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PRECAUTIONS

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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.

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 Work

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a cloth or vinyl tape to protect it.
- Protect the removed parts with a 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.

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PREPARATION

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 | SIIA0993E | Locating the noise | | | |
| (J43980) NISSAN Squeak and Rattle Kit | SIIA0994E | Repairing the cause of noise | | | |
| Commercial Service T | Commercial Service Tools | | | | |
| Tool name | | Description | | | |
| Engine ear | SIIA0995E | Locating the noise | | | |

SQUEAK AND RATTLE TROUBLE DIAGNOSES PFP:00000 А **Work Flow** 41500082 Customer Interview Duplicate the Noise and Test Drive. Check Related Service Bulletins. Locate the Noise and Identify the Root Cause. Repair the Cause. NG Confirm Repair. E OK Inspection End SBT842

CUSTOMER INTERVIEW

Interview the customer if possible, to determine the conditions that exist when the noise occurs. Use the Diagnostic Worksheet during the interview to document the facts and conditions when the noise occurs and any customer's comments; refer to <u>SE-9</u>, "<u>Diagnostic Worksheet</u>". This information is necessary to duplicate the conditions that exist when the noise occurs.

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

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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-7, "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 \times 135 mm (3.94 \times 5.31 in)/76884-71L01: 60 \times 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 \times 50 mm (1.97 \times 1.97 in)/73982-50Y00: 10 mm (0.39 in) thick, 50 \times 50 mm (1.97 \times 1.97 in)

| INSULATOR (Light foam block) 80845-71L00: 30 mm (1.18 \times 1.97 in) FELT CLOTHTAPE | А |
|--|-----|
| Used to insulate where movement does not occur. Ideal for instrument panel applications. 68370-4B000: 15×25 mm (0.59 \times 0.98 in) pad/68239-13E00: 5 mm (0.20 in) wide tape roll The following materials, not found in the kit, can also be used to repair squeaks and rattles. UHMW (TEFLON) TAPE | В |
| Insulates where slight movement is present. Ideal for instrument panel applications. SILICONE GREASE | С |
| Used in place of UHMW tape that will be visible or not fit. Note: Will only last a few months. | 0 |
| SILICONE SPRAY Use when grease cannot be applied. | D |
| DUCT TAPE Use to eliminate movement. | |
| CONFIRM THE REPAIR | Е |
| 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. | F |
| Generic Squeak and Rattle Troubleshooting | |
| Refer to Table of Contents for specific component removal and installation information. | G |
| INSTRUMENT PANEL | 0 |
| Most incidents are caused by contact and movement between: 1. The cluster lid A and instrument panel | Н |
| Acrylic lens and combination meter housing | П |
| 3. Instrument panel to front pillar garnish | |
| 4. Instrument panel to windshield | SE |
| 5. Instrument panel mounting pins | |
| Wiring harnesses behind the combination meter A/C defroster duct and duct joint | J |
| 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. | K |
| 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. | L |
| CENTER CONSOLE | Μ |
| Components to pay attention to include: | IVI |

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

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

DOORS

Pay attention to the:

- 1. Finisher and inner panel making a slapping noise
- 2. Inside handle escutcheon to door finisher
- 3. Wiring harnesses tapping
- 4. Door striker out of alignment causing a popping noise on 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 (J43980) to repair the noise.

TRUNK

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

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

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

SUNROOF/HEADLINING

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

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

Again, pressing on the components to stop the noise while duplicating the conditions can isolate most of these incidents. Repairs usually consist 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
- 3. The rear seatback lock and bracket

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

UNDERHOOD

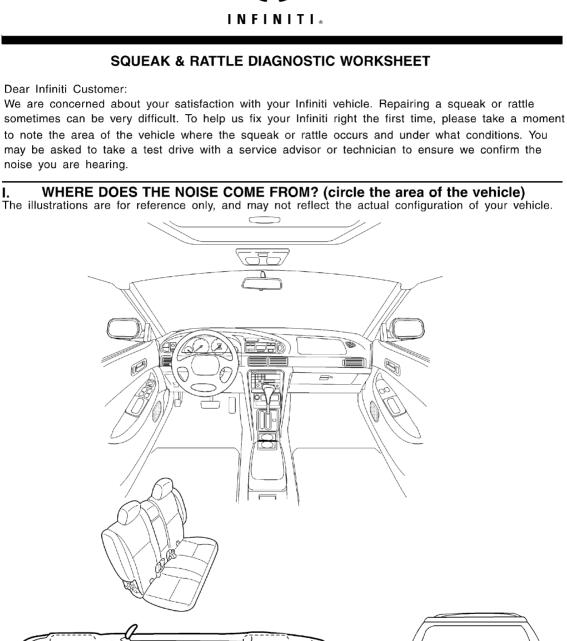
Some interior noise may be caused by components under the hood or on the engine wall. The noise is then transmitted into the passenger compartment.

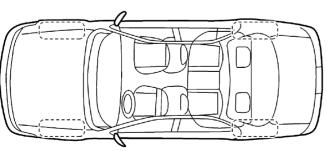
Causes of transmitted underhood noise include:

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

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

Diagnostic Worksheet







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 occurs: | | | | | |
|--|--|--|--|--|--|
| | | | | | |
| k the boxes that apply) | | | | | |
| after sitting out in the sun when it is raining or wet dry or dusty conditions other: | | | | | |
| IV. WHAT TYPE OF 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 DEALERSHIP PERSONNEL Test Drive Notes:

| | | <u>YES</u> | <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 confirm repair | | | | |
| VIN: | Customer Name: _ | | | |
| W.O. #: | Date: | _ | | |
| | | | | |

This form must be attached to Work Order

SBT844

AUTOMATIC DRIVE POSITIONER

System Description

- The system automatically moves the driver seat to facilitate entry/exit to/from the vehicle. The automatic drive positioner control unit can also store the optimum driving positions (driver seat) for 2 people. If the driver is changes, one-touch operation allows changing to the other driving position.
- Using CONSULT-II, the seat slide amount at entry/exit setting can be changed.

MANUAL OPERATION

The driving position [seat position, steering wheel position (tilt, telescopic)] can be adjusted with the power seat switch or ADP steering switch.

NOTE:

The seat can be manually operated with the ignition switch OFF.

AUTOMATIC OPERATION

| | | | E |
|-------------------------------------|-------------------|---|---|
| Function Memory switch operation | | Description | |
| | | The seat, steering move to the stored driving position by pushing memory switch (1 or 2). | |
| | Exiting operation | At exit, the seat moves backward and steering wheel moves forward/upward. | |
| Entry/Exiting function | Entry operation | At entry, the seat and steering wheel returns from the exiting position to the previous driving position. | G |
| Keyfob interlock operation | | Perform memory operation and exiting operation by pressing keyfob unlock button. | |

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 operation becomes possible.
- After exiting operation is carried out, entry operation can be operated.

| Auto operation temporary stop conditions. | When ignition switch turned to START during memory switch operation and return opera- tion, memory switch operation and entry operation is stopped. |
|---|--|
| | • When the vehicle speed becomes 7 km/h (4 MPH) or higher. |
| | • When the setting switch, memory switch 1, or 2 are pressed. |
| | • When A/T selector lever is in any position other than P. |
| | When power seat switch turned ON. |
| Auto operation stop conditions. | • When ADP steering switch turned ON (telescopic operation or tilt operation). |
| | • When driver seat sliding Entry/Exiting setting is OFF (only entry/exiting operation). |
| | When steering wheel tilt and telescopic Entry/Exiting setting is OFF (only entry/exiting operation). |
| | When the tilt and telescopic sensor malfunction is detected. |

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.

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MEMORY STORING AND KEYFOB INTERLOCK STORING

- Store the 2 driving positions and shifts to the stored driving position with the memory switch.
- Keyfob interlock function is set simultaneously with setting driving position memory. It can set driving position to memory position.

| Adjust the position of driver's seat an | d steering wheel (tilt, telescopic) with manual operations. | | |
|--|--|--|--|
| | | | |
| | ↓ | | |
| Ignition switch is turned ON. A/T selector lever is shifted to P-positive | sition. | | |
| | • | | |
| | Indicator LEDs | | |
| Touch set switch. | (1) Indicator LED for which driver's seat positions are already retained in memory illuminates for 5 seconds. | | |
| | (2) Indicator LED for which driver's seat positions are not entered in memory illuminates for 0.5 seconds. | | |
| | Within 5 seconds. | | |
| Proce moment switch for which driv | Indicator LEDs | | |
| Press memory switch for which driv- er's seat positions are to be entered in memory for more than 0.5 sec- | (1) To modify driver's seat positions, press memory switch. Indicator LED will then go out for 0.5 seconds and then illuminate for 5 seconds. | | |
| onds. (2 driver's seat positions can be memorized.) | (2) To enter driver's seat positions in blank memory, indicator LED illuminates for 5 seconds after memory switch is pressed. | | |
| | | | |
| | Is the setting of keyfob interlock needed? | | |
| | YES NO | | |
| | END OF SETTING | | |
| Press keyfob unlock button within | Indicator LEDs | | |
| 5 seconds after pressing memory switch (while memory switch indicator turns on). | If it completes normally, indicator of registered memory switch turns on for 5 seconds. | | |
| | | | |
| | END OF SETTING | | |

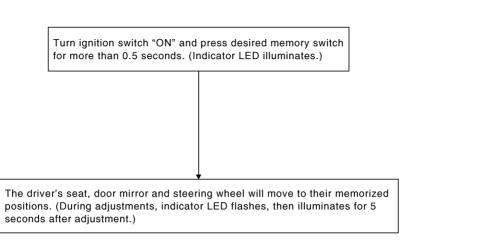
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NOTE:

- If another keyfob interlock function setting is performed by same key, newly registered setting is valid.
- If new memory string is performed to memory switch that already set keyfob interlock function, keyfob interlock function setting is reset.
- If key does not set previously, keyfob interlock function cannot set.

MEMORY SWITCH OPERATION

Selecting the memory



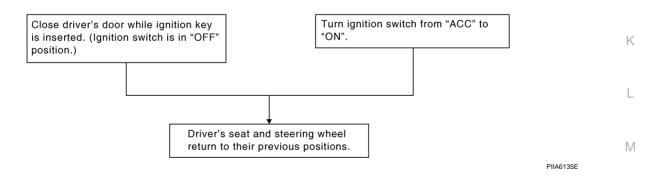
NOTE:

The driver's seat position and steering adjustment functions (see the following table) operate simultaneously in G the order of priority.

| Priority | Function | Priority | Function | |
|----------|----------------------------|----------|----------------|----|
| 1 | Seat sliding | 4 | Seat reclining | Н |
| 2 | Steering wheel telescoping | 5 | Seat lifter-FR | |
| 3 | Steering wheel tilt | 6 | Seat lifter-RR | SE |

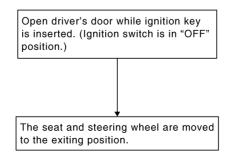
ENTRY OPERATION

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



EXITING OPERATION

At exit, the seat are automatically moved to the exiting position.



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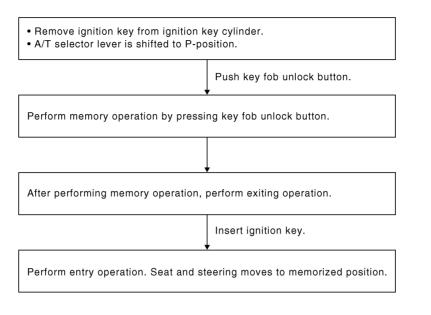
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KEYFOB INTERLOCK OPERATION

• Perform memory operation, exiting operation and entry operation by pressing keyfob unlock button.



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NOTE:

- If steering wheel operation is cancelled, the system performs seat and mirror operation only.
- If Entry/Exiting operation is cancelled, the system performs steering wheel operation and mirror operation only.
- If ignition switch turns ON in the middle of memory operation, the system does not perform exiting operation after memory operation.
- If ignition switch turns ON in the middle of exiting operation, entry operation starts at that time.

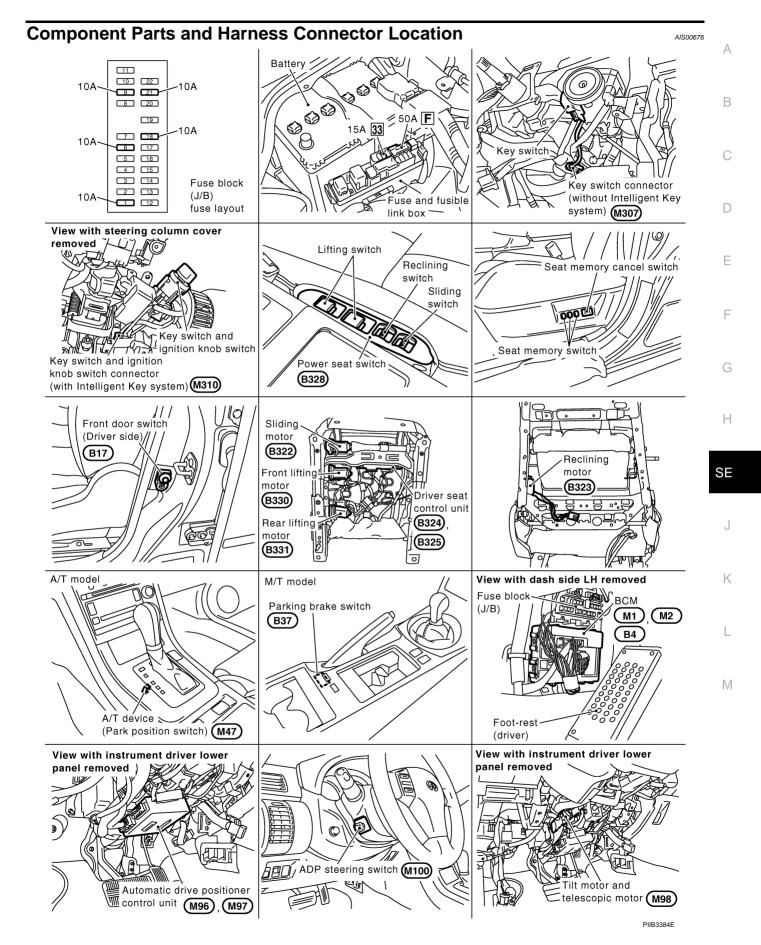
FAIL- SAFE MODE

When any manual and automatic operations are not performed, if any motor operations of seats or tilt of steering are detected for approx. 0.1 sec or more, status is judged "Output malfunction". Motor operation will be suspended automatically, and all automatic operations will be ineffective (in this case, the motor will not operate manually).

| | Seat sliding |
|------------------|----------------------|
| | Seat reclining |
| OPERATED PORTION | Seat lifting (Front) |
| OFERALD FORTION | Seat lifting (Rear) |
| | Steering tilt |
| | Steering telescopic |

CANCEL OF FAIL-SAFE MODE

• The mode is cancelled when the selector lever is shifted to P position from any other position.



Edition; 2004 September

CAN Communication System Description

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

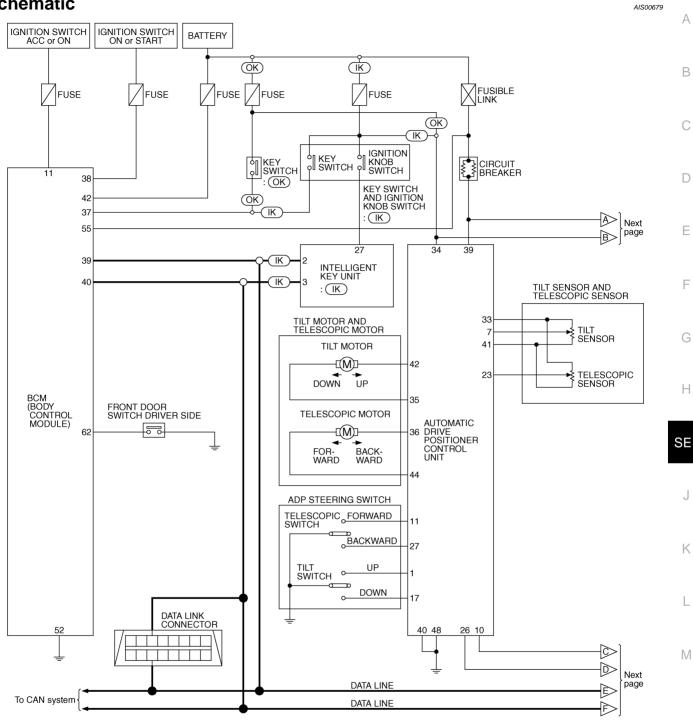
CAN Communication Unit

Refer to LAN-21, "CAN Communication Unit" .

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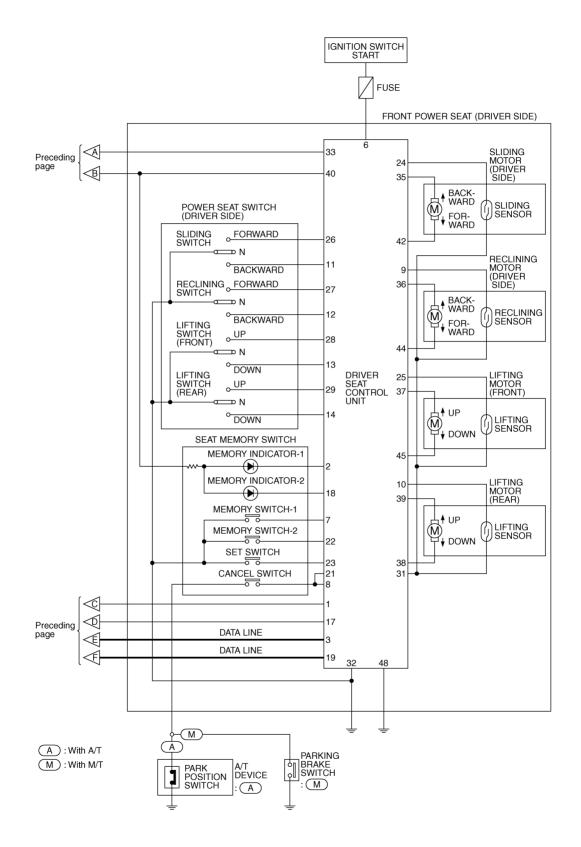
AIS00678



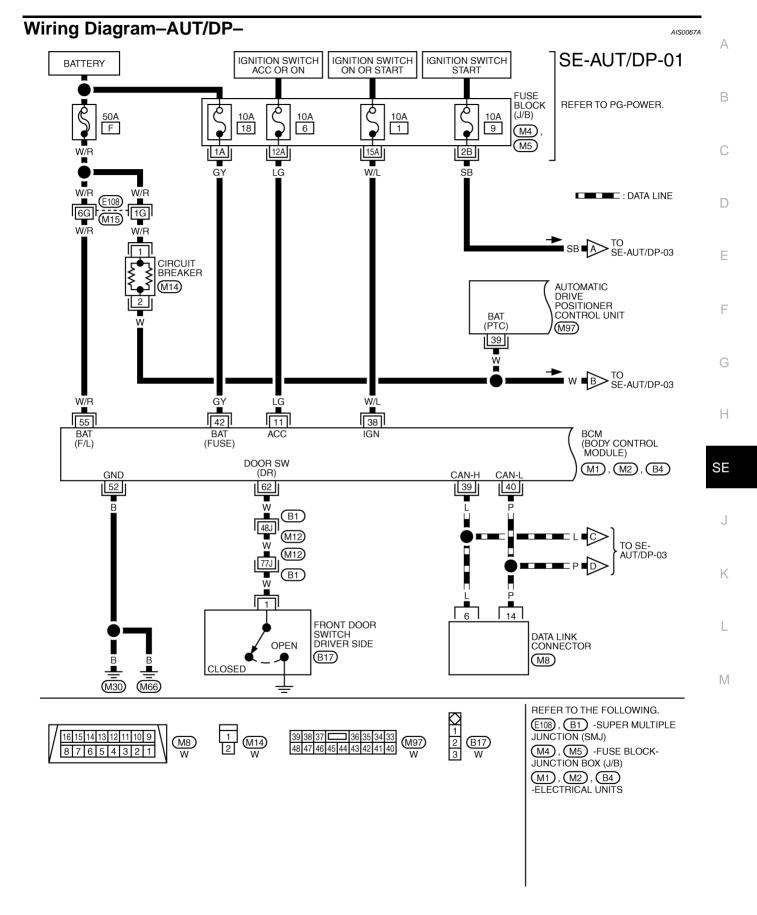


(IK) : With Intelligent Key OK : Without Intelligent Key

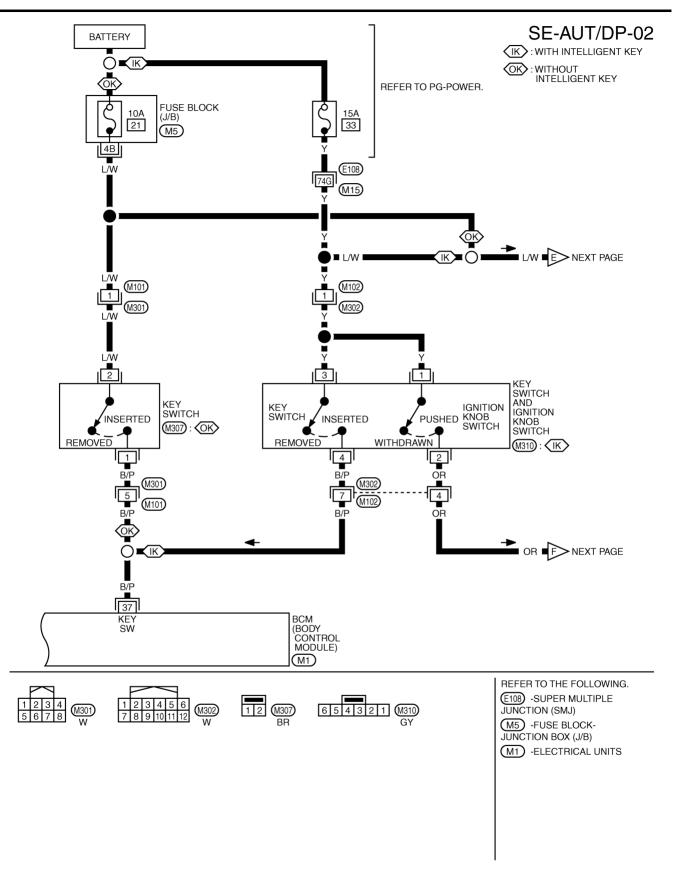
TIWM1092E



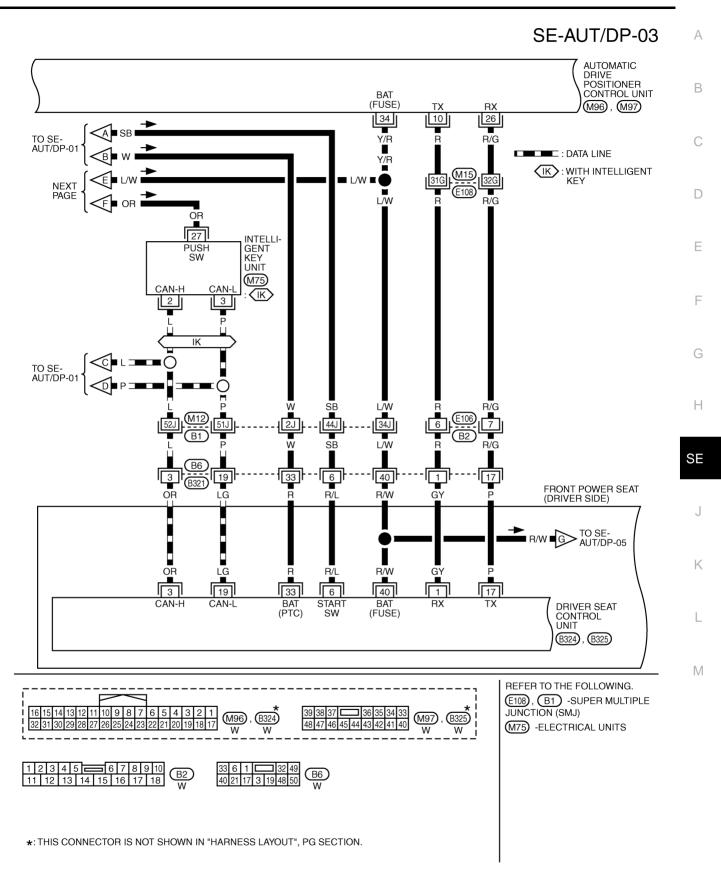
TIWM1093E



TIWM1094E



TIWM1095E

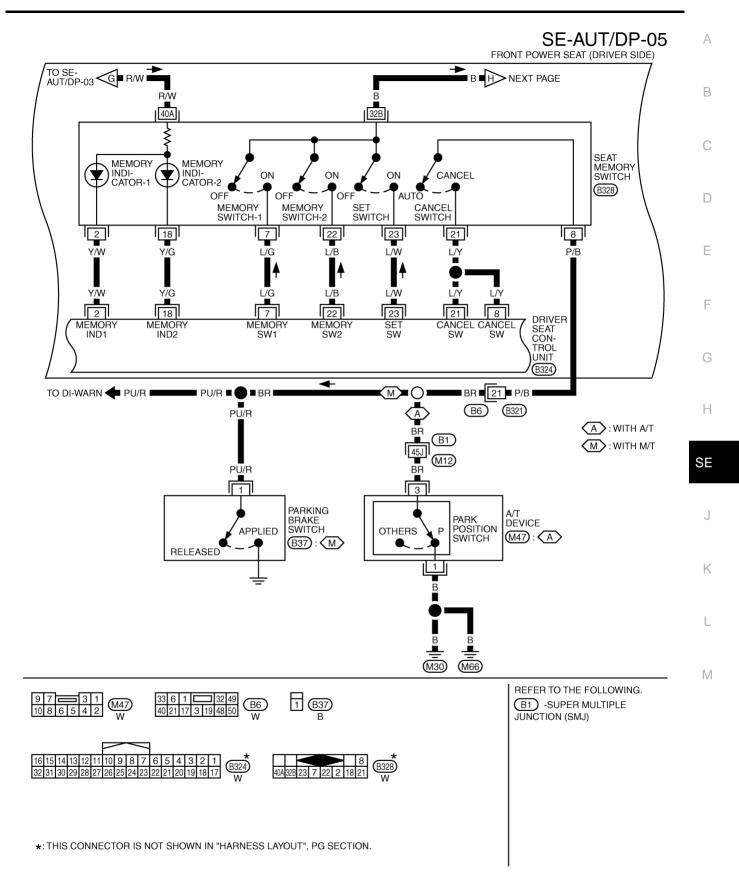


TIWM1096E

TELESCOPIC TELESCOPIC MOTOR TILT MOTOR TILT SENSOR TILT MOTOR TILT SENSOR SENSOR AND TELESCOPIC MOTOR AND DOWN BACKWARD FORWARD TELESCOPIC SENSOR UP \sim (M) (M99) M ጉ (M98) Ľ 2 3 2 4 4 1 ιL μ G/W OR/L W/IR/Y G/Y R G OR/L G/W W/L R/Y G/Y R G 23 33 35 41 42 44 36 TILT GND SENSOR (SENSOR) TILT MOTOR (UPWARD) POWER SUPPLY TELESCOPIC TILT TELESCOPIC TELESCOPIC MOTOR MOTOR AUTOMATIC SENSOR MOTOR DRIVE POSITIONER CONTROL UNIT (SENSOR) (DOWNWARD) (FORWARD) (BACKWARD) TELESCOPIC TELESCOPIC SW SW (FRONT- (BACK-WARD) WARD) TILT SW TILT SW (UP-WARD) (DOWN-WARD) M96 , M97 GND GND (POWER) (SIGNAL) 48 40 27 17 11 LG/B Y/G P/L G/W В В 3 2 5 4 Ν ADP STEERING SWITCH FORWARD UP DOWN BACKWARD TELESCOPIC SWITCH TILT (M100) SWITCH 1 I В B В (M30) M66 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 39 38 37 36 35 34 33 M96 (M97) 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 48 47 46 45 44 43 42 41 40 Ŵ W E 4321 M98 4321 (M99) 25143 M100 ١٨/ GY

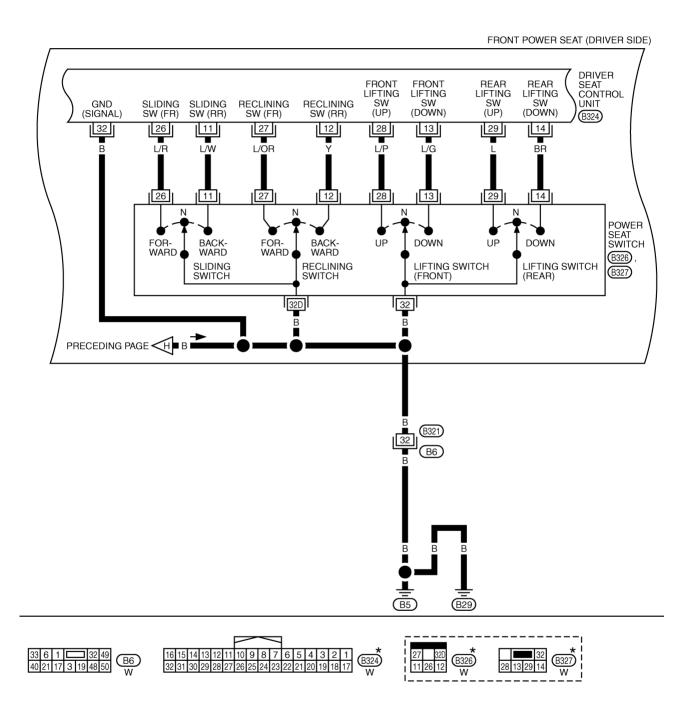
SE-AUT/DP-04

TIWM1097E



TIWM1098E

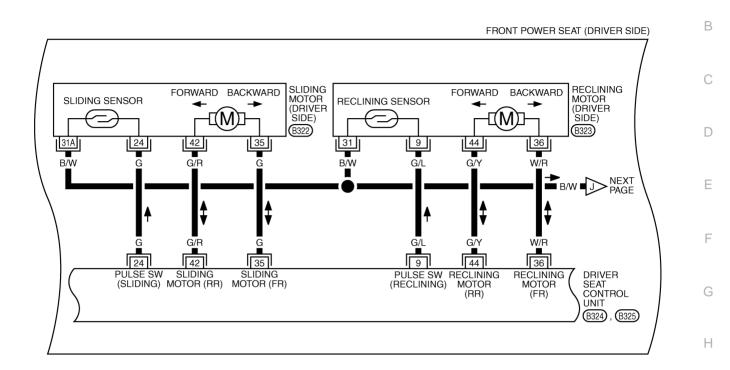
SE-AUT/DP-06



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

TIWM1099E

SE-AUT/DP-07



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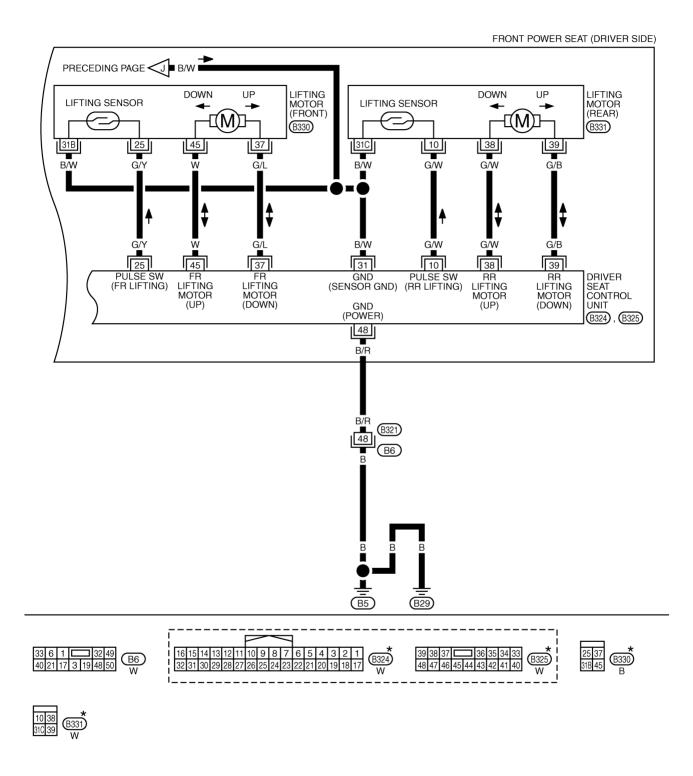
J

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

TIWM1101E



SE-AUT/DP-08



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

TIWM1102E

Terminals and Reference Values for BCM

| ermina | erminals and Reference Values for BCM | | | | | |
|----------|---------------------------------------|---------------------------------|--|---------------------------------|--|--|
| TERMINAL | WIRE COLOR | ITEM | CONDITION | VOLTAGE (V) (Approx.) | | |
| 11 | LG | Ignition switch (ACC) | Ignition switch (ACC or ON position) | Battery voltage | | |
| 07 D/D | | | Key switch ON (key is inserted in ignition key cylinder) | Battery voltage | | |
| 57 | 37 B/P H | Key switch signal | Key switch OFF (key is removed from ignition key cylinder) | 0 | | |
| 38 | W/L | Ignition switch (ON) | Ignition switch (ON or START position) Battery voltage | | | |
| 39 | L | CAN-H | — | _ | | |
| 40 | Р | CAN-L | _ | — | | |
| 42 | GY | Power source (Fuse) | — | Battery voltage | | |
| 52 | В | Ground | _ | 0 | | |
| 55 | W/R | Power supply (Fusible link) | _ | Battery voltage | | |
| 62 | W | Front door switch (driver side) | $ON (Open) \rightarrow OFF (Closed)$ | $0 \rightarrow Battery voltage$ | | |

Terminals and Reference Values for Automatic Drive Positioner Control Unit

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| TERMI- NAL | WIRE COLOR | ITEM | CONDITION | VOLTAGE (V) (Approx.) | Н |
|---------------|---------------|-----------------------------|--------------------------------------|--|-----|
| 4 | N/O | | Tilt switch turned to upward | 0 | |
| 1 | Y/G | Tilt switch UPWARD signal | Other than above | 5 | SE |
| 7 | | Tilt | Tilt position, top | 1 | |
| 7 | OR/L | Tilt sensor signal | Tilt position, bottom | 4 | |
| 10 | R | UART LINE (TX) | Memory switch 1 or 2 operated | (V) 6 4 2 0 1 ms PIIA4813E | _ J |
| | D/I | Telescopic switch | Telescopic switch turned to forward | 0 | _ L |
| 11 | P/L | FORWARD signal | Other than above | 5 | |
| 47 | 10/5 | | Tilt switch turned to downward | 0 | M |
| 17 | LG/B | Tilt switch DOWNWARD signal | Other than above | 5 | |
| 22 | R/Y | | Telescopic position, top | 0.4 | |
| 23 | R/ I | Telescopic sensor input | Telescopic position, bottom | 0.6 | |
| 26 | R/G | UART LINE (RX) | Memory switch 1 or 2 operated | (V) 6 4 2 0 2 ms PIIA4814E | |
| 07 | 0.00 | Telescopic switch | Telescopic switch turned to backward | 0 | _ |
| 27 | G/W | BACKWARD signal | Other than above | 5 | |
| 33 | W/L | Sensor power supply | _ | 5 | _ |
| 34 | Y/R | Power source (Fuse) | _ | Battery voltage | _ |

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| TERMI- NAL | WIRE COLOR | ITEM | CONDITION | VOLTAGE (V) (Approx.) |
|---------------|---------------|----------------------------|--------------------------------------|--------------------------|
| 35 | G/Y | Tilt motor UPWARD signal | Tilt switch turned to upward | Battery voltage |
| 35 | G/T | The motor OF WARD Signal | Other than above | 0 |
| 36 | R | Telescopic motor | Telescopic switch turned to forward | Battery voltage |
| 30 | | FORWARD signal | OFF | 0 |
| 39 | W | Battery power supply | — | Battery voltage |
| 40 | В | Ground (signal) | — | 0 |
| 41 | Y | Sensor ground | — | 0 |
| 42 | G/W | | Tilt switch turned to downward | Battery voltage |
| 42 | G/W | Tilt motor DOWNWARD signal | Other than above | 0 |
| 44 | G | Telescopic motor | Telescopic switch turned to backward | Battery voltage |
| 44 | G | BACKWARD signal | Other than above | 0 |
| 48 | В | Ground (power) | — | 0 |

Terminals and Reference Values for Driver Seat Control Unit

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| TERMI- NAL | WIRE COLOR | ITEM | CONDITION | VOLTAGE (V) (Approx.) |
|---------------|---------------|--------------------------------------|--------------------------------------|---|
| 1 | GY | UART LINE (RX) | Memory switch 1 or 2 switch operated | (V) 6 4 2 0 1 ms PIIA4813E |
| 2 | Y/W | Power seat memory switch | Memory switch 1: ON | 1 |
| 2 | 1/00 | indictor 1 signal | Memory switch 2: OFF | Battery voltage |
| 3 | OR | CAN-H | _ | — |
| 6 | R/L | Ignition switch (START) | Ignition switch (START position) | Battery voltage |
| 7 | L/G | Power seat memory switch 1 signal | Memory switch 1: ON | 0 |
| / | ĽG | | Memory switch 1: OFF | 5 |
| 8 | L/Y | Cancel switch signal | Cancel switch: CANCEL | 0 |
| 0 | L/ 1 | Cancel Switch Signal | Cancel switch: AUTO | 5 |
| 9 | G/L | Reclining sensor signal | ON (reclining motor operation) | (V) 4 2 0 •••50ms SIIA0692J |
| | | | Other than above | 0 or 5 |
| 10 | G/W | Rear lifting sensor signal | ON (rear lifting motor operation) | (V) 6 4 2 0 •••50ms SIIA0693J |
| | | | Other than above | 0 or 5 |

| | WIRE | | | |
|---------------|-----------------|---------------------------------------|--|--|
| TERMI- NAL | COLOR | ITEM | CONDITION | VOLTAGE (V) (Approx.) |
| 11 | L/W | Seat sliding switch | When seat sliding switch BACKWARD operation | 0 |
| | BACKWARD signal | | Other than above | Battery voltage |
| 12 | Y | Seat reclining switch | When seat reclining switch BACKWARD operation | 0 |
| | | BACKWARD signal | Other than above | Battery voltage |
| 13 | L/G | Front lifting switch DOWN signal | When front lifting switch DOWN operation | 0 |
| | | Downsighti | Other than above | Battery voltage |
| 14 | BR | Rear lifting switch DOWN signal | When rear lifting switch DOWN operation | 0 |
| | | Downsignal | Other than above | Battery voltage |
| 17 | Ρ | UART LINE (TX) | Memory switch 1 or 2 operated | (V) 6 4 2 0 2 ms PIIA4814E |
| | | Power seat memory switch | Memory switch 2: ON | 1 |
| 18 | Y/G | indictor 2 signal | Memory switch 2: OFF | Battery voltage |
| 19 | LG | CAN-L | _ | _ |
| 21 | L/Y | Canaal awitab aignal | Cancel switch: CANCEL | 0 |
| 21 | L/ f | Cancel switch signal | Cancel switch: AUTO | 5 |
| 22 | L/B | Power seat memory switch | Memory switch 2: ON | 0 |
| 22 | L/D | 2 signal | Memory switch 2: OFF | 5 |
| 23 | L/W | Set switch signal | Set witch: ON | 0 |
| 25 | L/ VV | Set Switch Signal | Set witch: OFF | 5 |
| 24 | G | Seat sliding sensor signal | ON (sliding motor operation) | (V) 6 2 0 50 ms PIIA3277E |
| | | | Other than above | 0 or 5 |
| 25 | G/Y | Front lifting sensor signal | ON (front lifting motor operation) | (V) 6 2 0 •••50ms SIIA0691J |
| | | | Other than above | 0 or 5 |
| | | | When seat sliding switch | |
| 26 | L/R | Seat sliding switch FORWARD signal | FORWARD operation | 0 |

| TERMI- NAL | WIRE COLOR | ITEM | CONDITION | VOLTAGE (V) (Approx.) |
|---------------|---|---|--|--------------------------|
| 27 L/OR | Seat reclining switch FORWARD signal | When seat reclining switch FORWARD operation | 0 | |
| | | FORWARD Signal | Other than above | Battery voltage |
| 28 | L/P | Front lifting switch UP signal | When front lifting switch UP operation | 0 |
| | | | Other than above | Battery voltage |
| 29 | L | Rear lifting switch UP signal | When rear lifting switch UP operation | 0 |
| | | | Other than above | Battery voltage |
| 31 | B/W | Sensor ground | | 0 |
| 32 | В | Ground (signal) | | 0 |
| 33 | R | Power source | | Battery voltage |
| 35 | G | Sliding motor FORWARD signal | When sliding motor FORWARD operation | Battery voltage |
| | | FORWARD Signal | Other than above | 0 |
| 36 | W/R | Reclining motor FORWARD signal | When reclining motor FORWARD operation | Battery voltage |
| | | | Other than above | 0 |
| 37 | G/L | Front lifting motor DOWN signal | When front lifting motor DOWN operation | Battery voltage |
| | | | Other than above | 0 |
| 38 | G/W | Rear lifting motor | When rear lifting motor UP operation | Battery voltage |
| 0 | | UP signal | Other than above | 0 |
| 39 | G/B | Rear lifting motor DOWN signal | When rear lifting motor DOWN operation | Battery voltage |
| | | DOWN Signal | Other than above | 0 |
| 40 | R/W | Power source (Fuse) | | Battery voltage |
| 42 | G/R | Sliding motor | When sliding motor BACKWARD operation | Battery voltage |
| | | BACKWARD signal | Other than above | 0 |
| 44 | G/Y | Reclining motor BACKWARD signal | When reclining motor BACKWARD operation | Battery voltage |
| | | DAONWAND Signal | Other than above | 0 |
| 45 | W | Front lifting motor UP output signal | When front lifting motor UP operation | Battery voltage |
| | | | Other than above | 0 |
| 48 | B/R | Ground (power) | | 0 |

Work Flow

- Check the symptom and customer's requests.
 Understand the system description. Refer to <u>SE-11, "System Description"</u>.
 Perform the preliminary check, refer to <u>SE-31, "Preliminary Check"</u>.
 Perform the CAN communication inspection using CONSULT-II, refer to <u>SE-34, "CONSULT-II Function</u>".
- (AUTO DRIVE POS.)"
 5. Perform the self-diagnosis. Refer to SE-37, "Check Can Communication System Inspection".
- 6. Repair or replace depending on the self-diagnostic results.
- 7. Based on the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to <u>SE-38</u>, <u>"Symptom Chart"</u>.
- Does the automatic drive positioner system operate normally? If it is normal, GO TO 8.
 If it is not normal, GO TO 3.
- 9. INSPECTION END

Preliminary Check SETTING CHANGE FUNCTION

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

| | · | | ×: Applicable -: No | ot applicable | G |
|---|---|------------------------------|--------------------------------|-----------------|----------|
| Setting item | Content | CONSULT-II (WORK SUPPORT) | Display unit | Factory setting | |
| | The distance at retain operation | 40 mm | | × | Н |
| Change seat sliding volume setting | can be selected from the following | 80 mm | — | _ | |
| ootming . | 3 modes. | 150 mm | | _ | <u> </u> |
| Change the Entry/Exit seat | The seat sliding turnout and return | ON | ON: Indicator lamp ON | × | SE |
| slide function setting | at entry/exit can be selected: ON (operated) – OFF (not operated) | OFF | OFF: Indicator lamp OFF | _ | |
| | Lift up and backward steering | ON | ON: Indicator lamp ON | × | J |
| Change the Entry/Exit tilt steering wheel function setting | wheel at entry and exit can be selected: ON (operated) - OFF (not operated) | OFF | OFF: Indicator lamp OFF | _ | K |
| Reset custom settings | All settings to default. | _ | Default: Setting button OFF | _ | 1 4 |

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

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

NOTE:

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

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CHECK POWER SUPPLY AND GROUND

1. CHECK FUSE

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

- Check 50A fusible link (letter F, located in the fuse and fusible link box.)
- Check 10A fuse [No.18, located in the fuse block (J/B)]
- Check 10A fuse [No.1, located in the fuse block (J/B)]
- Check 10A fuse [No.6, located in the fuse block (J/B)]

NOTE:

Refer to SE-15, "Component Parts and Harness Connector Location" .

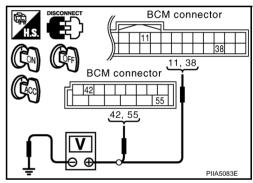
OK or NG

- OK >> GO TO 2.
- NG >> If fuse is blownout, be sure to eliminate cause of malfunction before installing new fuse. Refer to <u>SE-15, "Component Parts and Harness Connector Location"</u>.

2. CHECK POWER SUPPLY CIRCUIT (BCM)

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

| Connector | Terminals (| Wire color) | Ignition | Voltage (V) | |
|-----------|-------------|-------------|----------|-----------------|--|
| Connector | (+) | (-) | switch | (Approx.) | |
| M1 | 11 (LG) | | ACC | Battery voltage | |
| | 38 (W/L) | Ground | ON | | |
| M2 | 42 (GY) | Ground | OFF | | |
| IVIZ | 55 (W/R) | | OFF | | |



OK or NG

OK >> GO TO 3.

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

3. CHECK GROUND CIRCUIT (BCM)

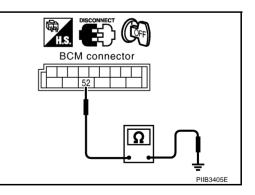
- 1. Turn ignition switch OFF.
- 2. Check continuity between BCM connector M2 terminal 52 and ground.

52 (B) – Ground

: 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 FUSE

| 4. CHECK | FUSE | | | | | А |
|----------------------------|---|---------------|-----------------|---|--|----|
| • Check 10 | A fuse [No.9 | , located in | fuse block (J | /B)]. | | |
| NOTE: Refer to SE-1 | 5, "Compone | ent Parts an | d Harness C | onnector Location" | | В |
| OK or NG | · · · · | | | | | |
| NG >> If | | | | te cause of malfund s Connector Locati | ction before installing new fuse. Refer to ion". | С |
| 5. снески | POWER SUP | | JIT (DRIVER | SEAT CONTROL | UNIT) | D |
| 1. Disconne | ect driver seat | t control uni | t connector. | | | |
| 2. Check vo | oltage betwee | n driver sea | at control unit | and ground. | | Е |
| Connector | Terminals (V | Wire color) | Ignition | Voltage (V) | | |
| Connector | (+) | () | switch | (Approx.) | Driver seat C/U connector | _ |
| B324 | 6 (R/L) | | START | - | | F |
| B325 | 33 (R) 40 (R/W) | Ground | OFF | Battery voltage | | G |
| OK or NG | | | | | | G |
| NG >> F | GO TO 6. Repair or repl Init and fuse t | | ss between c | driver seat control | | Η |
| 6. снеск | GROUND CIF | RCUIT (DR | IVER SEAT (| CONTROL UNIT) | | SE |
| 1. Turn ignit | tion switch OI | FF. | | | | |
| | ontinuity betw 25 terminal 3 | | | trol unit connector | Driver seat C/U connector | J |
| |) – Ground | | ontinuity sh | | Driver seat C/U connector | |
| - | /R) – Ground | I : C | ontinuity sh | ould exist. | | К |
| <u>OK or NG</u> OK >> 0 | GO TO 7. | | | | | |
| NG >> F | | | ss between c | driver seat control | | L |
| 7. снески | POWER SUP | | JIT (AUTOM | ATIC DRIVE POSI | TIONER CONTROL UNIT) | Μ |

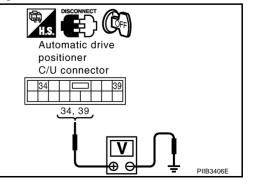
- 1. Disconnect automatic drive positioner control unit connector.
- 2. Check voltage between automatic drive positioner control unit and ground.

| Connector | Terminals (V | Vire color) | Ignition | Voltage (V) (Approx.) |
|-----------|--------------|-------------|----------|--------------------------|
| Connector | (+) | (-) | switch | |
| M97 | 34 (Y/R) | Ground | OFF | Battery voltage |
| IVIST | 39 (W) | Cround | | |

OK or NG

OK >> GO TO 8.

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

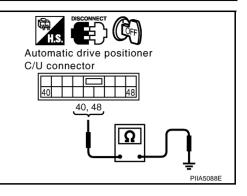


8. CHECK GROUND CIRCUIT (AUTOMATIC DRIVE POSITIONER CONTROL UNIT)

Check continuity between the automatic drive positioner control unit connector M97 terminal 40, 48 and ground.

- 40 (B) Ground
- : Continuity should exist.
- 48 (B) Ground
- : Continuity should exist.

- OK or NG
 - OK >> Driver seat control unit circuit is OK.
 - NG >> Repair or replace harness between automatic drive positioner control unit and ground.



CONSULT-II Function (AUTO DRIVE POS.)

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

| CONSULT-II diagnosis items | Inspection item | , self-diagnosis mode | Content | Reference page |
|----------------------------------|---------------------------|-----------------------|---|-------------------|
| AUTO DRIVE POSITIONER | WORK SUPPORT*1 | | Changes the setting for each function. | _ |
| | SELF-DIG RESULTS | | Check the self-diagnosis results. | <u>SE-35</u> |
| | DATA MONITOR | Selection from menu | Displays the input data to driver seat control unit and automatic driving positioned control unit on real-time basis. | <u>SE-36</u> |
| | CAN DIAG SUPPORT MONITOR | | The results of transmit / receive diagnosis of CAN communication can be read | LAN-15 |
| | ACTIVE TEST ^{*2} | | Gives a drive signal to a load to check the opera- tion. | <u>SE-37</u> |
| | ECU PART NUMBER | | Displays driver seat control unit part No. | _ |
| BCM | DATA MONITOR | Selection from menu | Displays the input data to BCM on real-time basis | <u>BL-37</u> |

*1: For setting automatic drive positioner functions only.

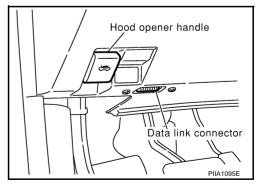
*2: During vehicle driving, do not perform active test.

CONSULT-II INSPECTION PROCEDURE

CAUTION:

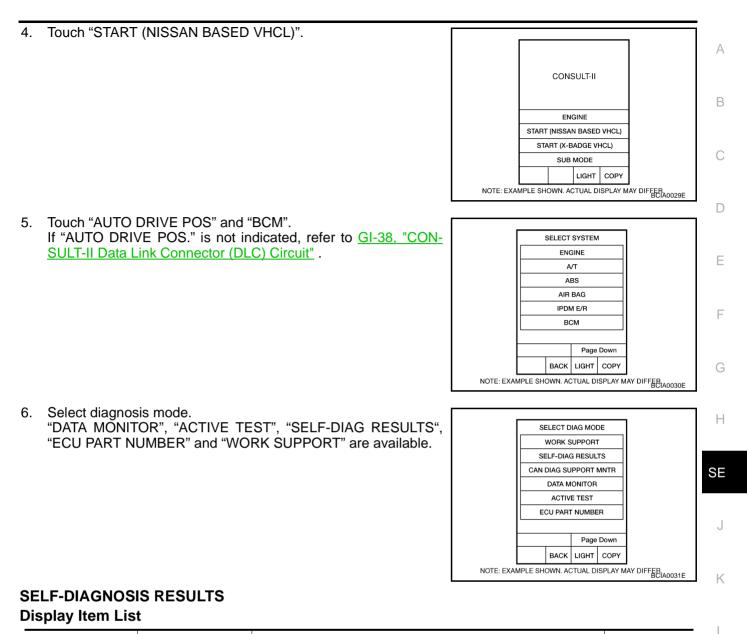
If CONSULT-II is used with no connection of CONSULT-II CONVERTER, malfunctions might be detected in self-diagnosis depending on control unit which carry out CAN communication.

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



3. Turn ignition switch "ON".

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| CONSULT-II display | Item | Malfunction is detected when | Reference page | L |
|---------------------------|-----------------------|---|------------------------------|---|
| CAN COMM CIRC [U1000] | CAN communication | Malfunction is detected in CAN communication. | <u>SE-37</u> | Μ |
| SEAT SLIDE [B2112] | Seat slide motor | When any manual and automatic operations are not performed, if any motor operations of seat slide is detected for 0.1 second or more, status is judged "Output error". | <u>SE-39</u> <u>SE-48</u> | |
| SEAT RECLINING [B2113] | Seat reclining motor | When any manual and automatic operations are not performed, if any motor operations of seat reclining is detected for 0.1 second or more, status is judged "Output error". | <u>SE-40</u> <u>SE-49</u> | |
| SEAT LIFTER FR [B2114] | Seat lifting FR motor | When any manual and automatic operations are not performed, if any motor operations of seat lifting FR is detected for 0.1 second or more, status is judged "Output error". | <u>SE-42</u> <u>SE-50</u> | |
| SEAT LIFTER RR [B2115] | Seat lifting RR motor | When any manual and automatic operations are not performed, if any motor operations of seat lifting RR is detected for 0.1 second or more, status is judged "Output error". | <u>SE-43</u> <u>SE-51</u> | |
| TILT OUTPUT [B2116] | Tilt motor | When any manual and automatic operations are not performed, if any motor operations of seat tilt is detected for 0.1 second or more, status is judged "Output error". | <u>SE-46</u> | |

| CONSULT-II display | ltem | Malfunction is detected when | Reference page |
|--------------------------------|-------------------------|--|-------------------|
| TILT SENSOR [B2118] | Tilt sensor | When tilt sensor detects 0.1V or lower, or 4.9V or higher, for 0.5 seconds or more. | <u>SE-53</u> |
| TELESCO SEN- SOR [B2119] | Telescopic sensor | When telescopic sensor detects 0.1V or lower, or 4.9V or higher, for 0.5 seconds or more. | <u>SE-52</u> |
| DETENT SW [B2126] | Detente SW | With the A/T selector lever in P position (Detente switch OFF), if the vehicle speed of 7 km/h (4 MPH) or higher was input the detente switch input system is judged malfunctioning. | <u>SE-67</u> |
| PARKING BRAKE [B2127] | Parking brake | With parking brake use (Parking brake switch ON), if a vehicle speed of 7km/h (4MPH) or higher is input, the parking brake switch input system is judged malfunctioning. | <u>SE-69</u> |
| UART COMM [B2128] | UART communica- tion | Malfunction is detected in UART communication. | <u>SE-77</u> |

NOTE:

- The displays of CAN communication and P range switch display error detecting condition from memory erase to the present on "TIME".
- If error is detected in the past and present error is detected, "CRNT" is displayed.
- If error is detected in the past and present error is not detected, "PAST" is displayed.
- If error has never been detected, nothing is displayed on "TIME".
- Any items other than CAN communication and P range switch count error detection frequency occurred after erase history to "1-127".
- If error was detected in the past, error detection frequency from memory erase to the present is displayed on "TIME".
- If error has never been detected, nothing is displayed on "TIME".

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

DATA MONITOR Selection from Menu

| 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. |
| RECLN SW-FR | "ON/OFF" | ON/OFF status judged from the reclining switch (FR) signal is displayed. |
| RECLN SW-RR | "ON/OFF" | ON/OFF status judged from the reclining switch (RR) signal is displayed. |
| LIFT FR SW-UP | "ON/OFF" | ON/OFF status judged from the FR 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. |
| 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. |
| SET SW | "ON/OFF" | ON/OFF status judged from the setting switch signal is displayed. |
| MEMORY SW1 | "ON/OFF" | ON/OFF status judged from the seat memory switch 1 signal is displayed. |
| MEMORY SW2 | "ON/OFF" | ON/OFF status judged from the seat memory switch 2 signal is displayed. |
| DETENT SW | "ON/OFF" | The selector lever position "OFF (P position) / ON (other than P position)" judged from the detention switch signal is displayed. |

| Monitor item [OPERA | FION or UNIT] | Contents |
|---------------------|---------------|--|
| STARTER 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. |
| SLIDE PULSE | _ | Value (32768) when battery connects is as standard. If it moves backward, the value increases. If it moves forward, the value decreases. |
| RECLN RULSE | _ | Value (32768) when battery connects is as standard. If it moves backward, the value increases. If it moves forward, the value decreases. |
| LIFT FR PULSE | _ | Value (32768) when battery connects is as standard. If it moves DOWN, the value increases. If it moves UP, the value decreases. |
| LIFT RR PULSE | _ | Value (32768) when battery connects is as standard. If it moves DOWN, the value increases. If it moves UP, the value decreases. |
| 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. |
| PARK BRAKE SW | "ON/OFF" | "ON/OFF" status from the parking brake switch signal is displayed. |

ACTIVE TEST

CAUTION:

During vehicle driving, do not perform active test.

NOTE:

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

Display Item List

| Test item | Description | 11 |
|------------------|--|----|
| TILT MOTOR | The tilt motor is activated by receiving the drive signal. | |
| TELESCO MOTOR | The telescopic motor is activated by receiving the drive signal. | SE |
| SEAT SLIDE | The sliding motor is activated by receiving the drive signal. | |
| SEAT RECLINING | The reclining motor is activated by receiving the drive signal. | |
| SEAT LIFTER FR | The front end lifter motor is activated by receiving the drive signal. | J |
| 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. | K |

Check Can Communication System Inspection

1. CHECK SELF-DIAGNOSTIC RESULT

CAUTION:

If CONSULT-II is used with no connection of CONSULT-II CONVERTER, malfunctions might be detected in self-diagnosis depending on control unit which carry out CAN communication.

With CONSULT-II

- 1. Connect CONSULT-II, and turn ignition switch ON.
- 2. Touch "AUTO DRIVE POS" on "SELECT SYSTEM" screen.
- 3. Touch "SELF-DIAG RESULTS" on "SELECT DIAG MODE" screen.
- 4. Check display content in self-diagnostic results.

Displayed U1000?

Yes >> GO TO LAN-3, "Precautions When Using CONSULT-II" .

No >> Inspection END.

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| Symptom Chart | | | | |
|---|---|-------------------|--|--|
| Symptom | Diagnoses / service procedure | Reference page | | |
| | 1. Sliding motor circuit check | <u>SE-39</u> | | |
| | 2. Reclining motor circuit check | <u>SE-40</u> | | |
| A part of seat system does not operate (both automati- | 3. Front lifter motor circuit check | <u>SE-42</u> | | |
| cally and manually). | 4. Rear lifter motor circuit check | <u>SE-43</u> | | |
| | 5. If the above systems are normal, replace the driver seat control unit. | <u>SE-15</u> | | |
| | 1.Tilt motor circuit check | <u>SE-46</u> | | |
| A part of steering tilt and telescopic does not operate | 2. Telescopic motor circuit check | <u>SE-45</u> | | |
| (both automatically and manually). | 3. If the above systems are normal, replace the automatic drive positioner control unit. | <u>SE-15</u> | | |
| | 1. Sliding sensor circuit check | <u>SE-48</u> | | |
| | 2. Reclining sensor circuit check | <u>SE-49</u> | | |
| A part of seat system does not operate (only automatic | 3. Front lifting sensor circuit check | <u>SE-50</u> | | |
| operation). | 4. Rear lifting sensor circuit check | <u>SE-51</u> | | |
| | 5. If the above systems are normal, replace the driver seat control unit. | <u>SE-15</u> | | |
| | 1. Park position switch (P range switch) circuit check (A/T models) | <u>SE-67</u> | | |
| | 2. Parking brake switch circuit check | <u>SE-69</u> | | |
| | 3. Key switch and ignition knob switch circuit check (with intelligent key) | <u>SE-70</u> | | |
| All the automatic operations do not operate. | 4. Key switch circuit inspection (without intelligent key) | <u>SE-71</u> | | |
| | 5. UART communication line circuit check | <u>SE-77</u> | | |
| | 6. Tilt sensor circuit check | <u>SE-53</u> | | |
| | 7. Telescopic sensor circuit check | <u>SE-52</u> | | |
| | 8. If all the above systems are normal, replace the auto- matic drive positioner control unit. | <u>SE-15</u> | | |
| | 1. Sliding switch circuit check | <u>SE-57</u> | | |
| | 2. Reclining switch circuit check | <u>SE-58</u> | | |
| A part of seat system does not operate (only manual | 3. Front lifting switch circuit check | <u>SE-60</u> | | |
| operation). | 4. Rear lifting switch circuit check | <u>SE-61</u> | | |
| | 5. If the above systems are normal, replace the driver seat control unit. | <u>SE-15</u> | | |
| | 1. Tilt switch check | <u>SE-65</u> | | |
| A part of steering tilt and telescopic do not operate (only | 2. Telescopic switch check | <u>SE-63</u> | | |
| manual operation). | 3. If the above systems are normal, replace the automatic drive positioner control unit. | <u>SE-15</u> | | |
| Only seat memory and set switch operation does not | 1. Seat memory and set switch circuit check | <u>SE-73</u> | | |
| operate. | 2. If the above systems are normal, replace the driver seat control unit. | <u>SE-15</u> | | |
| Only soot momony cancel switch operation does not area | 1. Seat memory cancel switch circuit check | <u>SE-74</u> | | |
| Only seat memory cancel switch operation does not oper- ate. | 2. If the above systems are normal, replace the driver seat control unit. | <u>SE-15</u> | | |
| | 1. Seat memory indicator lamp circuit check | <u>SE-75</u> | | |
| Seat memory indicator lamps 1 and 2 do not illuminate. | 2. If all the above systems are normal, replace the driver seat control unit. | <u>SE-15</u> | | |

| Symptom | Diagnoses / service procedure | Reference page | ŀ |
|--|---|-------------------|---|
| The Entry/Exiting does not operated when door is opened | 1. Front door switch (driver side) circuit check | <u>SE-55</u> | |
| and closed. (The Entry/Exiting operates with key switch) | 2. If all the above systems are normal, replace the BCM | <u>SE-15</u> | E |
| Only steering system does not operated | Tilt sensor and telescopic sensor power supply and ground circuit check | <u>SE-54</u> | |
| Only seat sliding and reclining operation does not opera- tion | Sliding and reclining switch ground circuit check | <u>SE-62</u> | (|
| Only seat lifting (front and rear) operation does not opera- tion | Lifting switch (front and rear) ground circuit check | <u>SE-63</u> | |
| Sliding Motor Circuit Check | | AIS0067J | |

Sliding Motor Circuit Check 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.

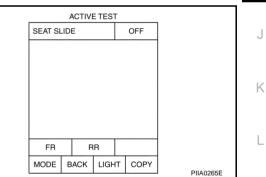
NG >> Repair the malfunctioning part and check again.

2. CHECK FUNCTION

With CONSULT-II

Check operation with "SEAT SLIDE" in ACTIVE TEST.

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



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Without CONSULT-II

ĞO TO 3.

- <u>OK or NG</u>
- OK >> Sliding motor circuit is OK.
- NG >> GO TO 3.

3. CHECK SLIDING MOTOR HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit connector and sliding motor connector.
- 3. Check continuity between driver seat control unit connector B325 terminals 35, 42 and sliding motor connector B322 terminals 35, 42.
 - 35 (G) 35 (G)
 - 42 (G/R) 42 (G/R)

: Continuity should exist. : Continuity should exist.

: Continuity should not exist.

: Continuity should not exist.

4. Check continuity between driver seat control unit connector B325 terminals 35, 42 and ground.

35 (G) – Ground

42 (G/R) – Ground

```
OK or NG
```

OK >> GO TO 4.

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

4. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

- 1. Connect the driver seat control unit connector.
- 2. Sliding switch operate, check voltage between driver seat control unit connector and ground.

| Connec- tor | Term (Wire | | Sliding switch condition | Voltage (V) (Approx.) | |
|----------------|---------------|-----------------|--------------------------|--------------------------|--|
| tor (+) | | (—) | | (Applox.) | |
| | 35 (G) | 5 (G) Ground | FORWARD | Battery voltage | |
| B325 | 33 (G) | | Other than above | 0 | |
| D323 | 42 (C/D) | 42 (G/R) | BACKWARD | Battery voltage | |
| | 42 (G/IX) | | Other than above | 0 | |

OK or NG

- OK >> Replace sliding motor.
- NG >> Replace driver seat control unit.

Reclining Motor Circuit Check

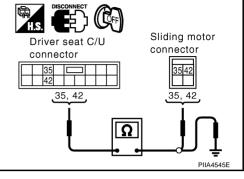
1. CHECK SEAT RECLINING MECHANISM

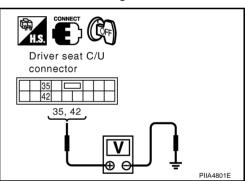
Check the following.

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

OK or NG

- OK >> GO TO 2.
- NG >> Repair the malfunctioning part and check again.





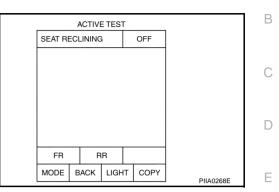
AIS0067K

2. CHECK FUNCTION

(P) With CONSULT-II

Check operation with "SEAT RECLINING" in ACTIVE TEST.

| Description |
|--|
| ne reclining motor is activated by receiving the drive signal. |
| - า |



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Without CONSULT-II

ĞO TO 3.

OK or NG

OK >> Reclining motor circuit is OK. NG >> GO TO 3.

3. CHECK RECLINING MOTOR HARNESS CONTINUITY

1. Turn ignition switch OFF.

- 2. Disconnect driver seat control unit connector and reclining motor connector.
- 3. Check continuity between driver seat control unit connector B325 terminals 36, 44 and reclining motor connector B323 terminals 36, 44.
 - 36 (W/R) 36 (W/R) 44 (G/Y) – 44 (G/Y)
- : Continuity should exist. : Continuity should exist.

: Continuity should not exist.

: Continuity should not exist.

4. Check continuity between driver seat control unit connector B325 terminals 36, 44 and ground.

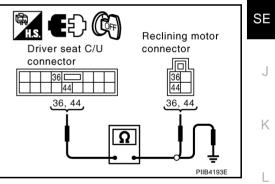
36 (W/R) – Ground

44 (G/Y) – Ground

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.
- 2. Reclining switch operate, check voltage between driver seat control unit connector and ground.

| Connector | Terminals (Wire color) | | Reclining switch condition | Voltage (V) (Approx.) | |
|-----------|---------------------------|----------|----------------------------|--------------------------|--|
| | (+) | (—) | | | |
| | 36 (W/R) Ground | Cround | FORWARD | Battery voltage | |
| B325 | | | Other than above | 0 | |
| D325 | | BACKWARD | Battery voltage | | |
| | 44 (G/Y) | | Other than above | 0 | |

OK or NG

OK >> Replace reclining motor.

NG >> Replace driver seat control unit.

Front Lifting Motor Circuit Check

1. CHECK FRONT END SEAT LIFTING MECHANISM

Check the following.

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

OK or NG

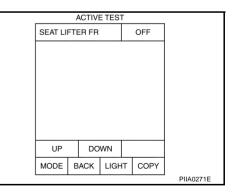
OK >> GO TO 2.

NG >> Repair the malfunctioning part and check again.

2. CHECK FUNCTION

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. |

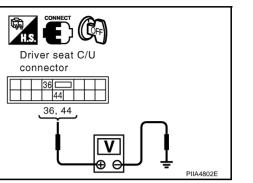


Without CONSULT-II

GO TO 3.

OK or NG

- OK >> Front lifting motor circuit is OK.
- NG >> GO TO 3.



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$\overline{3}$. CHECK FRONT LIFTING MOTOR 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 B325 and terminals 37, 45 and front lifting motor connector B330 terminals 37, 45.

37 (G/L) – 37 (G/L)

45 (W) - 45 (W)

: Continuity should exist. : Continuity should exist.

: Continuity should not exist.

: Continuity should not exist.

Check continuity between driver seat control unit connector 4. B325 and terminals 37, 45 and ground.

37 (G/L) – Ground

45 (W) – Ground

```
OK or NG
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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.
- 2. Front lifting switch operate, check voltage between driver seat control unit connector and ground.

| Connector | - | inals color) (-) | Front lifting switch condition | Voltage (V) (Approx.) | Driver seat | |
|-----------|--|------------------------|--------------------------------|--------------------------|-------------|--------|
| | B325 B325 37 (G/L) Ground Ground UP UP | DOWN | Battery voltage | | | |
| B325 | | Ground | Ground | Other than above | 0 | 37, 45 |
| | | UP | Battery voltage | | | |
| | | Other than above | 0 | | | |
| OK or NG | | | | | | |

OK or NG

- OK >> Replace front lifting motor.
- NG >> Replace driver seat control unit.

Rear Lifting Motor Circuit Check

1. CHECK REAR END SEAT LIFTING MECHANISM

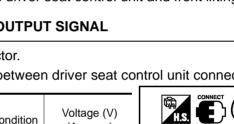
Check the following.

- Operation malfunction caused by lifter mechanism deformation or pinched harness or other foreign materials
- Operation malfunction caused by foreign materials adhered to the 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.



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Front lifting motor

45

37.45

PIIA4549

connector

Driver seat C/U

45

37, 45

□ 37

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connector

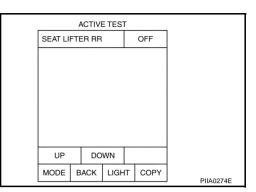
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$\overline{2}$. CHECK FUNCTION

(P) 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

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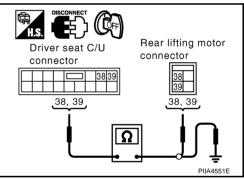
OK or NG

OK >> Rear lifting motor check is OK.

NG >> GO TO 3.

3. CHECK REAR LIFTING 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 B325 terminals 38, 39 and lifting motor connector B331 terminals 38, 39.
 - 38 (G/W) 38 (G/W) 39 (G/B) – 39 (G/B)
- : Continuity should exist. : Continuity should exist.
- 4. Check continuity between driver seat control unit B325 terminals 38, 39 and ground.
 - 38 (G/W) Ground
 - 39 (G/B) Ground
- : Continuity should not exist. : Continuity should not exist.



- 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

- Connect the driver seat control unit connector. 1.
- 2. Rear lifting switch operate, check voltage between driver seat control unit connector and ground.

| Connector | - | Terminals (Wire color) Rear lifting switch condition (Approx) | | | |
|-----------|-----------|--|------------------|-----------------|------------------------------|
| | (+) | (—) | | (Approx.) | Driver seat C/U connector |
| | 38 (G/W) | UP | Battery voltage | | |
| B325 | 30 (0/11) | Cround | Other than above | 0 | |
| D325 | 20 (0 (D) | Ground | DOWN | Battery voltage | <u>38, 39</u> |
| | 39 (G/B) | | Other than above | 0 | |
| OK or NG | | | | | |

OK >> Replace rear lifting motor.

NG >> Replace driver seat control unit.

Telescopic Motor Circuit Check

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

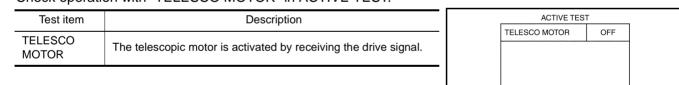
OK >> GO TO 2.

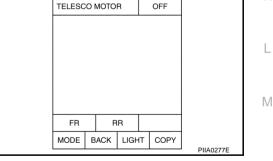
NG >> Repair the malfunctioning part and check again.

2. CHECK FUNCTION 2

(P) With CONSULT-II

Check operation with "TELESCO MOTOR" in ACTIVE TEST.





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Without CONSULT-II

GO TO 3.

- OK >> Steering telescopic motor circuit is OK.
- NG >> GO TO 3.

3. CHECK TELESCOPIC MOTOR HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit and tilt motor and telescopic motor connector.
- 3. Check continuity between automatic drive positioner control unit connector M97 terminals 36, 44 and tilt motor and telescopic motor connector M98 terminals 3, 4.
 - 36 (R) 3 (R)
 - 44 (G) 4 (G)
- : Continuity should exist. : Continuity should exist.

:Continuity should not exist.

:Continuity should not exist.

- 4. Check continuity between automatic drive positioner control unit connector M97 terminals 36, 44 and ground.
 - 36 (R) Ground
 - 44 (G) Ground

OK or NG

OK >> GO TO 4.

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

4. CHECK BCM OUTPUT SIGNAL

- 1. Connect the automatic drive positioner control unit connector.
- 2. Telescopic switch operate, check voltage between automatic drive positioner control unit connector and ground.

| Connector | Terminals (Wire color) | | Telescopic switch condition | Voltage (V) (Approx.) |
|-----------|---------------------------|--------|-----------------------------|--------------------------|
| | (+) (-) | | | |
| | 36 (R) 44 (G) | Ground | FORWARD | Battery voltage |
| MOZ | | | Other than above | 0 |
| M97 | | | BACKWARD | Battery voltage |
| | | | Other than above | 0 |

OK or NG

- OK >> Replace tilt and telescopic motor.
- NG >> Replace automatic drive positioner control unit.

Tilt Motor Circuit Check

1. CHECK STEERING WHEEL TILT MECHANISM

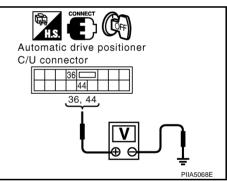
Check following.

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

OK or NG

OK >> GO TO 2.

NG >> Repair the malfunctioning part.



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$\overline{2}$. CHECK FUNCTION

(P) With CONSULT-II

Check operation with "TILT MOTOR" in ACTIVE TEST.

| Test item | Description | ACTIVE TEST | |
|------------|--|--|--|
| TILT MOTOR | The tilt motor is activated by receiving the drive signal. | TILT MOTOR OFF | |
| | | | |
| | | | |
| | | UP DOWN MODE BACK LIGHT COPY PIIA0280E | |

Without CONSULT-II

ĞO TO 3.

OK or NG

OK >> Steering tilt motor circuit is OK.

NG >> GO TO 3.

3. CHECK TILT MOTOR CIRCUIT HARNESS CONTINUITY

1. Turn ignition switch OFF.

- 2. Disconnect automatic drive positioner control unit connector and tilt and telescopic motor connector.
- 3. Check continuity between automatic drive positioner control unit connector M97 terminals 35, 42 and tilt and telescopic motor connector M98 terminals 1, 2.
 - 35 (G/Y) 1 (G/Y) 42 (G/W) – 2 (G/W)
- : Continuity should exist. : Continuity should exist.

: Continuity should not exist.

: Continuity should not exist.

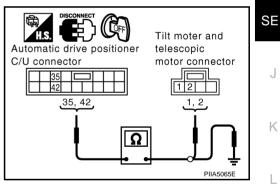
4. Check continuity between automatic drive positioner control unit connector M97 terminals 35, 42 and ground.

| 35 | (G/Y) | – Ground |
|----|-------|----------|
| 40 | 10 14 | 0 |

42 (G/W) – Ground

OK or NG

- OK >> GO TO 4.
- NG >> Repair or replace harness between automatic drive positioner control unit and tilt and telescopic M motor.



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4. CHECK BCM OUTPUT SIGNAL

- 1. Connect automatic drive positioner control unit connector and tilt and telescopic motor connector.
- 2. Tilt switch operate, check voltage between automatic drive positioner control unit connector and ground.

| Connector | Terminals (Wire color) | | Tilt switch condition | Voltage (V) (Approx.) |
|-----------|---------------------------|--------|-----------------------|--------------------------|
| | (+) | () | | (799108.) |
| M97 | 35 (G/Y) | Ground | UP | Battery voltage |
| | | | Other than above | 0 |
| | | | DOWN | Battery voltage |
| | 42 (G/W) | | Other than above | 0 |

OK or NG

- OK >> Replace tilt and telescopic motor.
- NG >> Replace automatic drive positioner control unit.

Sliding Sensor Circuit Check

1. CHECK FUNCTION

B With CONSULT-II

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

| Monitor item [OPE] | RATION or UNIT] | Contents |
|--------------------|-----------------|---|
| SLIDE PULSE | _ | The seat sliding position (pulse) judged from the sliding sensor signal is dis- played. |

| DATA M | ONITOR | |
|-------------|--------|-----------|
| MONITOR | | |
| SLIDE PULSE | 32768 | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | RECORD | PIIB2040E |
| | | F1162040E |

Without CONSULT-II

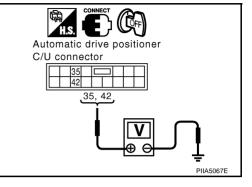
- 1. Turn ignition switch OFF.
- 2. Check signal between driver seat control unit connector and ground, with oscilloscope.

| Connector | | inals color) | Condition | Signal (Reference value) | | |
|-----------|--------|-----------------|-------------------------------|--|---------------------------|--|
| | (+) | (-) | | | Driver seat C/U connector | |
| B324 | 24 (G) | Ground | Sliding motor operation | (V) 6 2 0 50 ms FIIA3277E | | |

OK or NG

OK >> Sliding sensor circuit is OK.

NG >> GO TŎ 2.



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$\overline{2}$. CHECK SLIDING SENSOR HARNESS CONTINUITY

- 1. Disconnect driver seat control unit connector and sliding motor connector.
- 2. Check continuity between driver seat control unit connector B324 terminals 24, 31 and sliding motor B322 terminals 24, 31A.

24 (G) - 24 (G) : Continuity should exist.

31 (B/W) - 31A (B/W) : Continuity should exist.

Check continuity between driver seat control unit B324 terminals 3. 24, 31 and ground.

| 24 (G) – Ground | : Continuity should not exist. |
|-------------------|--------------------------------|
| 31 (B/W) – Ground | : Continuity should not exist. |

OK or NG

NG

OK >> Replace sliding motor.

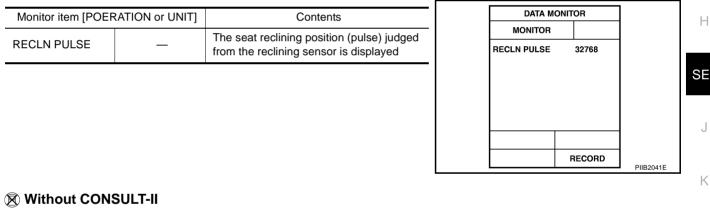
>> Repair or replace harness between driver seat control unit and sliding motor.

Reclining Sensor Circuit Check

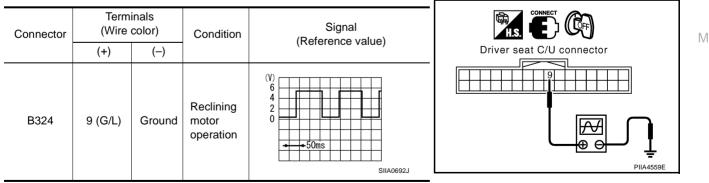
1. CHECK FUNCTION

(P) With CONSULT-II

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



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



OK or NG

OK >> Reclining sensor circuit is OK.

NG >> GO TO 2.

В Sliding motor Driver seat C/U connector connector 24, 31 24, 31A Ω PIIA45576 F

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$\overline{2.}$ check reclining sensor harness continuity

- 1. Disconnect driver seat control unit connector and reclining motor connector.
- Check continuity between driver seat control unit connector B324 terminals 9, 31 and reclining motor connector B323 terminals 9, 31.

9 (G/L) – 9 (G/L) 31 (B/W) – 31 (B/W) : Continuity should exist. : Continuity should exist.

3. Check continuity between driver seat control unit connector B324 terminals 9, 31 and ground.

9 (G/L) – Ground

31 (B/W) – Ground

OK or NG

OK >> Replace reclining motor.

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

: Continuity should not exist.

: Continuity should not exist.

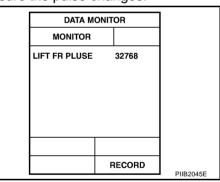
Front Lifting Sensor Circuit Check

1. CHECK FUNCTION

With CONSULT-II

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

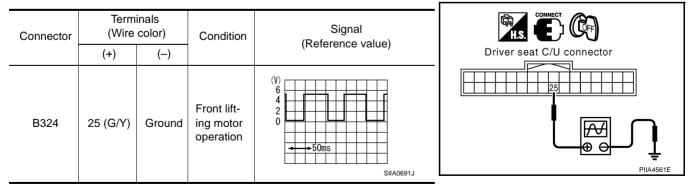
| Monitor item [OPER | ATION or UNIT] | Contents | |
|--------------------|----------------|--|--|
| LIFT FR PULSE — | | The front lifting position (pulse) judged from the front lifting sensor is displayed | |
| | | | |
| | | | |



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Without CONSULT-II

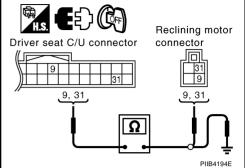
- 1. Turn ignition switch OFF.
- 2. Check signal between driver seat control unit connector and ground, with oscilloscope.



OK or NG

OK >> Front lifting sensor circuit is OK.

NG >> GO TO 2.



$\overline{2}$. CHECK FRONT LIFTING SENSOR HARNESS CONTINUITY

- 1. Disconnect driver seat control unit connector and front lifting motor connector.
- 2. Check continuity between driver seat control unit connector B324 terminals 25, 31 and front lifting motor connector B330 terminals 25, 31B.

25 (G/Y) - 25 (G/Y)31 (B/W) - 31B (B/W)

- : Continuity should exist. : Continuity should exist.
- Check continuity between driver seat control unit connector 3. B324 terminals 25, 31 and ground.
 - 25 (G/Y) Ground
- : Continuity should not exist.
- : 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.

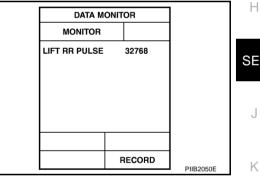
Rear Lifting Sensor Circuit Check

1. CHECK REAR END LIFTING SENSOR INPUT/OUTPUT SIGNAL

(P) With CONSULT-II

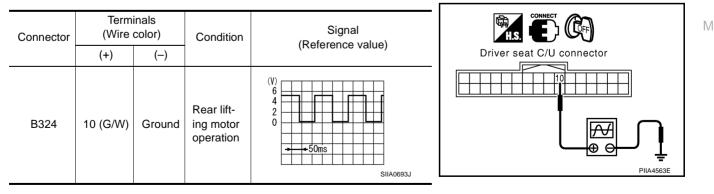
Check operation with "LIFT RP PULSE" on the DATA MONITOR to make sure pulse changes.

| Monitor item [OPEF | RATION or UNIT | |
|--------------------|----------------|---|
| LIFT RR PULSE — | | The rear lifting position (pulse) judged from the rear lifting sensor is displayed. |
| | | |



Without CONSULT-II

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

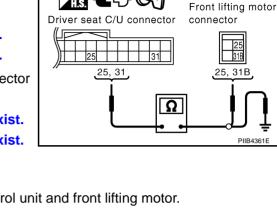


OK or NG

OK >> Rear lifting sensor circuit is OK.

NG >> GO TO 2.

31 (B/W) - Ground



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2. CHECK REAR LIFTING SENSOR HARNESS CONTINUITY

- 1. Disconnect driver seat control unit connector and rear lifting motor connector.
- Check continuity between driver seat control unit connector B324 terminals 10, 31 and rear lifting motor connector B331 terminals 10, 31C.
 - 10 (G/W) 10 (G/W) 31 (B/W) – 31C (B/W)
- : Continuity should exist. : Continuity should exist.

: Continuity should not exist.

: Continuity should not exist.

- 3. Check continuity between driver seat control unit connector B324 terminals 10, 31 and ground.
 - 10 (G/W) Ground
 - 31 (B/W) Ground
- OK or NG
- OK >> Replace rear lifting motor.
- NG >> Repair or replace harness between driver seat control unit and rear lifting motor.

Telescopic Sensor Circuit Check

1. CHECK FUNCTION

With CONSULT-II

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

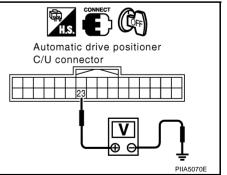
| Monitor item [OPERATION or UNIT] | | Contents |
|-------------------------------------|-----|---|
| TELESCO SEN | "V" | The telescoping position (voltage) judged from the tele- scoping sensor signal is displayed. |

| DATA M | ONITOR |] |
|-------------|--------|-----------|
| MONITOR | | |
| TELESCO SEN | 0.04V | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | RECORD | PIIB3407E |

Without CONSULT-II

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

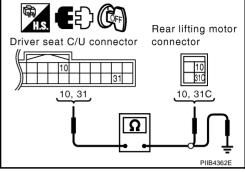
| Connector | Term (Wire | | Condition Voltage (V) (Approx.) | |
|-----------|---------------|--------|------------------------------------|-----------|
| | (+) | (-) | * | (Approx.) |
| Moo | 23 (R/Y) | Ground | Telescopic top position | 0.4 |
| M96 | 23 (R/T) | Giouna | Telescopic bottom position | 4.6 |



OK or NG

OK >> Telescopic sensor circuit is OK.

NG >> GO TO 2.



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2. CHECK HARNESS CONTINUITY

- 1. Disconnect automatic drive positioner control unit connector and tilt sensor and telescopic sensor connector
- 2. Check continuity harness between automatic drive positioner control unit connector M96 terminals 23 and tilt sensor and telescopic sensor connector M99 terminals 3.

23 (R/Y) - 3 (R/Y)

: Continuity should exist.

: Continuity should not exist.

3. Check continuity harness between automatic drive positioner control unit connector M96 terminals 23 and ground.

23 (R/Y) - Ground

OK or NG

- OK >> Replace tilt sensor and telescopic sensor. NG
 - >> Repair or replace harness between automatic drive positioner control unit and tilt sensor and telescopic sensor.

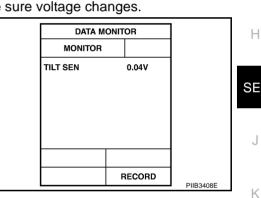
Tilt Sensor Circuit Check

1. CHECK TILT SENSOR

(P) With CONSULT-II

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

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



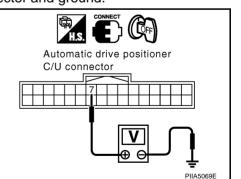
Without CONSULT-II

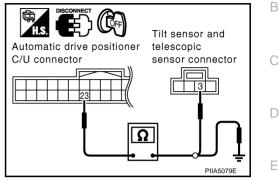
- 1. Turn ignition switch OFF.
- Check voltage between automatic drive positioner control unit connector and ground. 2.

| Connector | | ninals color) | Condition Voltage (Approx | | |
|-----------|----------|------------------|---------------------------|-----------|--|
| | (+) | (-) | | (Approx.) | |
| M96 | 7 (OR/L) | Ground | Tilt top position | 1 | |
| INI96 | 7 (OK/L) | Ground | Tilt bottom position | 4 | |
| | | | | | |

OK or NG

OK >> Tilt sensor circuit is OK. NG >> GO TO 2.





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$\overline{2}$. CHECK HARNESS

- 1. Disconnect automatic drive positioner control unit connector and tilt sensor and telescopic sensor connector.
- 2. Check continuity harness between automatic drive positioner control unit connector M96 terminals 7 and tilt sensor and telescopic sensor connector M99 terminals 2.

7 (OR/L) - 2 (OR/L)

: Continuity should exist.

3. Automatic drive positioner control unit connector M96 terminals 7 and ground.

7 (OR/L) - Ground

: Continuity should not exist.

OK or NG

- OK >> Replace tilt sensor and telescopic sensor.
 - >> Repair or replace harness between automatic drive positioner control unit and tilt sensor and telescopic sensor.

Tilt Sensor and Telescopic Sensor Power and Ground Circuit Check

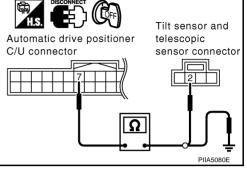
1. CHECK TILT SENSOR AND TELESCOPIC SENSOR POWER SUPPLY

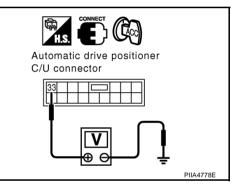
- 1. Turn ignition switch OFF.
- 2. Check voltage between automatic drive positioner control unit connector M97 terminal 33 and ground.

33 (W/L) – Ground : Approx. 5V

OK or NG

- OK >> GO TO 2.
- NG >> Replace automatic drive positioner control unit.





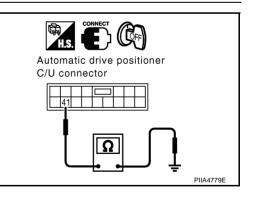
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2. CHECK TILT SENSOR AND TELESCOPIC SENSOR GROUND CIRCUIT

Check continuity between automatic drive positioner control unit connector M97 terminal 41 and ground.

41 (Y) – Ground : Continuity should exist.

- OK >> GO TO 3.
- NG >> Replace automatic drive positioner control unit.



3. CHECK HARNESS CONTINUITY

- 1. Disconnect automatic drive positioner control unit and tilt sensor and telescopic sensor.
- 2. Check continuity between automatic drive positioner control unit connector M97 terminal 33, 41 and tilt sensor and telescopic sensor connector M99 terminal 1, 4.

| 33 (W/L) – 1 (W/L) | : Continuity should exist. |
|--------------------|----------------------------|
| 41 (Y) – 4 (Y) | : Continuity should exist. |

- 3. Check continuity between automatic drive positioner control unit connector M97 terminal 33, 41 and ground.
 - 33 (W/L) Ground : Continuity should not exist.

41 (Y) – Ground : Continuity should not exist.

OK or NG

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

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

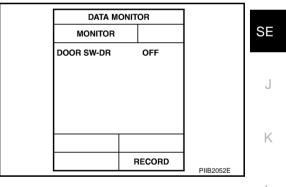
Front Door Switch (Driver Side) Circuit Check

1. CHECK FUNCTION

(I) With CONSULT-II

Touch "BCM" with "DOOR SW-DR" on the DATA MONITOR, check ON/OFF operation when the driver door is H open and closed. *: Refer to <u>BL-37, "Data Monitor"</u>.

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



Without CONSULT-II

ĞO TO 2.

OK or NG

OK >> Front door switch (driver side) circuit is OK.

NG >> GO TO 2.

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$\overline{2.}$ check front door switch (driver side)

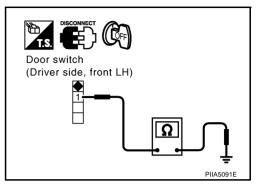
- 1. Turn ignition switch OFF.
- 2. Disconnect front door switch connector.
- 3. Check continuity between front door switch connector and ground part of door switch.

| Ter | minals | Door switch | Continuity |
|-----|----------------|-------------|------------|
| 1 | Ground part of | Pushed | No |
| I | door switch | Released | Yes |

OK or NG

OK >> GO TO 3.

NG >> Replace front door switch (driver side).



3. CHECK FRONT DOOR (DRIVER SIDE) HARNESS CONTINUITY

- 1. Disconnect BCM connector.
- 2. Check continuity between BCM connector B4 terminal 62 and front door switch connector B17 terminal 1.

62 (W) - 1 (W)

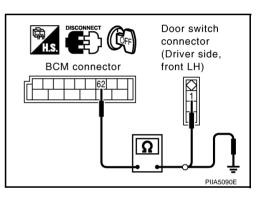
: Continuity should exist.

3. Check continuity between BCM connector B4 terminal 62 and ground.

62 (W) – Ground

: Continuity should not exist.

- OK >> Front door switch (driver side) circuit is OK.
- NG >> Repair or replace harness between BCM and front door switch (driver side).



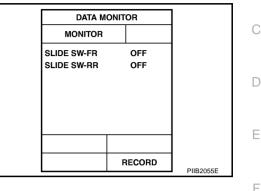
Sliding Switch Circuit Check

1. CHECK FUNCTION

(P) With CONSULT-II

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

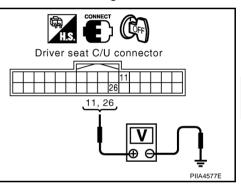
| Monitor item [OPERATION or UNIT] | | Contents |
|-------------------------------------|--|--|
| SLIDE SW – FR OFF" | | ON/OFF status judged from the sliding switch (FR) signal is displayed. |
| SLIDE SW – RR OFF" | | ON/OFF status judged from the sliding switch (RR) signal is displayed. |



Without CONSULT-II

- 1. Turn ignition switch OFF.
- 2. Sliding switch operate, check voltage between driver seat control unit connector and ground.

| Connector | Term (Wire | inals color) | Sliding switch condition (Approx.) | |
|-----------|---------------|-----------------|------------------------------------|-----------------|
| | (+) | (-) | | (Applox.) |
| | 26 (L/R) | Ground | FORWARD | 0 |
| B324 | | | Other than above | Battery voltage |
| | 11 (1 ///) | Giouna | BACKWARD | 0 |
| | 11 (L/W) | | Other than above | Battery voltage |



OK or NG

OK >> Sliding switch circuit is OK.

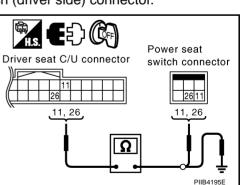
```
NG
      >> GO TO 2.
```

2. 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 2. B324 terminals 11, 26 and driver power seat switch connector B326 terminals 11, 26.
 - 11 (L/W) 11 (L/W) 26 (L/R) - 26 (L/R)
- : Continuity should exist. : Continuity should exist.
- Check continuity between driver seat control unit connector 3. B324 terminals 11, 26 and ground.
 - 11 (L/W) Ground 26 (L/R) – Ground
- : Continuity should not exist. : Continuity should not exist.



- OK >> GO TO 3.
- NG >> Repair or replace harness between driver seat control unit and power seat switch.





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$\overline{3}$. CHECK SLIDING SWITCH

| Term | ninal | Sliding switch condition | Continuity |
|------|--------|--------------------------|------------|
| 26 | 26 | FORWARD | Yes |
| 20 | 32D | Other than above | No |
| 11 | 11 32D | BACKWARD | Yes |
| 11 | | Other than above | No |

Check continuity between power seat switch as follows.

OK or NG

OK >> Check the condition of the harness and connector. NG >> Replace driver power seat switch.

Reclining Switch Check

1. CHECK FUNCTION

With CONSULT-II

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

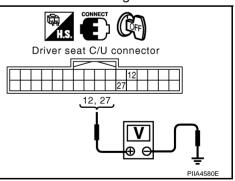
| Monitor item | | Contents | | DATA MON |
|------------------------------------|--------------|--|--|----------------------------|
| [OPERATION or | UNIT] | | | MONITOR |
| RECLN SW – FR ^{"ON/} OFF" | | ON/OFF status judged from the reclining switch (FR) signal is displayed. | | RECLN SW-FR RECLN SW-RR |
| RECLN SW-RR | "ON/ OFF" | ON/OFF status judged from the reclining switch (RR) signal is displayed. | | |

| DATA M | ONITOR | |
|----------------------------|------------|-----------|
| MONITOR | | |
| RECLN SW-FR RECLN SW-RR | OFF OFF | |
| | | |
| | RECORD | PIIB2056E |

Without CONSULT-II

- 1. Turn ignition switch OFF.
- 2. Reclining switch operate, check voltage between driver seat control unit connector and ground.

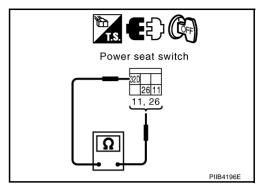
| | nals color) | Reclining switch Voltage (V condition (Approx.) | |
|-----------|----------------|--|--|
| (+) | (–) | condition | (Applox.) |
| 27 (L/OP) | | FORWARD | 0 |
| 27 (L/OR) | Ground | Other than above Battery voltage | |
| 12 ()() | Ground | BACKWARD 0 | |
| 1∠ (Ť) | | Other than above | Battery voltage |
| | | 27 (L/OR) Ground | (vmc color) condition (+) (-) 27 (L/OR) FORWARD Ground Other than above BACKWARD |



OK or NG

OK >> Reclining switch is OK.

NG >> GO TO 2.



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2. CHECK HARNESS CONTINUITY

- 1. Disconnect driver seat control unit connector and power seat switch (driver side) connector.
- 2. Check continuity between driver seat control unit connector B324 terminals 12, 27 and power seat switch (driver side) connector B326 terminals 12, 27.

12 (Y) – 12 (Y) 27 (L/OR) – 27 (L/OR) : Continuity should exist.

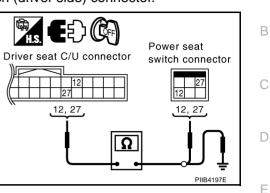
: Continuity should exist.

3. Check continuity between driver seat control unit connector B324 terminals 12, 27 and ground.

12 (Y) – Ground

27 (L/OR) – Ground





OK or NG

OK >> GO TO 3.

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

3. CHECK RECLINING SWITCH

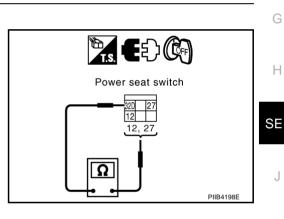
Check continuity between power seat switch as follows.

| Terr | ninal | Reclining switch condition | Continuity |
|------|-------|----------------------------|------------|
| 27 | | FORWARD | Yes |
| 21 | 220 | Other than above | No |
| 12 | - 32D | BACKWARD | Yes |
| 12 | | Other than above | No |

OK or NG

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

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



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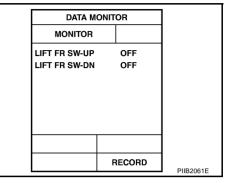
Front Lifting Switch Circuit Check

1. CHECK FUNCTION

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 [OPERATION or UNIT] | | Contents |
|-------------------------------------|--------------|--|
| LIFT FR SW – DN 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. |



Without CONSULT-II

- 1. Turn ignition switch OFF.
- 2. Front lifting switch operate, check voltage between driver seat control unit connector and ground.

| Connector | Terminals (Wire color) | | Front lifting switch condition | Voltage (V) (Approx.) |
|--------------|---------------------------|--------------------|--------------------------------|--------------------------|
| | (+) | (—) | condition | (Applox.) |
| | 29 (L (D) | 28 (L/P) Ground | UP | 0 |
| D 224 | 20 (L/F) | | Other than above | Battery voltage |
| B324 | 12 (1 (0) | | DOWN | 0 |
| | 13 (L/G) | Other than above | Battery voltage | |

| Driver seat C/U connector |
|---------------------------|
| |
| |
| 13, 28 |
| |
| |
| ∎ ⊖ <mark>I</mark> Ť |
| PIIA4583E |

OK or NG

- OK >> Front lifting switch circuit is OK.
- NG >> GO TO 2.

2. CHECK HARNESS CONTINUITY

- 1. Disconnect driver seat control unit connector and power seat switch (driver side) connector.
- 2. Check continuity between driver seat control unit connector B324 terminals 13, 28 and power seat switch (driver side) connector B327 terminals 13, 28.

: Continuity should exist. : Continuity should exist.

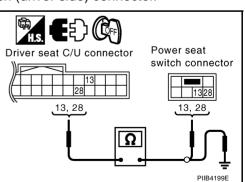
- 3. Check continuity between driver seat control unit connector B324 terminals 13, 28 and ground
 - 13 (L/G) Ground 28 (L/P) – Ground

| : Continuity | should | not | exist. |
|--------------|--------|-----|--------|
| : Continuity | should | not | exist. |



OK >> GO TO 3.

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



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$\overline{\mathbf{3}}$. CHECK FRONT END LIFTING SWITCH

| Terminals | | Front lifting switch condition | Continuity |
|-----------|----|--------------------------------|------------|
| 28 | 32 | UP | Yes |
| 20 | | Other than above | No |
| 12 | | DOWN | Yes |
| 13 | | Other than above | No |

Check continuity between power seat switch as follows.

OK or NG

OK >> Check the condition of the harness and connector. NG >> Replace driver power seat switch.

Rear Lifting Switch Circuit Check 1. CHECK FUNCTION

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 [OPERATION or UNIT] | | | Contents | | DATA MONITOR | |
| | [OPERATION or UNIT] | | Contonito | | MONITOR | |
| - | LIFT RR SW-UP | "ON/OFF" | (ON/OFF) status judged from the RR lifter switch (UP) signal is displayed. | | LIFT RR SW-UP LIFT RR SW-DN | OFI |
| | LIFT RR SW-DN | "ON/OFF" | (ON/OFF) status judged from the RR lifter switch (DOWN) signal is displayed. | | | |
| | | | | | | |

| MONITOR | | |
|---------------|--------|-----------|
| LIFT RR SW-UP | OFF | |
| LIFT RR SW-DN | OFF | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | RECORD | PIIB2066E |

Without CONSULT-II

- 1. Turn ignition switch OFF.
- 2. Rear lifting switch operate, check voltage between driver seat control unit connector and ground.

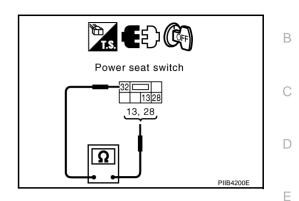
| Connector | Terminals (Wire color) | | Rear lifting switch condition | Voltage (V) (Approx.) |
|-----------|---------------------------|--------|-------------------------------|--------------------------|
| | (+) | (–) | contaition | (Applox.) |
| | 29 (L) | | UP | 0 |
| B324 | 29 (L) | Ground | Other than above | Battery voltage |
| D324 | | Giouna | DOWN | 0 |
| | 14 (BR) | | Other than above | Battery voltage |

| ol unit connector and ground. | |
|-------------------------------|---|
| | L |
| Driver seat C/U connector | |
| | Μ |
| | |

OK or NG

OK >> Rear seat lifting switch circuit is OK.

NG >> GO TO 2.



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2. CHECK REAR LIFTING SWITCH HARNESS CONTINUITY

- 1. Disconnect driver seat control unit connector and driver power seat switch connector.
- Check continuity between driver seat control unit connector B324 terminals 14, 29 and power seat switch (driver side) connector B327 terminals 14, 29.

14 (BR) – 14 (BR) 29 (L) – 29 (L) : Continuity should exist. : Continuity should exist.

: Continuity should not exist.

: Continuity should not exist.

3. Check continuity between driver seat control unit connector B324 terminals 14, 29 and ground.

14 (BR) – Ground

29 (L) – Ground

Power seat switch connector the seat C/U connector the seat switch connector

Power seat switch

1429

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OK or NG

OK >> GO TO 3.

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

3. CHECK REAR LIFTING SWITCH

Check continuity between power seat switch as follows.

| Terminal | | Rear lifting switch condition | Continuity |
|----------|----|-------------------------------|------------|
| 29 | 20 | UP | Yes |
| 29 | 32 | Other than above | No |
| 14 | 52 | DOWN | Yes |
| 14 | | Other than above | No |

OK or NG

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

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

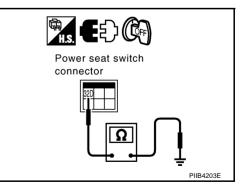
Sliding and Reclining Switch Ground Circuit Check 1. CHECK POWER SEAT SWITCH GROUND CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect power seat switch (driver side) connector.
- 3. Check continuity between power seat switch connector B326 terminal 32D and ground.

32D(B) – Ground

: Continuity should exist.

- OK >> Check the condition of the harness and connector.
- NG >> Repair or replace harness between power seat switch and ground.



Lifting Switch (Front and Rear) Ground Circuit Check

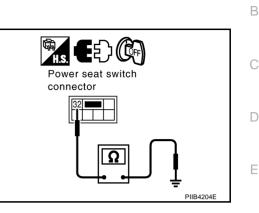
1. CHECK POWER SEAT SWITCH GROUND CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect power seat switch (driver side) connector.
- 3. Check continuity between power seat switch connector B327 terminal 32 and ground.
 - 32 (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 and ground.



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Telescopic Switch Circuit Check

1. CHECK FUNCTION

With CONSULT-II

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

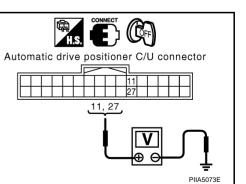
| Monitor ite [OPERATION o | | Contents |
|-----------------------------|----------|--|
| TELESCO SW-FR | "ON/OFF" | (ON/OFF) status judged from the telescoping switch (FR) signal is displayed. |
| TELESCO SW-RR | "ON/OFF" | (ON/OFF) status judged from the telescoping switch (RR) signal is displayed. |

| DATA MO | NITOR | |
|--------------------------------|------------|--|
| MONITOR | | |
| TELESCO SW-FF TELESCO SW-RI | OFF OFF | |
| | RECORD | |

Without CONSULT-II

- 1. Turn ignition switch OFF.
- 2. Telescopic switch operate, check voltage between automatic drive positioner control unit connector and ground.

| Connector | Terminals (Wire color) | | Telescopic switch condition | Voltage (V) (Approx.) |
|-----------|---------------------------|--------|-----------------------------|--------------------------|
| | (+) | (-) | | (//ppiox.) |
| | 11 (P/L) | | FORWARD | 0 |
| M96 | | | Other than above | 5 |
| 10190 | | Ground | Ground | BACKWARD |
| 27 (G/V | 27 (G/W) | (G/W) | Other than above | 5 |



OK or NG

OK >> Telescopic switch circuit is OK.

NG >> GO TO 2.

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2. CHECK TELESCOPIC CIRCUIT HARNESS CONTINUITY

- 1. Disconnect automatic drive positioner control unit connector and ADP steering switch connector.
- Check continuity between automatic drive positioner control unit connector M96 terminals 11, 27 and ADP steering switch connector M100 terminals 4, 5.

```
11 (P/L) – 5 (P/L)
27 (G/W) – 4 (G/W)
```

: Continuity should exist. : Continuity should exist.

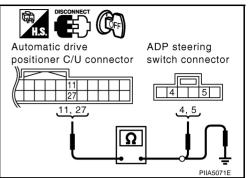
: Continuity should not exist.

: Continuity should not exist.

3. Check continuity between automatic drive positioner control unit connector M96 terminals 11, 27 and ground.

11 (P/L) – Ground

27 (G/W) – Ground



OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness between automatic drive positioner control unit and ADP steering switch.

3. CHECK TELESCOPIC SWITCH

Check continuity between ADP steering switch as follows.

| Tern | ninal | ADP steering switch condition | Continuity |
|------|-------|-------------------------------|------------|
| 5 | | FORWARD | Yes |
| 5 | 4 | Other than above | No |
| 4 | | BACKWARD | Yes |
| 4 | | Other than above | No |

OK or NG

OK >> GO TO 4.

NG >> Replace ADP steering switch.

4. CHECK ADP STEERING SWITCH GROUND CIRCUIT

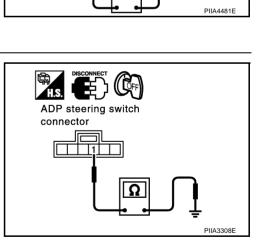
Check continuity between ADP steering switch connector M100 terminal 1 and ground.

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.



ADP steering switch

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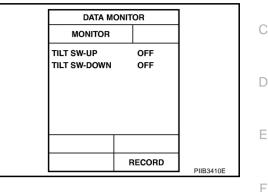
Tilt Switch Circuit Check

1. CHECK FUNCTION

(P) With CONSULT-II

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

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



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Without CONSULT-II

- 1. Turn ignition switch OFF.
- 2. Tilt switch operate, check voltage between automatic drive positioner control unit connector and ground.

| Connector | Terminals (Wire color) | | Tilt switch condition | Voltage (V) (Approx.) |
|-----------|---------------------------|-----------|-----------------------|--------------------------|
| (+) | (–) | | | |
| | 1 (Y/G) | Ground | UP | 0 |
| M96 | 1 (1/3) | | Other than above | 5 |
| IVI90 | 17 (LG/B) | 17 (LG/B) | DOWN | 0 |
| | | | Other than above | 5 |

| Automatic drive positioner C/U connector |
|--|
| |
| PIIA5074E |

OK or NG

OK >> Tilt switch circuit is OK.

NG >> GO TO 2.

2. CHECK TILT SWITCH CIRCUIT HARNESS CONTINUITY

- 1. Disconnect automatic drive positioner control unit connector and ADP steering switch connector.
- 2. Check continuity between automatic drive positioner control unit connector M96 terminals 1, 17 and ADP steering switch connector M100 terminals 2, 3.

: Continuity should exist. : Continuity should exist.

: Continuity should not exist.

: Continuity should not exist.

- Check continuity between automatic drive positioner control unit
- connector M96 terminals 1, 17 and ground.

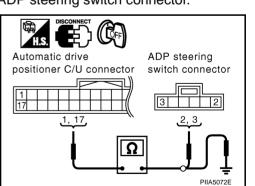
| (| Y/ | G) | - | Gr | 0 | un | d | |
|---|----|----|---|----|---|----|---|--|
| _ | | ~ | | | ~ | | | |

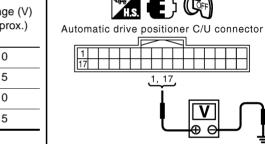
OK or NG

1

3.

- OK >> GO TO 3.
- NG >> Repair or replace harness between automatic drive positioner control unit and ADP steering switch.





$\overline{\mathbf{3}}$. CHECK ADP TILT STEERING SWITCH

Check continuity between ADP steering switch as follows.

| Tern | ninal | ADP steering switch condition | Continuity |
|------|-------|-------------------------------|------------|
| 2 | | UP | Yes |
| 2 | 1 | Other than above | No |
| 2 | 3 | DOWN | Yes |
| 3 | | Other than above | No |

OK or NG

OK >> GO TO 6.

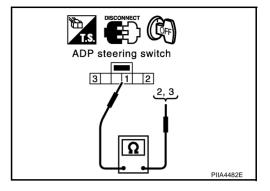
NG >> Replace ADP steering switch.

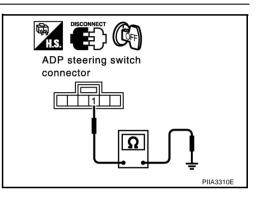
4. CHECK ADP STEERING SWITCH GROUND CIRCUIT

Check continuity between ADP steering switch connector M100 terminal 1 and ground.

1 (B) – Ground : Continuity should exist.

- OK >> Check the condition of the harness and connector.
- NG >> Repair or replace harness between ADP steering switch and ground.





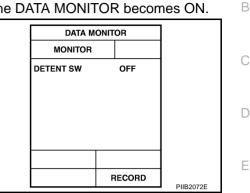
Park Position Switch (P Range Switch) Circuit Check (A/T Models)

1. CHECK FUNCTION

(P) With CONSULT-II

Make sure when the A/T selector lever is in P position, "P POSI SW" on the DATA MONITOR becomes ON.

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

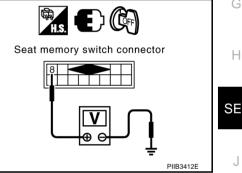


Without CONSULT-II

Turn ignition switch OFF. 1.

2. Check voltage between seat memory switch connector and ground.

| Connector | Terminals (Wire color) | | Condition | Voltage (V) (Approx.) |
|-----------|---------------------------|--------|---------------------------------------|--------------------------|
| | (+) | (-) | | (Applox.) |
| B328 | 8 (P/B) | | Selector lever sifted to P position. | 0 |
| D328 | | Ground | Selector lever other than P position. | Battery voltage |



OK or NG

OK >> AT device (park position switch) circuit is OK. NG >> GO TO 2.

2. CHECK PARK POSITION SWITCH POWER SUPPLY CIRCUIT HARNESS

- Disconnect seat memory switch connector and A/T device (park position switch) connector. 1.
- Check continuity between seat memory switch connector B328 2. terminal 8 and A/T device (park position switch) connector M47 terminal 3.

8 (PB) - 3 (BR)

: Continuity should exist.

Check continuity between seat memory switch connector B328 3. terminal 8 and ground.

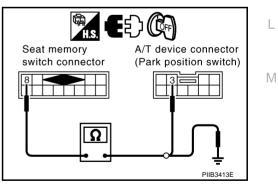
8 (PB) – Ground

: Continuity should not exist.

OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness between seat memory switch and A/T device (park position switch).



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$\overline{\mathbf{3.}}$ check park position switch

Check continuity between A/T device (park position switch) as follows.

| Tern | ninal | Condition | Continuity |
|------|-------|-----------------------|------------|
| 3 | 1 | P position | Yes |
| 5 | | Other than P position | No |

OK or NG

OK >> GO TO 4.

NG >> Replace A/T device (park position switch).

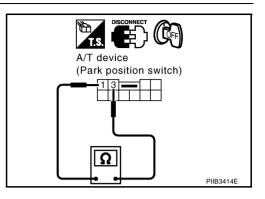
4. CHECK PARK POSITION SWITCH GROUND HARNESS

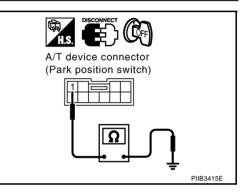
Check continuity between A/T device (park position switch) connector M47 terminal 1 and ground.

1 (B) – Ground

: Continuity should exist.

- OK >> Check the condition of the harness and connector.
- NG >> Repair or replace harness between A/T device (park position switch) and ground.





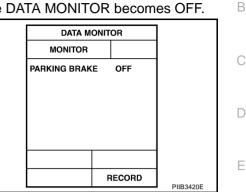
Parking Brake Switch Circuit Check (M/T Models)

1. CHECK FUNCTION

(P) With CONSULT-II

Check that when the parking brake is released, "PARKING BRAKE" on the DATA MONITOR becomes OFF.

| Monitor item [OPERATION or UNIT] | | Contents | |
|-------------------------------------|--------------|---|--|
| PARKING BRAKE | "ON/ OFF" | The parking brake is "released (OFF)/parking brake is applied (ON)" judged from the parking brake switch signal is displayed. | |



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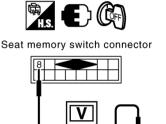
l

PIIB3412E

Without CONSULT-II

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

| Connector | Terminals (Wire color) | | Condition | Voltage (V) (Approx.) | | |
|-----------|---------------------------|--------|-----------|--------------------------|-----------------|--------------------|
| | | (+) | (-) | | (Applox.) | Seat memory switch |
| | B328 | 8 (PB) | Ground | Parking brake applied. | 0 | |
| | D320 | 0 (ГВ) | Ground | Parking brake released. | Battery voltage | |
| | OK or NG | | | | | |



>> Parking brake switch circuit is OK. OK NG >> GO TO 2.

2. CHECK PARKING BRAKE SWITCH POWER SUPPLY CIRCUIT HARNESS

- 1. Disconnect seat memory switch connector and parking brake switch connector.
- Check continuity between seat memory switch connector B328 2. terminal 8 and parking brake switch connector B37 terminal 1.

8 (PB) - 1 (PU/R)

: Continuity should exist.

Check continuity between seat memory switch connector B328 3. terminal 8 and ground.

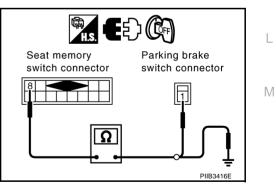
8 (PB) – Ground

: Continuity should not exist.

OK or NG

OK >> GO TO 3.

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



$\overline{\mathbf{3}}$. Check parking brake switch

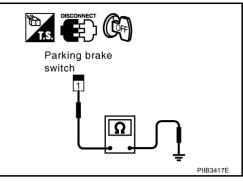
Check continuity between parking brake switch connector B37 terminal 1 and ground.

| Terminal | | Condition | Continuity |
|----------|--------|-------------------------|------------|
| 1 | Ground | Parking brake applied. | Yes |
| | Ground | Parking brake released. | Yes No |

OK or NG

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

NG >> Replace parking brake switch.



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Key Switch and Ignition Knob Switch Circuit Check (With Intelligent Key) 1. CHECK KEY SWITCH AND IGNITION KNOB SWITCH POWER SUPPRY CIRCUIT

With CONSULT-II

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

*: Refer to <u>BL-37, "Data Monitor"</u>.

| TION or UNIT] Operation KEY ON SW* "ON/ OFF." Key inserted (ON)/key removed (OFF) status judged from the key in detection switch is displayed KEY ON SW | MONITOR | | | Monitor item [OPERA- | |
|---|---------|--|--------------|------------------------|--|
| | | | 111] | HON or UN | |
| | | Key inserted (ON)/key removed (OFF) status judged from the key-in detection switch is displayed. | "ON/ OFF" | KEY ON SW [*] | |

Without CONSULT-II

ĞO TO 2.

OK or NG

- OK >> Key switch and ignition knob switch circuit is OK.
- NG >> GO TO 2.

2. CHECK KEY SWITCH AND IGNITION KNOB SWITCH POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect key switch and ignition knob switch connector.
- 3. Check voltage between key switch and ignition knob switch connector M310 terminal 3 and ground.

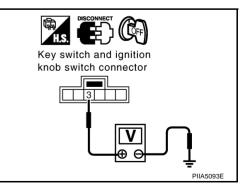
3 (Y) – Ground

: Battery voltage.

OK or NG

OK >> GO TO 3.

NG >> Check harness between key switch and ignition knob switch and fuse.



$\overline{\mathbf{3.}}$ check key switch and ignition knob switch

Check continuity between key switch and ignition knob switch connector M310 terminal 3 and 4.

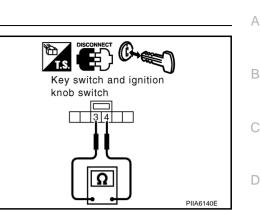
| Con necto | | Terminal | | Condition | Continuity |
|--------------|------|----------|-----|--|------------|
| M31 | M310 | 3 | 3 4 | Key is inserted in ignition key cylinder. | Yes |
| 10131 | | 5 | | Key is removed from ignition key cylinder. | No |

OK or NG

OK >> GO TO 4.

NG >> Replace key switch and ignition knob switch.

4. CHECK HARNESS CONTINUITY



BCM connector

Key switch and

switch connector

ignition knob

- 1. Disconnect key switch and ignition knob switch connector and BCM connector.
- 2. Check continuity between key switch and ignition knob switch connector M310 terminal 4 and BCM connector M1 terminal 37.

4 (B/P) - 37 (B/P)

: Continuity should exist.

3. Check continuity between key switch and ignition knob switch connector M310 terminal 4 and ground.

4 (B/P) – Ground

: Continuity should not exist.

OK or NG

- OK >> Key switch and ignition knob switch circuit is OK.
- NG >> Repair or replace harness between key switch and ignition knob switch and BCM.

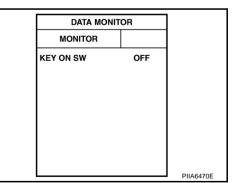
Key Switch Circuit Check (Without Intelligent Key)

1. CHECK KEY SWITCH

With CONSULT-II

Touch "BCM". With "KEY ON SW" on the DATA MONITOR, Check ON/OFF operation. * : Refer to <u>BL-37, "Data Monitor"</u>.

| Monitor ite OPERATION o | | Contents |
|----------------------------|--------------|--|
| KEY ON SW [*] | "ON/ OFF" | Key inserted (ON)/key removed (OFF) status judged from the key-in detection switch is displayed. |



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Without CONSULT-II
 GO TO 2.
 OK or NG

- OK >> Key switch circuit is OK.
- NG >> GO TO 2.

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$\overline{2.}$ check key switch power supply circuit

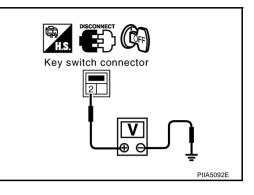
- 1. Turn ignition switch OFF.
- 2. Disconnect key switch connector.
- 3. Check voltage between key switch connector M307 terminal 2 and ground.

2 (L/W) – Ground

: Battery voltage.

OK or NG

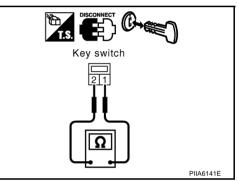
- OK >> GO TO 3.
- NG >> Check harness between key switch and fuse.



3. снеск кеу switch

Check continuity between key switch connector M307 terminal 1 and 2.

| Con- nector | Terminal | | Condition | Continuity | | |
|---------------------------|----------|---|--|------------|--|--|
| M307 | 1 | 2 | Key is inserted in ignition key cylinder. | Yes | | |
| 101307 | | | Key is removed from ignition key cylinder. | No | | |
| OK or NG | | | | | | |
| OK | | | | | | |
| NG >> Replace key switch. | | | | | | |



4. CHECK HARNESS CONTINUITY

- 1. Disconnect key switch and connector and BCM connector.
- Check continuity between key switch connector M307 terminal 1 and BCM connector M1 terminal 37.

1 (B/P) - 37 (B/P)

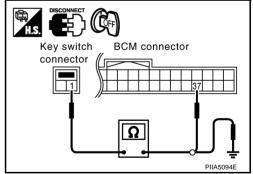
: Continuity should exist.

3. Check continuity between key switch connector M307 terminal 1 and ground.

1 (B/P) – Ground

: Continuity should not exist.

- OK >> Key switch and circuit is OK.
- NG >> Repair or replace harness between key switch and BCM.



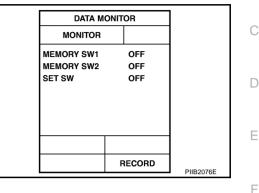
Seat Memory and Set Switch Circuit Check

1. CHECK FUNCTION

() With CONSULT-II

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

| Monitor item [OPERATION or 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

ĞO TO 2.

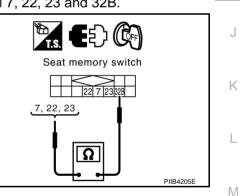
OK or NG

- OK >> Seat memory switch circuit is OK.
- NG >> GO TO 2.

2. CHECK SEAT MEMORY SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect seat memory switch connector.
- 3. Check continuity between seat memory switch connector B328 terminal 7, 22, 23 and 32B.

| Connec- tor | Terminals | | Condition | Continuity |
|----------------|-----------|---------|----------------------|------------|
| B328 2: | 7 | 32B | Memory switch 1: ON | Yes |
| | | | Memory switch 1: OFF | No |
| | 22 | | Memory switch 2: ON | Yes |
| | 22 | | Memory switch 2: OFF | No |
| | 23 | | Set switch: ON | Yes |
| | | | Set switch: OFF | No |



OK or NG

OK >> GO TO 3.

NG >> Replace seat memory switch.

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3. CHECK HARNESS CONTINUITY

- 1. Disconnect driver seat control unit connector.
- 2. Check continuity between driver seat control unit connector B324 terminals 7, 22, 23 and seat memory switch connector B328 terminals 7, 22, 23.
 - 7 (L/G) 7 (L/G)22 (L/B) – 22 (L/B) 23 (L/W) - 23 (L/W)
- : Continuity should exist.
- : Continuity should exist.
 - : Continuity should exist.
- Check continuity between driver seat control unit connector 3. M324 terminals 7, 22, 23 and ground.
 - 7 (L/G) Ground
 - : Continuity should not exist.
 - 22 (L/B) Ground
 - 23 (L/W) Ground
- : Continuity should not exist.
- : Continuity should not exist.

OK or NG

OK >> GO TO 4.

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

4. CHECK SEAT MEMORY SWITCH GROUND CIRCUIT

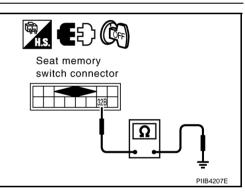
Check continuity between seat memory switch connector B328 terminal 32B and ground.

32B (B) – Ground

: Continuity should exist.

OK or NG

- OK >> Replace driver seat control unit.
- >> Repair or replace harness between seat memory switch NG and ground.



Seat Memory Cancel Switch Circuit Check 1. CHECK SEAT MEMORY SWITCH

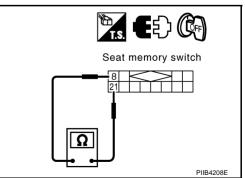
- Turn ignition switch OFF. 1.
- 2. Disconnect seat memory switch connector.
- 3. Check continuity between seat memory switch connector B328 terminals 21 and 8.

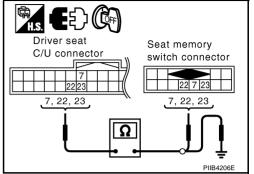
| Connec- tor | Terminals | | Condition | Continuity |
|----------------|-----------|---|-----------------------|------------|
| B328 | 21 | 8 | Cancel switch: CANCEL | Yes |
| | | | Cancel switch: AUTO | No |

OK or NG

OK >> GO TO 2.

NG >> Replace seat memory switch.





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2. CHECK HARNESS CONTINUITY

- 1. Disconnect driver seat control unit connector.
- 2. Check continuity between driver seat control unit connector B324 terminals 8, 21 and seat memory switch connector B328 terminal 21.

8 (L/Y) – 21 (L/Y) 21 (L/Y) – 21 (L/Y) : Continuity should exist.

- : Continuity should exist.
- 3. Check continuity between driver seat control unit connector M324 terminals 8, 21 and ground.
 - 8 (L/Y) Ground
 - 21 (L/Y) Ground
- : Continuity should not exist.

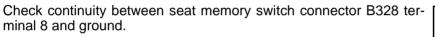
: Continuity should not exist.

OK or NG

OK >> GO TO 3.

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

3. CHECK SEAT MEMORY SWITCH GROUND CIRCUIT

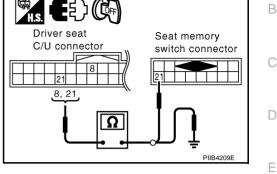


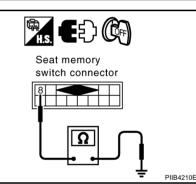
8 (P/B) – Ground

: Continuity should exist.

OK or NG

- OK >> Replace driver seat control unit.
- NG >> Repair or replace harness between seat memory switch and ground.





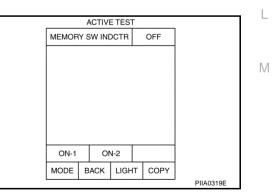
Memory Indicator Lamp Circuit Check

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 >> Memory indicator lamp circuit is OK.

NG >> GO TO 2.

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2. 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 B328 terminal 40A and ground.

40A (R/W) – Ground : Battery voltage

OK or NG

- OK >> GO TO 3.
- NG >> Repair or replace harness between fuse block (J/B) and seat memory switch.



- 1. Disconnect driver seat control unit connector.
- 2. Check continuity between driver seat control unit connector B324 terminals 2, 18 and seat memory switch connector B328 terminals 2, 18.

2 (Y/W) – 2 (Y/W) 18 (Y/G) – 18 (Y/G) : Continuity should exist.

- : Continuity should exist.
- 3. Check continuity between driver seat control unit connector B324 terminals 2, 18 and ground.
 - 2 (Y/W) Ground 18 (Y/G) – Ground
- : Continuity should not exist.

: Continuity should not exist.

OK or NG

- OK >> GO TO 4.
- NG >> Repair or replace harness between driver seat control unit and seat memory switch.

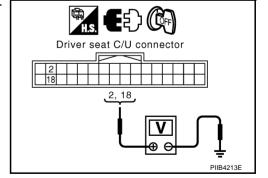
: Battery voltage

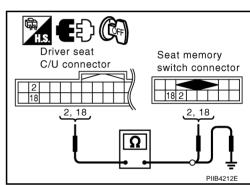
: Battery voltage

4. CHECK SEAT MEMORY SWITCH INDICATOR SIGNAL

Check voltage between driver seat control unit connector B324 terminals 2, 18 and ground.

- 2 (Y/W) Ground
- 18 (Y/G) Ground
- OK or NG
- OK >> Memory indicator lamp circuit is OK.
- NG >> Replace seat memory switch.





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Seat memory switch connector

AUTOMATIC DRIVE POSITIONER



1. CHECK UART LINE HERNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit connector and automatic drive positioner control unit connector.

HS.

1 17 Driver seat C/U

1, 17

connector

- 3. Check continuity between driver seat control unit connector B324 terminal 1, 17 and automatic drive positioner connector M96 terminal 10, 26.
 - 17 (P) 26 (R/G) 1 (GY) – 10 (R)
- : Continuity should exist.
 - : Continuity should exist.
- 4. Check continuity between driver seat control unit connector B324 terminal 1, 17 and ground.
 - 17 (P) Ground
 - 1 (GY) Ground
- OK or NG

```
OK >> GO TO 2.
```

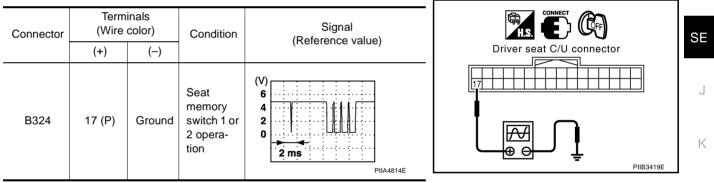
NG >> Repair or replace harness between driver seat control unit and automatic drive positioner.

: Continuity should not exist.

: Continuity should not exist.

2. CHECK UART LINE SIGNAL 1

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



OK or NG

OK >> GO TO 3.

- NG >> Check the flowing.
 - $\bullet\,$ When voltage signal dose not appear with a constant voltage (approx. 5V), replace driver seat $_{\rm M}$ control unit.
 - When voltage signal dose not appear with a constant voltage (approx. 0V), replace automatic drive positioner control unit.

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Automatic drive

positioner C/U

connector

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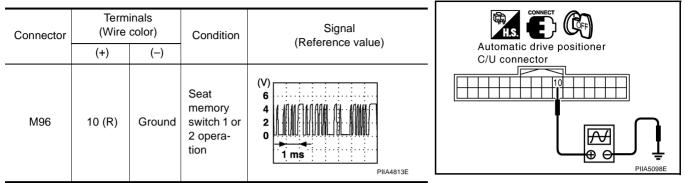
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AUTOMATIC DRIVE POSITIONER

3. CHECK UART LINE SIGNAL 2

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



OK or NG

OK >> GO TO 4.

NG >> Check the flowing.

- When voltage signal dose not appear with a constant voltage (approx. 5V), replace automatic driver seat control unit.
- When voltage signal dose not appear with a constant voltage (approx. 0V), replace driver seat control unit.

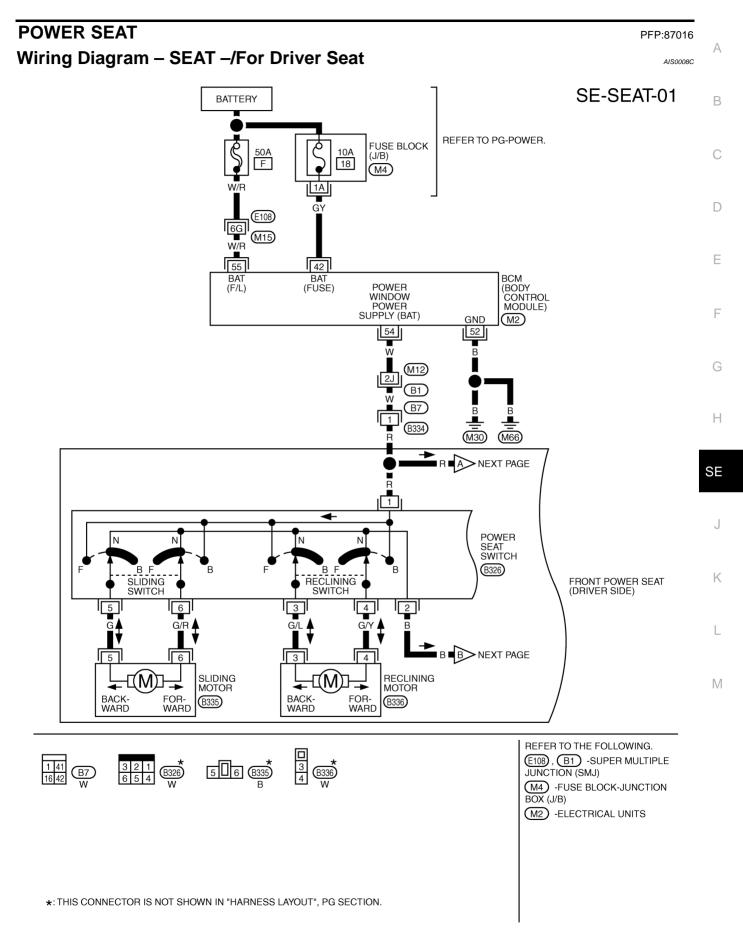
4. CHECK DRIVER SEAT CONTROL UNIT

Dose the automatic drive positioner operate, when the driver control unit exchanged?

Does seat memory function operate?

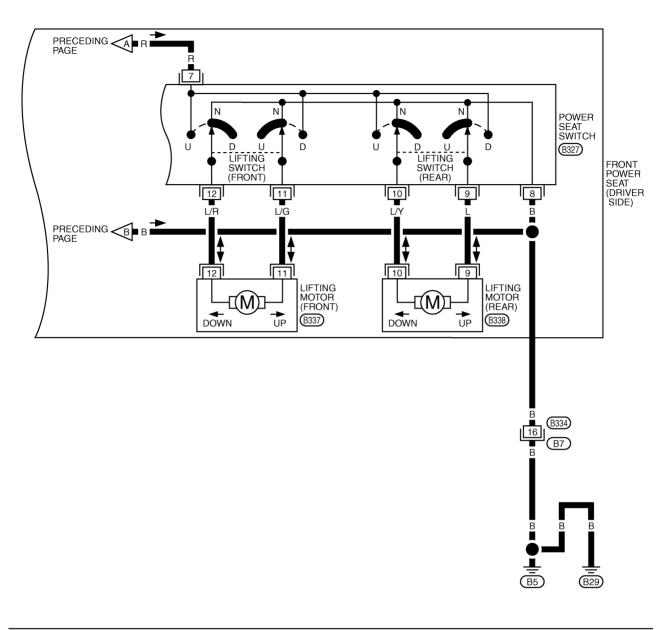
- YES >> Replace automatic drive positioner control unit.
- NG >> Replace driver seat control unit.

POWER SEAT



POWER SEAT

SE-SEAT-02

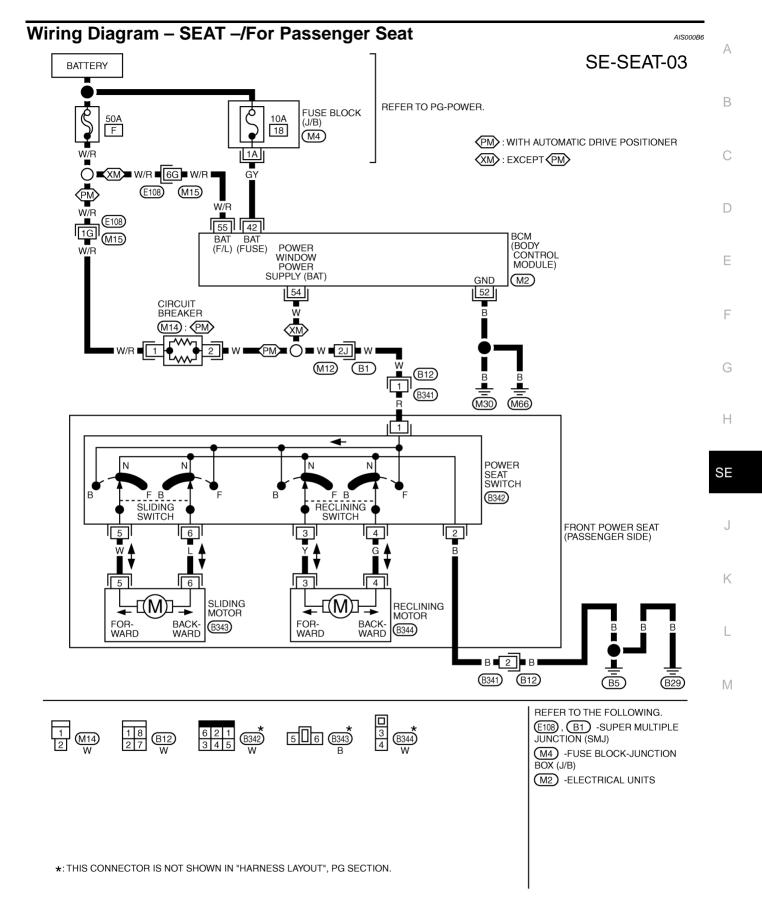




*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

TIWT0383E

POWER SEAT



TIWM1104E

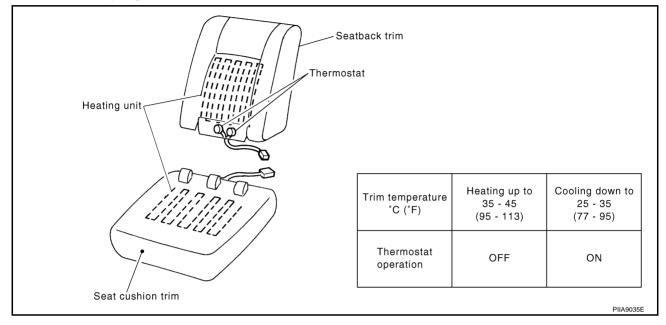
HEATED SEAT

PFP:87335

Description

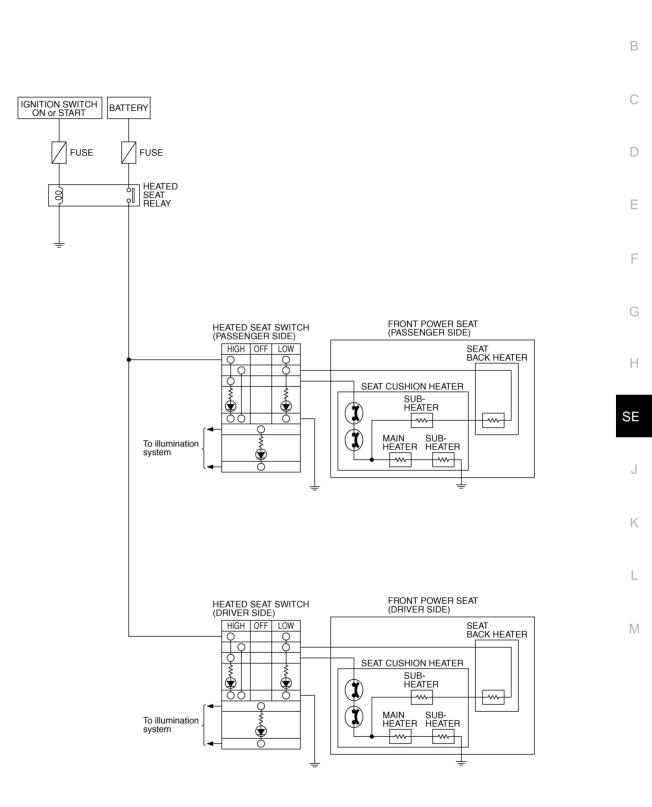
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- When handling seat, be extremely careful not to scratch heating unit.
- To replace heating unit, seat trim and pad should be separated.
- Do not use any organic solvent, such as thinner, benzene, alcohol, etc. to clean trims.



Schematic



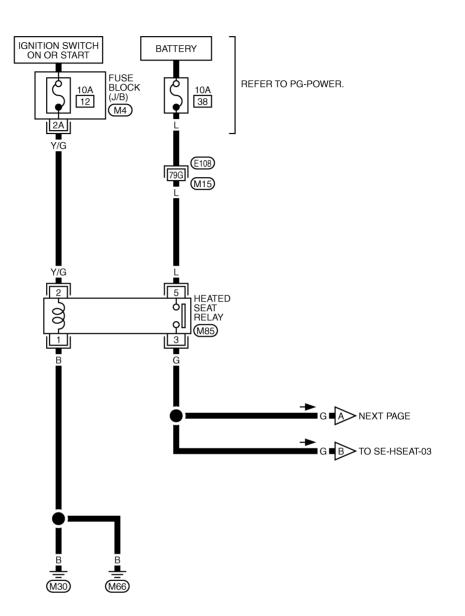


TIWT0343E

Wiring Diagram – HSEAT – / For A/T Models

SE-HSEAT-01

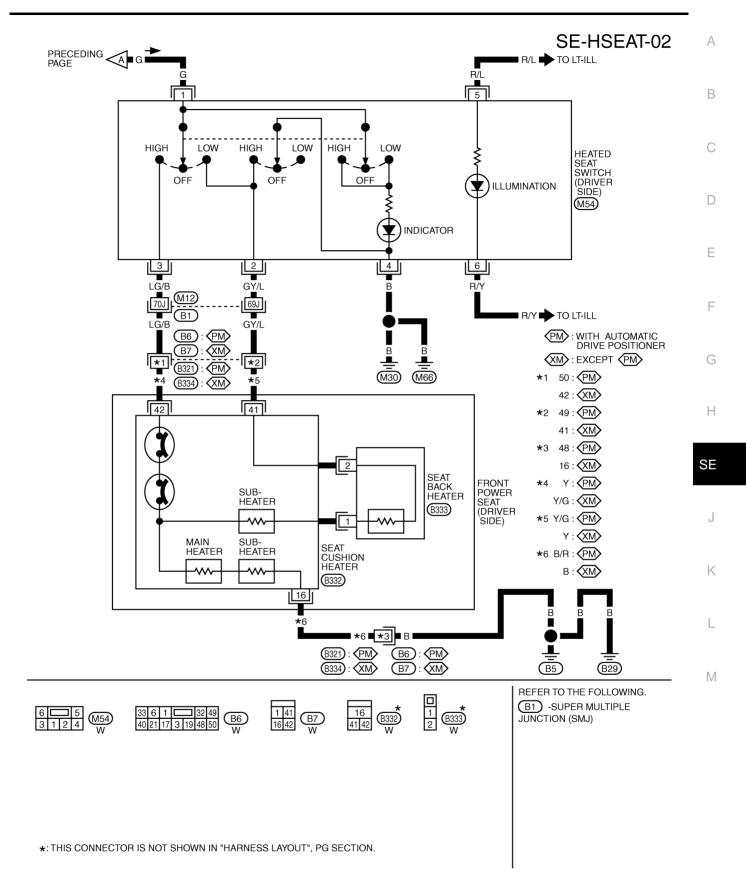
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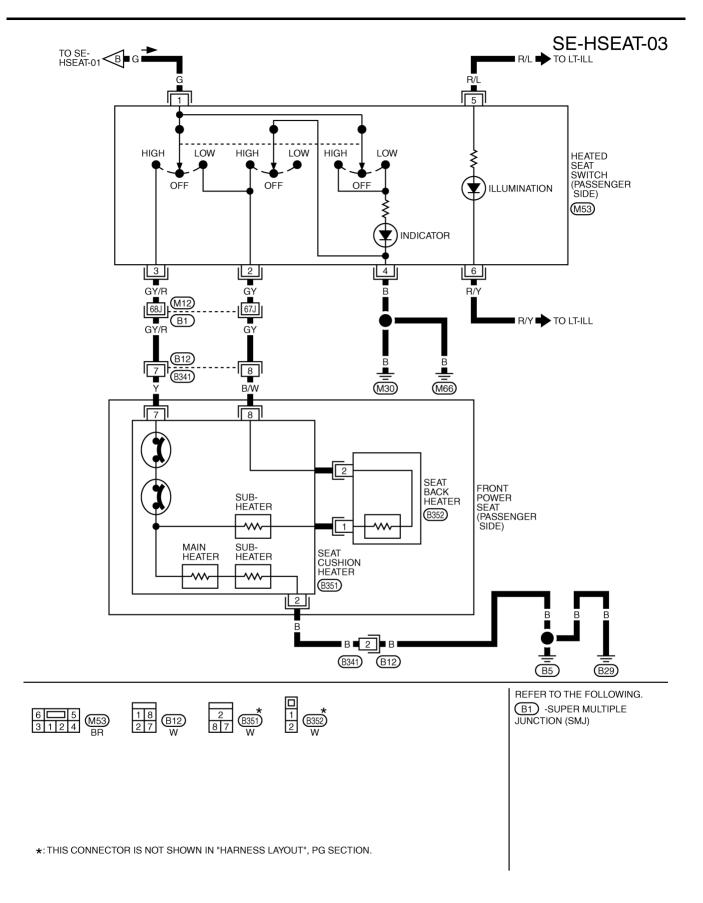


REFER TO THE FOLLOWING. (E108) -SUPER MULTIPLE JUNCTION (SMJ) (M4) -FUSE BLOCK-JUNCTION BOX (J/B)

TIWM1105E



TIWM1106E



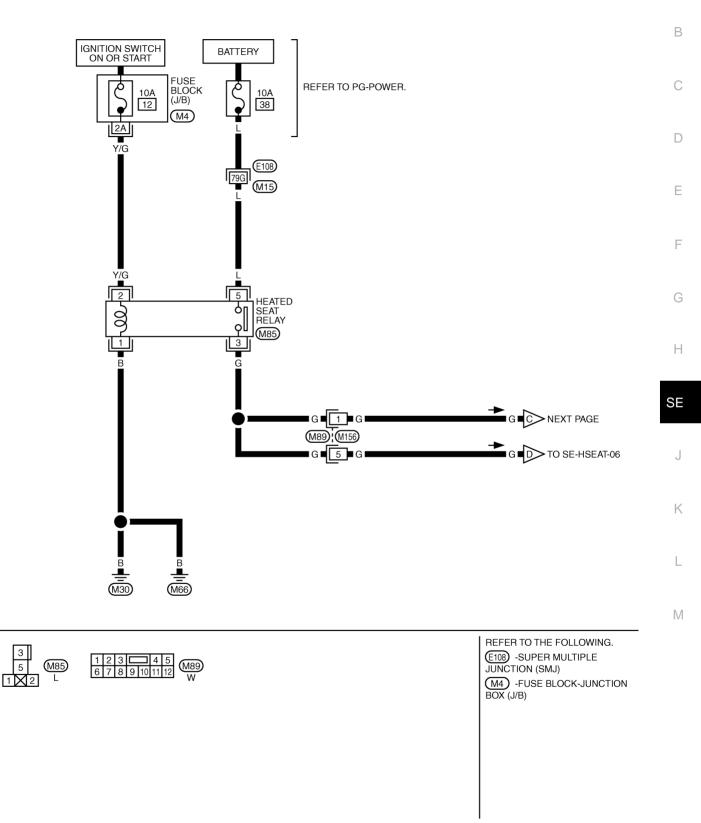
TIWM1107E

Wiring Diagram – HSEAT – / For M/T Models

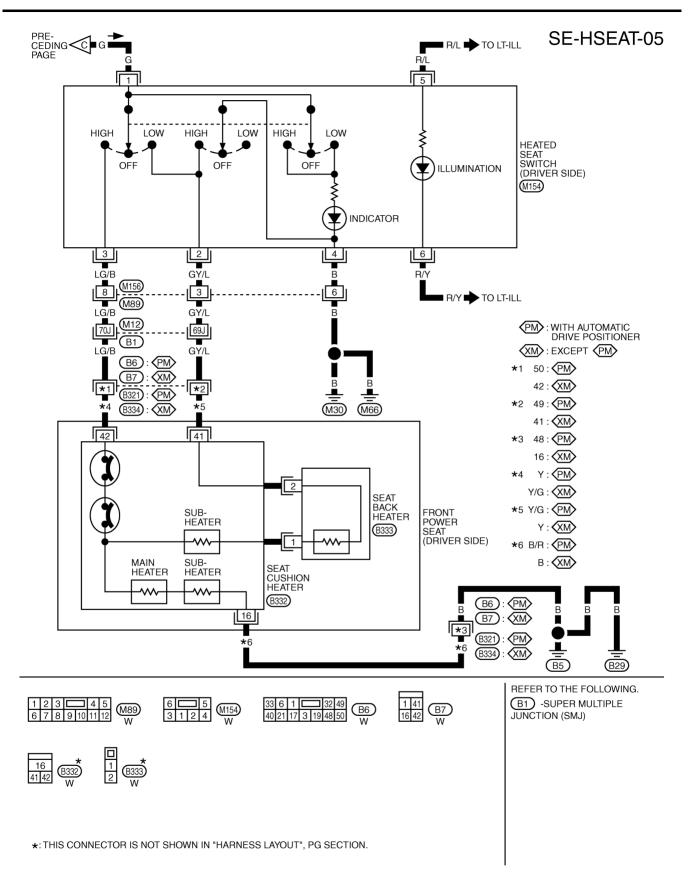
SE-HSEAT-04

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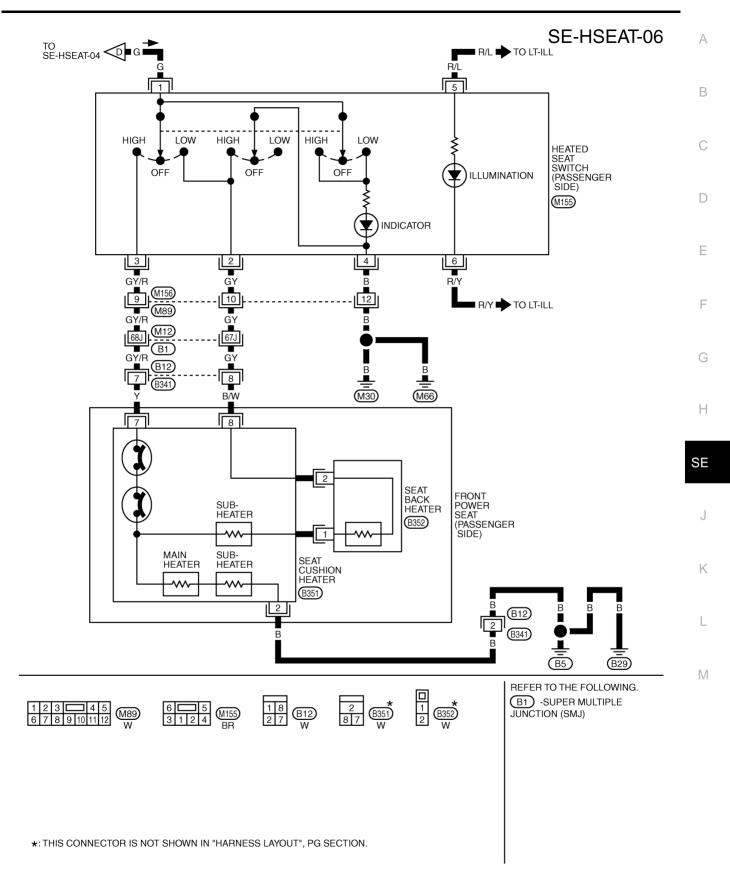
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TIWM1108E



TIWM1109E



TIWM1110E

FRONT SEAT

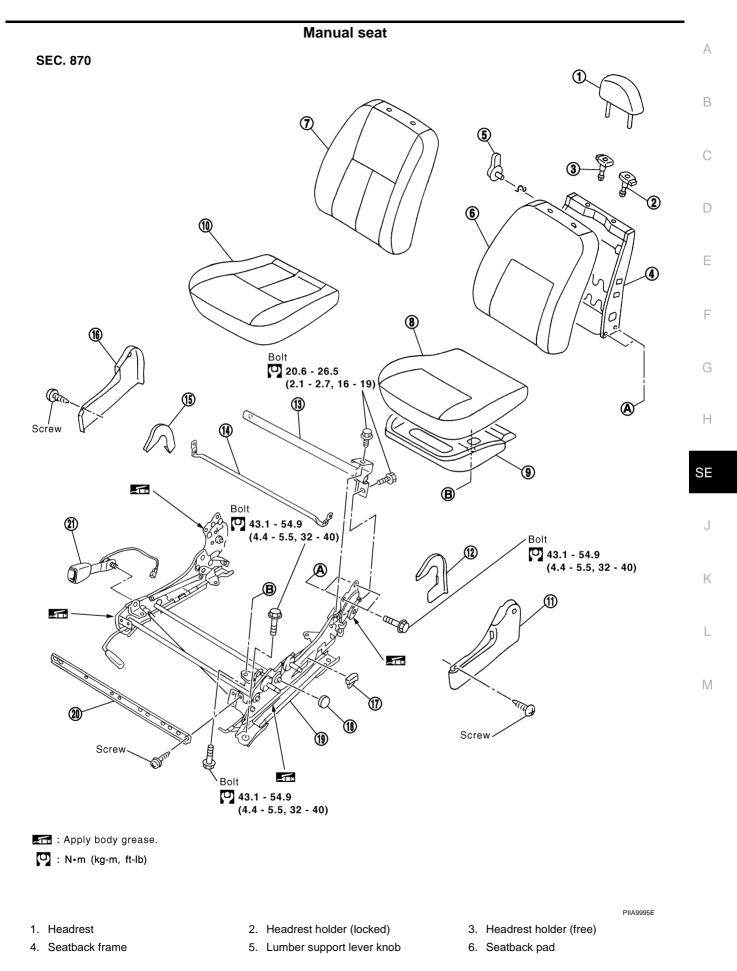
Removal and Installation

PFP:87000

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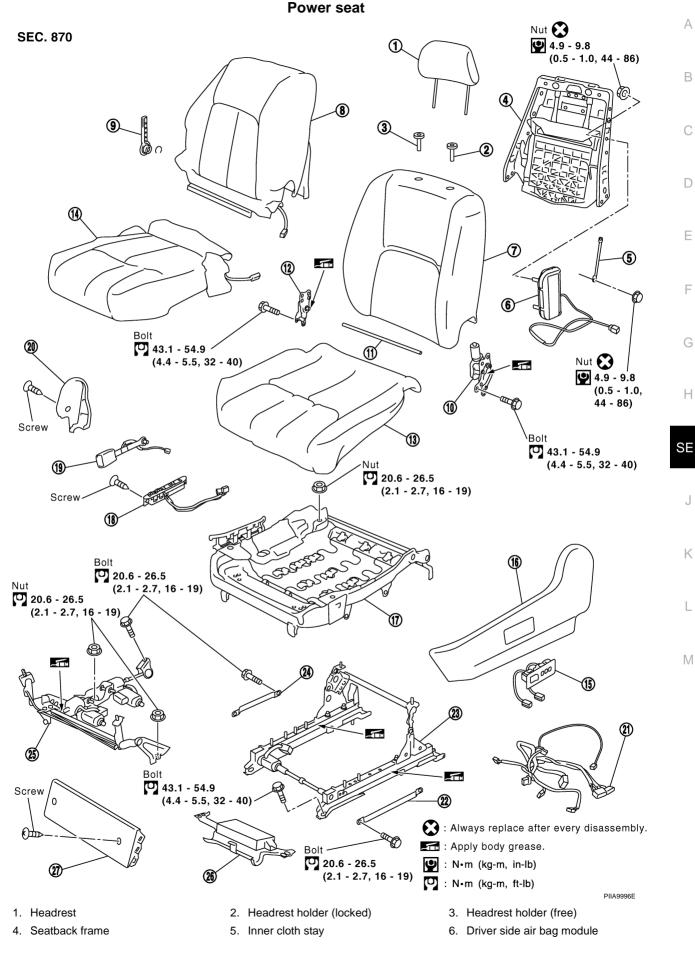
CAUTION:

Do not disassemble front passenger seat cushion assembly. Always replace as an assembly. For front passenger seat service parts, refer to the service part catalogue.



- 7. Seatback trim
- 10. Seat cushion trim
- 13. Sliding rail bracket (rear)
- 16. Seat cushion inner finisher
- 19. Lifter base assembly

- 8. Seat cushion pad
- 11. Seat cushion outer finisher
- 14. Reclining device rod
- 17. Reclining device lever knob
- 20. Sliding rail bracket (front)
- 9. Seat cushion frame
- 12. Reclining device cover (LH)
- 15. Reclining device cover (RH)
- 18. Lifter dial
- 21. Seat belt buckle



SE-93

- 7. Seatback pad
- 10. Reclining device (LH)
- 13. Seat cushion pad
- 16. Seat cushion outer finisher

25. Seat lifter link motor unit assembly

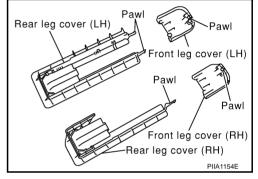
- 19. Seat belt buckle
- 22. Seat cushion rod (LH)

- 8. Seatback trim
- 11. Reclining device rod
- 14. Seat cushion trim
- 17. Seat cushion frame
- 20. Seat cushion inner finisher
- 23. Seat lifter link slide assembly
- 26. Driver seat control unit assembly
- 9. Lumber support lever knob
- 12. Reclining device (RH)
- 15. Seat memory switch
- 18. Power seat switch
- 21. Driver power seat harness
- 24. Seat cushion rod (RH)
- 27. Seat cushion front finisher

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:
 - 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.
 - Slide the seat forward, then disengage the tabs on the front RH/LH 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. Remove the body mounting bolts.
- 4 Disconnect both battery cables.
- 5. Remove the harness connector for the side air bag module.
- 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.

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.

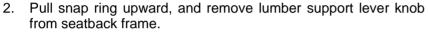
Disassembly and Assembly SEATBACK TRIM AND PAD

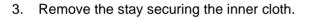
CAUTION:

Do not disassemble front passenger seat cushion assembly. Always replace as an assembly. For front passenger seat service parts, refer to the service part catalogue.

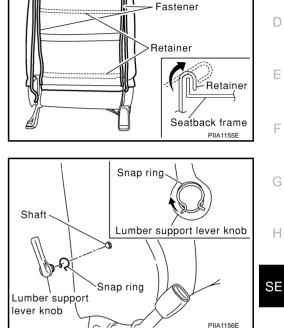
Disassembly

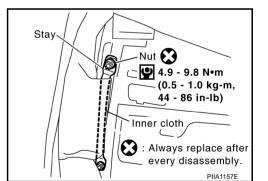
1. Open zipper on back of seatback, and remove retainer from seatback frame.

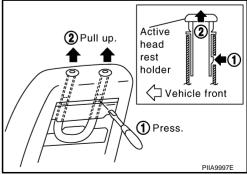




4. Remove headrest holder (with active headrest). From the back of the seatback, press the headrest holder tab of the stay pipe hole to disengage. Then pull the headrest holder up to remove. Before installing the headrest holder, check its orientation (front/ rear and right/left).







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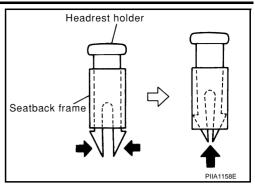
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NOTE:

 Remove headrest holder (without active headrest). Squeeze and pull up headrest holder tabs to remove from seatback frame.

NOTE:

Before installing the headrest holder, check its orientation (front/ rear and right/left).



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.

Assembly

Assemble in the reverse order of disassembly.

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.

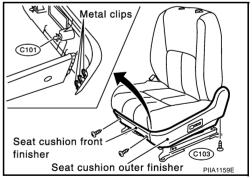
SEAT CUSHION TRIM AND PAD (POWER SEAT)

CAUTION:

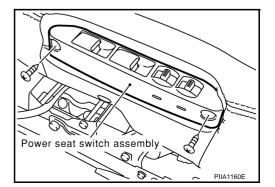
Do not disassemble front passenger seat cushion assembly. Always replace as an assembly. For front passenger seat service parts, refer to the service part catalogue.

Disassembly

1. Remove the seat cushion front finisher and seat cushion outer finisher.



2. Remove the power seat switch assembly.



- 3. Remove the retainer on the seat cushion frame, then remove the harness connector for the seat heater.
- 4. After removing the seat cushion trim and pad, remove the hog rings to separate the trim and pad and the seat cushion heater unit.

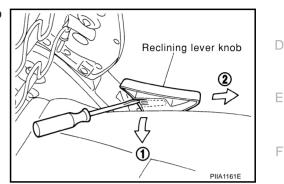
Assembly

Assemble in the reverse order of disassembly.

SEAT CUSHION TRIM AND PAD (MANUAL SEAT)

Disassembly

1. Pull up tabs of reclining lever inside. Slide knob forward to remove.



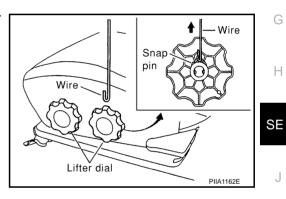
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2. Hang snap ring on wire, and pull it up to remove. Remove lifter dial.

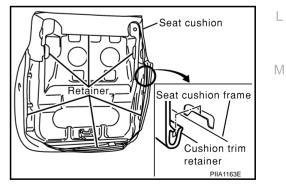


3. Remove mounting bolts by accessing them from back of seat cushion.

NOTE:

When installing bolts, ensure that locks on both sides of slide are engaged. First temporarily tighten them, and then finally tighten.

- 4. Remove retainer from back of cushion.
- 5. Pull off trim and remove hog rings.



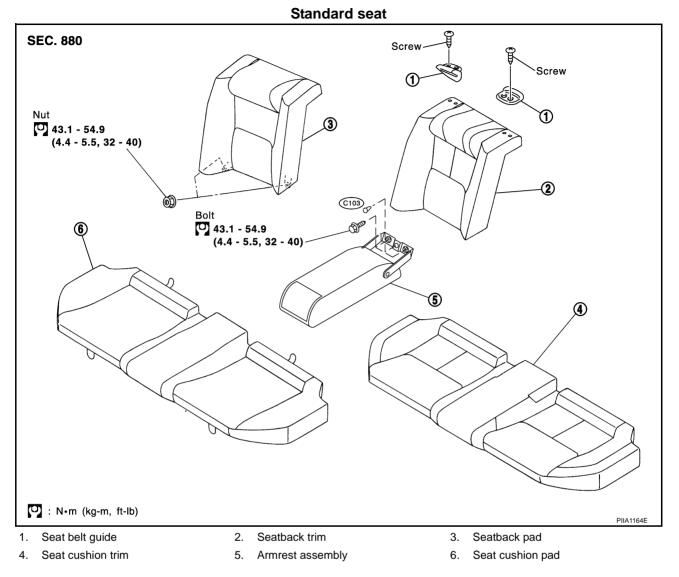
Assembly

Assemble in the reverse order of disassembly.

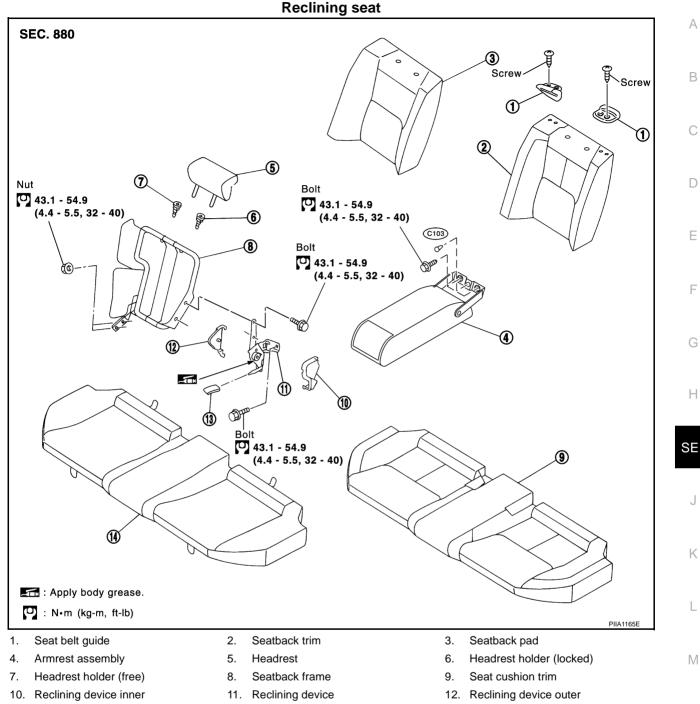
REAR SEAT Removal and Installation

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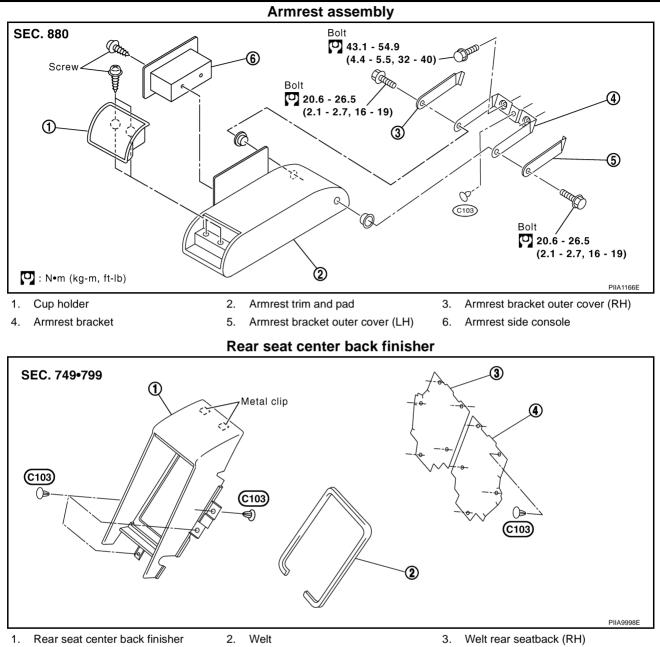


REAR SEAT



- 13. Reclining device lever knob
- 14. Seat cushion pad

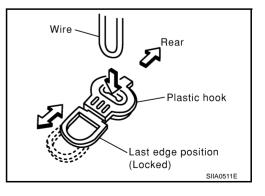
REAR SEAT



4. Welt rear seatback (LH)

REMOVAL

1. Pull the lock at the front bottom of the seat cushion forward (1 for each side), and pull the seat cushion upward to release the wire from the plastic hook, then pull the seat cushion forward to remove.



INSTALLATION

Install in the reverse order of removal.