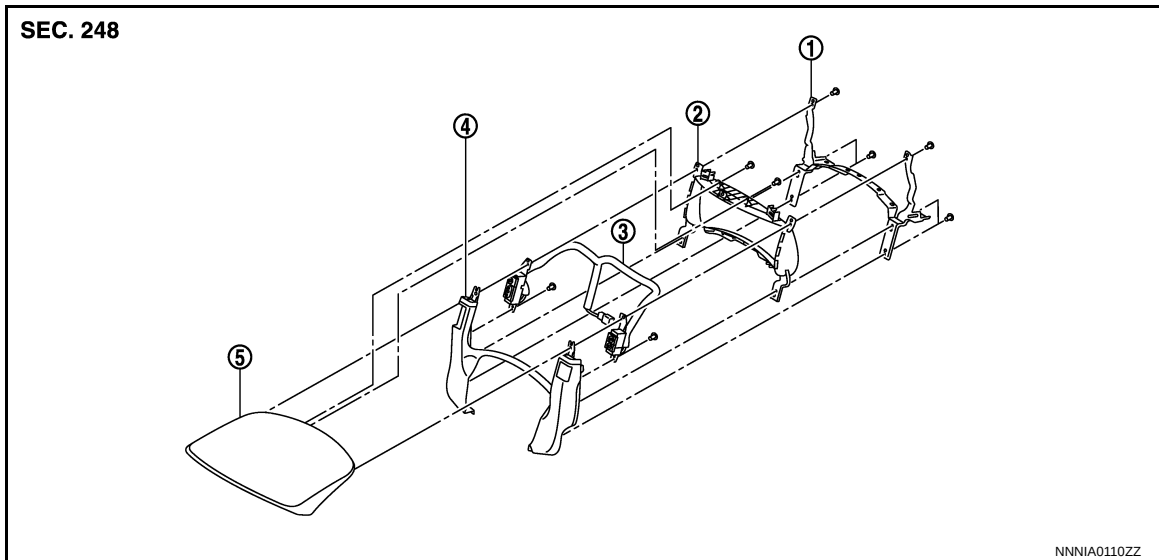
Exploded View

INFOID:000000009189375

REMOVAL

Refer to [IP-12, "Exploded View"](#).

DISASSEMBLY

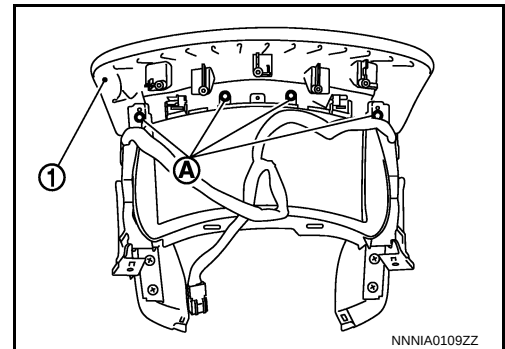


Removal and Installation

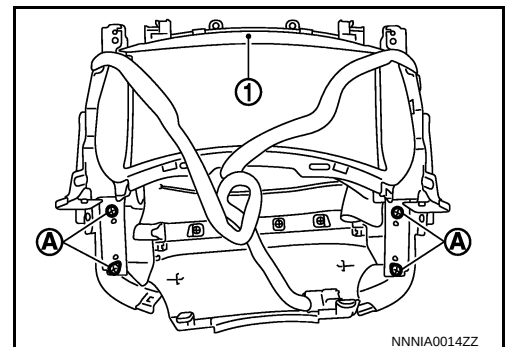
INFOID:000000009189376

REMOVAL

1. Remove the combination meter.
2. Remove the screws (A), and then remove the cluster lid A front cover (1).



3. Remove the screws (A), and then remove the bracket and meter housing (1).

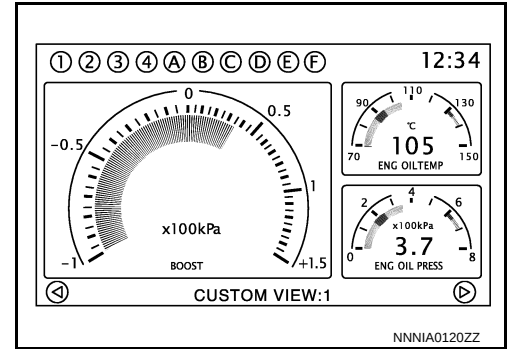


MULTI AV SYSTEM

< SYSTEM DESCRIPTION >

[BOSE AUDIO WITH NAVIGATION]

To continue to use the vehicle in good condition, it can display the mechanical information if necessary.



Display	Display Item	Description	Signal route	Display form	Display range	Unit
CUSTOM VIEW 1 CUSTOM VIEW 2 CUSTOM VIEW 3 CUSTOM VIEW 4	COOLANT TEMP	Engine coolant temperature	Coolant temperature sensor → ECM → Combination meter → AV control unit	Gauge	50 - 130	°C
				Value	(-40) - (200)	
				Gauge	120 - 270	°F
				Value	(-40) - (390)	
	ENGINE OIL TEMP	Engine oil temperature	Fluid temperature sensor → ECM → Combination meter → AV control unit	Gauge	70 - 150	°C
				Value	(-50) - (200)	
				Gauge	150 - 300	°F
				Value	(-50) - (390)	
	ENGINE OIL PRES	Engine oil pressure	Oil pressure sensor → Combination meter → AV control unit	Gauge	0 - 8	x100 kPa PSI
	TRANS OIL TEMP	Transmission oil temperature	Transmission oil sensor → TCM → Combination meter → AV control unit	Gauge	40 - 160	°C
				Value	(-40) - (200)	
				Gauge	120 - 320	°F
				Value	(-40) - (390)	
	TRANS OIL PRESSURE	Transmission oil pressure	Transmission oil pressure sensor → TCM → Combination meter → AV control unit	Gauge	Lo - Hi	—
	BOOST	Boost pressure	Boost sensor → ECM → Combination meter → AV control unit	Gauge	(-1.0) - (1.5)	x100 kPa PSI
	SPEED	Vehicle speed (small display only)	Wheel sensor → ABS actuator and electric unit (control unit) → Combination meter → AV control unit	Value	0 - 340	km/h
					0 - 215	MPH
	FUEL/RANGE	Fuel level and possible driving distance	Combination meter → AV control unit	Gauge	E - F	—
				Value	0 - 999	km mile
	FUEL FLOW	Fuel Flow	ECM → AV control unit	Gauge	—	—