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PRECAUTIONS

PRECAUTIONS PFP:00001

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.

Precautions 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 SRS and SB section of this Service Manual.

WARNING:

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

Precautions for Work

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- 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.
 - 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.

PRECAUTIONS

Trouble Diagnosis Precaution

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- When carrying out the IVMS control unit input/output signal inspection, be sure to connect the checking adapter III (special service tool) to prevent incorrect diagnosis.
- With the battery connected, if each local control unit (LCU) connector is left disconnected for at least 1 minute, the IVMS control unit stores a communication inactive failure. After reconnecting the connector, any of the following steps shall be done. "Disconnect the IVMS control unit battery power supply" or "Using CONSULT-II, execute Erase memory".

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PREPARATION

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Special Service Tools

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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 |
|--|-----------|------------------------------|
| (J39570) Chassis ear | SIIAO993E | Locating the noise |
| (J43980) NISSAN Squeak and Rattle Kit | SIIA0994E | Repairing the cause of noise |

Commercial Service Tools

EIS000ZR

| Tool name | | Description |
|------------|-----------|--------------------|
| Engine ear | SIIAO995E | Locating the noise |
| Power tool | PBIC0191E | |

Customer Interview

Duplicate the Noise and Test Drive.

Check Related Service Bulletins.

Locate the Noise and Identify the Root Cause.

Repair the Cause.

Confirm Repair.

Inspection End

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

The customer may not be able to provide a detailed description or the location of the noise. Attempt to

If there is more than one noise in the vehicle, be sure to diagnose and repair the noise that 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

Squeak characteristics include the light contact/fast movement/brought on by road conditions/hard sur-

Creak characteristics include firm contact/slow movement/twisting with a rotational movement/pitch

Rattle characteristics include the fast repeated contact/vibration or similar movement/loose parts/missing

Tick characteristics include gentle contacting of light materials/loose components/can be caused by driver

Knock characteristics include hollow sounding/sometimes repeating/often brought on by driver action.

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obtain all the facts and conditions that exist when the noise occurs (or does not occur).

faces=higher pitch noise/softer surfaces=lower pitch noises/edge to surface=chirping

Thump characteristics include softer knock/dead sound often drought on by activity.

is concerned about. This can be accomplished by test driving the vehicle with the customer.

SQUEAK AND RATTLE TROUBLE DIAGNOSES

Work Flow

CUSTOMER INTERVIEW

defining the noise.

conditions that exist when the noise occurs.

Squeak —(Like tennis shoes on a clean floor)

Creak—(Like walking on an old wooden floor)

Rattle—(Like shaking a baby rattle)

clip or fastener/incorrect clearance. Knock —(Like a knock on a door)

Tick—(Like a clock second hand)

Thump—(Heavy, muffled knock noise)

action or road conditions.

Buzz—(Like a bumble bee)

Revision; 2004 April

dependent on materials/often brought on by activity.

Buzz characteristics include high frequency rattle/firm contact.

judge as acceptable may be very irritating to the customer.

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Weather conditions, especially humidity and temperature, may have a great effect on noise level.

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DUPLICATE THE NOISE AND TEST DRIVE

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

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

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

CHECK RELATED SERVICE BULLETINS

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

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

LOCATE THE NOISE AND IDENTIFY THE ROOT CAUSE

- 1. Narrow down the noise to a general area. To help pinpoint the source of the noise, use a listening tool (Chassis Ear: J39570, 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 <u>SE-9</u>, "<u>Generic Squeak and Rattle Troubleshooting</u>".

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 (J43980) 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 (J43980). 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) think, 50×50 mm (1.97 \times 1.97 in)

INSULATOR (Light foam block)

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

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

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

SILICONE GREASE

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

Note: Will only last a few months.

SILICONE SPRAY

Use when grease cannot be applied.

DUCT TAPE

Use to eliminate movement.

CONFIRM THE REPAIR

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

Generic Squeak and Rattle Troubleshooting

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

INSTRUMENT PANEL

Most incidents are caused by contact and movement between:

The cluster lid A and instrument panel

- 2. Acrylic lens and combination meter housing
- 3. Instrument panel to front pillar garnish
- 4. Instrument panel to windshield
- 5. Instrument panel mounting pins
- 6. Wiring harnesses behind the combination meter
- 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 saturate the area with silicone, you will not be able to recheck the repair.

CENTER CONSOLE

Components to pay attention to include:

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

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

DOORS

Pay attention to the:

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

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

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

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

SUNROOF/HEADLINER

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

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

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

SEATS

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

Cause of seat noise include:

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

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

UNDERHOOD

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

Causes of transmitted underhood noise include:

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

These noise 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.

Diagnostic Worksheet

S000ZU



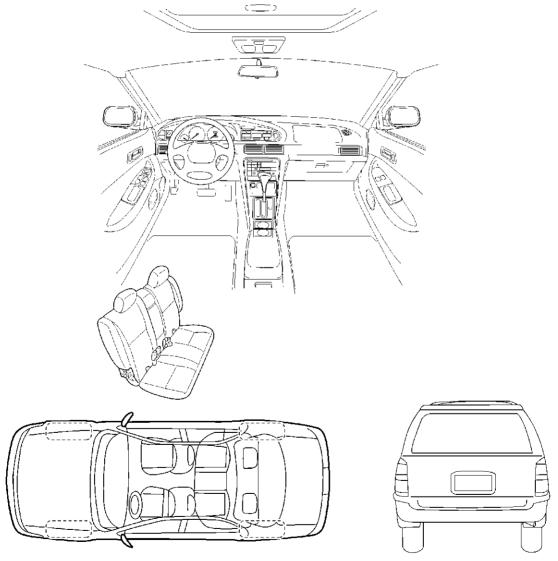
SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

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 advisor or technician to ensure we confirm the noise you are hearing.

. 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 véhicle.



Continue to the back 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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| SQUEAK & RATTLE DIAGNOSTIC WORKSHEET- page 2 | | | | |
|--|--|-------------------------|-------------------|-------------------------------|
| Briefly describe the location where | the noise oc | curs: | | |
| | · | | | |
| II. WHEN DOES IT OCCUR? (che | eck the box | es that a | pply) | |
| ☐ anytime☐ 1st time in the morning☐ only when it is cold outside☐ only when it is hot outside☐ | □ after sitt □ when it □ dry or d □ other: _ | is raining usty cond | or wet ditions | |
| III. WHEN DRIVING: | IV. | WHATT | YPE O | F NOISE? |
| | □ squeak (like tennis shoes on a clean floor) □ creak (like walking on an old wooden floor) □ rattle (like shaking a baby rattle) □ knock (like a knock on a door) □ tick (like a clock second hand) □ thump (heavy, muffled knock noise) □ buzz (like a bumble bee) | | | |
| TO BE COMPLETED BY DEALERSH Test Drive Notes: | HIP PERSO | NNEL | | |
| | | YES | <u>NO</u> | 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 cor | nfirm repair | 0 | 0 | |
| VIN: Cus | tomer Name | : | | |
| W O #· Date | ٠. | | | SBT |

This form must be attached to Work Order

AUTOMATIC DRIVE POSITIONER

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System Description

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- The system automatically moves the driver seat and steering wheel to facilitate entry/exit to/from the vehicle by connecting the BCM (Body Control Module) to the driver seat control unit the multiple communication line. The BCM can also store the optimum driving positions (driver seat, steering wheel and door mirror position) for 2 people. If the driver is changes, one-touch operation allows changing to the other driving position.
- The settings (ON/OFF) of the automatic tilt steering wheel and sliding seat (Entry/exiting function) at entry/exit can be changed as desired, using the display unit in the center of the instrument panel.

MANUAL OPERATION

The driving position (seat position, steering wheel position, door mirror position) can be adjusted with the power seat switch or ADP (Automatic Drive Positioner) steering switch.

NOTE:

- The seat and steering wheel position can be manually operated with the ignition switch OFF.
- The door mirrors can be manually operated with the ignition switch in either ACC or ON.

AUTOMATIC OPERATION

| | Function | Description | |
|-----------------|-------------------|--|--|
| Memory switch o | peration | The seat, steering wheel and door mirror move to the stored driving position by pushing memory switch. | |
| Entry / Exiting | Return operation | At entry, the seat and steering wheel return from the exiting position to the previous driving position. | |
| function | Turnout operation | At exit, the seat moves backward, and the steering wheel moves forward and upward. | |

NOTE:

- Disconnecting the battery erases the stored memory.
- After connecting the battery, insert the key into the ignition cylinder and turn the driver door switch ON (open)→OFF (close)→ON (open), the Entry / exiting function becomes possible.

| | When the vehicle speed becomes 7 km/h (4 MPH) or higher. |
|---------------------------------|---|
| | When the manual switch is operated. |
| Auto operation stop conditions. | When any two or more switches among the setting switch, memory switch 1, or 2 are pressed simultaneously. |
| | When the tilt sensor or telescoping sensor malfunction is detected. |
| | When the A/T selector lever is shifted to a position other than P-position. |

NOTE:

During automatic operation, if the ignition switch is turned ON \rightarrow START, the automatic operation is suspended. When the ignition switch returns to ON, it resumes.

FAIL-SAFE MODE

When the ignition switch is in the ON position, if any of the parts (indicated in the following chart) move more than the specified amount within a period "T" when no "ON" input is sent from any of the switches (indicated in the following chart), or an output from the automatic drive positioned is not produced, an output malfunction is sensed. Motor operation will be suspended automatically, and all automatic operations will be ineffective. (In this case, the motor will not operate manually).

| OPERATED PORTION | Т | Allowable measurement | |
|------------------|------------------|---------------------------|--|
| Seat sliding | Approx. 2.5 sec. | Within 6 mm (0.24 in). | |
| Seat reclining | Same as above | Change angel within 2.22° | |
| Steering wheel | Same as above | Change angel within 1° | |

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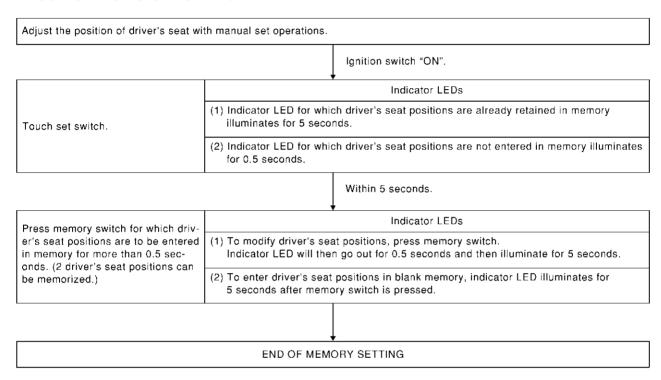
CANCEL OF FAIL-SAFE MODE

- The mode is cancelled when the selector lever is shifted to P-position from any other position.
- The mode can be cancelled with CONSULT-II.

MEMORY STORING

Store the 2 driving positions and shifts to the stored driving position with the memory switch.

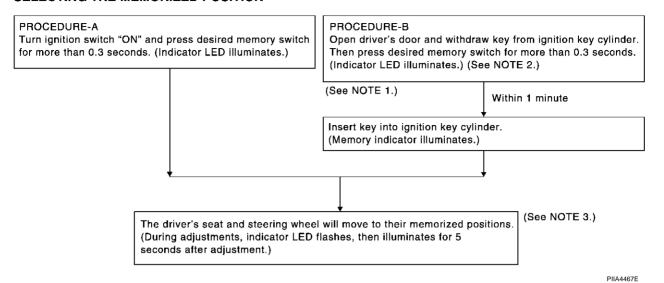
PROCEDURE FOR STORING MEMORY



SEL592W

MEMORY SWITCH OPERATION

SELECTING THE MEMORIZED POSITION



NOTE:

- Do not setting change as it will not operate. refer to SE-36, "SETTING CHANGE FUNCTION"
- Automatic turnout function will be performed.
- The driver's seat position and steering adjustment (see the following Table) operate simultaneously in the order of priority.

| Priority | Function | Priority | Function |
|----------|------------------------------------|----------|----------------|
| 1 | Seat sliding, (door mirror–LH/RH)* | 4 | Seat reclining |
| 2 | Steering wheel telescopic | 5 | Seat lifter–FR |
| 3 | Steering wheel tilt | 6 | Seat lifter–RR |

^{*:} In conjunction with sliding the seat, the door mirrors are positioned.

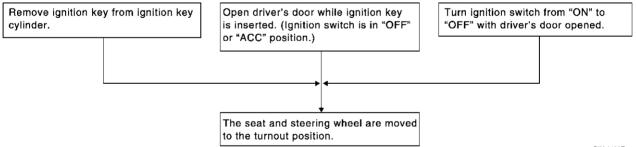
The mirror moves when the ignition switch is in ACC.

At exit, the seat and steering wheel are automatically moved to the turnout position.

Seat: moves backward.

TURNOUT OPERATION

Steering wheel: tilted upward and extended fully.



NOTE:

The seat sliding, steering wheel tilt, and telescoping are moved to the turnout position simultaneously.

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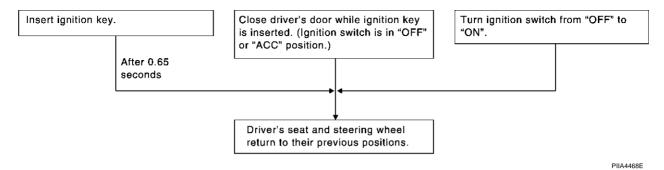
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RETURN OPERATION

When the seat and steering wheel are on the exiting positions, the following operation moves the seat and steering wheel to the previous position before the turnout operation.

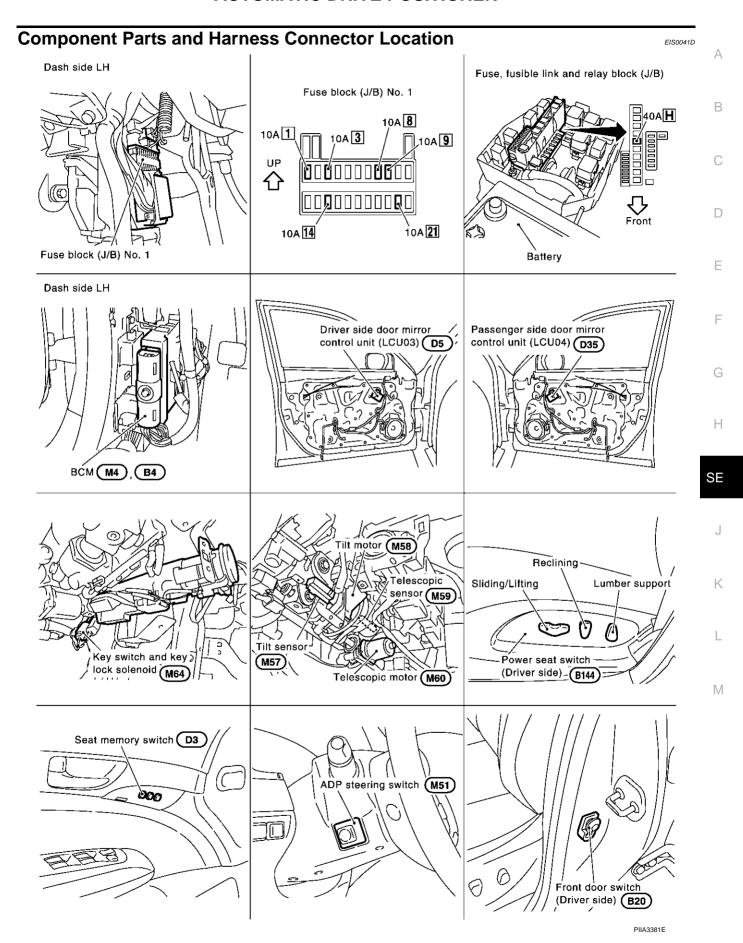


NOTE:

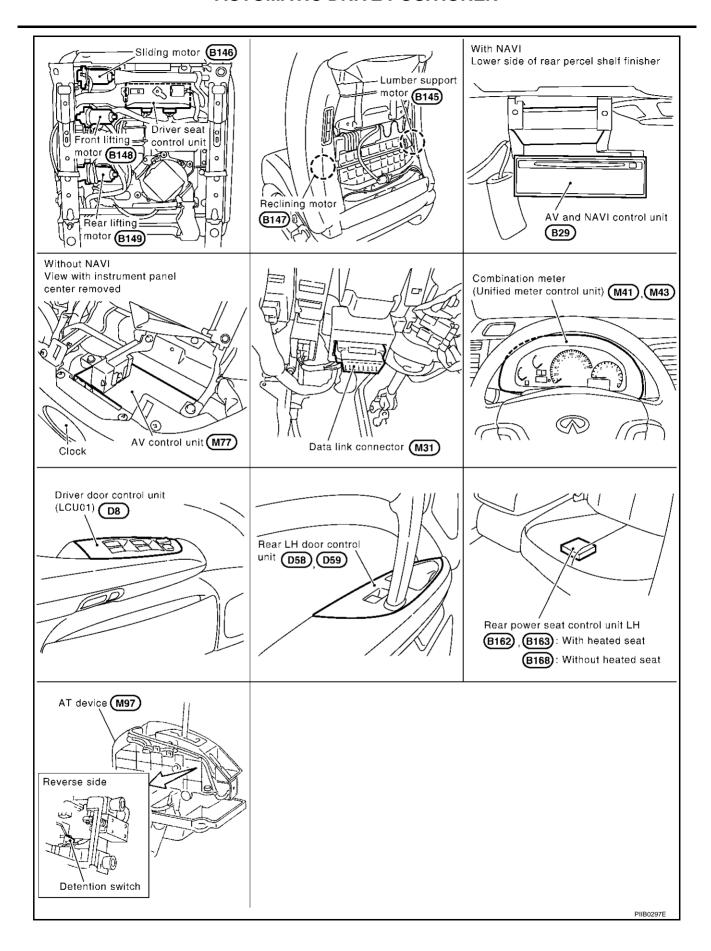
The seat sliding, steering wheel tilt, and telescoping return to the original positions simultaneously.

REAR POWER SEAT TURNOUT OPERATION

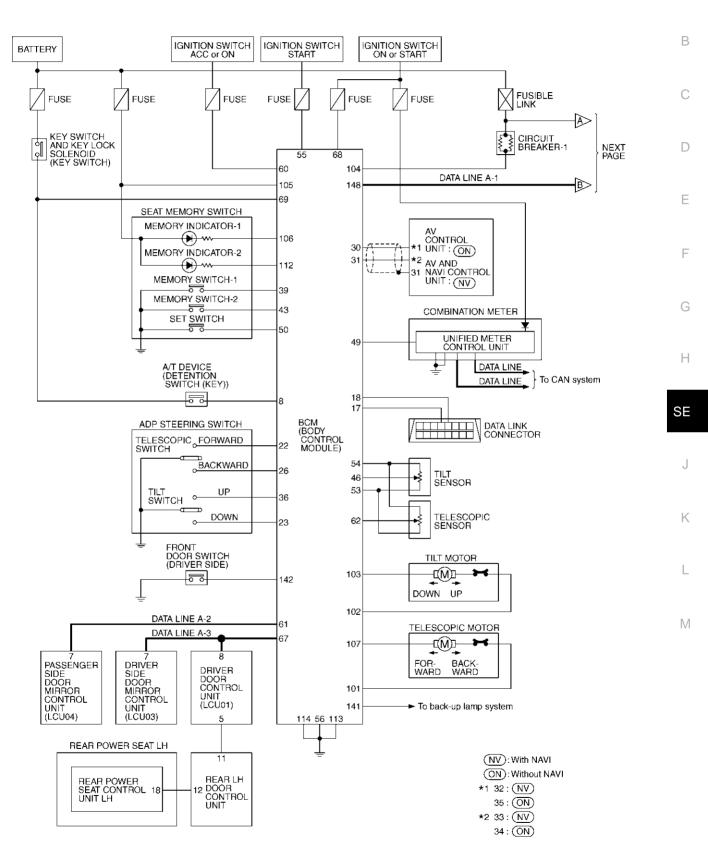
Rear power seat moves back ward with driver's seat at the same time in case turnout operation.



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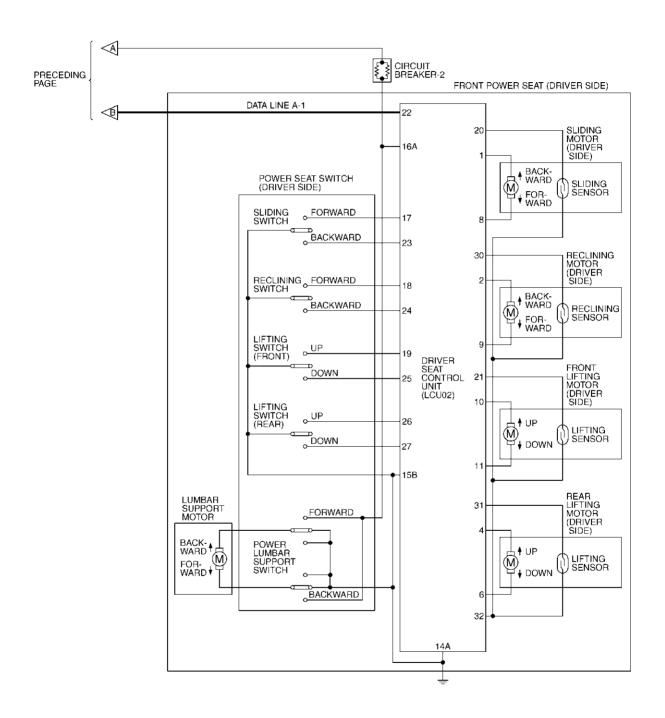


Schematic EIS0041E

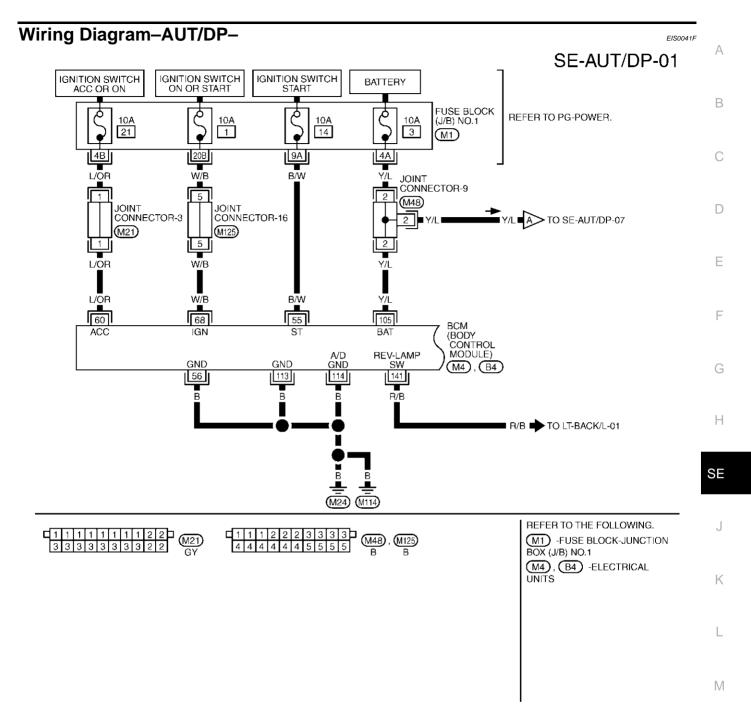


TIWM0135E

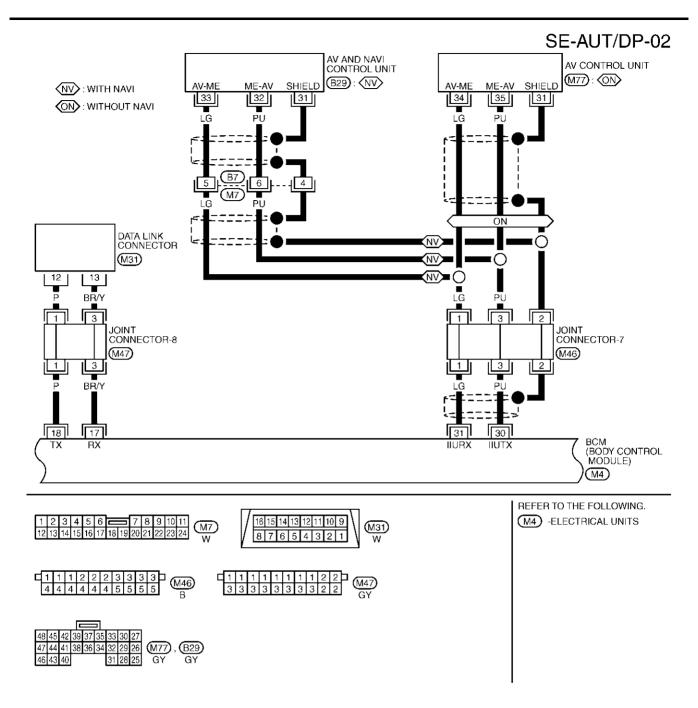
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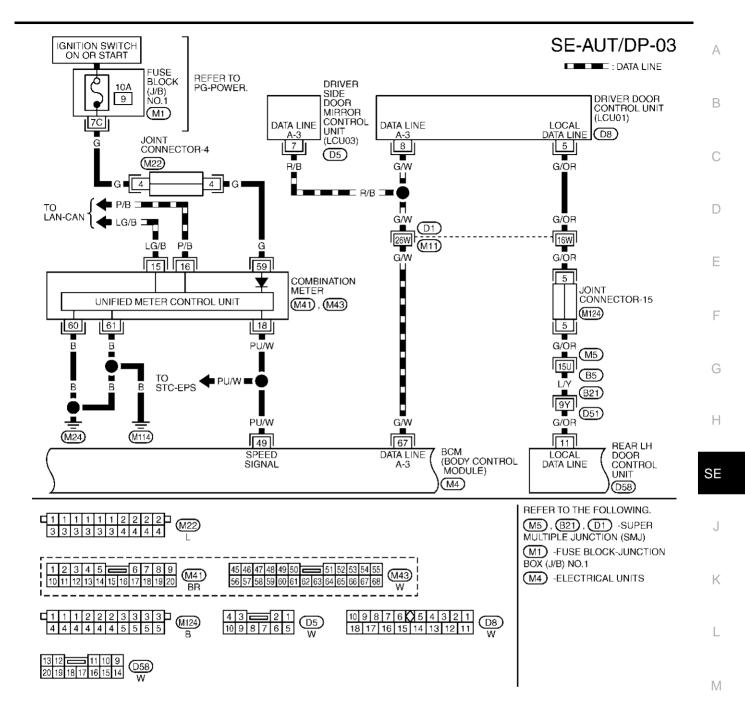
TIWM0274E



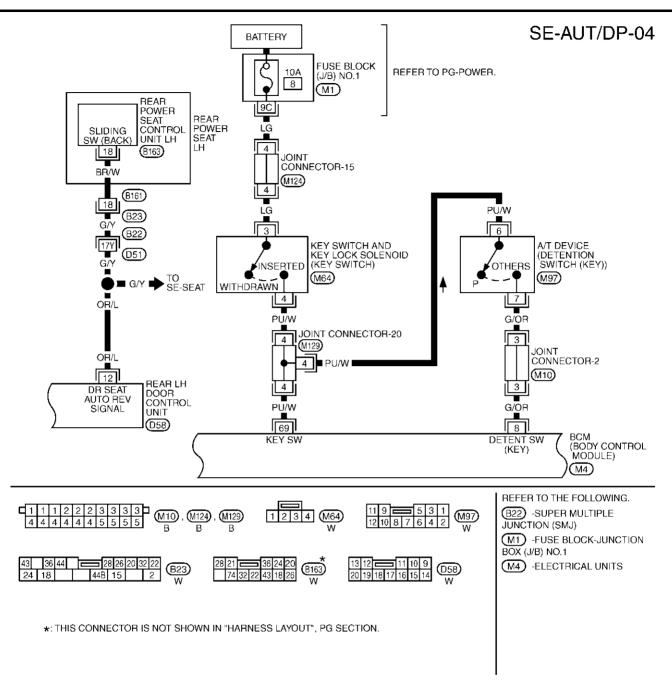
TIWM0222E



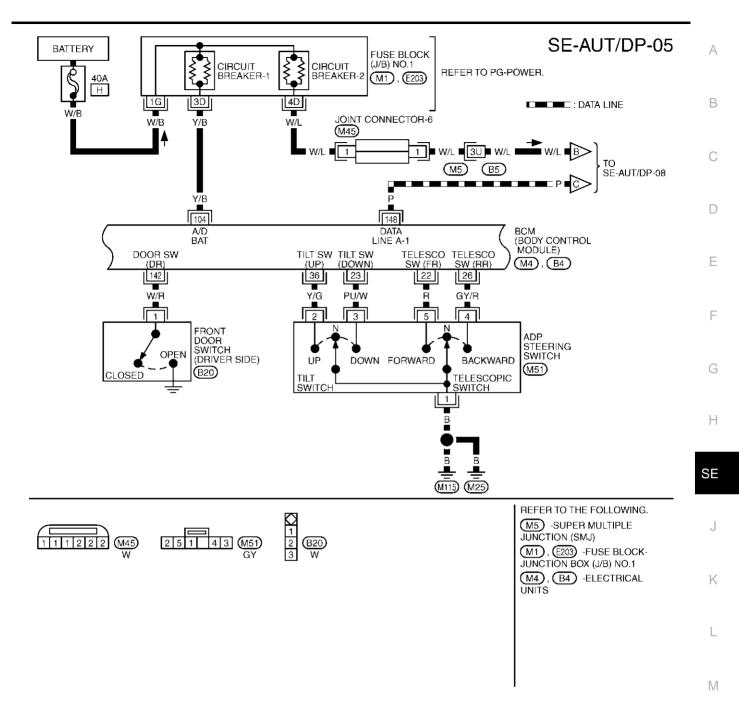
TIWM0136E



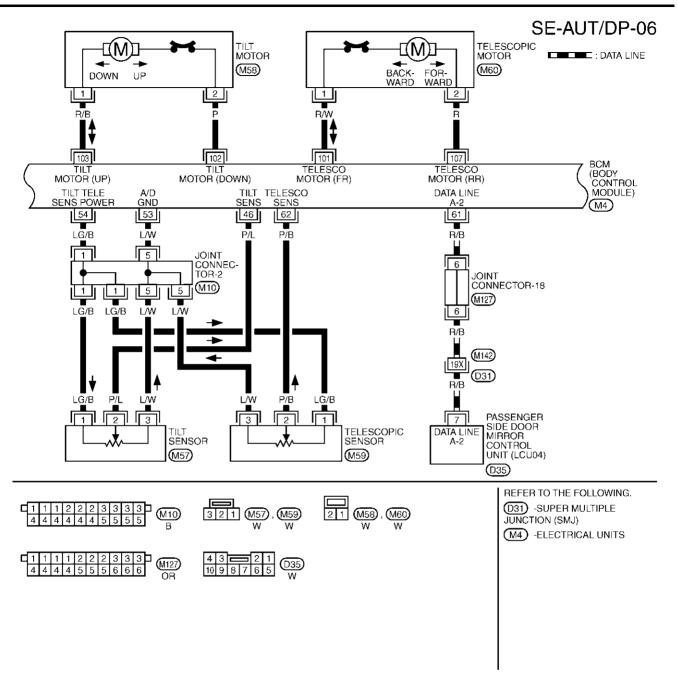
TIWM0223E



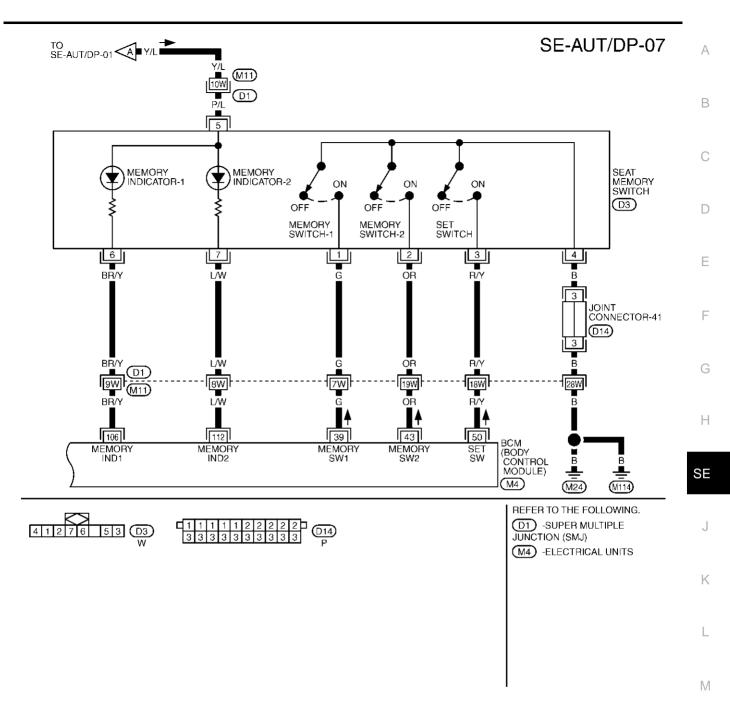
TIWM0181E



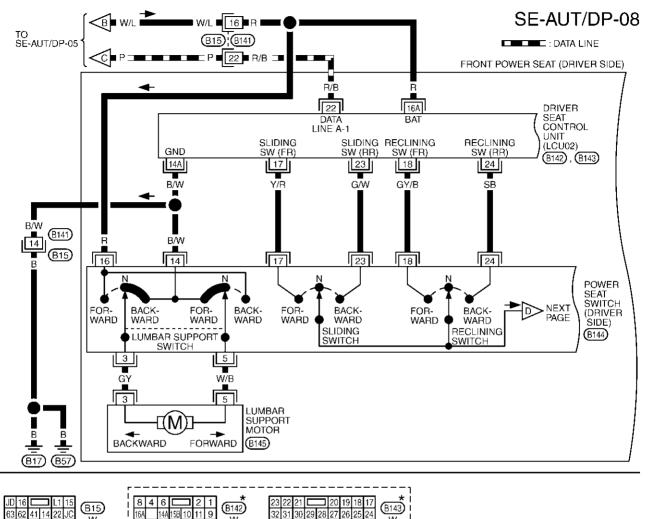
TIWM0224E

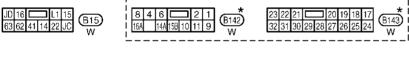


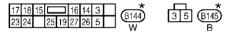
TIWM0137E



TIWM0225E

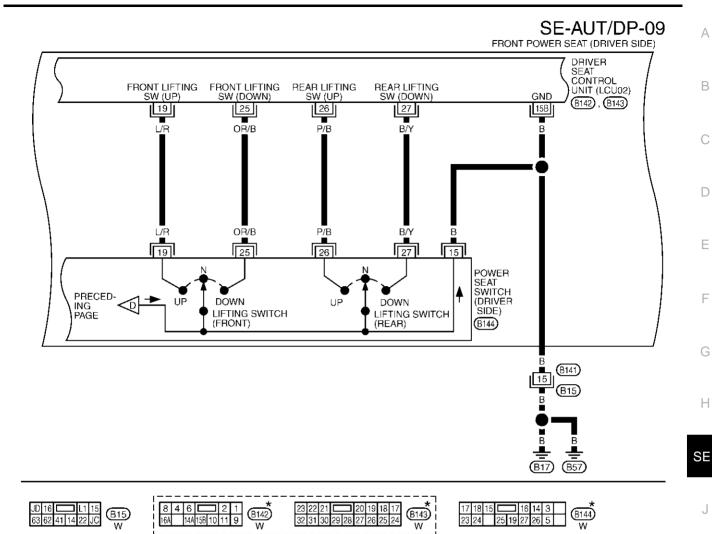






*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

TIWM0226E



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

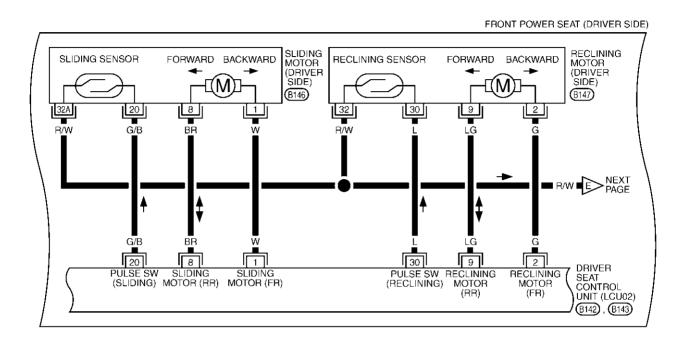
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SE-AUT/DP-10

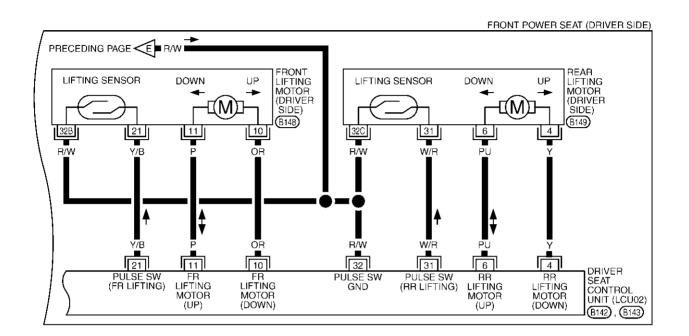




*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

TIWM0085E

SE-AUT/DP-11



| | <u> </u> | | |
|------------------------------------|--|------------------------|-------------------------|
| 8 4 6 2 1 16A 14A 15B 10 11 9 W | 23 22 21 20 19 18 17 32 31 30 29 28 27 26 25 24 W | 32B 10 21 11 B148 B | 320 6 31 4 B149 W |

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

TIWM0089E

Terminals and Reference Values for BCM

| EIS0041G |
|----------|
|----------|

| Termi- nal | WIRE COLOR | ITEM | CONDITION | | VOLTAGE (V) (Approx.) |
|---------------|---------------|-----------------------------|--------------------|--|--------------------------|
| 8 | G/OR | Detente switch signal | Insert the key | Selector lever in P-position. | 0 |
| | | | | Selector lever in other than P-position. | Battery voltage |
| 17 | BR/Y | Data link (RX line) | _ | | _ |
| 18 | Р | Data link (TX line) | _ | | _ |
| 22 | R | Telescopic switch FR signal | Telescoping switch | Forward operation (Motor operated) | 0 |
| | | Signal | | OFF | 5 |

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| Termi- nal | WIRE COLOR | ITEM | CON | IDITION | VOLTAGE (V) (Approx.) |
|---------------|---------------|---|---|-------------------------------------|--------------------------|
| 23 | PU/W | Tilt switch DOWN sig- | Tilt switch | DOWN operation (Motor operated) | 0 |
| | | IIai | | OFF | 5 |
| 26 | GY/R | Telescopic switch backward signal | Telescoping switch | Backward operation (Motor operated) | 0 |
| | | - | OFF | | 5 |
| 30 | PU | Monitor line (TX) | _ | | _ |
| 31 | LG | Monitor line (RX) | | _ | _ |
| 36 | Y/G | Tilt switch UP signal | Tilt switch | UP operation (Motor operated) | 0 |
| | | | | OFF | 5 |
| 39 | G | Memory switch 1 sig- | Memory switch 1 | ON | 0 |
| | | nal | , | OFF | 5 |
| 43 | 0 | Memory switch 2 sig- nal | Memory switch 2 | ON OFF | 5 |
| | - " | | Tilt position, top | | 2 |
| 46 | P/L | Tilt sensor signal | Tilt position, bottom | | 4 |
| 49 | PU/W | Vehicle speed signal (2-pulse) | When vehicle speed is approx. 40 km/h (25 MPH). | | ELF1080D |
| 50 | R/Y | Seat memory setting switch signal | Setting switch ON OFF | | <u> </u> |
| 53 | L/W | Tilt and telescopic sensor ground | Ignition switch ON | | 0 |
| 54 | LG/B | Tilt and telescopic sensor power supply | Ignition switch OFF | | 5 |
| 55 | B/W | IGN power supply | Ignition switch STAR | T. | Battery voltage |
| 56 | В | ground | Ignition switch ON | | 0 |
| 60 | L/OR | ACC power supply | Ignition switch ACC | | Battery voltage |
| 61 | R/B | Date line A-1 | _ | | _ |
| 62 | P/B | Telescopic sensor signal | Telescoping position | - | 2 4 |
| 67 | G/W | Date line A-3 | Telescoping position, bottom | | · |
| 68 | W/B | IGN power supply | Ignition switch ON or START | | Battery voltage |
| | | | Insert the key (ON). | | Battery voltage |
| 69 | PU/W | Key switch signal | Remove the key (OFF). | | 0 |
| 101 | R/W | Telescopic motor forward signal | Telescoping switch | ON (forward operation) | Battery voltage |
| | | 3 | | OFF | 0 |
| 102 | Р | Tilt motor DOWN signal | Tilt switch ON (DOWN operation) | | Battery voltage |
| | | signai | OFF | | 0 |

| Termi- nal | WIRE COLOR | ITEM | CONDITION | | VOLTAGE (V) (Approx.) |
|---------------|---------------|---|--------------------------|-------------------------|--------------------------|
| 103 | R/B | TI: (11D : 1 | Tilt switch | ON (UP operation) | Battery voltage |
| 103 | K/B | Tilt motor UP signal | | OFF | 0 |
| 104 | Y/B | Power supply for tilt and telescopic device | Ignition switch OFF | | Battery voltage |
| 105 | Y/L | Battery power supply | Ignition switch OFF | | Battery voltage |
| 106 | 100 000 | Power seat memory indicator 1 signal | Indicator 1 | ON | 0 |
| 106 | BR/Y | | indicator i | OFF | Battery voltage |
| 107 | R | Telescopic motor backward signal. | Telescoping switch | ON (backward operation) | Battery voltage |
| | | | | OFF | 0 |
| 112 | L/W | Power seat memory | Indicator 2 ON OFF | ON | 0 |
| 112 | L/VV | indicator 2 signal | | OFF | Battery voltage |
| 113 | В | Ground | Ignition switch ON | | 0 |
| 114 | В | Ground for tilt and telescoping device | Ignition switch ON | | 0 |
| 142 | W/R | Driver door switch signal | Driver door open (ON) | | 0 |
| 142 | | | Driver door closed (OFF) | | Battery voltage |
| 148 | Р | Data line A-1 | _ | | _ |

Terminals and Reference Values for Driver Seat Control Unit

| TERMI- NAL | WIRE COLOR | ITEM | CON | DITION | VOLTAGE (V) (Approx.) |
|---------------|---------------|---|----------------------|-------------------------------------|--------------------------|
| 1 | W | Sliding motor forward | Sliding switch | Forward operation (Motor operated) | Battery voltage |
| | | output signal | | OFF | 0 |
| 2 | G | Reclining motor for- | Reclining switch | Forward operation (Motor operated) | Battery voltage |
| | | ward output signal | | OFF | 0 |
| 4 | Y | Rear lifting motor | Rear lifting switch | DOWN operation (Motor operated) | Battery voltage |
| | | DOWN output signal | | OFF | 0 |
| 6 | PU | Rear lifting motor UP output signal | Rear lifting switch | UP operation (Motor operated) | Battery voltage |
| | | | | OFF | 0 |
| 8 | BR | Sliding motor back- ward output signal | Sliding switch | Backward operation (Motor operated) | Battery voltage |
| | | | | OFF | 0 |
| 9 | LG | .G Reclining motor backward output signal | Reclining switch | Backward operation (Motor operated) | Battery voltage |
| | | | | OFF | 0 |
| 10 | OR | Front lifting motor UP signal | Front lifting switch | UP operation (Motor operated) | Battery voltage |
| | | | | OFF | 0 |
| 11 | Р | P Front lifting motor DOWN output signal | Front lifting switch | DOWN operation (Motor operated) | Battery voltage |
| | | | | OFF | 0 |
| 14A | B/W | Ground | Ignition switch ON | | 0 |
| 15B | В | Oround | | | U |

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| TERMI- NAL | WIRE COLOR | ITEM | CONDITION | | VOLTAGE (V) (Approx.) |
|---------------|---------------|---|---|-------------------------|--|
| 16A | R | Battery power supply | Ignition switch OFF | | Battery voltage |
| 17 | Y/R | Sliding switch forward | Sliding switch | ON (forward operation) | 0 |
| | | signal | | OFF | 5 |
| 18 | GY/B | Reclining switch forward signal | Reclining switch | ON (forward operation) | 0 |
| | | Torward Signal | | OFF | 5 |
| 19 | L/R | Front lifting switch UP signal | Front lifting switch | ON (UP operation) OFF | 0 5 |
| 20 | G/B | Sliding sensor signal | Sliding motor operation | | (V) 6 4 2 0 + |
| | | | Other than above. | | 0 or 5 |
| 21 | Y/B | Front lifting sensor signal | Front lifting motor operation | | (¥) 6 4 2 0 ++50ms SIIA0691J |
| | | | Other than above. | | 0 or 5 |
| 22 | R/B | Data line A–1 | | _ | _ |
| 23 | G/W | Sliding switch back- ward input/output | Sliding switch ON (backward operation) | | 0 |
| | | , , , , , | | OFF | 0 or 5 |
| 24 | SB | Reclining switch backward input/output | Reclining switch | ON (backward operation) | 0 |
| | OD/D | Front lifting switch | Front lifting quitab | OFF ON (DOWN operation) | 0 or 5 |
| 25 | OR/B | DOWN signal | Front lifting switch | OFF | 0 or 5 |
| | 5.7 | Rear lifting switch | | ON (UP operation) | 0 |
| 26 | P/B | UP signal | Rear lifting switch | OFF | 0 or 5 |
| 27 | B/Y | Rear lifting switch | Rear lifting switch (DOWN operation) | | 0 |
| | | DOWN signal | | OFF | 0 or 5 |
| 30 | L | Reclining sensor signal | Reclining motor operation | | (¥) 6 4 2 0 ++50ms SIIA0692J |
| | | | Other than above. | | 0 |

| TERMI- NAL | WIRE COLOR | ITEM | CONDITION | VOLTAGE (V) (Approx.) |
|---------------|---------------|----------------------------|------------------------------|------------------------------------|
| 31 | W/R | Rear lifting sensor signal | Rear lifting motor operation | (V) 6 4 2 0 ***50ms |
| | | | Other than above. | 0 |
| 32 | R/W | Ground (sensor) | Ignition switch ON | 0 |

Work Flow

- 1. Check the symptom and customer's requests.
- 2. Understand the system description. Refer to <a>SE-13, "System Description".
- 3. Perform the preliminary check. Refer to SE-36, "Preliminary Check".
- 4. Perform the communication diagnosis.

With CONSULT-II, Refer to SE-40, "IVMS Communication Diagnosis".

Without CONSULT-II, refer to SE-47, "COMMUNICATION DIAGNOSIS".

Is the communication diagnosis result OK?

If OK, GO TO 7.

If NG. GO TO 5.

- 5. Repair or replace depending on the diagnosis result.
- 6. Perform the communication diagnosis again.

With CONSULT-II, refer to SE-40, "IVMS Communication Diagnosis".

Without CONSULT-II, refer to SE-47, "COMMUNICATION DIAGNOSIS".

Is the communication diagnosis result OK?

If OK, GO TO 7.

If NG, GO TO 5.

7. Perform the self-diagnosis.

With CONSULT-II, refer to <u>SE-43, "SELF-DIAGNOSIS RESULTS"</u>.

Without CONSULT-II, refer to <u>SE-51</u>, "ON BOARD DIAGNOSIS FOR AUTOMATIC DRIVE POSI-TIONER"

Is the self-diagnosis result OK?

If OK, GO TO 11.

If NG, GO TO 8.

- 8. Repair or replace depending on the self-diagnosis result.
- Perform the self-diagnosis again.

With CONSULT-II, refer to SE-43, "SELF-DIAGNOSIS RESULTS".

Without CONSULT-II, refer to <u>SE-51, "ON BOARD DIAGNOSIS FOR AUTOMATIC DRIVE POSITIONER"</u>.

Is the self-diagnosis result OK?

If OK, GO TO 11.

If NG, GO TO 8.

- 10. Based on the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to <u>SE-53</u>, <u>"Symptom Chart"</u>.
- 11. Does the automatic drive positioned system operate normally?

If it is normal, GO TO 12.

If it is not normal, GO TO 10.

12. Inspection end.

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Preliminary Check SETTING CHANGE FUNCTION

EIS0043F

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

| Setting item | Content | CONSULT-II (WORK SUPPORT) | Display unit | Factory setting |
|-------------------------------|--|--------------------------------------|-------------------------|-----------------|
| | The applied parts at exit can be selected from the following 4 modes. | Mode 1 Steering wheel and seat | | × |
| EXITING OPERATION PART SET | | Mode 2 Steering wheel only | _ | _ |
| FART SET | | Mode 3 Seat only | | _ |
| | | Mode 4 No operation | | _ |
| Tilt Steering Wheel When | Tilt of the steering wheel at entry and exit can be selected: ON (operated)–OFF (not operated) | _ | ON: Indicator lamp ON | × |
| Exiting Vehicle | | | OFF: Indicator lamp OFF | _ |
| Sliding Driver Seat When | The seat sliding turnout and return at entry/exit can be selected: ON (operated)–OFF | | ON: Indicator lamp ON | × |
| Entry / Exiting Vehicle | (not operated) | _ | OFF: Indicator lamp OFF | |

^{×:} Applicable -: Not applicable

NOTE:

After the setting is registered, the new setting is effective, even if the battery is disconnected.

POWER SUPPLY AND GROUND CIRCUIT INSPECTION

1. CHECK FUSE

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

| Unit | Signal name | Fuse No. | Location |
|------|---------------------------|----------|--|
| | Pottory power | H (40A) | Fuse, fusible link and relay block (J/B) |
| | Battery power | 3 (10A) | |
| BCM | ACC or ON power supply | 21 (10A) | Fues block (I/D) No. 1 |
| | START power supply | 14 (10A) | Fuse block (J/B) No.1 |
| | IGN or START power supply | 1 (10A) | |

NOTE:

Refer to SE-17, "Component Parts and Harness Connector Location".

OK or NG

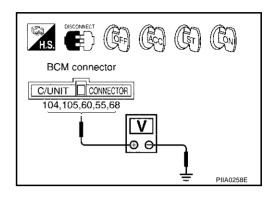
OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of problem before installing new fuse. Refer to <u>SE-17</u>, "Component Parts and Harness Connector Location".

2. CHECK POWER SUPPLY CIRCUIT (BCM)

- 1. Disconnect BCM connector.
- 2. Check voltage between BCM connector and ground.

| Connector | Terminals (Wire color) | | Condition | Voltage (V) (Approx.) |
|-----------|---------------------------|------------------------|--------------------------------|--------------------------|
| | (+) | (–) | | (дрргох.) |
| | 104 (Y/B), 105 (Y/L) | Ignition switch OFF | Battery voltage | |
| M4 | 60 (L/OR) | Ground | Ignition switch ACC or ON | Battery voltage |
| | 55 (B/W) | | Ignition switch START | Battery voltage |
| | 68 (W/B) | | Ignition switch ON or START | Battery voltage |



OK or NG

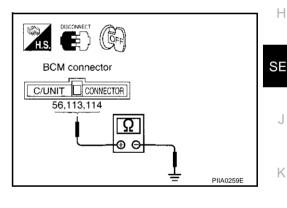
OK >> GO TO 3.

NG >> Check harness for open and short between BCM and fuse.

3. GROUND CIRCUIT INSPECTION (BCM).

Check continuity between BCM connector and ground.

| Connector | Terminals (Wire color) | | Condition | Continuity |
|-----------|---------------------------|---------------------------|---------------------------|-------------------------|
| | (+) | (-) | | |
| | 56 (B) | | Ignition switch OFF | Continuity should exist |
| M4 | 113 (B) | Ground | Ignition switch OFF | Continuity should exist |
| | 114 (B) | Ignition switch OFF | Continuity should exist | |



OK or NG

OK >> BCM circuit is OK. Check the driver seat control unit. GO TO 4.

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

4. CHECK POWER SUPPLY CIRCUIT (DRIVER SEAT CONTROL UNIT)

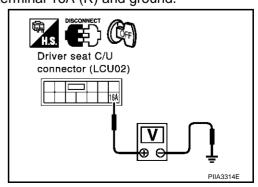
- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit connector.
- Check voltage between driver seat control unit connector B142 terminal 16A (R) and ground.

16A (R) – Ground :Battery voltage.

OK or NG

OK >> GO TO 5.

NG >> Repair or replace harness between driver seat control unit and fuse block (J/B) No. 1.



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5. CHECK GROUND CIRCUIT (DRIVER SEAT CONTROL UNIT)

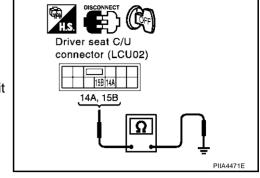
Check continuity between the driver seat control unit connector B142 terminal 14A (B/W), 15B (B) and ground.

14A (B/W) – Ground :Continuity should exist. 15B (B) – Ground :Continuity should exist.

OK or NG

OK >> Driver seat control unit circuit is OK.

NG >> Repair or place harness between driver seat control unit (LCU 02) and ground.



CONSULT-II Function

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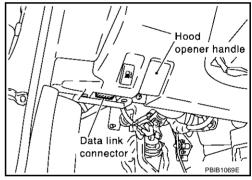
CONSULT-II executes the following functions by combining data received and transmits command transmission via the communication line from the BCM. IVMS communication inspection, work support by part, self-diagnosis, data monitor, and active test display.

| IVMS diagnosis items | Inspection item, self- diagnosis mode | Content |
|--------------------------|--|--|
| IVMS – | IVMS- COMM DIAGNOSIS | Diagnoses a communication malfunction, inactive communication, and sleep malfunction in the communication line between the BCM and each LCU. |
| COMM CHECK | WAKE- UP DIAGNOSIS Diagnoses the wake-up signals output from each LCU. | |
| WORK SUPPORT* | WORK SUPPORT* | Changes the setting for each function. |
| AUTO DRIVE POSITIONER | SELF- DIG RESULTS | Perform the self-diagnosis. |
| POSITIONER | DATA MONITOR | Displays the input data of the BCM and each LCU on real-time basis. |
| | ACTIVE TEST | Gives a drive signal to a load to check the operation. |
| BCM PART NUMB | ER | Displays BCM part No. |

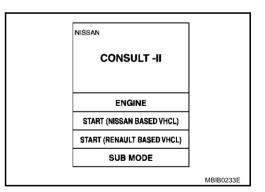
^{*:} For setting seat and steering functions only.

CONSULT-II BASIC OPERATION PROCEDURE

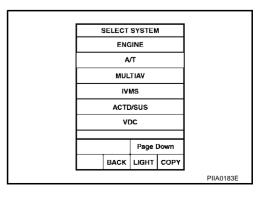
- 1. Turn ignition switch "OFF".
- 2. Connect "CONSULT-II" and CONSULT-II CONVERTER to data link connector.



- Turn ignition switch "ON".
- 4. Touch "START(NISSAN BASED VHCL)".



5. Touch "IVMS" on the "SELECT SYSTEM" screen. If "IVMS" is not indicated, GI-38, "CONSULT-II Data Link Connector (DLC) Circuit".



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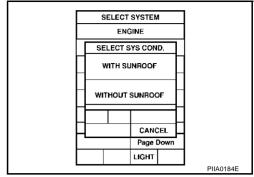
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- Check the model specification, and touch either "WITH SUN-ROOF" or "WITHOUT SUNROOF" on the "SELECT SYS COND" screen.
- 7. Touch "OK". If the selection is wrong, touch "CANCEL".
- 8. Select the desired part to be diagnosed on the "SELECT TEST ITEM" screen.



IVMS COMMUNICATION INSPECTION.

IVMS contains the IVMS communication diagnosis and wake-up diagnosis.

IVMS Communication Diagnosis

 The function also stores the communication malfunction records and inactive communication records, and displays the data on the CONSULT-II screen. (malfunction record diagnosis.)

NOTE:

Sleep is a power saving function when a vehicle is stationary (all BCM related electrical equipment: OFF, and the timer: OFF).

| Malfunction | CONSULT-II dis- play item | Diagnosis content |
|----------------------------|------------------------------|--|
| Communication malfunction | COMM DATA | Communicating with each LCU is judged normal when communication is normally completed and when both transmitted data and received data are equal. In other cases, it is judged malfunctioning. If the communication is inactive, no diagnosis result is displayed. |
| Inactive communication | NO RESPONSE | Communicating with each LCU is judged normal when at least 1 communication is normally completed within 3 trials. In other cases, it is judged malfunctioning. |
| Sleep malfunction | SLEEP | Check that each LCU switches to sleep mode. |
| Communication malfunction* | PAST COMM DATA | The records when communication signal, malfunctions were continuously detected while the communication was normal are displayed, or a malfunction was detected during the sleep control in the past are displayed. |
| Inactive communication* | PAST NO RESPONSE | The records when inactive communications were continuously detected while the communication was normal are displayed. |

^{*:} Malfunction item record

Operation Procedure

- Touch "IVMS-COMM CHECK" on "SELECT TEST ITEM".
- 2. Touch "IVMS-COMM DIAGNOSIS" on the "SELECT DIAG ITEM" screen.
- 3. Touch "START" on the "IVMS-COMM DIAGNOSIS" screen to start the diagnosis.
- 4. After the diagnosis is completed, the malfunctioning system name is displayed.
- 5. When the malfunctioning items are displayed, touch "PRINT" to keep the records.
- 6. Touch "ERASE".
- 7. Carry out the communication inspection again to check that any malfunctioning item is displayed.
- Check the displayed items.

Wake-up Diagnosis.

The wake-up diagnosis is carried out when the BCM detects the wake-up signal from each local control unit (LCU). When the switch shown on the screen is operated as instructed, each local control unit (LCU) outputs the wake-up signal. If the BCM cannot detect the wake-up signal, it is judged malfunctioning. The malfunctioning local control unit (LCU) is displayed on the screen.

Operation Procedure

- Touch "IVMS-COMM CHECK" on the "SELECT TEST ITEM" screen.
- Touch "WAKE-UP DIAGNOSIS" on the "SELECT DIAG ITEM" screen.
- 3. Touch "START" on the "WAKE-UP DIAGNOSIS" screen to start the diagnosis.

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- 4. Touch "NEXT" to select the local control unit (LCU) to be diagnosed.
- 5. Check that any malfunction is displayed. If necessary, touch "PRINT" to keep the record.
- 6. Carry out the inspection of the malfunctioning item.

Trouble Diagnosis Chart

| Malfunctioning item | Display unit | CONSULT-II IVMS communication diagnosis content | Self-diagnosis trouble code No. | Malfunctioning system and reference | |
|------------------------------|------------------------------|---|--|--|--|
| | | POWER WINDOW C/U-DR "COMMDATA" | 24 | | |
| | One LCU is dis- | DOOR MIRROR C/U-RH "COMMDATA" | 27 | Replace the displayed LCU. | |
| | played. | DOOR MIRROR C/U-LH "COMMDATA" | 37 | | |
| COMM DATA | | POWER SEAT C/U-DR "COMMDATA" | 47 | | |
| Multiple LCUs are displayed. | | BCM "COMMFAIL1"L1","COMMFAIL2" | Displays in order of 24 →27→37→47 →and cycles from 24. | Communication system A: Refer to <u>SE-41</u> . | |
| | | POWER WINDOW C/U-DR "NORESPONSE" | 25 | Communication system B: Refer to <u>SE-42</u> | |
| | One LCU is displayed. | DOOR MIRROR C/U-RH "NORESPONSE" | 28 | | |
| | | DOOR MIRROR C/U-LH "NORESPONSE" | 38 | | |
| NO | | POWER SEAT C/U-DR "NORESPONSE" | 48 | | |
| | Multiple LCUs are displayed. | BCM/HARNESS | Displays in order of 25→28→38→4 8 and cycles from 25. | Communication system C: Refer to <u>SE-42</u> . | |
| | | POWER WINDOW C/U-DR "SLEEP" | | | |
| | One LCU is displayed. | DOOR MIRROR C/U-RH "SLEEP" | No self-diagno- sis function | Replace the displayed LCU. | |
| | | DOOR MIRROR C/U-LH "SLEEP" | | | |
| | | POWER SEAT C/U-DR "SLEEP" | | | |
| | Multiple LCUs are displayed. | All the above control units are displayed. | No self-diagnosis function | Communication system A: Refer to <u>SE-41</u> . | |

NOTE:

- For a specific local control unit (LCU), either "PAST COMM DATA" or "PAST NO RESPONSE" may be displayed instead of the above results. The data record, causes this, so erase the records.
 - (The display only shows the incident records, they are not malfunctions caused during the diagnosis. One possible cause is that an intermittent incident occurred.)
- Follow the steps below to erase the memory.
 Carry out either disconnect BCM battery power supply or erase memory with CONSULT-II.
- With the battery connected, if the local control unit (LCU) connector is disconnected and left for approximately 1 minute, the BCM stores "NO RESPONSE" record.

COMMUNICATION SYSTEM A

1. CHECK BCM

Replace the BCM with a known-good one, and carry out the communication diagnosis. Refer to <u>SE-40, "IVMS Communication Diagnosis"</u> .

OK or NG

OK >> The harness and connector is checked, and it is normal, replace BCM

NG >> GO TO 2.

2. CHECK LCU

- 1. Replace with the previously installed BCM.
- 2. Replace the LCU with a known-good one, and carry out the communication diagnosis. Refer to <u>SE-40</u>, "IVMS Communication Diagnosis".

OK or NG

OK >> The harness and connector is checked, and it is normal, replace LCU

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

COMMUNICATION SYSTEM B

1. CHECK HARNESS CONNECTOR

Check terminals (at the control unit and harness) on the malfunctioning LCU for disconnection, bend, loose connection, and other malfunctions.

OK or NG

OK >> GO TO 2.

NG >> Repair the terminals and connectors.

2. CHECK LCU

Replace the malfunctioning LCU with a known-good one, and carry out the communication diagnosis. Refer to <u>SE-40, "IVMS Communication Diagnosis"</u>.

OK or NG

OK >> The harness and connector is checked, and it is normal, replace LCU

NG >> Repair the harness between the indicated LCU and BCM.

COMMUNICATION SYSTEM C

1. CHECK HARNESS CONNECTOR

Check terminals (at the control unit and harness) on BCM and LCU for disconnection, bend, loose connection, and other malfunctions.

OK or NG

OK >> GO TO 2.

NG >> Repair the terminals and connectors.

2. CHECK BCM

Replace the malfunctioning BCM with a known-good one, and carry out the communication diagnosis. Refer to <u>SE-40</u>, "IVMS Communication Diagnosis" .

OK or NG

OK >> The harness and connector is checked, and it is normal, replace BCM

NG >> Repair the harness between the LCU and BCM control.

WORK SUPPORT

Display Item List

Refer to SE-36, "SETTING CHANGE FUNCTION".

SELF-DIAGNOSIS RESULTS Display Item List

| Malfunctioning system | Malfunction detecting condition | Diagnostic procedure | Reference page |
|----------------------------|--|---|------------------------------|
| SEAT SLIDE | When the sliding sensor pulse changes 2 times or less, while the sliding motor moves the seat backward for 2.5 seconds, and then forward for 2.5 seconds. | Sliding motor check Sliding sensor check | <u>SE-55</u> <u>SE-63</u> |
| SEAT RECLINING | When the reclining sensor pulse changes 2 times or less, while the reclining motor moves the seat forward for 2.5 seconds, and then backward for 2.5 seconds. | Reclining motor check Reclining sensor check | <u>SE-56</u> <u>SE-64</u> |
| SEAT LIFTER-FR | When the lifter sensor (front end) pulse changes 2 times or less, while the lifter motor (front end) moves the seat downward for 2.5 seconds, and then upward for 2.5 seconds. | Front lifting motor check Front lifting sensor check | <u>SE-57</u> <u>SE-66</u> |
| SEAT LIFTER-RR | When the lifter sensor (rear end) pulse changes 2 times or less, while the lifter motor (rear end) moves the seat downward for 2.5 seconds, and then upward for 2.5 seconds. | Rear lifting motor check Rear lifting sensor check | <u>SE-59</u> <u>SE-67</u> |
| STEERING TILT | ,When the tilt sensor output voltage is 0.2V or less, while the tilt motor moves the steering wheel upward for 1 second, and then downward for 1 second. | Tilt motor check Tilt sensor check | <u>SE-62</u> <u>SE-70</u> |
| STEERING TELESCO | When the telescoping sensor output voltage is 0.2V or less. while the telescope motor moves the steering wheel forward for 1 second, and then backward for 1 second, | Telescopic motor check Telescopic sensor check | <u>SE-60</u> <u>SE-69</u> |
| DOOR MIRROR- LH-UP-DOWN | When LH door mirror sensor detects 0.2V | | |
| DOOR MIRROR- LH·L-R | or lower, or 4.5V or higher, for 0.5 seconds or more. | Mirror sensor check | <u>GW-111</u> |
| DOOR MIRROR- RH-UP-DOWN | When RH door mirror sensor detects 0.2V | | 200.00 |
| DOOR MIRROR- RH·L-R | or lower, or 4.5V or higher, for 0.5 seconds or more. | Mirror sensor check | <u>GW-111</u> |
| VEHICLE SPEED SENSOR | When the vehicle speed is less than 7 km/h (4 MPH) for 15 seconds after the diagnosis for the seat and steering wheel is completed. | Vehicle speed signal check | <u>SE-74</u> |

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Auto Drive Positioner Incident Memory

It stores the incident records of the input/output system related to the auto driving position system, and displays them on the CONSULT-II screen.

| Malfunctioning system | Malfunction detecting condition | Diagnostic procedure | Reference page |
|--------------------------------------|--|-----------------------------|----------------|
| SEAT SLIDE "PAST OUTPUT FAIL" | If the following conditions are met, the seat sliding output system is judged malfunctioning. If there is no manual input in the past or any auto operation output, and then within 2.5 seconds the sliding sensor receives an input signal showing that the seat has slid by 6 mm or more. | Seat sliding sensor check | <u>SE-63</u> |
| SEAT RECLINING "PAST OUTPUT FAIL" | If the following conditions are met, the seat reclining output system is judged malfunctioning. If there is no manual input in the past nor any auto operation output, and then within 2.5 seconds the reclining sensor receives an input signal showing that the seat has reclined by 2.22 or more. | Seat reclining sensor check | <u>SE-64</u> |
| STEERING TILT "PAST OUTPUT FAIL" | If the following conditions are met, the steering tilt output system is judged malfunctioning. If there is no manual input in the past nor any auto operation output, and then within 2.5 seconds the steering tilt sensor receives an input signal showing that the steering wheel is tilted by 1° or more. | Steering tilt sensor check | <u>SE-70</u> |
| DETENTION SW "PAST INPUT FAIL" | With the A/T selector lever in P-position (Detention switch OFF), if the vehicle speed of 7 km/h (4 MPH) or higher was input for at least 2 seconds, the detention switch input system is judged malfunctioning. | Detention switch check | <u>SE-68</u> |
| TELESCO SENSOR "PAST" | If the voltage value detected by the telescopic sensor was 0.1V or less, or 4.9 V or more, the telescoping sensor is judged malfunctioning. | Telescopic sensor check | <u>SE-69</u> |
| TILT SENSOR "PAST" | If the voltage value detected by the tilt sensor was 0.1V or less, or 4.9 V or more, the tilt sensor is judged malfunctioning. | Tilt sensor check | <u>SE-70</u> |

DATA MONITOR Display Item List

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

| Monitor item [OPERA | TION or UNIT] | Contents |
|---------------------|---------------|---|
| MIR CON SW-LH | "ON/OFF" | ON/OFF status judged from the door mirror remote control switch (LEFT) signal s 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 to LEFT) signal is displayed. |
| SET SW | "ON/OFF" | ON/OFF status judged from the setting switch 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. |
| 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. |
| 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. |
| CANCEL SW | "ON/OFF" | Setting status is displayed with the display unit: "Active (ON)/inactive (OFF)" |
| DOOR SW DR | "ON/OFF" | ON (Door open) / OFF (door closed) status judged from the driver door switch is displayed. |
| VHCL SPEED SE | "7km/7km" | The present vehicle speed (less than 7 km/h (4 MPH), or 7 km/h (4 MPH) or higher) is displayed. |
| DETENT SW | "ON/OFF" | The selector lever position "ON (P position) / OFF (other than P position)" judged from the detention switch signal is displayed. |
| IGN ON SW | "ON/OFF" | Ignition key switch ON (IGN ON)/OFF (ignition switch START, ACC, or OFF) status judged from the ignition switch signal is displayed. |
| IGN ACC SW | "ON/OFF" | Ignition key switch ON (ACC or IGN ON)/ OFF (ignition switch START, or OFF) status judged from the ignition switch signal is displayed. |
| IGN START SW | "ON/OFF" | Ignition key switch ON (START, ON) /OFF (ignition switch IGN, ACC, or OFF) status judged from the ignition switch signal is displayed. |
| IGN KEY SW | "ON/OFF" | Key inserted (ON)/key removed (OFF) status judged from the key detection switc is displayed. |
| R POSITION SW | "ON/OFF" | R position (ON)/Other than R position of shift position signal from back—up lamp relay is displayed. |
| TILT SEN | "V" | The tilt position (voltage) judged from the tilt sensor signal is displayed. |
| TELESCO SEN | "V" | The telescoping position (voltage) judged from the telescoping sensor signal is displayed. |
| MIR/SE RH R-L | "ON/OFF" | ON (normal value)/OFF (abnormal value) *of voltage value judged from RH door mirror sensor output voltage (LH/RH) is displayed. |
| MIR/SE RH U-D | "ON/OFF" | ON (normal value)/OFF (abnormal value) *of voltage value judged from RH door mirror sensor output voltage (UP/DOWN) is displayed. |
| MIR/SE LH R-L | "ON/OFF" | ON (normal value)/OFF (abnormal value) *of voltage value judged from LH door mirror sensor output voltage (LH/RH) is displayed. |
| MIR/SE LH U-D | "ON/OFF" | ON (normal value)/OFF (abnormal value) *of voltage value judged from LH door mirror sensor output voltage (UP/DOWN) is displayed. |

^{*:} Abnormal value indicates that the sensor output voltage is 0.2V or lower, or 4.5V or higher.

ACTIVE TEST Display Item List

| 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. |

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| Test item | Description |
|------------------|--|
| SEAT LIFTER FR | The front end lifter motor is activated by receiving the drive signal. |
| SEAT LIFTER RR | The rear end lifter motor is activated by receiving the drive signal. |
| MEMORY SW INDCTR | The memory switch indicator is lit 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. |

On Board Diagnosis

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BCM can check each local unit (LCU), switches, loads, and malfunctions in communication with the self-diagnosis.

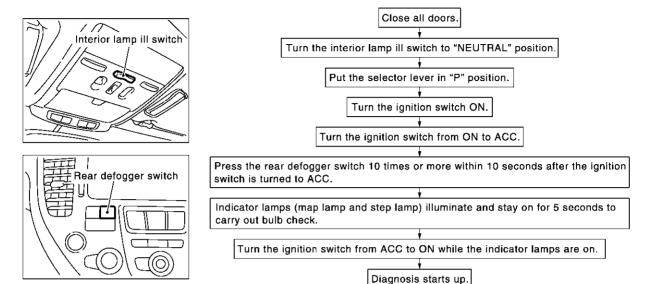
DIAGNOSIS ITEM

| Diagnosis item | Description |
|--|---|
| Communication diagnosis | It can check the communication line between BCM and each LCU, and also each LCU, for a communication malfunction. |
| Switch monitor | It can check the switch systems which send data to BCM and each LCU for a malfunction. |
| Self-diagnosis for auto drive positioner | Diagnosis malfunctions in each motor and sensor in the electrical load parts of the driver power seat system (sliding, reclining, and lifter [front/rear]), of the steering wheel system (tilt, telescoping), and of door mirror. |

COMMUNICATION DIAGNOSIS

Check the communication between BCM and each local control unit (LCU).

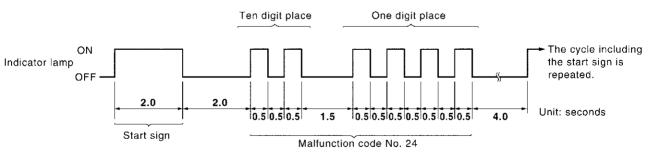
Operation Procedure



Diagnosis Result Display

- The indicator lamps (the map lamp and step lamp) turn ON (illuminate) for 2 seconds and OFF (go off) for 2 seconds to indicate that the diagnosis has started, then indicate the diagnosis trouble code.
- To indicate the diagnosis trouble code, the indicator lamps illuminate or flash.
- At first, the lamps indicate the second place by ON/OFF with 0.5 second-interval, then OFF for 1.5 seconds. Next, they indicate the first place by ON/OFF with 0.5 second interval.
- If there are multiple malfunctioning parts, the lamps indicate them in sequence from the smallest diagnosis trouble code.
- The diagnosis results repeat until the diagnosis is cancelled.
- If a malfunction is indicated, carry out the communication diagnosis again to check that the same diagnosis trouble code is indicated.

Diagnosis Trouble Code Indication Example



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| Trouble Diagr | | 00101117 1111/40 | 0 1/ 11 | | |
|---------------------|-----------------------------|---|--|--|--|
| Malfunctioning item | Display unit | CONSULT-II IVMS communication diagnosis content | Self-diagnosis trouble code No. | Malfunctioning system and reference | |
| | | POWER WINDOW C/U-DR "COMMDATA" | 24 | | |
| | One LCU is dis- | DOOR MIRROR C/U-RH "COMMDATA" | 27 | Replace the displayed | |
| | played. | DOOR MIRROR C/U-LH "COMMDATA" | 37 | LCU. | |
| COMM DATA | | POWER SEAT C/U-DR "COMMDATA" | 47 | | |
| OGMINI BININ | Multiple LCUs are displayed | BCM "COMMFAIL1","COMMFAIL2" | Displays in order of 24 →27→37→47→ and cycles from 24. | Communication system A: Refer to <u>SE-48</u> . | |
| | One LCU is displayed. | POWER WINDOW C/U-DR "NORESPONSE" | 25 | | |
| | | DOOR MIRROR C/U-RH "NORESPONSE" | 28 | Communication system B Refer to <u>SE-49</u> . | |
| | | DOOR MIRROR C/U-LH "NORESPONSE" | 38 | | |
| NO | | POWER SEAT C/U-DR "NORESPONSE" | 48 | | |
| RESPONSE | Multiple LCUs are displayed | BCM/HARNESS | Displays in order of 25→28→38→4 8 and cycles from 25. | Communication system C: Refer to SE-49. | |
| | | POWER WINDOW C/U-DR "SLEEP" | | | |
| SLEEP malfunction | One LCU is displayed. | DOOR MIRROR C/U-RH "SLEEP" | No solf diagno | | |
| | | DOOR MIRROR C/U-LH "SLEEP" | No self-diagno- sis function | Replace the displayed LCU. | |
| | | POWER SEAT C/U-DR "SLEEP" | | | |
| | Multiple LCUs are displayed | All the above control units are displayed. | No self-diagno- sis function | Communication system A: Refer to <u>SE-48</u> . | |

NOTE:

- For a specific local control unit (LCU), either "PAST COMM DATA" or "PAST NO RESPONSE" may be displayed instead of the above results. This is caused by the data record, so erase the records.
 - (The display only shows the incident records, they are not malfunctions caused during the diagnosis. One possible cause is that an irreproducible incident occurred.)
- Follow the steps below to erase the memory.
 Carry out either disconnect BCM battery power supply or erase memory with CONSULT-II.
- With the battery connected, if the local control unit (LCU) connector is disconnected and left for approximately 1 minute, the BCM stores "NO RESPONSE" record.

Cancel Of Communication Diagnosis

If one of the following conditions is satisfied, the communication diagnosis is cancelled.

- When the ignition switch is turned OFF.
- The vehicle speed becomes 7 km/h (4 MPH) or higher.
- Ten minutes have passed since the diagnostic result indication start without no diagnosis cancel operation.

COMMUNICATION SYSTEM A

1. CHECK BCM

Replace the BCM with a known-good one, and carry out the communication diagnosis. Refer to $\underline{\text{SE-47, "COM-MUNICATION DIAGNOSIS"}}$.

OK or NG

OK >> Replace BCM NG >> GO TO 2.

2. CHECK LCU

- Replace with the previously installed BCM.
- Replace the LCU with a known-good one, and carry out the communication diagnosis. Refer to SE-47, "COMMUNICATION DIAGNOSIS".

OK or NG

- OK >> Replace LCU
- NG >> Repair the harness between the LCU and BCM.

COMMUNICATION SYSTEM B

1. CHECK HARNESS CONNECTOR

Check terminals (at the control unit and harness) on the malfunctioning LCU for disconnection, bend, poor connection and other malfunctions.

OK or NG

OK >> GO TO 2.

NG >> Repair the terminals and connectors.

2. CHECK LCU

Replace the malfunctioning LCU with a known-good one, and carry out the communication diagnosis, Refer to SE-47, "COMMUNICATION DIAGNOSIS".

OK or NG

OK >> Replace LCU

NG >> Repair the harness between the indicated LCU and BCM.

COMMUNICATION SYSTEM C

1. CHECK HARNESS CONNECTOR

Check terminals (at the control unit and harness) on BCM and LCU for disconnection, bend, poor connection, and other malfunctions.

OK or NG

OK >> GO TO 2.

NG >> Repair the terminals and connectors.

2. CHECK BCM

Replace the malfunctioning BCM with a known-good one, and carry out the communication diagnosis. Refer to SE-47, "COMMUNICATION DIAGNOSIS".

OK or NG

OK >> Replace BCM

NG >> Repair the harness between the LCU and BCM control. SE

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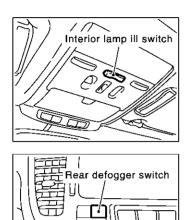
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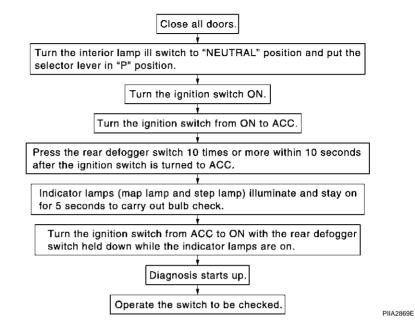
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SWITCH MONITOR

Perform the diagnosis for the switch system input to each control unit.

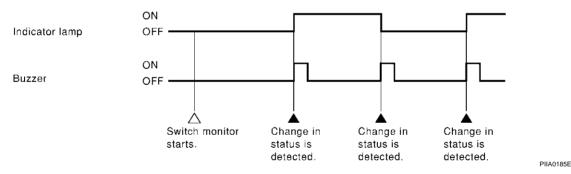
Operation Procedure





Diagnosis Result Display

- Detects the status change (switch ON/OFF operation) of the switch to be checked, and turns on/off the indicator lamps (the map lamp and step lamp). Also sounds the buzzer (the key remainder and light remainder) for 0.5 seconds.
- If a malfunction is detected, no indicator lamp and buzzer react.



Diagnosis Item

The status of the switch (except the ignition switch, interior lamp switch, and map lamp switch) input to each control unit can be monitored.

| Item |
|---|
| Detention switch |
| Steering wheel position switch (telescopic switch and tilt switch) |
| Seat memory switch (memory switch 1, memory switch 2, and setting switch) |
| Driver door switch |
| Door mirror remote control switch |
| Slide switch (FR/RR) |
| Reclining switch (FR/RR) |
| Front end lifting switch (UP/DOWN) |
| Rear end lifting switch (UP/DOWN) |
| |

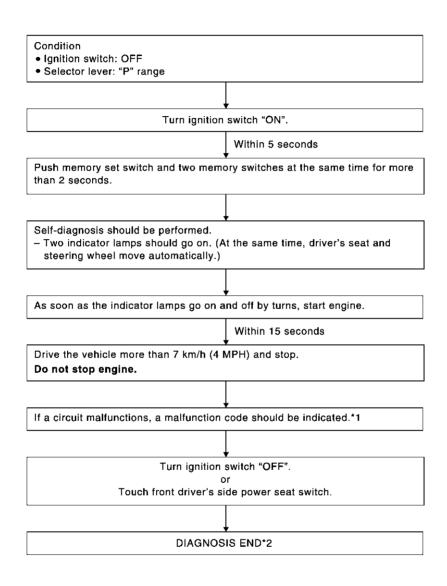
Cancel Of Switch Monitor

If one of the following conditions is satisfied, the switch monitor is cancelled.

- When the ignition switch is turned OFF.
- The vehicle speed becomes 7 km/h (4 MPH) or higher.

ON BOARD DIAGNOSIS FOR AUTOMATIC DRIVE POSITIONER

Check the operations of the auto drive positioner system.



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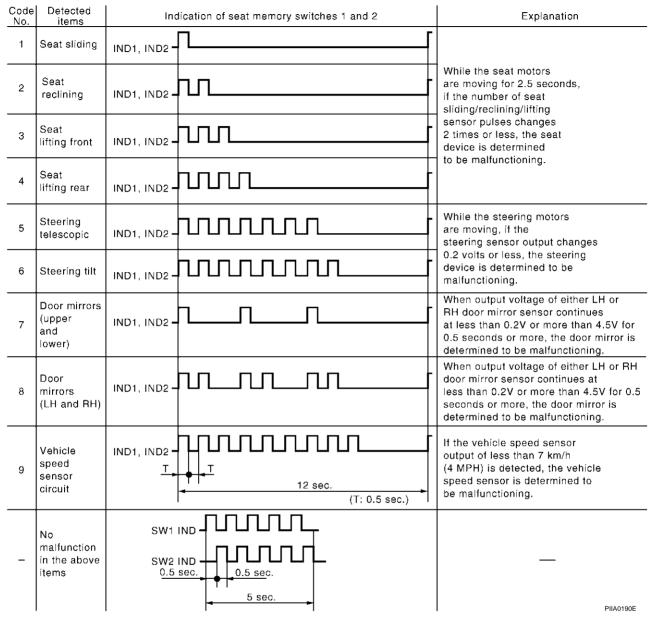
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^{*1:} If no malfunction is indicated, On board diagnosis for automatic drive positioner will end after the vehicle speed sensor diagnosis is performed.

^{*2:} Diagnosis ends after self-diagnostic results have been indicated for 10 minutes if left unattended.

Diagnostic Result Display

 The malfunctioning items are indicated by how many times LEDs on the seat memory switches 1 and 2 flash simultaneously.



- If the vehicle speed is less than 7 km/h (4 MPH) for 15 seconds after the diagnosis for the seat and steering wheel systems were completed, the vehicle speed signal is judged malfunctioning.
- If LH door mirror is malfunctioning, only indicator lamp on the memory switch 1 flashes, and if RH door mirror is malfunctioning, only indicator lamp on the memory switch 2 flashes.
- When all the diagnosis are finished normally, the indicator lamps on the memory switches 1 and 2 go off after the vehicle speed signal diagnosis.
- If there are multiple malfunctioning parts, the lamps indicate them in sequence from the smallest diagnosis trouble code.
- The diagnosis results repeat until the diagnosis mode is cancelled.

| ymptom Chart | | EIS0041 | - |
|---|---|---------------|---|
| Symptom | Diagnoses / service procedure | Refer to page | _ |
| | Seat sliding motor circuit inspection | <u>SE-55</u> | _ |
| A | Seat reclining motor circuit inspection | <u>SE-56</u> | |
| A part of seat system does not operate (both automatically and manually). | 3. Front lifting motor circuit inspection | <u>SE-57</u> | _ |
| ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | Rear lifting motor circuit inspection | SE-59 | _ |
| | 5. If the above systems are normal, replace the BCM | _ | _ |
| | 1. Steering wheel telescopic motor circuit inspection | <u>SE-60</u> | _ |
| A part of steering wheel system does not operate (both automatically and manually). | Steering wheel tilt motor circuit inspection | SE-62 | - |
| ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | 3. If the above systems are normal, replace the BCM | _ | - |
| | Door mirror remote control switch (changeover switch) circuit inspection | <u>GW-105</u> | _ |
| Door mirrors cannot be actuated in both automatic and manual modes. | Door mirror remote control switch (mirror switch) system inspection | <u>GW-108</u> | _ |
| | 3. If the above systems are normal, replace the BCM. | _ | - |
| | Seat sliding sensor circuit inspection | <u>SE-63</u> | - |
| | 2. Seat reclining sensor circuit inspection | <u>SE-64</u> | - |
| A part of seat system does not operate (only automatic | 3. Front lifting sensor circuit inspection | SE-66 | - |
| operation). | 4. Rear lifting sensor circuit inspection | <u>SE-67</u> | - |
| | If the above systems are normal, replace the driver seat control unit | - | - |
| | R-position signal circuit inspection | <u>GW-107</u> | - |
| Door mirrors cannot be actuated in automatic mode. | 2. Mirror sensor circuit inspection 1 | <u>GW-111</u> | - |
| soci minoro dalmot se dotaded in adomatio mode. | 3. If the above systems are normal, replace the door mirror control unit. | - | _ |
| | Detente switch circuit inspection | <u>SE-68</u> | - |
| | 2. Telescopic sensor circuit inspection | SE-69 | - |
| All the automatic operations do not operate. | 3. Tilt sensor circuit inspection | SE-70 | - |
| | 4. Vehicle speed signal inspection | SE-74 | - |
| | 5. If all the above systems are normal, replace the BCM | _ | - |
| | Seat memory switch circuit inspection | SE-76 | - |
| Seat or steering wheel memory does not work. | 2. If the above systems are normal, replace the BCM. | _ | - |
| | Seat sliding switch circuit inspection | SE-78 | - |
| | 2. Seat reclining switch circuit inspection | SE-80 | - |
| | 3. Front end seat lifter switch circuit inspection | <u>SE-82</u> | - |
| | 4. Rear end seat lifter switch circuit inspection | <u>SE-84</u> | - |
| | 5. Steering wheel telescoping switch circuit inspection | <u>SE-86</u> | - |
| Only manual operation does not operate. | 6. Steering wheel tilt system switch circuit inspection | <u>SE-88</u> | - |
| | 7. Door mirror remote control switch (mirror switch) circuit inspection | <u>GW-108</u> | - |
| | 8. If all the above systems are normal, replace the driver seat control unit for the seat system, the BCM for the steering wheel system | _ | = |
| The entry / exiting does not operated when door is | Seat memory indicator lamp circuit inspection | SE-90 | - |
| opened and closed (The entry / exiting operates with key switch) | 2. If the above systems are normal, replace the BCM. | - | _ |
| | | | |

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| Symptom | Diagnoses / service procedure | Refer to page |
|--|---|---------------|
| Ocat management disease language 4 and 6 de mat illuminate | Driver door switch circuit inspection | |
| Seat memory indicator lamps 1 and 2 do not illuminate. | 2. If the above systems are normal, replace the BCM. | - |
| | Detention switch circuit inspection | SE-68 |
| | 2. Key switch and key lock solenoid circuit inspection | SE-71 |
| | 3. Seat memory switch circuit inspection | <u>SE-76</u> |
| Auto driving position system self-diagnosis does not | 4. Seat memory indicator lamp circuit inspection | SE-90 |
| work.(With out CONSULT-II) | 5. Vehicle speed signal inspection | SE-74 |
| | 6. If all the above systems are normal, retry the self-diagnosis. If the self-diagnosis are still disable, check the driver seat control unit connector and terminals for looseness and damage. | - |
| Lumber support motor does not operated. | Lumber support circuit inspection | <u>SE-91</u> |
| Turnout operation of rear power seat LH does not operate, bat rear power seat can be operated by rear power seat switch. | Turnout operation inspection. | <u>SE-93</u> |

Seat Sliding Motor Circuit Inspection

EIS0041N

1. CHECK SEAT SLIDING MECHANISM

Check the following.

- Operation malfunction caused by sliding rail deformation or 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 the malfunction part and check again.

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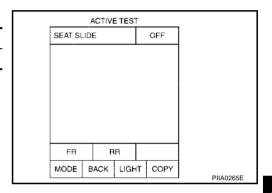
В

2. CHECK FUNCTION

®With CONSULT-II

Check operation with "SEAT SLIDE" in ACTIVE TEST.

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



Without CONSULT-II

Perform the self-diagnosis. Refer to <u>SE-51</u>.

OK or NG

OK >> System is OK.

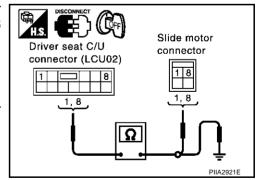
NG >> GO TO 3.

3. CHECK HARNESS CONTINUITY

- Turn ignition switch OFF.
- Disconnect driver seat control unit connector and sliding motor connector.
- Check continuity between driver seat control unit connector B142 terminals 1 (W), 8 (BR) and sliding motor connector B146 terminals 1 (W), 8 (BR).

1 (W) – 1 (W) : Continuity should exist. 8 (BR) – 8 (BR) : Continuity should exist.

- Check continuity between driver seat control unit connector B142 terminals 1 (W), 8 (BR) and ground.
 - 1 (W) Ground :Continuity should not exist. 8 (BR) – Ground :Continuity should not exist.



OK or NG

OK >> GO TO 4.

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

Н

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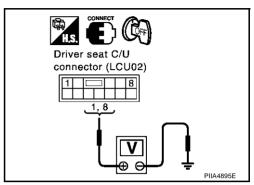
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4. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

| Connector | Terminals (Wire color) | | Condition | Voltage (V) (Approx.) |
|-----------|---------------------------|---------|--------------------------------------|--------------------------|
| | (+) | (-) | | (дрргох.) |
| | 1 (W) | | Sliding switch (forward operation). | Battery voltage |
| B142 | | Ground | Sliding switch OFF. | 0 |
| D142 | 8 (BR) | Glodina | Sliding switch (backward operation). | Battery voltage |
| | | | Sliding switch OFF. | 0 |



FIS00410

OK or NG

OK >> Replace sliding motor.

NG >> Replace driver seat control unit.

Seat Reclining Motor Circuit Inspection

1. CHECK SEAT RECLINING MECHANISM

Check 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.

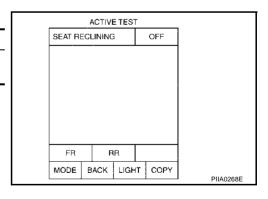
NG >> Repair the malfunction part and check again.

2. CHECK FUNCTIONAL

(II) With CONSULT-II

Check operation with "SEAT RECLINING" in ACTIVE TEST.

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



Without CONSULT-II

Perform the self-diagnosis. Refer to SE-51.

OK or NG

OK >> System is OK. NG >> GO TO 3.

$\overline{3}$. CHECK HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit congregator and reclining motor connector.
- 3. Check continuity between driver seat control unit connector B142 terminals 2 (G), 9 (LG) and reclining motor connector B147 terminals 2 (G), 9 (LG).

2 (G) - 2 (G)

: Continuity should exist.

9 (LG) - 9 (LG) : Continuity should exist.

4. Check continuity between driver seat control unit connector B142 terminals 2 (G), 9 (LG) and ground.

2 (G) – Ground

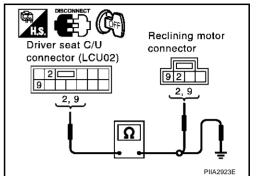
:Continuity should not exist.

9 (LG) – Ground :Continuity should not exist.

OK or NG

OK >> GO TO 4.

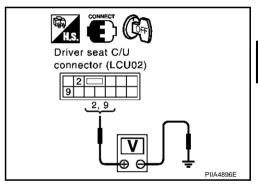
NG >> Repair or replace harness between driver seat control unit and reclining motor.



4. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

| Connector | Terminals (Wire color) | | Condition | Voltage (V) (Approx.) |
|-----------|---------------------------|--------|--|--------------------------|
| | (+) | (-) | | (Арргох.) |
| | 2 (G) | | Reclining switch (forward operation). | Battery voltage |
| B142 | | Ground | Reclining switch OFF. | 0 |
| D142 | 9 (LG) | Glound | Reclining switch (backward operation). | Battery voltage |
| | | | Reclining switch OFF. | 0 |



OK or NG

OK >> Replace reclining motor.

NG >> Replace driver seat control unit.

Front Lifting Motor Circuit Inspection

1. CHECK FRONT 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 lifter motor or lead screws
- Operation malfunction and interference with other parts by installation

OK or NG

OK >> GO TO 2.

NG >> Repair the malfunctioning part and check again.

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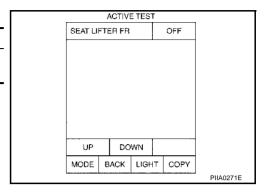
FIS0041P

$\overline{2}$. CHECK FUNCTION

(P)With CONSULT-II

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

| Test item | Description |
|-------------------|--|
| SEAT LIFTER FR | The front end lifter motor is activated by receiving the drive signal. |



Without CONSULT-II

Carry out the self-diagnosis. Refer to SE-51.

OK or NG

OK >> System is OK. NG >> GO TO 3.

3. CHECK HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit connector and front lifting motor connector.
- 3. Check continuity between driver seat control unit connector B142 and terminals 10 (OR), 11 (P) and front lifting motor connector B148 terminals 10 (OR), 11 (P).

10 (OR) – 10 (OR) : Continuity should exist. 11 (P) – 11 (P) : Continuity should exist.

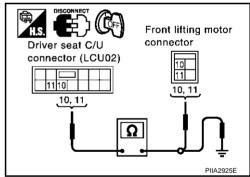
- Check continuity between driver seat control unit connector B142 and terminals 10 (OR), 11 (P) and ground.
 - 10 (OR) Ground :Continuity should not exist.

 11 (P) Ground :Continuity should not exist.

OK or NG

OK >> GO TO 4.

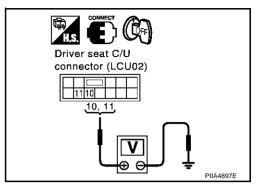
NG >> Repair or replace harness between driver seat control unit and front lifting motor.



4. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

- 1. Connect the driver seat control unit connector and front lifting motor connector.
- 2. Check voltage between driver seat control unit connector.

| Connector | Terminals (Wire color) | | Condition | Voltage (V) (Approx.) |
|-----------|---------------------------|--|--|--------------------------|
| | (+) | (-) | | (дрргох.) |
| | 10 (OR) | Front end lifting switch (UP operation). | Battery voltage | |
| B142 | | Ground | Front end lifting switch OFF. | 0 |
| D142 | 11 (P) | | Front end lifting switch (DOWN operation). | Battery voltage |
| | | | Front end lifting switch OFF. | 0 |



OK or NG

OK >> Replace front lifting motor.

NG >> Replace driver seat control unit.

Rear Lifting Motor Circuit Inspection

1. CHECK REAR LIFTING MECHANISM

Check following items.

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

OK or NG

OK >> GO TO 2.

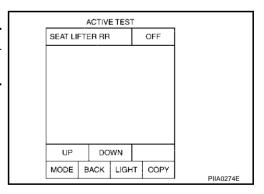
NG >> Repair the malfunctioning part and check again.

2. CHECK FUNCTION

(III) With CONSULT-II

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

| Test item | Description |
|-------------------|---|
| SEAT LIFTER RR | The rear end lifter motor is activated by receiving the drive signal. |



Without CONSULT-II

Carry out the self-diagnosis. Refer to <u>SE-51</u>.

OK or NG

OK >> System is OK.

NG >> GO TO 3.

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3. CHECK HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit connector and rear lifting motor connector.
- 3. Check continuity between driver seat control unit connector B142 terminals 4 (Y), 6 (PU) and lifting motor connector B149 terminals 4 (Y), 6 (PU).

4 (Y) – 4 (Y) : Continuity should exist. 6 (PU) – 6 (PU) : Continuity should exist.

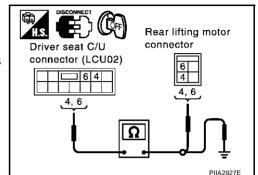
 Check continuity between driver seat control unit B142 terminals 4 (Y), 6 (PU) and ground.

> 4 (Y) – Ground :Continuity should not exist. 6 (PU) – Ground :Continuity should not exist.

OK or NG

OK >> GO TO 4.

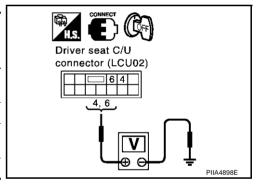
NG >> Repair or replace harness between driver seat control unit and rear lifting motor.



4. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

- 1. Connect driver seat control unit and rear lifting motor.
- 2. Check voltage between driver seat control unit connector.

| Connector | Terminals (Wire color) | | Condition | Voltage (V) (Approx.) |
|-----------|---------------------------|--------|--|--------------------------|
| | (+) | (-) | | (Αρρίολ.) |
| B142 | 6 (PU) | | Rear end lifting switch (UP operation) | Battery voltage |
| | | Ground | Rear end lifting switch OFF | 0 |
| | 4 (Y) | Ground | Rear end lifting switch (DOWN operation) | Battery voltage |
| | | | Rear end lifting switch OFF | 0 |



OK or NG

OK >> Replace rear lifting motor.

NG >> Replace driver seat control unit.

Steering Wheel Telescopic Motor Circuit Inspection

EIS0041R

1. CHECK STEERING WHEEL TELESCOPIC MECHANISM

Check following.

- 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.

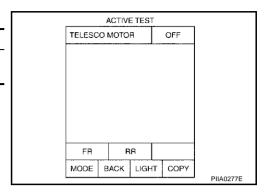
NG >> Repair the malfunctioning part and check again.

$\overline{2}$. CHECK FUNCTION

(II) With CONSULT-II

Check operation with "TELESCO MOTOR" in ACTIVE TEST.

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



(Without CONSULT-II

Carry out the self-diagnosis. Refer to <u>SE-51, "ON BOARD DIAGNOSIS FOR AUTOMATIC DRIVE POSI-TIONER"</u>.

OK or NG

OK >> System is OK. NG >> GO TO 3.

3. CHECK HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM and telescopic motor connector.
- 3. Check continuity between BCM connector M4 terminals 101 (R/W), 107 (R) and telescopic motor connector M60 terminals 1 (R/W), 2 (R).

101 (R/W) - 1 (R/W) : Continuity should exist. 107 (R) - 2 (R) : Continuity should exist.

Check continuity between BCM connector M4 terminals 101 (R/W), 107 (R) and ground.

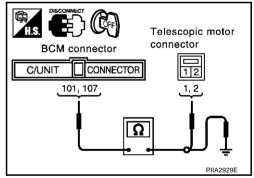
101 (R/W) – Ground :Continuity should not exist. 107 (R) – Ground :Continuity should not exist.

OK or NG

NG

OK >> GO TO 4.

>> Repair or replace harness between BCM and telescopic motor.



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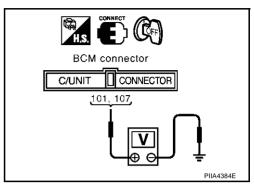
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4. CHECK BCM OUTPUT SIGNAL

- 1. Connect the BCM connector and telescopic motor connector.
- 2. Check voltage between BCM connector.

| Connector | Terminals (Wire color) | | Condition | Voltage (V) |
|-----------|---------------------------|--------|---|-----------------|
| | (+) | (-) | | (Approx.) |
| | 101 (R/W) | | Telescopic switch (forward operation). | Battery voltage |
| M4 - | | Ground | Telescopic switch OFF. | 0 |
| | 107 (R) | Ground | Telescopic switch (backward operation). | Battery voltage |
| | | | Telescopic switch OFF. | 0 |



OK or NG

OK >> Replace telescopic motor.

NG >> Replace BCM.

Steering Wheel Tilt Motor Circuit Inspection

EIS0041S

1. CHECK STEERING WHEEL TILT MECHANISM

Check following.

- Operation malfunction caused by steering wheel tilt 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.

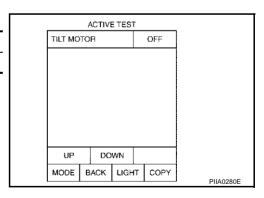
NG >> Repair the malfunctioning part and check again.

2. CHECK FUNCTION

(P) With CONSULT-II

Check operation with "TILT MOTOR" in ACTIVE TEST.

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



W Without CONSULT-II

Carry out the self-diagnosis. Refer to <u>SE-51</u>.

OK or NG

OK >> System is OK.

NG >> GO TO 3.

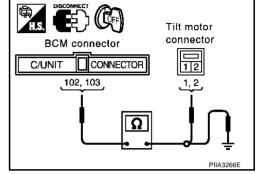
3. CHECK HARNESS CONTINUITY

- Turn ignition switch OFF.
- 2. Disconnect BCM connector and tilt motor connector.
- Check continuity between BCM connector M4 terminals 102 (P), 103 (R/B) and tilt motor connector M58 terminals 1 (R/B), 2 (P).

102(P) - 2(P): Continuity should exist. 103 (R/B) - 1 (R/B): Continuity should exist.

Check continuity between BCM connector M4 terminals 102 (P). 103 (R/B) and ground.

> 102 (P) - Ground :Continuity should not exist. 103 (R/B) - Ground :Continuity should not exist.



OK or NG

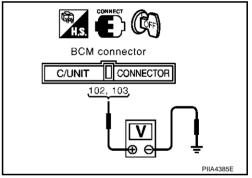
OK >> GO TO 4.

NG >> Repair or replace harness between BCM and tilt motor.

4. CHECK BCM OUTPUT SIGNAL

- Connect BCM connector and tilt motor connector.
- Check voltage between BCM connector.

| Connector | Terminals (Wire color) | | Condition | Voltage (V) (Approx.) |
|-------------------|---------------------------|--------|-------------------------------|--------------------------|
| | (+) | (-) | | (Арргох.) |
| | 102 (P) | Ground | Tilt switch (DOWN operation). | Battery voltage |
| M4 | | | Tilt switch OFF. | 0 |
| IVI -T | 103 (R/B) | | Tilt switch (UP operation). | Battery voltage |
| | | | Tilt switch OFF. | 0 |



OK or NG

OK >> Replace tilt motor.

NG >> Replace BCM.

Seat Sliding Sensor Circuit Inspection

1. CHECK SLIDING SENSOR MECHANISM

Check the operation malfunction caused by sliding rail deformation or parts are loose.

OK or NG

OK >> GO TO 2.

NG >> Repair the malfunctioning part and check again.

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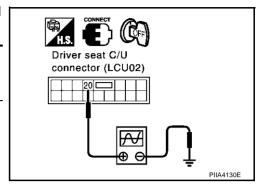
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$\overline{2}$. CHECK SLIDING SENSOR INPUT/OUTPUT SIGNAL

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

| Connector | Terminals (Wire color) | | Condition | Signal | |
|-----------|---------------------------|--------|-------------------------------|----------------------------------|--|
| | (+) | (-) | | | |
| B143 | 20 (G/B) | Ground | Sliding motor operation | (V) 6 4 2 0 50 ms | |



OK or NG

OK >> System is OK.

NG >> GO TO 3.

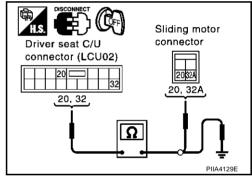
3. CHECK HARNESS CONTINUITY

- 1. Disconnect driver seat control unit connector and sliding motor connector.
- Check continuity between driver seat control unit connector B143 terminals 20 (G/B), 32 (R/W) and sliding motor B146 terminals 20 (G/B), 32A (R/W).

20 (G/B) – 20 (G/B) : Continuity should exist. 32 (R/W) – 32A (R/W) : Continuity should exist.

3. Check continuity between driver seat control unit B143 terminals 20 (G/B), 32 (R/W) and ground.

20 (G/B) – Ground :Continuity should not exist. 32 (R/W) – Ground :Continuity should not exist.



OK or NG

OK >> Replace sliding motor.

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

Seat Reclining Sensor Circuit Inspection

1. CHECK RECLINING SENSOR MECHANISM

Check the operation malfunction caused by reclining mechanism deformation or parts are loose.

OK or NG

OK >> GO TO 2.

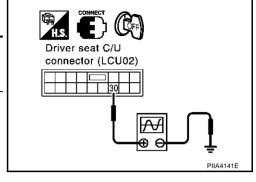
NG >> Repair the malfunctioning part and check again.

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$\overline{2}$. CHECK RECLINING SENSOR INPUT/OUTPUT SIGNAL

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

| Connector | Terminals (Wire color) | | Condition | Signal | |
|-----------|---------------------------|--------|---------------------------------|----------------------------------|--|
| | (+) | (-) | | | |
| B143 | 30 (L) | Ground | Reclining motor operation | (V) 6 4 2 0 50 ms | |



OK or NG

OK >> System is OK.

NG >> GO TO 3.

3. CHECK HARNESS CONTINUITY

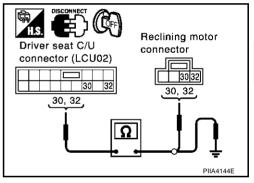
1. Disconnect driver seat control unit connector and reclining motor connector.

2. Check continuity between driver seat control unit connector B143 terminals 30 (L), 32 (R/W) and reclining motor connector B147 terminals 30 (L), 32 (R/W).

30 (L) - 30 (L) : Continuity should exist. 32 (R/W) - 32 (R/W) : Continuity should exist.

Check continuity between driver seat control unit connector B143 terminals 30, 32 and ground.

30 (L) – Ground :Continuity should not exist. 32 (R/W) – Ground :Continuity should not exist.



OK or NG

OK >> Replace reclining motor.

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

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Front Lifting Sensor Circuit Inspection

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1. CHECK FRONT LIFTING SENSOR MECHANISM

Check the operation malfunction caused by lifter mechanism deformation or parts are loose.

OK or NG

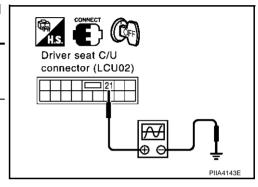
OK >> GO TO 2.

NG >> Repair the malfunctioning part and check again.

2. CHECK FRONT LIFTING SENSOR INPUT/OUTPUT SIGNAL

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

| Connector | Terminals (Wire color) | | Condition | Signal | |
|-----------|---------------------------|--------|---------------------------------------|----------------------------------|--|
| | (+) | (-) | | | |
| B143 | 21 (Y/B) | Ground | Front lift- ing motor operation | (V) 6 4 2 0 50 ms | |



OK or NG

OK >> System is OK. NG >> GO TO 3.

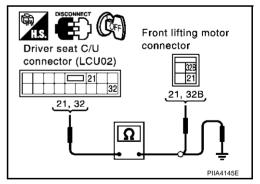
3. CHECK HARNESS CONTINUITY

- Disconnect driver seat control unit connector and front lifting motor connector.
- 2. Check continuity between driver seat control unit connector B143 terminals 21 (Y/B), 32 (R/W) and front lifting motor connector B148 terminals 21 (Y/B), 32B (R/W).

21 (Y/B) – 21 (Y/B) : Continuity should exist. 32 (R/W) – 32B (R/W) : Continuity should exist.

 Check continuity between driver seat control unit connector B143 terminals 21 (Y/B), 32 (R/W) and ground.

> 21 (Y/B) – Ground :Continuity should not exist. 32 (R/W) – Ground :Continuity should not exist.



OK or NG

OK >> Replace front lifting motor.

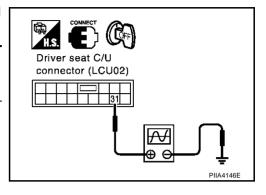
NG >> Repair or replace harness between driver seat control unit and front lifting motor.

Rear Lifting Sensor Circuit Inspection

1. CHECK REAR LIFTING SENSOR INPUT/OUTPUT SIGNAL

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

| Connector | Terminals (Wire color) | | Condition | Signal | |
|-----------|---------------------------|--------|--------------------------------------|------------------------------------|--|
| | (+) | (-) | | | |
| B143 | 31 (W/R) | Ground | Rear lift- ing motor operation | (Y) 6 4 2 0 ***50ms | |



OK or NG

OK >> System is OK. NG >> GO TO 2.

2. CHECK REAR LIFTING SENSOR MECHANISM

Check the operation malfunction caused by lifter mechanism deformation or parts are loose.

OK or NG

OK >> GO TO 3.

NG >> Repair the malfunctioning part and check again.

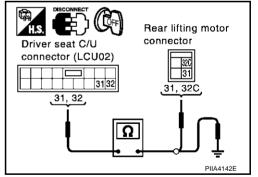
3. CHECK HARNESS CONTINUITY

- Disconnect driver seat control unit connector and rear lifting motor connector.
- Check continuity between driver seat control unit connector B143 terminals 31 (W/R), 32 (R/W) and rear lifting motor connector B149 terminals 31 (W/R), 32C (R/W).

31 (W/R) – 31 (W/R) : Continuity should exist. 32 (R/W) – 32C (R/W) : Continuity should exist.

 Check continuity between driver seat control unit connector B143 terminals 31 (W/R), 32 (R/W) and ground.

> 31 (W/R) – Ground :Continuity should not exist. 32 (R/W) – Ground :Continuity should not exist.



OK or NG

OK >> Replace rear lifting motor.

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

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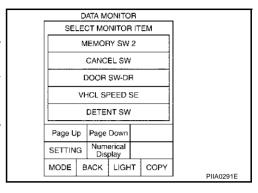
Detention Switch Circuit Inspection

1. CHECK FUNCTION

(P)With CONSULT-II

Check that when the A/T selector lever is in P-position, "DETENT SW" on the DATA MONITOR becomes ON.

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



⋈Without CONSULT-II

Carry out "SWITCH MONITOR" in the self-diagnosis function, and operate the A/T selector lever to check. Refer to SE-50.

OK or NG

OK >> System is OK. NG >> GO TO 2.

2. CHECK DETENTION SWITCH POWER SUPPLY CIRCUIT HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect A/T device (detention switch) connector and "key switch and key lock solenoid" connector.
- Check continuity harness between A/T device (detention switch) connectorM97 terminal 6 (PU/W) and key switch and key lock solenoid connector M64 terminal 4 (PU/W).
 - 6 (PU/W) 4 (PU/W) : Continuity should exist.
- Check continuity harness between A/T device (detention switch) connectorM97 terminal 6 (PU/W) and ground.

6 (PU/W) – Ground :Continuity should not exist.

OK or NG

OK >> GO TO 3.

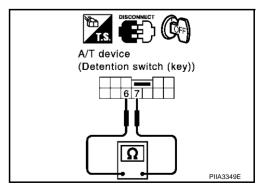
NG >> Repair or replace harness between A/T device (detention switch) and key switch and key lock solenoid.

Key switch and lock solenoid connector (Detention switch (key)) (Key switch)

3. CHECK DETENTION SWITCH

Check continuity between A/T device (detention switch) connector.

| Connector | Terminals (Wire color) | | Condition | Continuity | |
|--------------|---------------------------|----------|-----------------------|-----------------------------|--|
| | (+) | (-) | • | | |
| M97 | 6 (PU/W) | 7 (G/OR) | P-position | Continuity should not exist | |
| W97 6 (PO/W) | | 7 (O/OR) | Other than P-position | Continuity should exist | |



OK or NG

OK >> GO TO 4.

NG >> Replace detention switch.

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4. CHECK DETENTION SWITCH SIGNAL HARNESS

- 1. Disconnect BCM connector.
- Check continuity between BCM connector M4 terminal 8 (G/OR) and A/T device (detention switch) connector M97 terminal 7 (G/OR).

8 (G/OR) - 7(G/OR)

: Continuity should exist.

3. Check continuity harness between BCM connector M4 terminal 8 (G/OR) and ground.

8 (G/OR) - Ground

: Continuity should not exist.

OK or NG

OK

>> Replace BCM.

NG >:

>> Repair or replace harness between BCM and A/T device (detention switch).

A/T device connector (Detention switch (key)) BCM connector C/UNIT | CONNECTOR | PIIA3283E

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Telescopic Sensor Circuit Inspection

1. CHECK STEERING WHEEL TILT MECHANISM

Check the operation malfunction caused by sTeering wheel tilt mechanism deformation or parts are loose. OK or NG

OK >> GO TO 2.

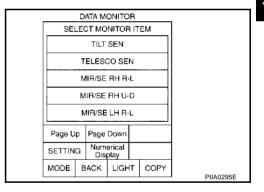
NG >> Repair the malfunctioning part and check again.

2. CHECK FUNCTION

With CONSULT-II

Operate the telescopic switch with "TELESCO SEN" on the DATA MONITOR to check that the voltage changes.

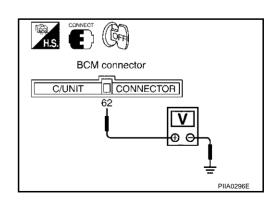
| Monitor item [OPERA- TION or UNIT] | | Contents |
|---------------------------------------|-----|--|
| TELESCO SEN | "V" | The telescoping position (voltage) judged from the telescoping sensor signal is displayed. |



®Without CONSULT-II

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

| Connector | Termi (Wire | | Condition | Voltage (V) (Approx.) |
|-----------|----------------|-----------|----------------------------|--------------------------|
| | (+) | (-) | | |
| M4 | C2 (D/D) Crow | Ground | Telescopic top position | 2 |
| | 62 (P/B) | B) Ground | Telescopic bottom position | 4 |



OK or NG

OK >> System is OK.

NG >> GO TO 3.

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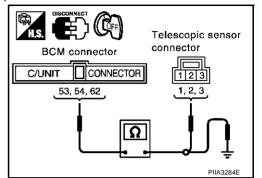
3. CHECK HARNESS CONTINUITY

- 1. Disconnect BCM connector and telescopic sensor connector.
- 2. Check continuity harness between BCM connector M4 terminals 53 (L/W), 54 (LG/B), 62 (P/B) and telescopic sensor connector M59 terminals 1 (LG/B), 2 (P/B), 3 (L/W).

53 (L/W) – 3 (L/W) : Continuity should exist.
 54(LG/B) – 1 (LG/B) : Continuity should exist.
 62 (P/B) – 2 (P/B) : Continuity should exist.

3. Check continuity harness between BCM connector M59 terminals 53 (L/W), 54 (LG/B), 62 (P/B) and ground.

53 (L/W) – Ground : Continuity should not exist.
 54 (LG/B) – Ground : Continuity should not exist.
 62 (P/B) – Ground : Continuity should not exist.



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OK or NG

OK >> Replace telescopic sensor.

NG >> Repair or replace harness between BCM and telescopic sensor.

Tilt Sensor Circuit Inspection

1. CHECK TILT STEERING MECHANISM

Check the operation malfunction caused by steering wheel tilt melanism deformation or parts are loose. OK or NG

OK >> GO TO 2.

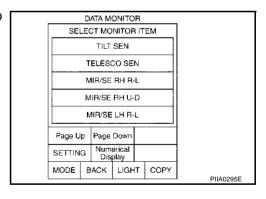
NG >> Repair the malfunctioning part and check again.

2. CHECK FUNCTION

(P)With CONSULT-II

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

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



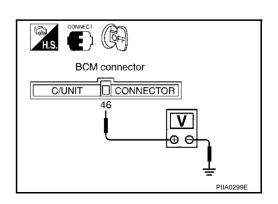
Without CONSULT-II

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

| Connector | Term (Wire | | Condition | Voltage (V) (Approx.) | |
|-----------|---------------|--------|----------------------|--------------------------|--|
| | (+) | (-) | | (дриох.) | |
| M4 | 46 (P/L) | Ground | Tilt top position | 2 | |
| | | | Tilt bottom position | 4 | |

OK or NG

OK >> System is OK. NG >> GO TO 3.



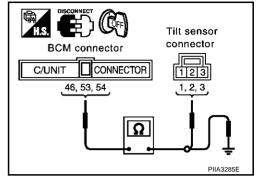
3. CHECK HARNESS

- 1. Disconnect BCM connector and tilt sensor connector.
- 2. Check continuity harness between BCM connector M4 terminals 46 (P/L), 53 (L/W), 54 (LG/B) and tilt sensor connector M57 terminals 1 (LG/B), 2 (P/L), 3 (L/W).

46 (P/L) – 2 (P/L) : Continuity should exist. 53 (L/W) – 3 (L/W) : Continuity should exist. 54 (LG/B) – 1 (LG/B) : Continuity should exist.

3. BCM connector M4 terminals 46 (P/L), 53 (L/W), 54 (LG/B) and ground.

46 (P/L) - Ground : Continuity should not exist.
 53 (L/W) - Ground : Continuity should not exist.
 54 (LG/B) - Ground : Continuity should not exist.



OK or NG

OK >> Replace tilt sensor.

NG >> Repair or replace harness between BCM and tilt sensor.

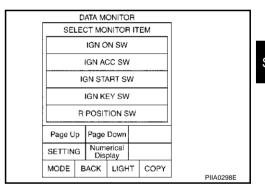
Key Switch and Key Lock Solenoid Circuit Inspection

1. CHECK KEY SWITCH AND KEY LOCK SOLENOID

With CONSULT-II

With "IGN KEY SW" on the DATA MONITOR, Check ON/OFF operation.

| Monitor item [OPERA- TION or UNIT] | | Contents |
|---------------------------------------|--------------|---|
| IGN KEY SW | "ON/ OFF" | Key inserted (ON)/key removed (OFF) status judged from the key detection switch is displayed. |



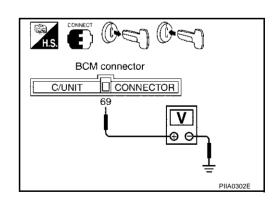
Without CONSULT-II

Check voltage between BCM connector ground.

| Connector | Terminals (Wire color) | | Condition | Voltage (V) (Approx.) |
|-----------|---------------------------|--------|----------------|--------------------------|
| | (+) | (-) | | (другох.) |
| M4 | 69 (PU/W) | ground | Remove the key | 0 |
| | | ground | Insert the key | Battery voltage |

OK or NG

OK >> System is OK. NG >> GO TO 2.



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2. CHECK FUSE

Check if any of the following fuses is blown.

| Power source | Fuse No. | Unit |
|------------------|----------|------------------------|
| BAT power supply | #8 (10A) | Fuse block (J/B) No. 1 |

NOTE:

Refer to SE-17, "Component Parts and Harness Connector Location".

OK or NG

OK >> GO TO 3.

NG >> If fuse is blown, be sure to eliminate cause of problem before installing new fuse. Refer to <u>SE-17</u>, <u>"Component Parts and Harness Connector Location"</u>.

3. KEY SWITCH AND KEY LOCK SOLENOID POWER SUPPLY CIRCUIT INSPECTION

- Turn ignition switch OFF,
- 2. Check voltage between "key switch and key lock solenoid" connector M64 terminal 3 (LG) and ground.

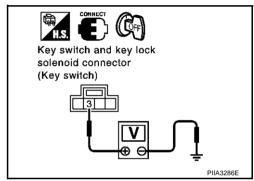
3 (LG) - Ground

: Battery voltage.

OK or NG

OK >> GO TO 4.

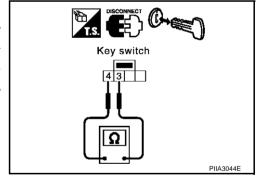
NG >> Check harness between "key switch and key lock solenoid" and fuse.



4. CHECK KEY SWITCH

- 1. Disconnect key switch connector.
- 2. Check continuity between key switch.

| Connector | Terminals | Condition | Continuity |
|-----------|-----------|--|------------|
| M64 | 3 – 4 | Key is inserted in ignition key cylinder. | YES |
| | | Key is removed from ignition key cylinder. | NO |



OK or NG

OK >> GO TO 5.

NG >> Replace key switch and key lock solenoid (key switch) switch.

5. CHECK HARNESS CONTINUITY

- Disconnect "key switch and key lock solenoid" connector and BCM connector. 1.
- Check continuity between key switch and key lock solenoid connector M64 terminal 4 (PU/W) and BCM connector M4 terminal 69 (PU/W).

4 (PU/W) - 69 (PU/W) : Continuity should exist.

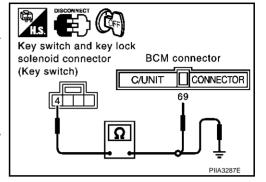
Check continuity between key switch and key lock solenoid connector M64 terminal 4 (PU/W) and ground.

> : Continuity should not exist. 4 (PU/W) - Ground

OK or NG

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

>> Repair or replace harness between key switch and key lock solenoid and BCM.



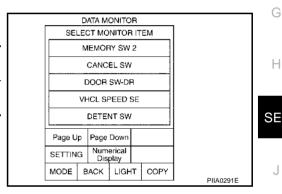
Front Door Switch (Driver Side) Circuit Inspection.

1. CHECK FUNCTION

(P)With CONSULT-II

With "DOOR SW DR" on the DATA MONITOR, check ON/OFF operation when the driver door is open and closed.

| Monitor item [OPERA- TION or UNIT] | | Contents |
|---------------------------------------|--|--|
| DOOR SW DR | | Door open (ON)/door closed (OFF) status judged from the driver door switch is displayed. |



Without CONSULT-II

Carry out "SWITCH MONITOR" in the self-diagnosis function, and open and close the driver door to check. Refer to SE-50.

OK or NG

OK >> System is OK.

NG >> GO TO 2.

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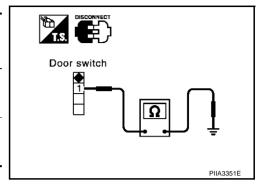
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$\overline{2}$. CHECK FRONT DOOR SWITCH (DRIVER SIDE)

- 1. Turn ignition switch OFF.
- 2. Disconnect door switch (driver side) connector.
- 3. Check continuity between (driver side) door switch connector and ground part of door switch.

| Cannaa | | erminals Vire color) | Condition | Continuity |
|--------|-----|-------------------------|--|------------|
| (+) | (+) | (-) | | |
| Doo | 4 | Ground part of | With the front door switch (driver side) pressed. | NO |
| B20 1 | | door switch | With the front door switch (driver side) released. | YES |



OK or NG

OK >> GO TO 3.

NG >> Replace door switch (driver side).

3. CHECK HARNESS CONTINUITY

- Disconnect BCM connector.
- Check continuity between BCM connector M4 terminal 142 (R/Y) and front door switch connector B20 terminal 1 (W/R).

142 (W/R) – 1 (W/R) : Continuity should exist.

Check continuity between BCM connector M4 terminal 142 (W/R) and ground.

142 (W/R) – Ground : Continuity should not exist.

OK or NG

OK >> Replace BCM.

NG >> Repair or replace harness between BCM and front door switch (driver side).

Front door switch (Driver side) BCM connector C/UNIT CONNECTOR 142 PIIA3346E

Vehicle Speed Signal Inspection

1. CHECK SYMPTOM

Check that the speedometer in the combination meter operates normally.

OK or NG

OK >> GO TO 2.

NG >> Check vehicle speed signal. Refer to DI-122.

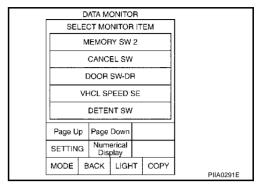
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$\overline{2}$. CHECK FUNCTION

(P)With CONSULT-II

With "VHCL SPEED SE" on the DATA MONITOR, Check vehicle speed signal.

| Monitor item [OPERA- TION or UNIT] | | Contents | |
|---------------------------------------|--|---|--|
| VHCL SPEED SE | | The present vehicle speed (less than 7 km/h (4 MPH), or 7 km/h (4 MPH) or higher) is displayed. | |



Without CONSULT-II

Carry out the self-diagnosis. Refer to <u>SE-51</u>.

OK or NG

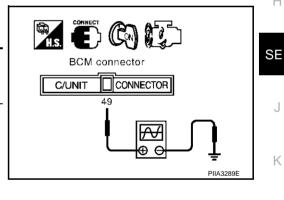
OK >> System is OK.

NG >> GO TO 3.

3. CHECK VEHICLE SPEED INPUT/OUTPUT

- 1. Start the engine.
- Check signal between BCM connector and ground, with oscilloscope.

| Connector | Terminals (Wire color) | | Condition | Signal |
|-----------|---------------------------|--------|--|----------------------------------|
| | (+) | (-) | | |
| M4 | 49 (PU/W) | Ground | Vehicle speed is approx.40 km/h (25 MPH) | (V) 6 4 2 0 50 ms |



OK or NG

OK >> Replace BCM.

NG >> GO TO 4.

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4. CHECK HARNESS CONTINUITY

- Turn ignition switch OFF. 1.
- 2. Disconnect BCM and combination meter connector.
- Check continuity between BCM connector M4 terminal 49 (PU/ W) and combination meter connector M41 terminal 18 (PU/W).

49 (PU/W) - 18 (PU/W) : Continuity should exist.

Check continuity between BCM connector M4 terminal 49 (PU/ W) and ground.

> 49 (PU/W) - Ground : Continuity should not exist.

OK or NG

OK >> Check meter control unit DI-7.

NG >> Repair or replace harness between BCM and combination meter.

BCM connector COMBINATION METER C/UNIT CONNECTOR Ω

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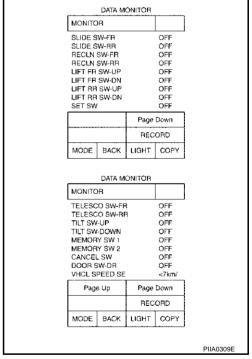
Seat Memory Switch Circuit Inspection

1. CHECK FUNCTION

With CONSULT-II

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

| Monitor item [OP UNIT | | Contents |
|--------------------------|----------|---|
| 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. |
| SET SW | "ON/OFF" | ON/OFF status judged from the setting switch signal is displayed. |



®Without CONSULT-II

Carry out "switch monitor" in the self-diagnosis function, and operate "Setting switch, memory switch 1, memory switch 2" to check. Refer to <u>SE-50</u>.

OK or NG

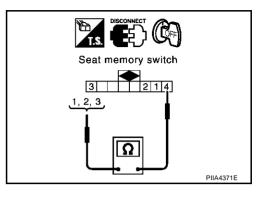
OK >> System is OK.

NG >> GO TO 2.

2. CHECK SEAT MEMORY SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect seat memory switch connector.
- Check continuity between seat memory switch connector and ground.

| Con- | Terminals (Wire color) | | | | Condition | Continuity |
|-------|---------------------------|----------------------|------------------------------|------------------------------|-----------|------------|
| Termi | | ninal | | | | |
| | 3 | | Set switch: ON | Continuity should exist | | |
| D3 1 | 3 | , | Set switch: OFF | Continuity should not exist | | |
| | 1 4 | Memory switch 1 ON | Continuity should exist | | | |
| | | Memory switch 1: OFF | Continuity should not exist. | | | |
| | c | | Memory switch 2: ON | Continuity should exist | | |
| | 2 | | Memory switch 2: OFF | Continuity should not exist. | | |



OK or NG

OK >> GO TO 3.

NG >> Replace seat memory switch.

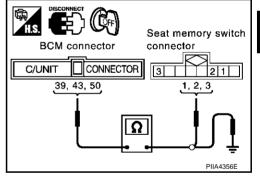
3. CHECK HARNESS CONTINUITY

- 1. Disconnect BCM connector.
- 2. Check continuity between BCM connector M4 terminals 39 (G), 43 (OR), 50 (R/Y) and seat memory switch connector D3 terminals 1 (G), 2 (OR), 3 (R/Y).

39 (G) – 1 (G) : Continuity should exist. 43 (OR) – 2 (OR) : Continuity should exist. 50 (R/Y) – 3 (R/Y) : Continuity should exist.

3. Check continuity between BCM connector M4 terminals 39 (G), 43 (OR/L), 50 (P/L) and ground.

39 (G) – Ground : Continuity should not exist.
 43 (OR) – Ground : Continuity should not exist.
 50 (R/Y) – Ground : Continuity should not exist.



OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness between BCM and seat memory switch.

4. CHECK SEAT MEMORY SWITCH GROUND CIRCUIT

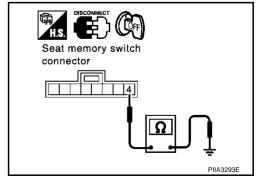
Check continuity at harness between seat memory switch D3 terminal 4 (B) and ground.

4 (B) – Ground : Continuity should exist.

OK or NG

OK >> Replace BCM.

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



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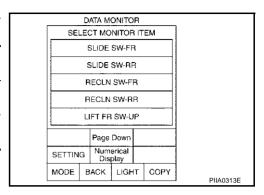
Seat Sliding Switch Circuit Inspection

1. CHECK FUNCTION

(P)With CONSULT-II

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

| Monitor item [OPER- ATION or UNIT] | | 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. |



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Without CONSULT-II

Carry out "SWITCH MONITOR" in the self-diagnosis function, and operate the sliding switch to check. Refer to SE-50.

OK or NG

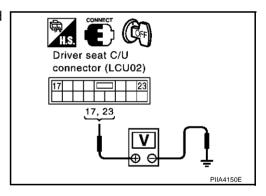
OK >> Replace the driver seat control unit.

NG >> GO TO 2.

2. CHECK SLIDING SWITCH INPUT/OUTPUT

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

| Terminals (Wire color) | | | 0 11.1 | Voltage (V) |
|---------------------------|----------|--------|---|-------------|
| Connector | Terminal | | Condition | (Approx.) |
| Connector | (+) | (-) | | |
| B143 | 17 (Y/R) | | Sliding switch ON (forward operation). | 0 |
| | | Ground | Sliding switch OFF. | 5 |
| | 23 (G/W) | Ground | Sliding switch ON (backward operation). | 0 |
| | | | Sliding switch OFF. | 5 |



OK or NG

OK >> System is OK.

NG >> GO TO 3.

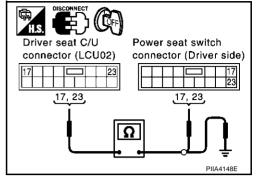
$\overline{3}$. Check harness continuity

- 1. Disconnect driver seat control unit connector and power seat switch (driver side) connector.
- Check continuity between driver seat control unit connector B143 terminals 17 (Y/R), 23 (G/W) and driver power seat switch connector B144 terminals 17 (Y/R), 23 (G/W).

17 (Y/R) - 17 (Y/R) : Continuity should exist. 23 (G/W) - 23 (G/W) : Continuity should exist.

Check continuity between driver seat control unit connector B143 terminals 17(Y/R), 23 (G/W) and ground.

> 17 (Y/R) - Ground : Continuity should not exist. 23 (G/W) - Ground : Continuity should not exist.



OK or NG

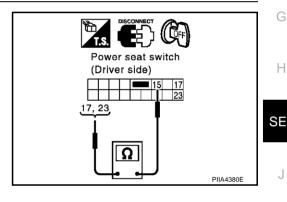
OK >> GO TO 4.

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

4. CHECK SLIDING SWITCH

Check continuity between driver seat control unit.

| Terminals (Wire color) | | | | |
|---------------------------|-----|---------------------|---|------------|
| | | inal | Condition | Continuity |
| Connector | (+) | (-) | | |
| B144 | 17 | | Sliding switch ON (forward operation). | Yes |
| | | Sliding switch OFF. | No | |
| | 23 | 15 | Sliding switch ON (backward operation). | Yes |
| | | | Sliding switch OFF. | No |



OK or NG

OK >> GO TO 5.

NG >> Replace driver power seat switch.

5. CHECK POWER SEAT SWITCH GROUND CIRCUIT

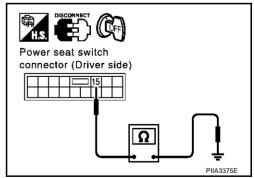
Check continuity between power seat switch (driver side) connector B144 terminal 15 (B) and ground.

> 15 (B) - Ground : Continuity should exist.

OK or NG

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

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



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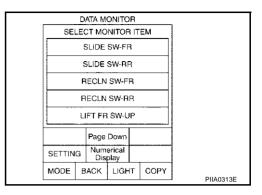
Seat Reclining Switch System Inspection

1. CHECK FUNCTION

(P)With CONSULT-II

With "RECLINING SW-FR, RECLINING SWRR" on the DATA MON-ITOR, operate the reclining switch to check ON/OFF operation.

| Monitor item [OPERA- TION or UNIT] | | Contents |
|---------------------------------------|--------------|---|
| RECLN SW -FR | "ON/ OFF" | |
| RECLIN S W-RR | "ON/ OFF" | - p - · · · · · · · · · · · · · · · · · |



EIS00425

Without CONSULT-II

Carry out "SWITCH MONITOR" in the self-diagnosis function, and operate the reclining switch to check. Refer to SE-50.

OK or NG

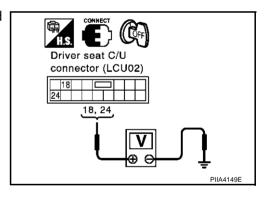
OK >> Replace the driver seat control unit.

NG >> GO TO 2.

2. CHECK RECLINING SWITCH INPUT/OUTPUT

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

| Terminals (Wire color) | | | Condition | Voltage (V) (Approx.) |
|---------------------------|----------------------|--------|---|--------------------------|
| Connector | (+) | (-) | | (дрргох.) |
| | 18 (GY/B) 24 (SB) | Ground | Reclining switch ON (forward operation). | 0 |
| B143 | | | Reclining switch OFF. | 5 |
| D143 | | | Reclining switch ON (backward operation). | 0 |
| | | | Reclining switch OFF. | 5 |



OK or NG

OK >> System is OK.

NG >> GO TO 3.

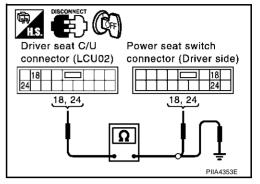
$\overline{3}$. CHECK HARNESS CONTINUITY

- 1. Disconnect driver seat control unit connector and power seat switch (driver side) connector.
- Check continuity between driver seat control unit connector B143 terminals 18 (GY/B), 24 (SB) and power seat switch (driver side) connector B144 terminals 18 (GY/B), 24 (SB).

18 (GY/B) - 18 (GY/B) :Continuity should exist. 24 (SB) - 24 (SB):Continuity should exist.

Check continuity between driver seat control unit connector B143 terminals 18 (GY/B), 24 (SB) and ground.

> 18 (GY/B) - Ground :Continuity should not exist. 24 (SB) - Ground :Continuity should not exist.



OK or NG

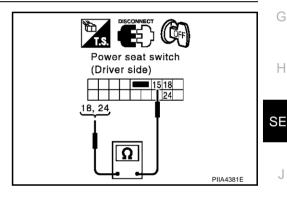
OK >> GO TO 4.

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

4. CHECK RECLINING SWITCH

Check continuity between driver seat control unit.

| Terminals (Wire color) | | | Condition | Continuity |
|---------------------------|-----------|--------|---|------------|
| Connector | (+) | (-) | | |
| | 18 (GY/B) | | Reclining switch ON (forward operation). | Yes |
| B144 | | 15 (D) | Reclining switch OFF. | No |
| D144 | 24 (SB) | 15 (B) | Reclining switch ON (backward operation). | Yes |
| | | | Reclining switch OFF. | No |



OK or NG

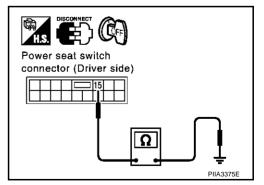
OK >> GO TO 5.

NG >> Replace power seat switch (driver side).

$oldsymbol{5}$. Check power seat switch ground circuit

Check continuity between power seat switch B144 terminal 15 (B) and ground.

> 15 (B) - Ground: : Continuity should exist.



OK or NG

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

NG >> Repair or replace harness between power seat switch (driver side) and ground. Α

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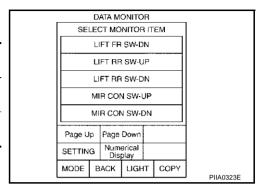
Front Lifting Switch Circuit Inspection

1. CHECK FUNCTION

(P)With CONSULT-II

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

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



EIS00426

WWithout CONSULT-II

Carry out "SWITCH MONITOR" in the self-diagnosis function, and operate the front lifting switch to check. Refer to SE-50.

OK or NG

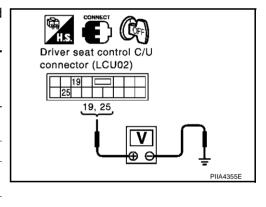
OK >> Replace the driver seat control unit.

NG >> GO TO 2

2. CHECK FRONT LIFTING SWITCH INPUT/OUTPUT

- 1. Turn ignition switch OFF.
- 2. Check voltage between driver seat control unit B143 and ground.

| Connector | Terminals (Wire color) | | Condition | Voltage (V) (Approx.) |
|-----------|---------------------------|---------|---|--------------------------|
| | (+) | (-) | | (Αρρίολ.) |
| | 19 (L/R) | Ground | Front lifting switch ON (UP operation). | 0 |
| B143 | | | Front lifting switch OFF. | 5 |
| D143 | 25 (OR/B) | Giodila | Front lifting switch ON. (DOWN operation) | 0 |
| | | | Front lifting switch OFF. | 5 |



OK or NG

OK >> System is OK.

NG >> GO TO 3.

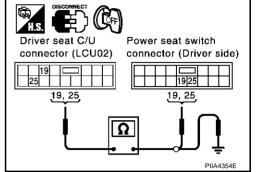
$\overline{3}$. Check harness continuity

- 1. Disconnect driver seat control unit connector and power seat switch (driver side) connector.
- Check continuity between driver seat control unit connector B143 terminals 19 (L/R), 25 (OR/B) and driver seat switch connector B144 terminals 19 (L/R), 25 (OR/B).

19 (L/R) - 19 (L/R) : Continuity should exist. 25 (OR/B) - 25 (OR/B) : Continuity should exist.

Check continuity between driver seat control unit connector B143 terminals 19 (L/R), 25 (OR/B) and ground

> 19 (L/R) - Ground : Continuity should not exist. 25 (OR/B) - Ground : Continuity should not exist.



OK or NG

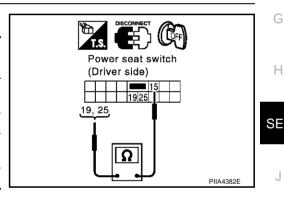
OK >> GO TO 4.

NG >> Repair or replace harness between driver seat control unit and power seat switch (driver side).

4. CHECK FRONT END LIFTING SWITCH

Check continuity between driver seat control unit.

| Connector | Terminals | | Condition | Continuity |
|-----------|-----------|-----|---|------------|
| Connector | (+) | (-) | Condition | Continuity |
| B144 | 19 | 15 | Front lifting switch ON (UP operation). | Yes |
| | | | Front lifting switch OFF. | No |
| | 25 | 15 | Front lifting switch ON (DOWN operation). | Yes |
| | | | Front lifting switch OFF. | No |



OK or NG

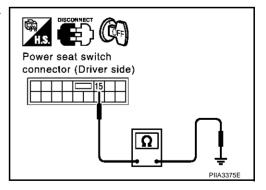
OK >> GO TO 5.

NG >> Replace power seat switch (driver side).

5. CHECK POWER SEAT SWITCH GROUND CIRCUIT

Check continuity between power seat switch connector B144 terminal 15 (B) and ground.

> 15 (B) - Ground: : Continuity should exist.



OK or NG

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

NG >> Repair or replace harness between power seat switch (driver side) and ground.

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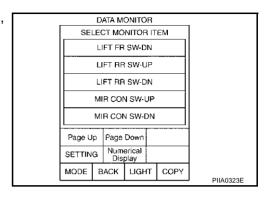
Rear Lifting Switch Circuit Inspection

1. CHECK FUNCTION

(P)With CONSULT-II

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

| Monitor item [OPE 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. |



EIS00427

Without CONSULT-II

Carry out "SWITCH MONITOR" in the self-diagnosis function, and operate the rear lifting switch to check. Refer to <u>SE-50</u>.

OK or NG

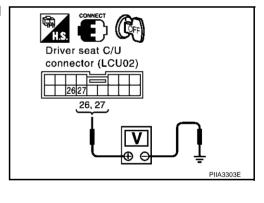
OK >> Replace the driver seat control unit.

NG >> GO TO 2.

2. CHECK REAR LIFTING SWITCH INPUT/OUTPUT

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

| Connector | Terminals (Wire color) | | Condition | Voltage (V) (Approx.) |
|-----------|---------------------------|--------|--|--------------------------|
| | (+) | (-) | | (дрргох.) |
| | 26 (P/B) G 27 (B/Y) | Ground | Rear lifting switch ON(UP operation). | 0 |
| B143 | | | Rear lifting switch OFF. | 5 |
| D143 | | | Rear lifting switch ON (DOWN operation). | 0 |
| | | | Rear lifting switch OFF. | 5 |



OK or NG

OK >> System is OK.

NG >> GO TO 3.

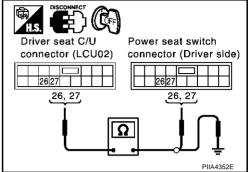
$\overline{3}$. CHECK HARNESS CONTINUITY

- 1. Disconnect driver seat control unit connector and driver power seat switch connector.
- Check continuity between driver seat control unit connector B143 terminals 26 (P/B), 27 (B/Y) and power seat switch (driver side) connector B144 terminals 26 (P/B), 27 (B/Y).

26 (P/B) - 26 (P/B) : Continuity should exist. 27 (B/Y) - 27 (P/Y): Continuity should exist.

Check continuity between driver seat control unit connector B143 terminals 26 (P/B), 27 (B/Y) and ground.

> : Continuity should not exist. 26 (P/B) - Ground 27 (B/Y) - Ground : Continuity should not exist.



OK or NG

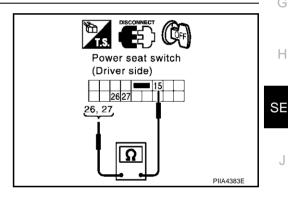
OK >> GO TO 4.

NG >> Repair or replace harness between driver seat control unit and driver power seat switch (driver side).

4. CHECK REAR LIFTING SWITCH

Check continuity between driver seat control unit.

| Connector | Terminals (Wire color) | | Condition | Continuity |
|-----------|---------------------------|--|---------------------------------------|------------|
| | (+) | (-) | | |
| B144 | 26 15 | 15 | Rear lifting switch ON(UP operation). | Yes |
| | | | Rear lifting switch OFF. | No |
| | | Rear lifting switch ON (DOWN operation). | Yes | |
| | | Rear lifting switch OFF. | No | |



OK or NG

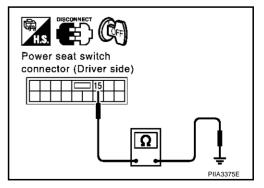
OK >> GO TO 5.

NG >> Replace power seat switch (driver side).

5. CHECK POWER SEAT SWITCH GROUND CIRCUIT

Check continuity between power seat switch connector B144 terminal 15 (B) and ground.

> 15 (B) - Ground : Continuity should exist.



OK or NG

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

NG >> Repair or replace harness between power seat switch (driver side) and ground.

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Steering Wheel Telescopic Switch Inspection

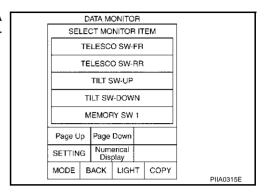
1. CHECK FUNCTION

EIS00428

(P)With CONSULT-II

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

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



®Without CONSULT-II

Carry out "SWITCH MONITOR" in the self-diagnosis function, and operate the ADP steering switch to check. Refer to <u>SE-50</u>.

OK or NG

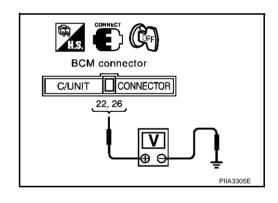
OK >> System is OK.

NG >> GO TO 2.

2. CHECK TELESCOPIC SWITCH INPUT/OUTPUT

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

| Connector | Terminals (Wire color) | | Condition | Voltage (V) (Approx.) |
|-----------|---------------------------|--------|--|--------------------------|
| | (+) | (-) | | (дрргох.) |
| M4 - | 22 (R) 26 (GY/R) | Ground | Telescopic switch ON (forward operation). | 0 |
| | | | Telescopic switch OFF. | 5 |
| | | | Telescopic switch ON (backward operation). | 0 |
| | | | Telescopic switch OFF. | 5 |



OK or NG

OK >> System is OK.

NG >> GO TO 3.

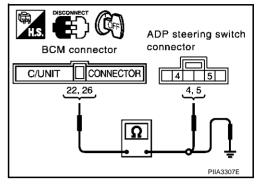
3. CHECK HARNESS CONTINUITY

- Disconnect BCM connector and ADP steering switch connector.
- Check continuity between BCM connector M4 terminals 22 (R). 26 (GY/R) and ADP steering switch connector M51 terminals 4 (GY/R), 5 (R).

22(R) - 5(R): Continuity should exist. 26 (GY/R) - 4 (GY/R): Continuity should exist.

Check continuity between BCM connector M4 terminals 22 (R). 26 (GY/R) and ground.

> 22 (R) - Ground : Continuity should not exist. 26 (GY/R) - Ground : Continuity should not exist.



OK or NG

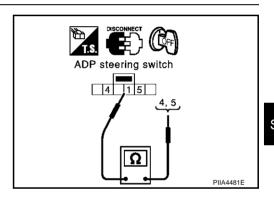
OK >> GO TO 4.

NG >> Repair or replace harness between BCM and ADP steering switch.

4. CHECK TELESCOPIC SWITCH

Check continuity between ADP steering switch.

| Connector | Terminals (Wire color) | | Condition | Continuity |
|-----------|---------------------------|-----|---|------------|
| | (+) | (-) | 1 | |
| M51 | 4 | | Telescopic switch ON (backward operation) | Yes |
| | | 1 | Telescopic switch OFF | No |
| | 5 | | Telescopic switch ON (forward operation) | Yes |
| | | | Telescopic switch OFF | No |



OK or NG

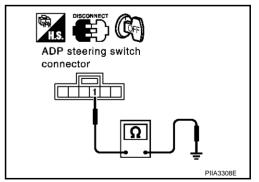
>> GO TO 5. OK

NG >> Replace ADP steering switch.

${f 5}$. CHECK ADP STEERING SWITCH GROUND CIRCUIT

Check continuity between ADP steering switch connector M51 terminal 1 (B) and ground.

> 1 (B) - Ground :Continuity should exist.



OK or NG

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

NG >> Replace or replace harness between ADP steering switch and ground.

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Steering Wheel Tilt Switch Inspection

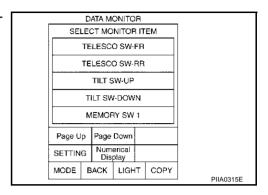
1. CHECK FUNCTION

EIS00429

(P) With CONSULT-II

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

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



Without CONSULT-II

Carry out "SWITCH MONITOR" in the self-diagnosis function, and operate the ADP steering switch to check. Refer to <u>SE-50</u>.

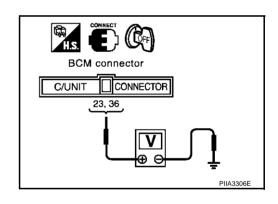
OK or NG

OK >> System is OK. NG >> GO TO 2.

$2. \ \mathsf{CHECK} \ \mathsf{ADP} \ \mathsf{STEERING} \ \mathsf{SWITCH} \ \mathsf{(TILT)} \ \mathsf{INPUT/OUTPUT}$

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

| Connector | Terminals (Wire color) | | Condition | Voltage (V) (Approx.) |
|-----------|---------------------------|--------|-------------------------------------|--------------------------|
| | (+) | (-) | 1 | (дрргох.) |
| M4 _ | 23 (RU/W) | Ground | Tilt switch ON. (DOWN operation) | 0 |
| | | | Tilt switch OFF. | 5 |
| | 36 (Y/G) Grour | Ground | Tilt switch ON (UP operation). | 0 |
| | | | Tilt switch OFF. | 5 |



OK or NG

OK >> System is OK.

NG >> GO TO 3.

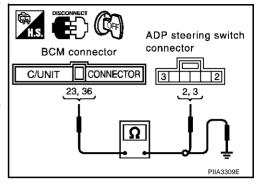
3. CHECK HARNESS CONTINUITY

- 1. Disconnect BCM connector and ADP steering switch connector.
- Check continuity between BCM connector M4 terminals 23 (PU/ W), 36 (Y/G) and ADP steering switch connector M51 terminals 2 (Y/G), 3 (PU/W).

23 (PU/W) - 3 (PU/W) : Continuity should exist. 36 (Y/G) - 2 (Y/G): Continuity should exist.

Check continuity between BCM connector M4 terminals 23 (PU/ W), 36 (Y/G) and ground.

> 23 (PU/W) - Ground : Continuity should not exist. 36 (Y/G) - GRound : Continuity should not exist.



OK or NG

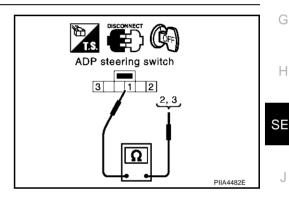
OK >> GO TO 4.

NG >> Repair or replace harness between BCM and ADP steering switch.

4. CHECK ADP TILT STEERING SWITCH

Check continuity between ADP steering switch.

| Connector | Terminals | | Condition | Continuity |
|-----------|-----------|---------|----------------------------------|------------|
| Connector | (+) | (-) | Condition | Continuity |
| M51 – | 2 | ation). | Tilt switch ON (UP operation). | Yes |
| | | | Tilt switch OFF. | No |
| | 3 | ' | Tilt switch ON (DOWN operation). | Yes |
| | | | Tilt switch OFF. | No |



OK or NG

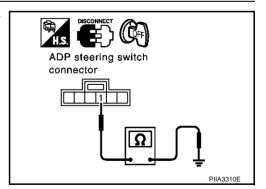
OK >> GO TO 5.

NG >> Replace ADP steering switch.

5. CHECK ADP STEERING SWITCH GROUND CIRCUIT

Check continuity between ADP steering switch connector M51 terminal 1 (B) and ground.

> 1 (B) - Ground : Continuity should exist.



OK or NG

OK >> Check the harness and connector.

NG >> Repair or replace harness between ADP steering switch and ground.

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Seat Memory Indicator Lamp System Inspection

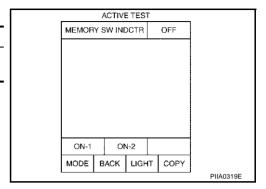
EIS0042A

1. CHECK FUNCTION

(P)With CONSULT-II

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. |



Without CONSULT-II

GO TO 2.

OK or NG

OK >> System is OK. NG >> GO TO 2.

2. CHECK FUSE

Check 10A fuse [No.3, located in fuse block (J/B)]

NOTE:

Refer to SE-17, "Component Parts and Harness Connector Location".

OK or NG

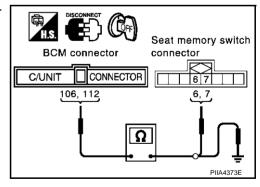
OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse, refer to <u>SE-17</u>, "Component Parts and Harness Connector Location".

3. CHECK SEAT MEMORY SWITCH POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect seat memory switch connector.
- Check voltage between seat memory switch connector D3 terminal 5 (P/L) and ground.

5 (P/L) – Ground : Battery voltage.



OK or NG

OK >> GO TO 4

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

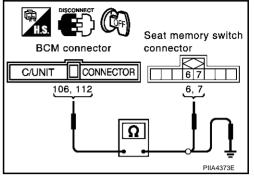
4. CHECK HARNESS CONTINUITY

- 1. Disconnect BCM connector.
- Check continuity between BCM connector M4 terminals 106 (BR/Y), 112 (L/W) and seat memory switch connector D3 terminals 6 (BR/Y), 7 (L/W).

106 (BR/Y) - 6 (BR/Y): Continuity should exist. 112 (L/W) - 7 (L/W) : Continuity should exist.

Check continuity between BCM connector M4 terminals 106 (BR/Y), 112 (L/W) and ground.

> 106 (BR/Y) - Ground : Continuity should not exist. 112 (L/W) - Ground : Continuity should not exist.



OK or NG

OK >> GO TO 5.

NG >> Repair or replace harness between BCM and memory switch.

5. CHECK SEAT MEMORY SWITCH INDICATOR SIGNAL

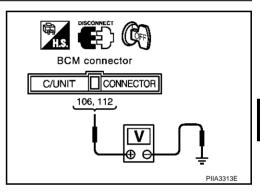
Check voltage between BCM connector M4 terminals 106 (BR/Y). 112 (L/W) and ground.

> 106 (BR/Y) - Ground : Battery voltage. 112 (L/W) - Ground : Battery voltage.

OK or NG

OK >> Replace BCM.

NG >> Replace seat memory switch.



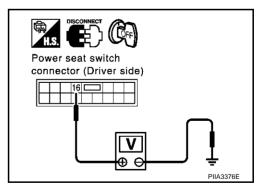
FIS0042E

Lumber Support Circuit Inspection

1. CHECK LUMBER SUPPORT SWITCH

- Turn ignition switch OFF.
- 2. Disconnect front power seat switch (driver side) connector.
- Check voltage between power seat switch (driver side) connector B144 terminal 16 (R) and ground.

16 (R) - Ground: : Battery voltage.



OK or NG

>> GO TO 2. OK

NG >> Repair or replace harness between fuse block (J/B) and power seat switch (Driver side).

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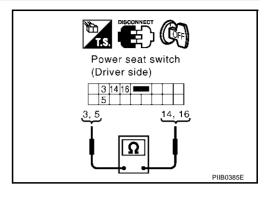
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2. CHECK LUMBER SUPPORT SWITCH

Check continuity power seat switch.

| Con- | Terminal | | Condition | Continuity | |
|--------|----------|-----|---------------------------------|-------------------------|--|
| nector | (+) | (-) | Condition | Continuity | |
| | 3 | 16 | Lumber support switch forward. | Continuity should exist | |
| B144 | 3 | 14 | Lumber support switch backward. | Continuity should exist | |
| | 5 (W/ | 16 | Lumber support switch backward. | Continuity should exist | |
| | B) | 14 | Lumber support switch forward. | Continuity should exist | |



OK or NG

OK >> GO TO 3.

NG >> The harness and connector is checked, and it is normal, replace power seat switch.

3. CHECK LUMBER SUPPORT MOTOR HARNESS

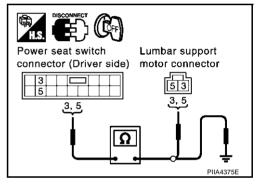
- 1. Disconnect lumber support motor connector.
- 2. Check continuity between power seat switch connector (driver side) B144 terminal 3 (GY), 5 (W/B) and lumber support motor connector B195 terminal 3 (GY), 5 (W/B).

3 (GY) – 3 (GY) :Continuity should exist. 5 (W/B) – 5 (W/B) :Continuity should exist.

3. Check continuity between power seat switch connector (driver side) B144 terminal 3 (GY), 5 (W/B) and ground.

3 (GY) – Ground :Continuity should not exist.

5 (W/B) – Ground :Continuity should not exist.



OK or NG

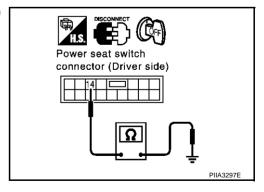
OK >> GO TO 4.

NG >> Repair or replace harness between power seat switch (driver side) and lumber support motor.

4. LUMBER SUPPORT SWITCH INSPECTION

Check continuity between power seat switch connector (driver side) B144 terminal 14 (B/W) and ground.

14 (B/W) – Ground : Continuity should exist.



OK or NG

OK >> Check harness and connector.

NG >> Repair or replace harness between power seat switch (driver side) and ground.

Rear Power Seat Turnout Operation Inspection

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1. CHECK REAR POWER SEAR CONDITION

Front power window main switch operation normally when the power window is operated? OK or NG

OK >> GO TO 2.

NG >> Check the power window system <u>GW-16, "POWER WINDOW SYSTEM"</u>.

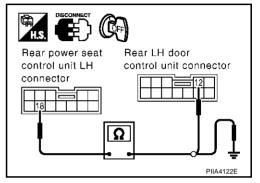
2. CHECK REAR POWER SEAT CONTROL UNIT HARNESS

- 1. Turn ignition switch OFF.
- Disconnect rear LH door control unit connector and rear power seat control unit LH connector.
- 3. Check continuity between rear LH door control unit connector B163 terminal 18 (BR/W) and rear power seat control unit LH connector D58 terminal 12 (OR/L).

18 (BR/W) – 12 (OR/L) :Continuity should exist.

4. Check continuity between rear LH door control unit connector B163 terminal 18 (BR/W) and ground.

18 (BR/W) – Ground :Continuity should not exist.



OK or NG

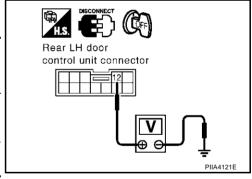
OK >> GO TO 3.

NG >> Repair or replace harness between ear LH door control unit and rear power seat control unit LH.

3. CHECK REAR POWER SEAT AUTO RETURN SIGNAL

- Connect rear power seat control unit LH connector.
- Check voltage between rear LH door control unit connector and ground.

| Connector | Terminals (Wire color) | | Condition | Voltage (V) |
|-----------|---------------------------|--------|--|-----------------|
| | (+) | (-) | | (Approx.) |
| D58 | 12 (OP/L) | Ground | Driver side seat auto return operation (back ward) | 0 |
| | (OR/L) Ground | | When driver side seat auto return stops | Battery voltage |



OK or NG

OK >> Replace rear power seat control unit LH.

NG >> Replace rear LH door control unit.

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POWER SEAT PFP:87016

System Description

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

When the slide switch turned on, or auto return cancel switch is canceled, an auto return is discontinued. The LH seat moves backward when the driver seat is moved backward by the auto driving position system.

Refer to SE-13, "System Description".

Power is all times supplied

- through 40A fusible link [letter H, located in the fuse block (J/B)],
- to front power seat passenger side terminal 16, and
- to rear power seat control unit LH, rear power seat control unit RH terminal 2.

FRONT POWER SEAT (PASSENGER SIDE) OPERATION

When sliding switch is forward, power is supplied

- through power seat switch terminal 1.
- to sliding motor terminal 1,

Then ground is supplied

- to sliding motor terminal 8,
- through power seat switch terminal 8,
- through power seat switch terminal 15A,
- through body grounds B217 and B256.

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

When sliding switch is backward, power is supplied

- through power seat switch terminal 8.
- to sliding motor terminal 8,

Then ground is supplied

- to sliding motor terminal 1,
- through power seat switch terminal 1,
- through power seat switch terminal 15A,
- through body grounds B217 and B256.

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

When reclining switch is forward, power is supplied

- through power seat switch terminal 2.
- to reclining motor terminal 2,

Then ground is supplied

- to reclining motor terminal 9,
- through power seat switch terminal 9,
- through power seat switch terminal 15A,
- through body grounds B217 and B256.

When power and ground are supplied, front passenger seat reclining moves forward.

When reclining switch is backward, power is supplied

- through power seat switch terminal 9.
- to reclining motor terminal 9,

Then ground is supplied

- to reclining motor terminal 2,
- through power seat switch terminal 2,
- through power seat switch terminal 15A,
- through body grounds B217 and B256.

When power and ground are supplied, front passenger seat reclining moves backward.

This seat does reclining backward.

When front lifting switch is upward, power is supplied

- through power seat switch terminal 11.
- to front lifting motor terminal 11,

Then ground is supplied

- to front lifting motor terminal 10,
- through power seat switch terminal 10,
- through power seat switch terminal 15A,
- through body grounds B217 and B256.

When power and ground are supplied, front passenger seat front lifting moves upward.

This seat does front lifting upward.

When front lifting switch is downward, power is supplied

- through power seat switch terminal 10.
- to front lifting motor terminal 10.

Then ground is supplied

- to front lifting motor terminal 11,
- through power seat switch terminal 11,
- through power seat switch terminal 15A.
- through body grounds B217 and B256.

When power and ground are supplied, front passenger seat front lifting moves downward.

This seat does front lifting downward.

When rear lifting switch is upward, power is supplied

- through power seat switch terminal 6.
- to rear lifting motor terminal 6,

Then ground is supplied

- to rear lifting motor terminal 4,
- through power seat switch terminal 4,
- through power seat switch terminal 15A,
- through body grounds B217 and B256.

When power and ground are supplied, front passenger seat rear lifting moves upward.

When rear lifting switch is downward, power is supplied

- through power seat switch terminal 4,
- to rear lifting motor terminal 4,

Then ground is supplied

- to rear lifting motor terminal 6,
- through power seat switch terminal 6,
- through power seat switch terminal 15A,
- through body grounds B217 and B256.

When power and ground are supplied, front passenger seat rear lifting moves downward.

REAR POWER SEAT LH AND REAR POWER SEAT RH OPERATION

When rear power seat sliding switch is forward, ground is supplied

- to rear power seat control unit terminal 24,
- through power seat switch terminal 7 (RH), 8 (LH),
- through power seat switch terminal 2,
- through body grounds B17, B57 (LH) and B217, B256 (RH).

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

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

Then ground is supplied

- to rear power seat sliding motor terminal 11,
- through rear power seat control unit terminal 11,

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- through rear power seat control unit terminals 15,
- through body grounds B17, B57 (LH) B217, B256 (RH).

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

This seat does slide forward.

When rear power seat sliding switch is backward, ground is supplied

- to rear power seat control unit terminal 18,
- through power seat switch terminal 7 (LH), 8 (RH),
- through power seat switch terminal 2,
- through body grounds B17, B57 (LH) and B217, B256 (RH).

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

- to rear power seat sliding motor terminal 11,
- through rear power seat control unit terminal 11.

Then ground is supplied

- to rear power seat sliding motor terminal 4,
- through rear power seat control unit terminal 4,
- through rear power seat control unit terminals 15,
- through body grounds B17, B57 (LH) and B217, B256 (RH).

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

REAR SEAT TURNOUT/RETURN FUNCTION

When auto return cancel switch ON and rear door open, ground is supplied

- to rear power seat control unit terminal 43,
- through door lock assembly rear (Door switch) terminal 1,
- through door lock assembly rear (Door switch) terminal 2,
- through body grounds B17, B57 (LH) and B217, B256 (RH).

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

- through rear power seat control unit terminal 11.
- to rear power seat sliding motor terminal 11,

Then ground is supplied

- to rear power seat sliding motor terminal 4,
- through rear power seat control unit terminal 4,
- through rear power seat control unit terminals 15,
- through body grounds B17, B57 (LH) and B217, B256 (RH).

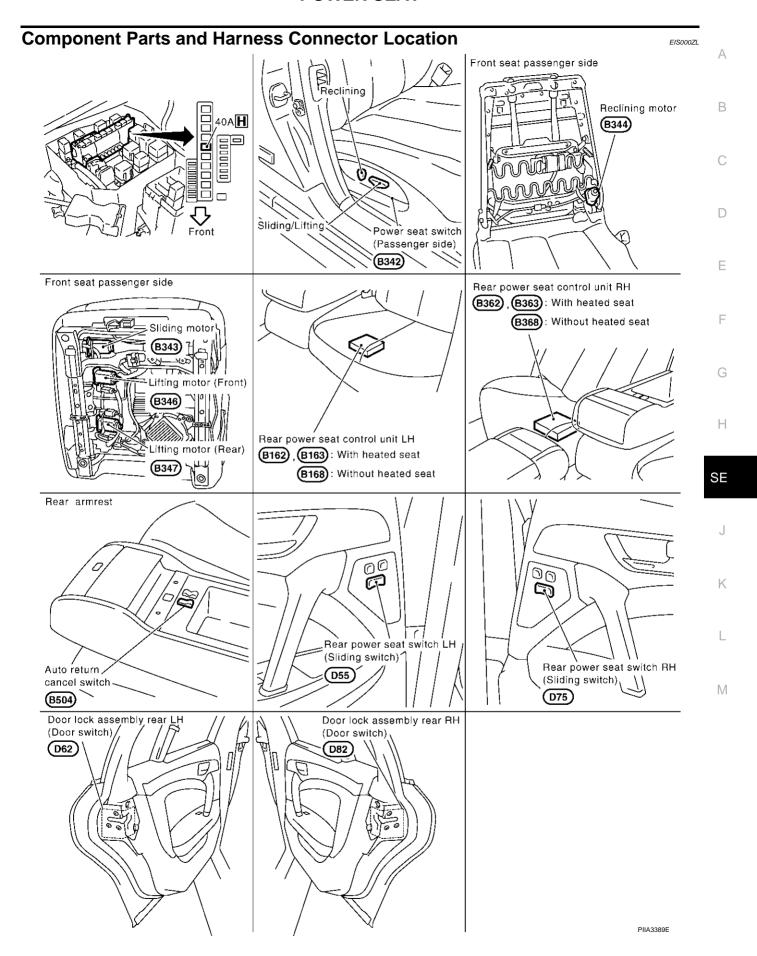
When power and ground are supplied, rear power seat slide moves backward.

When rear power seat sliding motor is operated, ground is supplied

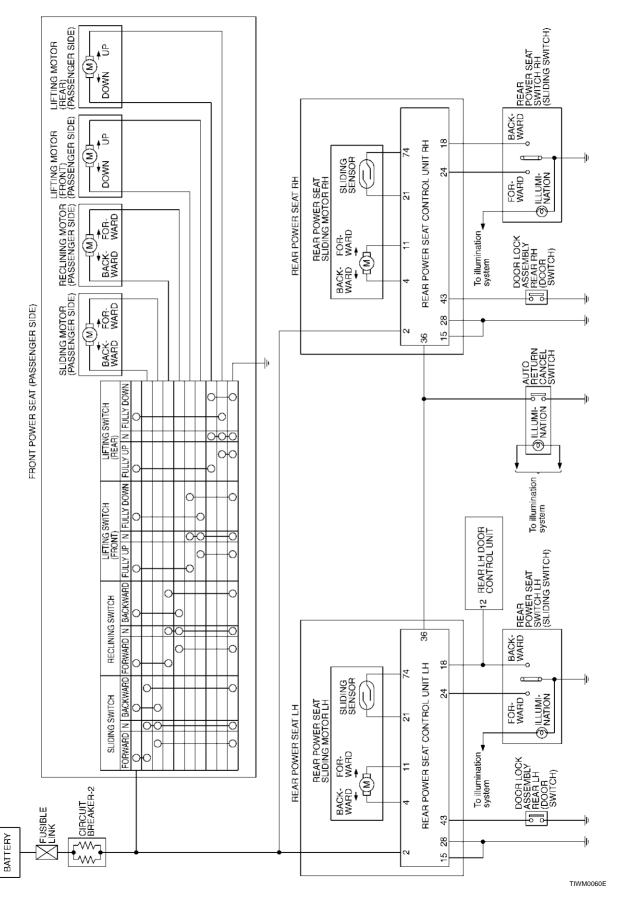
- to rear power seat control unit terminal 21,
- through rear power seat sliding motor terminal 21,
- through rear power seat sliding motor terminal 74,
- through rear power seat control unit terminal 74
- through rear power seat control unit terminals 28,
- through body grounds B17, B57 (LH) and B217, B256 (RH).

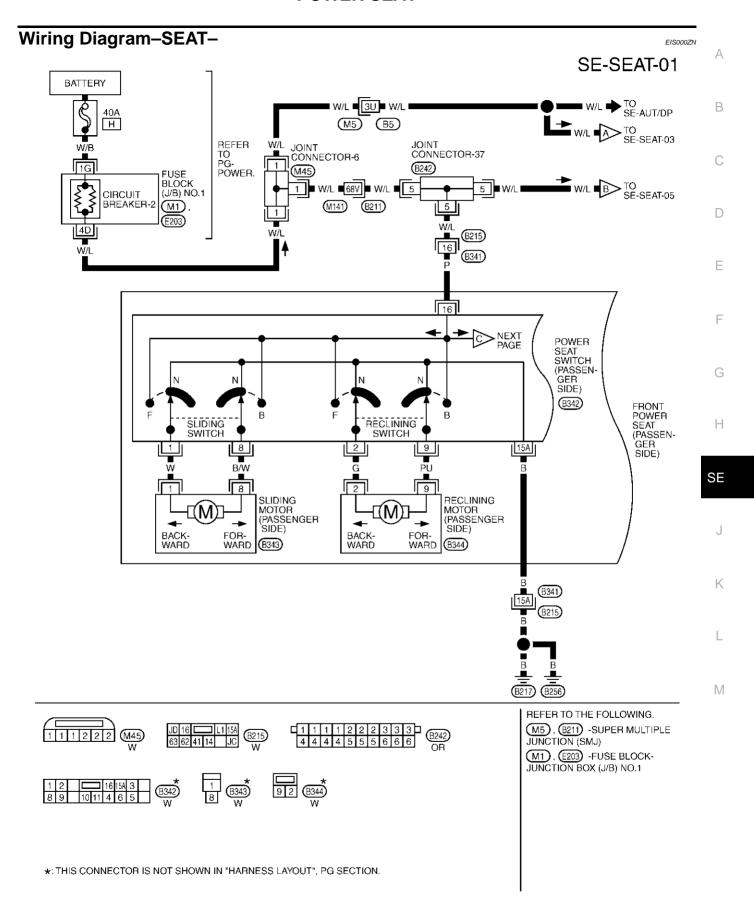
Then power seat control unit receives rear power seat sliding sensor signal.

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



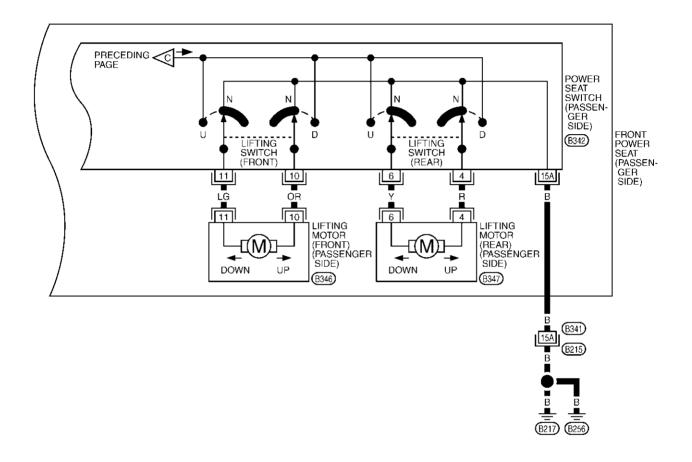
Schematic EIS0014T

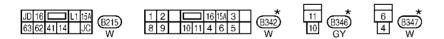




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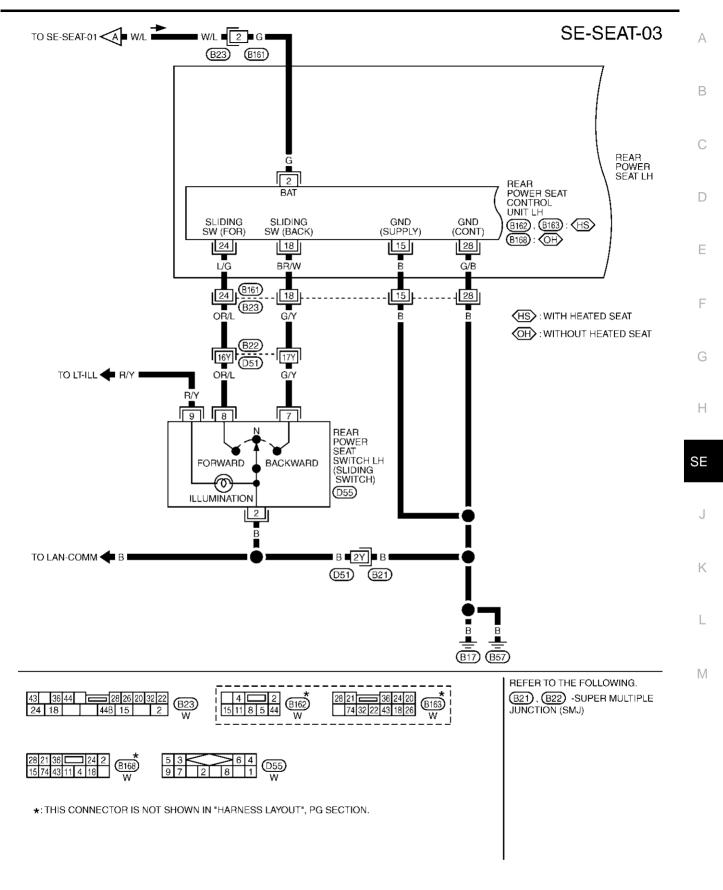
SE-SEAT-02



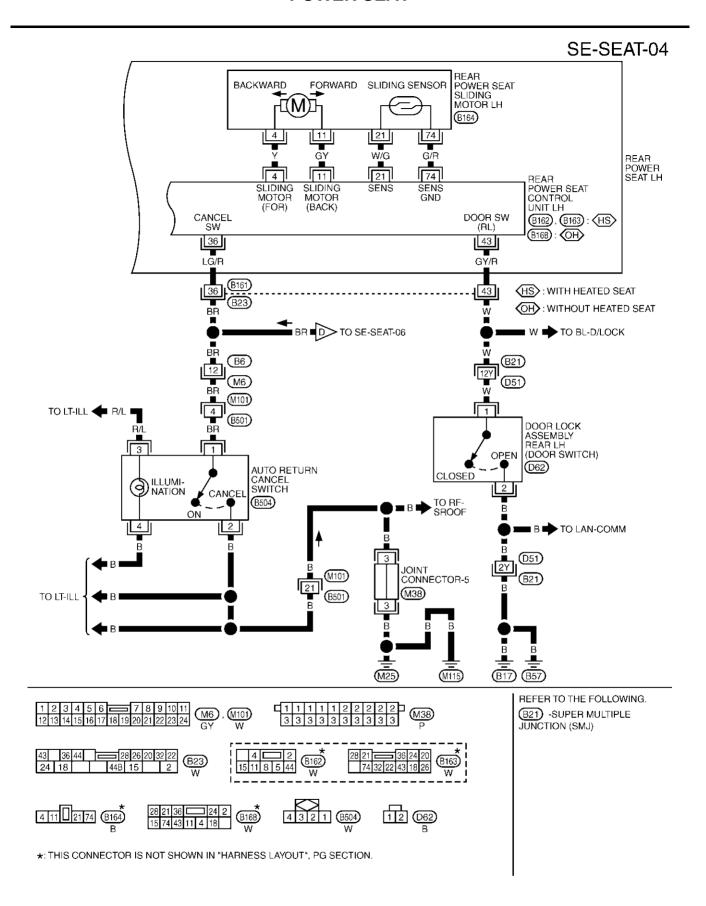


*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

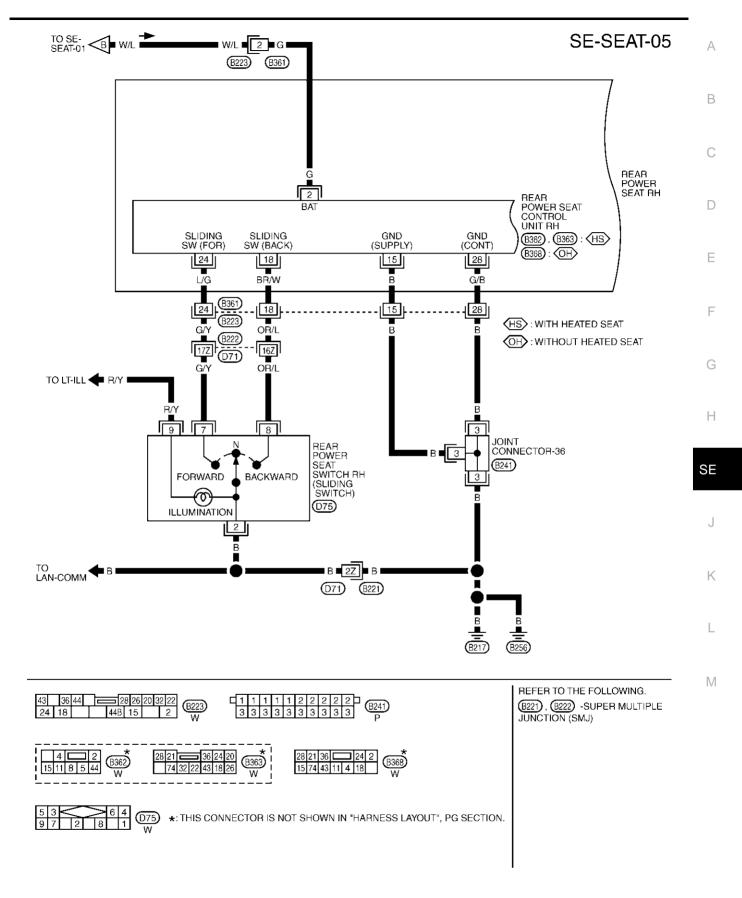
TIWM0154E



TIWM0228E

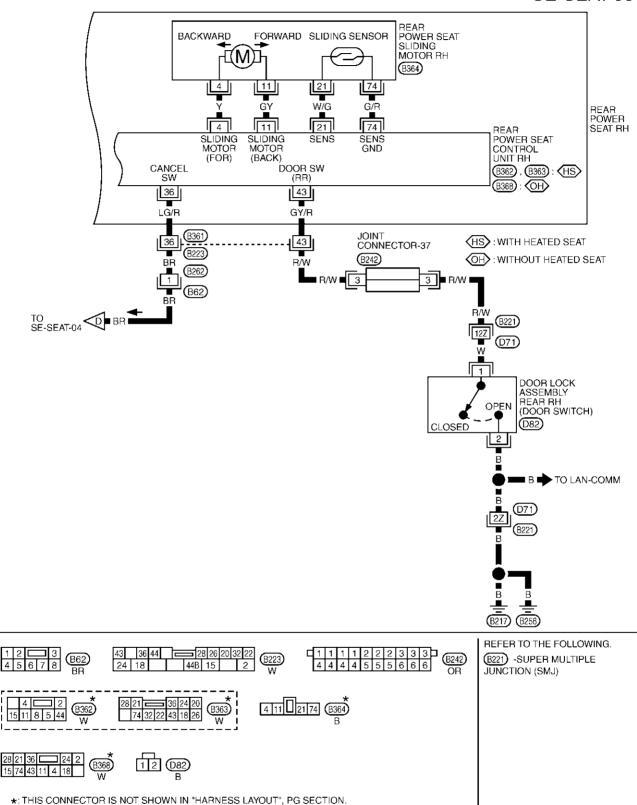


TIWM0229E



TIWM0230E

SE-SEAT-06



TIWM0231E

| | | | | | ver Seat Switch EIS0014U |
|---------------|---------------------------|--|---|---|--------------------------|
| TERMI- NAL | WIRE COLOR | ITEM | Ignition switch | CONDITION | Voltage (V) (Approx.) |
| 1 | 1 W Sliding motor FR sig- | | When sliding switch forward is operated | Battery voltage | |
| | | nal | | Other than above | 0 |
| 2 | G | Reclining motor FR signal | OFF | When reclining switch forward is operated | Battery voltage |
| | | Signal | | Other than above | 0 |
| 4 | R | Rear lifting switch DOWN signal | OFF | When rear lifting switch DOWN is operated | Battery voltage |
| | | DOWN Signal | | Other than above | 0 |
| 6 | Y | Rear lifting switch UP | OFF | When rear lifting switch UP is operated | Battery voltage |
| | | signal | | Other than above. | 0 |
| 8 | B/W | Sliding motor back- ward signal | OFF | When sliding switch backward is operated | Battery voltage |
| | | waru signai | | Other than above | 0 |
| 9 | PU | Reclining motor back- ward signal | | When reclining switch backward is operated. | Battery voltage |
| | | waru signai | | Other than above | 0 |
| 10 | OR | Front lifting switch DOWN signal | OFF | When front lifting switch DOWN is operated | Battery voltage |
| | | DOWN Signal | | Other than above | 0 |
| 11 | LG | Front lifting switch UP signal OFF | | When front lifting switch UP is operated. | Battery voltage |
| | | olgridi | | Other than above | 0 |
| 15A | В | Ground | ON | _ | 0 |
| 16 | Р | BAT power supply | OFF — | | Battery voltage |
| ermin | als and | d Reference Va | lues fo | or Rear Power Seat Co | ntrol Unit LH EISO014V |
| TERMI- NAL | WIRE COLOR | ITEM | Ignition switch | CONDITION | Voltage (V) (Approx.) |
| 2 | G | BAT power supply | OFF | _ | Battery voltage |
| 4 | Υ | Sliding motor forward signal When sliding switch forw operated | When sliding switch forward is operated | Battery voltage | |
| | | - 3 | | Other than above | 0 |
| 11 | GY | Sliding motor backward signal | OFF | When sliding switch backward is operated | Battery voltage |
| | | g. · | | Other than above | 0 |
| 15 | В | Ground | ON | | 0 |
| 40 | BR/W | BR/W Sliding switch back- OFF | | When sliding switch backward is operated. | 0 |
| 18 | 2.01. | ward signal | _ | | |

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| TERMI- NAL | WIRE COLOR | ITEM | Ignition switch | CONDITION | Voltage (V) (Approx.) |
|---------------|---------------|-------------------------------|--------------------|--|-----------------------------|
| 21 W/G S | | Sliding sensor signal | OFF | Sliding device active | (V) 6 4 2 0 |
| | | | | Sliding device inactive | 0 or 5 |
| 24 | 24 L/G | Sliding switch forward signal | OFF | When sliding switch forward is operated. | 0 |
| | | | | Other than above. | Battery voltage |
| 28 | G/B | Ground | ON | _ | |
| | 36 LG/R | Cancel switch signal | OFF | Cancel switch ON with rear door (LH) open | 5 |
| 36 | | | | Cancel switch ON with rear door (LH) close | 0 |
| | | | | Cancel switch CANCEL | 0 |
| 43 | 43 GY/R | Rear door switch (LH) | OFF | Rear door (LH) open (ON) | 0 |
| 45 | GI/IX | signal | | Rear door (LH) close (OFF) | Battery voltage |
| 74 | G/R | Ground (sensor system) | OFF | _ | 0 |

Terminals and Reference Values for Rear Power Seat Control Unit RH

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| TERMI- NAL | WIRE COLOR | ITEM | Ignition switch | CONDITION | Voltage (V) (Approx.) |
|---------------|------------------------------|------------------------------------|---|---|---------------------------------|
| 2 | G | BAT power supply | OFF | _ | Battery voltage |
| 4 Y | Υ | Sliding motor, for- ward signal | OFF | When sliding switch forward is operated. | Battery voltage |
| | | waru signai | | Other than above. | 0 |
| 11 | GY | Sliding motor, backward signal | OFF | When sliding switch backward is operated. | Battery voltage |
| | | backwaru signai | | Other than above. | 0 |
| 15 | В | Ground | ON | _ | 0 |
| 18 G/Y | Sliding switch | OFF | When sliding switch backward is operated. | 0 | |
| | | backward signal | | Other than above | Battery voltage |
| 21 | 21 W/G Sliding sensor signal | | OFF | Sliding device active | (V) 6 4 2 0 50ms |
| | | | | Sliding device inactive | 0 or 5 |
| 24 L | L/G | L/G Sliding switch forward signal | OFF | When sliding switch forward is operated. | 0 |
| | | | | Other than above. | Battery voltage |
| 28 | G/B | Ground | ON | _ | 0 |

| TERMI- NAL | WIRE COLOR | ITEM | Ignition switch | CONDITION | Voltage (V) (Approx.) |
|---------------|----------------------|------------------------|--|-------------------------|--------------------------|
| 36 LG/R | Cancel switch signal | OFF | Cancel switch ON with rear door (RH) open | 5 | |
| | | | Cancel switch ON with rear door (RH) close | 0 | |
| | | | | Cancel switch CANCEL | 0 |
| 40 | R R | Rear door switch | OFF | Rear door RH) open (ON) | 0 |
| 43 GY/R | (RH) signal | OFF | Rear door (RH) close (OFF) | Battery voltage | |
| 74 | G/R | Ground (sensor system) | ON | _ | 0 |

Work Flow

- 1. Check the symptom and customer's requests.
- 2. Understand the outline of system. Refer to SE-94, "System Description".
- 3. According to the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to <u>SE-107</u>, <u>"Trouble Diagnoses Symptom Chart"</u>.
- 4. Does power seat operate normally? YES: GO TO 5, NO: GO TO 4.
- 5. INSPECTION END.

Trouble Diagnoses Symptom Chart

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

| , , , | 3 , 1 , | |
|---|---|---------------|
| Symptom | Diagnoses / service procedure | Refer to page |
| Front power seat passenger side and rear power seat LH, RH do not operate. | Power seat power supply circuit inspection | SE-109 |
| Front power seat passenger side does not operate, but rear power seat is operated. | Front power seat passenger side switch circuit inspection | SE-109 |
| Front power seat passenger side does not do the sliding. | Front power seat passenger side sliding circuit inspection | SE-110 |
| Front power seat passenger side does not do the reclining. | Front power seat passenger side reclining circuit inspection | <u>SE-111</u> |
| Front power seat passenger side front does not do the front lifting. | Front power seat passenger side front rifting circuit inspection | SE-112 |
| Front power seat passenger side rear does not do the rear lifting. | Front power seat passenger side rear rifting circuit inspection | SE-113 |
| Rear power seat LH or RH sliding switch does not operate | Rear power seat power supply ground circuit inspection (With heated seat) | SE-113 |
| moreover, does not turnout/return function if the door is opened. (With heated seat) | Rear power seat sliding motor circuit inspection (With heated seat) | SE-114 |
| | Replace rear power seat sliding motor | _ |
| Rear power seat LH or RH does not operate but turnout/return function when the door is opened. (With heated seat) | Rear power seat switch circuit inspection (With heated seat) | <u>SE-115</u> |
| Rear power seat LH and RH turnout/return function do not operate but operate in sliding switch. (With heated seat) | Auto return cancel switch circuit inspection 2 (With heated seat) | <u>SE-116</u> |
| | Rear door switch circuit inspection (With heated seat) | <u>SE-118</u> |
| Rear power seat LH or RH turnout/return function does not operated but operates by a sliding switch. (With heated seat) | Auto return cancel switch circuit inspection (With heated seat) | SE-117 |
| operated but operates by a stiding switch. (with fleated seat) | Rear power seat sliding sensor circuit inspection (With heated seat) | SE-119 |
| | 4. Replace rear power seat control unit | _ |

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| Symptom | Diagnoses / service procedure | Refer to page |
|--|--|---------------|
| Rear power seat LH or RH sliding switch does not operate | Rear power seat power supply and ground circuit inspection (Without heated seat) | SE-120 |
| moreover, turnout/return function does not operate if the door is opened (Without heated seat) | Rear power seat sliding motor circuit inspection (Without heated seat) | SE-121 |
| | 3. Replace rear power seat sliding motor | _ |
| Rear power seat LH or RH does not operate but turnout/return function operates when the door is opened (Without heated seat) | Rear power seat switch circuit inspection (Without heated seat) | <u>SE-122</u> |
| Rear power seat LH and RH turnout/return function do not operate, but the operate by sliding switch (Without heated seat) | Auto return cancel switch circuit inspection 2 (Without heated seat) | <u>SE-123</u> |
| | Rear door switch circuit inspection (Without heated seat) | <u>SE-125</u> |
| Rear power seat LH or RH turnout/return function does not operate, but operates by a sliding switch (Without heated seat) | Auto return cancel switch circuit inspection (Without heated seat) | <u>SE-124</u> |
| operate, but operates by a sliding switch (without heated seat) | sliding sensor circuit inspection (Without heated seat) | <u>SE-126</u> |
| | Replace rear power seat control unit. | _ |

Power Seat Switch Circuit Inspection

1. CHECK FUSIBLE LINK

Check 40A fusible link (letter H located in the fuse and fusible link box).

NOTF:

Refer to SE-97, "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 SE-97, "Component Parts and Harness Connector Location".

2. Check power seat power supply circuit

- Turn ignition switch OFF. 1.
- 2. Disconnect front power seat passenger side switch connector.
- Check voltage between front power seat passenger side switch connector B342 terminal 16 (P) and ground.

16 (P) - Ground

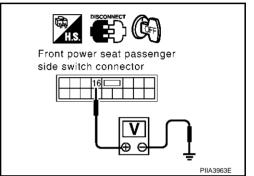
:Battery voltage

OK or NG

NG

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

>> Repair or replace harness between fuse and fusible link box and front power seat passenger side switch.



Front Power Seat Passenger Side Power Supply Circuit Inspection

1. CHECK FRONT POWER SEAT PASSENGER SIDE POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.

- 2. Disconnect front power seat passenger side switch connector.
- Check voltage between front power seat passenger side switch connector B342 terminal 16 (P) and ground.

16 (P) - Ground

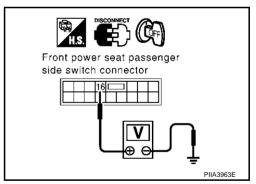
: Battery voltage

OK or NG

OK >> GO TO 2.

NG

>> Repair or replace harness between fuse and fusible link box and front power seat passenger side switch.



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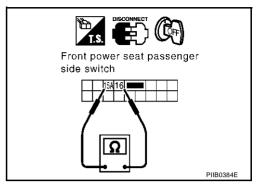
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$\overline{2}$. CHECK POWER SEAT SWITCH

- Connect front power seat passenger side switch connector.
- Check continuity between front power seat passenger side switch connector.

| Terr | ninal | Condition Contin | | |
|------|-------|--|---|-----|
| | | Sliding switch turn forward and backward. | YES | |
| | | Reclining switch turn forward and backward. | YES | |
| 16 | 15A | 15A | Lifting switch (front) fully up and fully down. | YES |
| | | Lifting switch (rear) fully up and fully down. | YES | |
| | | Other than above | NO | |



OK or NG

OK >> GO TO 3.

NG >> Replace front power seat passenger side switch.

3. CHECK FRONT POWER SEAT PASSENGER SIDE GROUND CIRCUIT

- 1. Disconnect front power seat passenger side switch connector.
- 2. Check continuity between front power seat passenger side switch connector B342 terminal 15A (B) and ground.

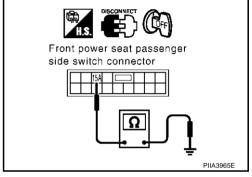
15A (B) - Ground

:Continuity should exist.

OK or NG

OK >> Check connector.

NG >> Repair or replace harness between front power seat passenger side switch and ground.



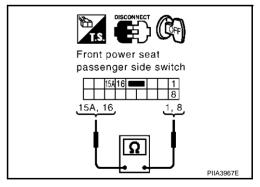
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Front Power Seat (Passenger Side) Sliding Circuit Inspection

1. CHECK POWER SEAT SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect front power seat (passenger side) switch connector.
- Check continuity between front power seat passenger side switch as follows.

| Terminal | | Condition | Continuity |
|----------|---------|--------------------------|------------|
| | 15A | Sliding switch backward. | YES |
| 1 | 16 | Sliding switch forward. | YES |
| | 15A, 16 | Other than above. | NO |
| | 15A | Sliding switch forward. | YES |
| 8 | 16 | Sliding switch backward. | YES |
| | 15A, 16 | Other than above. | NO |



OK or NG

OK >> GO TO 2.

NG >> Replace front power seat passenger side switch.

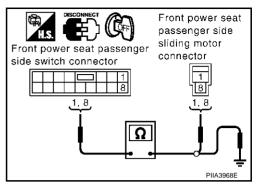
$\overline{2}$. CHECK SLIDING MOTOR HARNESS

- 1. Disconnect sliding motor connector.
- 2. Check continuity between front power seat passenger side switch connector B342 terminals 1 (W), 8 (B/W) and body sliding motor connector B343 terminals 1 (W), 8 (B/W).

:Continuity should exist. 1 (W) – 1 (W) 8 (B/W) - 8 (B/W):Continuity should exist.

Check continuity between front power seat passenger side switch connector B342 terminal 1 (W), 8 (B/W) and ground.

> 1 (W) - Ground :Continuity should not exist. 8 (B/W) - Ground :Continuity should not exist.



OK or NG

OK >> Replace sliding motor.

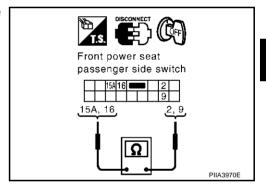
NG >> Repair or replace harness between front power seat passenger side switch and sliding motor.

Front Power Seat Passenger Side Reclining Circuit Inspection

1. CHECK POWER SEAT SWITCH

- Turn ignition switch OFF.
- 2. Disconnect front power seat passenger side switch connector.
- Check continuity between front power seat passenger side switch as follows.

| Terminal | | Condition | Continuity |
|----------|---------|----------------------------|------------|
| | 15A | Reclining switch backward. | YES |
| 2 | 16 | Reclining switch forward. | YES |
| | 15A, 16 | Other than above | NO |
| | 15A | Reclining switch forward. | YES |
| 9 | 16 | Reclining switch backward. | YES |
| | 15A, 16 | Other than above | NO |



OK or NG

OK >> GO TO 2.

NG >> Replace front power seat passenger side switch.

2. CHECK RECLINING MOTOR HARNESS

- Disconnect reclining motor connector.
- 2. Check continuity between front power seat passenger side switch connector B342 terminals 2 (G), 9 (PU) and reclining motor connector B344 terminals 2 (G), 9 (PU).

:Continuity should exist 2(G) - 2(G)9 (PU) - 9 (PU) :Continuity should exist

Check continuity between front power seat passenger side switch connector B342 terminals 2 (G), 9 (PU) and ground.

> 2 (G) - Ground :Continuity should not exist 9 (PU) - Ground :Continuity should not exist

Front power seat passenger side Front power seat passenger reclining motor side switch connector connector 29 2, 9 2, 9

OK or NG

OK >> Replace reclining motor.

NG >> Repair or replace harness between front power seat passenger side switch and reclining motor.

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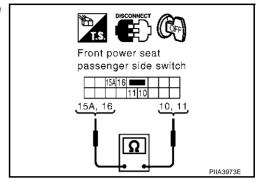
Front Power Seat Passenger Side Front Lifting Circuit Inspection

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1. CHECK POWER SEAT SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect front power seat passenger side switch connector.
- Check continuity between front power seat passenger side switch as follows.

| Terminal | | Condition | Continuity |
|----------|---------|----------------------------|------------|
| | 15A | Front lifting switch up. | YES |
| 10 | 16 | Front lifting switch down. | YES |
| | 15A, 16 | Other than above | NO |
| | 15A | Front lifting switch down. | YES |
| 11 | 16 | Front lifting switch up. | YES |
| | 15A, 16 | Other than above | NO |



OK or NG

OK >> GO TO 2.

NG >> Replace front power seat passenger side switch.

2. CHECK FRONT LIFTING MOTOR HARNESS

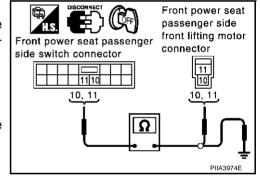
- 1. Disconnect front lifting motor connector.
- 2. Check continuity between front power seat passenger side switch connector B342 terminals 10 (OR), 11 (LG) and front lifting motor connector B346 terminals 10 (OR), 11 (LG).

10 (OR) – 10 (OR) :Continuity should exist. 11 (LG) – 11 (LG) :Continuity should exist.

Check continuity between front power seat passenger side switch connector B342 terminals 10 (OR), 11 (LG) and ground.

10 (OR) – Ground :Continuity should not exist.

11 (LG) – Ground :Continuity should not exist.



OK or NG

OK >> Replace front lifting motor.

NG >> Repair or replace harness between front power seat passenger side switch and front lifting motor.

Front Power Seat Passenger Side Rear Lifting Circuit Inspection

EIS003V5

Α

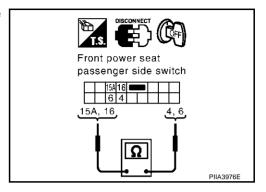
В

F

1. CHECK POWER SEAT SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect front power seat passenger side switch connector.
- Check continuity between front power seat passenger side switch as follows.

| Terminal | | Condition | Continuity |
|----------|---------|---------------------------|------------|
| | 15A | Rear lifting switch up. | YES |
| 4 | 16 | Rear lifting switch down. | YES |
| | 15A, 16 | Other than above | NO |
| | 15A | Rear lifting switch down. | YES |
| 6 | 16 | Rear lifting switch up. | YES |
| | 15A, 16 | Other than above | NO |



OK or NG

OK >> GO TO 2.

NG >> Replace front power seat passenger side switch.

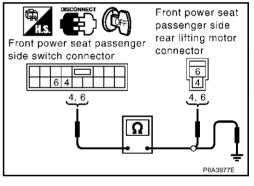
2. CHECK REAR LIFTING MOTOR HARNESS

- 1. Disconnect front power seat passenger side switch connector and rear lifting motor connector.
- 2. Check continuity between front power seat passenger side switch connector B342 terminals 4 (R), 6 (Y) and rear lifting motor connector B347 terminals 4 (R), 6 (Y).

4 (R) – 4 (R) :Continuity should exist. 6 (Y) – 6 (Y) :Continuity should exist.

3. Check continuity between front power seat passenger side switch connector B342 terminals 4 (R), 6 (Y) and ground.

4 (R) – Ground :Continuity should not exist. 6 (Y) – Ground :Continuity should not exist.



OK or NG

OK >> Replace rear lifting motor.

NG >> Repair or replace harness between front power seat passenger side switch and rear lifting motor.

Rear Power Seat Control unit Power Supply and Ground Circuit Inspection (With Heated Seat)

EIS003V7

1. CHECK REAR POWER SEAT CONTROL UNIT POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect rear power seat control unit connector.
- 3. Check voltage between rear power seat control unit connector B162 (LH), B362 (RH) terminal 2 (G) and ground.

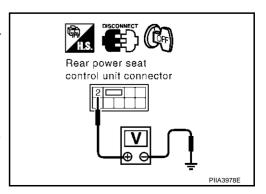
2 (G) – Ground : Battery voltage.

OK or NG

NG

OK >> GO TO 2.

>> Repair or replace harness between fuse block (J/B) No.1 and rear power seat control unit.



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Revision; 2004 April **SE-113** 2003 Q45

2. CHECK REAR POWER SEAT CONTROL UNIT GROUND CIRCUIT

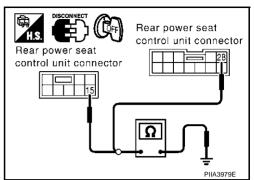
Check continuity between rear power seat control unit connector B162 (LH), B362 (RH) terminals 15 (B), 28 (B) and ground.

15 (B) – Ground :Continuity should exist. 28 (B) – Ground :Continuity should exist.

OK or NG

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

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



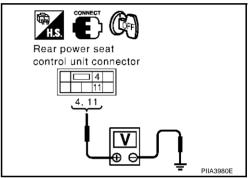
EIS003V2

Rear Power Seat Sliding Motor Circuit Inspection (With Heated Seat)

1. CHECK REAR POWER SEAT SLIDING MOTOR POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Disconnect rear power seat sliding motor.
- 3. Check voltage between rear power seat control unit connector and ground.

| Con- nector | Terminal (Wire color) | | Condition | Voltage (V) (Approx.) |
|----------------|--------------------------|------------------|---|--|
| riccioi | (+) | (-) | | (Αρρίολ.) |
| | 4.00 | switch) forward. | Rear power seat switch (sliding switch) forward. | Battery voltage |
| B162 (LH), | 4 (Y) | Ground | Rear power seat switch (sliding switch) OFF. | 0 |
| B362 (RH) | 11 (GY) | Ground | Rear power seat switch (sliding switch) backward. | Battery voltage |
| | | | (11) | Rear power seat switch (sliding switch) OFF. |



OK or NG

OK >> Rear power seat sliding motor circuit is OK.

NG >> GO TO 2.

2. CHECK REAR POWER SEAT SLIDING MOTOR HARNESS

- 1. Disconnect rear power seat control unit connector.
- Check continuity between rear power seat control unit connector B162 (LH), B362 (RH) terminal 4 (Y), 11 (GY) and rear power seat sliding motor connector B164 (LH), B364 (RH) terminal 4 (Y), 11 (GY).

4 (Y) – 4 (Y) :Continuity should exist. 11 (GY) – 11 (GY) :Continuity should exist.

3. Check continuity between rear power seat control unit connector B162 (LH), B362 (RH) terminal 4 (Y), 11 (GY) and ground.

4 (Y) – Ground :Continuity should not exist. 11 (GY) – Ground :Continuity should not exist.

Rear power seat sliding motor connector

OK or NG

OK >> Replace rear power seat sliding motor.

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

Rear Power Seat Switch Circuit Inspection (With Heated Seat)

EIS003V8

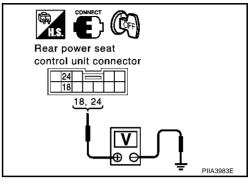
Α

В

1. CHECK REAR POWER SEAT SWITCH POWER SUPPLY

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

| Con- nector | Terminal (Wire color) | | Condition | Voltage (V) (Approx.) |
|----------------|--------------------------|-------------|---|--------------------------|
| 1100101 | (+) | (-) | | (πρίολ.) |
| | 18 (BR/W) | Ground | Rear power seat switch (sliding switch) backward. | 0 |
| B162 (LH) | | | Rear power seat switch (sliding switch) OFF. | Battery voltage |
| B362 (RH) | 24 (L/G) | L/G) Ground | Rear power seat switch (sliding switch) forward. | 0 |
| | 24 (50) | Ground | Rear power seat switch (sliding switch) OFF. | Battery voltage |
| - · · | _ | | | _ |



OK or NG

OK >> Rear power seat switch circuit check is OK.

NG >> GO TO 2.

2. CHECK REAR POWER SEAT SWITCH HARNESS

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

Check continuity between rear power seat control unit connector B163 (LH), B363 (RH) terminal 18 (BR/W), 24 (L/G) and rear power seat switch connector D55 (LH), D75 (RH) terminal 7 (G/ Y), 8 (OR/L).

LH

18 (BR/W) - 7 (G/Y) :Continuity should exist 24 (L/G) - 8 (OR/L) :Continuity should exist

RH

18 (BR/W) - 8 (OR/L) :Continuity should exist 24 (L/G) - 7 (G/Y) :Continuity should exist

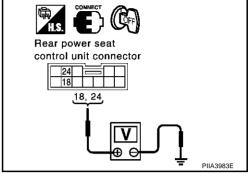
Check continuity between rear power seat control unit connector B162 (LH), B362 (RH) terminal 18 (BR/ W), 24 (L/G) and ground.

18 (BR/W) – Ground :Continuity should not exist 24 (L/G) - Ground :Continuity should not exist

OK or NG

OK >> GO TO 3.

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



Rear power seat

control unit connector

18, 24

SE

Rear power seat

switch connector

7,8

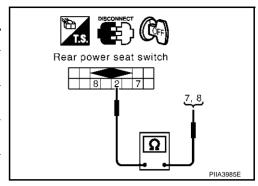
PIIA3984E

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$\overline{3}$. CHECK REAR POWER SEAT SWITCH

Check continuity between rear power seat switch as follows.

| Teri | minal | Condition | Continuity |
|------|-------|---|------------|
| 7 | 2 | Rear power seat switch (sliding switch) backward. | YES |
| , | 1 2 | Rear power seat switch (sliding switch) OFF. | NO |
| 8 | 8 2 | Rear power seat switch (sliding switch) forward. | YES |
| | 2 | Rear power seat switch (sliding switch) OFF. | NO |



OK or NG

OK >> GO TO 4.

NG >> Replace rear power seat switch.

4. CHECK REAR POWER SEAT SWITCH GROUND CIRCUIT

Check continuity between rear power seat switch connector D55 (LH), D75 (RH) terminal 2 (B) and ground.

:Continuity should exist

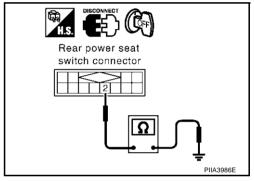
OK or NG

NG

OK >> Re

>> Replace rear power seat control unit.

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



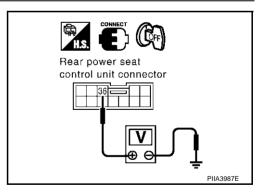
EIS003V9

Auto Return Cancel Switch Circuit Inspection 1 (With Heated Seat)

1. CHECK AUTO RETURN CANCEL SWITCH POWER SUPPLY

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

| Con- nector | Terminal (Wire color) | | Condition | Voltage (V) (Approx.) |
|----------------|--------------------------|--------|--|--------------------------|
| Hector | (+) | (-) | | (Арргох.) |
| B163 (LH), | 36 (LG/R) | Ground | Auto return cancel switch ON and, rear door LH open. | 5 |
| B363 (RH) | (,, | | Other than above. | 0 |



OK or NG

OK >> Auto return cancel switch circuit check is OK.

NG >> GO TO 2.

$\overline{2}$. CHECK REAR POWER SEAT SWITCH HARNESS

- Disconnect rear power seat control unit connector and auto return cancel switch connector.
- Check continuity between rear power seat control unit connector B163 (LH), B363 (RH) terminal 36 (LG/R) and auto return cancel switch connector B504 terminal 1 (BR).

36 (LG/R) - 1 (BR):Continuity should exist

3. Check continuity between rear power seat control unit connector B163 (LH), B363 (RH) terminal 36 (LG/R) and ground.

> 36 (LG/R) - Ground :Continuity should not exist

Auto return cancel switch Rear power seat control unit connector connector PIIA3988

OK or NG

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

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

Auto Return Cancel Switch Circuit Inspection 2 (With Heated Seat)

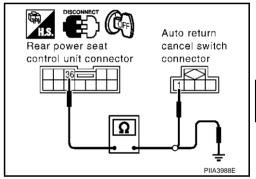
1. CHECK AUTO RETURN CANCEL SWITCH HARNESS

- 1. Turn ignition switch OFF.
- Disconnect rear power seat control unit connector and auto return cancel switch connector.
- Check continuity between rear power seat control unit connector B163 (LH), B363 (RH) terminal 36 (LG/R) and auto return cancel switch connector B504 terminal 1 (BR).

36 (LG/R) - 1 (BR):Continuity should exist

4. Check continuity between rear power seat control unit connector B163 (LH), B363 (RH) terminal 36 (LG/R) and ground.

> 36 (LG/R) - Ground :Continuity should not exist



OK or NG

OK >> GO TO 2.

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

2. CHECK AUTO RETURN CANCEL SWITCH

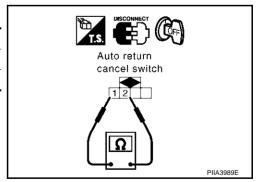
Check continuity between auto cancel switch as follows.

| Terr | minal | Condition | Continuity |
|---------|--------------|--------------------------------------|------------|
| 1 (RD) | 2 (B) | Auto return cancel switch cancelled. | YES |
| T (DIX) | 1 (BR) 2 (B) | Auto return cancel switch ON. | NO |

OK or NG

OK >> GO TO 3.

NG >> Replace auto return cancel switch.



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3. CHECK AUTO RETURN CANCEL SWITCH GROUND HARNESS

Check continuity between auto return cancel switch connector B504 terminal 2 (B) and ground.

2 (B) - Ground

:Continuity should exist

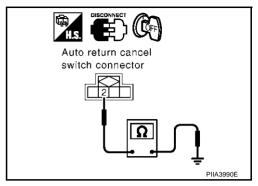
OK or NG

OK

>> Check the harness and connector.

NG

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



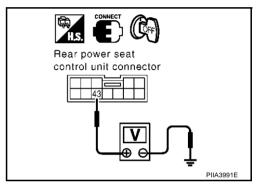
Rear Door Switch Circuit Inspection (With Heated Seat)

EIS003VB

1. CHECK REAR DOOR SWITCH POWER SUPPLY

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

| Con- nector | Terminal (Wire color) | | Condition | Voltage (V) (Approx.) |
|-----------------------|--------------------------|--------|-------------------|--------------------------|
| Hector | (+) | (-) | | (дрргох.) |
| B163 | | | Rear door open. | 0 |
| (LH), B363 (RH) | 43 (GY/R) | Ground | Rear door closed. | Battery voltage |



OK or NG

OK >> Rear door switch circuit check is OK.

NG >> GO TO 2.

2. CHECK DOOR SWITCH HARNESS

- 1. Disconnect rear power seat control unit connector and door lock assembly (door switch) connector.
- Check continuity between rear power seat control unit connector B163 (LH), B363 (RH) terminal 43 (GY/R) and door lock assembly (door switch) connector D62 (LH), D82(RH) terminal 1 (W).



 Check continuity between rear power seat control unit connector B163 (LH), B363 (RH) terminal 43 (GY/R) and ground.



Rear power seat control unit connector One of the connector connector connector Pliase2E

OK or NG

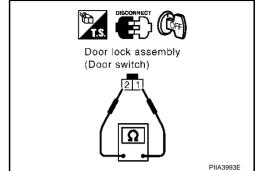
OK >> GO TO 3.

NG >> Repair or replace harness between rear power seat control unit and door lock assembly (door switch).

3. CHECK DOOR SWITCH

- 1. Disconnect door lock assembly connector.
- 2. Check continuity between door lock assembly as follows.

| Terminal | | Condition | Continuity |
|----------|-----|-----------------|------------|
| 1 | 2 | Door switch ON | YES |
| | 1 2 | Door switch OFF | NO |



OK or NG

OK >> GO TO 4.

NG >> Replace door lock assembly.

4. CHECK DOOR SWITCH HARNESS

Check continuity between door lock assembly connector D62 (LH), D82 (RH) terminal 2 (B) and ground.

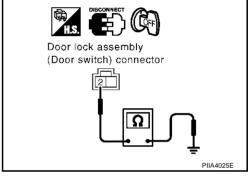
:Continuity should exist

OK or NG

NG

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

>> Repair or replace harness between door lock assembly and ground.

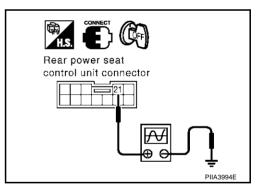


Rear Power Seat Sliding Sensor Circuit Inspection (With Heated Seat)

1. CHECK REAR POWER SEAT SLIDING MOTOR SENSOR POWER SUPPLY

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

| Con- nec- tor | - | minal e color) (-) | Condition | Voltage (V) (Approx.) |
|-------------------------------|-------------|--------------------------|---|--|
| B163 (LH), B363 (RH) | 21 (W/G) | Ground | Rear power seat switch (sliding switch) forward or backward. | (V) 6 4 2 0 +-50ms SIIA0690J |



OK or NG

OK >> Rear power seat sliding sensor circuit check is OK.

NG >> GO TO 2.

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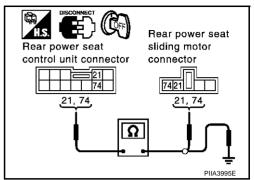
2. CHECK REAR POWER SEAT SLIDING MOTOR SENSOR HARNESS

- Disconnect rear power seat control unit connector and rear power seat sliding motor sensor connector.
- Check continuity between rear power seat control unit connector B163 (LH), B363 (RH) terminal 21 (W/G), 74 (G/R) and rear power seat sliding motor connector B164 (LH), B364 (RH) terminal 21 (W/G), 74 (G/R).

21 (W/G) – 21 (W/G) :Continuity should exist. 74 (G/R) – 74 (G/R) :Continuity should exist.

3. Check continuity between rear power seat control unit connector B162 (LH), B362 (RH) terminal 21 (W/G), 74 (G/R) and ground.

21 (W/G) – Ground :Continuity should not exist. 74 (G/R) – Ground :Continuity should not exist.



OK or NG

OK >> Replace rear power seat sliding motor.

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

Rear Power Seat Control Unit Power Supply and Ground Inspection (Without Heated Seat)

1. CHECK REAR POWER SEAT CONTROL UNIT POWER SUPPLY CIRCUIT

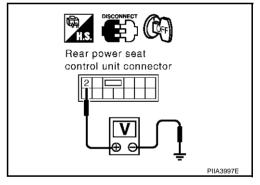
- 1. Turn ignition switch OFF.
- 2. Disconnect rear power seat control unit connector.
- 3. Check voltage between rear power seat control unit connector B168 (LH), B368 (RH) terminal 2 (G) and ground.

2 (G) – Ground : Battery voltage

OK or NG

OK >> GO TO 2.

NG >> Repair or replace harness between fuse block (J/B) No.1 and rear power seat control unit.



2. CHECK REAR POWER SEAT CONTROL UNIT GROUND CIRCUIT

Check continuity between rear power seat control unit connector B168 (LH), B368 (RH) terminals 15 (B), 28 (G/B) and ground.

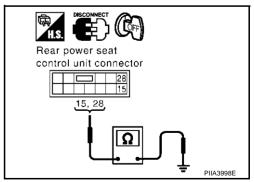
15 (B) – Ground :Continuity should exist 28 (G/B) – Ground :Continuity should exist

OK or NG

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

NG >> Repair or replace harness between rear power seat con-

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



Rear Power Seat Sliding Motor Circuit Inspection (Without Heated Seat)

EIS003VF

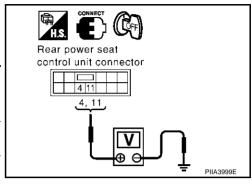
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1. CHECK REAR POWER SEAT SLIDING MOTOR POWER SUPPLY

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

| Con- nector | Terminal (Wire color) | | Condition | Voltage (V) (Approx.) |
|----------------|--------------------------|---------|---|--------------------------|
| | (+) | (-) | | (дрргох.) |
| | 4 (Y) | Ground | Rear power seat switch (sliding switch) forward. | Battery voltage |
| B168 (LH), | | | Rear power seat switch (sliding switch) OFF. | 0 |
| B368 (RH) | 11 (GY) | Ciodila | Rear power seat switch (sliding switch) backward. | Battery voltage |
| | 11 (01) | | Rear power seat switch (sliding switch) OFF. | 0 |



OK or NG

OK >> Rear power seat sliding motor circuit is OK.

NG >> GO TO 2.

2. CHECK REAR POWER SEAT SLIDING MOTOR HARNESS

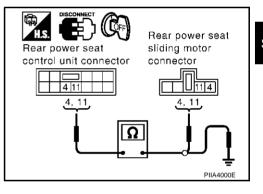
 Disconnect rear power seat control unit connector and rear power seat sliding motor connector.

 Check continuity between rear power seat control unit connector B168 (LH), B368 (RH) terminal 4 (Y), 11 (GY) and rear power seat sliding motor connector B164 (LH), B364 (RH) terminal 4 (Y), 11 (GY).

> 4 (Y) – 4 (Y) :Continuity should exist 11 (GY) – 11 (GY) :Continuity should exist

3. Check continuity between rear power seat control unit connector B168 (LH), B368 (RH) terminal 4 (Y), 11 (GY) and ground.

4 (Y) – Ground :Continuity should not exist 11 (GY) – Ground :Continuity should not exist



OK or NG

OK >> Replace rear power seat sliding motor.

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

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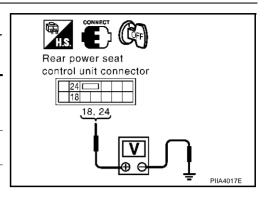
Rear Power Seat Switch Circuit Inspection (Without Heated Seat)

EIS003V

1. CHECK REAR POWER SEAT SWITCH POWER SUPPLY

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

| Con- nector | Terminal (Wire color) | | Condition | Voltage (V) (Approx.) |
|----------------|--------------------------|---------|---|--------------------------|
| | (+) | (–) | | (лрргох.) |
| | 18 (BR/W) | Ground | Rear power seat switch (sliding switch) backward. | 0 |
| B168 (LH), | | | Rear power seat switch (sliding switch) OFF. | Battery voltage |
| B368 (RH) | | Ground | Rear power seat switch (sliding switch) forward. | 0 |
| | 24 (1/0) | Sibulia | Rear power seat switch (sliding switch) OFF. | Battery voltage |



OK or NG

OK >> Rear power seat switch circuit is OK.

NG >> GO TO 2.

2. CHECK REAR POWER SEAT SWITCH HARNESS

- 1. Disconnect rear power seat control unit connector and rear power seat switch connector.
- Check continuity between rear power seat control unit connector B168 (LH), B368 (RH) terminal 18 (BR/W), 24 (OR/L) and rear power seat switch connector D55 (LH), D75 (RH) terminal 7 (G/ Y), 8 (OR/L).

Rear power seat LH

18 (BR/W) - 8 (OR/L) :Continuity should exist 24 (L/G) - 7 (G/Y) :Continuity should exist

Rear power seat RH

18 (BR/W) – 8 (OR/L) :Continuity should exist 24 (L/G) – 7 (G/Y) :Continuity should exist

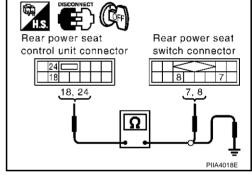
Check continuity between rear power seat control unit connector B168 (LH), B368 (RH) terminal 18 BR/W), 24 (OR/L) and ground.

18 (BR/W) – Ground :Continuity should not exist 24 (L/G) – Ground :Continuity should not exist

OK or NG

OK >> GO TO 3.

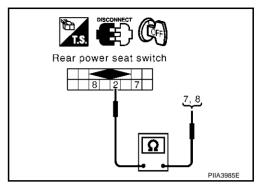
NG >> Repair or replace harness between rear power seat control unit and rear power seat switch.



$\overline{3}$. CHECK REAR POWER SEAT SWITCH

Check continuity between rear power seat switch as follows.

| Terminal | | Condition | Continuity |
|----------|-------|---|------------|
| 7 (G/Y) | 2 (B) | Rear power seat switch (sliding switch) backward. | YES |
| | 2 (B) | Rear power seat switch (sliding switch) OFF. | NO |
| 9 (OP/L) | 2 (B) | Rear power seat switch (sliding switch) forward. | YES |
| 8 (OR/L) | | Rear power seat switch (sliding switch) OFF. | NO |



OK or NG

OK >> GO TO 4.

NG >> Replace rear power seat switch.

4. CHECK REAR POWER SEAT SWITCH GROUND CIRCUIT

Check continuity between rear power seat switch connector D55 (LH), D75 (RH) terminal 2 (B) and ground.

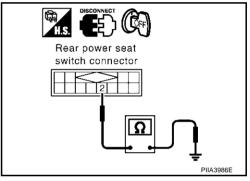
2 (B) - Ground

:Continuity should exist

OK or NG

OK >> Replace rear power seat control unit.
NG >> Repair or replace harness between

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

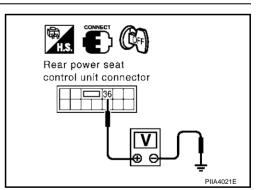


Auto Return Cancel Switch Circuit Inspection 1 (Without Heated Seat)

1. CHECK AUTO RETURN CANCEL SWITCH POWER SUPPLY

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

| Con- | Terminal (Wire color) | | Condition | Voltage (V) (Approx.) |
|--------------|--------------------------|--------|--|--------------------------|
| nector | (+) | (-) | | (Арргох.) |
| B168 (LH) | 36 (LG/R) | Ground | Auto return cancel switch ON rear door open. | 5 |
| B368 (RH) | 30 (LO/N) | Oround | Other than above. | 0 |



OK or NG

OK >> INSPECTION END.

NG >> Replace rear power seat control unit.

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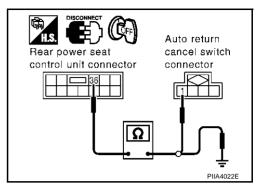
$\overline{2}$. CHECK AUTO CANCEL SWITCH HARNESS

- Disconnect rear power seat control unit connector and auto return cancel switch connector.
- Check continuity between rear power seat control unit connector B168 (LH), B368 (RH) terminal 36 (LG/R) and auto return cancel switch connector B504 terminal 1 (BR).

36 (LG/R) – 1 (BR) :Continuity should exist

3. Check continuity between rear power seat control unit connector B168 (LH), B368 (RH) terminal 36 (LG/R) and ground.

36 (LG/R) – Ground :Continuity should not exist



OK or NG

OK >> Check the harness and connector.

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

Auto Return Cancel Switch Circuit Inspection 2 (Without Heated Seat)

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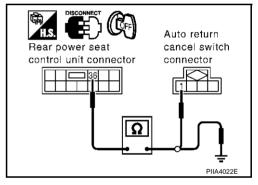
1. CHECK REAR AUTO RETURN CANCEL SWITCH HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect rear power seat control unit connector and auto return cancel switch connector.
- Check continuity between rear power seat control unit connector B168 (LH), B368 (RH) terminal 36 (LG/R) and auto return cancel switch connector B504 terminal 1 (BR).

36 (LG/R) – 1 (BR) :Continuity should exist

 Check continuity between rear power seat control unit connector B168 (LH), B368 (RH) terminal 36 (LG/R) and ground.

36 (LG/R) – Ground :Continuity should not exist



OK or NG

OK >> GO TO 2.

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

2. CHECK AUTO RETURN CANCEL SWITCH

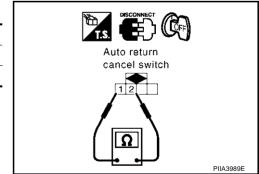
Check continuity between auto cancel switch as follows.

| Terr | ninal | Condition | Continuity |
|--------|--------------|--------------------------------------|------------|
| 1 (RD) | 1 (BR) 2 (B) | Auto return cancel switch cancelled. | YES |
| | | Auto return cancel switch ON. | NO |

OK or NG

OK >> GO TO 3.

NG >> Replace auto return cancel switch.



3. CHECK AUTO RETURN CANCEL SWITCH GROUND HARNESS

Check continuity between auto return cancel switch connector B504 terminal 2 (B) and ground.

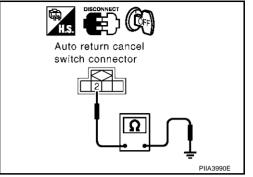
2 (B) - Ground

:Continuity should exist

OK or NG

OK NG >> Check the harness and connector.

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

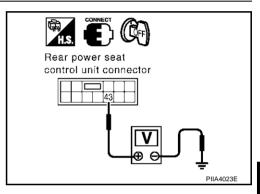


Rear Door Switch Circuit Inspection (Without Heated Seat)

1. CHECK REAR DOOR SWITCH POWER SUPPLY

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

| Con- nector | Term (Wire | | Condition | Voltage (V) (Approx.) | |
|-----------------------|---------------|-----|------------------------|--------------------------|--|
| | (+) | (-) | | (Αρρίολ.) | |
| B168 | | | rear door (LH) open. | 0 | |
| (LH), B368 (RH) | | | rear door (LH) closed. | Battery voltage | |



OK or NG

OK >> Replace door switch circuit check is OK.

NG >> GO TO 2.

2. CHECK REAR POWER SEAT SWITCH HARNESS

- Disconnect rear power seat control unit connector and door lock assembly (door switch) connector.
- Check continuity between rear power seat control unit connector B168 (LH), B368 (RH) terminal 43 (GY/R) and door lock assembly (door switch) connector D62 (LH), D82(RH) terminal 1 (W).



:Continuity should exist

3. Check continuity between rear power seat control unit connector B163 (LH), B363 (RH) terminal 43 (GY/R) and ground.



:Continuity should not exist

Rear power seat control unit connector (Door switch) connector

Door lock

OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness between rear power seat control unit and door lock assembly (door switch).

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$\overline{3}$. CHECK CANCEL SWITCH

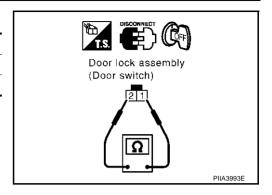
Check continuity between door lock assembly connector.

| Terr | minal | Condition | Continuity |
|--------|-------|------------------|------------|
| 1 (W) | 2 (B) | Door switch ON. | YES |
| 1 (۷۷) | 2 (B) | Door switch OFF. | NO |

OK or NG

OK >> GO TO 4.

NG >> Replace door lock assembly.



4. CHECK REAR POWER SEAT SWITCH HARNESS

Check continuity between door lock assembly connector D62 (LH), D82 (RH) terminal 2 (B) and ground.

2 (B) - Ground

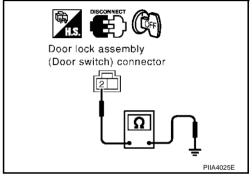
:Continuity should exist

OK or NG

NG

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

>> Repair or replace harness between door lock assembly and ground.



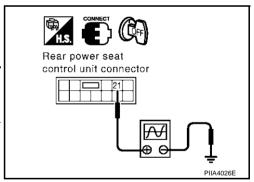
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Rear Power Seat Sliding Sensor Circuit Inspection (Without Heated Seat)

1. CHECK REAR POWER SEAT SLIDING MOTOR SENSOR POWER SUPPLY

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

| Con- nec- | Terminal (Wire color) | | Condition | Voltage (V) (Approx.) | |
|-------------------------------|--------------------------|--------|--|-------------------------------------|--|
| tor | (+) | (-) | | (лергох.) | |
| B168 (LH), B368 (RH) | 21 (W/G) | Ground | Rear power seat switch (sliding switch) forward or backward. | (V) 6 4 2 0 ****50ms | |



OK or NG

OK >> Rear power seat sliding motor sensor circuit check is OK.

NG >> GO TO 2.

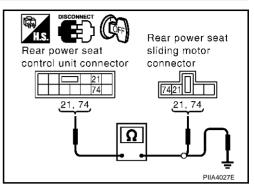
$\overline{2}$. CHECK REAR POWER SEAT SLIDING MOTOR SENSOR HARNESS

- Disconnect rear power seat control unit connector and rear power seat sliding motor sensor connector.
- Check continuity between rear power seat control unit connector B168 (LH), B368 (RH) terminal 21 (W/G), 74 (G/R) and rear power seat sliding motor connector B164 (LH), B364 (RH) terminal 21 (W/G), 74 (G/R).

21 (W/G) – 21 (W/G) :Continuity should exist 74 (G/R) – 74 (G/R) :Continuity should exist

3. Check continuity between rear power seat control unit connector B168 (LH), B368 (RH) terminal 21 (W/G), 74 (G/R) and ground.

21 (W/G) – Ground :Continuity should not exist 74 (G/R) – Ground :Continuity should not exist



OK or NG

OK >> Replace rear power seat sliding motor.

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

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HEATED SEAT PFP:87335

System Description

FIS00461

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 times supplied

- through 40A fusible link [Letter H, located in the fuse block (J/B)],
- to rear power seat control unit LH and rear power seat control unit RH terminal 2.

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

- through 20A fuse [No. 81, located in the fuse block (J/B)]
- to front heated seat switch (driver side, passenger side) terminal 1, and
- to rear power seat control unit LH, RH terminal 44,
- to rear power seat switch (heater switch) terminal 1

FRONT HEATED SEAT

When front heated seat switch (driver side, passenger side) is LOW position, power is suppled

- through heated seat switch terminal 2,
- through front seatback heater terminal 62,
- through front seatback heater terminal C,
- to front seat cushion heater terminal C.

Then ground is suppled

- to front seat cushion heater terminal 15C,
- through body grounds B17 and B57(driver side), B217 and B256 (passenger side).

With power and ground supplied front seatback heater and front seat cushion heater. are operated. When front heated seat switch driver side, passenger side is HIGH position, power is supplied

- through front heated seat switch terminal 3,
- through front seatback heater terminal 63,
- through front seatback heater terminal C,
- to front seat cushion heater terminal C

Then ground is suppled

- to front seat cushion heater terminal 15C,
- through body grounds B17 and B57(driver side), B217 and B256 (passenger side).
- to front seatback heater terminal 62,
- through heated seat switch terminal 2,
- through heated seat switch terminal 4,
- through body grounds M25 and M115.

With power and ground supplied, front heated seat generates heat more than the time of LOW position. When heated seat switch (driver side, passenger side) is LOW or HIGH position, ground is supplied

- through heated seat switch terminal 4,
- through body grounds M25 and M115.

With power and ground supplied, front heated seat switch indicator is illuminated.

REAR HEATED SEAT

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

- to rear power seat control unit terminal 32,
- through rear power seat switch (heater switch) terminal 5 (LH), 6 (RH),
- through rear power seat switch (heater switch) terminal 2,
- through body grounds B17 and B57 (LH), B217 and B256 (RH)

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

When heater seat switch is LOW position, power is supplied

- through rear power seat control unit terminal 8,
- through rear seatback heater terminal 8,
- through rear seatback heater terminal A,
- to rear seat cushion heater terminal A.

Then ground is suppled

- to rear seat cushion heater terminal 15B.
- through body grounds B17 and B57 (LH), B217 and B256 (RH).

With power and ground supplied, rear seatback heater and front seat cushion heater is.

When heater seat switch is in LOW position, ground is supplied

- to power seat switch (heater switch) terminal 3 (LH), 4 (RH),
- through rear power seat control unit terminal 26,
- through rear power seat control unit terminal 15,
- through body grounds B17 and B57 (LH), B217 and B256 (RH).

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

- to rear power seat control unit terminal 22,
- through rear power seat switch (heater switch) terminal 6 (LH), 5 (RH),
- through rear power seat switch (heater switch) terminal 2,
- through body grounds B17 and B57 (LH), B217 and B256 (RH)

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

When heater seat switch is in HIGH position, power is supplied

- through rear power seat control unit terminal 5,
- through rear seatback heater terminal 5,
- through rear seatback heater terminal A,
- to rear seat cushion heater terminal A.

Then ground is suppled

- to rear seat cushion heater terminal 15B.
- through body grounds B17 and B57 (LH), B217 and B256 (RH).
- to rear seat back heater terminal 8,
- through rear power seat control unit terminal 8,
- through rear power seat control unit terminal 15,
- through body grounds B17 and B57 (LH), B217 and B256 (RH),

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

When heater seat switch is in HIGH position, ground is supplied

- to power seat switch (heater switch) terminal 4 (LH), 3 (RH),
- through rear power seat control unit terminal 20,
- through rear power seat control unit terminal 15,
- through body grounds B17 and B57 (LH), B217 and B256 (RH).

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

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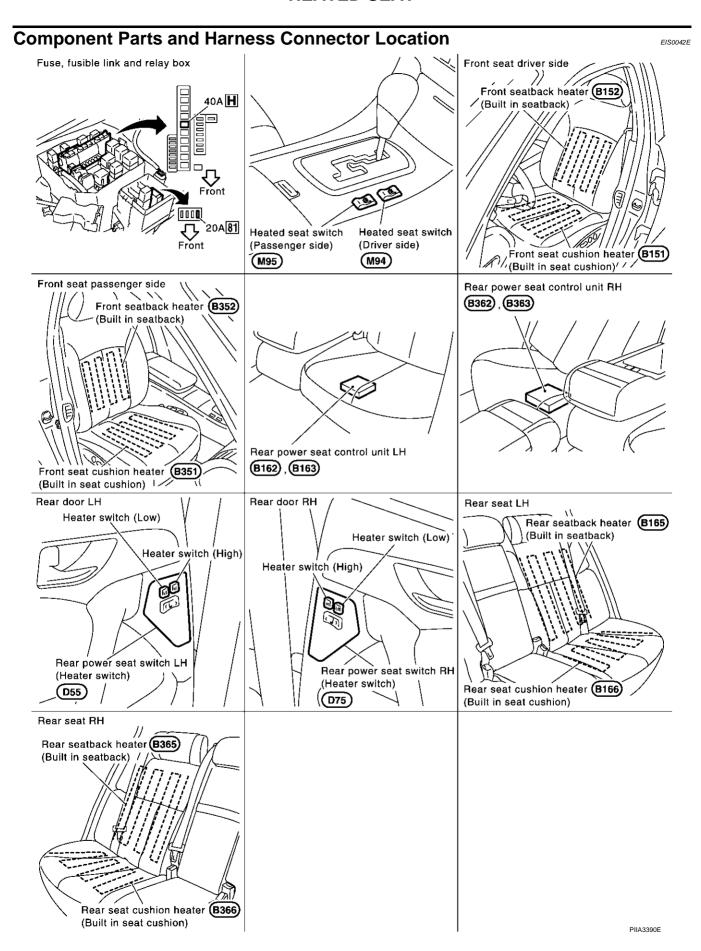
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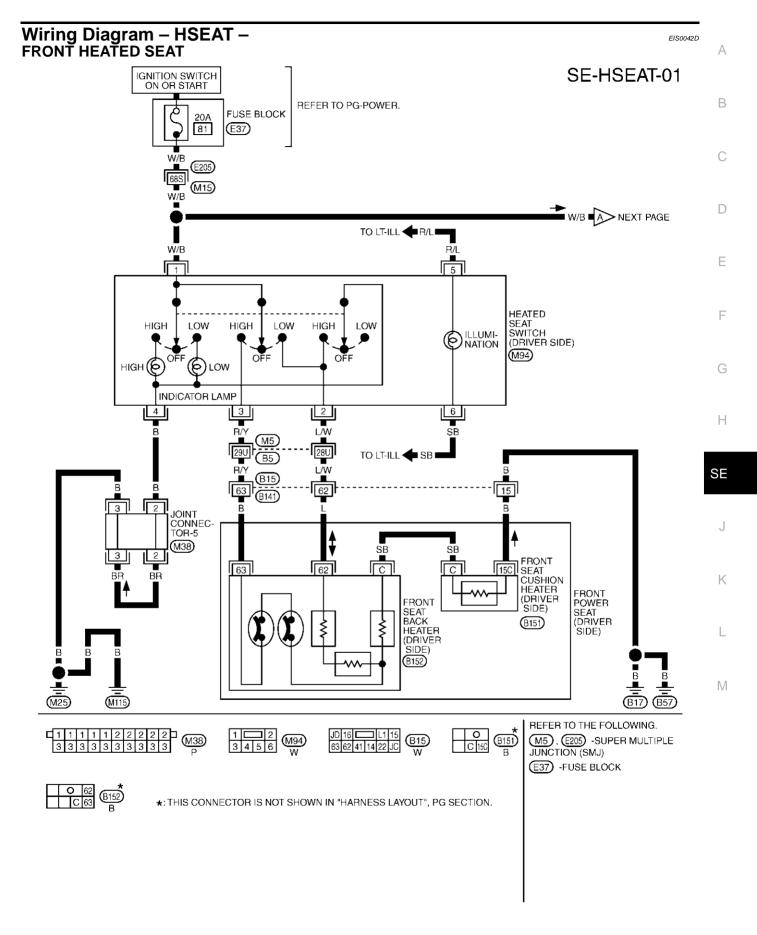
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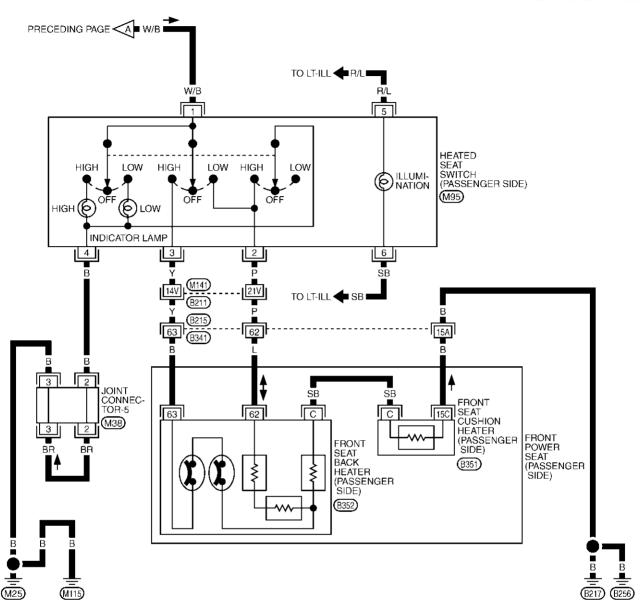
SE-129 Revision; 2004 April 2003 Q45 M

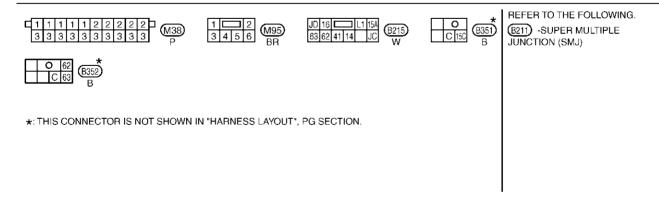




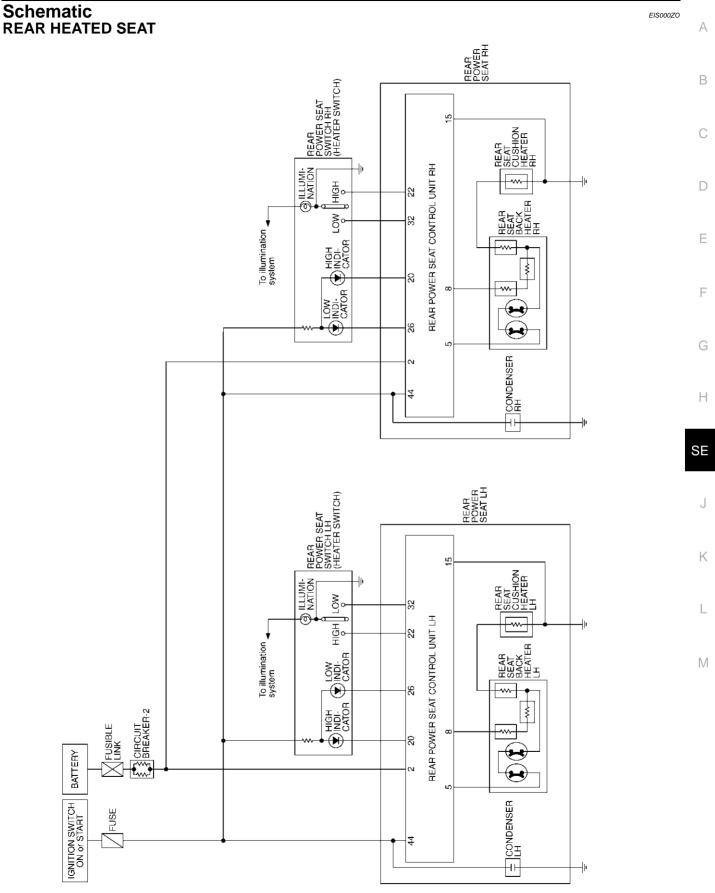
TIWM0131E

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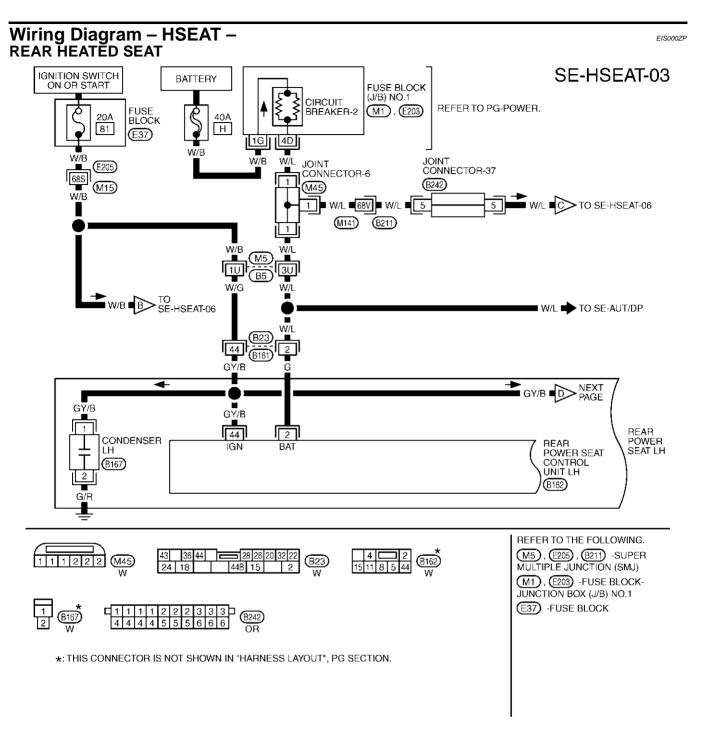




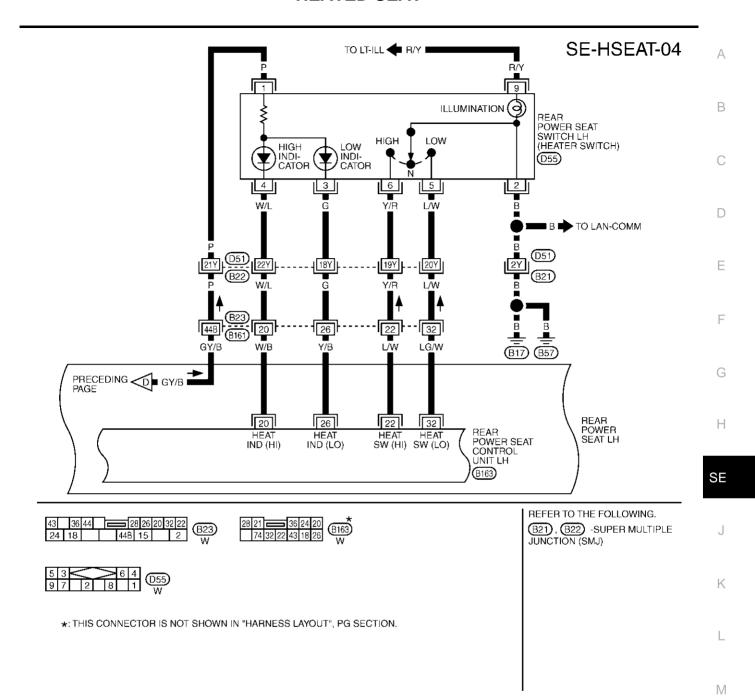
TIWM0178E



TIWM0130E

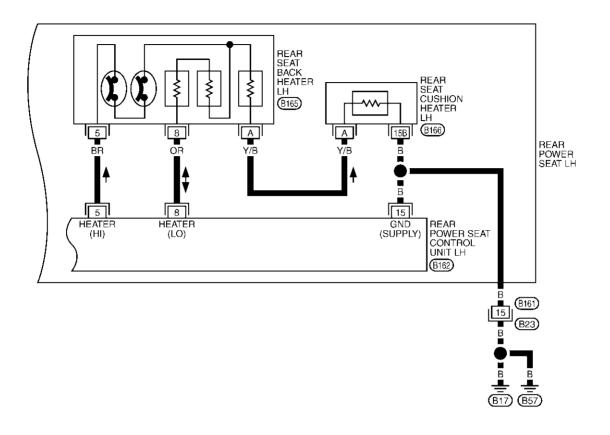


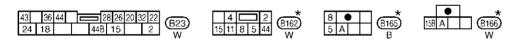
TIWM0132E



TIWM0133E

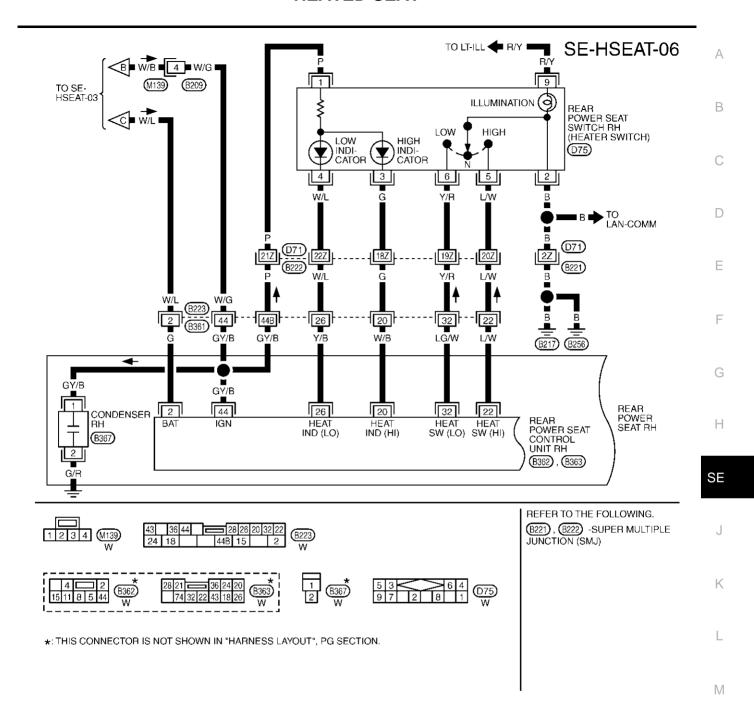
SE-HSEAT-05



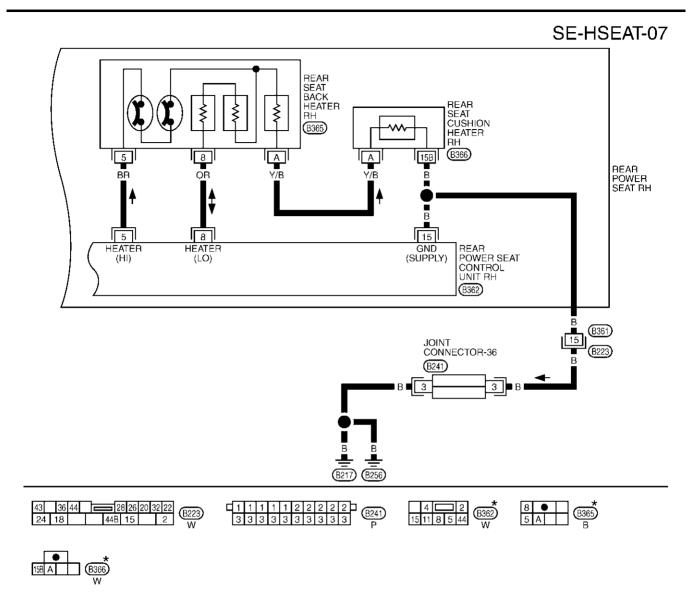


*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

TIWM0232E



TIWM0134E



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

TIWM0233E

Terminals and Reference Values for Rear Power Seat Control Unit LH and RH

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| TER- MINAL | WIRE COLOR | ITEM | Ignition switch | CONDITION | Voltage (V) (Approx.) |
|---------------|---------------|----------------------------|--------------------|----------------------------------|--------------------------|
| 2 | G | BAT power supply | | _ | Battery voltage |
| 5 | BR | Heater Hi signal | - | Heater Hi operation | Battery voltage |
| ວ | DK | Heater Hi signal | | Other than above | 0 |
| | | | - | Heater Lo operation | Battery voltage |
| 8 | OR | Heater Lo signal | | _ | 0 |
| | | | | Other than above | 0 |
| 15 | В | Ground | - | - | 0 |
| 20 | 00 141/5 | Heater indicator Hi signal | ON | Heater Hi operation (lit) | 1 |
| 20 | W/B | | | Other than above | Battery voltage |
| 22 | L/W | Heater switch–Hi signal | - | Heater switch (Hi) –ON (pressed) | 0 |
| 22 | L/ VV | Healer Switch-Hi Signal | | Heater switch (Hi)-OFF | 5 |
| 26 | Y/B | Heater indicator Le signal | - | Heater Lo operation (lit) | 1 |
| 20 | 1/0 | Heater indicator Lo signal | | Other than above | Battery voltage |
| 22 | LG/W | Heater switch Le signel | 1 | Heater switch (Lo)–ON (pressed) | 0 |
| 32 | LG/VV | Heater switch–Lo signal | | Heater switch (Lo)–OFF | Battery voltage |
| 44 | GY/B | IGN power supply | 1 | - | Battery voltage |

Work Flow

1. Check the symptom and customer's requests.

- 2. Understand the outline of system. Refer to SE-128, "System Description".
- 3. According to the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to <u>SE-140</u>, "Trouble Diagnoses Symptom Chart".
- 4. Does heated seat operate normally? YES: GO TO 5, NO: GO TO 3.
- 5. INSPECTION END.

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Trouble Diagnoses 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 |
|--|---|---------------|
| Front heated seat driver side, passenger side and rear heated seat LH, RH do not operate. | Heated seat power supply circuit inspection. | <u>SE-141</u> |
| Front heated seat driver side and passenger side do not operate but the rear heated seat is operated. | Heated seat power supply circuit inspection. | <u>SE-141</u> |
| Front heated seat driver side or passenger side does not operate. | Front heated seat switch inspection. | <u>SE-141</u> |
| Front heated seat driver side or passenger side do not operate with LOW position and, seat cushion is not heated with HIGH position. | Front heated seat circuit inspection 1. | <u>SE-142</u> |
| Front heated seat driver side or passenger side do not operate with LOW position but seat cushion are heated with HIGH position. | Front heated seat circuit inspection 2. | <u>SE-144</u> |
| Front heated seat driver side or passenger side do not operate with HIGH position, seat cushion and seat back is heated with LOW position. | Front heated seat circuit inspection 3. | <u>SE-146</u> |
| Front heated seat with HIGH position is not warmer than LOW position. | Front heated seat switch ground circuit inspection. | <u>SE-147</u> |
| Rear heater seat LH and RH do not operated. | Rear heated seat power supply circuit inspection 1. | <u>SE-148</u> |
| | Rear heated seat power supply and ground circuit inspection. | <u>SE-149</u> |
| Rear heater seat LH or RH do not operate. | Rear power seat switch (Heater switch) ground circuit inspection. | <u>SE-150</u> |
| | 3.Replace rear power seat control unit. | - |
| Rear heated seat driver side or passenger side do not operate with LOW position and, seat cushion is do not heated with HIGH position. | Rear heated seat circuit inspection 1. | <u>SE-151</u> |
| Rear heated seat driver side or passenger side do not operate with LOW position but seat cushion is heated with HIGH position. | Rear heated seat circuit inspection 2. | <u>SE-152</u> |
| Rear heated seat driver side or passenger side do not operate with HIGH position, seat cushion and seat back are heated with LOW position. | Rear heated seat circuit inspection 3. | SE-153 |
| Rear heated seat driver side or passenger side switch LOW | Rear heater seat switch LOW inspection. | <u>SE-155</u> |
| position do not operate and, when heated seat switch HIGH position, seat back and seat cushion is heated. | 2. Rear heats witch seat HIGH inspection. | <u>SE-156</u> |
| Rear heated seat with HIGH position is not warmer than LOW position. | Rear heated seat ground circuit inspection. | <u>SE-157</u> |

Heated Seat Power Supply Circuit Inspection

1. CHECK FUSIBLE LINK

Check 20A fuse [No.81, located in fuse block].

NOTE:

Refer to SE-130, "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 <u>SE-130</u>, "Component Parts and Harness Connector Location".

2. CHECK HEATED SEAT POWER SUPPLY CIRCUIT

- 1. Disconnect front heated seat switch connector.
- 2. Turn ignition switch ON.
- 3. Check voltage between front heated seat driver side switch connector M94 terminal 1 (W/B) and ground.

1 (W/B) – Ground : Battery voltage

OK or NG

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

NG >> Repair or replace harness between fuse block and front heated seat driver side switch.

Heated seat switch connector

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Front Heated Seat Switch Inspection

1. CHECK FRONT HEATED SEAT POWER SUPPLY CIRCUIT

- 1. Disconnect front heated seat switch connector.
- 2. Turn ignition switch ON.
- Check voltage between front heated seat switch connector M94 (driver side), M95 (passenger side) terminal 1 (W/B) and ground.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace harness between fuse block and front heated seat switch.

Heated seat switch connector

2. CHECK FRONT HEATED SEAT SWITCH

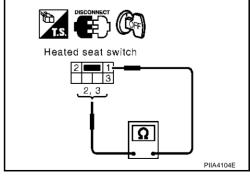
- 1. Turn ignition switch OFF.
- 2. Check continuity between front heated seat switch as follows.

| Terr | minal | Condition | Continuity |
|------|-------|--------------------------------|------------|
| | 2 | Front heated seat switch LOW. | YES |
| 1 | 3 | Front heated seat switch HIGH. | YES |
| | 2, 3 | Other than above. | NO |

OK or NG

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

NG >> Replace front heated seat switch.



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Front Heated Seat Circuit Inspection 1

1. CHECK FRONT HEATED SEAT SWITCH

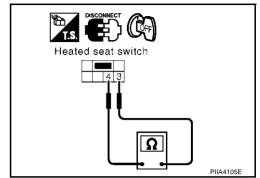
- Turn ignition switch OFF. 1.
- 2. Disconnect front heated seat switch connector.
- 3. Check continuity between front heated side power seat switch.

| Terminal | | Condition | Continuity |
|----------|-------|-------------------------------|------------|
| 3 (R/Y) | 4 (B) | Front heated seat switch LOW. | YES |
| | | Other than above. | NO |

OK or NG

OK >> GO TO 2.

NG >> Replace front heated seat switch.

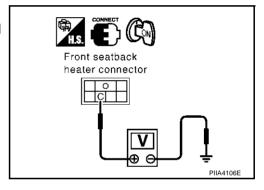


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2. CHECK FRONT SEAT BACK HEATER CIRCUIT

- Connect front heated seat switch connector.
- 2. Turn ignition switch ON.
- Check voltage between front seat back heater connector and ground.

| Connector | Terminal (Wire color) | | Condition | Voltage (V) (Approx) |
|---|--------------------------|--------|---|-------------------------|
| | (+) | (–) | | (Αρρίολ) |
| B152 (Driver side), B352 (Passenger side) | C (SB) | Ground | Turn ignition switch ON. Front heated seat switch LOW. | 6.5 |
| | | | Turn ignition switch ON. Front heated seat switch HIGH. | 6.5 |
| | | | Front heated seat switch OFF. | 0 |



OK or NG

NG

OK >> GO TO 6.

>> When turn ignition switch ON and heated switch ON (LOW, HIGH), check the following.

- When voltage is approx. 0V GO TO 3.
- When voltage is approx. 12V GO TO 4.

3. CHECK FRONT SEAT CUSHION HEATER HARNESS

- Turn ignition switch OFF. 1.
- 2. Disconnect front seat back heater connector and front seat cushion heater connector.
- Check continuity between front seat back heater connector B152 (Driver side), B352 (Passenger side) terminal C (SB) and ground.



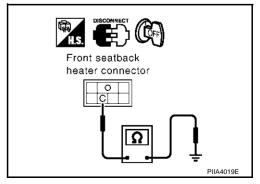
:Continuity should exist

OK or NG

OK >> Replace rear seat back.

NG

>> Repair or replace harness between front seat back and font seat cushion.



4. CHECK FRONT SEAT CUSHION HEATER HARNESS

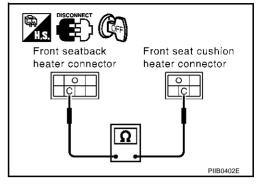
- 1. Turn ignition switch OFF.
- 2. Disconnect front seat back heater connector and front seat cushion heater connector.
- Check continuity between front seat back heater connector B152 (Driver side), B352 (Passenger side) terminal C (SB) and front seat cushion heater connector B151 (Driver side), B351 (Passenger side) terminal C (SB).



OK or NG

OK >> GO TO 5.

NG >> Repair or replace harness between front seat back and font seat cushion.



5. CHECK FRONT SEAT CUSHION GROUND HARNESS

Check continuity between front seat cushion heater connector B151 (Driver side), B351 (Passenger side) terminal 15C (B) and ground.

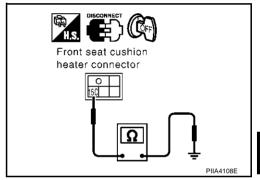
:Continuity should exist

OK or NG

OK >> GO TO 6.

NG >> Repair o

>> Repair or replace harness between front seat cushion heater and ground.



6. CHECK FRONT SEAT CUSHION

Does the heater operate normally when the seat cushion is exchanged? Does seat cushion get warm?

YES >> Replace rear seatback.

NO >> Check connector for damage or loose connection.

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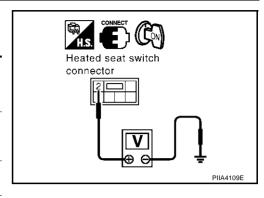
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Front Heated Seat Circuit Inspection 2

1. CHECK FRONT SEATBACK HEATER 1

- 1. Turn ignition switch ON.
- 2. Check voltage between front heated seat switch and ground.

| Connector | Terminal (Wire color) | | Condition | Voltage (V) (Approx.) |
|----------------------------|--------------------------|--------|--|--------------------------|
| | (+) | (–) | | (11 / |
| M94 (Driver side) | 2 (L/W) | Ground | Turn ignition switch ON. Front heated seat switch LOW. | Battery voltage |
| | | | Front heated seat switch OFF. | 0 |
| M95 (Passenger side) | 2 (P) | Ground | Turn ignition switch ON. Front heated seat switch LOW. | Battery voltage |
| | | | Front heated seat switch OFF. | 0 |



OK or NG

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

2. CHECK FRONT HEATED SEAT SWITCH

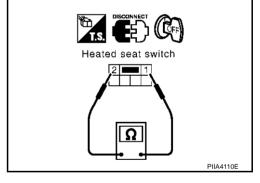
- 1. Turn ignition switch OFF.
- 2. Disconnect front heated seat switch connector.
- 3. Check continuity between front heated seat switch as follows.

| Terminal | | Condition | Continuity |
|----------|---|-------------------------------|------------|
| 1 | 2 | Front heated seat switch LOW. | YES |
| | | Other than above. | NO |

OK or NG

OK >> Check connector for damage or loose connection.

NG >> Replace front heated seat switch.



EIS003VZ

3. CHECK FRONT SEATBACK HEATER HARNESS

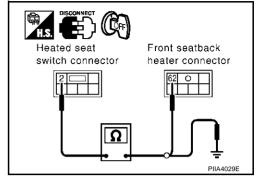
- 1. Turn ignition switch OFF.
- Disconnect front heated seat switch connector and front seatback heater connector.
- Check continuity between front heated seat switch connector M94(driver side), M95 (passenger side) terminal 2 and front seatback heater connector B152(driver side), B352(passenger side) terminal 62(L).

Driver side

2 (L/W) – 62 (L) : Continuity should exist

Passenger side

2 (P) - 62 (L) : Continuity should exist



Check continuity between front heated seat switch connector M94(driver side), M95 (passenger side) terminal 2 and ground.

Driver side

2 (L/W) – Ground : Continuity should not exist

Passenger side

2 (P) - Ground : Continuity should not exist

OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness between front heated seat switch and front seatback heater.

4. CHECK FRONT SEATBACK HEATER

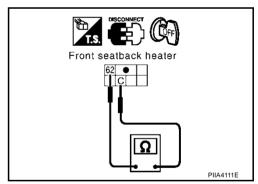
Check continuity between front seatback heater B152 (LH), B352 (RH) terminal C (SB) and 62 (L).

C (SB) – 62 (L) : Continuity should exist

OK or NG

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

NG >> Replace front seatback heater.



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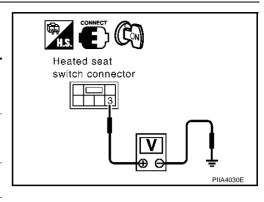
SE

Front Heated Seat Circuit Inspection 3

1. CHECK FRONT HEATED SEAT SWITCH

- 1. Turn ignition switch ON.
- 2. Check voltage between front heated seat switch and ground.

| Connector | Terminal (Wire color) | | Condition | Voltage (V) (Approx) |
|----------------------------|--------------------------|--------|---|-------------------------|
| | (+) | (–) | | , , , , |
| M94 (Driver side) | 3 (R/Y) | Ground | Turn ignition switch ON. Front heated seat switch HIGH. | Battery voltage |
| | | | Front heated seat switch OFF. | 0 |
| M95 (Passenger side) | 3 (Y) | Ground | Turn ignition switch ON. Front heated seat switch HIGH. | Battery voltage |
| | | | Front heated seat switch OFF. | 0 |



OK or NG

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

2. CHECK FRONT HEATED SEAT SWITCH

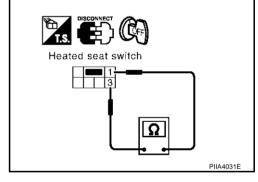
- 1. Turn ignition switch OFF.
- 2. Disconnect front heated seat switch connector.
- 3. Check continuity between front heated seat switch as follows.

| Terminal | | Condition | Continuity |
|----------|---|--------------------------------|------------|
| 1 | 2 | Front heated seat switch HIGH. | YES |
| I | 3 | Other than above. | NO |

OK or NG

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

NG >> Replace front heated seat switch.



EIS003W

3. CHECK FRONT SEATBACK HEATER HARNESS

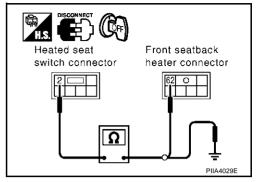
- 1. Turn ignition switch OFF.
- Disconnect front heated seat switch connector and front seatback heater connector.
- Check continuity between front heated seat switch connector M94(driver side), M95 (passenger side) terminal 3 and front seatback heater connector B152(driver side), B352(passenger side) terminal 63(B).

Driver side

3 (R/Y) – 63 (B) : Continuity should exist

Passenger side

3 (Y) – 63 (B) : Continuity should exist



Check continuity between front heated seat switch connector M94(driver side), M95 (passenger side) terminal 3 and ground.

Driver side

3 (R/Y) – Ground : Continuity should not exist

Passenger side

3 (Y) - Ground : Continuity should not exist

OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness between front heated seat switch and front seatback heater.

4. CHECK FRONT SEATBACK HEATER

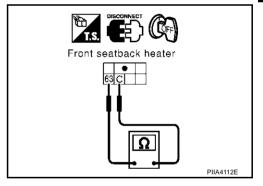
Check continuity between front seatback heater B152 (LH), B352 (RH) terminal C (SB) and 63 (B).

C (SB) – 63 (B) : Continuity should exist

OK or NG

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

NG >> Replace front seatback heater.



Front Heated Seat Switch Ground Circuit Inspection

1. CHECK FRONT HEATED SEAT SWITCH

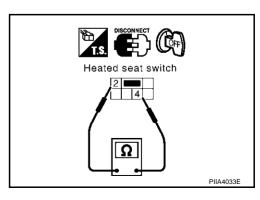
- 1. Turn ignition switch OFF.
- 2. Disconnect front heated seat switch connector.
- 3. Check continuity between front heated seat switch as follows.

| Terminal | | Condition | Continuity |
|----------|-----|--------------------------------|------------|
| 2 | 2 4 | Front heated seat switch HIGH. | YES |
| | | Other than above. | NO |

OK or NG

OK >> GO TO 2.

NG >> Replace front heated seat switch.



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$\overline{2}$. CHECK FRONT HEATED SEAT SWITCH GROUND HARNESS

Check continuity between front heated seat switch connector M94 (Driver side), M95 (passenger side) terminal 4 (B) and ground.

4 (B) - Ground

:Continuity should exist

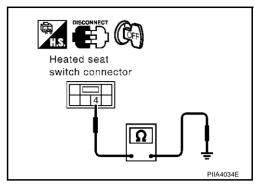
OK or NG

OK

>> Check connector for damage or loose connection.

NG

>> Repair or replace harness between front heated seat switch and ground.



Rear Power Seat Control Unit Power Supply Circuit Inspection 1

EIS003W7

1. CHECK REAR POWER SEAT OPERATION

Does the rear power seat operate normally?

YES or NO

YES >> GO TO 4.

NO >> GO TO 2.

2. CHECK FUSIBLE LINK

Check 40A fusible link (letter H located in the fuse and fusible link box).

NOTE:

Refer to SE-130, "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 SE-130, "Component Parts and Harness Connector Location" .

3. CHECK REAR POWER SEAT CONTROL UNIT BATTERY POWER SUPPLY CIRCUIT

- Disconnect rear power seat control unit connector.
- Check voltage between rear power seat control unit connector B162 (driver side), B362 (RH) terminal 2 (G) and ground.

2 (G) - Ground

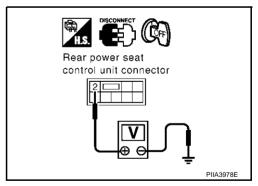
: Battery voltage

OK or NG

OK

>> Check the condition of the harness connector.

NG >> Repair or replace harness between fuse block (J/B) and rear power seat control unit.



4. CHECK REAR POWER SEAT CONTROL UNIT IGNITION POWER SUPPLY CIRCUIT

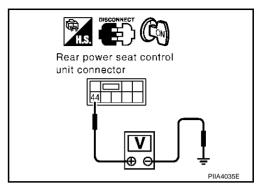
- 1. Check the condition of the harness and connector.
- 2. Turn ignition switch ON.
- 3. Check voltage between rear power seat control unit connector B162 (driver side), B362 (RH) connector terminal 44 (GY/B) and ground.

44 (GY/B) - Ground : Battery voltage

OK or NG

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

NG >> Repair or replace harness between fuse block (J/B) and rear power seat control unit.



Rear Power Seat Control Unit Power Supply and Ground Circuit Inspection EISOOJAW9

1. CHECK REAR POWER SEAR OPERATION

Does the rear power seat operate normally?

YES or NO

YES >> GO TO 4.

NO >> GO TO 2.

2. CHECK REAR POWER SEAT CONTROL UNIT POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect rear power seat control unit connector.
- 3. Check voltage between rear power seat control unit connector B162 (driver side), B362 (RH) terminal 2 (G) and ground.

2 (G) – Ground

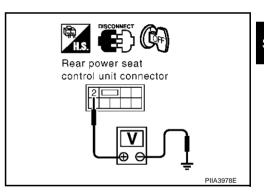
: Battery voltage

OK or NG

OK >> GO TO 3.

NG >> Repair or

>> Repair or replace harness between fuse block (J/B) and rear power seat control unit.



3. CHECK REAR POWER SEAT CONTROL UNIT GROUND CIRCUIT

Check continuity between rear power seat control unit connector B162 (LH), B362 (RH) terminal 15 (B) and ground.

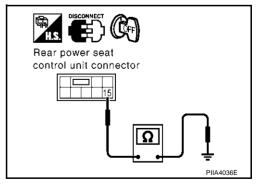
15 (B) – Ground :Continuity should exist

OK or NG

NG

OK >> Replace rear power seat control unit.

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



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4. CHECK REAR POWER SEAT CONTROL UNIT POWER SUPPLY CIRCUIT

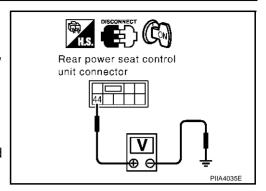
- 1. Disconnect rear power seat control unit connector.
- 2. Turn ignition switch ON.
- Check voltage between rear power seat control unit B162 (LH), B362 (RH) connector terminal 44 (GY/B) and ground.

44 (GY/B) – Ground : Battery voltage

OK or NG

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

NG >> Repair or replace harness between fuse block (J/B) and rear power seat control unit.



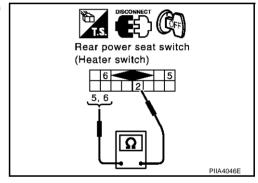
EIS003W1

Rear Power Seat Switch (Heater Switch) Ground Circuit Inspection

1. CHECK REAR POWER SEAT SWITCH (HEATER SWITCH)

- 1. Turn ignition switch OFF.
- 2. Disconnect rear power seat switch (Heater switch) connector.
- 3. Check continuity between rear power seat switch (heater switch) as follows.

| Terminal | | Condition | Continuity |
|----------|---|--------------------------|------------|
| 5 | 2 | Rear heater switch LOW. | YES |
| 6 | 2 | Rear heater switch HIGH. | YES |
| 5 | 2 | Other than above. | NO |
| 6 | | | NO |



OK or NG

OK >> GO TO 2.

NG >> Replace rear power seat switch (Heater switch).

2. CHECK REAR POWER SEAT SWITCH (HEATER SWITCH) GROUND CIRCUIT

Check continuity between rear power seat switch (heater switch) connector D55 (LH), D75 (RH) terminal 2 (B) and ground.

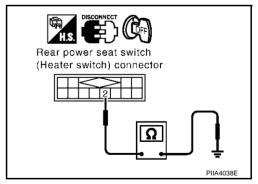
2 (B) – Ground :Continuity should exist

OK or NG

NG

OK >> Rear power seat switch (heater switch) ground circuit check is OK.

>> Repair or replace harness between rear power seat switch (heater switch) and ground.

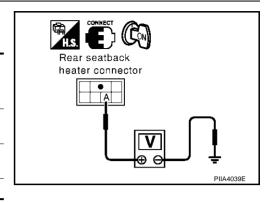


Rear Heated Seat Circuit Inspection 1

1. CHECK REAR SEAT CUSHION HEATER POWER SUPPLY

- Turn ignition switch ON.
- 2. Check voltage between rear seatback heater and ground.

| Connector | Terminal (Wire color) | | Condition | Voltage (V) (Approx.) | |
|-----------------------|--------------------------|--------|---|--------------------------|--|
| | (+) | (-) | | (дрргох.) | |
| B165 | A (Y/B) | Ground | Turn ignition switch ON. Heater switch LOW. | 6.0 | |
| (LH), B365 (RH) | | | Turn ignition switch ON. Heater switch HIGH. | 6.0 | |
| | | | Heater switch OFF. | 0 | |



OK or NG

OK >> GO TO 5.

NG >> When turn ignition switch ON and heater switch LOW position or HIGH position check the follow-

- When voltage is approx. 0V, GO TO 2.
- When voltage is approx. 12V, GO TO 3.

2. CHECK REAR SEAT CUSHION HEATER HARNESS

- 1. Turn ignition switch OFF.
- Disconnect rear seatback heater connector and front seat cushion heater connector.
- Check continuity between rear seatback connector B365 (LH), B365 (RH) terminal A (Y/B) and ground.

A (Y/B) - Ground

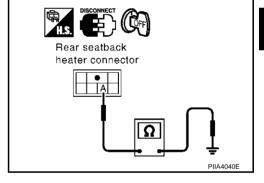
:Continuity should not exist

OK or NG

OK

>> Replace rear seatback.

NG >> Repair or replace harness between rear seatback and rear seat cushion.



3. CHECK REAR SEAT CUSHION HEATER HARNESS

- Turn ignition switch OFF.
- 2. Disconnect rear seatback heater connector and front seat cushion heater connector.
- Check continuity between rear seatback connector B165 (LH), B365 (RH) terminal A (Y/B) and rear seat cushion heater connector B166 (LH), B366 (RH) terminal A (Y/B).

$$A(Y/B) - A(Y/B)$$

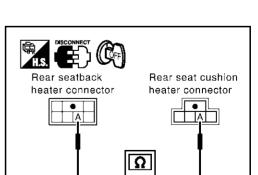
:Continuity should exist

OK or NG

OK

NG

>> GO TO 4. >> Repair or replace harness between rear seatback and rear seat cushion.



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4. CHECK REAR SEAT CUSHION HEATER GROUND CIRCUIT

Check continuity between rear seat cushion heater connector B166 (LH), B366 (RH) terminal 15B (B) and ground.

15B (B) - Ground

:Continuity should exist

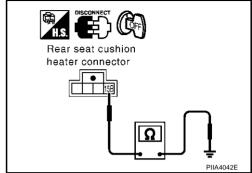
OK or NG

OK

>> Rear rear heated seat cushion circuit inspection is OK.

NG

>> Repair or replace harness between rear seat cushion heater and ground.



5. CHECK FRONT SEAT CUSHION

Does the heater operate normally when the seat cushion is exchanged? Does seat cushion get warm?

YES >> Replace rear seat cushion.

NO >> Check connector for damage or loose connection.

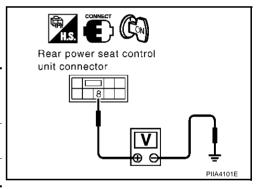
Rear Heated Seat Circuit Inspection 2

1. CHECK REAR SEATBACK HEATER POWER SUPPLY

EIS003WB

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

| Con- nector | Terminal (Wire color) | | Condition | Voltage (V) (Approx.) | |
|------------------------------------|--------------------------|--------|--|--------------------------|--|
| | (+) | (-) | | (Арргох.) | |
| B162 (LH), B362 (RH) 8 (O | 8 (OR) | Ground | Turn ignition switch ON. Heater switch LOW. | Battery voltage | |
| | (-) | | Heater switch OFF. | 0 | |



OK or NG

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

2. CHECK REAR SEAT BACK HEATER HARNESS

- 1. Turn ignition switch OFF.
- Disconnect rear seat control unit connector and rear seatback heater connector.
- Check continuity between rear seat control unit connector B162 (LH), B362 (RH) terminal 8 (OR) and ground.

8 (OR) - Ground

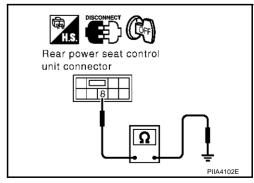
:Continuity should not exist

OK or NG

OK >> Replace rear seat control unit.

NG

>> Repair or replace harness between rear seat control unit and seatback heater.



3. CHECK REAR SEATBACK HEATER HARNESS

- 1. Turn ignition switch OFF.
- Disconnect rear seat control unit connector and rear seatback heater connector.
- Check continuity between rear seat control unit connector B162 (LH), B362 (RH) terminal 8 (OR) and rear seatback heater connector B165 (LH), B365 (RH) terminal 8 (OR).



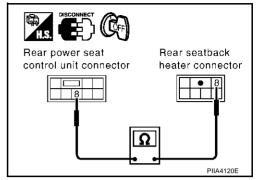
:Continuity should exist

OK or NG

OK >> GO TO 4.

NG >> Repair or

>> Repair or replace harness between rear seat control unit and rear seatback heater.



4. CHECK REAR SEATBACK HEATER

Check continuity between rear seatback heater B165 (LH), B365 (RH) terminal A (Y/B) and 8 (OR).

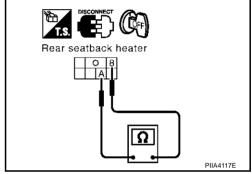
$$A (Y/B) - 8 (OR)$$

: Continuity should exist

OK or NG

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

NG >> Replace rear seatback heater.



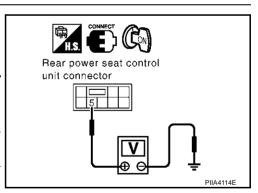
EIS003WC

Rear Heated Seat Circuit Inspection 3

1. CHECK REAR SEATBACK HEATER POWER SUPPLY

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

| Con- nector | Terminal (Wire color) | | Condition | Voltage (V) (Approx.) |
|----------------|--------------------------|---------|---|--------------------------|
| | (+) | (-) | | (дрргох.) |
| B162 (LH), | (LH), 5 (BR) Grou | Ground | Turn ignition switch ON. Heater switch HIGH. | Battery voltage |
| B362 (RH) | , , | 2.34114 | Heater switch OFF. | 0 |



OK or NG

OK >> GO TO 3.

NG >> GO TO 2.

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$\overline{2}$. CHECK REAR SEAT BACK HEATER HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect rear seat control unit connector and rear seatback heater connector.
- 3. Check continuity between rear seat control unit connector B162 (LH), B362 (RH) terminal 5 (BR) and ground.

:Continuity should not exist

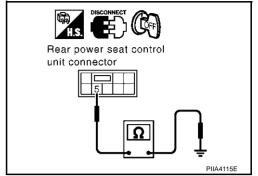
OK or NG

OK

>> Replace rear power seat control unit.

NG

>> Repair or replace harness between rear power seat control unit and rear seatback heater.



3. CHECK REAR SEAT BACK HEATER HARNESS

- 1. Turn ignition switch OFF.
- Disconnect rear seat control unit connector and rear seatback heater connector.
- Check continuity between rear seat control unit connector B162 (LH), B362 (RH) terminal 5 (BR) and rear seatback heater connector B165 (LH), B365 (RH) terminal 5 (BR).

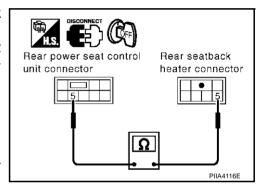
:Continuity should exist

OK or NG

OK >> GO TO 4.

NG >> Repair of

>> Repair or replace harness between rear power seat control unit and rear seatback heater.



4. CHECK REAR SEATBACK HEATER

Check continuity between rear seatback heater B165 (LH), B365 (RH) terminal A (Y/B) and 5 (BR).

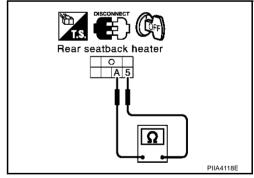
$$A(Y/B) - 5(BR)$$

: Continuity should exist

OK or NG

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

NG >> Replace rear seatback heater.

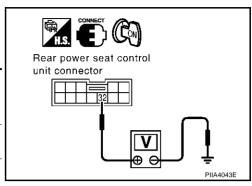


Rear Heated Seat Switch Low Circuit Inspection

1. CHECK REAR HEATER SWITCH POWER SUPPLY

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

| Con- nector | Terminal (Wire color) | | Condition | Voltage (V) (Approx.) | |
|-------------------------------|--------------------------|--------------|--|--------------------------|--|
| | (+) | (-) | | (дриох.) | |
| B163 (LH), B363 (RH) | 32 (LG/W) | _G/W) Ground | Turn ignition switch ON. Heater switch LOW. | 0 | |
| | , | | Heater switch OFF. | 5 | |



OK or NG

NG

OK >> Replace rear power seat control unit.

>> When turn ignition switch ON and heater switch LOW, check the following.

- When voltage is approx. 0V, GO TO 2.
- When voltage is approx. 5V, GO TO 3.

2. CHECK REAR POWER SEAT SWITCH (HEATER SWITCH) HEATER HARNESS

- Turn ignition switch OFF.
- 2. Disconnect rear seat control unit connector and rear power seat switch (heater switch) connector.
- Check continuity between rear seat control unit connector B163 (LH), B363 (RH) terminal 32 (LG/W) and ground.

32 (LG/W) - Ground :Continuity should not exist

OK or NG

>> Replace rear power seat control unit. OK

NG >> Repair or replace harness between rear power seat con-

trol unit and rear power seat switch (heater switch).

Rear power seat control unit connector

Rear power seat

control unit connector

Rear power seat

connector

Ω

switch (Heater switch)

5, 6

3. CHECK REAR POWER SEAT SWITCH (HEATER SWITCH) HEATER HARNESS

- Turn ignition switch OFF.
- Disconnect rear power seat control unit connector and rear power seat switch (heater switch) connector.
- Check continuity between rear power seat control unit connector B163 (LH), B363 (RH) terminal 32 (LG/W) and rear power seat switch (heater switch) connector D55 (LH), D75 (RH) terminal 5 (L/W) (LH), 6 (Y/R) (RH).

Rear seat LH

32 (LG/W) - 5 (L/W):Continuity should exist

Rear seat RH

32 (LG/W) - 6 (Y/R):Continuity should exist

OK or NG

OK >> GO TO 4.

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

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4. CHECK REAR POWER SEAT SWITCH (HEATER SWITCH)

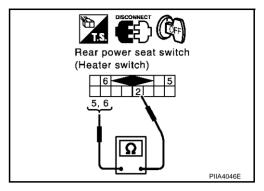
Check continuity between rear power seat switch (heater switch).

| Terminal | | Condition | Continuity |
|----------|--------|-------------------------|------------|
| 5 (LH) | 5 (LH) | Rear heater switch LOW. | YES |
| 6 (RH) | | Other than above. | NO |

OK or NG

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

NG >> Replace rear power seat switch (heater switch).



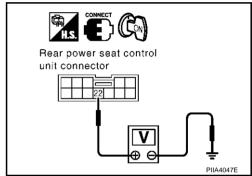
EIS003WA

Rear Heated Seat Switch High Circuit Inspection

1. CHECK REAR HEATER SWITCH POWER SUPPLY

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

| Con- nector | Terminal (Wire color) | | Condition | Voltage (V) (Approx.) |
|-------------------------------|--------------------------|-----------------|---|--------------------------|
| | (+) | (-) | | (Арргох.) |
| B163 (LH), B363 (RH) | 22 (L/W) | 22 (L/W) Ground | Turn ignition switch ON. Heater switch HIGH. | 0 |
| | 22 (L/W) Groun | | Heater switch OFF. | 5 |



OK or NG

NG

OK >> Rear heated seat HIGH circuit inspection is OK.

>> When turn ignition switch ON and heater switch HIGH, check the following.

- When voltage is approx. 0V, GO TO 2.
- When voltage is approx. 5V, GO TO 3.

2. CHECK REAR POWER SEAT SWITCH (HEATER SWITCH) HEATER HARNESS

- Turn ignition switch OFF. 1.
- 2. Disconnect rear seat control unit connector and rear power seat switch (heater switch) connector.
- Check continuity between rear seat control unit connector B163 (LH), B363 (RH) terminal 22 (L/W) and ground.

22 (L/W) - Ground

:Continuity should not exist

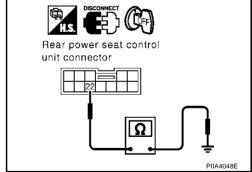
OK or NG

NG

OK

>> Replace rear power seat control unit.

>> Repair or replace harness between rear power seat control unit and rear power seat switch (heater switch).



3. CHECK REAR POWER SEAT SWITCH (HEATER SWITCH) HEATER HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect rear power seat control unit connector and rear power seat switch (heater switch) connector.
- Check continuity between rear power seat control unit connector B163 (LH), B363 (RH) terminal 22 (L/W) and rear power seat switch (heater switch) connector D55 (LH), D75 (RH) terminal 5 (L/W) (RH), 6 (Y/R) (LH).

Rear seat LH

22 (L/W) - 6 (Y/R)

:Continuity should exist

Rear seat RH

22 (L/W) - 5 (L/H)

:Continuity should exist

OK or NG

OK >> GO TO 4.

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

4. CHECK REAR POWER SEAT SWITCH (HEATER SWITCH)

Check continuity between rear power seat switch (heater switch).

| Terminal | | Condition | Continuity |
|----------|--------|--------------------------|------------------|
| 5 (RH) | 5 (RH) | Rear heater switch HIGH. | Should exist |
| 6 (LH) | 2 | Other than above. | Should not exist |

OK or NG

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

NG >> Replace front power seat switch (heater switch).

Rear power seat switch (Heater switch) 6 2 5 6 PIIA4046E

EIS003YI

Rear Heated Seat Ground Circuit Inspection

1. CHECK REAR SEAT BACK HEATER HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect rear seat control unit connector.
- 3. Check continuity between rear seat control unit connector B162 (LH), B362 (RH) terminal 8 (OR) and 15 (B).

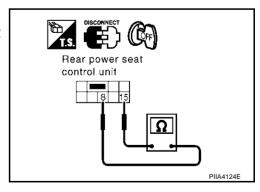
8 (OR) –15 (B) :Continuity should exist

OK or NG

NG

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

>> Replace rear power seat control unit.



Rear power seat switch (Heater switch) connector

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CLIMATE CONTROLLED SEAT

PFP:870U6

System Description

FIS00430

The climate controlled seat system is controlled by climate controlled seat control unit. Heating and cooling are possible for a Thelma 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 temperature.
- 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 temperature switch or the dial.

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.

Power is at all times supplied

- through 15A fuse [No. 71, and 72, located in the fuse fusible link and relay unit]
- to climate controlled seat relay terminals 5 and 7.

When the ignition switch turned to ON or START position, Power is supplied

- through 10A fuse [No. 1, located in the fuse block (J/B)]
- to climate controlled seat relay terminal 2,and
- to climate controlled seat control unit (driver side and passenger side) terminal JD.

Then ground is supplied

- to climate controlled seat relay terminal 1,
- through body grounds E42, and E 62,

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 driver side climate controlled seat control unit terminal JB.

When climate controlled seat relay is turned to ON, Power is supplied,

- through climate controlled seat relay terminal 6,
- to passenger side climate controlled seat control unit terminal JB.

When climate controlled switch select "HEAT", ground is supply

- through climate controlled seat switch terminal J6,
- to climate controlled seat control unit terminal J6,
- through climate controlled seat switch terminal JCA,
- through body grounds B17 and B57.

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

When climate controlled switch select "COOL", ground is supply

- through climate controlled seat switch terminal J16,
- to climate controlled seat control unit terminal J16,
- through climate controlled seat switch terminal JCA,
- through body grounds B17 and B57.

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

When the climate controlled seat control unit receives climate controlled seat switch signal, power is supply

to climate controlled seat temperature dial terminal J7,

through climate controlled seat control unit terminal J7.

And then ground is supplied

- through climate controlled seat control unit terminal J15,
- to climate controlled seat temperature dial terminal J15.

Then, the climate controlled seat control unit receives climate controlled seat temperature dial signal.

When blower motor rotates, signal is transmitted

- to climate controlled seat control unit terminal J14.
- through climate controlled seat blower motor terminal J14.

This is climate controlled seat blower motor tachometer signal.

When climate controlled seat control unit receives climate controlled seat switch (HEAT, COOL) signal, climate controlled seat temperature dial signal and tachometer signal.

Power is supplied

- to climate controlled seat blower motor terminal J13.
- through climate controlled seat control unit terminal J13,

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 J10,
- to climate controlled seat blower motor terminal J10.

When number of rotations correspond signal,

Ground is supplied

- to climate controlled seat blower motor terminal J3,
- through climate controlled seat control unit terminal J3,
- through climate controlled seat control unit terminal JC,
- through body grounds B217 and B256.

Then motor revolution is controlled.

When the ignition switch turned to ON or START position,

Power is supplied

- to climate controlled seat cushion thermal electric device terminal J18,
- through climate controlled seat control unit terminal J18.

Then ground is supplied

- to climate controlled seat control unit terminal J17,
- through climate controlled seat cushion thermal electric device terminal J17,

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

Power is supplied

- to climate controlled seat cushion thermal electric device terminal J1,
- through climate controlled seat control unit terminal J1,

Then ground is supplied

- through climate controlled seat cushion thermal electric device terminal J2,
- to climate controlled seat control unit terminal J2.
- through climate controlled seat control unit terminal JC,
- through body grounds B217 and B256.

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

Power is supplied

- to climate controlled seat cushion thermal electric device terminal J2,
- through climate controlled seat control unit terminal J2,

Then ground is supplied

- through climate controlled seat cushion thermal electric device terminal J1,

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to climate controlled seat control unit terminal J1.

- through climate controlled seat control unit terminal JC,
- through body grounds B217 and B256.

When the ignition switch turned to ON or START position,

Power is supplied

- to climate controlled seatback thermal electric device terminal J19,
- through climate controlled seat control unit terminal J19.

Then ground is supplied

- to climate controlled seat control unit terminal J20,
- through climate controlled seatback thermal electric device terminal J20.
- through climate controlled seat control unit terminal JC,
- through body grounds B217 and B256.

Then the climate controlled seat control unit recognizes seatback thermal electric device sensor signal. When climate controlled control unit recognizes climate controlled switch "HEAT" signal and climate controlled seatback thermal electric device sensor signal,

Power is supplied

- to climate controlled seatback thermal electric device terminal J11,
- through climate controlled seat control unit terminal J11,

ground is supplied

- to climate controlled seat control unit terminal J12.
- through climate controlled seatback thermal electric device terminal J12,
- through climate controlled seat control unit terminal JC,
- through body grounds B217 and B256.

this climate controlled seatback thermal electric device generates heat wind is warmed.

When climate controlled control unit recognizes climate controlled switch "COOL" signal and climate controlled seatback thermal electric device sensor signal,

Power is supplied

- to climate controlled seatback thermal electric device terminal J12,
- through climate controlled seat control unit terminal J12,

ground is supplied

- to climate controlled seat control unit terminal J11.
- through climate controlled seatback thermal electric device terminal J11,
- through climate controlled seat control unit terminal JC,
- through body grounds B217 and B256.

When climate controlled switch selects "HEAT",

Power is supplied

- to climate controlled seat switch terminal J4,
- through climate controlled seat control unit terminal J4.

Ground is supplied

- to the climate controlled seat switch terminal JCA,
- through body grounds B17 and B57

Then climate controlled seat switch "HEAT" indicator is energized.

When climate controlled switch select "COOL",

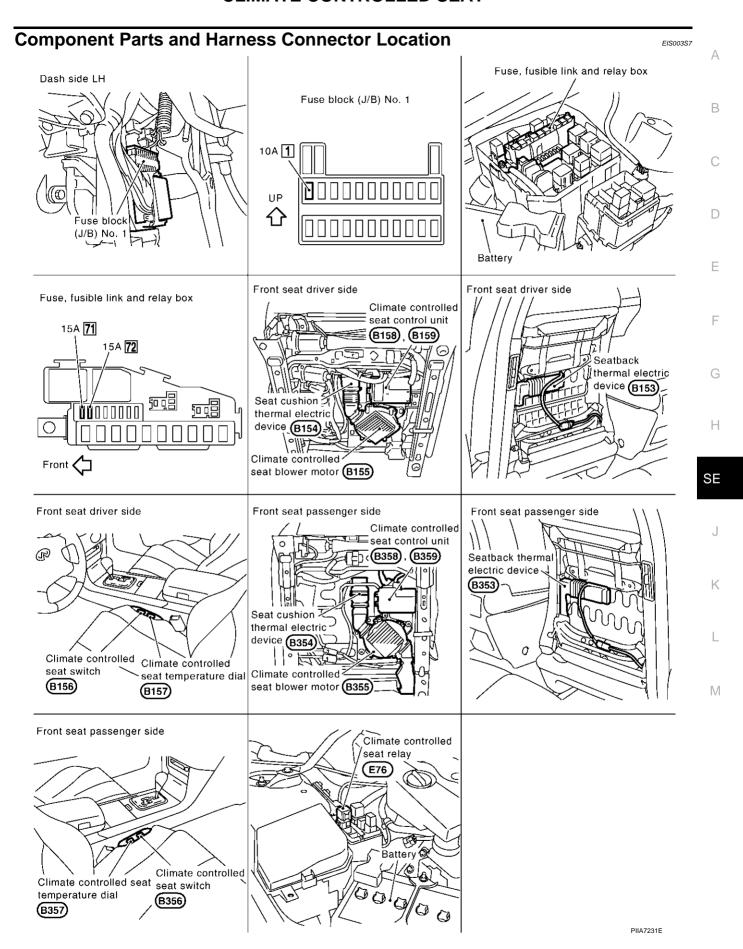
Power is supplied

- to climate controlled seat switch terminal J5,
- through climate controlled seat control unit terminal J5,

Ground is supplied

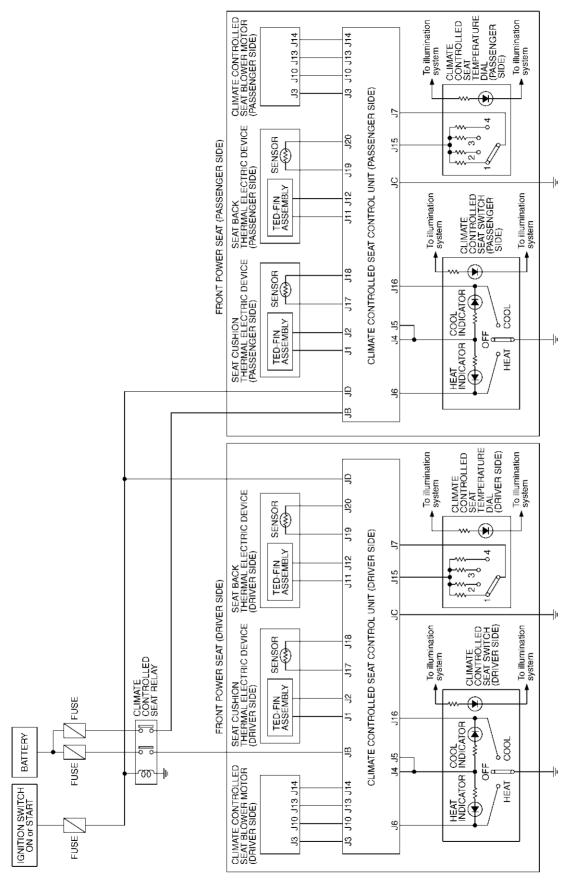
- to the climate controlled seat switch terminal JCA,
- through body grounds B17 and B57.

Then climate controlled seat switch "COOL" indicator is energized.

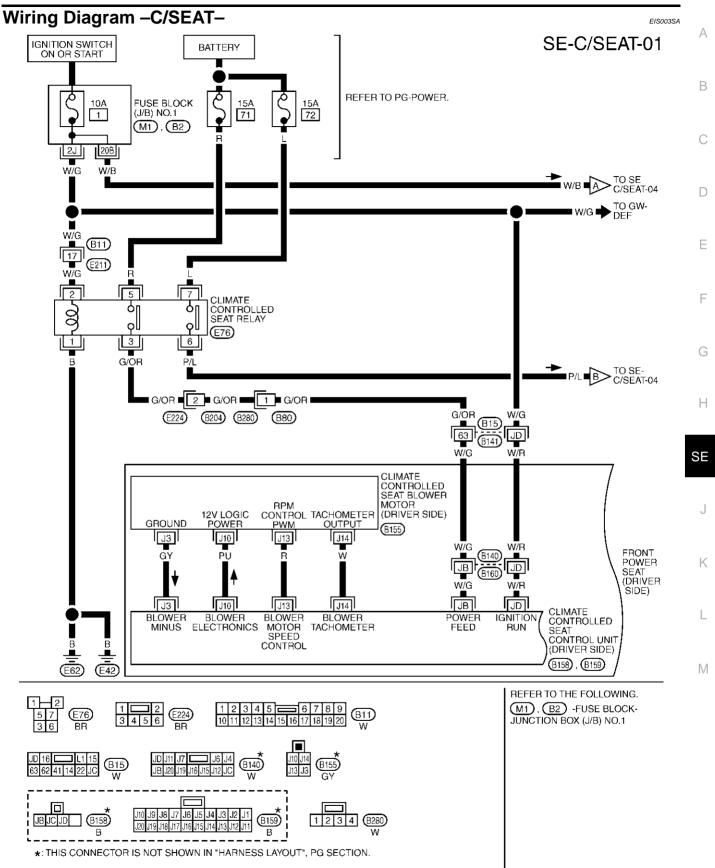


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Schematic – AHEAT –

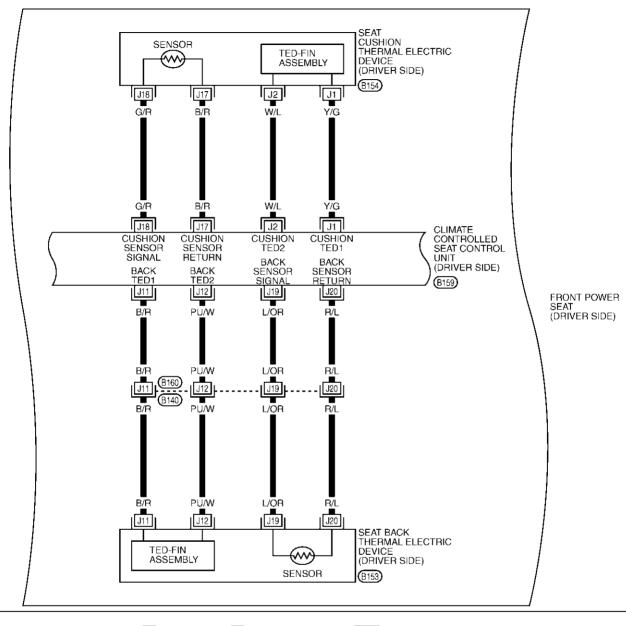


TIWM0139E



TIWM0140E

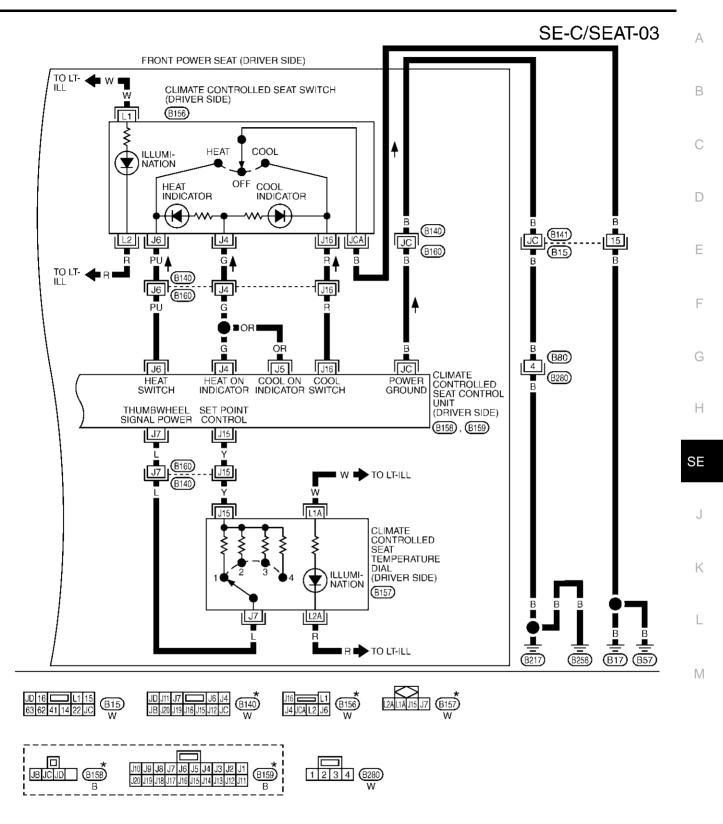
SE-C/SEAT-02





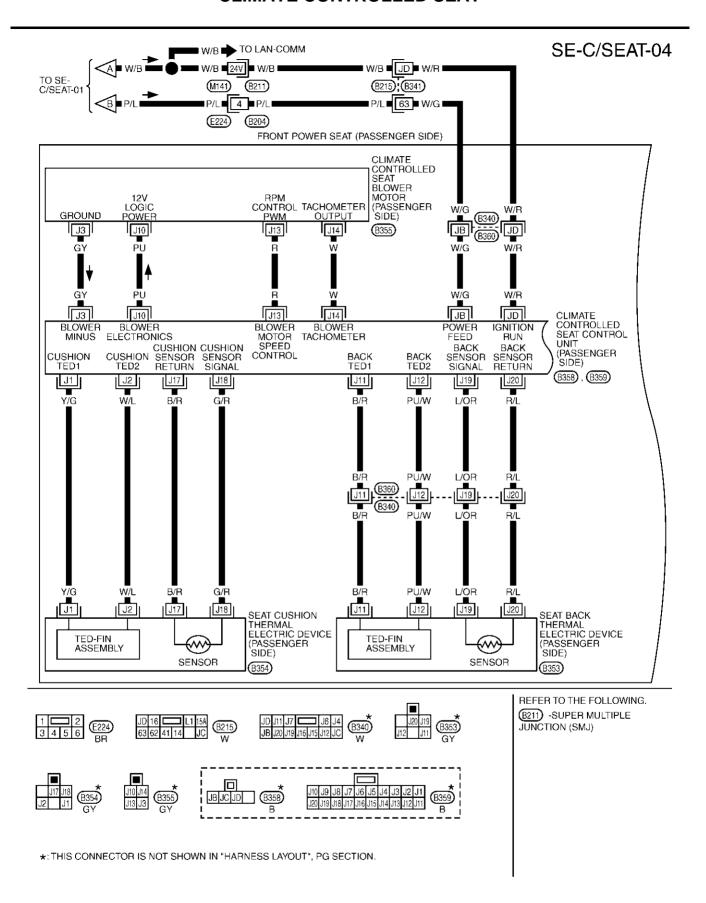
*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

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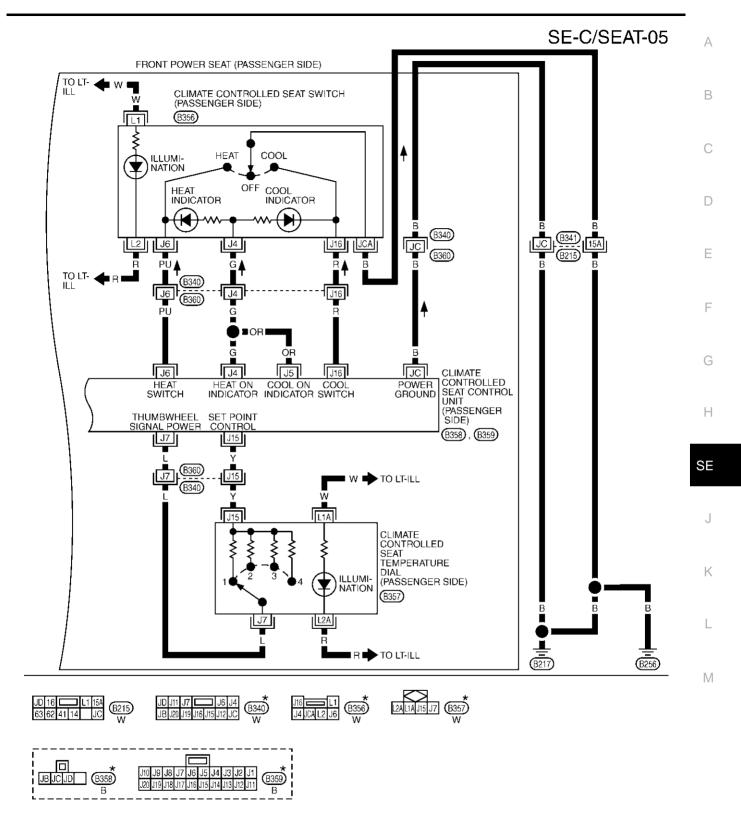


*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

TIWM0156E



TIWM0157E



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

TIWM0175E

Terminal and Reference Value For Climate Controlled Seat Control Unit

EIS003SE

| TER- MINAL | WIRE COLOR | ITEM | | CONDITION | VOLTAGE (V) (Approx) | |
|---------------|---------------|-----------------------------------|--|---|--|-----------------|
| JB | W/G | Ignition switch power supply | Ignition switch ON or S | TART | Battery voltage | |
| JC | В | Ground | | | 0 | |
| JD | W/R | Ignition switch power supply | Ignition switch ON or S | | Battery voltage | |
| J 1 | Y/G | | Ignition switch ON or | Climate controlled seat switch select "HEAT" | 0 – 12 | |
| | | device power supply (HEAT) | START | Climate controlled seat switch select "OFF" | 0 | |
| J 2 | W/L | Seat cushion thermal electric | Ignition switch ON or | Climate controlled seat switch select "COOL" | 0 – 12 | |
| 3 2 | VV/L | device power supply (COOL) | START | Climate controlled seat switch select "OFF" | 0 | |
| J3 | GY | Ground | | _ | 0 | |
| | 0 | W.F.A.T., | Ignition switch ON or | Climate controlled seat switch select "HEAT" | Battery voltage | |
| J4 | G | "HEAT" switch indicator signal | START | Climate controlled seat switch select "OFF" | 0 | |
| J5 | OR | OB | "COOL" switch indicator signal | Ignition switch ON or | Climate controlled seat switch select "COOL" | Battery voltage |
| 33 | OK | GOOL SWITCH INDICATOR SIGNAL | START | Climate controlled seat switch select "OFF" | 0 | |
| J6 | J6 PU | J "HEAT" switch signal | Ignition switch ON or START | Climate controlled seat switch select "HEAT" | 0 | |
| 30 | FO | TIEAT SWILLT SIGNAL | | Climate controlled seat switch OFF | Battery voltage | |
| J7 | L | Temperature dial power supply | Ignition switch ON or START temperature dial 1 – 4 | | 7.1 – 11.4 | |
| | | | Ignition switch OFF | 0 | | |
| | 5 | Blower motor power supply | Ignition switch ON or START | Climate controlled seat switch select "HEAT" or "COOL" temperature dial 1 – 4 | 5.5 – 12 | |
| J10 | PU | | O I / II VI | Climate controlled seat switch select "OFF" | Battery voltage | |
| _ | | | Ignition switch OFF | | 0 | |
| J 11 | B/R | Seatback thermal electric | Ignition switch ON or | Climate controlled seat switch select "HEAT" | 0 – 12 | |
| 3 11 | D/IX | device power supply (HEAT) | START | Climate controlled seat switch select "OFF" | 0 | |
| J 12 | PU/W | Seatback thermal electric | Ignition switch ON or | Climate controlled seat switch select "COOL" | 0 – 12 | |
| J 12 | PO/VV | device power supply (COOL) | START | Climate controlled seat switch select "OFF" | 0 | |
| J 13 | R | Blower motor speed control signal | Ignition switch ON or START | Climate controlled seat switch select "HEAT" or "COOL" temperature dial 1 – 4 | 4.5 – 9.5 | |
| | | | | Climate controlled seat switch OFF | 0 | |
| J14 | W | Blower motor tachometer signal | Ignition switch ON or | Climate controlled seat switch select "HEAT" or "COOL" | 5 – 7 | |
| J14 | v v | Blower motor tachometer signal | START | Climate controlled seat switch OFF | Battery voltage | |

| TER- MINAL | WIRE COLOR | ITEM | | CONDITION | VOLTAGE (V) (Approx) |
|---------------|---------------------------|--|--|--|-------------------------|
| J15 Y | | Temperature dial signal | Ignition switch ON or START temperature dial 1 – 4 | | 0 – 5 |
| | | | Ignition switch OFF | | 0 |
| J16 | R | "COOL" switch signal | Ignition switch ON or | Climate controlled seat switch select "COOL" | 0 |
| J16 R | COOL SWILCH SIGNAL | START | Climate controlled seat switch OFF | Battery voltage | |
| J17 | B/R | Seat cushion thermal electric device sensor ground | Ignition switch ON | | 0 |
| J18 | G/R | Seat cushion thermal electric | Ignition switch ON or S | TART | 0.5 – 4 |
| J10 | G/R | device sensor signal | Ignition switch OFF | | 0 |
| J19 | L/OB | Seatback thermal electric | electric Ignition switch ON or START | | 0.5 – 4 |
| 319 | L/OR device sensor signal | | Ignition switch OFF | | 0 |
| J20 | R/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-158, "System Description"</u>.
- Perform the preliminary check. Refer to SE-169, "Preliminary Check".
- According to the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to <u>SE-170</u>, <u>"Trouble Diagnoses Symptom Chart"</u>.
- 5. Does climate controlled seat operate normally? YES: GO TO 6, NO: GO TO 4.
- 6. INSPECTION END.

Preliminary Check

1. CHECK DUCT AND FILTER

Check the following.

- If is checked that there is no foreign body in the blower motor filter.
- If is checked that there is no foreign body in the duct.

YES or NO

YES >> Preliminary check is OK.

NO >> The foreign body is removed.

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Trouble Diagnoses Symptom Chart

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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). | Climate controlled seat relay power supply circuit inspection. | <u>SE-171</u> | |
| | Driver side climate controlled seat control unit power supply and ground circuit inspection. | SE-172 | |
| All the driver side climate controlled seat do not operate (Pas- | Climate controlled seat temperature dial circuit inspection. | <u>SE-178</u> | |
| senger side operates). | 3. Climate controlled seat switch ground circuit inspection | SE-180 | |
| | 4. Blower motor power supply circuit inspection. | <u>SE-185</u> | |
| | 5. Replace blower motor assembly. | _ | |
| | Passenger side climate controlled seat control unit power supply and ground circuit inspection. | SE-174 | |
| All the passenger side climate controlled seat do not operate | 2. Climate controlled seat temperature dial circuit inspection. | <u>SE-178</u> | |
| (Driver side operates) | Climate controlled seat switch ground circuit inspection | <u>SE-180</u> | |
| | Blower motor power supply circuit inspection. | <u>SE-185</u> | |
| | 5. Replace blower motor assembly. | - | |
| | Climate controlled temperature dial inspection. | <u>SE-178</u> | |
| Blower motor speed cannot adjust. | 2. Climate controlled seat control unit inspection. | SE-187 | |
| | Replace blower motor assembly. | _ | |
| The climate controlled seat dose not operates when the switch is done in "HEAT" (The wind rises when the switch is in "COOL" mode). | Climate controlled seat "HEAT" switch circuit inspection. | <u>SE-176</u> | |
| The climate controlled seat dose not operates when the switch is done in "COOL" (The wind rises when the switch is in "HEAT" mode). | Climate controlled seat "COOL" switch circuit inspection. | <u>SE-177</u> | |
| | Seat cushion thermal electric device sensor circuit inspection. | <u>SE-182</u> | |
| | Seat cushion thermal electric device circuit inspection | <u>SE-181</u> | |
| When the climate controlled seat switch is turned on, operation stops at nose (When the climate controlled seat switch is in | 3. Seat back thermal electric device sensor circuit inspection. | <u>SE-184</u> | |
| "HEAT" or "COOL" mode after ignition switch is turned ON again, the motor operates). | Seat back thermal electric device circuit inspection | <u>SE-183</u> | |
| | 5. Blower motor speed control circuit inspection. | <u>SE-186</u> | |
| | 6. Blower motor tachometer signal circuit inspection. | <u>SE-187</u> | |
| | 7. Replace Climate controlled seat control unit | _ | |

NOTE

• The climate controlled seat blower keep low speed for approximately 60 seconds turning the switch or the dial.

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 tem-

Climate Controlled Relay Power Supply Circuit Check

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1. CHECK FUSE

Check 10A fuse [No. 1, located in fuse block (J/B)]

NOTE:

Refer to SE-161, "Component Parts and Harness Connector Location".

OK or NG

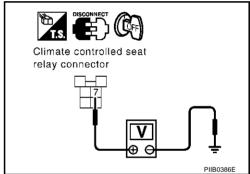
OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse, refer to SE-161, "Component Parts and Harness Connector Location".

2. CHECK SEAT RELAY POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect climate controlled seat relay connector.
- 3. Turn ignition switch ON.
- Check voltage between climate controlled seat relay harness connector E76 terminal 2 (W/G) and ground.

| Con- nector | | ninal color) | Condition | Voltage (V) |
|----------------|----------|-----------------|---------------------------|-----------------|
| | (+) | (-) | | |
| E76 | 2 (W/G) | Ground | Turn ignition switch ON. | Battery voltage |
| E/6 | 2 (VV/G) | Giodila | Turn ignition switch OFF. | 0 |



OK or NG

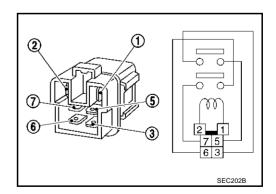
OK >> GO TO 3. NG

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

3. CHECK CLIMATE CONTROLLED SEAT RELAY

- Turn ignition switch OFF.
- Remove climate controlled seat relay.
- Check continuity between terminals 3 and 5, 6 and 7.

| Terminal | | Condition | Continuity |
|----------|-----|---|------------------|
| (+) | (-) | Condition | Continuity |
| 3 | 5 | 12V direct current supply between terminals 1 and 2 | YES |
| | | No current supply | YES NO YES NO |
| 6 | 7 | 12V direct current supply between terminals 1 and 2 | YES |
| | | No current supply | NO |
| OK or NG | | | |



OK or NG

OK >> GO TO 4.

NG >> Replace climate controlled seat relay.

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4. CHECK CLIMATE CONTROLLED SEAT CONTROL UNIT GROUND CIRCUIT

Check continuity between climate controlled seat relay connector E76 terminal 1 (B) and ground.

1 (B) - Ground

: Continuity should exist

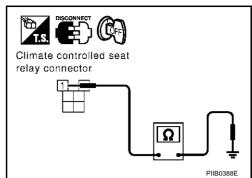
OK or NG

OK

>> Climate controlled seat relay power supply circuit check is OK.

NG

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



Driver Side Climate Controlled Seat Control Unit Power Supply and Ground Circuit Inspection

1. CHECK FUSE

Check 15A fuse [No. 71, located in fuse, fusible link and relay unit]

NOTE

Refer to SE-161, "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 <u>SE-161</u>, "Component Parts and Harness Connector Location".

2. CHECK CLIMATE CONTROLLED SEAT CONTROL UNIT POWER SUPPLY CIRCUIT 1

- 1. Turn ignition switch OFF.
- 2. Disconnect climate controlled seat relay.
- Check voltage between climate controlled seat relay connector E76 terminal 5 (R) and ground.

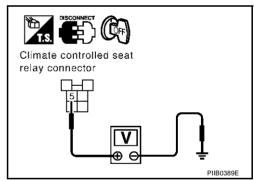
5 (R) – Ground : Battery voltage

OK or NG

OK >> GO TO 3.

NG >> Repair

>> Repair or replace harness between fuse, "fusible link and relay unit" and climate controlled seat relay.



3. CHECK CLIMATE CONTROLLED SEAT RELAY

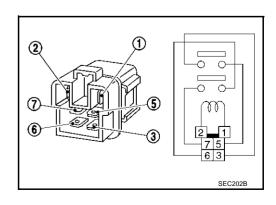
- Remove climate controlled seat relay.
- 2. Check continuity between terminals 3 and 5.

| Terminal | | Condition | Continuity | |
|----------|-----|---|------------|--|
| (+) | (-) | Condition | Continuity | |
| 3 | 5 | 12V direct current supply between terminals 1 and 2 | YES | |
| | | No current supply | NO | |

OK or NG

OK >> GO TO 4.

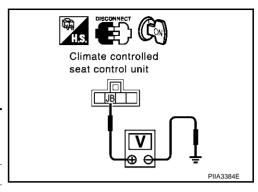
NG >> Replace climate controlled seat relay.



4. CHECK CLIMATE CONTROLLED SEAT CONTROL UNIT POWER SUPPLY CIRCUIT 2

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

| Con- nector | Term (Wire | | Condition | Voltage (V) (Approx) |
|----------------|---------------|---------|---------------------------|-------------------------|
| | (+) | (-) | | (Арргох) |
| B158 | JB (W/G) | Ground | Turn ignition switch ON. | Battery voltage |
| D130 | 3D (W/G) | Giodila | Turn ignition switch OFF. | 0 |



OK or NG

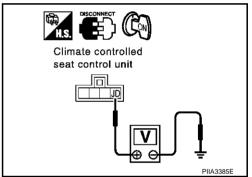
OK >> GO TO 5.

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

5. CHECK CLIMATE CONTROLLED SEAT CONTROL UNIT POWER SUPPLY CIRCUIT

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

| Con- nector | Term (Wire o | | Condition | Voltage (V) (Approx) |
|----------------|-----------------|---------|---------------------------|-------------------------|
| Hector | (+) | (-) | | (Αρρίολ) |
| B158 | JD (W/R) | Ground | Turn ignition switch ON. | Battery voltage |
| B158 | 3D (VV/IX) | Sibalia | Turn ignition switch OFF. | 0 |



OK or NG

OK >> GO TO 6.

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

6. CHECK CLIMATE CONTROLLED SEAT CONTROL UNIT GROUND CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Check continuity between climate controlled seat control unit connector B158 terminal JC (B) and ground.

JC (B) – Ground

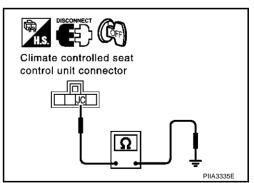
: Continuity should exist

OK or NG

NG

OK >> Driver side climate controlled seat control unit power supply and ground circuit check is OK.

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



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Passenger Side Climate Controlled Seat Control Unit Power Supply Circuit Inspection

1. CHECK FUSE

Check 10A fuse [No. 72, located in fuse, fusible link and relay unit]

NOTE:

Refer to SE-161, "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 <u>SE-161, "Component Parts and Harness Connector Location"</u>.

2. CHECK CLIMATE CONTROLLED SEAT CONTROL UNIT POWER SUPPLY CIRCUIT 1

- 1. Turn ignition switch OFF.
- 2. Check voltage between climate controlled seat relay connector E76 terminal 7 (L)and ground.

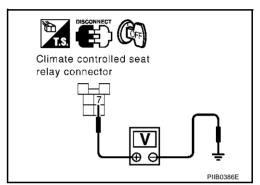
7 (L) – Ground : Battery voltage

OK or NG

NG

OK >> GO TO 3.

>> Repair or replace harness between "fuse, fusible link and relay unit" and climate controlled seat relay.



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3. CHECK CLIMATE CONTROLLED SEAT RELAY

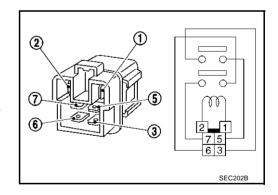
- 1. Remove climate controlled seat relay.
- Check continuity between terminals 6 and 7.

| Terminal | | Condition | Continuity | |
|----------|-----|---|------------|--|
| (+) | (-) | Condition | Continuity | |
| 6 | 7 | 12V direct current supply between terminals 1 and 2 | YES | |
| | | No current supply | YES | |

OK or NG

OK >> GO TO 4.

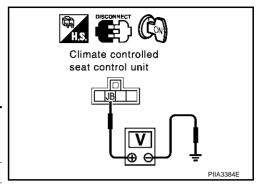
NG >> Replace air conditioning seat relay.



4. CHECK CLIMATE CONTROLLED SEAT CONTROL UNIT POWER SUPPLY CIRCUIT 2

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

| Con- nector | Term (Wire | | Condition | Voltage (V) (Approx) |
|----------------|---------------|---------|---------------------------|-------------------------|
| | (+) | (-) | | (дрыох) |
| B358 | JB (W/G) | Ground | Turn ignition switch ON. | Battery voltage |
| D330 | 3B (W/G) | Giodila | Turn ignition switch OFF. | 0 |



OK or NG

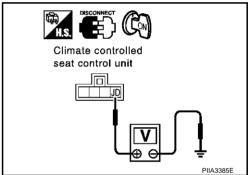
OK >> GO TO 5.

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

5. CHECK CLIMATE CONTROLLED SEAT CONTROL UNIT POWER SUPPLY CIRCUIT

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

| Con- nector | Term (Wire o | | Condition | Voltage (V) (Approx) |
|----------------|-----------------|---------|---------------------------|-------------------------|
| Hector | (+) | (-) | | (πρειοχ) |
| B358 | JD (W/R) | Ground | Turn ignition switch ON. | Battery voltage |
| B358 | 3D (VV/IX) | Giodila | Turn ignition switch OFF. | 0 |



OK or NG

OK >> GO TO 6.

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

6. CHECK CLIMATE CONTROLLED SEAT CONTROL UNIT GROUND CIRCUIT

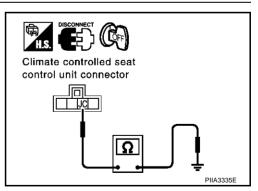
- 1. Turn ignition switch OFF.
- Check continuity between climate controlled seat control unit connector B158 (Driver side), B358 (passenger side) terminal JC (B) and ground.

:Continuity should exist

OK or NG

OK >> Passenger side climate controlled seat unit power supply circuit and ground check is OK.

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



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Climate Controlled Seat "HEAT" Switch Circuit Inspection

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1. CHECK CLIMATE CONTROLLED SEAT HEAT SWITCH HARNESS CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect climate controlled seat control unit and climate controlled seat switch connector.
- Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J6 (PU) and climate controlled seat switch connector B156 (driver side), B356 (passenger side) terminal J6 (PU).

J6 (PU) - J6 (PU)

:Continuity should exist.

 Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J6 (PU) and ground.

Climate controlled seat control unit connector

Climate controlled seat switch connector

One of the controlled seat switch connector

PIRA3331E

J6 (PU) – Ground

:Continuity should not exist.

OK or NG

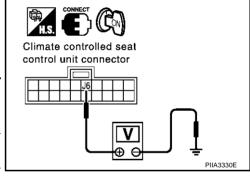
OK >> GO TO 2.

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

2. CHECK CLIMATE CONTROLLED SEAT HEAT SWITCH POWER SUPPLY CIRCUIT

- 1. Connect climate controlled seat control unit connector and climate controlled seat switch.
- 2. Turn ignition switch ON.
- 3. Turn climate controlled seat switch "HEAT".
- Check voltage between climate controlled seat control unit connector and body ground.

| Connector | | ninal color) | Condition | Voltage (V) (Approx.) |
|--------------------------|---------|-----------------|---|--------------------------|
| | (+) | (-) | | (Approx.) |
| B156 (Driver side), | J6 (PU) | Ground | Turn climate controlled seat switch "HEAT". | 0 |
| B356 (Passenger side) | J0 (FU) | Ground | Climate controlled seat switch OFF. | 0 Battery voltage |



OK or NG

OK >> Replace climate controlled seat control unit.

NG >> GO TO 3.

3. CHECK CLIMATE CONTROLLED SEAT HEAT SWITCH

- Turn ignition switch OFF.
- 2. Disconnect climate controlled seat switch connector.
- Check continuity between climate controlled seat switch as follows.

| Teri | minal | Condition | Continuity |
|------|-------|---|------------|
| J6 | | Climate controlled seat switch HEAT position. | YES |
| J6 | JCA | Climate controlled seat switch OFF. | NO |

Climate controlled seat switch

OK or NG

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

NG >> Replace climate controlled seat switch.

Climate Controlled Seat "COOL" Switch Circuit Inspection

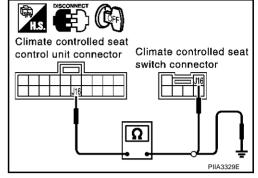
CHECK CLIMATE CONTROLLED SEAT COOL SWITCH HARNESS CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect climate controlled seat control unit and climate controlled seat switch connector.
- 3. Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J16 (R) and climate controlled seat switch connector B156 (driver side), B356 (passenger side) terminal J16 (R).

J16 (R) - J16 (R)

:Continuity should exist.

4. Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J16 (R) and ground.



J16 (R) – Ground

:Continuity should not exist.

OK or NG

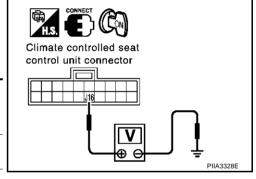
OK >> GO TO 2.

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

2. CHECK CLIMATE CONTROLLED SEAT COOL SWITCH POWER SUPPLY CIRCUIT

- Connect climate controlled seat control unit connector and climate controlled seat switch.
- 2. Turn ignition switch ON.
- 3. Turn climate controlled seat switch COOL.
- 4. Check voltage between climate controlled seat control unit connector and body ground.

| Connector | Terminal (Wire color) | | Condition | Voltage (V) |
|--------------------------|--------------------------|--------|---|-----------------|
| | (+) | (-) | | (Approx.) |
| B156 (Driver side), | J16 (R) | Ground | Turn climate controlled seat switch COOL. | 0 |
| B356 (Passenger side) | | | Climate controlled seat switch OFF. | Battery voltage |



OK or NG

OK >> Replace climate controlled seat control unit.

NG >> GO TO 3.

3. CHECK CLIMATE CONTROLLED SEAT COOL SWITCH

- Turn ignition switch OFF.
- 2. Disconnect climate controlled seat switch connector.
- Check continuity between climate controlled seat switch as follows.

| Terminal | | Condition | Continuity |
|----------|-------------------------------------|---|------------|
| J16 JCA | ICA | Climate controlled seat switch COOL position. | YES |
| | Climate controlled seat switch OFF. | NO | |

OK or NG

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

NG >> Replace climate controlled seat switch.

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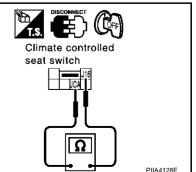
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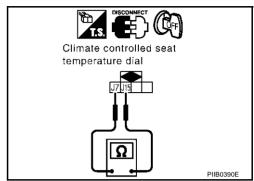


Climate Controlled Seat Temperature Dial Inspection

1. CHECK CLIMATE CONTROLLED SEAT TEMPERATURE DIAL

- 1. Turn ignition switch OFF.
- 2. Disconnect climate controlled seat temperature dial connector.
- Check continuity between climate controlled seat temperature dial as follows.

| Terminal | | Condition | Continuity(Ω) (Approx) |
|----------|-----|-----------------------|---------------------------------|
| J7 J15 | | Temperature dial 1st. | 2370 |
| | 115 | Temperature dial 2nd. | 1100 |
| | 313 | Temperature dial 3rd. | 619 |
| | | Temperature dial 4th. | 237 |



OK or NG

OK >> Climate controlled seat temperature dial check is OK.

NG >> Replace climate controlled seat temperature dial.

Climate Controlled Seat Temperature Dial Circuit Inspection

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EIS003SI

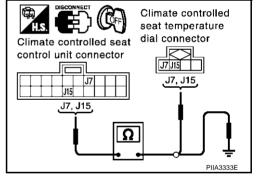
1. CHECK CLIMATE CONTROLLED SEAT TEMPERATURE DIAL HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect climate controlled seat control unit connector and climate controlled seat temperature dial connector.
- Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J7 (L), J15 (Y) and climate controlled seat temperature dial connector B157 (driver side), B357 (passenger side) terminal J7 (L), J15 (Y).

J7 (L) - J7 (L) : Continuity should exist J15 (Y) - J15 (Y) : Continuity should exist

 Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J7 (L), J15 (Y) and ground.

> J7 (L) – Ground : Continuity should not exist J15 (Y) – Ground : Continuity should not exist



OK or NG

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OK >> GO TO 2.

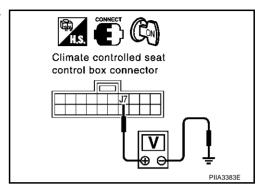
>> Repair or replace harness between climate controlled seat control unit and climate controlled seat temperature dial.

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$\overline{2}$. CHECK CLIMATE CONTROLLED SEAT TEMPERATURE DIAL POWER SUPPLY CIRCUIT

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

| Connector | Terminal (Wire color) | | Condition | Voltage (V) | |
|--|--------------------------|-----|---------------------------|----------------|--|
| | (+) | (-) | | (V) | |
| B159 | | | temperature dial 1 – 4 | 7.1 – 11.4 | |
| (Driver side), B359 (Passenger side) | B359 J/(L) Ground | | Turn ignition switch OFF. | 0 | |



OK or NG

NG

OK >> Climate controlled seat temperature dial circuit check is OK.

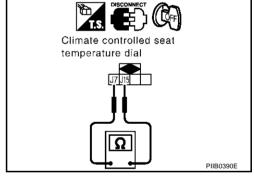
>> When turn ignition ON and temperature dial adjust, check the following

- When voltage is approx 12V, GO TO 3
- When voltage is approx 0V, Replace climate controlled seat control unit.

3. CHECK CLIMATE CONTROLLED SEAT TEMPERATURE DIAL

- Turn ignition switch OFF.
- 2. Disconnect climate controlled seat temperature dial connector.
- Check continuity between climate controlled seat temperature dial as follows.

| Terminal | | Condition | Continuity(Ω) (Approx) |
|----------|-----------------------|-----------------------|---------------------------------|
| J7 J15 | Temperature dial 1st. | 2370 | |
| | 115 | Temperature dial 2nd. | 1100 |
| | 313 | Temperature dial 3rd. | 619 |
| | | Temperature dial 4th. | 237 |



OK or NG

OK >> Replace climate controlled seat control unit. NG

>> Replace climate controlled seat temperature dial.

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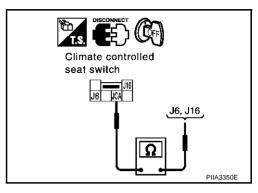
Climate Controlled Seat Switch Ground Circuit Inspection

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1. CHECK CLIMATE CONTROLLED SEAT SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect climate controlled seat switch connector.
- Check continuity between climate controlled seat switch as follows.

| Terminal | | Condition | Continuity |
|----------|-----|---|------------|
| J6 | | Climate controlled seat switch HEAT position. | YES |
| | JCA | Climate controlled seat switch OFF. | NO |
| J16 | JOA | Climate controlled seat switch COOL position. | YES |
| | | Climate controlled seat switch OFF. | NO |



OK or NG

OK >> GO TO 2.

NG >> Replace climate controlled seat switch.

2. CHECK CLIMATE CONTROLLED SEAT SWITCH GROUND CIRCUIT

Check continuity between climate controlled seat switch connector B156 (driver side), B356 (passenger side) terminal JCA (B).

JCA (B) - Ground

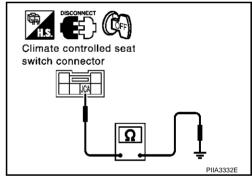
:Continuity should exist.

OK or NG

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

NG

>> Repair or replace harness between climate controlled seat switch and body ground.



Seat Cushion Thermal Electric Device Circuit Inspection

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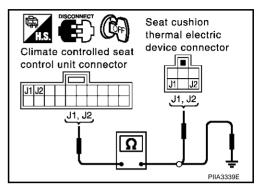
1. CHECK SEAT CUSHION THERMAL ELECTRIC DEVICE HARNESS

- 1. Turn ignition switch OFF.
- Disconnect climate controlled seat control unit connector and seat cushion thermal electric device connector.
- Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J1 (Y/G), J2 (W/L) and climate controlled seat temperature dial connector B154 (driver side), B354 (passenger side) terminal J1 (Y/G), J2 (W/L).

J1 (Y/G) - J1 (Y/G) : Continuity should exist J2 (W/L) - J2 (W/L) : Continuity should exist

 Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J1 (Y/G), J2 (W/L) and ground.

> J1 (Y/G) – Ground : Continuity should not exist J2 (W/L) – Ground : Continuity should not exist



OK or NG

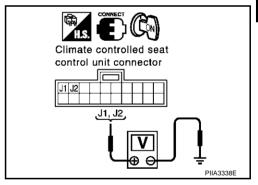
OK >> GO TO 2.

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

2. CHECK SEAT CUSHION THERMAL ELECTRIC DEVICE POWER SUPPLY CIRCUIT

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

| Connector | | ninal color) | Condition | Voltage (V) (Approx) |
|--|---------------------------------|-----------------|--|-------------------------|
| | (+) (-) | | | (Арргох) |
| R150 | J1(Y/G) B159 river side), | Ground | Turn ignition switch ON, climate controlled seat switch turn "HEAT". | 0 – 12 |
| (Driver side), B359 (Passenger side) | | | Turn ignition switch OFF. | 0 |
| | J2(WL) | | Turn ignition switch ON, climate controlled seat switch turn "COOL". | 0 – 12 |
| | | | Turn ignition switch OFF. | 0 |



OK or NG

NG

OK >> Seat cushion Thelma electric device circuit check is OK.

>> Replace seat cushion thermal electric device.

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Seat Cushion Thermal Electric Device Sensor Circuit Inspection

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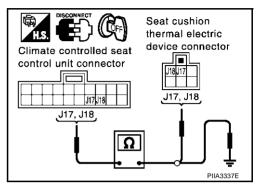
1. CHECK SEAT CUSHION THERMAL ELECTRIC DEVICE HARNESS

- 1. Turn ignition switch OFF.
- Disconnect climate controlled seat control unit connector and seat cushion thermal electric device connector.
- Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J17 (B/R), J18 (G/R) and climate controlled seat temperature dial connector B154 (driver side), B354 (passenger side) terminal J17 (B/R), J18 (G/R).

J17 (B/R) – J17 (B/R) : Continuity should exist J18 (G/R) – J18 (G/R) : Continuity should exist

 Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J17 (B/R), J18 (G/R) and ground.

> J17 (B/R) – Ground : Continuity should not exist J18 (G/R) – Ground : Continuity should not exist



OK or NG

OK >> GO TO 2.

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

2. CHECK SEAT CUSHION THERMAL ELECTRIC DEVICE SENSOR

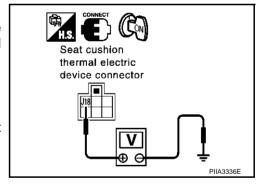
- Connect climate controlled seat control unit connector and seat cushion thermal electric device connector.
- Turn ignition switch ON.
- Check voltage between seat cushion thermal electric device connector B154 (driver side), B354 (passenger side) terminal J18 (G/R) and body ground.

J18 (G/R) – Ground : 0.5V – 4V (Approx.)

OK or NG

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

NG >> Replace seat cushion thermal electric device.



Seat Back Thermal Electric Device Circuit Inspection

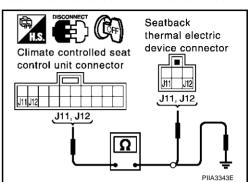
1. CHECK SEATBACK THERMAL ELECTRIC DEVICE HARNESS

- 1. 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 B159 (driver side), B359 (passenger side) terminal J11 (B/R), J12 and seatback thermal electric device connector B153 (driver side), B353 (passenger side) terminal J11 (B/R), J12 (PU/W).

J11 (B/R) – J11 (B/R) : Continuity should exist J12 (PU/W) – J12 (PU/W) : Continuity should exist

 Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J11 (B/R), J12 (PU/W) and ground.

> J11 (B/R) – Ground : Continuity should not exist J12 (PU/W) – Ground : Continuity should not exist



OK or NG

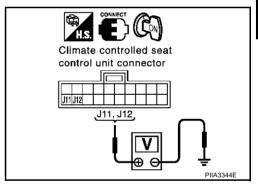
OK >> GO TO 2.

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

2. CHECK SEATBACK THERMAL ELECTRIC DEVICE POWER SUPPLY CIRCUIT

- Connect climate controlled seat control unit connector and seatback thermal electric device connector.
- 2. Check voltage between climate controlled seat control unit connector and ground.

| Connector | Term (Wire o | | Condition | Voltage (V) (Approx) |
|--|-----------------|--------|--|-------------------------|
| | (+) (-) | | | (дрргох) |
| B159 | J11(B/R) | Ground | Turn ignition switch ON, climate controlled seat switch turn "HEAT". | 0 – 12 |
| (Driver side), B359 (Passenger side) | | | Turn ignition switch OFF. | 0 |
| | J12 (PU/W) | | Turn ignition switch ON, climate controlled seat switch turn "COOL". | 0 – 12 |
| | | | Turn ignition switch OFF. | 0 |



OK or NG

OK >> Seatback thermal electric device circuit check is OK.

NG >> Replace seat cushion thermal electric device.

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Seatback Thermal Electric Device Sensor Circuit Inspection

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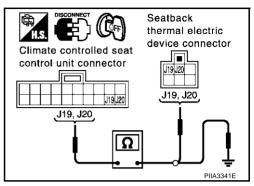
1. CHECK SEATBACK THERMAL ELECTRIC DEVICE HARNESS

- 1. 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 B159 (driver side), B359 (passenger side) terminal J19 (L/OR), J20 (R/L) and seatback thermal electric device connector B153 (driver side), B353 (passenger side) terminal J19 (L/OR), J20 (R/L).

J19 (L/OR) – J19 (L/OR) : Continuity should exist J20 (R/L) – J20 (R/L) : Continuity should exist

 Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J19 (L/OR), J20 (R/L) and ground.

> J19 (L/OR) – Ground : Continuity should not exist J20 (R/L) – Ground : Continuity should not exist



OK or NG

OK >> GO TO 2.

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

2. CHECK SEAT CUSHION THERMAL ELECTRIC DEVICE SENSOR

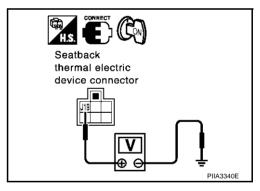
- Connect climate controlled seat control unit connector and seatback thermal electric device connector.
- Turn ignition switch ON.
- Check voltage between seat cushion thermal electric device connector B153 (driver side), B353 (passenger side) terminal J19 (L/OR) and body ground.

J19 (L/OR) – Ground : 0.5V – 4V (Approx)

OK or NG

OK >> Seatback thermal electric device sensor circuit inspec-

NG >> Replace seatback thermal electric device.



Blower Motor Power Supply Circuit Inspection

1. CHECK BLOWER MOTOR HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect climate controlled seat control unit and blower motor connector.
- Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J10 (PU) and blower motor connector B155 (driver side), B355 (passenger side) terminal J10 (PU).

J10 (PU) - J10 (PU)

: Continuity should exist

Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J10 (PU) and ground.

J10 (PU) - Ground

: Continuity should not exist



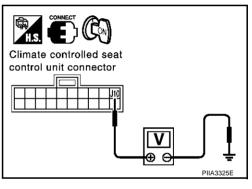
OK >> GO TO 2.

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

2. CHECK BLOWER MOTOR POWER SUPPLY CIRCUIT

- Connect climate controlled seat control unit connector and blower motor connector.
- Check voltage between climate controlled seat control unit connector and ground.

| Connector | | ninal color) | Condition | Voltage (V) (Approx) | |
|--------------------------------|---------|-----------------|---|-------------------------|--|
| | (+) | (-) | | (Applox) | |
| B159 (Driver side), B359 | J10(PU) | Ground | Turn ignition switch ON. Climate controlled seat switch "HEAT" or "COOL". | 5.5 – 12 | |
| (Passenger side) | | | Turn ignition switch OFF. | 0 | |



OK or NG

NG

OK >> GO TO 3.

>> Replace climate controlled seat control unit.

3. CHECK BLOWER MOTOR GROUND HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect climate controlled seat control unit connector and blower motor connector.
- Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J 3 (GY) and blower motor connector B155 (driver side), B355 (passenger side) terminal J 3 (GY).

J3 (GY) - J3 (GY)

: Continuity should exist

Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J3 (GY) and ground.



: Continuity should not exist

OK or NG

OK >> GO TO 4.

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

Climate controlled seat Climate controlled seat

control unit connector blower motor connector

Climate controlled Climate controlled seat blower motor control unit connector connector

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4. CHECK BLOWER MOTOR GROUND HARNESS

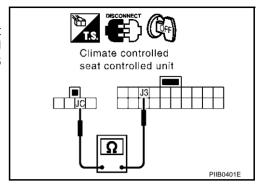
- 1. Connect climate controlled seat control unit connector.
- Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J 3 (GY) and climate controlled seat control unit connector B158 (driver side), B358 (passenger side) terminal JC (B).

:Continuity should exist

OK or NG

OK >> Blower motor circuit check is OK.

NG >> Replace climate controlled seat control unit.



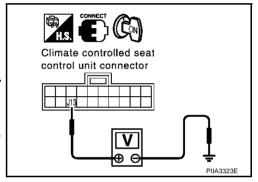
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Blower Motor Speed Control Circuit Inspection

1. CHECK BLOWER MOTOR SPEED CONTROL SIGNAL CIRCUIT

- Connect climate controlled seat control unit connector and blower motor connector.
- Check voltage between climate controlled seat control unit connector and ground.

| Connector | | minal color) | Condition | Voltage (V) (Approx) | |
|--------------------------------|--------|-----------------|---|-------------------------|--|
| | (+) | (-) | | (дрргох) | |
| B159 (Driver side), B359 | J13(R) | Ground | Turn ignition switch ON. Climate controlled seat switch "HEAT" or "COOL". | 4.5 – 9.5 | |
| (Passenger side) | | | Turn ignition switch OFF. | 0 | |



OK or NG

OK >> GO TO 2.

NG >> Replace climate controlled seat control unit.

2. CHECK BLOWER MOTOR HARNESS

- 1. Turn ignition switch OFF.
- Disconnect climate controlled seat control unit connector and blower motor connector.
- Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J13 (R) and blower motor connector B155 (driver side), B355 (passenger side) terminal J13 (R).

: Continuity should exist

 Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J13 (R) and ground.



: Continuity should not exist

Climate controlled seat control unit connector blower motor connector

OK or NG

OK >> Blower motor control circuit check is OK.

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

Blower Motor Tachometer Signal Circuit Inspection

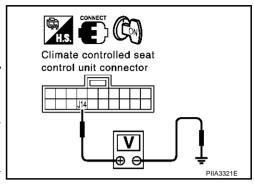
1. CHECK BLOWER MOTOR TACHOMETER SIGNAL CIRCUIT

Connect climate controlled seat control unit connector and blower motor connector.

2. Turn ignition switch ON.

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

| Connector | | minal color) | Condition | Voltage (V) (Approx) |
|--------------------------------|------------|-----------------|---|-------------------------|
| | (+) | (-) | | |
| B159 (Driver side), B359 | switch "HE | | Climate controlled seat switch "HEAT" or "COOL" temperature dial 1 – 4. | 5 – 7 |
| (Passenger side) | | | Climate controlled seat switch OFF. | 0 |



OK or NG

OK >> GO TO 2.

NG >> Replace climate controlled seat blower motor.

2. CHECK BLOWER MOTOR HARNESS

Turn ignition switch OFF.

2. Disconnect climate controlled seat control unit connector and blower motor connector.

3. Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J14 (W) and blower motor connector B155 (driver side), B355 (passenger side) terminal J14 (W).

J14 (W) – J14 (W) : Continuity should exist

 Check continuity between climate controlled seat control unit connector B159 (driver side), B359 (passenger side) terminal J14 (W) and ground.

J14 (W) – Ground : Continuity should not exist

Climate controlled seat control unit connector blower motor connector

OK or NG

OK >> Blower motor tachometer signal circuit check is OK.

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

Climate Controlled Seat Control Unit Inspection

CHECK THE CLIMATE CONTROLLED SEAT CONTROL UNIT

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 check is OK.

NO >> Replace climate controlled seat control unit.

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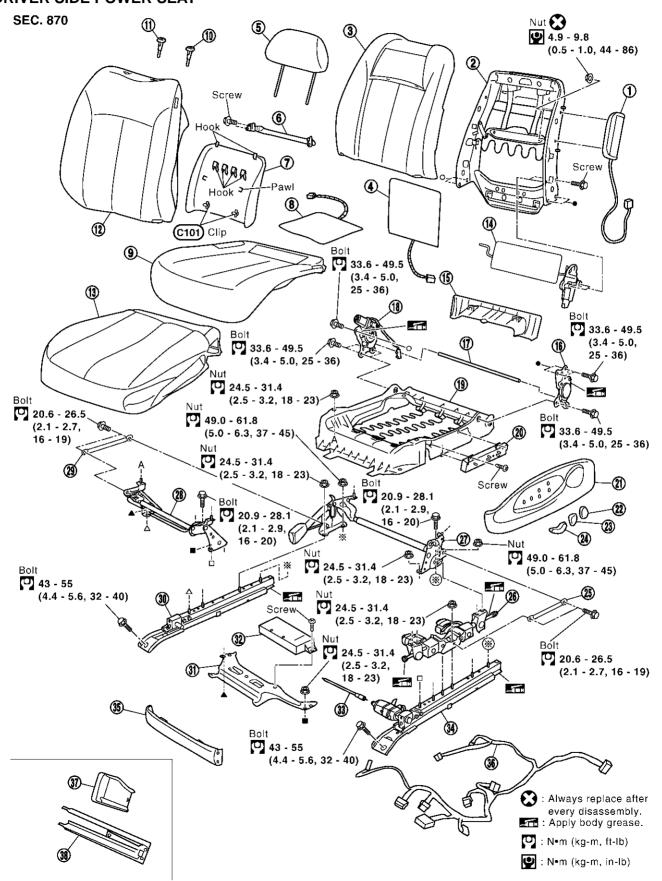
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FRONT SEAT PFP:87000

Removal and Installation DRIVER SIDE POWER SEAT

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| 1. | Side air bag module | 2. | Seatback frame | 3. | Seatback pad |
|-----|----------------------------------|-----|-----------------------------|-----|---------------------------------|
| 4. | Seatback heater unit | 5. | Headrest | 6. | Seatback grip belt |
| 7. | Seatback board | 8. | Seat cushion heater unit | 9. | Seat cushion pad |
| 10. | Headrest holder (locked) | 11. | Headrest holder (free) | 12. | Seatback trim |
| 13. | Seat cushion trim | 14. | Seat lumbar unit | 15. | Seat cushion rear finisher |
| 16. | Reclining device (LH) | 17. | Reclining device rod | 18. | Reclining device (RH) |
| 19. | Seat cushion frame | 20. | Power seat switch | 21. | Seat cushion outer finisher |
| 22. | Lumbar support switch knob | 23. | Reclining switch knob | 24. | Slide & lifter switch knob |
| 25. | Seat cushion rod (LH) | 26. | Lifter motor unit assembly | 27. | Seat lifter link bracket (rear) |
| 28. | Seat lifter link bracket (front) | 29. | Seat cushion rod (RH) | 30. | Inner sliding assembly |
| 31. | Seat control unit bracket | 32. | Seat control unit | 33. | Flexible wire |
| 34. | Outer sliding assembly | 35. | Seat cushion front finisher | 36. | Power seat harness |
| 37. | Front leg cover (LH/RH) | 38. | Rear leg cover (LH/RH) | | |

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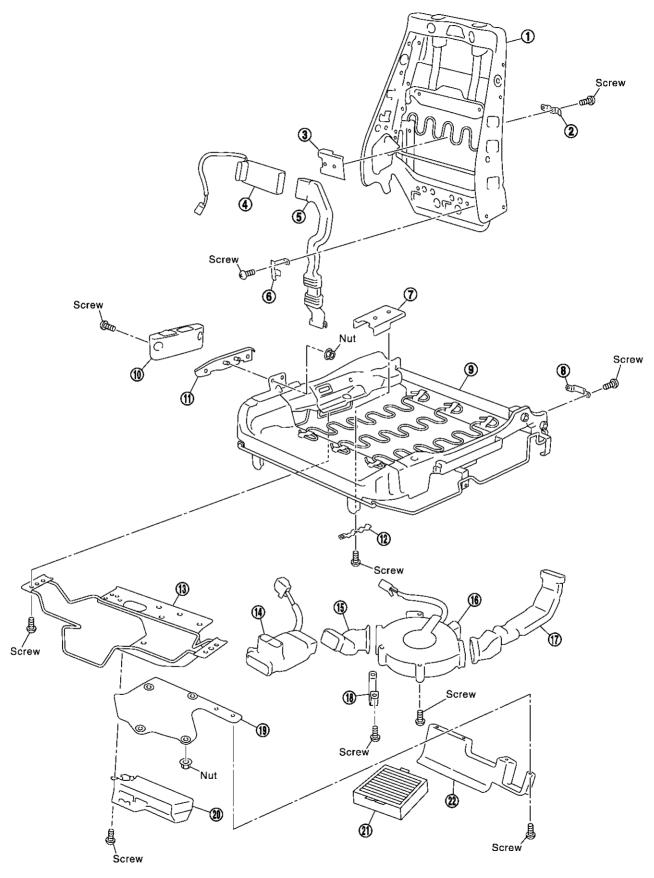
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| 1. | Seatback frame | 2. | Seatback outer bracket | 3. | Seatback inner bracket |
|-----|--------------------------------------|-----|--|-----|---------------------------------|
| 4. | Seatback thermal electric device | 5. | Seaback duct | 6. | Seatback duct upper bracket |
| 7. | Seat cushion inner bracket | 8. | Seatback duct lower bracket | 9. | Seat cushion frame |
| 10. | Climate controlled seat switch | 11. | Climate controlled seat switch bracket | 12. | Seat cushion outer bracket |
| 13. | Seat cushion mounting upper bracket | 14. | Seat cushion thermal electric device | 15. | Seat cushion front duct |
| 16. | Climate controlled seat blower motor | 17. | Seat cushion rear duct | 18. | Seat cushion duct lower bracket |
| 19. | Seat cushion mounting lower bracket | 20. | Climate controlled seat control box | 21. | Climate controlled seat filter |
| 22. | Seat cushion rear duct cover | | | | |
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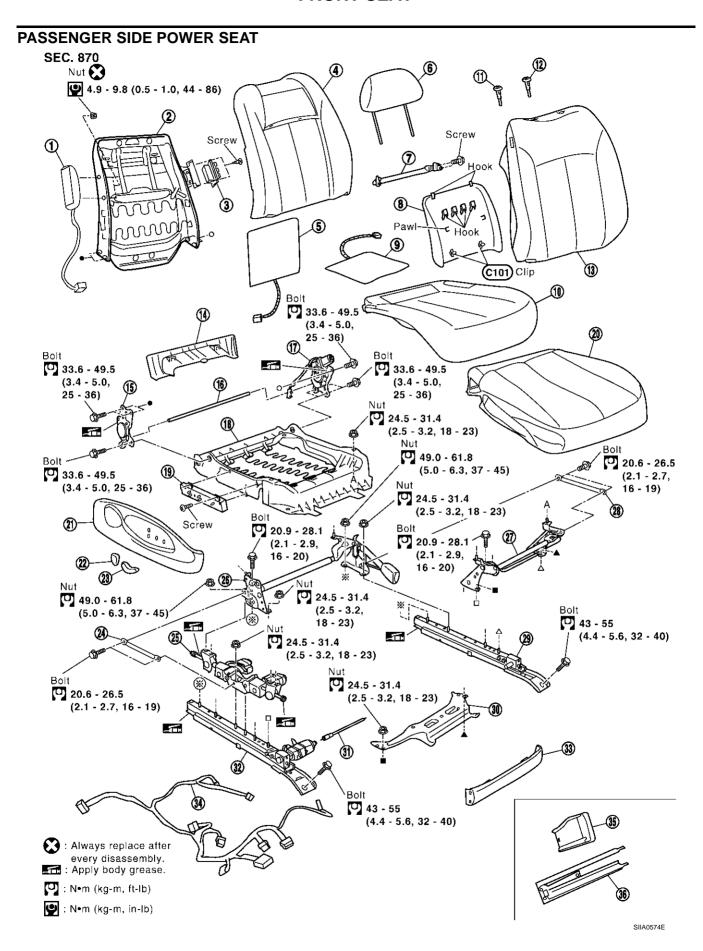
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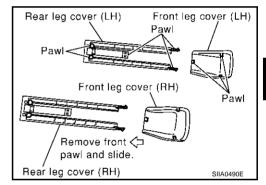
| 1. | Side air bag module | 2. | Seatback frame | 3. | Power seat switch (seatback) | |
|--------------|----------------------------------|-----|---------------------------------|-----|----------------------------------|---|
| 4. | Seatback pad | 5. | Seatback heater unit | 6. | Headrest | 1 |
| 7. | Seatback grip belt | 8. | Seatback board | 9. | Seat cushion heater unit | |
| 10. | Seat cushion pad | 11. | Headrest holder (free) | 12. | Headrest holder (locked) | |
| 13. | Seatback trim | 14. | Seat cushion rear finisher | 15. | Reclining device (RH) | |
| 16. | Reclining device rod | 17. | Reclining device (LH) | 18. | Seat cushion frame | |
| 19. | Power seat switch (seat cushion) | 20. | Seat cushion trim | 21. | Seat cushion outer finisher | |
| 22. | Reclining switch knob | 23. | Slide & lifter switch knob | 24. | Seat cushion rod (RH) | (|
| 25. | Lifter motor assembly | 26. | Seat lifter link bracket (rear) | 27. | Seat lifter link bracket (front) | |
| 28. | Seat cushion rod (LH) | 29. | Inner sliding assembly | 30. | Seat control unit bracket | |
| 31. | Flexible wire | 32. | Outer sliding assembly | 33. | Seat cushion front finisher | |
| 34. | Power seat harness | 35. | Front leg cover (LH/RH) | 36. | Rear leg cover (LH/RH) | |
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REMOVAL

When removing or installing the seat trim, carefully handle it to keep dirt out and avoid damage.

CAUTION:

- Before removing the front seat, turn the ignition switch off, disconnect both battery cables and wait and least 3 minutes.
- When checking the power seat circuit for continuity using a circuit tester, do not confuse its connector with the side air bag module connector. Such an error may cause the air bag to deploy.
- Do not drop, tilt, or bump the side air bag module installing in the seat. Always handle it with care.
- 1. Remove the front leg cover and rear leg cover. (LH/RH)



NOTE:

- 1. Slide the seat backward, and disconnect the front tabs on the front leg cover. Then move the cover toward the rear of the vehicle, and pull up to remove.
- 2. Slide the seat forward, then disengage the tabs on the front LH/RH of the rear leg cover and tabs engaged into the rail. Then pull the cover toward the rear of the vehicle.
- 2. Slide the seat until the body mounting bolts are visible and a tool can be inserted.

NOTE:

When disassembling the driver seat after removal, set the front/rear cushion lifter to the top position.

- 3. Disconnect both battery cables.
- 4. Remove the harness connector for the side air bag module.
- Remove the body mounting bolts and seat belt anchor bolt.
 To remove the seat belt anchor bolt, refer to <u>SB-3</u>, "Removal and Installation of Front Seat Belt".
- 6. Remove the power seat harness connector and vehicle harness fixing clip out of the vehicle.

NOTE:

When removing and installing, using shop clothes, protect the parts from damage where it may interfere with others.

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INSTALLATION

Install in the reverse order of removal.

NOTE:

Be sure to insert the rear end tab of the rear leg cover under the rail.

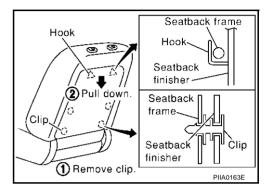
Disassembly and Assembly SEATBACK TRIM AND PAD

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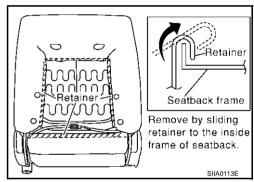
NOTE:

Be sure to set the front/rear cushion lifter to the top position.

1. Remove the seatback board from the back of the seatback.



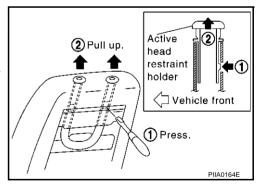
Remove the retainer.



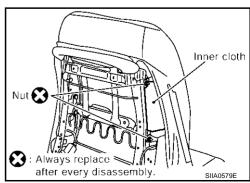
3. From the back of the seatback, press the headrest holder tab of the stay pipe hole to disengage. Then pull the headrest holder up to remove.

NOTE:

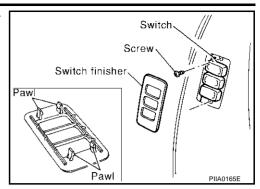
Before installing the headrest holder, check its orientation (front/rear and left/right).



4. Remove the stay securing the inner cloth.



Remove the switch finisher at the side of the seatback. (passenger side seat only)



6. Remove the seat heater harness connector. After removing the seatback trim and pad, remove the hog ring to separate the trim, pad, and seatback heater unit.

REMOVAL OF SEATBACK ASSEMBLY

- 1. After completing the steps 1 and 2 of "SEATBACK TRIM AND PAD", remove the harness connectors for the reclining motor and lumbar support motor (driver seat only).
- 2. Pull out the harness connector for the side air bag from the seat cushion.
- 3. Remove the reclining device mounting bolts on the seatback frame, and remove the seatback assembly. **NOTE:**

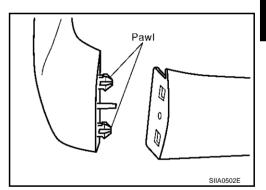
When assembling the seatback frame, make sure that the reclining device are locked on both sides, and be sure to temporarily tighten the bolts, then tighten them finally.

INSTALLATION OF SEATBACK ASSEMBLY

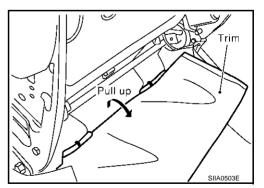
Install in the reverse order of removal.

SEAT CUSHION TRIM AND PAD

- 1. Remove the front seat cushion finisher (front and rear).
- 2. Remove the power seat switch knob.
- 3. Remove the front seat cushion finisher (outer).



- 4. Remove the power seat switch assembly.
- 5. Partially pull off the trim at the rear of the seat cushion forward, and remove the hog rings on the seat cushion pad.



- 6. Remove the retainer on the seat cushion frame, then remove the harness connector for the seat heater.
- 7. After removing the seat cushion trim and pad, remove the hog rings to separate the trim and pad and the seat cushion heater unit.

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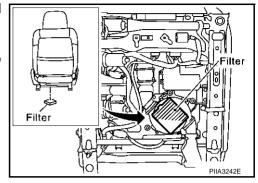
CLIMATE CONTROLLED SEAT

Blower Filter Replacement

Put your hand behind front seat cushion, pull filter downward and remove it. Replace filter with a new one.

NOTE:

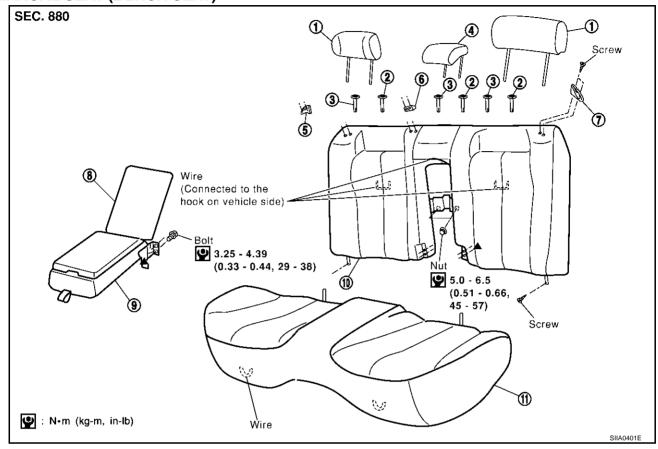
- When replacing, be sure to set the front/rear driver seat lifter to the top position.
- When installing, do not confuse up-down direction of the filter.



REAR SEAT PFP:88300

Removal and Installation MANUAL SEAT (BENCH SEAT)

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- 1. Headrest (RH/LH)
- 4. Headrest (center)
- 7. Seat belt guide (LH)
- 10. Rear seatback trim and pad
- 2. Headrest holder (locked)
- 5. Seat belt guide (RH)
- 8. Rear seatback board
- 11. Rear seat cushion trim and pad
- B. Headrest holder (free)
- 6. Seat belt guide (center)
- 9. Rear seat armrest

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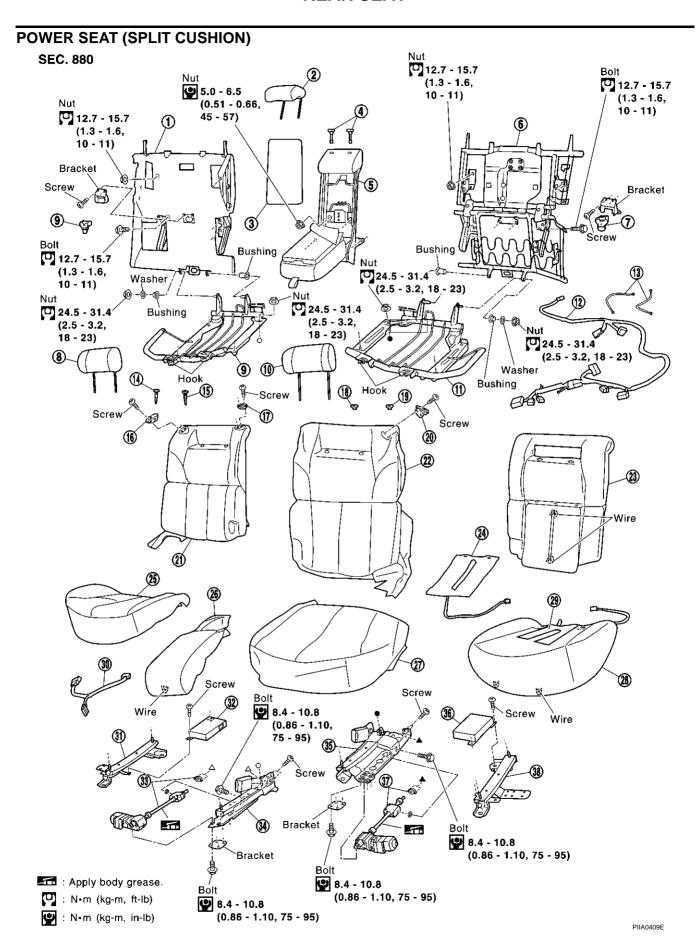
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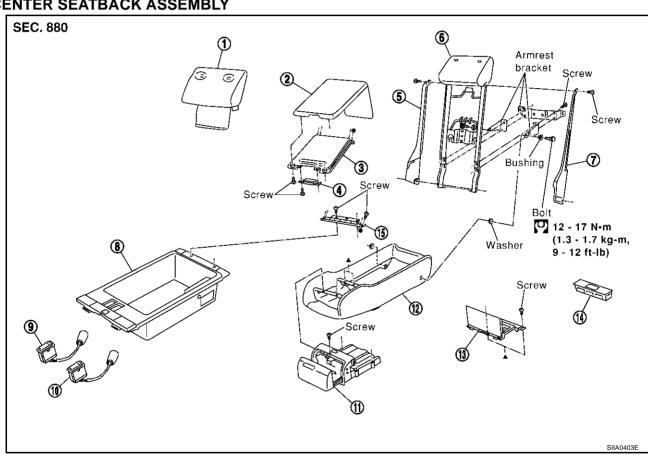
REAR SEAT

- 1. Rear seatback frame (RH)
- 4. Headrest holder
- Rear seat hook 7.
- 10. Headrest (LH)
- 13. Ground harness
- Seat belt guide (RH)
- Headrest holder (power LH)
- Seatback trim (LH) 22.
- 25. Seat cushion trim and pad (RH)
- 28. Seat cushion pad (LH)
- 31. Rear seat slide, outer (RH)
- Rear seat slide, inner (RH)
- 37. Sliding motor unit (LH)

- Headrest (center) 2.
- 5. Rear center seatback assembly
- 8. Headrest (RH)
- Rear seat cushion frame (LH) 11.
- Headrest holder (free) 14.
- 17. Seat belt guide (center)
- 20. Seat belt guide (LH)
- Seatback pad (LH) 23.
- 26. Seat cushion trim and pad (center)
- 29. Seat cushion heater unit
- 32. Power seat control unit (RH)
- 35. Rear seat slide, inner (LH)
- Rear seat slide, outer (LH) 38.

- 3. Rear seatback board
- 6. Rear seatback frame (LH)
- Rear seat cushion frame (RH) 9.
- Rear power seat harness A 12.
- Headrest holder (locked) 15.
- 18. Headrest holder (power RH)
- 21. Seatback trim and pad (RH)
- Seatback heater unit 24.
- 27. Seat cushion trim (LH)
- 30. Rear power seat harness B
- 33. Sliding motor unit (RH)
- 36. Seat control unit (LH)

CENTER SEATBACK ASSEMBLY



- Rear seatback trim (center) 1.
- 4. Armrest lid lock
- 7. Seatback side screen (LH)
- 10. Seat switch
- 13. Switch lid

- Armrest lid assembly 2.
- 5. Seatback side screen (RH)
- 8. Armrest tray box
- 11. Cup holder
- Rear control switch assembly
- Armrest lid finisher 3.
- 6. Rear seat center back frame and pad
- 9. TV and sunshade switch
- 12. Armrest frame and pad
- 15. Lid hinge

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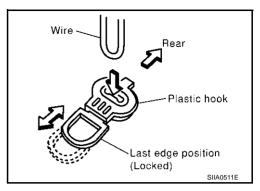
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REMOVAL OF MANUAL SEAT (BENCH SEAT)

1. Pull the lock at the front bottom of the seat cushion forward and pull the seat cushion upward to release the wire from the plastic hook, then pull the seat cushion forward to remove.



- 2. Partially remove the seatback board to disconnect the harness connector and remove the nuts on the sunshade switch.
- 3. Remove the RH and LH screws on the seatback.
- 4. Slide the seatback upward to pull off the wire from the vehicle-side hook, and remove the seatback.
- 5. After removing, remove the hog ring to separate the trim and pad.

INSTALLATION OF MANUAL SEAT (BENCH SEAT)

Install in the reverse order of removal.

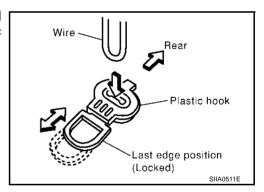
REMOVAL OF POWER SEAT (SPLIT SEAT)

NOTE:

Remove the LH and RH seat before removing the center seat.

Center Seat

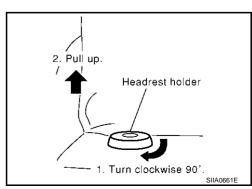
1. Pull the lock at the front bottom of the seat cushion forward, and pull the seat cushion upward to release the wire from the plastic hook.



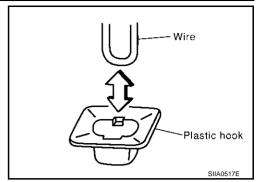
- 2. Remove the Velcro fastener at the rear of the seat cushion trim, and pull the seat cushion trim forward to remove.
- 3. Partially remove the seatback board to disconnect the harness connectors for rear control switch and rear seat control unit.
- 4. Remove the nuts and slide the center seatback assembly upward to remove.
- 5. After removing, remove the hog ring to separate the trim and pad.

RH/LH Seat

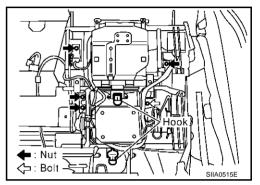
- 1. Remove the headrest holders at the right and left.
 - For the RH seat, remove the headrest, and turn the headrest holder toward the front of the vehicle by 90° to remove.
 - For the LH seat, move the headrest to the lower limit to remove it. Then insert a slotted screwdriver into the hole on the headrest holder to pull up. Release the tab on the headrest holder to remove the headrest holder.



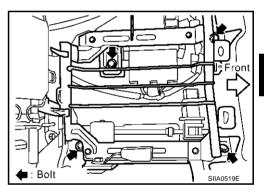
Raise the bottom of the seat cushion to release the wire from the plastic hook then pull the seat cushion forward to remove. (For the LH seat, disconnect the harness connector for the seat heater).



- Access the hooks from between the seatback pad and rear seatback frame, and pull them downward to remove the wire. Then, slide the seatback upward to remove.
- 4. Remove nuts and bolts to remove the power unit frame assembly.



5. Remove the mounting bolts and disconnect the vehicle-side harness connector on the seat cushion frame.



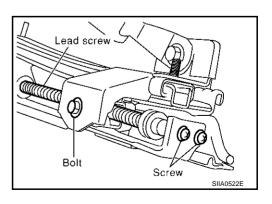
6. After removing, remove the hog ring to separate the trim and pad, and rear seat heater unit (only LH-side).

INSTALLATION OF POWER SEAT (SPLIT SEAT)

Install in the reverse order of removal.

Disassembly and Assembly SLIDING MOTOR & UNIT

1. Remove mounting bolts and screws on the lead screw unit.



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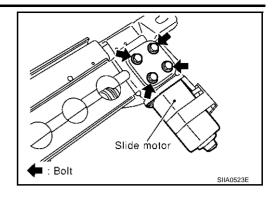
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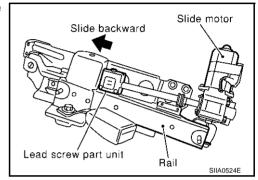
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Remove the sliding motor mounting bolt.



- 3. Slide the unit mounting bracket backward (on seat belt buckle side) to make space to take the unit out.
- 4. Pull the sliding motor and unit out of the unit mounting bracket.

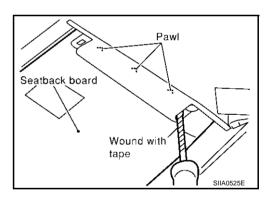


NOTE:

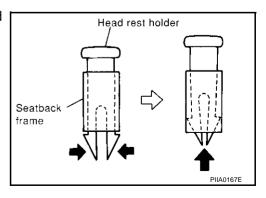
When installing the sliding rail to the seat cushion frame, slide the outer rail until it aligns to the inner rail, then install it.

CENTER SEATBACK ASSEMBLY

1. Remove the seatback board.



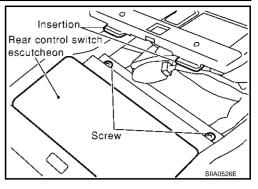
- 2. Remove the seatback side screen at the right and left.
- 3. Remove the armrest bracket.
- 4. Remove the hog ring on the rear seatback trim (center) and headrest holder.



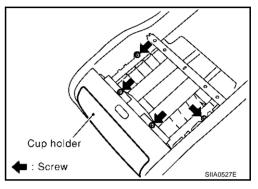
5. Remove the armrest lid hinge and armrest lid lock.

REAR SEAT

- 6. Release the tabs on the armrest box, and disconnect the connectors for various switches.
- 7. Release the tab for each switch from the armrest box to separate.
- 8. Disconnect the connector for the rear control switch to remove the switch lid and rear control switch.



9. Remove the cup holder assembly.



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REAR SEAT