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SERVICE INFORMATION

DTC INDEX

U1000

CONSULT display	DTC detection condition	Reference page
U1000: CAN COMM CIRCUIT	When driver seat control unit is not transmitting or receiving CAN communication signal for 2 seconds or more.	SE-39, "CAN Communication Inspection Using CONSULT-III (Self-Diagnosis)"

B2112-B2128

CONSULT display	DTC detection condition	Reference page
B2112: SEAT SLIDE	When any manual and automatic operations are not performed, if any motor operations of seat slide is detected for 0.1 second or more, status is judged "Output error".	SE-42, "Check Sliding Motor Circuit" SE-49, "Check Sliding Sensor Circuit"
B2113: SEAT RECLINING	When any manual and automatic operations are not performed, if any motor operations of seat reclining is detected for 0.1 second or more, status is judged "Output error".	SE-43, "Check Reclining Motor Circuit" SE-50, "Check Reclining Sensor Circuit"
B2118: STRG TILT SENSOR	When driver seat control unit detects 0.1V or lower, or 4.9V or higher, from tilt sensor for 0.5 seconds or more.	SE-55, "Check Tilt Sensor Circuit"
B2119: STEERING TELESCO	When driver seat control unit detects 0.1V or lower, or 4.9V or higher, from telescopic sensor for 0.5 seconds or more.	SE-54, "Check Telescopic Sensor Circuit"
B2126: DETENT SW	With the selector lever in P position (Detente switch OFF), if the vehicle speed of 7 km/h (4 MPH) or higher was input the detention switch input system is judged malfunctioning.	SE-73, "Check A/T Shift Selector (Detent Switch) Circuit"
B2128: UART COMM	Malfunction is detected in UART communication.	SE-75, "Check UART Communication Line Circuit"

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PRECAUTIONS

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

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 "SUPPLEMENTAL RESTRAINT SYSTEM" and "SEAT BELTS" of this Service Manual.

WARNING:

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

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

WARNING:

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the
 ignition ON or engine running, DO NOT 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.

Service Notice

- When removing or installing various parts, place a cloth or padding onto the vehicle body to prevent scratches.
- Handle trim, molding, instruments, grille, etc. carefully during removing or installing. Be careful not to oil or damage them.
- Apply sealing compound where necessary when installing parts.
- When applying sealing compound, be careful that the sealing compound does not protrude from parts.
- When replacing any metal parts (for example body outer panel, members, etc.), be sure to take rust prevention measures.

Precaution for Work

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and keep them.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After re-installation is completed, be sure to check that each part works normally.
- Follow the steps below to clean components.
- Water soluble foul: Dip a soft cloth into lukewarm water, and wring the water out of the cloth to wipe the fouled area.
 - Then rub with a soft and dry cloth.
- Oily foul: Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%), and wipe the fouled area.

PRECAUTIONS

< SERVICE INFORMATION >

Then dip a cloth into fresh water, and wring the water out of the cloth to wipe the detergent off. Then rub with a soft and dry cloth.

- Do not use organic solvent such as thinner, benzene, alcohol, and gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

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PREPARATION

Special Service Tool

INFOID:0000000005349925

The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

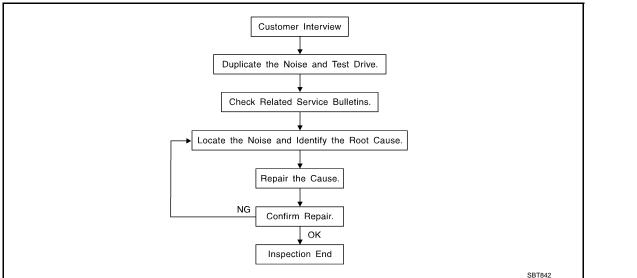
Tool number (Kent-Moore No.) Tool name		Description
(J-39570) Chassis ear	SIIAO993E	Locating the noise
(J-43980) NISSAN Squeak and Rattle Kit	SIIA0994E	Repairing the cause of noise

Commercial Service Tool

INFOID:0000000005349926

Tool name		Description
Engine ear	SIIA0995E	Locating the noise

Work Flow INFOID:0000000005349927



CUSTOMER INTERVIEW

Interview the customer if possible, to determine the conditions that exist when the noise occurs. Use the Diagnostic Worksheet during the interview to document the facts and conditions when the noise occurs and any of customer's comments; refer to SE-11, "Diagnostic Worksheet". This information is necessary to duplicate the conditions that exist when the noise occurs.

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

DUPLICATE THE NOISE AND TEST DRIVE

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

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< SERVICE INFORMATION >

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

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

CHECK RELATED SERVICE BULLETINS

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

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

LOCATE THE NOISE AND IDENTIFY THE ROOT CAUSE

- 1. Narrow down the noise to a general area. To help pinpoint the source of the noise, use a listening tool (Chassis Ear: J-39570, Engine Ear and mechanics stethoscope).
- 2. Narrow down the noise to a more specific area and identify the cause of the noise by:
- removing the components in the area that you suspect the noise is coming from.
 Do not use too much force when removing clips and fasteners, otherwise clips and fastener can be broken or lost during the repair, resulting in the creation of new noise.
- tapping or pushing/pulling the component that you suspect is causing the noise.
 Do not tap or push/pull the component with excessive force, otherwise the noise will be eliminated only temporarily.
- feeling for a vibration with your hand by touching the component(s) that you suspect is (are) causing the noise.
- placing a piece of paper between components that you suspect are causing the noise.
- looking for loose components and contact marks.
 Refer to SE-9, "Inspection Procedure".

REPAIR THE CAUSE

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

CAUTION:

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

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

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

URETHANE PADS [1.5 mm (0.059 in) thick]

Insulates connectors, harness, etc.

76268-9E005: 100×135 mm $(3.94 \times 5.31$ in)/76884-71L01: 60×85 mm $(2.36 \times 3.35$ in)/76884-

71L02:15 \times 25 mm (0.59 \times 0.98 in)

INSULATOR (Foam blocks)

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

73982-9E000: 45 mm (1.77 in) thick, 50×50 mm (1.97 \times 1.97 in)/73982-

50Y00: 10 mm (0.39 in) thick, 50×50 mm (1.97 \times 1.97 in)

INSULATOR (Light foam block)

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

FELT CLOTHTAPE

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

 $68370-4B000: 15 \times 25 \text{ mm} (0.59 \times 0.98 \text{ in}) \text{ pad/}68239-13E00: 5 \text{ mm} (0.20 \text{ in}) \text{ wide tape roll}$

The following materials, not found in the kit, can also be used to repair squeaks and rattles.

UHMW (TEFLON) TAPE

< SERVICE INFORMATION >

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

SILICONE GREASE

Used in place of UHMW tape that will be visible or not fit. Will only last a few months.

SILICONE SPRAY

Use when grease cannot be applied.

DUCT TAPE

Use to eliminate movement.

CONFIRM THE REPAIR

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

Inspection Procedure

Refer to Table of Contents for specific component removal and installationinformation.

INSTRUMENT PANEL

Most incidents are caused by contact and movement between:

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

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

CAUTION:

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

CENTER CONSOLE

Components to pay attention to include:

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

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

DOORS

Pay attention to the:

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

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

TRUNK

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

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

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

SUNROOF/HEADLINING

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

- 1. Sunroof lid, rail, linkage or seals making a rattle or light knockingnoise
- Sunvisor shaft shaking in the holder
- 3. Front or rear windshield touching headlining and squeaking

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

SEATS

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

Cause of seat noise include:

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

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

UNDERHOOD

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

Causes of transmitted underhood noise include:

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

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

< SERVICE INFORMATION >

Diagnostic Worksheet

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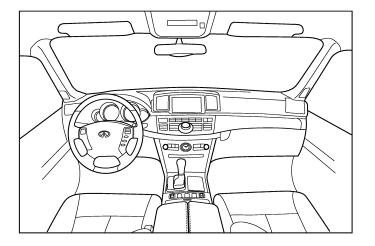
SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

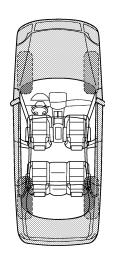
Dear Infiniti Customer:

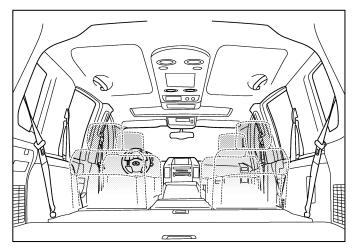
We are concerned about your satisfaction with your Infiniti vehicle. Repairing a squeak or rattle sometimes can be very difficult. To help us fix your Infiniti right the first time, please take a moment to note the area of the vehicle where the squeak or rattle occurs and under what conditions. You may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

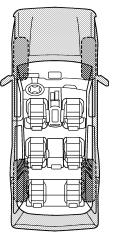
I. WHERE DOES THE NOISE COME FROM? (circle the area of the vehicle)

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









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

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Briefly describe the location where the noi	se occurs:			
II. WHEN DOES IT OCCUR? (please che	ck the box	es that ap	ply)	
□ anytime□ 1st time in the morning□ only when it is cold outside□ only when it is hot outside	☐ whe	n it is rain or dusty co	it in the ra ing or wet onditions	
III. WHEN DRIVING:	IV. WH	AT TYPE	OF NOIS	Ē
□ through driveways □ over rough roads □ over speed bumps □ only about mph □ on acceleration □ coming to a stop □ on turns: left, right or either (circle) □ with passengers or cargo □ other: miles or min	squeak (like tennis shoes on a clean floor) creak (like walking on an old wooden floor) rattle (like shaking a baby rattle) knock (like a knock at the door) tick (like a clock second hand) thump (heavy, muffled knock noise) buzz (like a bumble bee)			
TO BE COMPLETED BY DEALERSHIP	PERSON	IEL		
Test Drive Notes:				
		YES	NO	Initials of person performing
Vehicle test driven with customer - Noise verified on test drive - Noise source located and repaired - Follow up test drive performed to confirn	า repair	YES	NO	
- Noise source located and repaired				

This form must be attached to Work Order

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Component Parts and Harness Connector Location

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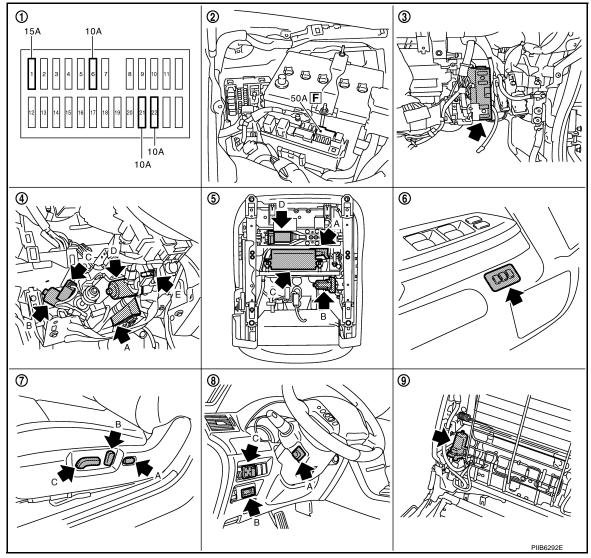
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Fuse block (J/B)

- Fuse and fusible link box
- BCM M1, M2, M3 (View with the glove box assembly removed)

- A. Automatic drive positioner control 5. unit M6, M7
 - B. Telescopic motor M45
 - C. Telescopic sensor M44
 - D. Tilt sensor M37
 - E. Tilt motor M36
 - (View with the driver lower panel removed)
- A. Lumbar support switch B212
 - B. Reclining switch B213
 - C. Sliding/Lifting switch B213

- A. Front lifting motor B209
 - B. Rear lifting motor B210
 - C. Driver seat control unit B204,B205
 - D. Sliding motor B207
- Seat memory switch D9

- A. ADP steering switch M46
 - B. Key slot M14
 - C. Door mirror control switch M95
- Reclining motor B208

System Description

INFOID:0000000005349931

• The system automatically moves the driver seat, steering and door mirror position by the driver seat control unit and the automatic drive positioner control unit. The driver seat control unit corresponds with the automatic drive positioner control unit via UART communication. The driver seat control unit can store the optimum driving positions (driver seat, steering and door mirror position) for 2 people. If the driver changes, onetouch operation allows changing to the other driving position.

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< SERVICE INFORMATION >

 The driver seat, steering and door mirror position are adjusted automatically to the proper positions for the driver in different ways: MEMORY OPERATION, EXITING OPERATION, ENTRY OPERATION and INTEL-LIGENT KEY INTERLOCK OPERATION.

Function		nction	Description		
Manual operation			The driving position (seat, steering and door mirror position) can be adjusted with the power seat switch ADP steering switch or door mirror control switch.		
Memory operation		pperation	The seat, steering and door mirror move to the stored driving position by pushing seat memory switch (1 or 2).		
Automat- Entry/ Exiting operation		Exiting operation	At exit, the seat moves backward and the steering wheel moves upward.		
ic opera- tion	Exiting function	Entry operation	At entry, the seat and steering wheel returns from exiting position to the previous driving position before the exiting operation.		
Intelligent Key interlock operation		t Key interlock operation	Perform memory operation, exiting operation and entry operation by pressing Intelligent Key unlock button.		

MANUAL OPERATION

The driving position (seat, steering and door mirror position) can be adjusted with the power seat switch, ADP steering switch and door mirror control switch.

NOTE:

The door mirrors can be manually operated with the ignition switch in either ACC or ON.

MEMORY OPERATION

The driver seat control unit can store the optimum driving positions (seat, steering and door mirror position) for 2 people. If the front seat position is changed, one-touch (pressing desired memory switch for more than 0.5 second) operation allows changing to the other driving position.

Operation procedure

- Turn ignition switch ON.
- 2. Press desired memory switch for 0.5 second. (Indicator LED illuminates.)
- 3. Driver seat, steering and door mirror will move to the memorized position. (Indicator LED blinks during adjustment, then illuminates for 5 seconds.)

Operation Condition

If the following conditions are not satisfied, memory switch operation is not performed.

- Ignition switch is in ON position.
- Driver side power seat switch, ADP steering switch and door mirror control switch are not operated.
- Seat memory switch and set switch are not operated.
- · Output malfunction is not detected.
- CAN and UART communications are normal.
- Selector lever position is in P position.
- Detention switch malfunction is not detected.

[Detention switch malfunction is sensed when detention switch remains OFF, vehicle speed is higher than 7 km/H. (4 MPH).]

• Input voltage from tilt sensor and telescopic sensor are normal.

NOTE:

The memory operation operates following order.

Order of priority	Operated portion
1*	Seat sliding
2	Steering telescopic
3	Steering wheel tilt
4	Seat reclining
5	Seat lifter (front)
6	Seat lifter (rear)

^{*:} Door mirror operation starts with the start of seat sliding operation.

< SERVICE INFORMATION >

- Turn ignition switch to ON.
- Shift selector lever to P position.
- 3. Adjust position of driver seat, steering and mirror position.
- Press set switch.
 - Indicator LED for which driver seat positions are already retained in memory is illuminated for 5 sec-
 - Indicator LED for which driver seat positions are not retained in memory is illuminated for 0.5 second.
- 5. Press memory switch for which driver seat positions are to be entered in memory for more than 0.5 second within 5 seconds after pressing the set switch (during the indicator LED is illuminated).
 - To enter driver seat positions in blank memory, indicator LED will be illuminated for 5 seconds.
 - To modify driver seat positions, indicator LED will be turned OFF for 0.5 second then illuminated for 5 seconds.

6.

- If you need setting of INTELLIGENT KEY INTERLOCK OPERATION, continue this procedure.
- If you don't need setting of INTELLIGENT KEY INTERLOCK OPERATION, the procedure is finished. Conform the operations of each part with the MEMORY OPERATION.
- 7. Press intelligent key unlock button within 5 seconds after pressing memory switch. (While memory switch LED is illuminated.)
- Conform the operations of each part with MEMORY OPERATION and INTELLIGENT KEY INTERLOCK OPERATION.

Driving position is erased from the memory when battery cable is disconnected.

EXITING OPERATION

When exiting, when the condition is satisfied, the seat is moved backward 40 mm (1.57 in) from normal sitting position and the steering is moved to the most upper position and front position.

The seat slide amount and the steering operation at entry/exit operation can be changed by set switch, CON-SULT-III and display (located in the instrument panel). Refer to "SETTING CHANGE FUNCTION".

Operation Condition

Ignition switch: OFF / Driver side door switch: ON (OPEN)

If the following conditions are not satisfied, exiting operation is not performed.

- Ignition switch is in OFF position.
- Selector lever position is in P position.
- Vehicle speed is less than 7 km/h. (4 MPH).
- Driver side power seat switch and ADP steering switch are not operated.
- Seat memory switch and set switch is not operated.
- Door mirror control switch is not operated at change over switch is in LH or RH position.
- Output malfunction is not detected.
- Detention switch malfunction is not detected.

[Detention switch malfunction is sensed when detention switch remains OFF and vehicle speed is higher than 7 km/h. (4 MPH).]

- CAN communications are normal.
- Initialization has been done. Refer to "INITIALIZATION PROCEDURE".

ENTRY OPERATION

When the seat is in the exiting position when either condition (1 or 2) is satisfied, the seat returns from exiting position to the previous driving position.

Operation Condition

- 1. Ignition switch: ON
- Ignition switch: ACC / Driver side door switch: OFF (CLOSE)

If the following conditions are not satisfied, entry operation is not performed.

- Ignition switch is in OFF position.
- Selector lever position is in P position.
- Vehicle speed is less than 7 km/h (4 MPH).
- Driver side power seat switch, ADP steering switch and door mirror control switch are not operated.
- Seat memory switch and set switch is not operated.
- Output malfunction is not detected.
- Detention switch malfunction is not detected.

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< SERVICE INFORMATION >

[Detention switch malfunction is sensed when detention switch remains OFF and vehicle speed is higher than 7 km/h (4 MPH).]

- CAN communications are normal.
- Exiting positions have not been changed during and after exiting operation.

INTELLIGENT KEY INTERLOCK OPERATION

When pressing unlock button on Intelligent Key or request switch, the system performs memory operation, exiting operation and entry operation.

Operation procedure

- Press unlock button on Intelligent Key or request switch.
- 2. The system performs MEMORY OPERATION, and then performs EXITING OPERATION continually.

NOTE:

If the seat position is in memorized position before push unlock button, MEMORY OPEPATION dose not perform.

- 3. Turn ignition switch ON or close driver side door when ignition switch is in "ACC" position.
- 4. The system performs ENTRY OPERATION. (Seat and steering positions are moved to memorized positions. The memorize position is related to key ID.)

Operation Condition

If the following conditions are not satisfied, memory switch operation is not performed.

- Ignition switch is in OFF position.
- Driver side power seat switch and door mirror control switch are not operated.
- Seat memory switch and set switch are not operated.
- Output malfunction is not detected.
- CAN and UART communications are normal.
- Selector lever position is in P position.
- Detention position switch malfunction is not detected.

[Detention position switch malfunction is sensed when detention switch remains OFF and vehicle speed is higher than 7 km/h (4 MPH).]

Linking Intelligent Key to the Stored Memory Procedure

NOTE

- If ignition switch turns ON in the middle of memory operation, the system does not perform exiting operation after memory operation.
- If ignition switch turns ON in the middle of exiting operation, entry operation starts at that time.
- If entry / exiting operation is cancelled, perform memory operation only.

FAIL-SAFE MODE

If any of the parts move more than a period "T" without any switch operation, MEMORY OPERATION, EXIT-ING OPERATION, ENTRY OPERATION, INTELLIGENT KEY INTERLOCK OPERATION and the malfunction part of manual operations are not operated (output malfunction).

Operated portion	Т
Seat sliding	Approx. 0.1 sec.
Seat reclining	Approx. 0.1 sec.
Seat lifter (front)	Approx. 0.1 sec.
Seat lifter (rear)	Approx. 0.1 sec.
Steering tilt	Approx. 0.1 sec.

Canceling Fail-safe Mode

The mode is cancelled by either of the following operations.

• When the selector lever is shifted to P position from any other position (detention switch is turned OFF).

INITIALIZATION PROCEDURE

After reconnecting battery cable, perform initialization procedure A or B. If initialization has not been performed, EXITING OPERATION will not operate.

Procedure A

- Turn ignition switch from ACC to OFF position.
- 2. Driver door switch is ON (open) \rightarrow OFF (close) \rightarrow ON (open).

< SERVICE INFORMATION >

3. END

Procedure B

- 1. Drive the vehicle at more than 25 km/h (16 MPH).
- 2. END

SETTING CHANGE FUNCTION

The settings of the automatic driving positioner system can be changed, using CONSULT-III and the display unit in the center of the instrument panel.

×: Applicable -: Not applicable

Setting item	Content	CONSULT-III (WORK SUPPORT)	Display unit	Factory setting
Change seat sliding volume setting	The distance at retain operation can be selected from the following 3 modes.	40 mm		×
		80 mm	_	_
		150 mm		_
Change the Entry/Exit seat	The seat sliding turnout and return		ON: Indicator lamp ON	×
slide function setting	at entry/exit can be selected: ON (operated) – OFF (not operated)	OFF	OFF: Indicator lamp OFF	_
Change the Entry/Exit tilt steer-	Lift up and backward steering wheel	ON	ON: Indicator lamp ON	×
ing wheel function setting	at entry and exit can be selected: ON (operated) - OFF (not operated)	OFF	OFF: Indicator lamp OFF	_
Reset custom settings	All settings to default.	_	Default: Setting button OFF	_

It is possible to set sliding driver seat for entry/exit of vehicle by pressing set switch.

Content	Setting change operation	Indicator LED
The seat sliding turnout and steering wheel up/backward at entry/exit can be operated.	Press the set switch for more than 10 seconds	Blinking twice
The seat sliding turnout and steering wheel up/backward at entry/exit can be not operated.	Tress the set switch for more than 10 seconds	Blinking ones

CAN Communication System Description

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

CAN Communication Unit

Refer to LAN-29, "CAN System Specification Chart".

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INFOID:0000000005349932

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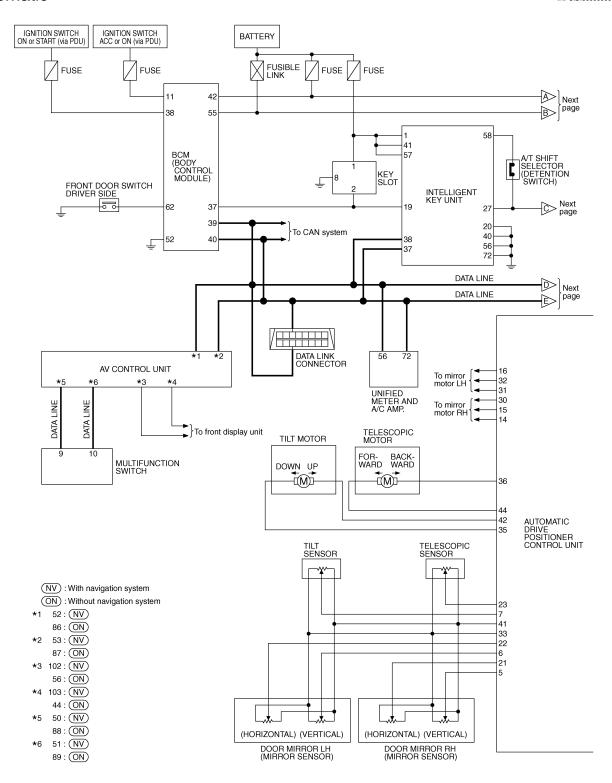
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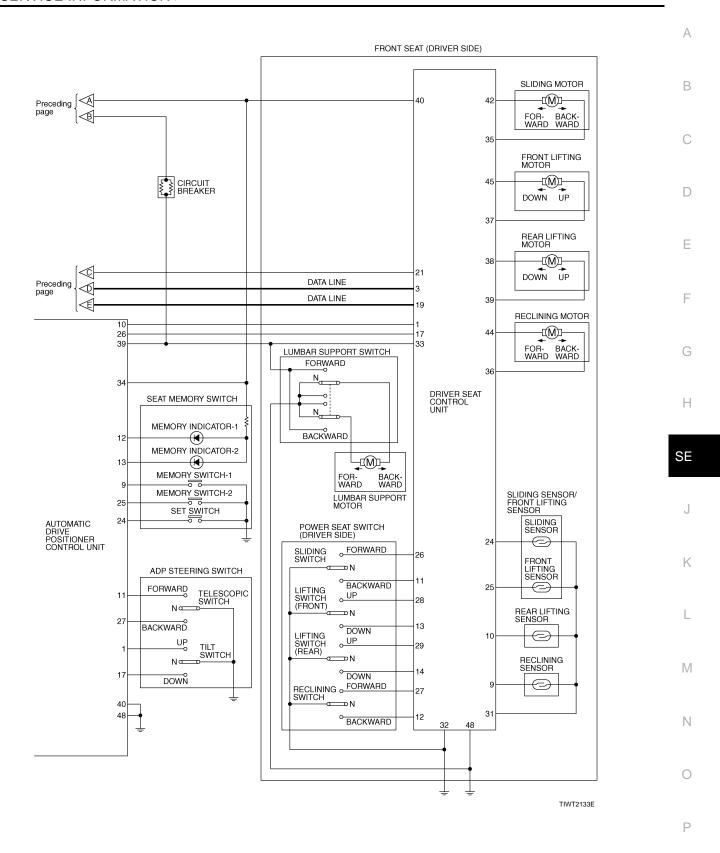
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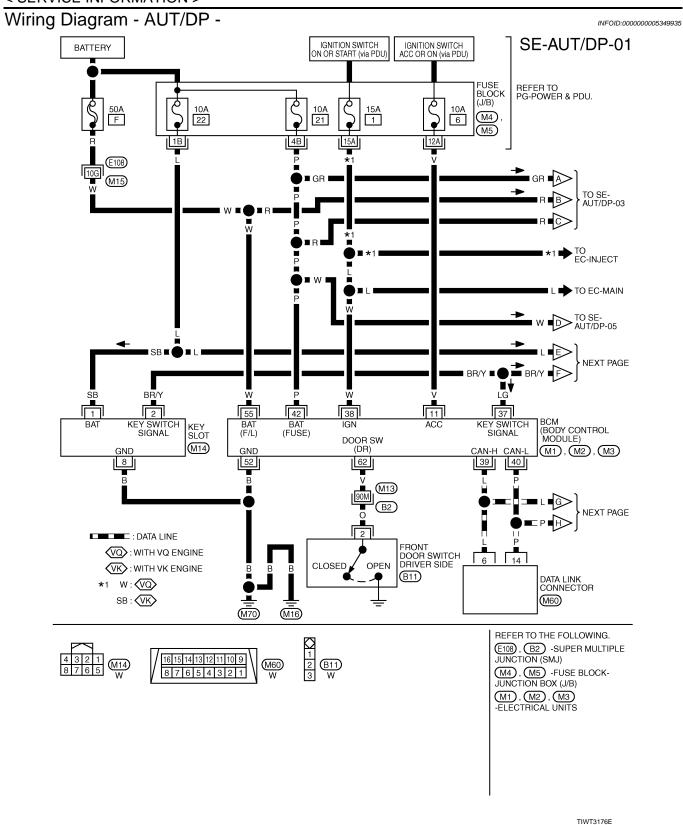
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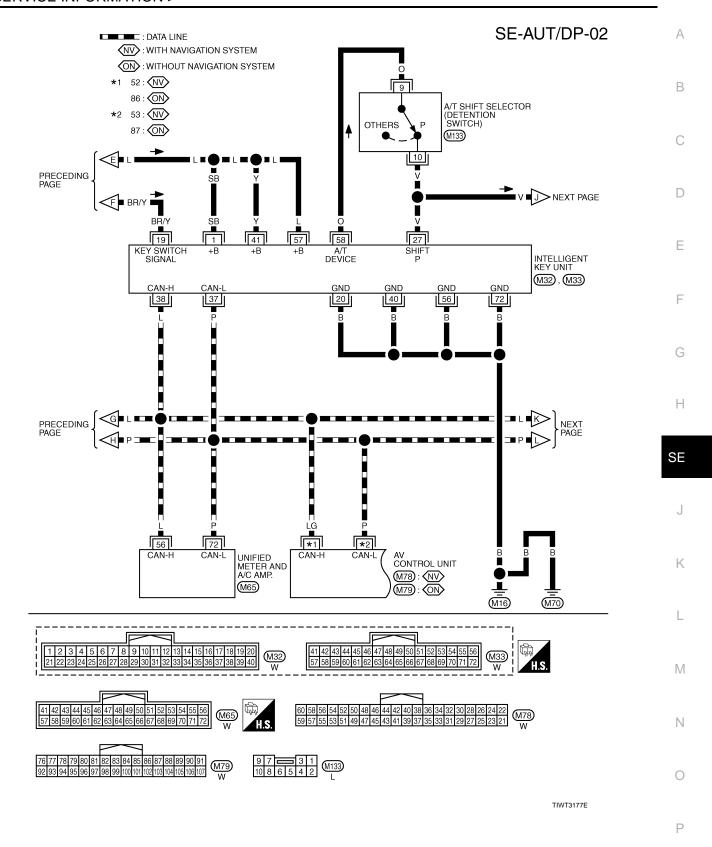
TIWT3175E



Revision: 2009 June **SE-19** 2010 M35/M45



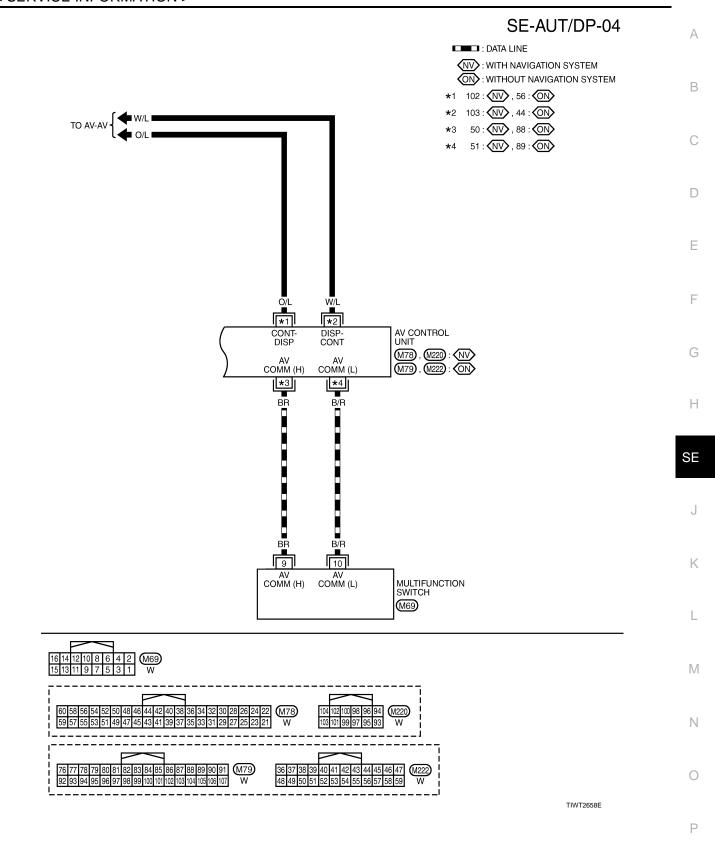
Revision: 2009 June **SE-20** 2010 M35/M45

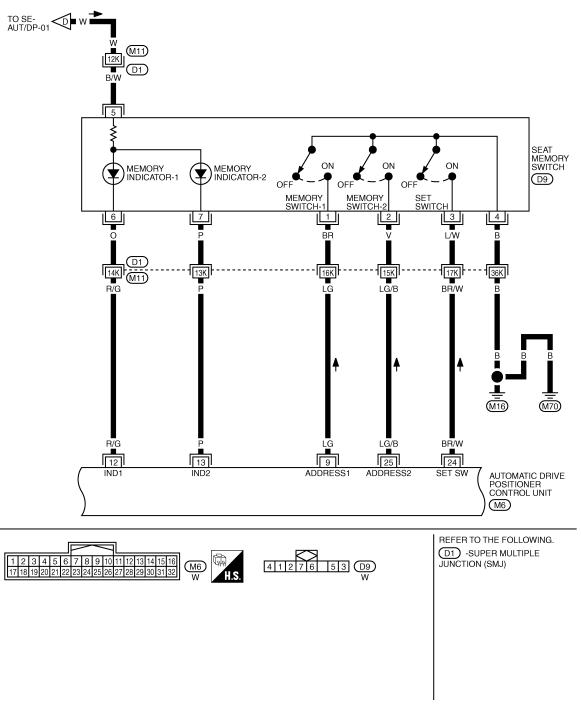


Revision: 2009 June **SE-21** 2010 M35/M45

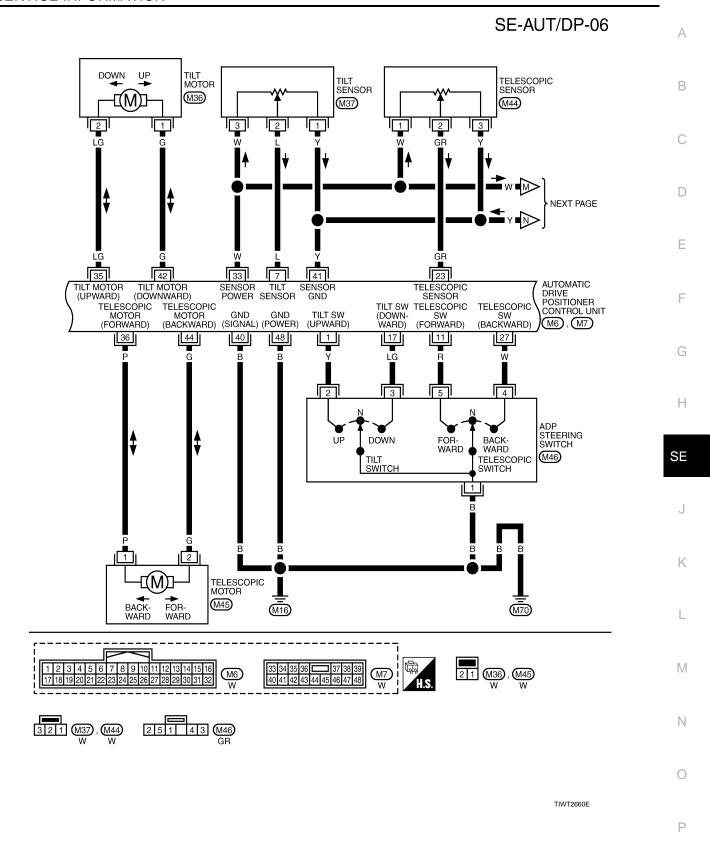
SE-AUT/DP-03 DRIVER SEAT CONTROL UNIT P RANGE SW BAT (FUSE) BAT (C/B) (B204), (B205) CAN-FRONT SEAT (DRIVER SIDE) 33 19 40 17 3 BR/W G/O R/B W S TO SE-AUT/DP-11 BR/W G/O B202 B15 (33) 19 B2 [67M] [M13] [96M] B67 B437 - 70M 68M 69M 10 : DATA LINE <A ■ GR I CIRCUIT BREAKER (M26) TO SE-AUT/DP-01 62P M66 PRE-CEDING PAGE TO LAN-CAN 26 39 34 10 TX RX (UART) (UART) BAT (FUSE) BAT (C/B) AUTOMATIC DRIVE POSITIONER CONTROL UNIT (M6), (M7)REFER TO THE FOLLOWING. B2), (B418) -SUPER MULTIPLE JUNCTION (SMJ) 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 40 41 42 43 44 45 46 47 48 (B15) W *: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION. 1 2 3 4 5 6 7 8 9 10 11 12 13

TIWT3178E

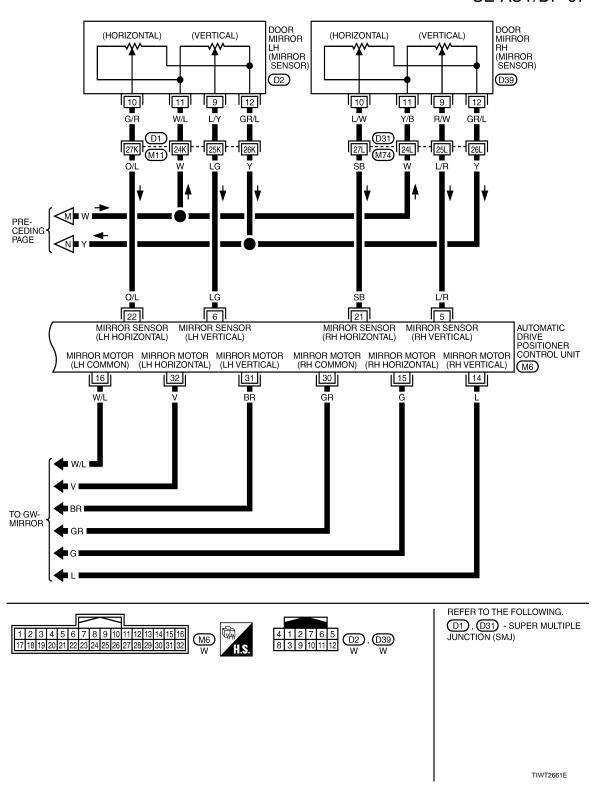


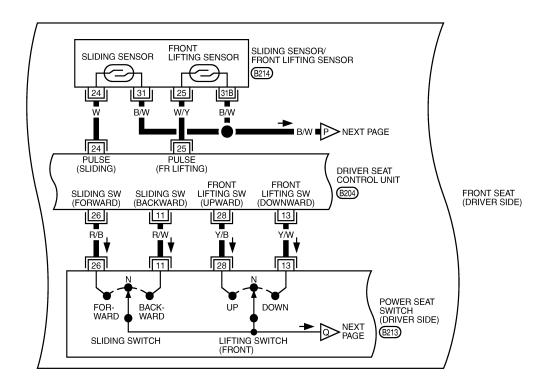


TIWT3179E



Revision: 2009 June **SE-25** 2010 M35/M45





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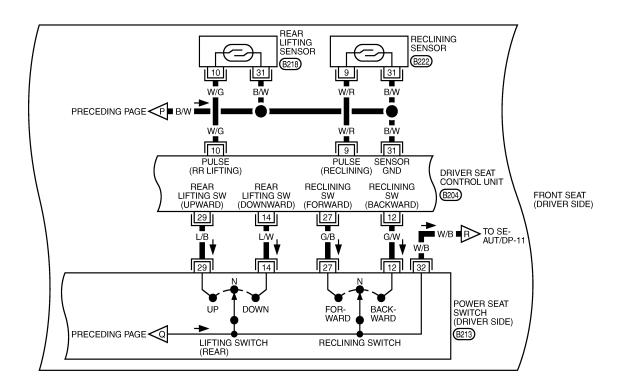
0

Р

*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

SE-27 Revision: 2009 June 2010 M35/M45

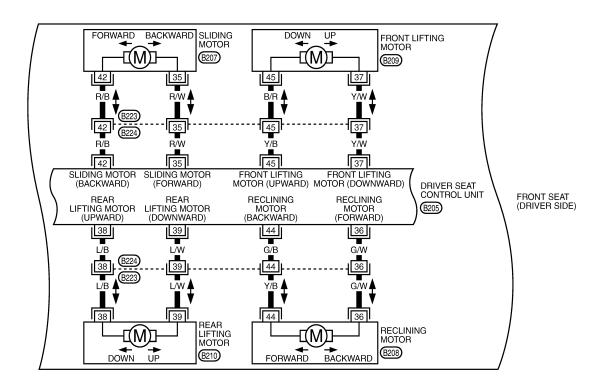
TIWT2662E





*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

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*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

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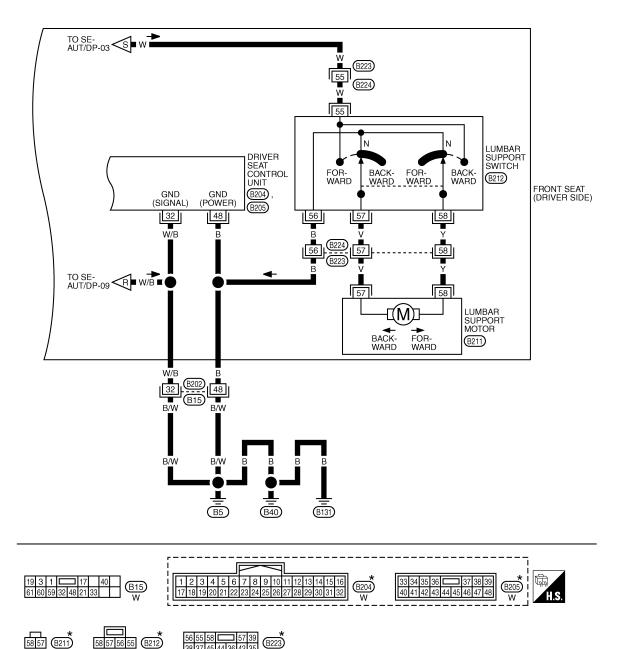
TIWT2664E

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44 36 B208

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3839 B210



*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

TIWT3180E

< SERVICE INFORMATION >

Terminal and Reference Value for BCM

INFOID:0000000005349936

Termi- nal	Wire col- or	Item	Signal Input/Output	Condition	Voltage (V) (Approx)
11	V	Power source (ACC)	Input	Ignition switch (ACC or ON position)	Battery voltage
07		10 1/1 1/1		Key switch ON (Key is inserted in key slot)	Battery voltage
37 LG	LG	Key switch signal	Input	Key switch OFF (Key is remove from key slot)	0
38	W	Power source (IGN)	Input	Ignition switch (ON or START position)	Battery voltage
39	L	CAN-H	Input/Output	_	_
40	Р	CAN-L	Input/Output	_	_
42	Р	Power source (Fuse)	Input	_	Battery voltage
52	В	Ground	_	_	0
55	W	Power source (Fusible link)	Input	_	Battery voltage
62	V	Drive side door switch	Input	ON (Open) → OFF (Closed)	0 → Battery voltage

Terminal and Reference Value for Intelligent Key Unit

INFOID:0000000005349937

Condition Signal Wire Termi-Voltage (V) Ignition Item Color Input/Output Approx. nal Switch Po-Operation or Conditions sition 1 SB Power source (Fuse) Input Battery voltage Insert Intelligent Key into key slot. Battery voltage BR/Y 19 Key switch signal Input LOCK 0 Remove Intelligent Key from key slot. 20 В Ground ON 0 Selector lever is in "P" position. 0 ٧ P range switch 27 Input Other than above Battery voltage 37 Ρ CAN-L Input/Output 38 L CAN-H Input/Output 40 В Ground ON 0 41 Υ Power source (Fuse) Input Battery voltage В 56 Ground L 57 Power source (Fuse) Battery voltage Input Wake up state Battery voltage A/T shift selector pow-58 0 Output er supply Sleep state В 0 72 Ground ON

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Terminal and Reference Value for Driver Seat Control Unit

INFOID:0000000005349938

	100		0:		V-16 0.0
Termi- nal	Wire color	Item	Signal Input/Output	Condition	Voltage (V) (Approx)
1	P/L	UART LINE (RX)	Input	Tilt switch operated	(V) 6 4 2 0 SKIA0175E
3	BR/W	CAN-H	Input/Output	_	_
9	W/R	Reclining sensor signal	Input	ON (seat reclining motor operation)	(V) 6 4 2 0 170 ms
				Other than above	0 or 5
10	W/G	Rear lifting sensor signal	Input	ON (rear lifting motor operation)	(V) 4 2 0
				Other than above	0 or 5
11	R/W	Sliding switch backward signal	Input	ON (seat sliding switch backward operation)	0
				Other than above	Battery voltage
12	G/W	Reclining switch backward signal	Input	ON (seat reclining switch backward operation)	0
		_		Other than above	Battery voltage
13	Y/W	Front lifting switch DOWN signal	Input	ON (front lifting switch DOWN operation)	0
				Other than above	Battery voltage
14	L/W	Rear lifting switch DOWN signal	Input	ON (rear lifting switch DOWN operation)	0
				Other than above	Battery voltage
17	P/B	UART LINE (TX)	Output	Tilt switch operated	(V) 6 4 2 0 SKIA0175E
19	G/O	CAN-L	Input/Output		
	•				

< SERVICE INFORMATION >

Termi- nal	Wire color	Item	Signal Input/Output	Condition	Voltage (V) (Approx)	А			
		Detention		Selector lever is in P position.	0				
21	G/R	switch signal	Input	Selector lever is in other than P position.	Battery voltage	В			
24	W	Seat sliding sensor signal	Input	ON (seat sliding motor operation)	(V) 6 4 2 0 ***50ms	C			
				Other than above	0 or 5	E			
25	W/Y	Front lifting sensor signal	Input	ON (front lifting motor operation)	(V) 6 4 2 0 **50ms	F			
				Other than above	0 or 5				
26	R/B	Seat sliding switch	Input	ON (seat sliding switch forward operation)	0	Н			
	forward signal	orward signal	Other than above	Battery voltage					
27	G/B	Seat reclining switch forward signal	Input	ON (seat reclining switch forward operation)	0	SE			
	forward signal	Torward digital		Other than above	Battery voltage				
28	Y/B	Front lifting switch				Input	ON (front lifting switch UP operation)	0	J
		UP signal		Other than above	Battery voltage	_			
29	L/B	Rear lifting switch	Input	ON (rear lifting switch UP operation)	0	K			
		UP signal	'	Other than above	Battery voltage	-			
31	B/W	Sensor ground	_	_	0				
32	W/B	Ground (signal)	_	_	0	L			
33	W	Power source (C/B)	Input	_	Battery voltage				
35	R/W	Sliding motor forward signal	Output	Sliding switch forward operation (Motor operated)	Battery voltage	M			
		Torward Signal		Other than above	0	_			
36	G/W	Reclining motor	Output	Reclining switch forward operation (Motor operated)	Battery voltage	Ν			
		forward signal		Other than above	0				
37	Y/W	Front lifting motor DOWN signal	Output	Front lifting switch down operation (Motor operated)	Battery voltage	0			
		DOWN Signal		Other than above	0				
38	L/B	Rear lifting motor	Output	Rear lifting switch up operation (Motor operated)	Battery voltage	Р			
		UP signal		Other than above	0				
39	L/W	Rear lifting motor	Output	Rear lifting switch down operation (Motor operated)	Battery voltage				
		DOWN signal		Other than above	0				
40	R/B	Power source (Fuse)	Input	_	Battery voltage				

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< SERVICE INFORMATION >

Termi- nal	Wire color	Item	Signal Input/Output	Condition	Voltage (V) (Approx)
42	R/B	Sliding motor backward signal	Output	Sliding switch backward operation (Motor operated)	Battery voltage
				Other than above	0
44	44 G/B	Reclining motor backward signal	Output	Reclining switch backward operation (Motor operated)	Battery voltage
				Other than above	0
45	45 Y/B	//B Front lifting motor UP signal	Output	Front lifting switch upward operation (Motor operated)	Battery voltage
				Other than above	0
48	В	Ground (power)	_	_	0

Terminal and Reference Value for Automatic Drive Positioner Control Unit INFOID:000000005349939

Termi- nal	Wire color	Item	Signal Input/Output	Condition	Voltage (V) (Approx)
1	1 Y Tilt switch UF	Tilt awitch LID aignal	lanut	Tilt switch is UP operation	0
ı	1 Y Tilt switch UP signal		Input	Other than above	5
5	L/R	Mirror sensor (RH vertical) signal	Input	When mirror motor RH is UP or DOWN operation	Changes between 4.2 (close to perk) 0.5 (close to valley)
6	LG	Mirror sensor (LH vertical) signal	Input	When mirror motor LH is UP or DOWN operation	Changes between 4.2 (close to perk) 0.5 (close to valley)
7	L	Tilt sensor signal	Input	Tilt position: Top	1
,	L	Till Serisor Signal	iliput	Tilt position: Bottom	3.8
9	LG	Memory switch 1 signal	Input	Memory switch 1 ON	0
9	LG	Welliory Switch i Signal	input	Other than above	5
10	0	UART LINE (TX)	Output	Tilt switch operated	(V) 6 4 2 0 20 \(\mu\) SKIA0175E
11	R	Telescopic switch forward signal	Input	When telescopic switch is forward operation	0
				Other than above	5
12	R/G	Memory switch indictor 1	Input	When illuminate indictor 1	1
12	IV/G	signal	input	Other than above	Battery voltage
13	Р	Memory switch indictor 2	Input	When illuminate indictor 2	1
13	'	signal	mput	Other than above	Battery voltage
14	L	Mirror motor RH UP signal	Output	When mirror motor RH UP operation	Battery voltage
				Other than above	0
15	G	G Mirror motor RH LEFT signal	Output	When mirror motor RH LEFT operation	Battery voltage
				Other than above	0

< SERVICE INFORMATION >

Termi- nal	Wire color	Item	Signal Input/Output	Condition	Voltage (V) (Approx)	
		Mirror motor LH DOWN		When mirror motor LH DOWN operation	Battery voltage	
16 W/L	signal	Output	Other than above	0		
10	VV/L	Mirror motor LH RIGHT signal	Output	When mirror motor LH RIGHT operation	Battery voltage	
		Signal		Other than above	0	
17	LG	Tilt switch DOWN signal	Input	When tilt switch is DOWN position	0	
				Other than above	5	
21	SB	Mirror sensor (RH horizontal) signal	Input	When mirror motor RH is LEFT or RIGHT operation	Changes between 3.5 (close to left edge) 0.5 (close to right edge)	
22	O/L	Mirror sensor (LH horizontal) signal	Input	When mirror motor LH is LEFT or RIGHT operation	Changes between 0.5 (close to left edge) 3.5 (close to right edge)	
22	CP	Tologopia geneer innut	Innut	Telescopic position: Top	4.6	
23	GR	Telescopic sensor input	Input	Telescopic position: Bottom	0.4	
0.4	DD AA4	Cot quitab aire-1	la cont	Set switch ON	0	
24	BR/W	Set switch signal	Input	Other than above	5	
O.F.	10/0	Mamory switch O -i	lmm: 4	Memory switch 2 ON	0	
25	LG/B	LG/B Memory switch 2 signal	Input	Other than above	5	
26	Р	UART LINE (RX)	Input	Tilt switch is operated	4 2 0 μs SKIA0175E	
27	W	Telescopic switch backward signal		Input	Telescopic switch turned to backward	0
					Other than above	5
		Mirror motor RH DOWN signal		When mirror motor RH DOWN operation	Battery voltage	
30	GR	Signal	Output	Other than above	0	
		Mirror motor RH RIGTH signal	o alpai	When mirror motor RH RIGHT operation	Battery voltage	
		- 3		Other than above	0	
31	BR	Mirror motor LH UP signal	Output	When mirror motor LH UP operation	Battery voltage	
		-			Other than above	0
32	V	Mirror motor LH LEFT signal	Output	When mirror motor LH LEFT operation	Battery voltage	
		oignai		Other than above	0	
33	W	Sensor power supply	Input	_	5	
34	R	Power source (Fuse)	Input	_	Battery voltage	
35	LG	Tilt motor UP signal	Output	Tilt switch is UP operation	Battery voltage	
	LG	The motor of Signal	σαιραί	Other than above	0	
36	Р	Telescopic motor forward	Output	Telescopic switch is forward operation	Battery voltage	
	signal	signal	signal	İ	Other than above	0

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Termi- nal	Wire color	Item	Signal Input/Output	Condition	Voltage (V) (Approx)
39	L	Power source (C/B)	Input	_	Battery voltage
40	В	Ground	_	_	0
41	Υ	Sensor ground	_	_	0
42	40 0	Tilt motor DOWN signal	Output	Tilt switch is DOWN operation	Battery voltage
42	G			Other than above	0
44	44 G Telescopic motor backward signal	•	Output	Telescopic switch is backward operation	Battery voltage
		backwaru signai		Other than above	0
48	В	Ground	_	_	0

CONSULT-III Function (AUTO DRIVE POS.)

INFOID:0000000005349940

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

AUTO DRIVE POS. diagnostic mode	Description	Reference page
WORK SUPPORT	Changes settings for each function.	<u>SE-13</u>
SELF-DIAG RESULTS	Displays driver seat control unit self-diagnosis results.	"SELF-DIAG- NOSIS RE- SULTS"
DATA MONITOR	Displays driver seat control unit input/output data in real time.	"DATA MONI- TOR"
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.	LAN-17
ACTIVE TEST	Operation of electrical loads can be checked by sending drive signal to them.	"ACTIVE TEST"
ECU PART NUMBER	Driver seat control unit part number can be read.	_

SELF-DIAGNOSIS RESULTS

DTC	Self-diagnosis item (CONSULT-III indication)	DTC detection condition	Reference page
U1000	CAN COMM CIRCUIT	When driver seat control unit is not transmitting or receiving CAN communication signal for 2 seconds or more.	SE-39
B2112	SEAT SLIDE	When any manual and automatic operations are not performed, if any motor operations of seat slide is detected for 0.1 second or more, status is judged "Output error".	SE-42 SE-49
B2113	SEAT RECLINING	When any manual and automatic operations are not performed, if any motor operations of seat reclining is detected for 0.1 second or more, status is judged "Output error".	SE-43 SE-50
B2118	STRG TILT SENSOR	When driver seat control unit detects 0.1V or lower, or 4.9V or higher, from tilt sensor for 0.5 seconds or more.	<u>SE-55</u>
B2119	STEERING TELESCO	When driver seat control unit detects 0.1V or lower, or 4.9V or higher, from telescopic sensor for 0.5 seconds or more.	<u>SE-54</u>
B2126	DETENT SW	With the A/T selector lever in P position (Detente switch OFF), if the vehicle speed of 7 km/h (4 MPH) or higher was input the detention switch input system is judged malfunctioning.	SE-73
B2128	UART COMM	Malfunction is detected in UART communication.	<u>SE-75</u>

NOTE

- CAN communication malfunction and detention switch malfunction are displayed on "TIME".
- If error is detected in the present, "CRNT" is displayed.
- If error is detected in the past (present error is not detected), "PAST" is displayed.
- If error has never been detected, nothing is displayed on "TIME".
- Any items other than CAN communication malfunction and detention switch malfunction are counted.

< SERVICE INFORMATION >

- If error is detected, error detection frequency is displayed from "1" to "127" on "TIME".
- If error has never been detected, nothing is displayed on "TIME".
- Can clear the detected memory.

Normal: Clear memory in normal condition, history is erased and nothing is displayed on "TIME". Error: Clear memory in error condition, error is detected again and "1" is displayed on "TIME".

DATA MONITOR

Monitor item [OPERAT	ION or UNIT]	Contents	
SET SW	"ON/OFF"	ON/OFF status judged from the setting switch signal is displayed.	
MEMORY SW1	"ON/OFF"	ON/OFF status judged from the seat memory switch 1 signal is displayed.	
MEMORY SW2	"ON/OFF"	ON/OFF status judged from the seat memory switch 2 signal is displayed.	
SLIDE SW-FR	"ON/OFF"	ON/OFF status judged from the sliding switch (FR) signal is displayed.	
SLIDE SW-RR	"ON/OFF"	ON/OFF status judged from the sliding switch (RR) signal is displayed.	
RECLN SW-FR	"ON/OFF"	ON/OFF status judged from the reclining switch (FR) signal is displayed.	
RECLN SW-RR	"ON/OFF"	ON/OFF status judged from the reclining switch (RR) signal is displayed.	
LIFT FR SW-UP	"ON/OFF"	ON/OFF status judged from the FR lifting switch (UP) signal is displayed.	
LIFT FR SW-DN	"ON/OFF"	ON/OFF status judged from the FR lifting switch (DOWN) signal is displayed.	
LIFT RR SW-UP	"ON/OFF"	ON/OFF status judged from the RR lifting switch (UP) signal is displayed.	
LIFT RR SW-DN	"ON/OFF"	ON/OFF status judged from the RR lifting switch (DOWN) signal is displayed.	
MIR CON SW-UP	"ON/OFF"	ON/OFF status judged from the door mirror remote control switch (UP) signal is displayed.	
MIR CON SW-DN	"ON/OFF"	ON/OFF status judged from the door mirror remote control switch (DOWN) signal is displayed.	
MIR CON SW-RH	"ON/OFF"	ON/OFF status judged from the door mirror remote control switch (RIGHT) signal is displayed.	
MIR CON SW-LH	"ON/OFF"	ON/OFF status judged from the door mirror remote control switch (LEFT) signal is displayed.	
MIR CHNG SW-R	"ON/OFF"	ON/OFF status judged from the door mirror remote control switch (switching to RIGHT) signal is displayed.	
MIR CHNG SW-L	"ON/OFF"	ON/OFF status judged from the door mirror remote control switch (switching LEFT) signal is displayed.	
TILT SW-UP	"ON/OFF"	ON/OFF status judged from the tilt switch (UP) signal is displayed.	
TILT SW-DOWN	"ON/OFF"	ON/OFF status judged from the tilt switch (DOWN) signal is displayed.	
TELESCO SW-FR	"ON/OFF"	ON/OFF status judged from the telescoping switch (FR) signal is displayed.	
TELESCO SW-RR	"ON/OFF"	ON/OFF status judged from the telescoping switch (RR) signal is displayed.	
DETENT SW	"ON/OFF"	The selector lever position "OFF (P position) / ON (other than P position)" judged from the detention switch signal is displayed.	
STARTER SW	"ON/OFF"	Ignition key switch ON (START, ON) /OFF (IGN, ACC, or OFF) status judged from the ignition switch signal is displayed.	
SLIDE PULSE	_	Value (32768) when battery connects is as standard. If it moves backward, the value increases. If it moves forward, the value decreases.	
RECLN PULSE	_	Value (32768) when battery connects is as standard. If it moves backward, the value increases. If it moves forward, the value decreases.	
LIFT FR PULSE	_	Value (32768) when battery connects is as standard. If it moves DOWN, the value increases. If it moves UP, the value decreases.	
LIFT RR PULSE	_	Value (32768) when battery connects is as standard. If it moves DOWN, the value increases. If it moves UP, the value decreases.	
MIR/SEN RH U-D	"V"	Voltage output from RH door mirror sensor (UP/DOWN) is displayed.	
MIR/SEN RH R-L	"V"	Voltage output from RH door mirror sensor (LH/RH) is displayed.	
MIR/SEN LH U-D	"V"	Voltage output from LH door mirror sensor (UP/DOWN) is displayed.	
MIR/SEN LH R-L	"V"	Voltage output from LH door mirror sensor (LH/RH) is displayed.	

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< SERVICE INFORMATION >

ACTIVE TEST

CAUTION:

During vehicle driving, do not perform active test.

NOTE:

If active test is performed, reset seat memory and key fob interlock drive positioner after performing work.

Test item	Description
TILT MOTOR	The tilt motor is activated by receiving the drive signal.
TELESCO MOTOR	The telescopic motor is activated by receiving the drive signal.
SEAT SLIDE	The sliding motor is activated by receiving the drive signal.
SEAT RECLINING	The reclining motor is activated by receiving the drive signal.
SEAT LIFTER FR	The front lifting motor is activated by receiving the drive signal.
SEAT LIFTER RR	The rear lifting motor is activated by receiving the drive signal.
MIRROR MOTOR RH	The RH mirror motor moves the mirror UP/DOWN and LEFT/RIGHT by receiving the drive signal.
MIRROR MOTOR LH	The LH mirror motor moves the mirror UP/DOWN and LEFT/RIGHT by receiving the drive signal.
MEMORY SW INDCTR	The memory switch indicator is lit by receiving the drive signal.

WORK SUPPORT

The seat slide amount at entry/exit operation setting can be changed by CONSULT-III. Refer to <u>SE-13</u>, <u>"System Description"</u>.

Work Flow

- 1. Check the symptom and customer's requests.
- Understand the system description. Refer to <u>SE-13, "System Description"</u>.
- 3. Perform the self-diagnosis results, using CONSULT-III. Refer to <u>SE-36, "CONSULT-III Function (AUTO DRIVE POS.)".</u>
- 4. Repair or replace depending on the self-diagnostic results.
- 5. Based on the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to <u>SE-38</u>, <u>"Symptom Chart"</u>.
- Does the automatic drive positioned system operate normally?
 If it is normal, GO TO 7.
 If it is not normal, GO TO 3.
- 7. INSPECTION END

Symptom Chart

INFOID:0000000005349942

NOTE:

Always check the "Work flow" before performing diagnosis in the following table, Refer to SE-38, "Work Flow".

Symptom	Diagnoses / service procedure	Reference page
	Check BCM power supply and ground circuit	SE-40
All of automatic operation dose not operate.	Check driver seat control unit power supply and ground circuit	SE-40
	3. Check automatic drive positioner control unit power supply and ground circuit	SE-41
Sliding function does not operate (automatically and manually).	Check sliding motor circuit	SE-42
Reclining function does not operate (automatically and manually).	Check reclining motor circuit	SE-43
Front lifting function does not operate (automatically and manually).	Check front lifting motor circuit	SE-44
Rear lifting function not operate (automatically and manually).	Check rear lifting motor circuit	SE-45
Tilt function does not operate (automatically and manually).	Check tilt motor circuit	<u>SE-48</u>

< SERVICE INFORMATION >

Symptom	Diagnoses / service procedure	Reference page	-
Telescopic function does not operate (automatically and manually).	Check telescopic motor circuit	SE-46	_
Sliding function does not operate automatically.	Check sliding sensor circuit	SE-49	_
Reclining function does not operate automatically.	Check reclining sensor circuit	SE-50	_
Front lifting function does not operate automatically.	Check front lifting sensor circuit	SE-52	_
Rear lifting function does not operate automatically.	Check rear lifting sensor circuit	SE-53	_
Tilt function does not operate automatically.	Check tilt sensor circuit	SE-55	_
Telescopic function does not operate automatically.	Check telescopic sensor circuit	SE-54	_
Sliding function does not operate manually.	Check sliding switch circuit	SE-60	_
Reclining function does not operate manually.	Check reclining switch circuit	SE-61	_
Front lifting function does not operate manually.	Check lifting switch (front) circuit	SE-63	_
Rear lifting function does not operate manually.	does not operate manually. Check lifting switch (rear) circuit		_
Tilt function does not operate manually.	Check tilt switch circuit	SE-67	_
Telescopic function does not operate manually.	Check telescopic switch circuit	SE-66	_
All of seat operation dose not operate manually.	Check power seat switch ground circuit	SE-65	_
Only cost mamory and set quitab energian does not approte	Perform storing memory	SE-13	
Only seat memory and set switch operation does not operate.	2. Check seat memory and set switch circuit	SE-69	_
Seat memory indicator lamps 1 and 2 do not illuminate.	Check seat memory indicator lamp circuit	SE-70	_
	Check system setting	SE-13	_
Entry/Exiting operation does not operated.	2. Perform initialization	SE-13	-
	3. Check front door switch (driver side) circuit	SE-74	_
	Check door mirror sensor power supply and ground circuit	SE-72	-
LH or RH door mirror face does not produce the stored angle,	2. Check door mirror sensor LH circuit	SE-57	_
during the memory operation.	3. Check door mirror sensor RH circuit	<u>SE-58</u>	_
	4. Replace automatic drive positioner control unit	SE-13	_
Intelligent key interlock operation does not operate. (Other automatic operation and Intelligent Key system are normal)	Perform storing memory	SE-13	_
Lumbar support does not operate	Check Lumbar support circuit	SE-77	_

CAN Communication Inspection Using CONSULT-III (Self-Diagnosis)

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1.SELF-DIAGNOSTIC RESULT CHECK

Check "self diagnostic result" with CONSULT-III.

CONSULT-III display code	Diagnosis item
	INITIAL DIAG
U1000	TRANSMIT DIAG
	BCM/SEC
	METER/M&A
	TCM

Contents displayed

No malfunction>>Inspection End.

Malfunction in CAN communication system>>After printing the monitor items, go to "CAN System". Refer to LAN-29, "CAN System Specification Chart".

< SERVICE INFORMATION >

Check BCM Power Supply and Ground Circuit

INFOID:0000000005349944

1.CHECK FUSE

Check if any of the following fuses in the BCM are blown.

Unit	Power source	Fuse No.	
ВСМ	Battery power supply	F (50A)	
	Battery power supply	21 (10A)	
	Ignition switch ON or START signal	1 (15A)	
	Ignition switch ACC or ON signal	6 (10A)	

NOTE:

Refer to SE-13, "Component Parts and Harness Connector Location".

OK or NG

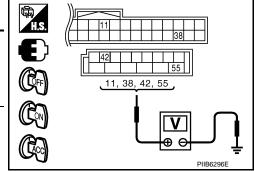
OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to $\underline{\sf PG}$ - $\underline{\sf 4}$.

$2. {\sf CHECK\ POWER\ SUPPLY\ CIRCUIT\ (BCM)}$

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connector.
- Check voltage between BCM connector and ground.

Terminals				
(+)			Condition of	Voltage (V)
BCM connector	Terminal	(–)	ignition switch	(Approx.)
M1	38		ON	
IVII	11	Ground	ACC	Battery voltage
M2	42		OFF	Dattery voltage
IVIZ	55		OFF	



OK or NG

OK >> GO TO 3.

NG >> Repair or replace the harness between BCM and fuse.

3. CHECK GROUND CIRCUIT (BCM)

Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
M2	52	Giodila	Yes

OK or NG

OK >> BCM power supply and ground circuit are OK.

NG >> Repair or replace the harness between BCM and ground.

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Check Driver Seat Control Unit Power Supply and Ground Circuit

INFOID:0000000005349945

1. CHECK POWER SUPPLY CIRCUIT

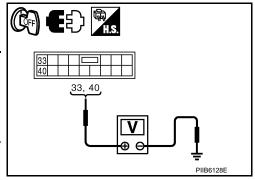
- Turn ignition switch OFF.
- Disconnect driver seat control unit connector.

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Check voltage between driver seat control unit connector and ground.

(+)		Voltage (V)
Driver seat control unit Terminal connector		(–)	Voltage (V) (Approx.)
B205	33	Ground	Battery voltage
D203	40	Ground	Dattery Voltage



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OK or NG

OK >> GO TO 2.

NG >> Check the following.

- Repair or replace harness between driver seat control unit and fuse block (J/B).
- · Circuit breaker.

2.CHECK GROUND CIRCUIT

- Turn ignition switch OFF.
- Check continuity between the driver seat control unit connector and ground.

Driver seat control unit connector	Terminal	_	Continuity
B204	32	Ground	Yes
B205	48		162

OK or NG

OK >> Driver seat control unit power supply and ground circuit are OK.

NG >> Repair or replace harness between driver seat control unit and ground.

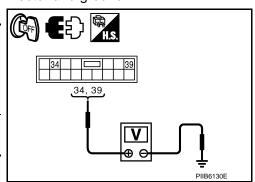
Check Automatic Drive Positioner Control Unit Power Supply and Ground Circuit

INFOID:0000000005349946

1. CHECK POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector.
- Check voltage between automatic drive positioner control unit connector and ground.

Terminals			
(+)			Voltage (V)
Automatic drive positioner control Terminal unit connector		(-)	(Approx.)
M7	34	Ground	Battery voltage
IVI /	39	Giouna	Dattery Voltage



OK or NG

OK >> GO TO 2.

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>> Repair or replace harness between automatic drive positioner control unit and fuse block (J/B).

2.CHECK GROUND CIRCUIT

Check continuity between the automatic drive positioner control unit connector and ground.

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< SERVICE INFORMATION >

Automatic drive positioner control unit connector	Terminal	Ground	Continuity
M7	40		Yes
IVI7	48		162

40, 48,

OK or NG

NG

OK >> Automatic drive positioner control unit power supply and ground circuit are OK.

>> Repair or replace harness between automatic drive positioner control unit and ground.

Check Sliding Motor Circuit

INFOID:000000005349947

1. CHECK SEAT SLIDING MECHANISM

Check the following.

- Operation malfunction caused by sliding rail deformation, pinched harness or other foreign materials
- Operation malfunction caused by foreign materials adhered to the sliding motor or sliding rail connector rod
- Operation malfunction and interference with other parts by poor installation

OK or NG

OK >> GO TO 2.

NG >> Repair or replace the malfunctioning part and check again.

2.CHECK FUNCTION

(P) With CONSULT-III

Check operation with "SEAT SLIDE" in ACTIVE TEST.

Test item	Description
SEAT SLIDE	The sliding motor is activated by receiving the drive signal.

OK or NG

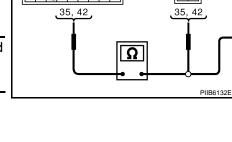
OK >> Sliding motor circuit is OK.

>> GO TŎ 3. NG

3.check sliding motor circuit harness continuity

- Turn ignition switch OFF.
- 2. Disconnect driver seat control unit and sliding motor connector.
- Check continuity between driver seat control unit connector and sliding motor connector.

А		В		
Driver seat control unit connector	Terminal	Sliding motor connector	Terminal	Continuity
B205	35	B207	35	Yes
D203	42	5207	42	163



4.	Check continuity between driver seat control unit connector and
	ground.

A			
Driver seat control unit connector	Ground	Continuity	
B205	35		No
	42		140

OK or NG

OK >> GO TO 4.

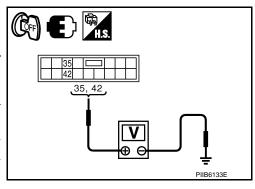
< SERVICE INFORMATION >

NG >> Repair or replace harness.

4. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

- 1. Connect the driver seat control unit connector.
- Check voltage between driver seat control unit connector and ground.

		inals	0 1111	Voltage (V) (Ap-	
control unit connector	(+)	(-)	Condition	prox.)	
35	35		Sliding switch ON (FORWARD operation)	Battery voltage	
B205		Ground	Other than above	0	
B203	42	Sliding switch ON (BACKWARD operation)	Battery voltage		
		Other than above	0		



OK or NG

OK >> Replace sliding motor.

NG >> Replace driver seat control unit.

Check Reclining Motor Circuit

1. CHECK SEAT RECLINING MECHANISM

Check the following.

- Operation malfunction caused by an interference with the center pillar or center console
- Operation malfunction and interference with other parts by poor installation

OK or NG

OK >> GO TO 2.

NG >> Repair or replace the malfunctioning part and check again.

2. CHECK FUNCTION

(P) With CONSULT-III

Check operation with "SEAT RECLINING" in ACTIVE TEST.

Test item	Description
SEAT RECLINING	The reclining motor is activated by receiving the drive signal.

OK or NG

OK >> Reclining motor circuit is OK.

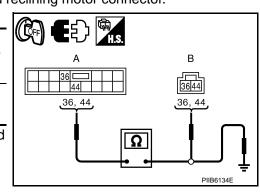
NG >> GO TO 3.

3.CHECK RECLINING MOTOR CIRCUIT HARNESS CONTINUITY

- Turn ignition switch OFF.
- 2. Disconnect driver seat control unit and reclining motor connector.
- 3. Check continuity between driver seat control unit connector and reclining motor connector.

А		В		
Driver seat control unit connector	Terminal	Reclining motor connector	Terminal	Continuity
B205	36	B208	36	Yes
B203	44	D200	44	165

 Check continuity between driver seat control unit connector and ground.



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,	4		
Driver seat control unit connector	lerminal		Continuity
B205	36		No
B203	44		NO

OK or NG

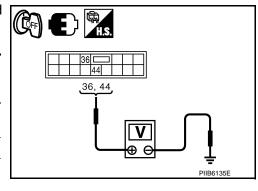
OK >> GO TO 4.

NG >> Repair or replace harness.

4.CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

- 1. Connect the driver seat control unit connector.
- Check voltage between driver seat control unit connector and ground.

Driver seat	Terminals			Voltage (V)
control unit connector	(+)	(-)	Condition	(Approx.)
B205	36	36 Ground	Reclining switch ON (FORWARD operation)	Battery voltage
			Other than above	0
	44	Reclining switch ON (BACKWARD operation)	Battery voltage	
			Other than above	0



OK or NG

OK >> Replace reclining motor.

NG >> Replace driver seat control unit.

Check Front Lifting Motor Circuit

INFOID:0000000005349949

1. CHECK FRONT END SEAT LIFTING MECHANISM

Check the following.

- Operation malfunction caused by lifter mechanism deformation, pinched harness or other foreign materials
- Operation malfunction caused by foreign materials adhered to the front lifting motor or lead screws
- Operation malfunction and interference with other parts by installation

OK or NG

OK >> GO TO 2.

NG >> Repair or replace the malfunctioning part and check again.

2.CHECK FUNCTION

(I) With CONSULT-III

Check operation with "SEAT LIFTER FR" in ACTIVE TEST.

Test item	Description
SEAT LIFTER FR	The front lifting motor is activated by receiving the drive signal.

OK or NG

OK >> Front lifting motor circuit is OK.

NG >> GO TO 3.

$3. \mathsf{CHECK}$ FRONT LIFTING MOTOR CIRCUIT HARNESS CONTINUITY

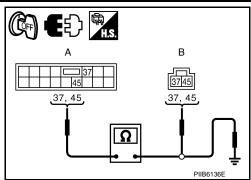
- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit and front lifting motor connector.
- 3. Check continuity between driver seat control unit connector and front lifting motor connector.

< SERVICE INFORMATION >

Α		В		
Driver seat control unit connector	Terminal	Front lifting motor connector	Terminal	Continuity
R205	37	B209	37	Yes
B205	45	B209	45	165

Check continuity between driver seat control unit connector and ground.

Driver seat control unit connector Terminal		Ground	Continuity
B205	37		No
	45		NO



OK or NG

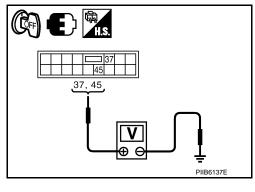
OK >> GO TO 4.

NG >> Repair or replace harness.

4.CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

- 1. Connect the driver seat control unit connector.
- Check voltage between driver seat control unit connector and ground.

Driver seat control unit connector (+)	Terminals		0 - 150 -	Voltage (V)
	(+)	(-)	Condition	(Approx)
B205	37	Ground	Lifting switch (front) ON (DOWN operation)	Battery voltage
			Other than above	0
	45	Lifting switch (front) ON (UP operation)	Battery voltage	
		Other than above	0	



OK or NG

OK >> Replace front lifting motor.

NG >> Replace driver seat control unit.

Check Rear Lifting Motor Circuit

1. CHECK REAR SEAT LIFTING MECHANISM

Check the following.

- Operation malfunction caused by lifter mechanism deformation or pinched harness or other foreign materials
- · Operation malfunction caused by foreign materials adhered to the rear lifting motor or lead screws
- Operation malfunction and interference with other parts by poor installation

OK or NG

OK >> GO TO 2.

NG >> Repair or replace the malfunctioning part and check again.

2. CHECK FUNCTION

(P) With CONSULT-III

Check operation with "SEAT LIFTER RR" in ACTIVE TEST.

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Test item	Description
SEAT LIFTER RR	The rear lifting motor is activated by receiving the drive signal.

OK or NG

OK >> Rear lifting motor circuit is OK.

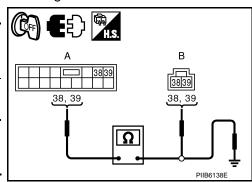
NG >> GO TO 3.

${f 3.}$ CHECK REAR LIFTING MOTOR CIRCUIT HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- Disconnect driver seat control unit and rear lifting motor connector.
- Check continuity between driver seat control unit connector and rear lifting motor connector.

A		В		
Driver seat control unit connector	Terminal	Rear lifting motor connector	Terminal	Continuity
B205	38	B210	38	Yes
	39	5210	39	165

 Check continuity between driver seat control unit connector and ground.



•	A			
Driver seat control unit connector	Terminal	Ground	Continuity	
B205	38		No	
	39			

OK or NG

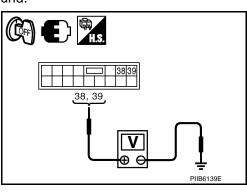
OK >> GO TO 4.

NG >> Repair or replace harness.

4. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

- 1. Connect the driver seat control unit connector.
- 2. Check voltage between driver seat control unit connector and ground.

Driver	Terminals			
seat control unit connector	unit (+) (–)		Voltage (V) (Approx.)	
B205 -	38 Ground -		Lifting switch (rear) ON (UP operation)	Battery voltage
		Ground	Other than above	0
		Lifting switch (rear) ON (DOWN operation)	Battery voltage	
		Other than above	0	



OK or NG

OK >> Replace rear lifting motor.

NG >> Replace driver seat control unit.

Check Telescopic Motor Circuit

INFOID:0000000005349951

1. CHECK STEERING WHEEL TELESCOPIC MECHANISM

Check following.

< SERVICE INFORMATION >

- Operation malfunction caused by steering wheel telescopic mechanism deformation or pinched harness or other foreign materials
- Operation malfunction and interference with other parts by poor installation

OK or NG

OK >> GO TO 2.

NG >> Repair the malfunctioning part and check again.

2.check function

(II) With CONSULT-III

Check operation with "TELESCO MOTOR" in ACTIVE TEST.

Test item	Description
TELESCO MOTOR	The telescopic motor is activated by receiving the drive signal.

OK or NG

OK >> Steering telescopic motor circuit is OK.

NG >> GO TO 3.

3.CHECK TELESCOPIC MOTOR HARNESS CONTINUITY

- Turn ignition switch OFF.
- Disconnect automatic drive positioner control unit and tilt motor and telescopic motor connector.
- Check continuity between automatic drive positioner control unit connector and tilt motor and telescopic motor connector.

А		В		
Automatic drive positioner control unit connector	Terminal	Telescopic motor connector	Terminal	Continuity
M7	36	M45	1	Yes
IVI /	44	10145	2	165

Check continuity between automatic drive positioner control unit connector and ground.

	A		
Automatic drive posi- tioner control unit con- nector	Terminal	Ground	Continuity
M7	36		No
	44		INO

36, 44 PIIB6140E

OK or NG

NG

OK >> GO TO 4.

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>> Repair or replace harness between automatic drive positioner control unit and tilt motor and telescopic motor.

4. CHECK BCM OUTPUT SIGNAL

- Connect the automatic drive positioner control unit connector.
- Check voltage between automatic drive positioner control unit connector and ground.

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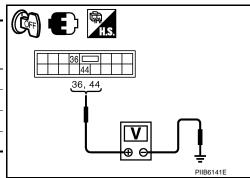
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< SERVICE INFORMATION >

Automatic drive	Terminals		Telescopic switch	Voltage (V)
positioner control unit connector	(+)	(-)	condition	(Approx.)
	36	- Ground	FORWARD	Battery voltage
M7			Other than above	0
1017	44		BACKWARD	Battery voltage
			Other than above	0



OK or NG

OK >> Replace tilt and telescopic motor.

NG >> Replace automatic drive positioner control unit.

Check Tilt Motor Circuit

INFOID:0000000005349952

1. CHECK STEERING WHEEL TILT MECHANISM

Check following.

- Operation malfunction caused by steering wheel tilt mechanism deformation or pinched harness and other foreign materials
- Operation malfunction and interference with other parts by poor installation

OK or NG

OK >> GO TO 2.

NG >> Repair the malfunctioning part.

2. CHECK FUNCTION

(P) With CONSULT-III

Check operation with "TILT MOTOR" in ACTIVE TEST.

Test item	Description
TILT MOTOR	The tilt motor is activated by receiving the drive signal.

OK or NG

OK >> Steering tilt motor circuit is OK.

NG >> GO TO 3.

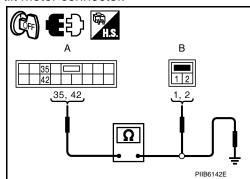
${f 3.}$ check tilt motor circuit harness continuity

- Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector and tilt motor connector.
- 3. Check continuity between automatic drive positioner control unit connector and tilt motor connector.

А		В		
Automatic drive po- sitioner control unit connector	Terminal	Tilt motor connector	Terminal	Continuity
M7	35	M36	2	Yes
1017	42	IVIOU	1	165

42 1

4. Check continuity between automatic drive positioner control unit connector and ground.



< SERVICE INFORMATION >

	A		
Automatic drive posi- tioner control unit con- nector	Terminal	Ground	Continuity
M7	35		No
IVI7	42		NO

OK or NG

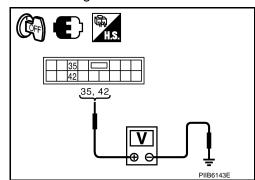
OK >> GO TO 4.

NG >> Repair or replace harness between automatic drive positioner control unit and tilt motor.

4. CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT OUTPUT SIGNAL

- 1. Connect automatic drive positioner control unit connector and tilt motor connector.
- 2. Check voltage between automatic drive positioner control unit connector and ground.

Automatic	Terminals			V 16 0.0
drive posi- tioner C/U connector	(+)	(–)	Tilt switch condition	Voltage (V) (Approx.)
	35	Ground	UP	Battery voltage
M7	33		Other than above	0
IVI7	42		DOWN	Battery voltage
			Other than above	0



OK or NG

OK >> Replace tilt motor.

NG >> Replace automatic drive positioner control unit.

Check Sliding Sensor Circuit

INFOID:0000000005349953

1. CHECK FUNCTION

(P) With CONSULT-III

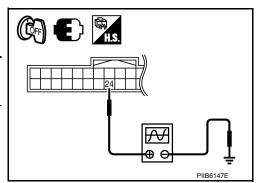
Check operation with "SLIDE PULSE" on the DATA MONITOR to make sure the pulse changes.

Monitor item [OPERATION or UNIT]		Contents
SLIDE PULSE	_	The seat sliding position (pulse) judged from the sliding sensor signal is displayed

Without CONSULT-III

- 1. Turn ignition switch OFF.
- Check signal between driver seat control unit connector and ground, with oscilloscope.

Driver seat	Term	ninals		Signal
control unit connector	(+)	(-)	Condition	(Reference value)
B204	24	Ground	Sliding motor op- eration	(V) 6 4 2 0 50 ms



OK or NG

OK >> Sliding sensor circuit is OK.

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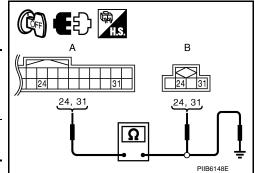
< SERVICE INFORMATION >

NG >> GO TO 2.

2.check sliding sensor circuit harness continuity

- 1. Disconnect driver seat control unit connector and sliding sensor front lifting sensor connector.
- 2. Check continuity between driver seat control unit connector and sliding sensor front lifting sensor connector.

A		В		
Driver seat control unit connector	Terminal	Sliding sensor · front lifting sensor connector	Terminal	Continuity
B204	24	B214	24	Yes
5204	31	5214	31	163



Check continuity between driver seat control unit connector and ground.

,	4			
Driver seat control unit connector	Terminal	Ground	Continuity	
B204	24		No	
D204	31		INO	

OK or NG

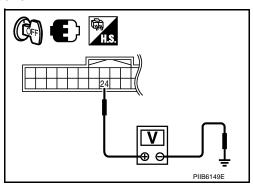
OK >> GO TO 3.

NG >> Repair or replace harness.

3.check driver seat control unit output

- Connect driver seat control unit connector.
- 2. Check voltage between driver seat control unit connector and ground.

Terminals				
+)		Voltage (V)		
Terminal	(-)	(Approx.)		
B204 24		5		
	+) Terminal	Terminal (-)		



OK or NG

OK >> Replace sliding sensor front lifting sensor.

NG >> Replace automatic drive positioner control unit.

Check Reclining Sensor Circuit

INFOID:0000000005349954

1. CHECK FUNCTION

(P) With CONSULT-III

Check operation with "RECLN PULSE" on the DATA MONITOR to make sure the pulse changes.

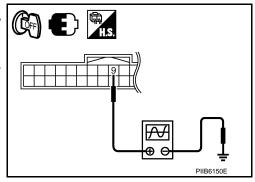
Monitor item [OPERATION or UNIT]		Contents	
RECLN PULSE	_	The seat reclining position (pulse) judged from the reclining sensor is displayed	

⋈ Without CONSULT-III

- Turn ignition switch OFF.
- Check signal between driver seat control unit connector and ground, with oscilloscope.

< SERVICE INFORMATION >

Driver seat	Term	inals	0 1111	Signal
control unit	(+)	(-)	Condition	(Reference value)
B204	9	Ground	Reclining motor op- eration	(V) 6 4 2 0



OK or NG

OK >> Reclining sensor circuit is OK.

NG \Rightarrow GO TO 2.

2.CHECK RECLINING MOTOR SENSOR CIRCUIT HARNESS CONTINUITY

- 1. Disconnect driver seat control unit and reclining sensor connector.
- 2. Check continuity between driver seat control unit connector and reclining sensor connector.

	A		В	
Driver seat control unit connector	Terminal	Reclining sensor connector	Terminal	Continuity
B204	9	B222	9	Yes
B204	31	B222	31	162

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9,31
PIB6151E

3. Check continuity between driver seat control unit connector and ground.

	A			
Driver seat control unit connector	Terminal	Ground	Continuity	
B204	9		No	
D204	31		INO	

OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.

3.CHECK DRIVER SEAT CONTROL UNIT OUTPUT

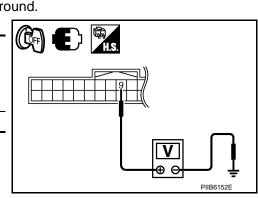
- Connect driver seat control unit connector.
- 2. Check voltage between driver seat control unit connector and ground.

(-	+)		Voltage (V)
Driver seat control unit connector	Terminal	(–)	(Approx.)
B204	9	Ground	5

OK or NG

OK >> Replace reclining sensor.

NG >> Replace automatic drive positioner control unit.



Revision: 2009 June **SE-51** 2010 M35/M45

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< SERVICE INFORMATION >

Check Front Lifting Sensor Circuit

INFOID:0000000005349955

1. CHECK FUNCTION

(P) With CONSULT-III

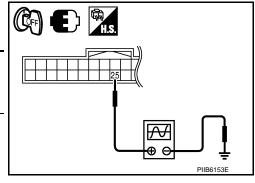
Check operation with "LIFT FR PULSE" on the DATA MONITOR to make sure the pulse changes.

Monitor item [OPERATION or UNIT]		Contents	
LIFT FR PULSE	_	The front lifting position (pulse) judged from the lifting sensor (front) is displayed	

Without CONSULT-III

- 1. Turn ignition switch OFF.
- Check signal between driver seat control unit connector and ground, with oscilloscope.

Sliding	Terminals				
sensor front lifting sensor	(+)	(-)	Condition	Signal (Reference value)	
B214	25	Ground	Front lifting mo- tor opera- tion	(V) 6 4 2 0 50 ms	



OK or NG

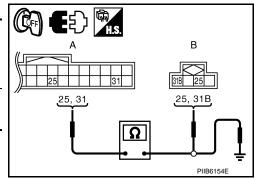
OK >> Sliding sensor front lifting sensor is OK.

NG >> GO TO 2.

2.CHECK FRONT LIFTING MOTOR SENSOR CIRCUIT HARNESS CONTINUITY

- 1. Disconnect driver seat control unit and sliding sensor front lifting sensor connector.
- 2. Check continuity between driver seat control unit connector and sliding sensor front lifting sensor connector.

А		В		
Driver seat control unit connector	Terminal	Sliding sensor · front lifting sensor connector	Terminal	Continuity
B204	25	B214	25	Yes
B204	31	D214	31B	165



Check continuity between driver seat control unit connector and ground.

	A		
Driver seat control unit connector	Ground	Continuity	
B204	25		No
D204	31		NO

OK or NG

OK >> GO TO 3.

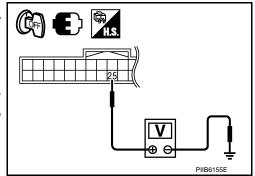
NG >> Repair or replace harness.

3.check driver seat control unit output

< SERVICE INFORMATION >

- 1. Connect driver seat control unit connector.
- Check voltage between driver seat control unit connector and ground.

(-	+)		Voltage (V)
Driver seat control unit connector	Terminal	(–)	(Approx.)
B204	25	Ground	5



OK or NG

OK >> Replace sliding sensor front lifting sensor.

NG >> Replace automatic drive positioner control unit.

Check Rear Lifting Sensor Circuit

1. CHECK FUNCTION

(II) With CONSULT-III

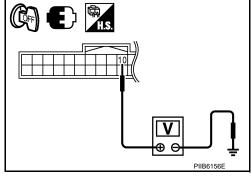
Check operation with "LIFT RR PULSE" on the DATA MONITOR to make sure pulse changes.

Monitor item [OPERATION or UNIT]		
LIFT RR PULSE	_	The rear lifting position (pulse) judged from the lifting sensor (rear) is displayed.

Without CONSULT-III

- 1. Turn ignition switch OFF.
- 2. Check signal between driver seat control unit connector and ground, with oscilloscope.

Driver seat	Term	ninals	O Pro	Signal
control unit connector	(+)	(-)	Condition	(Reference value)
B204	10	Ground	Rear lifting mo- tor opera- tion	(V) 6 4 2 0 50 ms



OK or NG

OK >> Rear lifting sensor circuit is OK.

NG >> GO TO 2.

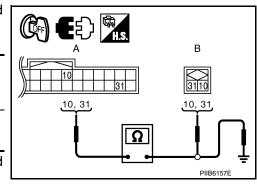
2.CHECK REAR LIFTING MOTOR SENSOR CIRCUIT HARNESS CONTINUITY

Disconnect driver seat control unit and rear lifting sensor connector.

Check continuity between driver seat control unit connector and rear lifting sensor connector.

A		В		
Driver seat control unit connector	Terminal	Rear lifting sensor connector	Terminal	Continuity
B204	10	B218	10	Yes
5204	31	5210	31	163

Check continuity between driver seat control unit connector and ground.



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< SERVICE INFORMATION >

,			
Driver seat control unit connector Terminal		Ground	Continuity
B204	10		No
D204	31		110

OK or NG

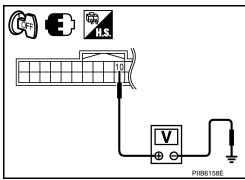
OK >> GO TO 3.

NG >> Repair or replace harness.

3.check driver seat control unit output

- 1. Connect driver seat control unit connector.
- 2. Check voltage between driver seat control unit connector and ground.

(+)		Voltage (V)	
Driver seat control unit connector	Terminal	(–)	(Approx.)	
B204	10	Ground	5	



OK or NG

OK >> Replace rear lifting sensor.

NG >> Replace automatic drive positioner control unit.

Check Telescopic Sensor Circuit

INFOID:0000000005349957

1. CHECK FUNCTION

(II) With CONSULT-III

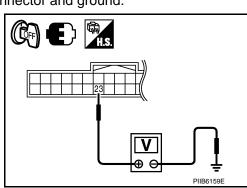
Operate the telescopic switch with "TELESCO SEN" on the DATA MONITOR to make sure the voltage changes.

Monitor i [OPERATION		Contents
TELESCO SEN	"V"	The telescoping position (voltage) judged from the telescoping sensor signal is displayed.

Without CONSULT-III

- 1. Turn ignition switch OFF.
- 2. Check voltage between automatic drive positioner control unit connector and ground.

Automatic	Terminals			
drive posi- tioner con- nector	(+)	(-)	Condition	Voltage (V) (Approx.)
M6	23	Ground	Telescopic top position	4.6
IVIO	23	23 Ground	Telescopic bottom position	0.4



OK or NG

OK >> Telescopic sensor circuit is OK.

NG >> GO TO 2.

2. CHECK HARNESS CONTINUITY

1. Disconnect automatic drive positioner control unit connector and telescopic sensor connector.

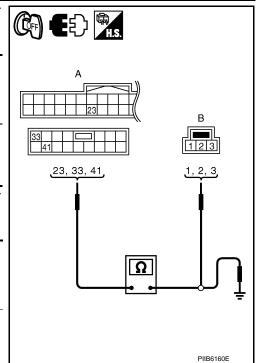
< SERVICE INFORMATION >

Check continuity harness between automatic drive positioner control unit connector and telescopic sensor connector.

А		В		
Automatic drive positioner control unit connector	Terminal	Telescopic sensor connector	Terminal	Continuity
M6	23		2	
M7	33	M44	1	Yes
IVI7	41		3	

Check continuity harness between automatic drive positioner control unit connector and ground.

	A		
Automatic drive positioner control unit connector	Terminal	Ground	Continuity
M6	23	2.2.5	
M7	33		No
IVI /	41		



OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.

3.check automatic drive positioner control unit output

- Connect automatic drive positioner control unit connector.
- Check voltage between automatic drive position control unit connector and ground.

(+)			Voltage (V)
Automatic drive positioner control Terminal unit connector		(-)	(Approx.)
M6	23	Ground	5

OK or NG

OK >> Replace telescopic sensor.

NG >> Replace automatic drive positioner control unit.

Check Tilt Sensor Circuit

1. CHECK TILT SENSOR

(P) With CONSULT-III

With "TILT SEN" on the DATA MONITOR, operate the tilt switch to make sure voltage changes.

Monitor item [OPERATION or UNIT]		Contents
TILT SEN	"V"	The tilt position (voltage) judged from the tilt sensor signal is displayed.

Without CONSULT-III

- Turn ignition switch OFF.
- Check voltage between automatic drive positioner control unit connector and ground.

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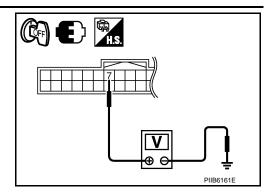
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< SERVICE INFORMATION >

Automatic				
drive posi- tioner con- trol unit connector	(+)	(–)		Voltage (V) (Approx.)
M6	7	Ground	Tilt top position	1
IVIO	ivio / Giouria	Tilt bottom position	3.8	



OK or NG

OK >> Tilt sensor circuit is OK.

NG >> GO TO 2.

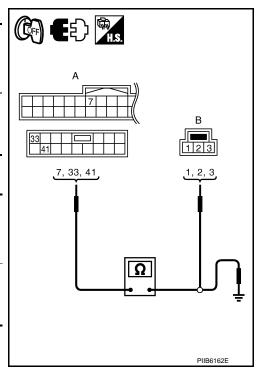
2. CHECK HARNESS

- 1. Disconnect automatic drive positioner control unit connector and tilt sensor connector.
- Check continuity harness between automatic drive positioner control unit connector and tilt sensor connector.

A		В		
Automatic drive positioner control unit connector	Terminal	Tilt sensor connector	Terminal	Continuity
M6	7		2	
M7	33	M37	3	Yes
IVI7	41		1	

3. Automatic drive positioner control unit connector and ground.

Automatic drive posi- tioner control unit con- nector	Terminal	Ground	Continuity
M6	7		
M7	33		No
IVI7	41		



OK or NG

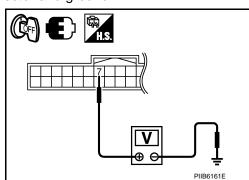
OK >> GO TO 3.

NG >> Repair or replace harness.

3.CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT OUTPUT

- 1. Connect automatic drive positioner control unit connector.
- Check voltage between automatic drive position control unit connector and ground.

(+)			Voltage (V)
Automatic drive positioner control unit connector	positioner control Terminal		(Approx.)
M6	7	Ground	5



OK or NG

OK >> Replace telescopic sensor.

NG >> Replace automatic drive positioner control unit.

< SERVICE INFORMATION >

Check Door Mirror Sensor LH Circuit

INFOID:0000000005349959

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1. CHECK DOOR MIRROR FUNCTION

Check the following items.

Operation malfunction in memory operation.

NOTE:

If a door mirror face position is set to an implausible angle, the set position may not be reproduced.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace the malfunctioning parts, and check the symptom again.

2. CHECK DOOR MIRROR LH SENSOR

(P) With CONSULT-III

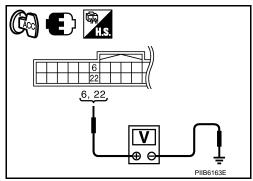
Check that "VOLTAGE" is displayed on "MIR/SEN LH R-L, MIR/SEN LH U-D" in the DATA MONITOR.

Monitor i		Contents
MIR/ SEN LH R-L	"V"	Voltage output from door mirror LH sensor (LH/RH) is displayed.
MIR/ SEN LH U-D	"V"	Voltage output from door mirror LH sensor (UP/DOWN) is displayed.

W Without CONSULT-III

- 1. Turn ignition switch to ACC.
- 2. Check voltage between automatic drive positioner control unit connector and ground.

Automatic Terminals				
drive posi- tioner con- trol unit connector	(+)	(–)	Condition Voltage (V) (Approx.)	
M6	22	Ground	Mirror motor is op- erated LEFT or RIGHT	Changes between 3.5 (close to right edge) – 0.5 (close to left edge)
IVIO	6	Giodila	Mirror motor is op- erated UP or DOWN	Changes between 4.2 (close to peak) – 0.5 (close to valley)



OK or NG

OK >> Mirror sensor LH circuit is OK.

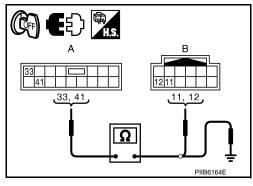
NG >> GO TO 3.

3.CHECK HARNESS CONTINUITY 1

- Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector and door mirror LH connector.
- 3. Check continuity between automatic drive positioner control unit connector and door mirror LH connector.

A		В		
Automatic drive positioner control unit connector	Terminal	Door mirror LH connector	Terminal	Continuity
M7	33	D2	11	Yes
IVI7	41	D2	12	163

 Check continuity between automatic drive positioner control unit connector and ground.



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< SERVICE INFORMATION >

Automatic drive posi- tioner control unit con- nector	Terminal	Ground	Continuity
M7	33		No
IVI7	41		NO

OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness.

4. CHECK HARNESS CONTINUITY 2

1. Check continuity between automatic drive positioner control unit connector and door mirror LH connector.

А		В		
Automatic drive positioner control unit connector	Terminal	Door mirror LH connector	Terminal	Continuity
M6	6	D2	9	Yes
	22	JZ.	10	163

2. Check continuity between automatic drive positioner control unit connector and ground.

,			
Automatic drive positioner control unit connector		Ground	Continuity
M6	6		No
IVIO	22		INO

OK or NG

OK >> Replace door mirror LH.

NG >> Repair or replace harness.

Check Door Mirror Sensor RH Circuit

INFOID:0000000005349960

1. CHECK DOOR MIRROR FUNCTION

Check the following items.

Operation malfunction in memory operation.

NOTE:

If a door mirror face position is set to an implausible angle, the set position may not be reproduced.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace the malfunctioning parts, and check the symptom again.

2.CHECK DOOR MIRROR RH SENSOR

(P) With CONSULT-III

Check that "VOLTAGE" is displayed on "MIR/SEN RH R-L, MIR/SEN RH U-D" in the DATA MONITOR.

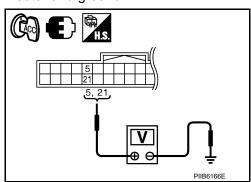
< SERVICE INFORMATION >

Monitor item [OPERATION or UNIT]		Contents
MIR/ SEN RH R-L	"V"	Voltage output from door mirror RH sensor (LH/RH) is displayed.
MIR/ SEN RH U-D	"V"	Voltage output from door mirror RH sensor (UP/DOWN) is displayed.

Without CONSULT-III

- 1. Turn ignition switch to ACC.
- 2. Check voltage between automatic drive positioner control unit connector and ground.

Automatic	Terminals				
drive posi- tioner con- trol unit	(+)	(-) Condition		Voltage (V) (Approx.)	
M6	21	Ground	Mirror motor is op- erated UP or DOWN	Changes between 3.5 (close to left edge) – 0.5 (close to right edge)	
	5	Ground	Mirror motor is operated UP or DOWN	Changes between 4.2 (close to peak) – 0.5 (close to valley)	



OK or NG

OK >> Mirror sensor RH circuit is OK.

NG >> GO TO 3.

3.CHECK HARNESS CONTINUITY 1

- Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector and door mirror RH connector.
- 3. Check continuity between automatic drive positioner control unit connector and door mirror RH connector.

А		В		
Automatic drive positioner control unit connector	Terminal	Door mirror RH connector	Terminal	Continuity
M7	33	D39	11	Yes
	41	200	12	

4. Check continuity between automatic drive positioner control unit connector and ground.

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t	
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Automatic drive posi- tioner control unit con- nector	Terminal	Ground	Continuity
M7	33		No
IVI7	41		140

OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness.

4. CHECK HARNESS CONTINUITY 2

1. Check continuity between automatic drive positioner control unit connector and door mirror RH connector.

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A		В			
Automatic drive positioner control unit connector	Terminal	Door mirror RH connector	Terminal	Continuity	
M6	5	D39	9	Yes	
	21	D39	10	163	

Check continuity between automatic drive positioner control unit connector and ground.

 A B

,				
Automatic drive positioner control unit connector	Terminal	Ground	Continuity	
M6	5		No	
IVIO	21		INO	

OK or NG

OK >> Replace door mirror RH. NG >> Repair or replace harness.

Check Sliding Switch Circuit

INFOID:0000000005349961

1. CHECK FUNCTION

(P)With CONSULT-III

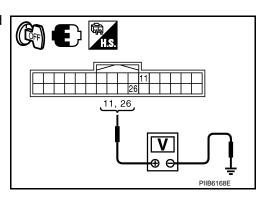
With "SLIDE SW-FR, SLIDE SW-RR" on the DATA MONITOR, operate the sliding switch to check ON/OFF operation.

Monitor item [OPERATION or UNIT] Contents		Contents
SLIDE SW-FR	"ON/ OFF"	ON / OFF status judged from the sliding switch (FR) signal is displayed.
SLIDE SW-RR	"ON/ OFF"	ON / OFF status judged from the sliding switch (RR) signal is displayed.

Without CONSULT-III

- 1. Turn ignition switch OFF.
- Check voltage between driver seat control unit connector and ground.

Driver seat control unit connector	Terminal			Voltage (V) (Ap-	
	(+)	(-)	Condition	prox.)	
B204	11 Ground	Sliding switch ON (BACKWARD operation)	0		
		Ground	Other than above	Battery voltage	
	26	Giodila	Sliding switch ON (FORWARD operation)	0	
			Other than above	Battery voltage	



OK or NG

OK >> Sliding switch circuit is OK.

NG >> GO TO 2.

 $2.\mathsf{CHECK}$ SLIDING SWITCH CIRCUIT HARNESS CONTINUITY

< SERVICE INFORMATION >

- Disconnect driver seat control unit connector and power seat switch connector.
- Check continuity between driver seat control unit connector and power seat switch connector.

A		В		
Driver seat control unit connector	Terminal	Power seat switch connector	Terminal	Continuity
B204	11	B213	11	Yes
5204	26	5213	26	163

Check continuity between driver seat control unit connector and ground.

.	A B
	11 11 26
-	11, 26
•	
	PIIB6169E

Driver seat control unit connector	Ground	Continuity	
B204	11		No
B204	26		INO

OK or NG

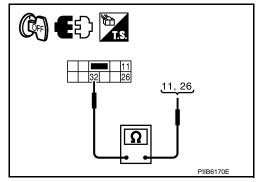
OK >> GO TO 3.

NG >> Repair or replace harness.

3. CHECK SLIDING SWITCH

Check continuity between power seat switch terminals.

Power seat switch	Terminal		Condition	Continuity
	11		Sliding switch ON (BACKWARD operation)	Yes
B213		32	Other than above	No
B213	26		Sliding switch ON (FORWARD operation)	Yes
			Other than above	No



OK or NG

OK >> Replace driver seat control unit.

NG >> Replace power seat switch.

Check Reclining Switch Circuit

1. CHECK FUNCTION

(P) With CONSULT-III

With "RECLN SW-FR, RECLN SW-RR" on the DATA MONITOR, operate the reclining switch to check ON/ OFF operation.

Monitor item [OPERA- TION or UNIT]		Contents
RECLN SW -FR	"ON/ OFF"	ON/OFF status judged from the reclining switch (FR) signal is displayed.
RECLIN S W-RR	"ON/ OFF"	ON/OFF status judged from the reclining switch (RR) signal is displayed.

⋈ Without CONSULT-III

Turn ignition switch OFF.

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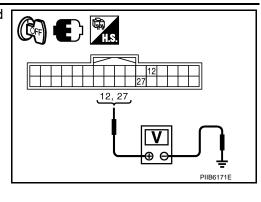
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< SERVICE INFORMATION >

2. Check voltage between driver seat control unit connector and ground.

Driver seat	Terminals		Condition	Voltage (V) (Ap-	
control unit	(+)	(-)	Condition	prox.)	
	12		Reclining switch ON (BACKWARD operation)	0	
B204		Ground	Other than above	Battery voltage	
5204	27		Reclining switch ON (FORWARD operation)	0	
			Other than above	Battery voltage	



OK or NG

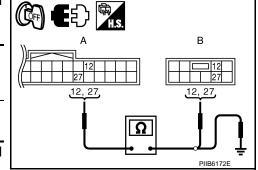
OK >> Reclining switch circuit is OK.

NG >> GO TO 2.

$2. \mathsf{CHECK}$ RECLINING SWITCH CIRCUIT HARNESS CONTINUITY

- 1. Disconnect driver seat control unit and power seat switch connector.
- 2. Check continuity between driver seat control unit connector and power seat switch connector.

A		В		
Driver seat control unit connector Terminal		Power seat switch connector	Terminal	Continuity
B204	12	B213	12	Yes
B204	27	B213	27	165



3. Check continuity between driver seat control unit connector and ground.

,			
Driver seat control unit connector Terminal		Ground	Continuity
B204	12		No
B204	27		NO

OK or NG

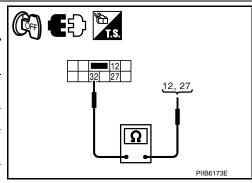
OK >> GO TO 3.

NG >> Repair or replace harness.

3. CHECK RECLINING SWITCH

Check continuity between power seat switch as follows.

Power seat switch	Terminal		Condition	Continuity
	12		Reclining switch ON (BACKWARD operation)	Yes
B213		32	Other than above	No
6213	27	32	Reclining switch ON (FORWARD operation)	Yes
		Other than above	No	



OK or NG

OK >> Replace driver seat control unit.

< SERVICE INFORMATION >

NG >> Replace power seat switch.

Check Lifting Switch (Front) Circuit

1. CHECK FUNCTION

(P) With CONSULT-III

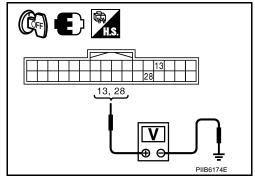
With "LIFT FR SW-UP, LIFT FR SW-DN" on the DATA MONITOR, operate the lifting switch (front) to check ON/OFF operation.

Monitor item [OPERA- TION or UNIT]		Contents
LIFT FR SW- "ON/ DN OFF"		ON / OFF status judged from the FR lifter switch (DOWN) signal is displayed.
LIFT FR SW- UP	"ON/ OFF"	ON / OFF status judged from the FR lifter switch (UP) signal is displayed.

Without CONSULT-III

- Turn ignition switch OFF.
- Check voltage between driver seat control unit connector and ground.

Driver seat	Terminals		0 111	Voltage (V)
control unit connector	(+)	(-)	Condition	(Approx.)
	13		Lifting switch (front) ON (DOWN operation)	0
B204		Ground	Other than above	Battery voltage
D204	28	Lifting switch (front) ON (UP operation)	0	
			Other than above	Battery voltage



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INFOID:0000000005349963

OK or NG

OK >> Lifting switch (front) circuit is OK.

NG >> GO TO 2.

2.check lifting switch (front) circuit harness continuity

- 1. Disconnect driver seat control unit and power seat switch connector.
- 2. Check continuity between driver seat control unit connector and power seat switch connector.

А		В		
Driver seat control unit connector Terminal		Power seat switch connector	Terminal	Continuity
B204	13	B213	13	Yes
B204	28	B213	28	165

Check continuity between driver seat control unit connector and ground.

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Driver seat control unit connector	lerminal		Continuity	
B204	13		No	
D204	28		INO	

OK or NG

OK >> GO TO 3.

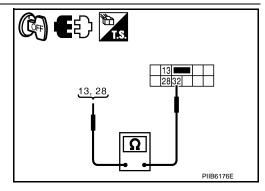
< SERVICE INFORMATION >

NG >> Repair or replace harness.

3.CHECK LIFTING SWITCH (FRONT)

Check continuity between power seat switch as follows.

Power seat switch	Terminals		Condition	Continuity
13		Lifting switch (front) ON (DOWN operation)	Yes	
B213		32	Other than above	No
B213 -	28	32	Lifting switch (front) ON (UP operation)	Yes
			Other than above	No



OK or NG

OK >> Replace driver seat control unit.

NG >> Replace power seat switch.

Check Lifting Switch (Rear) Circuit

INFOID:0000000005349964

1. CHECK FUNCTION

(P) With CONSULT-III

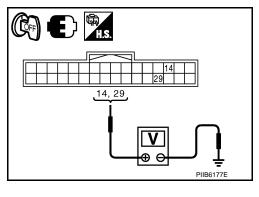
With "LIFT RR SW-UP, LIFT RR SW-DN" on the DATA MONITOR, operate the lifting switch (rear) to check ON/OFF operation.

Monitor item [OPERATION or UNIT]		Contents
LIFT RR SW-UP	"ON/OFF"	Operation (ON)/open (OFF) status judged from the RR lifter switch (UP) signal is displayed.
LIFT RR SW-DN	"ON/OFF"	Operation (ON)/open (OFF) status judged from the RR lifter switch (DOWN) signal is displayed.

⊗ Without CONSULT-III

- 1. Turn ignition switch OFF.
- Check voltage between driver seat control unit connector and ground.

Driver	Term	inals) () () () () ()
seat con- trol unit connector	(+)	(-)	Condition	Voltage (V) (Approx.)
	14	14 Ground	Lifting switch (rear) ON (DOWN operation)	0
B204			Other than above	Battery voltage
B204 =	29	Lifting switch (rear) ON (UP operation)	0	
		Other than above	Battery voltage	



OK or NG

OK >> Lifting switch (rear) circuit is OK.

NG >> GO TO 2.

$2.\mathsf{CHECK}$ LIFTING SWITCH (REAR) CIRCUIT HARNESS CONTINUITY

1. Disconnect driver seat control unit and power seat switch connector.

Continuity

No

Ground

< SERVICE INFORMATION >

Check continuity between driver seat control unit connector and power seat switch connector.

A		В		
Driver seat control unit connector	Terminal	Power seat switch connector	Terminal	Continuity
B204	14	B213	14	Yes
B204	29	6213	29	162

Check continuity between driver seat control unit connector and ground.

Terminal

14

29

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	PIIB6178E

	B204

OK or NG

OK >> GO TO 3.

Driver seat control unit

connector

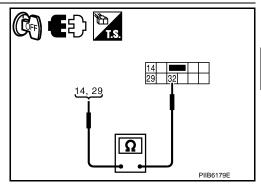
NG >> Repair or replace harness.

Α

3.CHECK LIFTING SWITCH (REAR)

Check continuity between power seat switch as follows.

Power seat switch	Terminals		Condition	Continuity
	14 ————————————————————————————————————	22	Lifting switch (rear) ON (DOWN operation)	Yes
D040			Other than above	No
B213		32	Lifting switch (rear) ON (UP operation)	Yes
		Other than above	No	



OK or NG

OK >> Replace driver seat control unit.

NG >> Replace power seat switch.

Check Power Seat Switch Ground Circuit

1. CHECK POWER SEAT SWITCH GROUND CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect power seat switch connector.

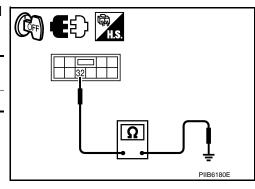
Check continuity between power seat switch connector and ground.

Power seat switch connector	Terminal	Ground	Continuity
B213	32		Yes

OK or NG

OK >> Replace driver seat control unit.

NG >> Repair or replace harness.



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Check Telescopic Switch Circuit

INFOID:0000000005349966

1. CHECK FUNCTION

(P) With CONSULT-III

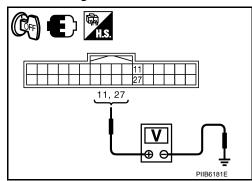
With "TELESCO SW-FR, TELESCO SW-RR" on the DATA MONITOR, operate the ADP steering switch to check ON/OFF operation.

Monitor item [OPERATION or UNIT]		Contents
TELESCO SW-FR	"ON/OFF"	(ON/OFF) status judged from the telescoping switch (FR) signal is displayed.
TELESCO SW-RR	"ON/OFF"	(ON/OFF) status judged from the telescoping switch (RR) signal is displayed.

⋈ Without CONSULT-III

- 1. Turn ignition switch OFF.
- 2. Check voltage between automatic drive positioner control unit connector and ground.

Automatic	Term	inals		
drive posi- tioner con- trol unit connector	(+)	(-)	Telescopic switch condition	Voltage (V) (Approx.)
M6 27	11		FORWARD	0
	- 11	Ground	Other than above	5
		Giodila	BACKWARD	0
		Other than above	5	



OK or NG

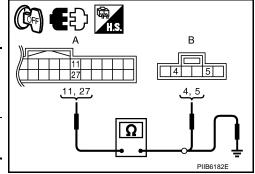
OK >> Telescopic switch circuit is OK.

NG >> GO TO 2.

2. CHECK TELESCOPIC CIRCUIT HARNESS CONTINUITY

- 1. Disconnect automatic drive positioner control unit connector and ADP steering switch connector.
- Check continuity between automatic drive positioner control unit connector and ADP steering switch connector.

A		В		
Automatic drive positioner control unit connector	Terminal	ADP steering switch connector	Terminal	Continuity
M6	11	M46	5	Yes
IVIO	27	IVITO	4	163



Check continuity between automatic drive positioner control unit connector and ground.

A			
Automatic drive positioner control unit connector			
M6	11		No
IVIO	27		INO

OK or NG

OK >> GO TO 3.

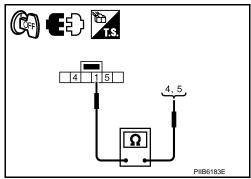
NG >> Repair or replace harness.

< SERVICE INFORMATION >

3. CHECK TELESCOPIC SWITCH

ADP steering switch operate, check continuity ADP steering switch.

ADP steer- ing switch	Terminal		ADP steering switch condition	Continuity
M46 4	5	1	FORWARD	Yes
	3		Other than above	No
			BACKWARD	Yes
		Other than above	No	



OK or NG

OK >> GO TO 4.

NG >> Replace ADP steering switch.

4. CHECK ADP STEERING SWITCH GROUND CIRCUIT

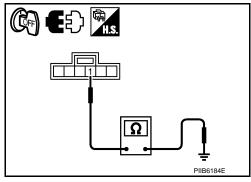
Check continuity between ADP steering switch connector and ground.

ADP steering switch connector	Terminal	Ground	Continuity
M46	1	Ground	Yes

OK or NG

OK >> Replace automatic drive positioner control unit.

NG >> Replace or replace harness.



INFOID:0000000005349967

Check Tilt Switch Circuit

1. CHECK FUNCTION

(II) With CONSULT-III

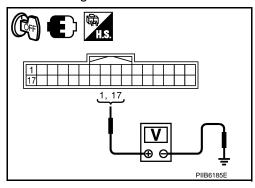
With "TILT SW-UP, TILT SW-DOWN" on the DATA MONITOR, operate the ADP steering switch to check ON/OFF operation.

Monitor item [OPERATION or UNIT]		Contents
TILT SW-UP	"ON/OFF"	(ON/OFF) status judged from the tilt switch (UP) signal is displayed.
TILT SW-DOWN	"ON/OFF"	(ON/OFF) status judged from the tilt switch (DOWN) signal is displayed.

Without CONSULT-III

- 1. Turn ignition switch OFF.
- 2. Check voltage between automatic drive positioner control unit connector and ground.

Automatic	Terminals			
drive posi- tioner con- trol unit connector	(+)	(-)	Tilt switch condition	Voltage (V) (Approx.)
	1 Ground		UP	0
M6		Ground	Other than above	5
IVIO		DOWN	0	
		†	Other than above	5



OK or NG

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< SERVICE INFORMATION >

OK >> Tilt switch circuit is OK.

NG >> GO TO 2.

2. CHECK TILT SWITCH CIRCUIT HARNESS CONTINUITY

- 1. Disconnect automatic drive positioner control unit connector and ADP steering switch connector.
- 2. Check continuity between automatic drive positioner control unit connector and ADP steering switch connector.

А		В		
Automatic drive positioner control unit connector	Terminal	ADP steering switch connector	Terminal	Continuity
M6	1	M46	2	Yes
IVIO	17	IVI4O	3	165

3. Check continuity between automatic drive positioner control unit connector and ground.

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Automatic drive positioner control unit connector	Terminal	Ground	Continuity
M6	1		No
IVIO	17		.40

OK or NG

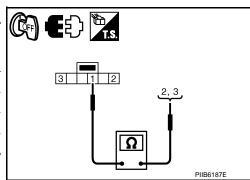
OK >> GO TO 3.

NG >> Repair or replace harness.

3. CHECK ADP TILT STEERING SWITCH

ADP steering switch operate, check continuity ADP steering switch.

2	1	UP	Yes
		Other than above	No
•		DOWN	Yes
3		Other than above	No
	3	1	Other than above DOWN



OK or NG

OK >> GO TO 4.

NG >> Replace ADP steering switch.

4. CHECK ADP STEERING SWITCH GROUND CIRCUIT

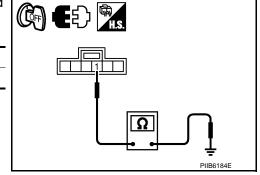
Check continuity between ADP steering switch connector and ground.

ADP steering switch connector	Terminal	Ground	Continuity
M46	1	Ground	Yes

OK or NG

OK >> Replace automatic drive positioner control unit.

NG >> Repair or replace harness.



< SERVICE INFORMATION >

Check Seat Memory and Set Switch Circuit

INFOID:0000000005349968

1. CHECK FUNCTION

(II) With CONSULT-III

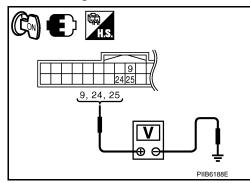
With "SET SW, MEMORY SW1, MEMORY SW2" on the DATA MONITOR, operate the switch to check ON/ OFF operation.

Monitor item [OPERATION or UNIT]		Contents
SET SW	"ON/OFF"	ON/OFF status judged from the setting switch signal is displayed.
MEMORY SW1	"ON/OFF"	ON/OFF status judged from the seat memory switch 1 signal is displayed.
MEMORY SW2	"ON/OFF"	ON/OFF status judged from the seat memory switch 2 signal is displayed.

W Without CONSULT-III

- 1. Turn ignition switch OFF.
- Check voltage between automatic drive positioner control unit connector and ground.

		ninals		
drive posi- tioner con- trol unit connector	(+)	(-)	Condition	Voltage [V] (Approx.)
	9	Ground	Memory switch 1: ON	0
	9		Other than above	5
M6	24		Set switch: ON	0
IVIO	24	Giodila	Other than above	5
	25		Memory switch 2: ON	0
	25		Other than above	5



OK or NG

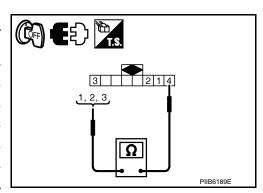
OK >> Seat memory switch circuit is OK.

NG >> GO TO 2.

2. CHECK SEAT MEMORY SWITCH

- 1. Disconnect seat memory switch connector.
- 2. Operate the setting switch and seat memory switch.
- 3. Check continuity between seat memory switch as follows.

Seat memory switch	Terminal		Condition	Continuity
	1	1	Memory switch 1 ON	Yes
			Memory switch 1: OFF	No
D9	3		Memory switch 2: ON	Yes
		Memory switch 2: OFF	No	
		Set switch: ON	Yes	
		Set switch: OFF	No	



OK or NG

OK >> GO TO 3.

Revision: 2009 June

NG >> Replace seat memory switch.

3. CHECK HARNESS CONTINUITY

1. Disconnect automatic drive positioner control unit connector.

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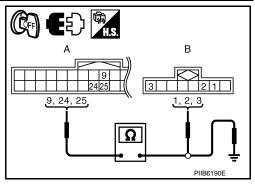
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< SERVICE INFORMATION >

Check continuity between automatic drive positioner control unit connector and seat memory switch connector.

A		В		
Automatic drive positioner control unit connector	Terminal	Seat memory switch connector	Terminal	Continuity
	9		1	
M6	24	D9	3	Yes
	25		2	



3. Check continuity between automatic drive positioner control unit connector and ground.

,	4		
Automatic drive positioner control unit connector	Terminal	Ground	Continuity
	9	0.00	
M6	24		No
	25		

OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness.

4. CHECK SEAT MEMORY SWITCH GROUND CIRCUIT

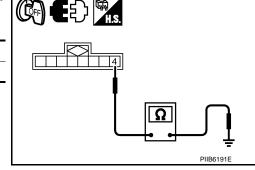
Check continuity between seat memory switch connector and ground.

Seat memory switch connector	Terminal	Ground	Continuity
D9	4	Ground	Yes

OK or NG

OK >> Replace automatic drive positioner control unit.

NG >> Repair or replace harness.



INFOID:0000000005349969

Check Seat Memory Indicator Lamp Circuit

1. CHECK FUNCTION

(II) With CONSULT-III

With "MEMORY SW INDCTR" in ACTIVE TEST, check operation.

Test item	Description
MEMORY SW INDCTR	The memory switch indicator is lit by receiving the drive signal.

OK or NG

OK >> Seat memory switch indicator lamp circuit is OK.

NG >> GO TO 2.

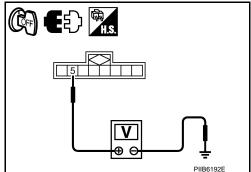
2.CHECK SEAT MEMORY INDICATOR LAMP POWER SYUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect seat memory switch connector.

< SERVICE INFORMATION >

Check voltage between seat memory switch connector and ground.

(+	+)		Voltage (V)	
Seat memory switch connector	Terminal	(–)	(Approx.)	
D9	5	Ground	Battery voltage	



OK or NG

OK >> GO TO 3.

NG >>

- >> Check the following.
 - 10A fuse [No.18, Located in the fuse block (J/B)]
 - Harness for open or short between seat memory switch and fuse.

3. CHECK SEAT MEMORY INDICATOR CIRCUIT HARNESS CONTINUITY

- 1. Disconnect automatic drive positioner control unit connector.
- 2. Check continuity between automatic drive positioner control unit connector and seat memory switch connector.

А		В		
Automatic drive positioner control unit connector	Terminal	Seat memory switch connector	Terminal	Continuity
M6	12	D9	6	Yes
WO	13	D9	7	163

Check continuity between automatic drive positioner control unit connector and ground.

" А	В
12, 13	6,7
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,	A		
Automatic drive positioner control unit connector	Terminal	Ground	Continuity
M6	12		No
IVIO	13		110

OK or NG

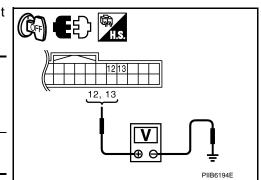
OK >> GO TO 4.

NG >> Repair or replace harness.

4. CHECK SEAT MEMORY SWITCH INDICATOR SIGNAL

- 1. Connect seat memory switch connector.
- Check continuity between automatic drive positioner control unit connector and ground.

	Terminals			
(-		Voltage (V)		
Seat memory switch connector	Terminal	(–)	(Approx.)	
M6	12	Ground	Rattory voltago	
IVIO	13	Giouna	Battery voltage	



OK or NG

OK >> Replace automatic drive positioner control unit.

NG >> Replace seat memory switch.

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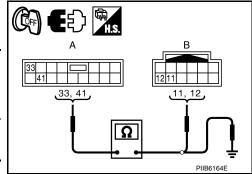
Check Door Mirror Sensor Power Supply and Ground Circuit

INFOID:0000000005349970

1. CHECK DOOR MIRROR SENSOR CIRCUIT HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit and door mirror (LH and RH) connector.
- 3. Check continuity between automatic drive positioner control unit connector and door mirror connector LH/RH.

A		В		
Automatic drive positioner control unit connector	Terminal	Door mirror connector	Terminal	Continuity
M7	33	D2 (LH)	11	Yes
IVI7	41	D39 (RH)	12	162



 Check continuity between automatic drive positioner control unit connector and ground.

A			
Automatic drive positioner control unit connector	Terminal	Ground	Continuity
M7	33		No
IVIT	41		INO

OK or NG

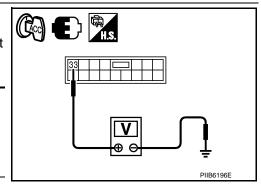
OK >> GO TO 2.

NG >> Repair or replace harness.

2.CHECK MIRROR SENSOR POWER SUPPLY

- 1. Connect automatic drive positioner control unit connector.
- 2. Turn ignition switch to ACC.
- 3. Check voltage between automatic drive positioner control unit connector and ground.

Terminals			
(+)			Voltage (V)
Automatic drive positioner control unit connector	Terminal	(-)	(Approx.)
M6	33	Ground	5



OK or NG

OK >> GO TO 3.

NG >> Replace automatic drive positioner control unit.

3.check mirror sensor ground circuit

1. Turn ignition switch OFF.

< SERVICE INFORMATION >

Check continuity between automatic drive positioner control unit connector and ground.

Automatic drive positioner control unit connector	Terminal	Ground	Continuity
M6	41		Yes

OK or NG

NG

OK >> Door mirror power supply and ground circuit are OK.

>> Replace automatic drive positioner control unit.

Check A/T Shift Selector (Detent Switch) Circuit

INFOID:0000000005349971

1. CHECK FUNCTION

(P) With CONSULT-III

Check that when the selector lever is in P position, "DETENT SW" on the DATA MONITOR becomes OFF.

Monitor item [OPERATION or UNIT]		Contents	
Detention SW	"ON/ OFF"	The selector lever position "P position (OFF)/other than P position (ON)" judged from the detention switch signal is displayed.	

Without CONSULT-III

- 1. Turn ignition switch OFF.
- Check voltage between driver seat control unit connector and ground.

Driver seat			Condition of selector	Voltage (V) (Ap-
control unit connector	(+)	(-)	lever	prox.)
M204	1204 21 Ground		P position	0
M204 21	Ground	Other than above	Battery voltage	

PIIB6198E

OK or NG

OK >> A/T shift selector (detention switch) circuit is OK.

NG >> GO TO 2.

2.CHECK A/T SHIFT SELECTOR (TRANSMISSION RANGE SWITCH) HARNESS

- Turn ignition switch OFF.
- 2. Disconnect A/T shift selector and driver seat control unit connector.
- Check continuity between A/T shift selector connector and driver seat control unit connector.

А		В		
Driver seat control unit connector	Terminal	A/T shift selector connector	Terminal	Continuity
M204	21	M133	10	Yes

Check continuity between driver seat control unit connector and ground.

Driver seat control unit connector	Terminal	Ground	Continuity
M204	21		No

OK or NG

>> GO TO 3. OK

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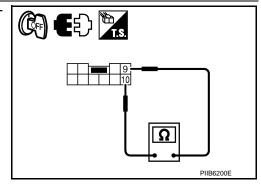
< SERVICE INFORMATION >

>> Repair or replace harness. NG

3.check transmission range switch

Check continuity between A/T shift selector (detention switch) as follows.

A/T shift se- lector	Terminals		Condition	Continuity
			P position	Yes
M133	9	10	Other than P position	No



OK or NG

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

NG >> Replace A/T shift selector.

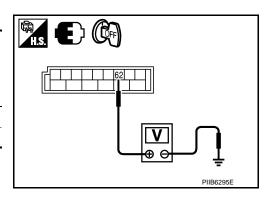
Check Front Door Switch (Driver Side) Circuit

INFOID:0000000005349972

1. CHECK DOOR SWITCH INPUT SIGNAL

- Turn ignition switch OFF.
- Check voltage between BCM connector and ground.

Terminals						
(+)			Door c	ondition	Voltage (V)	
BCM connector	Terminal	(–)	_ 00. 00.00.		(Approx.)	
M3	62	Ground	Driver side	OPEN	0	
1013 02	Glodila	Glouila Dilvei side		Battery voltage		



OK or NG

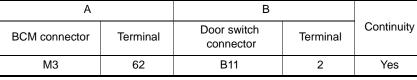
OK >> Door switch circuit is OK.

NG >> GO TO 2.

2. CHECK HARNESS CONTINUITY

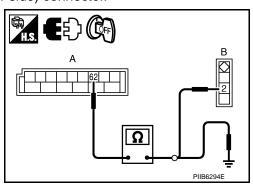
- Turn ignition switch OFF.
- Disconnect BCM and door switch (driver side) connector.
- Check continuity between BCM connector and door switch (driver side) connector.

A		В		
BCM connector	Terminal	Door switch connector	Terminal	Continuity
M3	62	B11	2	Yes



Check continuity between BCM connector ground.

A		Continuity	
BCM connector	Ground	Continuity	
M3	62		No



OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.

3.check door switch

< SERVICE INFORMATION >

Check continuity door switch (driver side).

Terminal		Door switch	Continuity	
Door switch		Door Switch		
2	Ground part of	Pushed	No	
	door switch	Released	Yes	

OK or NG

OK >> GO TO 4.

NG >> Replace door switch (driver side).

4. CHECK BCM OUTPUT SIGNAL

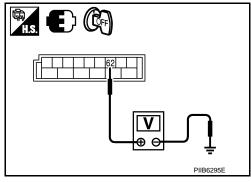
- 1. Connect BCM connector.
- 2. Check voltage between BCM connector ground.

	N/ K 0.0			
(-	+)	(-)	Voltage (V) (Approx.)	
BCM connector	Terminal	(-)	,	
M3	62	Ground	Battery voltage	

OK or NG

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

NG >> Replace BCM.



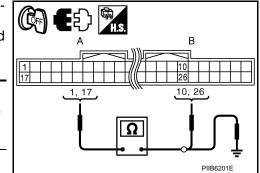
INFOID:0000000005349973

Check UART Communication Line Circuit

1. CHECK UART LINE HARNESS

- 1. Turn ignition switch OFF.
- Disconnect driver seat control unit and automatic drive positioner control unit connector.
- 3. Check continuity between driver seat control unit connector and automatic drive positioner connector.

A		В		
Driver seat control unit connector	Terminal	Automatic drive po- sitioner control unit connector	Terminal	Continuity
B204		M6	10	Yes
B204	17	IVIO	26	163



4. Check continuity between driver seat control unit connector and ground.

Driver seat control unit connector Terminal		Ground	Continuity
B204	1		No
BZOŦ	17		140

OK or NG

OK >> GO TO 2.

NG >> Repair or replace harness.

2.CHECK UART LINE INPUT/OUTPUT SIGNAL 1

1. Connect driver seat control unit and automatic drive positioner control unit connector.

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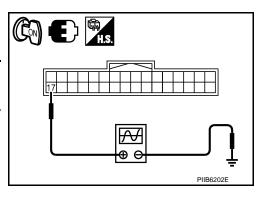
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< SERVICE INFORMATION >

- Turn ignition switch ON.
- Check signal between driver seat control unit connector and ground, with oscilloscope.

Driver seat	Terminals		0 1:4:	Signal	
control unit connector	(+)	(-)	Condition	(Reference value)	
B204	17	Ground	Tilt switch operated	(V) 6 4 2 0 20 SKIA0175E	



OK or NG

OK

>> GO TO 3.

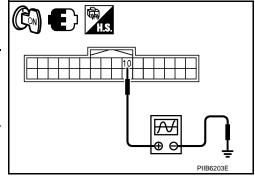
NG

- >> Check the following.
 - When voltage wave form does not appear with a constant voltage (approx. 5V), replace driver seat control unit.
 - When voltage wave form does not appear with a constant voltage (approx. 0V), replace automatic drive positioner control unit.

3.CHECK UART LINE INPUT/OUTPUT SIGNAL 2

Check signal between automatic drive positioner control unit connector and ground, with oscilloscope.

Automatic	Terminals			
drive posi- tioner con- trol unit connector	(+)	(–)	Condition	Signal (Reference value)
M6	10	Ground	Tilt switch operated.	(V) 6 4 2 0 20 SKIA0175E



OK or NG

OK >> GO TO 4.

NG

- >> Check the following.
 - When voltage wave form does not appear with a constant voltage (approx. 5V), replace automatic drive positioner control unit.
 - When voltage wave form does not appear with a constant voltage (approx. 0V), replace driver seat control unit.

4. CHECK DRIVER SEAT CONTROL UNIT

Does the automatic drive positioner operate when the driver seat control unit is exchanged?

OK or NG

OK >> Replace driver seat control unit.

NG >> Replace automatic drive positioner control unit.

< SERVICE INFORMATION >

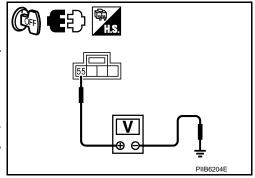
Check Lumbar Support Circuit

INFOID:0000000005349974

1. CHECK LUMBAR SUPPORT SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect lumbar support switch connector.
- 3. Check voltage between lumbar support switch connector and ground.

(-	+)		Voltage (V)
Lumbar support switch connector	Terminal	(–)	(Approx.)
B212	55	Ground	Battery voltage



OK or NG

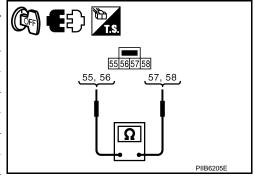
OK >> GO TO 2.

NG >> Repair or replace harness between fuse block (J/B) and lumbar support switch.

2.CHECK LUMBAR SUPPORT SWITCH

Check continuity lumbar support switch connector.

Lumbar support switch	Terminal		Condition of lumbar support switch	Continuity
		57	FORWARD	Yes
	55	37	Other than above	No
	55	58	BACKWARD	Yes
B212			Other than above	No
B212	56	57	FORWARD	No
			Other than above	Yes
	30	58	BACKWARD	No
		58	Other than above	Yes



OK or NG

OK >> GO TO 3.

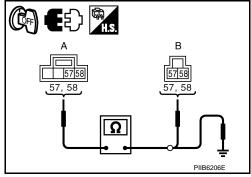
NG >> Replace lumbar support switch.

3.check lumbar support motor harness

- 1. Disconnect lumbar support motor connector.
- 2. Check continuity between lumbar support switch connector and lumbar support motor connector.

А		В		
Lumbar support switch connector	Terminal	Lumbar support motor connector	Terminal	Continuity
B212	57	B211	57	Yes
D212	58	DZII	58	162

Check continuity between lumbar support switch connector and ground.



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A				
Lumbar support switch connector	Terminal	Ground	Continuity	
B212	57		No	
DZ1Z	58		INO	

OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness.

4. CHECK LUMBAR SUPPORT SWITCH GROUND CIRCUIT

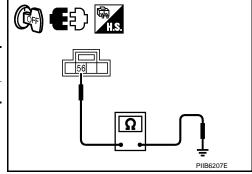
Check continuity between lumbar support switch connector and ground.

Lumbar support switch connector	Terminal	Ground	Continuity
B212	56		Yes

OK or NG

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

NG >> Repair or replace harness between lumbar support switch and ground.

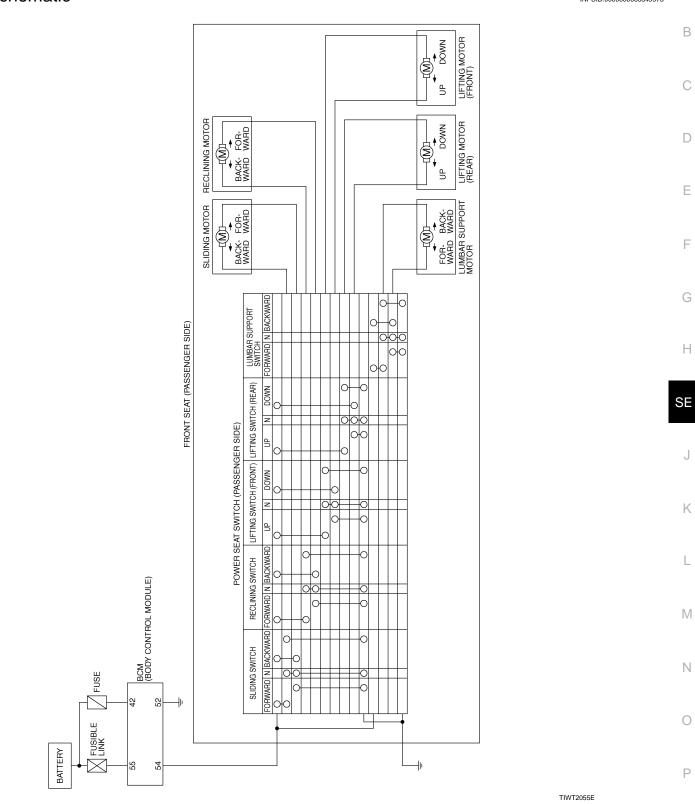


POWER SEAT(PASSENGER SIDE)

POWER SEAT(PASSENGER SIDE)

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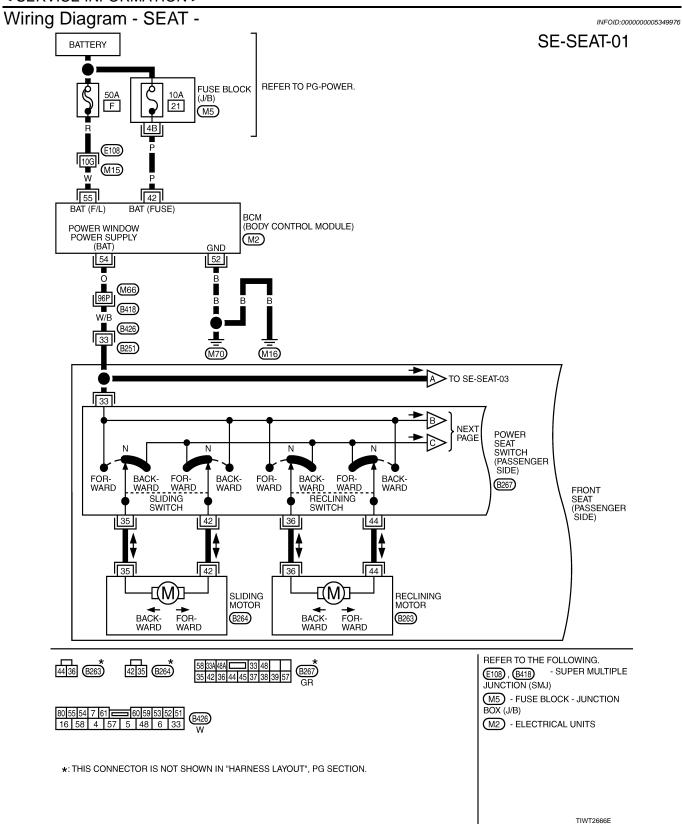
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POWER SEAT(PASSENGER SIDE)

< SERVICE INFORMATION >



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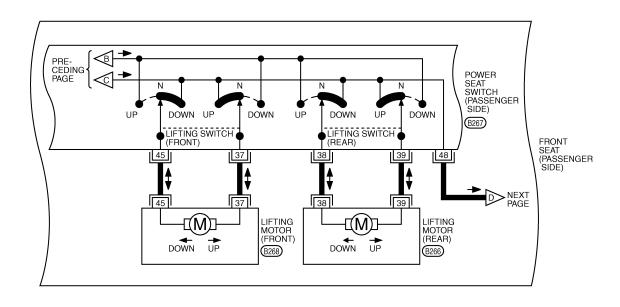
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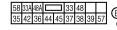
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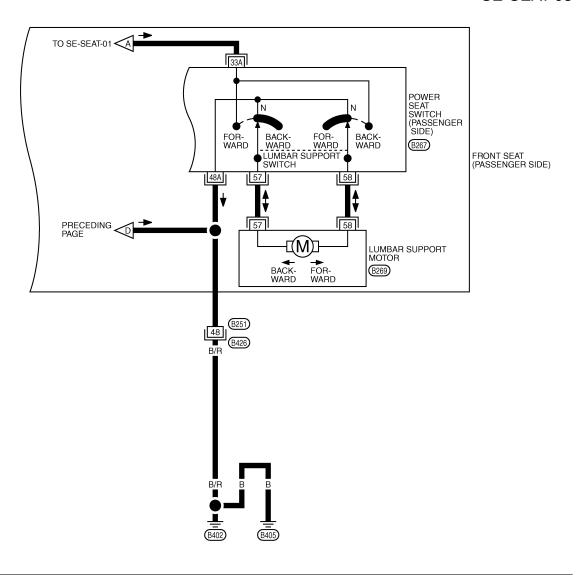




*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

TIWT2057E

SE-SEAT-03





*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

TIWT2058E

Component Parts and Harness Connector Location

INFOID:0000000005349977 3 2 50A **F** (5)

Fuse, fusible link and relay block (J/B)

Rear seat sliding motor B311 (LH), B361 (RH) (View with the rear seat cushion removed)

a: Rear power seat switch LH B504

b: Automatic return cancel switch B508

c: Rear power seat switch RH B555

Rear door switch B53 (LH), B403 (RH) B303, B304 (LH) B353, B354 (RH) (View with the rear seatback removed)

System Description

The rear power seat (LH / RH) retreats when the auto return cancel switch is turned on and each door is opened.

When the rear power seat switch turned on, or auto return cancel switch is canceled, an auto return is discontinued.

Power is all time supplied

- through 50A fusible link [letter F, located in the fuse block (J/B)],
- to rear LH seat control unit, rear RH seat control unit terminal 1.

REAR POWER SEAT LH AND RH OPERATION

When rear power seat switch is forward, ground is supplied

- · to rear seat control unit terminal 10,
- through rear power seat switch terminal 2,
- through rear power seat switch terminal 3,
- through body grounds B5, B40, B131.

When rear seat control unit receives power seat switch forward signal, power is supplied

- · through rear seat control unit terminal 2,
- to rear seat sliding motor terminal 3.

Then ground is supplied

- through rear seat sliding motor terminals 5,
- through body grounds B5, B40, B131.

When power and ground are supplied, rear power seat slide moves forward.

Rear seat control unit

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< SERVICE INFORMATION >

When rear power seat switch is backward, ground is supplied

- · to rear seat control unit terminal 15,
- through rear power seat switch terminal 1,
- through rear power seat switch terminal 3,
- through body grounds B5, B40, B131.

When rear seat control unit receives power seat switch backward signal, power is supplied

- to rear seat control unit terminal 7,
- through rear seat sliding motor terminal 4.

Then ground is supplied

- · through rear seat sliding motor terminals 5,
- through body grounds B5, B40, B131.

When power and ground are supplied, rear power seat slide moves backward.

REAR SEAT RETREAT FUNCTION

When rear door open, ground is supplied

- to rear seat control unit terminal 16,
- through rear door switch terminal 2,

When rear seat control unit receives automatic return cancel switch ON and rear door switch open signal, power is supplied

- through rear seat control unit terminal 7,
- to rear seat sliding motor terminal 4.

Then ground is supplied

- through rear seat sliding motor terminals 5,
- through body grounds B5, B40, B131.

When power and ground are supplied, rear power seat slide moves backward.

When rear seat sliding motor is operated, ground is supplied

- to rear seat control unit terminal 12,
- through rear seat sliding motor terminal 1,
- through rear seat sliding motor terminal 2,
- through rear seat control unit terminal 19,
- through rear seat control unit terminals 13,
- through body grounds B5, B40, B131.

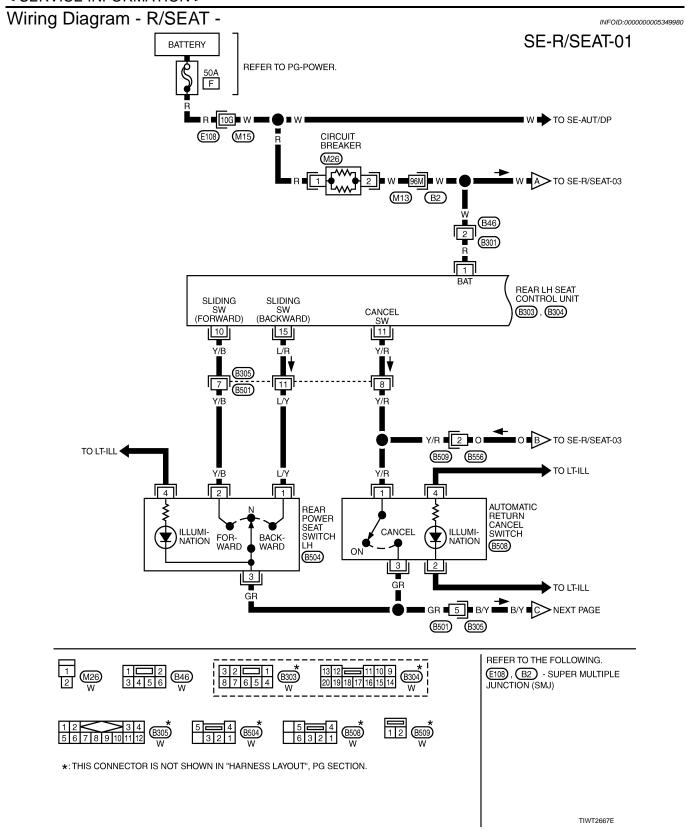
Then rear seat control unit receives rear power seat sliding sensor signal.

The rear power seat control unit controls the seat position of the system operation with the signal.

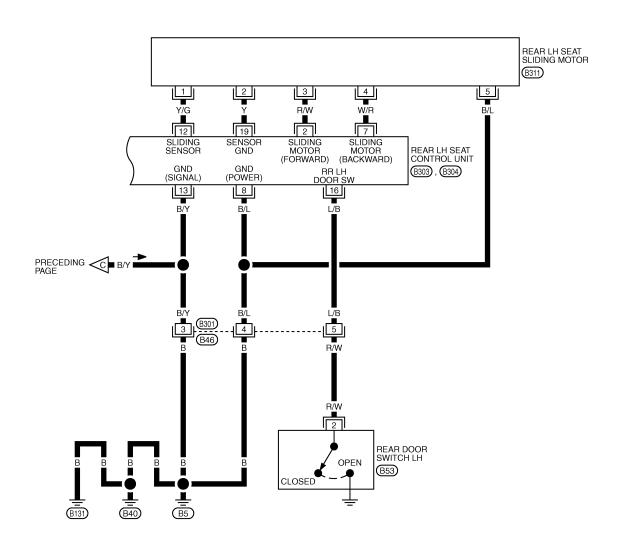
Schematic INFOID:0000000005349979 Α BATTERY В FUSIBLE CIRCUIT D Е REAR LH SEAT CONTROL UNIT F To illumination system REAR DOOR SWITCH LH G ILLUMI-NATION FOR- BACK-WARD REAR POWER SEAT SWITCH LH REAR LH SEAT SLIDING MOTOR Н SE To illumination system ILLUMINATION **₩ ,** AUTOMATIC RETURN CANCEL SWITCH Κ REAR RH SEAT CONTROL UNIT To illumination system REAR DOOR SWITCH RH M FOR- BACK-WARD REAR POWER SEAT SWITCH RH REAR RH SEAT SLIDING MOTOR Ν 0

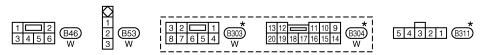
SE-85 Revision: 2009 June 2010 M35/M45

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SE-R/SEAT-02





 \star : THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

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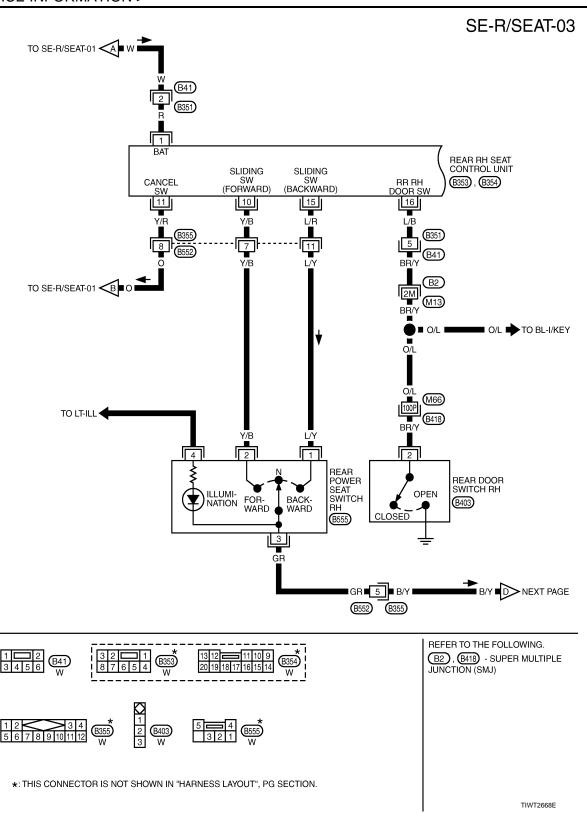
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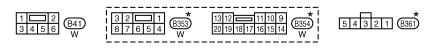
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TIWT1388E



REAR RH SEAT SLIDING MOTOR (B361) 2 3 5 4 W/R 12 19 SLIDING SENSOR SLIDING MOTOR SLIDING MOTOR SENSOR GND REAR RH SEAT CONTROL UNIT GND (SIGNAL) GND (POWER) (B353), (B354) 13 8 B/L PRECEDING D B/Y



*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

(B5)

Terminal and Reference Value for Rear Seat Control Unit

Termi- nal	Wire Color	Item	Signal Input/Output	Condition	Voltage (V) (Approx.)
1	R	Power source (BAT)	Input	_	Battery voltage

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< SERVICE INFORMATION >

Termi- nal	Wire Color	Item	Signal Input/Output	Condition	Voltage (V) (Approx.)
2	R/W	Sliding motor forward signal	Output	When sliding switch forward is operated	Battery voltage
				Other than above	0
7	W/R	Sliding motor backward signal	Output	When sliding switch backward is operated	Battery voltage
				Other than above	0
8	B/L	Ground (power)	_	_	0
10	Y/B	Sliding switch forward signal	Input	When sliding switch forward is operated	0
				Other than above.	Battery voltage
- 11	Y/R	Concel ewitch signal	lanut	Cancel switch ON	5
11	Y/K	Cancel switch signal	Input	Cancel switch CANCEL	0
12	Y/G	Sliding sensor signal	Input	Sliding device active	(V) 6 4 2 0 ****50ms
				Sliding device inactive	0 or 5
13	B/Y	Ground (signal)	_	_	0
15	L/R	Sliding switch backward signal	Input	When sliding switch backward is operated	0
				Other than above	Battery voltage
16	L/B	Rear door switch signal	Input	Rear door open (ON)	0
10	L/D	Treal door switch signal	iliput	Rear door close (OFF)	Battery voltage
19	Υ	Sensor ground	_	_	0

Work Flow

Check the symptom and customer's requests.

- 2. Understand the outline of system. Refer to SE-83, "System Description".
- According to the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to <u>SE-90.</u> <u>"Trouble Diagnosis Symptom Chart".</u>
- 4. Does rear power seat operate normally? YES: GO TO 5, NO: GO TO 4.
- INSPECTION END.

Trouble Diagnosis Symptom Chart

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• Check that other systems using the signal of the following systems operate normally.

Symptom	Diagnoses / service procedure	Refer to page
Rear power seat LH, RH do not operate.	Check rear power seat power supply circuit	SE-91
Rear power seat LH or RH sliding switch does not operate moreover, retreat function does not operate if the door is opened	Check rear seat control unit power supply and ground circuit	SE-91
retreat function does not operate if the door is opened	2. Check rear seat sliding motor circuit	SE-92
Rear power seat LH or RH does not operate, but retreat function operates when the door is opened	Check rear power seat switch circuit	SE-92
Rear power seat LH and RH retreat function does not operate, but operates by sliding switch	Check automatic return cancel switch	<u>SE-95</u>

< SERVICE INFORMATION >

Symptom	Diagnoses / service procedure	Refer to page
Rear power seat LH or RH retreat function does not operate, but operates by a sliding switch	Check rear door switch circuit	<u>SE-96</u>
	2. Check automatic return cancel switch circuit	SE-94
	3. Check rear seat sliding sensor circuit	SE-97

Check Rear Power Seat Power Supply Circuit

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1. CHECK FUSIBLE LINK

Check 50A fusible link (letter **F** located in the fuse and fusible link box).

NOTE:

Refer to SE-83, "Component Parts and Harness Connector Location".

OK or NG

OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse, refer to PG-4.

CHECK CIRCUIT BREAKER

Check circuit breaker.

NOTE:

Refer to PG-4.

OK or NG

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

NG >> Replace the circuit breaker.

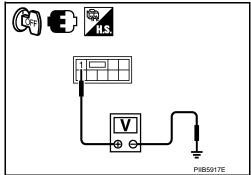
Check Rear Seat Control Unit Power Supply and Ground Circuit

INFOID:0000000005349985

1. CHECK REAR SEAT CONTROL UNIT POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- Check voltage between rear seat control unit connector and ground.

(+)		Voltage (V) (Approx.)	
Rear seat control unit connector	Terminal	(–)		
B303 (LH) B353 (RH)	1	Ground	Battery voltage	



OK or NG

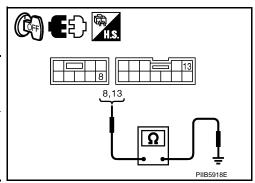
OK >> GO TO 2.

NG >> Repair or replace harness between circuit breaker and rear seat control unit.

2.CHECK REAR POWER SEAT CONTROL UNIT GROUND CIRCUIT

- 1. Disconnect rear seat control unit connector.
- Check continuity between rear seat control unit connector and ground.

Te			
Rear seat control unit connector		Continuity	
B303 (LH) B353 (RH)	8	Ground	Yes
B304 (LH) B354 (RH)	13		165



OK or NG

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< SERVICE INFORMATION >

OK >> Rear seat control unit power supply and ground circuit is OK.

NG >> Repair or replace harness between rear seat control unit and ground.

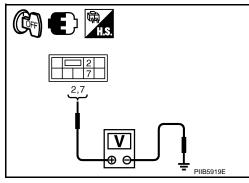
Check Rear Seat Sliding Motor Circuit

INFOID:0000000005349986

1. CHECK REAR SEAT SLIDING MOTOR POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Check voltage between rear seat control unit connector and ground.

	Terminal				
(+)					Voltage (V)
Rear seat control unit connector	Terminal	(-)	Conc	lition	(Approx.)
	2		Rear power seat switch	Forward	Battery voltage
B303 (LH)		Ground	Other than above.		0
B353 (RH)	7		Rear power seat switch	Backward	Battery voltage
			Other than a	bove.	0



OK or NG

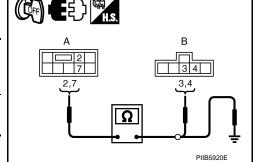
OK >> GO TO 2.

NG >> Replace rear seat control unit.

2. CHECK REAR SEAT SLIDING MOTOR HARNESS

- 1. Disconnect rear seat control unit and rear seat sliding motor connector.
- Check continuity between rear seat control unit connector and rear seat sliding motor connector.

А		В		
Rear seat control unit connector	Terminal	Rear seat sliding motor connector	Terminal	Continuity
B303 (LH)	2	B311 (LH)	3	Yes
B353 (RH)	7	B361 (RH)	4	165



3. Check continuity between rear seat control unit connector and ground.

А		Continuity		
Rear seat control unit connector	Terminal	Ground	Continuity	
B303 (LH)	2	Glound	No	
B353 (RH)	7		INO	

OK or NG

OK >> Replace rear seat sliding motor.

NG >> Repair or replace harness between rear seat control unit and rear seat sliding motor.

Check Rear Power Seat Switch Circuit

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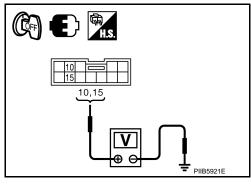
1. CHECK REAR POWER SEAT SWITCH POWER SUPPLY

1. Turn ignition switch OFF.

< SERVICE INFORMATION >

Check voltage between rear seat control unit connector and ground.

	Terminal					
(+)					Voltage (V)	
Rear seat control unit connector	Terminal	(-)	Condition		(Approx.)	
	10	Ground	Rear power seat switch	Forward	0	
B304 (LH)			Other than above.		Battery voltage	
B354 (RH)			Rear power seat switch	Backward	0	
			Other than a	bove.	Battery voltage	



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OK or NG

OK >> Replace rear seat control unit.

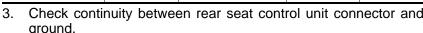
NG >> GO TO 2.

2. CHECK REAR POWER SEAT SWITCH HARNESS

Disconnect rear seat control unit connector and rear power seat switch connector.

2. Check continuity between rear seat control unit connector and rear power seat switch connector.

А		В		
Rear seat control unit connector	Terminal	Rear power seat switch connector	Terminal	Continuity
B304 (LH)	10	B504 (LH)	2	Yes
B354 (RH)	15	B555 (RH)	1	163



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	B354 (RH)	15	B555 (RF	1)	1			
	Check continground.	nuity betwee	en rear seat	cont	rol unit co	nnector and		<u>+•</u>
							_	
		Α				Continuity		
R	ear seat control ι	unit connector	Terminal	,	Ground	Continuity		
	B304 (L	.H)	10		Jiouria	No	-	

OK or NG

OK >> GO TO 3.

B354 (RH)

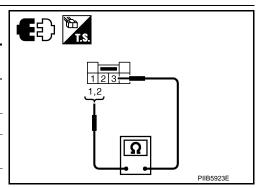
NG >> Repair or replace harness between rear seat control unit and rear power seat switch.

No

3. CHECK REAR POWER SEAT SWITCH

Check continuity between rear power seat switch as follows.

Rear power seat switch connector	Terminal		Condition		Continuity
	1	3	Rear power seat switch	Backward	Yes
B504 (LH)			Other than above.		No
B555 (RH)	2	3	Rear power seat switch	Forward	Yes
			Other than abo	ove.	No



OK or NG

OK >> GO TO 4.

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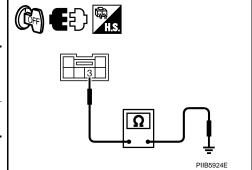
< SERVICE INFORMATION >

NG >> Replace rear power seat switch.

4. CHECK REAR POWER SEAT SWITCH GROUND CIRCUIT

Check continuity between rear power seat switch connector and ground.

Ţ			
Rear power seat switch connector	Terminal	Ground	Continuity
B504 (LH) B555 (RH)	3	Ground	Yes



OK or NG

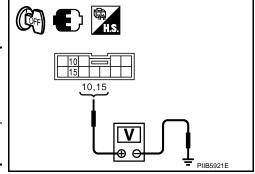
OK >> GO TO 5.

NG >> Repair or replace harness between rear power seat switch and ground.

5. CHECK REAR POWER SEAT SWITCH POWER SUPPLY-2

- Connect rear seat control unit connector.
- 2. Check voltage between rear seat control unit connector and ground.

(-	+)		Voltage (V)	
Rear seat control unit connector	Terminal	(–)	(Approx.)	
B304 (LH)	10	Ground	Battery voltage	
B354 (RH)	15	Giodila		



OK or NG

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

NG >> Replace rear seat control unit.

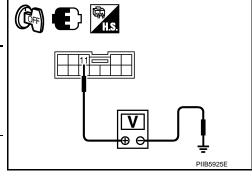
Check Automatic Return Cancel Switch Circuit

INFOID:0000000005349988

1. CHECK AUTOMATIC RETURN CANCEL SWITCH POWER SUPPLY-1

- 1. Turn ignition switch OFF.
- Check voltage between rear seat control unit connector and ground.

	Terminal				
(+)				Voltage (V)	
Rear seat control unit connector	Terminal	(-)	Condition	(Approx.)	
B304 (LH) B354 (RH)	11	Ground	Automatic return cancel switch ON and, rear door open	5	
			Other than above.	0	



OK or NG

OK >> Automatic return cancel switch circuit is OK.

NG >> GO TO 2.

2. CHECK AUTOMATIC RETURN CANCEL SWITCH HARNESS

1. Disconnect rear seat control unit connector and automatic return cancel switch connector.

< SERVICE INFORMATION >

Check continuity between rear seat control unit connector and automatic return cancel switch connector.

A		В		
Rear seat control unit connector	Terminal	Automatic return cancel switch connector	Terminal	Continuity
B304 (LH) B354 (RH)	11	B508	1	Yes

Check continuity between rear seat control unit connector and ground.

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A		Continuity	
Rear seat control unit connector	Terminal	Ground	Continuity
B304 (LH) B354 (RH)	11		No

OK or NG

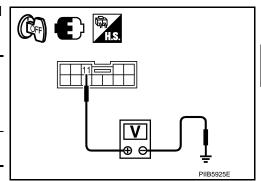
OK >> GO TO 3.

NG >> Repair or replace harness between rear seat control unit and automatic return cancel switch.

3. CHECK AUTOMATIC RETURN CANCEL SWITCH POWER SUPPLY-2

- 1. Connect rear seat control unit connector.
- Check voltage between rear seat control unit connector and ground.

(-	+)		Voltage (V)
Rear seat control unit connector	Terminal	(–)	(Approx.)
B304 (LH) B354 (RH)	11	Ground	5



OK or NG

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

NG >> Replace rear seat control unit.

Check Automatic Return Cancel Switch

1. CHECK AUTOMATIC RETURN CANCEL SWITCH

- Turn ignition switch OFF.
- 2. Disconnect automatic return cancel switch connector.
- Check continuity between automatic return cancel switch as follows.

Automatic return cancel switch connector	Terminal		Condition		Continuity
B508	1	3	Automatic return	CANCEL	Yes
	•	3	cancel switch	ON	No

PIB5927E

OK or NG

OK >> GO TO 2.

NG >> Replace automatic return cancel switch.

2.CHECK AUTOMATIC RETURN CANCEL SWITCH GROUND HARNESS

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< SERVICE INFORMATION >

Check continuity between automatic return cancel switch connector and ground.

T			
Automatic return cancel switch connector	lerminal		
B508	3		Yes

PIB5928E

OK or NG

OK >> Check the harness and connector.

NG >> Repair or replace harness between automatic return cancel switch and ground.

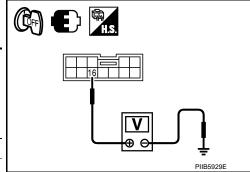
Check Rear Door Switch Circuit

INFOID:0000000005349990

1. CHECK REAR DOOR SWITCH POWER SUPPLY-1

- 1. Turn ignition switch OFF.
- 2. Check voltage between rear seat control unit connector and ground.

Terminal				
(+)				Voltage (V)
Rear seat control unit connector	Terminal	(-)	Condition	(Approx.)
B304 (LH)	16	Ground	Rear door open.	0
B354 (RH)	10	Giodila	Rear door closed.	Battery voltage



OK or NG

OK >> Rear door switch circuit is OK.

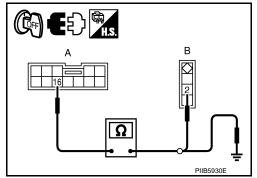
NG >> GO TO 2.

2.CHECK REAR DOOR SWITCH HARNESS

- 1. Disconnect rear seat control unit connector and rear door switch connector.
- 2. Check continuity between rear seat control unit connector and rear door switch connector.

А		В		
Rear seat control unit connector	Terminal	Rear door switch connector	Terminal	Continuity
B304 (LH) B354 (RH)	16	B53 (LH) B403 (RH)	2	Yes

Check continuity between rear seat control unit connector and ground.



Α		Continuity	
Rear seat control unit connector	Terminal	Ground	Continuity
B304 (LH) B354 (RH)	16		No

OK or NG

OK >> GO TO 3.

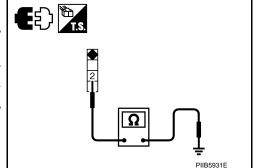
NG >> Repair or replace harness between rear seat control unit and rear door switch.

3.CHECK REAR DOOR SWITCH

< SERVICE INFORMATION >

Check continuity between rear door switch and ground.

Rear door switch connector	Te	rminal	Condition	Continuity
B53 (LH)	2 Ground	Rear door open.	Yes	
B403 (RH)	2	2 Ground	Rear door closed.	No



OK or NG

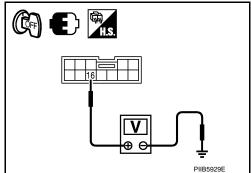
OK >> GO TO 4.

NG >> Replace rear door switch.

4. CHECK REAR DOOR SWITCH POWER SUPPLY-2

- 1. Connect rear seat control unit connector.
- 2. Check voltage between rear seat control unit connector and ground.

(-	+)		Voltage (V)
Rear seat control unit connector	Terminal	(–)	(Approx.)
B304 (LH) B354 (RH)	16	Ground	Battery voltage



OK or NG

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

NG >> Replace rear seat control unit.

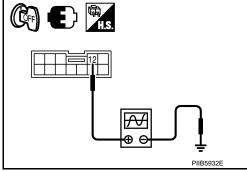
Check Rear Seat Sliding Sensor Circuit

INFOID:0000000005349991

1. CHECK REAR SEAT SLIDING SENSOR POWER SUPPLY

- 1. Turn ignition switch OFF.
- Check signal between rear seat control unit connector and ground with oscilloscope.

	Terminal				
(+)			0 15.7	Signal	
Rear seat control unit connector	Terminal	(-)	Condition	(Reference valve)	
B304 (LH) B354 (RH)	12	Ground	Sliding de- vice active	(V) 6 4 2 0 ***50ms	



OK or NG

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

NG >> GO TO 2.

2. CHECK REAR SEAT SLIDING SENSOR HARNESS

1. Disconnect rear seat control unit connector and rear seat sliding motor connector.

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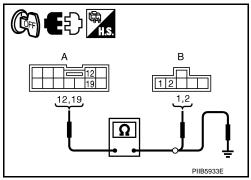
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Check continuity between rear seat control unit connector and rear seat sliding motor connector.

A		В			
Rear seat control unit connector Terminal		Rear seat sliding motor connector Terminal		Continuity	
B304 (LH)	12	B311 (LH)	1	Yes	
B354 (RH)	19	B361 (RH)	2		

Check continuity between rear seat control unit connector and ground.



A		Continuity		
Rear seat control unit connector	Terminal	Ground	Continuity	
B304 (LH)	12	Giodila	No	
B354 (RH)	19	1		

OK or NG

OK >> Replace rear seat sliding motor.

NG >> Repair or replace harness between rear seat control unit and rear seat sliding motor.

Component Parts and Harness Connector Location

INFOID:0000000005349992 1 2 3 10A 4 (5)

Fuse block (J/B)

a: Seat cushion thermal electric device B285 (driver side) B295 (passenger side) b: Climate controlled seat control

4. unit B283, B284 (driver side) B293, B294 (passenger side) c: Climate controlled seat blower motor B282 (driver side) B292 (passenger side)

Climate controlled seat relay E16

Seatback thermal electric device 5. B220 (driver side) B258 (passenger side)

- a: Climate controlled seat switch driver side B430
- b: Climate controlled seat switch passenger side B429

System Description

The climate controlled seat system is controlled by climate controlled seat control unit. Heating and cooling are possible for a thermal electric device (heat conversion machine). NOTE:

- The climate controlled seat system is downed when the temperature sensor set as the seat cushion and the seat back's thermal electric device machine detects 20 °C (68 °F)or more of mutual differences of tempera-
- In this case, by turning off ignition switch, system down is canceled and it can be reused by turning on ignition switch again.
- The climate controlled seat blower keep low speed for approximately 60 seconds after turning the climate controlled seat switch.

CAUTION:

- The thermal electric device has the character in which, as for an opposite side. one side becomes high temperature at the time of low temperature.
- At the time of work, please turn OFF a switch, and carry it out after checking that the thermal electric device has got cold.

SE-99

Power is at all times supplied

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- through 15A fuse [No. 41 located in the fuse fusible link and relay unit]
- · to climate controlled seat relay terminals 5.
- through 15A fuse [No. 42 located in the fuse fusible link and relay unit]
- to climate controlled seat relay terminals 7.

When the ignition switch turned to ON or START position,

Power is supplied

- through 10A fuse [No. 12, located in the fuse block (J/B)]
- to climate controlled seat relay terminal 2.

Then ground is supplied

- to climate controlled seat relay terminal 1,
- through body grounds E22 and E43.

Then climate controlled seat relay is energized.

When climate controlled seat relay is turned to ON,

Power is supplied,

- through climate controlled seat relay terminal 3,
- to climate controlled seat control unit (passenger side) terminal 2 and 4.
- through climate controlled seat relay terminal 6,
- to climate controlled seat control unit (driver side) terminal 2 and 4.

When climate controlled switch select HEAT, ground is supplied

- through climate controlled seat switch terminal 1 and 3,
- to climate controlled seat control unit terminal 10.

Then, the climate controlled seat control unit receives climate controlled seat switch HEAT signal.

When climate controlled seat switch select COOL, ground is supplied

- through climate controlled seat switch terminal 1 and 2,
- to climate controlled seat control unit terminal 20,

Then, the climate controlled seat control unit receives climate controlled switch COOL signal.

When blower motor rotates, signal is transmitted

- to climate controlled seat control unit terminal 18,
- through climate controlled seat blower motor terminal 1.

This is climate controlled seat blower motor tachometer signal.

When climate controlled seat control unit receives climate controlled seat switch signal and tachometer signal, Power is supplied

- to climate controlled seat blower motor terminal 4,
- through climate controlled seat control unit terminal 17.

This is blower motor revolution control signal.

When blower motor receivers blower motor revolution control signal,

Power is supplied

- through climate controlled seat control unit terminal 14,
- to climate controlled seat blower motor terminal 2.

When number of rotations correspond signal,

Ground is supplied

- to climate controlled seat blower motor terminal 3,
- through climate controlled seat control unit terminal 7,
- through climate controlled seat control unit terminal 3,
- through body grounds B5, B40 and B131.

Then motor revolution is controlled.

When the ignition switch turned to ON or START position,

Power is supplied

- to seat cushion thermal electric device terminal 1,
- through climate controlled seat control unit terminal 22.

Then ground is supplied

- to climate controlled seat control unit terminal 21,
- through seat cushion thermal electric device terminal 2,

Then the climate controlled seat control unit recognizes seat cushion thermal electric device sensor signal.

When climate controlled seat control unit recognizes climate controlled seat switch HEAT signal and, seat cushion thermal electric device sensor signal,

Power is supplied

- to seat cushion thermal electric device terminal 4,
- through climate controlled seat control unit terminal 5.

Then ground is supplied

through seat cushion thermal electric device terminal 6,

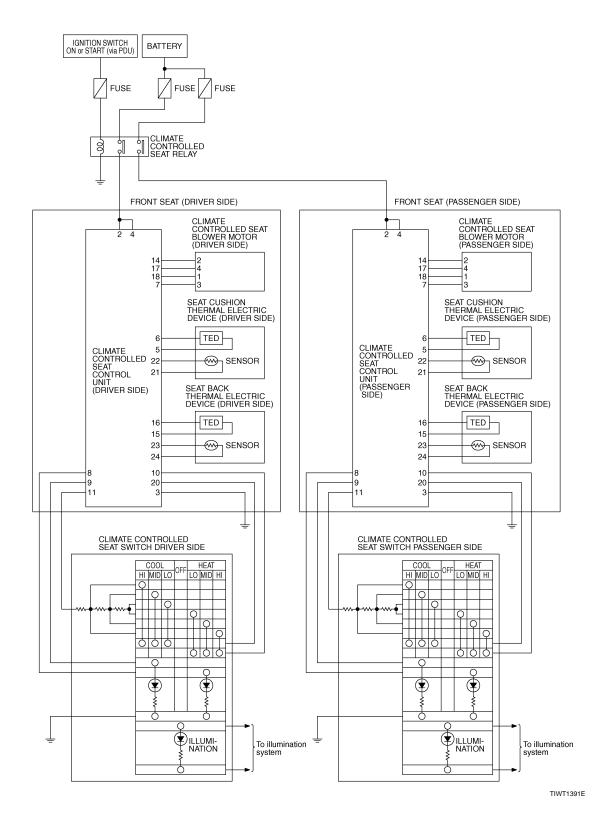
< SERVICE INFORMATION >

 to climate controlled seat control unit terminal 6, through climate controlled seat control unit terminal 3, Α through body grounds B5, B40 and B131. When climate controlled seat control unit recognizes climate controlled seat switch COOL signal and seat cushion thermal electric device sensor signal, В Power is supplied to seat cushion thermal electric device terminal 6, through climate controlled seat control unit terminal 6. Then ground is supplied through seat cushion thermal electric device terminal 4, to climate controlled seat control unit terminal 5. through climate controlled seat control unit terminal 3, through body grounds B5, B40 and B131. When the ignition switch turned to ON or START position, Power is supplied Е to seatback thermal electric device terminal 1, through climate controlled seat control unit terminal 23. Then ground is supplied to climate controlled seat control unit terminal 24, through seatback thermal electric device terminal 2, through climate controlled seat control unit terminal 3, through body grounds B5, B40 and B131. Then the climate controlled seat control unit recognizes seatback thermal electric device sensor signal. When climate controlled seat control unit recognizes climate controlled seat switch HEAT signal and seatback thermal electric device sensor signal, Power is supplied Н to seatback thermal electric device terminal 4. through climate controlled seat control unit terminal 15, ground is supplied SE to climate controlled seat control unit terminal 16, through seatback thermal electric device terminal 6, through climate controlled seat control unit terminal 3, through body grounds B5, B40 and B131. This seatback thermal electric device generates heat wind is warmed. When climate controlled seat control unit recognizes climate controlled seat switch COOL signal and seatback thermal electric device sensor signal, Power is supplied to seatback thermal electric device terminal 6. through climate controlled seat control unit terminal 16, ground is supplied to climate controlled seat control unit terminal 15, through seatback thermal electric device terminal 4, through climate controlled seat control unit terminal 3, through body grounds B5, B40 and B131. When climate controlled switch selects HEAT, Power is supplied · to climate controlled seat switch terminal 5, N through climate controlled seat control unit terminal 8. Ground is supplied to the climate controlled seat switch terminal 6, through body grounds B402 and B405. Then climate controlled seat switch HEAT indicator is energized. When climate controlled switch select COOL, Power is supplied · to climate controlled seat switch terminal 4, through climate controlled seat control unit terminal 9. Ground is supplied • to the climate controlled seat switch terminal 6, through body grounds B402 and B405.

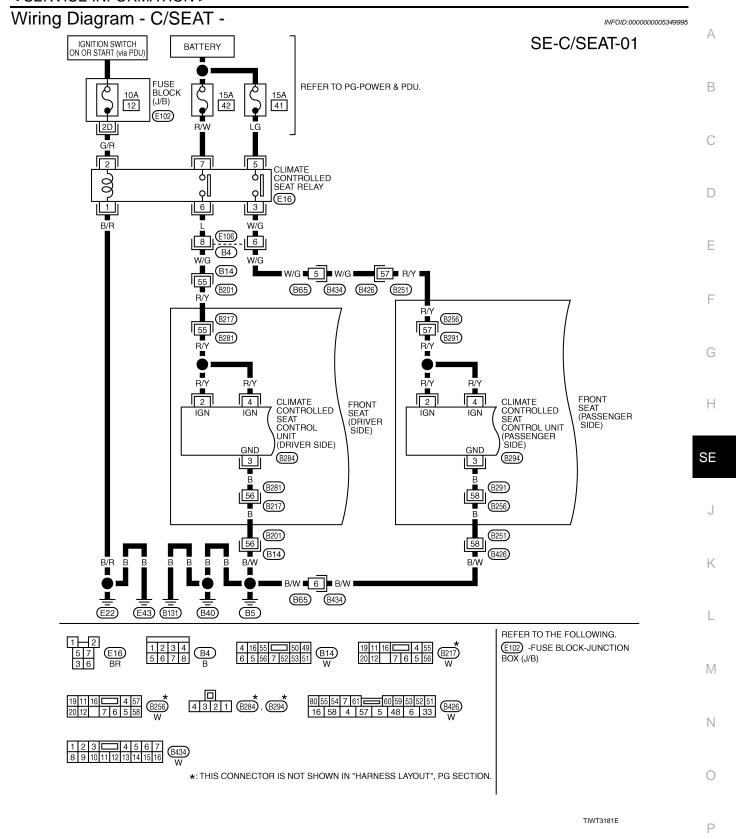
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Then climate controlled seat switch COOL indicator is energized.

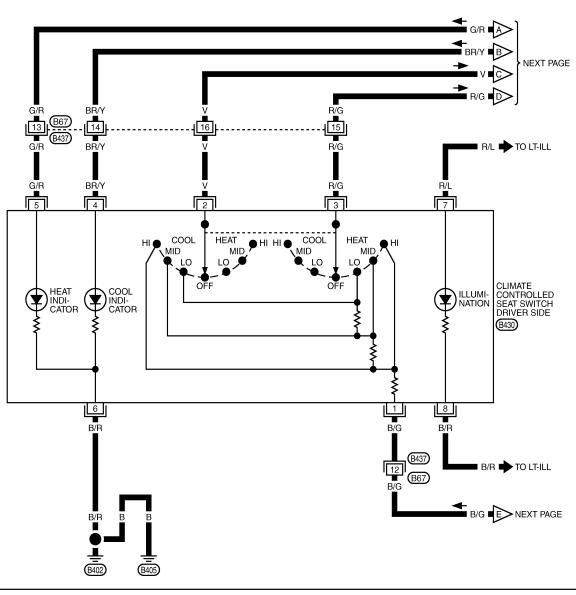
Schematic

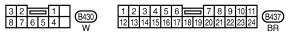


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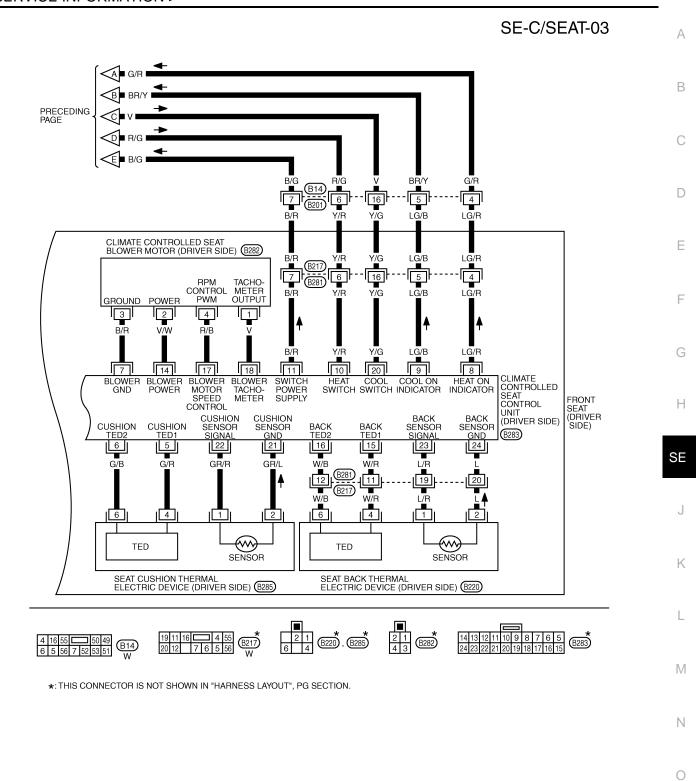


SE-C/SEAT-02





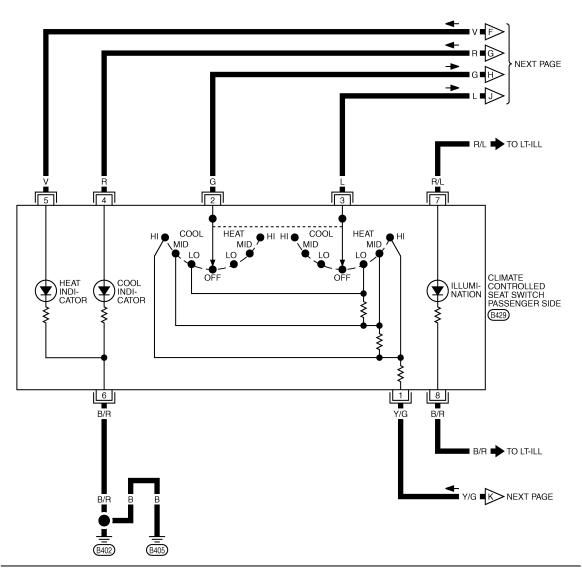
TIWT2670E



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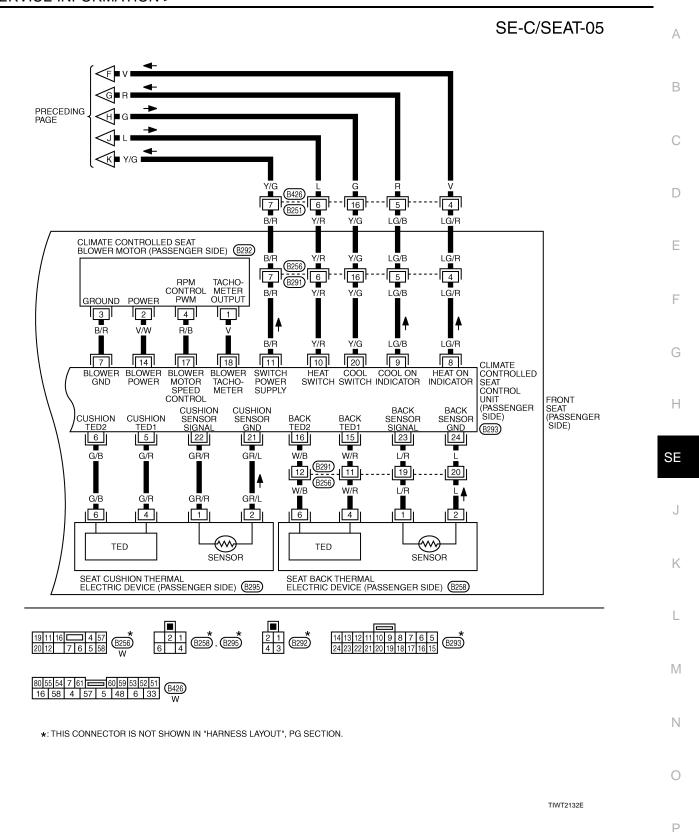
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SE-C/SEAT-04





TIWT2131E



Revision: 2009 June **SE-107** 2010 M35/M45

< SERVICE INFORMATION >

Terminal and Reference Value for Climate Controlled Seat Control Unit

INFOID:0000000005349996

Ter- minal	Wire Color	Item	Signal Input/ Output	Condition			Voltage (V) (Approx)
2	R/Y	Ignition switch power supply	Input	Ignition switch ON or START			Battery voltage
3	В	Ground	_		_		0
4	R/Y	Ignition switch power supply	Input	Ignition switch ON or START		Battery voltage	
5 G/R	Seat cushion thermal electric device power supply (HEAT)	Input	Ignition switch ON or START	Climate controlled seat switch select	HEAT or COOL	0 – Battery voltage	
		vice power supply (TIEAT)		ON OF START	Seat Switch Select	OFF	0
6	G/B	Seat cushion thermal electric device power supply (COOL)	Input	Ignition switch ON or START	Climate controlled seat switch select	COOL or HEAT	0 – Battery voltage
					30at 3111011 331331	OFF	0
7	B/R	Blower motor ground		_			0
8 LG	LG/R	HEAT switch indicator signal	Output	Ignition switch	Climate controlled seat switch select	HEAT	Battery voltage
O	LO/IX	TIEAT SWIGH INDICATOR SIGNAL	Output	ON or START		OFF	0
9 LG/B		Output	Ignition switch	Climate controlled seat switch select	COOL	Battery voltage	
	COOL switch indicator signal	Output	ON or START		OFF	0	
-						HI HEAT	2.6 – 3.5
10 Y/R	HEAT switch signal	Input	Ignition switch ON or START	Climate controlled seat switch select	MID HEAT	1.6 – 2.5	
					LO HEAT	0.5 – 1.5	
					OFF	0	
11	B/R	Climate controlled seat switch power supply	Input	Ignition switch ON or START		Battery voltage	
14	V/W	Blower motor power supply	Input	Ignition switch ON or START			Battery voltage
15	15 W/R	Seatback thermal electric device power supply (HEAT)	Input	Ignition switch ON or START	Climate controlled seat switch select	HEAT or COOL	0 – Battery voltage
						OFF	0
16 W/B	Seatback thermal electric device	Input	Ignition switch	Climate controlled seat switch select	COOL or HEAT	0 – Battery voltage	
		power supply (COOL)	-	ON or START	Seat Switch Select	OFF	0
17	17 R/B	Blower motor speed control signal	Input	Ignition switch ON or START	Climate controlled	HEAT or COOL	4.5 – 8.0
			ON OF START	seat switch select	OFF	0	
18	18 V	Blower motor tachometer signal	Output	Ignition switch ON or START	Climate controlled seat switch select	HEAT or COOL	4.5 – 8.0
						OFF	Battery voltage
20 Y/G			Input	Ignition switch ON or START	Climate controlled seat switch select	HI COOL	2.6 – 3.5
	V/O					MID COOL	1.6 – 2.5
	Y/G	COOL switch signal				LO COOL	0.5 – 1.5
						OFF	0
21	GR/L	Seat cushion thermal electric device sensor ground	_	Ignition switch ON			0
00 00	OD/D	Seat cushion thermal electric de-	Input	Blower motor operated		0.5 – 4	
22	GR/R	vice sensor signal		Ignition switch OFF		0	

< SERVICE INFORMATION >

Ter- minal	Wire Color	Item	Signal Input/ Output	Condition	Voltage (V) (Approx)
23	L/R	Seatback thermal electric device	Input	Blower motor operated	0.5 – 4
23	L/K	sensor signal	IIIput	Ignition switch OFF	0
24	L	Seatback thermal electric device sensor ground	_	Ignition switch ON	0

Work Flow

- 1. Check the symptom and customer's requests.
- 2. Understand the outline of system. Refer to <u>SE-99</u>. "System Description".
- Perform the preliminary check. Refer to SE-110, "Preliminary Check".
- According to the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to <u>SE-109</u>.
 <u>"Trouble Diagnosis Symptom Chart"</u>.
- Does climate controlled seat operate normally? YES: GO TO 6, NO: GO TO 4.
- INSPECTION END.

Trouble Diagnosis Symptom Chart

INFOID:0000000005349998

NOTE:

Make sure other systems using the signal of the following systems operate normally.

Symptom	Diagnoses / service procedure	Refer to page
Climate controlled seat do not operate (Neither the driver's side nor passenger's side operate).	Check climate controlled seat control unit power supply circuit	SE-110
	Check climate controlled seat control unit power supply and ground circuit	SE-111
All the driver side or passenger side climate controlled seat	2. Check climate controlled seat switch power supply circuit	SE-113
do not operate.	3. Check climate controlled seat blower motor circuit	SE-122
	4. Replace climate controlled seat control unit	SE-99
	1. Check climate controlled seat switch power supply circuit	SE-113
Climate controlled cost blaviar mater and connet adjust	2. Check climate controlled seat switch circuit	SE-114
Climate controlled seat blower motor speed cannot adjust.	3. Check climate controlled seat control unit	SE-123
	4. Replace climate controlled seat blower motor	SE-99
The climate controlled seat dose not operates when the switch is done in HEAT or COOL.	Check climate controlled seat switch circuit	SE-114
	1. Check seat cushion thermal electric device sensor circuit	SE-119
When the climate controlled and quitable turned on	2. Check seat cushion thermal electric device circuit	SE-117
When the climate controlled seat switch is turned on, operation stops at nose (When the climate controlled seat	3. Check seatback thermal electric device sensor circuit	SE-121
switch is in HEAT or COOL mode after ignition switch is	4. Check seatback thermal electric device circuit	SE-118
turned ON again, the motor operates).	5. Check climate controlled seat blower motor circuit	SE-122
	6. Replace Climate controlled seat control unit	SE-99
The climate controlled seat switch indicator do not operated with HEAT or COOL position	Check climate controlled seat switch indicator circuit	SE-116

NOTE:

- The climate controlled seat blower keep low speed for approximately 60 seconds turning the switch.
- The climate controlled seat system is downed when the temperature sensor set as the seat cushion and the seatback's thermal electric device machine detects 20 °C (68°F) or more of mutual differences of temperature.

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Preliminary Check

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1. CHECK DUCT AND FILTER

Check the following.

- Is that there no foreign body in the blower motor filter.
- Is that there no foreign body in the duct.

OK or NG

OK >> Preliminary check is OK.

NG >> The foreign body is removed.

Check Climate Controlled Seat Control Unit Power Supply Circuit

INFOID:0000000005350000

1. CHECK FUSE

Check 10A fuse [No. 12, located in fuse block (J/B)]

NOTE:

Refer to SE-99, "Component Parts and Harness Connector Location".

OK or NG

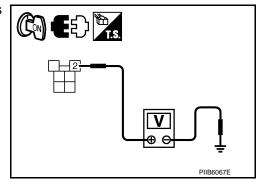
OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse, refer to PG-4.

2.CHECK CLIMATE CONTROLLED SEAT RELAY POWER SUPPLY CIRCUIT

- Disconnect climate controlled seat relay connector.
- Turn ignition switch ON.
- 3. Check voltage between climate controlled seat relay harness connector and ground.

(+))		Voltage (V)
Climate controlled seat relay connector	Terminal	(–)	(Approx.)
E16	2	Ground	Battery voltage



OK or NG

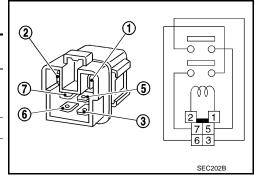
OK >> GO TO 3.

NG >> Repair or replace harness between fuse block (J/B) and climate controlled seat relay.

3.check climate controlled seat relay

Check continuity climate controlled seat relay.

Climate controlled seat relay connector	Terminal		Condition	Continuity
	3	5	12V direct current supply between terminals 1and 2	Yes
E16			No current supply	No
210	6	7	12V direct current supply between terminals 1and 2	Yes
			No current supply	No



OK or NG

OK >> GO TO 4.

NG >> Replace climate controlled seat relay.

4. CHECK CLIMATE CONTROLLED SEAT RELAY GROUND CIRCUIT

Turn ignition switch OFF.

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Check continuity between climate controlled seat relay connector and ground.

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Climate controlled seat relay connector	lerminal		
E16	1		Yes

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OK or NG

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

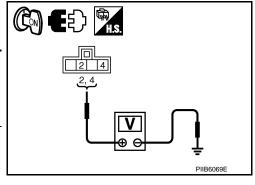
NG >> Repair or replace harness between climate controlled seat relay and ground.

Check Climate Controlled Seat Control Unit Power Supply and Ground Circuit

1. CHECK CLIMATE CONTROLLED SEAT CONTROL UNIT POWER SUPPLY CIRCUIT

- Disconnect climate controlled seat control unit connector.
- 2. Turn ignition switch ON.
- Check voltage between climate controlled seat control unit connector and ground.

(+)	Voltage (V)			
Climate controlled seat control unit connector	Terminal	(–)	(Approx.)	
B284	2			
(driver side) B294 (passenger side)	4	Ground	Battery voltage	



OK or NG

OK >> GO TO 6. NG >> GO TO 2.

2.CHECK FUSE

- Check 15A fuse [No. 42, located in fuse, fusible link and relay unit] (Driver side)
- Check 15A fuse [No. 41, located in fuse, fusible link and relay unit] (Passenger side)

NOTE:

Refer to SE-99, "Component Parts and Harness Connector Location".

OK or NG

OK >> GO TO 3.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse, refer to PG-4.

${f 3.}$ CHECK CLIMATE CONTROLLED SEAT RELAY POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect climate controlled seat relay.

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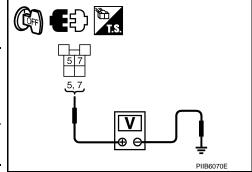
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Check voltage between climate controlled seat relay connector and ground.

(+)			Voltage (V) (Approx.)	
Climate controlled seat relay connector	Terminal	(–)		
E16	5	Ground	Battery voltage	
LIO	7	Ground	Dattery Voltage	



OK or NG

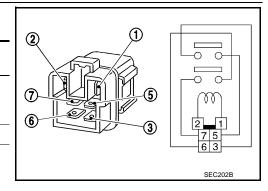
OK >> GO TO 4.

NG >> Repair or replace harness between climate controlled seat relay and ground.

4. CHECK CLIMATE CONTROLLED SEAT RELAY

Check continuity climate controlled seat relay.

Climate controlled seat relay connector	Terminal		Condition	Continuity
	3	5	12V direct current supply between terminals 1and 2	Yes
E16			No current supply	No
210	6	7	12V direct current supply between terminals 1and 2	Yes
			No current supply	No



OK or NG

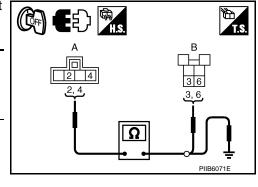
OK >> GO TO 5.

NG >> Replace climate controlled seat relay.

5. CHECK CLIMATE CONTROLLED SEAT CONTROL UNIT HARNESS CIRCUIT

 Check continuity between climate controlled seat control unit connector and climate controlled seat relay connector.

Α			В		
•	Climate controlled seat control unit connector	Terminal	Climate controlled seat relay connector	Terminal	Continuity
	B284	2	E16 3	6	
	(driver side)	4			Yes
•	B294	2		163	
	(passenger side)	4		3	



2. Check continuity between climate controlled seat control unit connector and ground.

A			
Climate controlled seat control unit connector	Terminal	Ground	Continuity
B284 (driver side)	2		No
B294 (passenger side)	4		NO

OK or NG

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

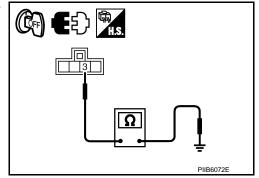
< SERVICE INFORMATION >

NG >> Repair or replace harness between climate controlled seat control unit and climate controlled seat relay.

6.CHECK CLIMATE CONTROLLED SEAT CONTROL UNIT GROUND CIRCUIT

Check continuity between climate controlled seat control unit connector and ground.

	Continuity		
Climate controlled seat control unit connector	Terminal		
B284 (driver side) B294 (passenger side)	3	Ground	Yes



OK or NG

OK >> Climate controlled seat control unit power supply and ground circuit is OK.

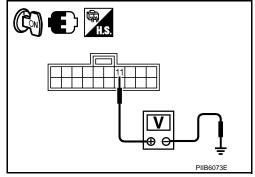
NG >> Repair or replace harness between climate controlled seat control unit and ground.

Check Climate Controlled Seat Switch Power Supply Circuit

1. CHECK CLIMATE CONTROLLED SEAT CONTROL UNIT POWER SUPPLY

- 1. Turn ignition switch ON.
- Check voltage between climate controlled seat control unit and ground.

(+	-)		Voltage (V)	
Climate controlled seat control unit connector		(-)	(Approx.)	
B283 (driver side) B293 (passenger side)	11	Ground	Battery voltage	



OK or NG

OK >> GO TO 2.

NG >> Replace climate controlled seat control unit.

2. CHECK CLIMATE CONTROLLED SEAT SWITCH POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Disconnect climate controlled seat control unit and climate controlled seat switch connector.

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< SERVICE INFORMATION >

- 3. Check continuity between climate controlled seat control unit connector and climate controlled seat switch connector.
- Driver side

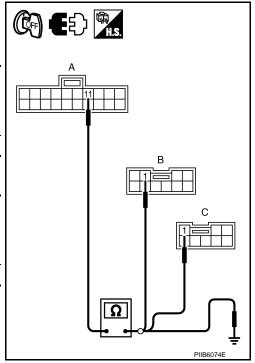
А		В		
Climate controlled seat control unit connector	Terminal	Climate controlled seat switch connector	Terminal	Continuity
B283	11	B430	1	Yes

Passenger side

А		С		
Climate controlled seat control unit connector	Terminal	Climate controlled seat switch connector	Terminal	Continuity
B293	11	B429	1	Yes

 Check continuity between climate controlled seat control unit connector and ground.

A			
Climate controlled seat control unit connector	11	Ground	Continuity
B283 (driver side) B293 (passenger side)			No



OK or NG

OK >> Climate controlled seat control unit power supply circuit is OK.

NG >> Repair or replace harness between climate controlled seat control unit and climate controlled seat switch.

Check Climate Controlled Seat Switch Circuit

INFOID:0000000005350003

1. CHECK CLIMATE CONTROLLED SEAT SWITCH

- Turn ignition switch OFF.
- 2. Disconnect climate controlled seat switch connector.

< SERVICE INFORMATION >

3. Check continuity between climate controlled seat switch.

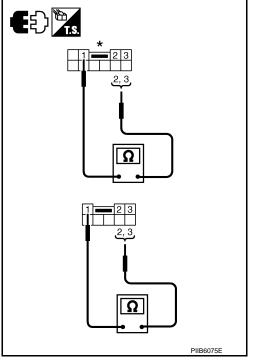
Climate controlled seat switch connector	Terminal		Condition		Continuity	
B430		3	Climate controlled seat switch	HEAT	Yes	
(driver side)	1		1	Other than abo	ove.	No
B429 (passenger side)	'	2	Climate controlled seat switch	COOL	Yes	
			Other than abo	ove.	No	

^{*:} Driver side

OK or NG

OK >> GO TO 2.

NG >> Replace climate controlled seat switch.



10, 20

2. CHECK CLIMATE CONTROLLED SEAT SWITCH HARNESS CIRCUIT

- 1. Disconnect climate controlled seat control unit connector.
- 2. Check continuity between climate controlled seat control unit connector and climate controlled seat switch connector.
- Driver side

А		В		
Climate controlled seat control unit connector	Terminal	Climate controlled seat switch connector	Terminal	Continuity
B283	10	B430	3	Yes
D203	20	D430	2	163

Passenger side

А	А		С		
Climate controlled seat control unit connector	Terminal	Climate controlled seat switch connector	Terminal	Continuity	
B293	10	B429	3	Yes	
B293	20	5429	2	165	

3. Check continuity between climate controlled seat control unit connector and ground.

A			
Climate controlled seat control unit connector	Terminal	Ground	Continuity
B283 (driver side)	10		No
B293 (passenger side)	20		INO

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< SERVICE INFORMATION >

OK >> Replace climate controlled seat control unit.

NG >> Repair or replace harness between climate controlled seat control unit and climate controlled seat switch.

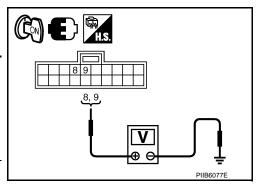
Check Climate Controlled Seat Switch Indicator Circuit

INFOID:0000000005350004

1. CHECK CLIMATE CONTROLLED SEAT CONTROL UNIT CIRCUIT

- 1. Turn ignition switch ON.
- 2. Check voltage between climate controlled seat switch connector and ground.

T	erminal				
(+)					Voltage (V)
Climate controlled seat control unit connector	Terminal	(-) Condition		Condition	
B283	8		Climate controlled seat switch	HEAT	Battery voltage
(driver side) B293		Ground	Other than	above.	0
(passenger side)	9	Giodila	Climate controlled seat switch	COOL	Battery voltage
			Other than	above.	0



OK or NG

OK >> GO TO 2.

NG >> Replace climate controlled seat control unit.

2.CHECK CLIMATE CONTROLLED SEAT SWITCH HARNESS CIRCUIT

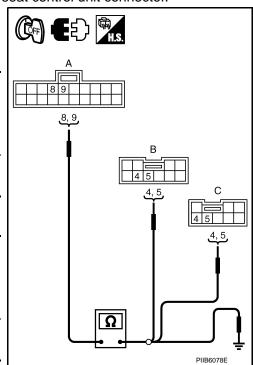
- 1. Turn ignition switch OFF.
- 2. Disconnect climate controlled seat switch and climate controlled seat control unit connector.
- 3. Check continuity between climate controlled seat control unit connector and climate controlled seat switch.
- Driver side

А	А		В		
Climate controlled seat control unit connector	Terminal	Climate controlled seat switch connector	Terminal	Continuity	
B283	8	B430	5	Yes	
	9	5430	4	162	

Passenger side

Α		С		
Climate controlled seat control unit connector	Terminal	Climate controlled seat switch connector	Terminal	Continuity
B293	8	B429	5	Yes
D293	9	D429	4	res

 Check continuity between climate controlled seat control unit connector and ground.



< SERVICE INFORMATION >

A			
Climate controlled seat control unit connector	Terminal	Ground	Continuity
B283 (driver side)	8		No
B293 (passenger side)	9		NO

OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness between climate controlled seat control unit and climate controlled seat switch.

${f 3.}$ CHECK CLIMATE CONTROLLED SEAT SWITCH INDICATOR

Check continuity between climate controlled seat switch.

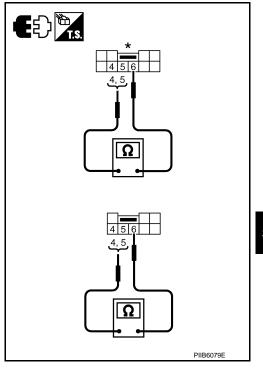
Climate controlled seat switch	Terminal		Continuity
connector	(+)	(-)	
	4	- 6	No
B430 (driver side)	5		
B429 (passenger side)		4	Yes
	6	5	162

^{*:} Driver side

OK or NG

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

NG >> Replace climate controlled seat switch.

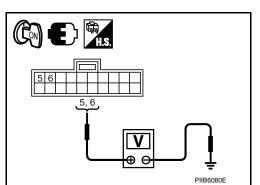


Check Seat Cushion Thermal Electric Device Circuit

INFOID:0000000005350005

1. CHECK SEAT CUSHION THERMAL ELECTRIC DEVICE POWER SUPPLY CIRCUIT

- 1. Turn ignition switch ON.
- 2. Check voltage between climate controlled seat control unit connector and ground.



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Te	rminal				
(+)					
Climate controlled seat control unit connector	Terminal	Condition Voltage (App		Condition	
B283	5 Ground	Ground	Climate controlled seat switch	HEAT or COOL	0 - Battery voltage
(driver side) B293			Other than above.		0
(passenger side)		Climate controlled seat switch	COOL or HEAT	0 - Battery volt- age	
			Other than	n above.	0

OK or NG

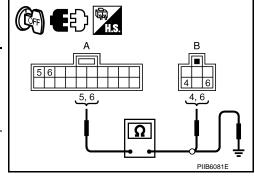
OK >> Seat cushion thermal electric device circuit is OK.

NG >> GO TO 2.

2.CHECK SEAT CUSHION THERMAL ELECTRIC DEVICE HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect climate controlled seat control unit connector and seat cushion thermal electric device connector.
- 3. Check continuity between climate controlled seat control unit connector and seat cushion thermal electric device connector.

А		В		
Climate controlled seat control unit connector	Terminal	Seat cushion thermal electric de- vice connector	Terminal	Continuity
B283	5	B285	4	
(driver side) B293 (passenger side)	6	(driver side) B295 (passenger side)	6	Yes



4. Check continuity between climate controlled seat control unit connector and ground.

A			
Climate controlled seat control unit connector	Terminal	Ground	Continuity
B283 (driver side)	5		No
B293 (passenger side)	6		INO

OK or NG

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

NG >> Repair or replace harness between climate controlled seat control unit and seat cushion thermal electric device.

Check Seatback Thermal Electric Device Circuit

INFOID:0000000005350006

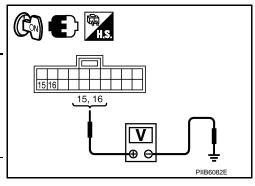
1. CHECK SEATBACK THERMAL ELECTRIC DEVICE POWER SUPPLY CIRCUIT

1. Turn ignition switch ON.

< SERVICE INFORMATION >

Check voltage between climate controlled seat control unit connector and ground.

Te	erminal				
(+)					
Climate controlled seat control unit connector	Terminal	(-)	Condition		Voltage (V) (Approx.)
B283	15	— Ground	Climate controlled seat switch	HEAT or COOL	0 - Battery voltage
(driver side) B293			Other than a	bove.	0
(passenger side)	16	Climate controlled seat switch	COOL or HEAT	0 - Battery voltage	
		-	Other than above.		0



OK or NG

OK >> Seatback thermal electric device circuit is OK.

NG >> GO TO 2.

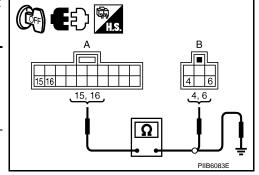
2.check seatback thermal electric device harness

1. Turn ignition switch OFF.

Disconnect climate controlled seat control unit connector and seatback thermal electric device connector. 2.

Check continuity between climate controlled seat control unit connector and seatback thermal electric device connector.

А		В		
Climate controlled seat control unit connector	Terminal	Seatback thermal electric device connector	Terminal	Continuity
B283	15	B285	4	
(driver side) B293 (passenger side)	16	(driver side) B295 (passenger side)	6	Yes



Check continuity between climate controlled seat control unit connector and ground.

A			
Climate controlled seat control unit connector	Terminal	Ground	Continuity
B283 (driver side)	15		No
B293 (passenger side)	16		INO

OK or NG

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

NG >> Repair or replace harness between climate controlled seat control unit and seatback thermal electric device.

Check Seat Cushion Thermal Electric Device Sensor Circuit

${f 1}$.CHECK CLIMATE CONTROLLED SEAT CONTROL UNIT CIRCUIT

1. Turn ignition switch ON.

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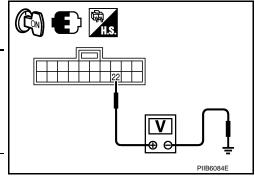
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< SERVICE INFORMATION >

Check voltage between climate controlled seat control unit connector and ground.

	Terminal			
(+)				
Climate controlled seat control unit connector	Terminal	(-)	Condition	Voltage (V) (Approx.)
B283 (driver side) B293 (passenger side)	22	Ground	Blower motor operated	0.5 - 4



OK or NG

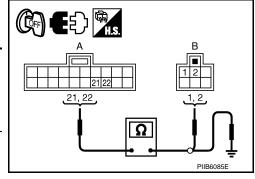
OK >> Climate controlled seat control unit circuit is OK.

NG >> GO TO 2.

2.CHECK SEAT CUSHION THERMAL ELECTRIC DEVICE SENSOR HARNESS

- 1. Turn ignition switch OFF.
- Disconnect climate controlled seat control unit connector and seat cushion thermal electric device connector.
- 3. Check continuity between climate controlled seat control unit connector and seat cushion thermal electric device connector.

Α		В	Continuity	
Climate controlled seat control unit connector	Terminal	Seat cushion thermal electric device connector		
B283	21	B285	2	
(driver side) B293 (passenger side)	22	(driver side) B295 (passenger side)	1	Yes



4. Check continuity between climate controlled seat control unit connector and ground.

A			
Climate controlled seat control unit connector	Terminal	Ground	Continuity
B283 (driver side)	21		No
B293 (passenger side)	22		INO

OK or NG

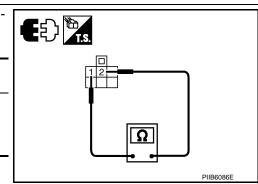
OK >> GO TO 3.

NG >> Repair or replace harness between climate controlled seat control unit and seat cushion thermal electric device.

3.CHECK SEAT CUSHION THERMAL ELECTRIC DEVICE SENSOR

Check resistance between seat cushion thermal electric device connector.

•	Seat cushion thermal electric device connector	Terminal		Resistance (KΩ) (Approx.)
•	B220 (driver side) B258 (passenger side)	1	2	2



OK or NG

< SERVICE INFORMATION >

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

NG >> Replace seat cushion thermal electric device.

Check Seatback Thermal Electric Device Sensor Circuit

INFOID:0000000005350008

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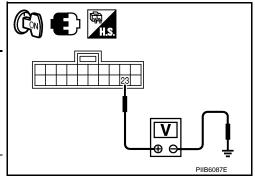
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1. CHECK CLIMATE CONTROLLED SEAT CONTROL UNIT CIRCUIT

- 1. Turn ignition switch ON.
- Check voltage between climate controlled seat control unit connector and ground.

7	Terminal			
(+)	(+)			
Climate controlled seat control unit connector	Terminal	(–)	Condition	Voltage (V) (Approx.)
B283 (driver side) B293 (passenger side)	23	Ground	Blower motor operated	0.5 - 4



OK or NG

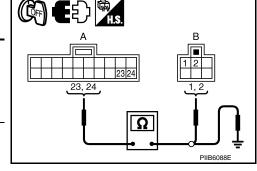
OK >> Climate controlled seat control unit circuit is OK.

NG >> GO TO 2.

2.CHECK SEATBACK THERMAL ELECTRIC DEVICE SENSOR HARNESS

- Turn ignition switch OFF.
- 2. Disconnect climate controlled seat control unit connector and seatback thermal electric device connector.
- Check continuity between climate controlled seat control unit connector and seatback thermal electric device connector.

A		В		
Climate controlled seat control unit connector	Terminal	Seatback thermal electric device connector	Terminal	Continuity
B283	23	B220	1	
(driver side) B293 (passenger side)	24	(driver side) B258 (passenger side)	2	Yes



4. Check continuity between climate controlled seat control unit connector and ground.

A			
Climate controlled seat control unit connector	Terminal	Ground	Continuity
B283 (driver side)	23		No
B293 (passenger side)	24		NO

OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness between climate seat control unit and seatback thermal electric device.

3.CHECK SEATBACK THERMAL ELECTRIC DEVICE SENSOR

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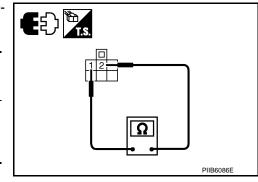
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< SERVICE INFORMATION >

Check resistance between seatback thermal electric device connector.

Seatback thermal electric device connector	Terminal		Resistance (KΩ) (Approx.)
B220 (driver side) B258 (passenger side)	1	2	2



OK or NG

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

NG >> Replace seatback thermal electric device.

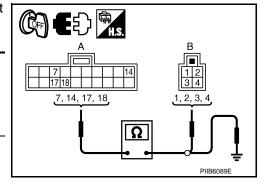
Check Climate Controlled Seat Blower Motor Circuit

INFOID:0000000005350009

1. CHECK CLIMATE CONTROLLED SEAT BLOWER MOTOR CIRCUIT HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect climate controlled seat control unit and climate controlled seat blower motor connector.
- Check continuity between climate controlled seat control unit connector and climate controlled seat blower motor connector.

_					
	Α		В		
-	Climate controlled seat control unit connector	Terminal	Climate controlled seat blower motor connector	Terminal	Continuity
	B283	7	B282	3	
	(driver side)	14	(driver side)	2	Yes
	B293 (passenger side)	17	B292 (passenger side)	4	165
	(passeriger side)	18	(passeriger side)	1	



Check continuity between climate controlled seat control unit connector and ground.

A			
Climate controlled seat control unit connector	Terminal		Continuity
B283	7	Ground	
(driver side) B293	14		No
	17		INO
(passenger side)	18		

OK or NG

OK >> GO TO 2.

NG >> Repair or replace harness between climate controlled seat control unit and climate controlled seat blower motor.

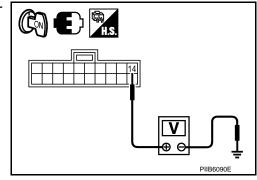
2.CHECK CLIMATE CONTROLLED SEAT BLOWER MOTOR POWER SUPPLY CIRCUIT

- 1. Connect climate controlled seat control unit connector and blower motor connector.
- 2. Turn ignition switch ON.

< SERVICE INFORMATION >

Check voltage between climate controlled seat control unit connector and ground.

Termina	rminal			
(+)	(+)			
Climate controlled seat control unit connector	Terminal	(–)	(Approx.)	
B283 (driver side) B293 (passenger side)	14	Ground	Battery voltage	



OK or NG

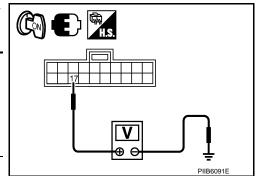
OK >> GO TO 3.

NG >> Replace climate controlled seat control unit.

3.CHECK CLIMATE CONTROLLED SEAT BLOWER MOTOR SPEED CONTROL SIGNAL CIRCUIT

Check voltage between climate controlled seat control unit connector and ground.

T	erminal				
(+)			Condition		\/oltogo (\/\
Climate controlled seat control unit connector	Terminal	(–)			Voltage (V) (Approx.)
B283 (driver side) B293	17	Ground	Climate controlled seat switch HEAT or COOL		4.5 - 8.0
(passenger side)			Other tha	Other than above.	



OK or NG

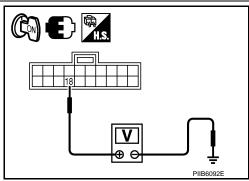
OK >> GO TO 4.

NG >> Replace climate controlled seat control unit.

4. CHECK CLIMATE CONTROLLED SEAT BLOWER MOTOR TACHOMETER SIGNAL CIRCUIT

Check voltage between climate controlled seat control unit connector and ground.

Te	erminal	·	(–) Condition		·
(+)					
Climate controlled seat control unit connector	Terminal	(-)			Voltage (V) (Approx.)
B283 (driver side) B293	18	Ground	Climate controlled seat switch HEAT or COOL Other than above.		4.5 - 8.0
(passenger side)					Battery voltage



OK or NG

OK >> Climate controlled seat blower motor circuit is OK.

NG >> Replace climate controlled seat blower motor.

Check Climate Controlled Seat Control Unit

1. CHECK THE CLIMATE CONTROLLED SEAT CONTROL UNIT

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< SERVICE INFORMATION >

Does the heater operate normally when the driver side or passenger side climate controlled seat control unit is exchanged?

YES or NO

YES >> Climate controlled seat control unit is OK.

NO >> Replace climate controlled seat control unit.

Component Parts and Harness Connector Location

① 2 3 (5) 4

- 1. Fuse, fusible link and relay block (J/B)
- a: Rear heated seat switch LH B507 b: Rear heated seat switch RH B558
- 2. IPDM E/R E5, E6, E9 5. Rear seat control unit
- B303, B304 (LH) B353, B354 (RH) (View with the rear seatback removed)
- (Built into the IPDM E/R)

System Description

NOTE:

- When handling seat, be extremely careful not to scratch heating unit
- To replace heating unit, seat trim and pad should be separated.
- Do not use any organic solvent, such as thinner, benzene, alcohol, etc. to clean trims.

Power is all time supplied

- to rear LH seat control unit and rear RH seat control unit terminal 1.
- through 50A fusible link [Letter F, located in the fuse block (J/B)],
- to IPDM E/R (heated seat relay) terminal 14.
- through 15A fuse [No.38, located in the fuse block (J/B)].

With the ignition switch to ON or START position, power is supplied

- to rear LH seat control unit terminal 4 and
- · to rear heated seat switch LH terminal 6.
- through IPDM E/R (heated seat relay) terminal 12
- · to rear RH seat control unit terminal 4 and
- to rear heated seat switch RH terminal 6
- through IPDM E/R (heated seat relay) terminal 9.

- to rear seat control unit terminal 18,
- through rear heated seat switch terminal 2,
- through rear heated seat switch terminal 3,

3. Heated seat relay E5, E6, E9

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When rear heated seat switch (LH, RH) is LOW position, ground is suppled

< SERVICE INFORMATION >

• through body grounds B5, B40 and B131

Then rear seat control unit recognizes that rear heated seat switch is LOW position.

When rear heated seat switch is LOW position, power is supplied

- through rear seat control unit terminal 6,
- through rear seat cushion heater terminal 2,
- through rear seat cushion heater terminal 3,
- to rear seatback heater terminal 1.

Then ground is suppled

- to rear seatback heater terminal 2.
- through body grounds B5, B40 and B131.

With power and ground supplied, rear heated seat is operated.

When rear heated seat switch is in LOW position, ground is supplied

- to rear heated seat switch terminal 5,
- through rear seat control unit terminal 14,
- through rear seat control unit terminal 13,
- through body grounds B5, B40 and B131.

With power and ground supplied, rear heated seat switch LOW position indicator is illuminated When rear heated seat switch (LH, RH) is in HIGH position, ground is supplied

- to rear seat control unit terminal 17,
- · through rear heated seat switch terminal 1,
- through rear heated seat switch terminal 3,
- through body grounds B5, B40 and B131

Then rear seat control unit recognizes that rear heated seat switch is in HIGH position.

When rear heated seat switch is in HIGH position, power is supplied

- through rear seat control unit terminal 5,
- through rear seat cushion heater terminal 1,
- through rear seat cushion heater terminal 3,
- to rear seatback heater terminal 1.

Then ground is suppled

- to rear seatback heater terminal 2.
- through body grounds B5, B40 and B131.
- to rear seat cushion heater terminal 2,
- · through rear seat control unit terminal 6,
- · through rear seat control unit terminal 8,
- through body grounds B5, B40 and B131.

With power and ground supplied, rear heated seat generates heat more than the time of LOW position.

When rear heated seat switch is in HIGH position, ground is supplied

- to rear heated seat switch terminal 4,
- through rear seat control unit terminal 9,
- through rear seat control unit terminal 13,
- through body grounds B5, B40 and B131.

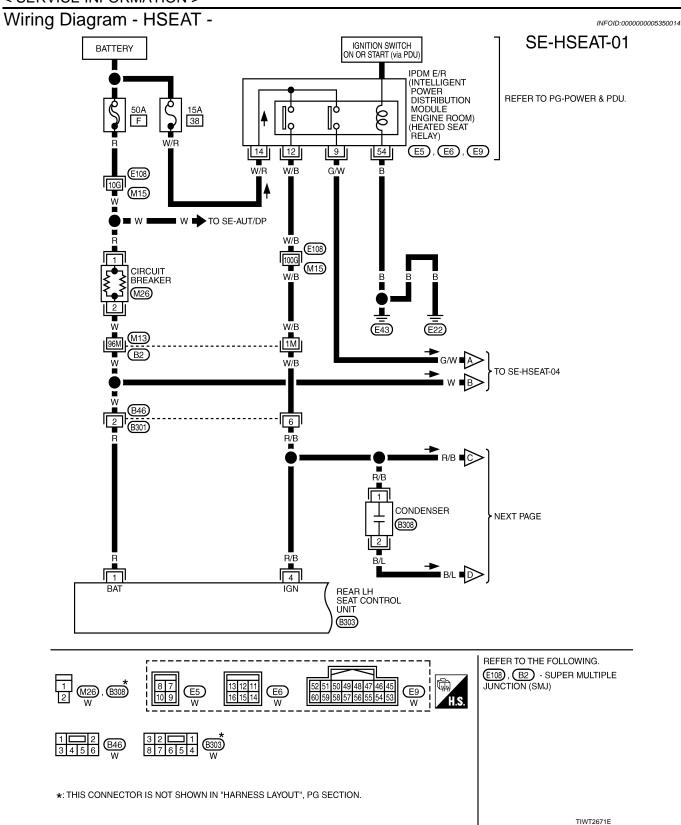
With power and ground supplied rear heated seat switch HIGH position indicator is illuminated.

HEATED SEAT < SERVICE INFORMATION > Schematic INFOID:0000000005350013 Α IGNITION SWITCH ON or START (via PDU) BATTERY *: This relay is built into the IPDM E/R (Intelligent power distribution module engine room). В FUSIBLE LINK FUSE CIRCUIT BREAKER HEATED SEAT RELAY (*) D ► To illumination system REAR HEATED SEAT SWITCH LH Е HIĞH ∐ rÖM HIGH LOW INDICATOR (T) ILLUMINATION CONDENSER ► To illumination system F REAR LH SEAT CONTROL UNIT 13 THERMOSTAT HEATER REAR SEAT BACK HEATER LH Н \{ SE REAR SEAT CUSHION HEATER LH ➤ To illumination system REAR HEATED SEAT SWITCH RH HIGH LOW K HIGH LOW INDICATOR (T) ILLUMINATION CONDENSER ➤ To illumination system REAR RH SEAT CONTROL UNIT 13 M THERMOSTAT HEATER REAR SEAT BACK HEATER RH Ν

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REAR SEAT CUSHION HEATER RH



TO LT-ILL REAR HEATED SEAT SWITCH LH HIGH HIGH ILLUMINATION LOW HINDICATOR 8 W/G TO LT-ILL - <u>9</u> 4 W/G PRECEDING PAGE B/L ENEXT PAGE W/B W/G W/L W 18 HEAT IND (HI) HEAT IND (LO) HEAT SW (HI) HEAT SW (LO) REAR LH SEAT CONTROL UNIT (B304)



 $\star :$ THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

TIWT1399E

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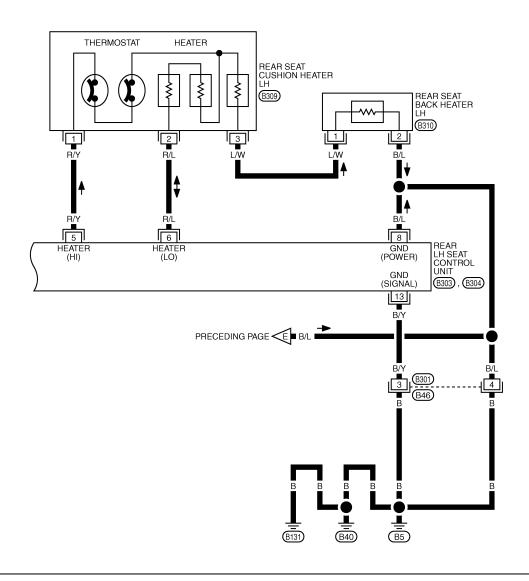
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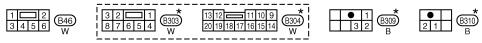
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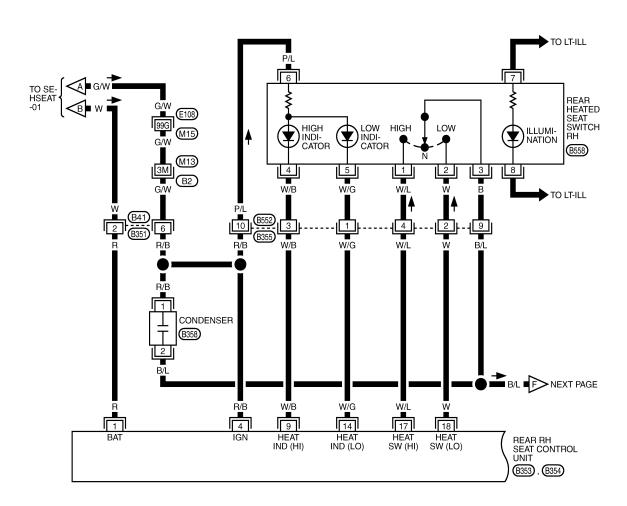
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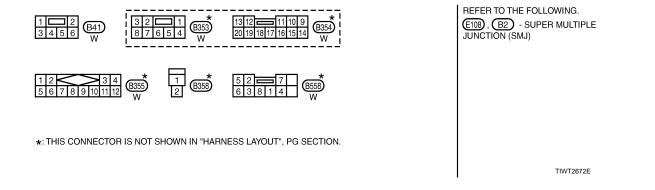




*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

TIWT1400E





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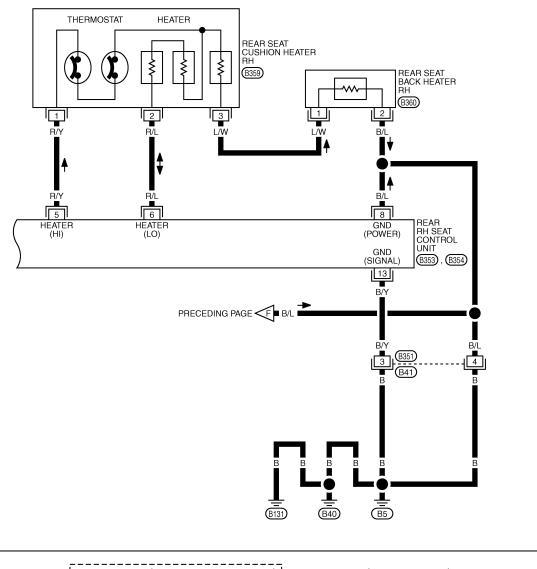
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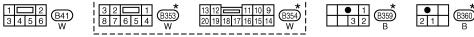
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 $\star:$ THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

Terminal and Reference Value for Rear Seat Control Unit

TIWT1402E

INFOID:0000000005350015

Terminal	Wire color	ltem	Signal Input/Output	Condition	Voltage (V) (Approx.)
1	R	Power source (BAT)	Input	_	Battery voltage
4	R/B	Power source (IGN)	Input	_	Battery voltage

Terminal	Wire color	Item	Signal Input/Output	Condition	Voltage (V) (Approx.)
_	DW	Ocatha atau III sian al	la a cot	Seat heater HI operation	Battery voltage
5	R/Y	Seat heater HI signal	Input	Other than above	0
	D.//	Cooth coton I O singel	la a cot	Seat heater LO operation	Battery voltage
6	R/L	Seat heater LO signal	Input	Other than above	0
8	B/L	Ground (power)	_	_	0
•	\A\/D	Harda Laradia Parta di Hairada	0 1 1	Heater HI operation (lit)	0
9	W/B	Heated seat indicator HI signal	Output	Other than above	Battery voltage
13	B/Y	Ground (signal)	_	_	0
4.4	W//O		0.45.4	Heater LO operation (lit)	0
14	W/G	Heated seat indicator LO signal	Output	Other than above	Battery voltage
47	30//	Heate Leader Roll III about	1	Heated seat switch (HI) – ON (pressed)	0
17	W/L	Heated seat switch HI signal	Input	Heated seat switch (HI) - OFF	Battery voltage
40	10/	Heated and suitable 10 sizes!	lanut	Heated seat switch (LO) – ON (pressed)	0
18	W	Heated seat switch LO signal	Input	Heated seat switch (LO) – OFF	Battery voltage

Work Flow INFOID:0000000005350016

- 1. Check the symptom and customer's requests.
- Understand the outline of system. Refer to SE-125. "System Description".
- According to the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to SE-133. "Trouble Diagnosis Symptom Chart".
- Does heated seat operate normally? YES: GO TO 5, NO: GO TO 3.
- INSPECTION END.

Trouble Diagnosis Symptom Chart

Check that other systems using the signal of the following systems operate normally.

Symptom	Diagnoses / service procedure	Refer to page
Rear heated seat LH and RH does not operate.	Check rear heated seat power supply and ground circuit	SE-133
	Check rear seat control unit power supply and ground circuit	<u>SE-134</u>
Rear heated seat LH or RH do not operate.	2. Check rear heated seat switch circuit	SE-136
	3. Check rear seatback heater circuit	SE-141
	4. Replace rear LH or RH seat control unit	SE-125
Poor hooted goot do not energia with LO or LL position	Check rear heated seat switch circuit	SE-136
Rear heated seat do not operate with LO or HI position.	2. Check rear heated seat circuit	SE-140
Rear heated seat LH or RH indicator do not operate.	Check rear heated seat indicator power supply circuit	<u>SE-137</u>
Rear heated seat indicator do not operate with LO or HI position	Check rear heated seat indicator circuit	SE-139

Check Rear Heated Seat Power Supply and Ground Circuit

1. CHECK FUSIBLE LINK AND FUSE

- Check 50A fusible link (letter F located in the fuse and fusible link box).
- Check 15A fuse (No.38, located in fuse block).
- Check circuit breaker.

NOTE:

Refer to SE-125, "Component Parts and Harness Connector Location".

SE-133 Revision: 2009 June 2010 M35/M45

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< SERVICE INFORMATION >

OK or NG

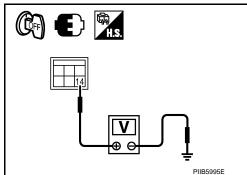
OK >> GO TO 2.

NG >> If fuse or circuit breaker is blown, be sure to eliminate cause of malfunction before installing new fuse or new circuit breaker, refer to <u>PG-4</u>.

2.CHECK HEATED SEAT RELAY POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Check voltage between IPDM E/R (heated seat relay) connector and ground.

	Terminal		
(+)			Voltage (V)
IPDM E/R (heated seat relay) connector	Terminal	(-)	(Approx.)
E6	14	Ground	Battery voltage



OK or NG

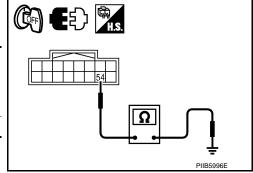
OK >> GO TO 3.

NG >> Repair or replace harness between fuse block (J/B) and IPDM E/R (heated seat relay).

3. CHECK HEATED SEAT RELAY GROUND CIRCUIT

- 1. Disconnect IPDM E/R (heated seat relay) connector.
- 2. Check continuity between IPDM E/R (heated seat relay) connector and ground.

T			
IPDM E/R (heated seat relay) connector	Terminal	Ground	Continuity
E9	54		Yes



OK or NG

NG

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

>> Repair or replace harness between IPDM E/R (heated seat relay) and ground.

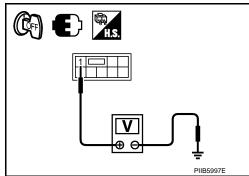
Check Rear Seat Control Unit Power Supply and Ground Circuit

INFOID:0000000005350019

1. CHECK REAR SEAT CONTROL UNIT POWER SUPPLY CIRCUIT (BAT)

- 1. Turn ignition switch OFF.
- 2. Check voltage between rear seat control unit connector and ground.

(+)		Voltage (V)	
Rear seat control unit connector	Terminal	(–)	(Approx.)	
B303 (LH) B353 (RH)	1	Ground	Battery voltage	



OK or NG

OK >> GO TO 2.

NG >> Repair or replace harness between circuit breaker and rear seat control unit.

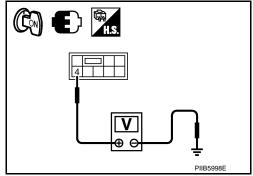
2.CHECK REAR SEAT CONTROL UNIT POWER SUPPLY CIRCUIT (IGN)

1. Turn ignition switch ON.

< SERVICE INFORMATION >

Check voltage between rear seat control unit connector and ground.

(1	+)		Voltage (V) (Approx.)
Rear seat control unit connector	Terminal	(–)	
B303 (LH) B353 (RH)	4	Ground	Battery voltage



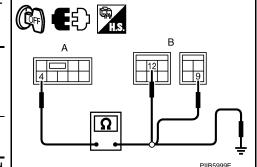
OK or NG

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

3.check rear seat control unit harness

- 1. Turn ignition switch OFF.
- 2. Disconnect IPDM E/R (heated seat relay) and rear seat control unit connector.
- 3. Check continuity between IPDM E/R (heated seat relay) connector and rear seat control unit connector.

А		В		
Rear seat control unit connector	Terminal	IPDM E/R (heated seat relay) connector	Terminal	Continuity
B303 (LH)	1	E6	12	Yes
B353 (RH)	7	E5	9	163



 Check continuity between rear seat control unit connector and ground.

A		Continuity	
Rear seat control unit connector Terr		Ground	Continuity
B303 (LH) B353 (RH)	4		No

OK or NG

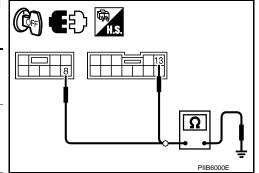
OK >> GO TO 4.

NG >> Repair or replace harness between rear seat control unit and IPDM E/R (heated seat relay).

4. CHECK REAR SEAT CONTROL UNIT GROUND CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect rear seat control unit connector.
- 3. Check continuity between rear seat control unit connector and ground.

Т			
Rear seat control unit connector	Terminal		Continuity
B303 (LH) B353 (RH)	8	Ground	Yes
B304 (LH) B354 (RH)	13		165



OK or NG

OK >> Rear seat control unit power supply and ground circuit is OK.

NG >> Repair or replace harness between rear seat control unit and ground.

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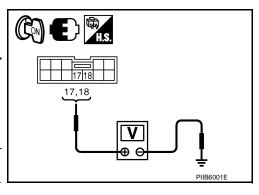
Check Rear Heated Seat Switch Circuit

INFOID:0000000005350020

1. CHECK REAR HEATED SEAT SWITCH POWER SUPPLY-1

- 1. Turn ignition switch ON.
- 2. Check voltage between rear seat control unit connector and ground.

Terminal					
(+)	(+)				Voltage (V)
Rear seat control unit connector	Terminal	(–) Condition		ition	(Approx.)
	17		Rear heated seat switch	HIGH	0
B304 (LH)		Ground	Other tha	n above.	5
B354 (RH)	18	Ciouna	Rear heated seat switch	LOW	0
			Other tha	n above.	5



OK or NG

OK >> Rear heated seat switch circuit is OK.

NG >> GO TO 2.

$2.\mathsf{CHECK}$ REAR HEATED SEAT SWITCH HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect rear heated seat switch and rear seat control unit connector.
- Check continuity between rear heated seat switch connector and rear seat control unit connector.

А		В		
Rear seat control unit connector	Terminal	Rear heated seat switch connector	Terminal	Continuity
B304 (LH)	17	B507 (LH)	1	Yes
B354 (RH)	18	B558 (RH)	2	165

4. Check continuity between rear seat control unit connector and ground.

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A		Continuity	
Rear seat control unit connector	Ground	Continuity	
B304 (LH)	17	Glound	No
B354 (RH)	18		INU

OK or NG

OK >> GO TO 3.

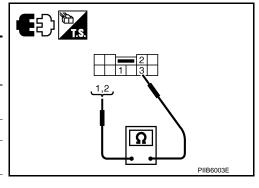
NG >> Replace or replace harness between rear seat control unit and rear heated seat switch.

3.CHECK REAR HEATED SEAT SWITCH

< SERVICE INFORMATION >

Check continuity rear heated seat switch connector.

Rear heated seat switch connector	Terr	minal	nal Condition		Continuity
	1		Rear heated seat switch	HIGH	Yes
B507 (LH)		3	Other that	an above.	No
B558 (RH)	2	3	Rear heated seat switch	LOW	Yes
			Other than above.		No



OK or NG

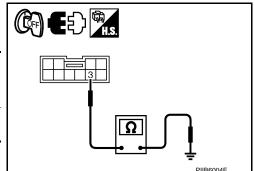
OK >> GO TO 4.

NG >> Replace rear heated seat switch.

4. CHECK REAR HEATED SEAT SWITCH GROUND CIRCUIT

Check continuity between rear heated seat switch connector and ground.

T				
Rear heated seat switch connector	lerminal			
B507 (LH) B558 (RH)	3	Giodila	Yes	



OK or NG

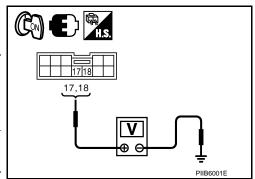
OK >> GO TO 5.

NG >> Replace or replace harness between rear heated seat switch and ground.

5. CHECK REAR HEATED SEAT SWITCH POWER SUPPLY-2

- Connect rear seat control unit.
- 2. Turn ignition switch ON.
- Check voltage between rear seat control unit connector and ground.

(-	+)		Voltage (V) (Approx.)
Rear seat control unit connector	Terminal	(–)	
B304 (LH)	17	Ground	5
B354 (RH)	18	Ground	3



OK or NG

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

NG >> Replace rear seat control unit.

Check Rear Heated Seat Indicator Power Supply Circuit

1.CHECK REAR HEATED SEAT INDICATOR POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Disconnect rear heated seat switch connector.

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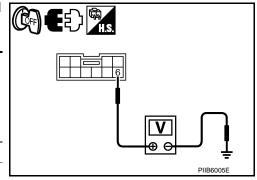
INFOID:0000000005350021

Revision: 2009 June **SE-137** 2010 M35/M45

< SERVICE INFORMATION >

Check voltage between rear heated seat switch connector and ground.

Terminal						
(+)					Voltage (V)	
Rear heated seat switch connector	Terminal	(-)	Condition		(Approx.)	
B507 (LH)	6	Ground	Ignition	ON	Battery voltage	
B558 (RH)	0	Ground	switch	OFF	0	



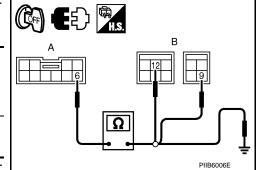
OK or NG

OK >> GO TO 3. NG >> GO TO 2.

2.CHECK REAR HEATED SEAT INDICATOR HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect IPDM E/R (heated seat relay) connector.
- 3. Check continuity between IPDM E/R (heated seat relay) connector and rear heated seat switch connector.

А		В		
Rear heated seat switch connector	Terminal	IPDM E/R (heated seat relay) connector	Terminal	Continuity
B507 (LH)	6	E6	12	Yes
B558 (RH)	0	E5	9	163



4. Check continuity between rear heated seat switch connector and ground.

A			
Rear heated seat switch connector Terminal		Ground	Continuity
B507 (LH) B558 (RH)	6		No

OK or NG

- OK >> Check the condition of the harness and connector.
- NG >> Replace or replace harness between IPDM E/R (heated seat relay) and rear heated seat switch.

3. CHECK REAR HEATED SEAT SWITCH

Check continuity rear heated seat switch connector.

Rear heated seat	Termi	Continuity		
switch connector	(+)	(-)	Continuity	
	4	6	Yes	
B507 (LH) B558 (RH)	5	G		
	6	4	No	
	0	5	140	

OK or NG

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

NG >> Replace rear heated seat switch.

Check Rear Heated Seat Indicator Circuit

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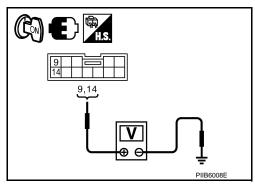
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1. CHECK REAR SEAT CONTROL UNIT POWER SUPPLY

- 1. Turn ignition switch ON.
- 2. Check voltage between rear seat control unit connector and ground.

Te	erminal					
(+)					Voltage (V)	
Rear seat control unit connector	Terminal	(-)	Condition		(Approx.)	
	9		Rear heated seat switch	HIGH	0	
B304 (LH)		Ground	Other than	above.	Battery voltage	
B354 (RH)	14		Rear heated seat switch	LOW	0	
-			Other than	above.	Battery voltage	



OK or NG

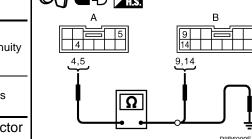
OK >> Replace rear heated seat switch.

NG >> GO TO 2.

$2.\mathsf{CHECK}$ REAR HEATED SEAT INDICATOR HARNESS

- Turn ignition switch OFF.
- 2. Disconnect rear seat control unit and rear heated seat switch connector.
- 3. Check continuity between rear heated seat switch connector and rear seat control unit connector.

A		В		
Rear heated seat switch connector	Terminal	Rear seat control unit connector	Terminal	Continuity
B507 (LH)	4	B304 (LH)	9	Yes
B558 (RH)	5	B354 (RH)	14	163



4. Check continuity between rear heated seat switch connector and ground.

A			
Rear heated seat switch connector	lerminal		Continuity
B507 (LH)	4		No
B558 (RH)	5		NO

OK or NG

OK >> GO TO 3.

NG >> Replace or replace harness between rear heated seat switch and rear seat control unit.

3. CHECK REAR HEATED SEAT SWITCH

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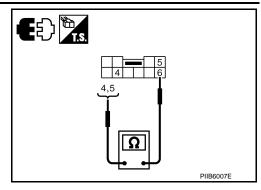
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< SERVICE INFORMATION >

Check continuity rear heated seat switch connector.

Rear heated seat	Teri	minal	Continuity	
switch connector	(+)	(-)	Continuity	
	4	- 6	Yes	
B507 (LH)	5		165	
B558 (RH)	6	4	No	
	О	5	INO	



OK or NG

OK >> Replace rear seat control unit.

NG >> Replace rear heated seat switch.

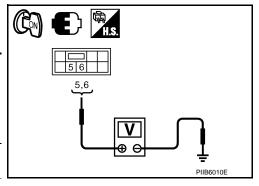
Check Rear Heated Seat Circuit

INFOID:0000000005350023

1. CHECK REAR SEAT CONTROL UNIT

- 1. Turn ignition switch ON.
- 2. Check voltage between rear seat control unit connector and ground.

Т	erminal				
(+)			Condition		Voltage (V)
Rear seat con- trol unit con- nector	Terminal	(–)			(Approx.)
5	5	5 Ground	Rear heated seat switch	HIGH	Battery voltage
B303 (LH)			Other than	above.	0
B353 (RH) 6	6		Rear heated seat switch	LOW	Battery voltage
			Other than	above.	0



OK or NG

OK >> GO TO 2.

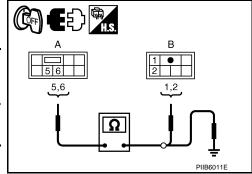
NG >> Replace rear seat control unit.

2.CHECK REAR SEAT HEATER HARNESS

- 1. Turn ignition switch OFF.
- Disconnect rear seat control unit and rear seat cushion heater connector.
- 3. Check continuity between rear seat control unit connector and rear seat cushion heater connector.

А		В		
Rear seat control unit connector	Terminal	Rear seat cushion heater connector	Terminal	Continuity
B303 (LH)	5	B309 (LH)	1	Yes
B353 (RH)	6	B359 (RH)	2	165

 Check continuity between rear seat control unit connector and ground.



A	А			
Rear seat control unit connector	Terminal	Ground	Continuity	
B303 (LH)	5		No	
B353 (RH)	6		NO	

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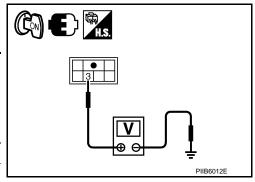
OK >> GO TO 3.

NG >> Replace or replace harness between rear seat control unit and rear seat cushion heater.

3.CHECK REAR SEAT HEATER CIRCUIT

- Connect rear seat control unit and rear seat cushion heater connector.
- Turn ignition switch ON.
- Check voltage between rear seat cushion heater connector and ground.

Т	Terminal				Voltage (V)
(+)					
Rear seat cushion heater connector	Terminal	(-)	Condition		(Approx.)
			Rear heated HIGH		Battery voltage
B309 (LH) B359 (RH)	3	Ground	seat switch	LOW	6
2000 (1111)			Other than above.		0



OK or NG

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

NG >> Replace rear seat cushion heater.

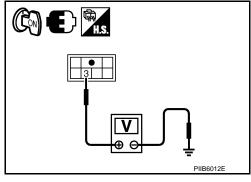
Check Rear Seatback Heater Circuit

1. CHECK REAR SEAT HEATER CIRCUIT

Turn ignition switch ON.

Check voltage between rear seat cushion heater connector and ground.

Te	erminal		Condition		Voltage (V)
(+)					
Rear seat cushion heater connector	Terminal	(-)			(Approx.)
D000 (LL)	Rear heated		HIGH	Battery voltage	
B309 (LH) B359 (RH)	3	Ground	seat switch	LOW	6
			Other than	0	



OK or NG

OK >> GO TO 2.

NG >> Replace rear seat cushion heater.

2.CHECK REAR SEAT HEATER HARNESS

- Turn ignition switch OFF.
- Disconnect rear seat cushion heater and rear seatback heater connector.

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< SERVICE INFORMATION >

Check continuity between rear seat cushion heater connector and rear seatback heater connector.

A		В		
Rear seat cushion heater connector	Terminal	Rear seatback heater connector	Terminal	Continuity
B309 (LH) B359 (RH)	3	B310 (LH) B360 (RH)	1	Yes

 Check continuity between rear seat cushion heater connector and ground.

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A				
Rear seat cushion heater connector	Terminal	Ground	Continuity	
B309 (LH) B359 (RH)	3		No	

OK or NG

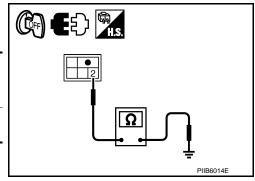
OK >> GO TO 3.

NG >> Replace or replace harness rear seat cushion heater and rear seatback heater.

3. CHECK REAR SEAT HEATER GROUND CIRCUIT

Check continuity between rear seatback heater connector and ground.

Т			
Rear seatback heater connector	Terminal	Ground	Continuity
B310 (LH) B360 (RH)	2	- Ground	Yes



OK or NG

NG

OK >> Replace rear seatback heater.

>> Replace or replace harness rear seatback heater and ground.

FRONT SEAT

Driver's Seat Component

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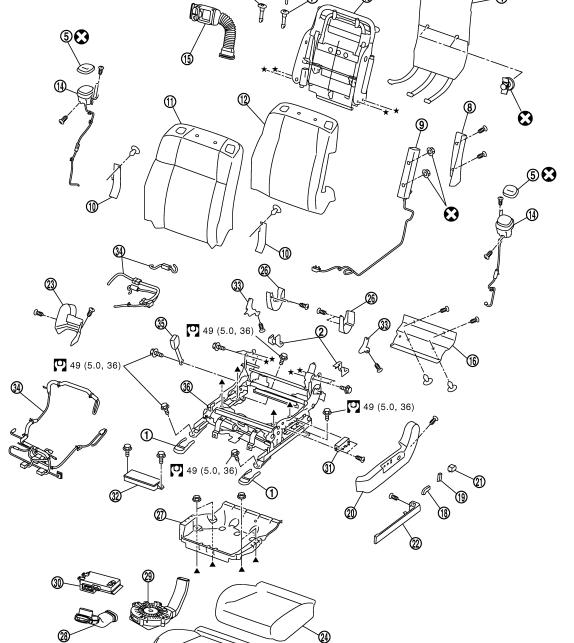
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- Front leg cover 1.
- 4. Seatback board
- Headrest holder (locked) 7.

: N•m (kg-m, ft-lb)

- 2. Rear leg cover
- 5. Seat speaker grill
- 8. Seatback upper finisher
- Headrest 3.
- 6. Headrest holder (free)

PIIB5328E

Side air bag module

9.

FRONT SEAT

< SERVICE INFORMATION >

10.	Reclining device cover	11.	Seatback trim	12.	Seatback pad
13.	Seatback frame	14.	Seat speaker	15.	Seatback thermal electrical device (TED) assembly
16.	Seat cushion rear finisher (Climate controlled seat model)	17.	Seat cushion front finisher	18.	Seat slide switch knob
19.	Seat reclining switch knob	20.	Seat cushion outer finisher	21.	Lumber support switch assembly
22.	Seat cushion lower finisher	23.	Seat cushion inner finisher	24.	Seat cushion pad
25.	Seat cushion trim	26.	Seat cushion finisher B	27.	Seat cushion frame
28.	Seat cushion thermal electrical device (TED) assembly	29.	Blower motor assembly	30.	Climate controlled seat control unit
31.	Seat control switch	32.	Driver seat control unit	33.	Seat cushion finisher C
34.	Seat harness	35.	Seat belt buckle	36.	Seat adjuster assembly
Refer to GI-9. "Component" for symbols in the figure.					

Refer to GI-9, "Component" for symbols in the figure.

Passenger's Seat Component

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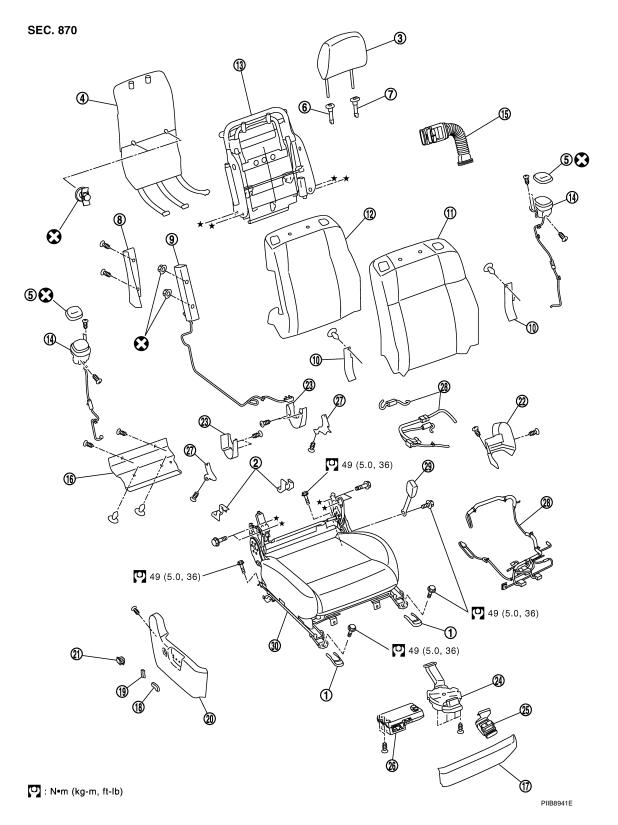
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- 1. Front leg cover
- 4. Seatback board
- 7. Headrest holder (locked)
- 10. Reclining device cover
- 2. Rear leg cover
- 5. Seat speaker grill
- 8. Seatback upper finisher
- 11. Seatback trim

- 3. Headrest
- 6. Headrest holder (free)
- 9. Side air bag module
- 12. Seatback pad

< SERVICE INFORMATION >

13.	Seatback frame	14.	Seat speaker	15.	Seatback thermal electrical device (TED) assembly
16.	Seat cushion rear finisher (Climate controlled seat model)	17.	Seat cushion front finisher	18.	Seat cushion slide switch
19.	Seat reclining switch	20.	Seat cushion outer finisher	21.	Lumber support switch assembly
22.	Seat inner finisher	23.	Seat cushion finisher B	24.	Blower motor assembly
25.	Seat cushion thermal electrical device (TED) assembly	26.	Climate controlled seat control unit	27.	Seat cushion finisher C
28.	Seat harness assembly	29.	Seat belt buckle	30.	Seat cushion assembly
Refer to GI-9. "Component" for symbols in the figure.					

Removal and Installation

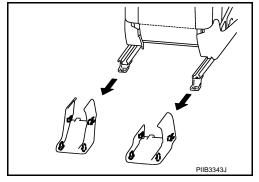
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CAUTION:

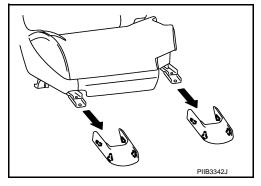
When removing and installing, use shop cloths to protect parts from damage.

REMOVAL

- 1. Pull rear leg cover backward while opening outside to remove the rear leg cover.
- 2. Remove the mounting bolts on the back side of the front seat.



- 3. Pull rear leg cover forward while opening outside to remove the front leg cover.
- 4. Remove the mounting bolts on the front side of the front seat.



5. Disconnect harness connector under the seat and remove harness securing clips.

CAUTION:

Before removal, be sure to turn ignition switch OFF, disconnect both battery cables, and then wait for at least 3 minutes.

- 6. Set seatback in a standing position.
- 7. Remove the headrest.
- 8. Remove seat from the vehicle.

CAUTION:

When removing and installing, use shop cloths to protect parts from damage.

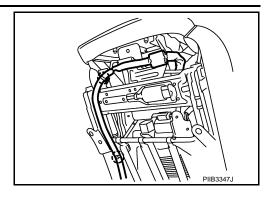
INSTALLATION

Install in the reverse order of removal. Be careful of the following two points.

• Before installation, be sure to turn ignition switch OFF, disconnect both battery cables, and then wait for at least 3 minutes.

< SERVICE INFORMATION >

• Clamp the harness in position.



Disassembly and Assembly

INFOID:0000000005350028

SEATBACK

Disassembly

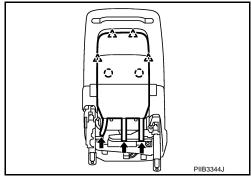
1. Remove seatback trim and seatback pad.

NOTE:

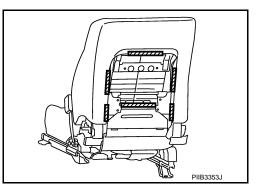
Seatback trim and seatback pad can be removed without removing seatback assembly from seat body.

- Remove the retainer from the lower side of seatback board.
- · Disconnect the clips and pawls, and then remove the seatback board.

∴: Pawl (): Clip



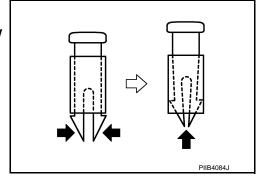
- · Remove the seatback hinge mounting bolts.
- Remove the retainer on the back side of the seatback.



- Remove the seat speaker grills. (Applied 5.1 ch BOSE studio surround® system models.) Refer to AV-488. "Removal and Installation".
- · Remove the headrest holder.

CAUTION:

Before installing headrest holder, check its orientation (front/ rear and right/left).



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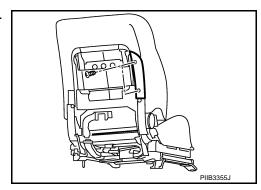
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< SERVICE INFORMATION >

- Disconnect the clip, and then remove the reclining device cover.
- Remove the screws, and then remove the seatback upper finisher.

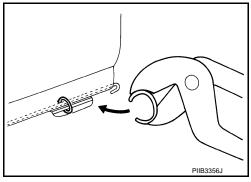


- Remove the bracket mounting nuts.
- Remove seatback trim and pad from seatback frame.
- Remove the hog rings to separate the trim and pad.
- 2. Remove seatback frame.
 - Remove seat speaker. (Applied 5.1 ch BOSE studio surround® system models) Refer to <u>AV-488</u>, <u>"Removal and Installation"</u>.
 - Remove the bands, and then remove seatback thermal electrical device (TED) assembly.
 - · Remove the seat harness assembly from seatback assembly.
 - Remove the bolts, and then remove seatback frame from seat cushion frame.

Assembly

Assemble in the reverse order of disassembly. Be careful of the following one point.

Install the hog rings of seat cushion trim in position, and then securely connect the trim or trim code with the pad side wire.

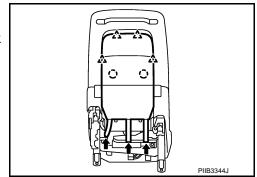


SEAT CUSHION

Disassembly

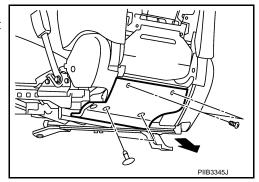
- Remove the seatback trim and seatback pad.
 - Remove the retainer from the lower side of seatback board.
 - Disconnect the clip and pawl, and then remove seatback board.

<u>^</u>: Pawl (_): Clip



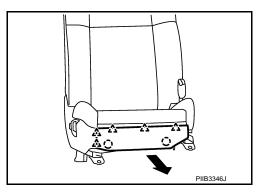
< SERVICE INFORMATION >

 Remove the screws and disconnect the clips, and then remove the seat cushion rear finisher. (Climate controlled seat model)

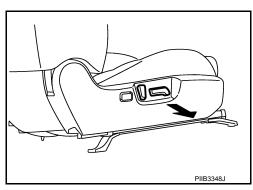


• Remove the seat cushion front finisher.

∴: Pawl ∴: Clip



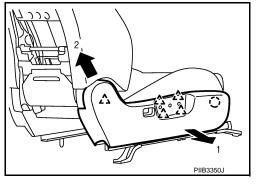
 Remove the seat reclining switch knob and seat slide switch knob.



• Pull seat cushion outer finisher forward, and then disconnect the pawls and clips.

△: Pawl

Clip
 Lift the rear part of the seat cushion outer finisher backward, and then remove the seat cushion outer finisher.



• Remove the harness connector clamp of lumber support switch.

• Removal the lumber support switch.

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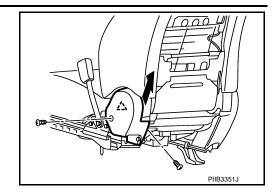
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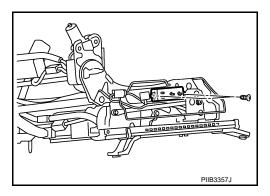
< SERVICE INFORMATION >

· Remove the seat cushion inner finisher.

八: Pawl



- Remove the retainers from the lower side of front seat. (Driver's seat only)
- Remove the hog rings to separate the trim and pad. (Driver's seat only)
- 2. Remove the nuts, and then remove the seat cushion frame. (Driver's seat only)
- 3. Remove each unit which is attached to seat cushion frame and seat adjuster assembly.
 - Remove the screws, and then remove the climate controlled seat control unit.
 - Remove the screws, and then remove the blower motor.
 - Remove the bands, and then remove the seat cushion thermal electrical device (TED) assembly.
 - Remove driver's seat control unit. (Driver's seat only)
 - · Remove the driver seat control switch.

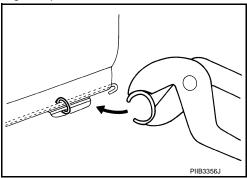


- Remove seat cushion finisher B and seat cushion finisher C.
- Remove seat harnesses.

Assembly

Assemble in the reverse order of disassembly. Be careful of the following two points.

• Install the hog rings of seat cushion trim in position, and then securely connect the trim or trim code with the pad side wire.



Clamp the harness in position.

CLIMATE CONTROLLED SEAT

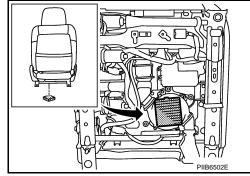
Blower Filter Replacement

< SERVICE INFORMATION >

Put your hand behind front seat cushion, pull filter downward and remove it. Replace filter with a new one.

NOTE:

- When replacing, be sure to set the front seat lifter to the top position.
- When installing, do not confuse up-down direction of the filter.



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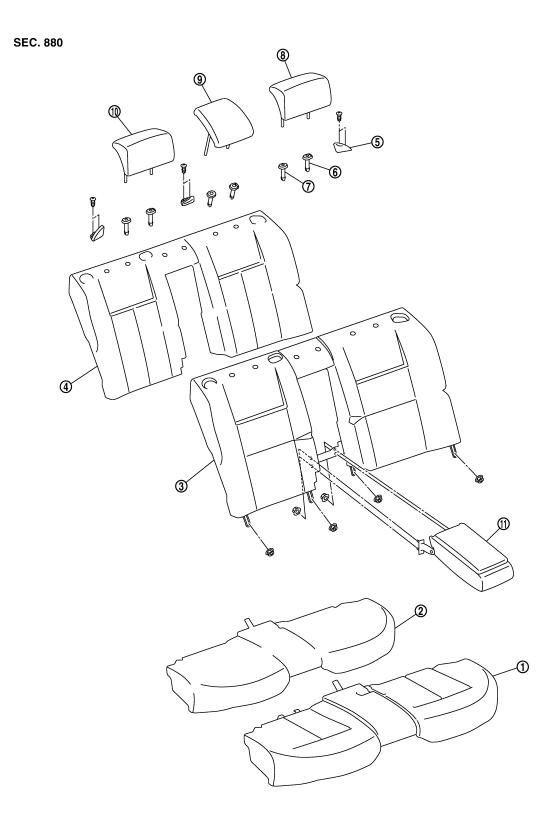
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Bench Seat Component

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PIIB3362J

- 1. Seat cushion trim
- 4. Seatback trim

- 2. Seat cushion pad
- 5. Seat belt guide

- 3. Seatback pad
- 6. Headrest holder (locked)

- 7. Headrest holder (free)
- 10 Headrest (data)
- 8. Headrest (left)

9. Headrest (center)

10. Headrest (right)

11. Armrest

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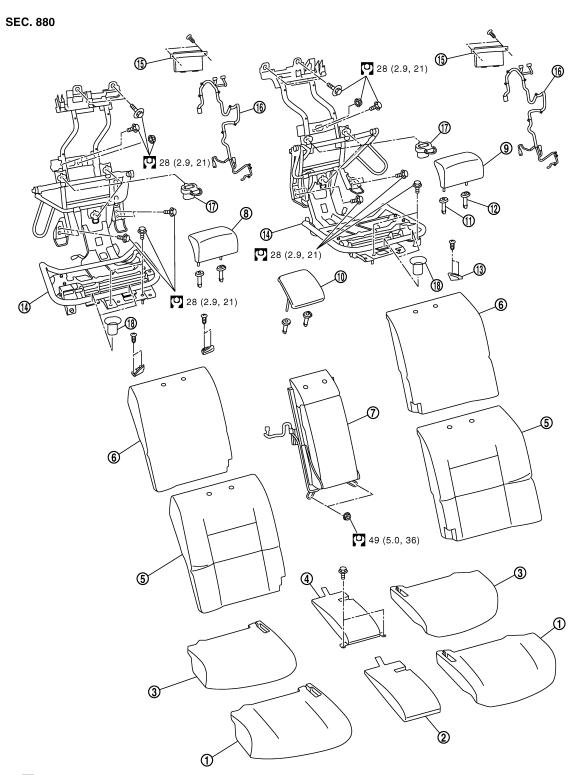
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Power Seat (Split Type) Component



: N•m (kg-m, ft-lb)

PIIB3365J

- 1. Seat cushion side trim
- 4. Seat cushion center pad
- 2. Seat cushion center trim

Seatback trim

5.

- 3. Seat cushion side pad6. Seatback pad

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< SERVICE INFORMATION >

Seatback center
 Headrest (right)
 Headrest (left)
 Headrest (center)
 Headrest holder (free)
 Headrest holder (locked)
 Seat belt guide
 Rear seat frame
 Rear seat control unit
 Refer to GI-9, "Component" for symbols in the figure.

Removal and Installation

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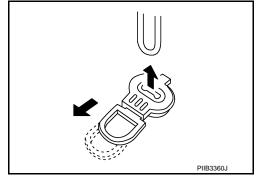
CAUTION:

When removing and installing, use shop cloths to protect parts from damage.

BENCH SEAT

Removal

- 1. Remove seat cushion.
 - Pull the lock lever at the front bottom of the seat cushion forward (1 for each side), and pull the seat cushion upward to release the wire from the seat cushion hook, then pull the seat cushion forward to remove.
 - Remove the seat cushion from the vehicle.
- 2. Remove seat back.
 - Remove the nuts under seatback.
 - Lift up seatback assembly from underneath, and then remove seatback assembly from seatback hook that is fixed to the vehicle.
 - · Remove the headrest.
 - Remove the seatback from the vehicle.



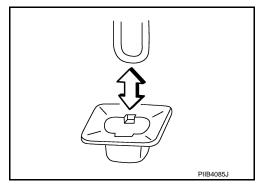
Installation

Install in the reverse order of removal. Be careful of the following one point. Securely engage the upper wire on the back side of seatback with seat hook.

POWER SEAT

Removal

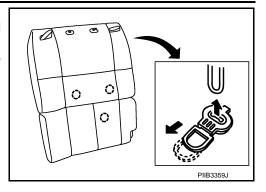
- Remove seat cushion side.
 - Lift seat cushion side up, disengage the seat cushion hook, and then remove the seat cushion side.
 - · Remove the seat cushion side from the vehicle.



- 2. Remove the seat cushion center.
 - Disconnect the harness connector.
 - Remove the bolts, and then remove the seat cushion center from the vehicle.

< SERVICE INFORMATION >

- Remove seatback side.
 - Access to the back side of seatback side from the lower, and then pull the lock lever of seatback hook downward.
 - Pull seatback side, and then remove seatback side from the seatback hook.
 - (): Seatback hook



- Lift up seatback side from underneath, and then remove seatback side from seatback hook.
- Disconnect the harness connector.
- Remove the headrest.
- · Remove the seatback side from the vehicle.
- 4. Remove seatback center.
 - Disconnect the harness connector.
 - Remove the seatback center mounting bolts and nuts.
 - Remove the seatback center from the vehicle.
- 5. Remove the rear seat frame.
 - Disconnect the harness connector.
 - Remove the bolts and nuts, and then remove the rear seat frame.

Installation

Install in the reverse order of removal.

Disassembly and Assembly

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BENCH SEAT

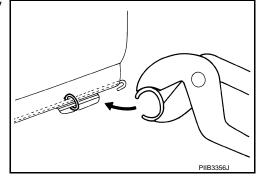
Disassembly of Seat Cushion

Remove the hog rings to separate the trim and pad.

Assembly of Seat Cushion

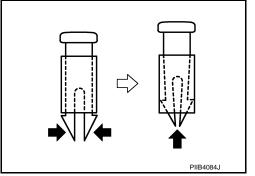
Assemble in the reverse order of disassembly. Be careful of the following one point.

Install hog rings of seat cushion trim in position, and then securely connect the trim or trim code with the pad side wire.



Disassembly of Seatback

1. Remove the headrest holder.



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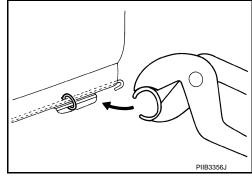
< SERVICE INFORMATION >

- 2. Remove the seat belt guide.
- 3. Remove the hog rings to separate the trim and pad.

Assembly of Seatback

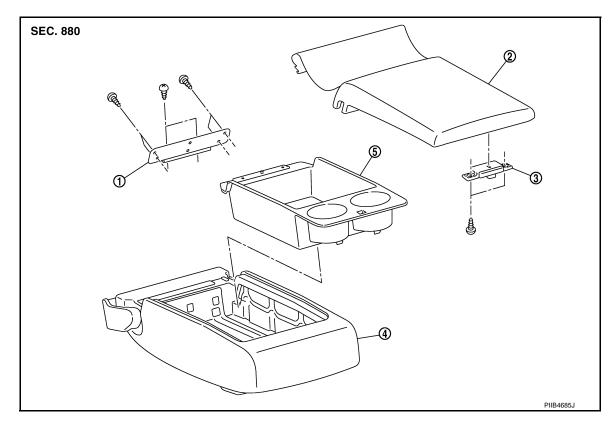
Assemble in the reverse order of disassembly. Be careful of the following one point.

Install hog rings of seat cushion trim in position, and then securely connect the trim or trim code with the pad side wire.



Disassembly of Armrest

- Remove the armrest from seatback.
 - Remove the retainer from the side of armrest lid in the back.
 - Remove the armrest mounting nuts on the back of seatback.
- 2. Disassemble the armrest.



- 1. Armrest lid hinge
- 2. Armrest lid

3. Armrest lock assembly

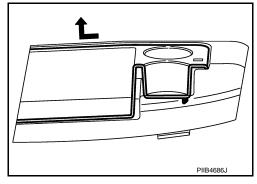
- 4. Armrest assembly
- 5. Rear seat box
- Remove the screws, and then remove armrest lid hinge.
- · Remove the armrest lid.
- · Remove screws, and then remove the armrest lock assembly from the armrest lid.

< SERVICE INFORMATION >

 Pull the rear seat box rearward and lift up, and then remove rear seat box from the armrest assembly.

CAUTION:

- When removing, check that front tab is not damaged.
- If the tab is damaged when removing the rear seat box, replace rear seat box with a new one.



Assembly of Armrest

Assemble in the reverse order of disassembly.

POWER SEAT

Disassembly of Seat Cushion

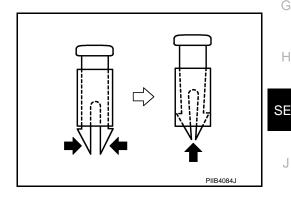
Remove the hog rings to separate the trim and pad.

Assembly of Seat Cushion

Assemble in the reverse order of disassembly.

Disassembly of Seatback

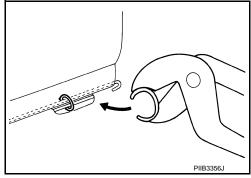
- 1. Remove the headrest holder.
- 2. Remove the seat belt guide.
- Remove the hog rings to separate the trim and pad.



Assembly of Seatback

Assemble in the reverse order of disassembly. Be careful of the following one point.

Install hog rings of seat cushion trim in position, and then securely connect the trim or trim code with the pad side wire.



Disassembly of Seat Frame

- 1. Disconnect the harness connectors, remove the screws, and then remove the rear seat control unit.
- Remove the seatback hook and seat cushion hook.

Assembly of Seat Frame

Assemble in the reverse order of removal.

Disassembly of Armrest

- 1. Remove the armrest from seatback center.
 - Remove the retainer from the side of armrest lid in the back.
 - Remove the armrest mounting nuts on the back of seatback.
- Disassemble the armrest.

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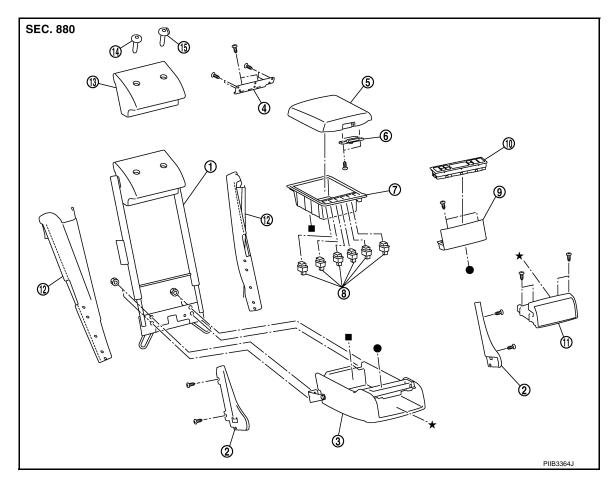
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- Seatback center
- 4. Armrest lid hinge
- 7. Rear seat box
- 10. Rear seat control
- 13. Seatback center trim
- 2. Armrest hinge cover
- 5. Armrest lid
- 8. Switch
- 11. Cup holder
- 14. Headrest holder (free)
- 3. Armrest assembly
- 6. Armrest lid lock assembly
- 9. A/C box assembly
- 12. Seatback center side trim
- 15. Headrest holder (locked)
- Remove the screws, and then remove the armrest hinge cover.
- Remove the screws, and then remove the armrest lid hinge.
- Remove the armrest lid.
- Remove the screws, and then remove the armrest lid lock assembly from the armrest lid.
- Remove the rear seat box.
- Remove all switches from the rear seat box.
- Remove the screws, and then remove the A/C box assembly.
- Remove the screws, and then remove the cup holder.
- Remove the hog rings, and then remove the seat back center side trim.
- Remove the headrest holder, and then remove the seatback center trim.

Assembly of Armrest

Assemble in the reverse order of removal.