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PRECAUTIONS

PRECAUTIONS PFP:00001

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

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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.

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PREPARATION

PREPARATION PFP:00002

Special Service Tools

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

Tool number (Kent-Moore No.) Tool name		Description
(J39570) Chassis ear	SIIAO993E	Location the noise
(J43980) NISSAN Squeak and Rattle Kit	SIIA0994E	Repairing the cause of the noise

Commercial Service Tools

AIS002WW

Tool name		Description
Engine ear	SIIA0995E	Location the noise

Customer Interview

Duplicate the Noise and Test Drive.

Check Related Service Bulletins.

Locate the Noise and Identify the Root Cause.

Repair the Cause.

Confirm Repair.

Inspection End

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

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

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

After identifying the type of noise, isolate the noise in terms of its characteristics. The noise characteristics are provided so the customer, service adviser and technician are all speaking the same language when

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

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

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

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

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

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

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

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

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

SQUEAK AND RATTLE TROUBLE DIAGNOSIS

Work Flow

CUSTOMER INTERVIEW

defining the noise.

conditions that exist when the noise occurs.

Squeak —(Like tennis shoes on a clean floor)

Creak—(Like walking on an old wooden floor)

Rattle—(Like shaking a baby rattle)

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

Tick—(Like a clock second hand)

Thump—(Heavy, muffled knock noise)

action or road conditions.

Buzz—(Like a bumble bee)

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dependent on materials/often brought on by activity.

Buzz characteristics include high frequency rattle/firm contact.

judge as acceptable may be very irritating to the customer.

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Often the degree of acceptable noise level will vary depending upon the person. A noise that you may

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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 only be eliminated 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</u>, "<u>Generic Squeak and Rattle Troubleshooting</u>".

REPAIR THE CAUSE

- If the cause is a loose component, tighten the component securely.
- If the cause is insufficient clearance between components:
- separate components by repositioning or loosening and retightening the component, if possible.
- insulate components with a suitable insulator such as urethane pads, foam blocks, felt cloth tape or urethane tape. A Nissan Squeak and Rattle Kit (J43980) is available through your authorized Nissan Parts Department.

CAUTION:

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

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

The following materials are contained in the Nissan Squeak and Rattle Kit (J43980). Each item can be ordered separately as needed.

URETHANE PADS [1.5 mm (0.059 in) thick]

Insulates connectors, harness, etc.

76268-9E005: 100×135 mm (3.94 \times 5.31 in)/76884-71L01: 60×85 mm (2.36 \times 3.35 in)/76884-71L02: 15 \times 25 mm (0.59 \times 0.98 in)

INSULATOR (Foam blocks)

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

73982-9E000: 45 mm (1.77 in) thick, 50×50 mm (1.97 \times 1.97 in)/73982-50Y00: 10 mm (0.39 in) thick, 50×50 mm (1.97 \times 1.97 in)

INSULATOR (Light foam block)

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

FELT CLOTHTAPE

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

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

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

UHMW (Teflon) TAPE

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

SILICONE GREASE

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

Note: Will only last a few months.

SILICONE SPRAY

Use when grease cannot be applied.

DUCT TAPE

Use to eliminate movement.

CONFIRM THE REPAIR

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

Generic Squeak and Rattle Troubleshooting

AIS002WY

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

INSTRUMENT PANEL

Most incidents are caused by contact and movement between:

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

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

CAUTION:

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

CENTER CONSOLE

Components to pay attention to include:

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

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

DOORS

Pay attention to the:

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

Tapping or moving the components or pressing on them while driving to duplicate the conditions can isolate many of these incidents. You can usually insulate the areas with felt cloth tape or insulator foam blocks from the Nissan Squeak and Rattle Kit (J43980) to repair the noise.

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TRUNK

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

- 1. Trunk lid dumpers out of adjustment
- 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
- Sunvisor shaft shaking in the holder
- 3. Front or rear windshield touching headlining and squeaking

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

SEATS

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

Cause of seat noise include:

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

Causes of transmitted underhood noise include:

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

These 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

SOO2WZ



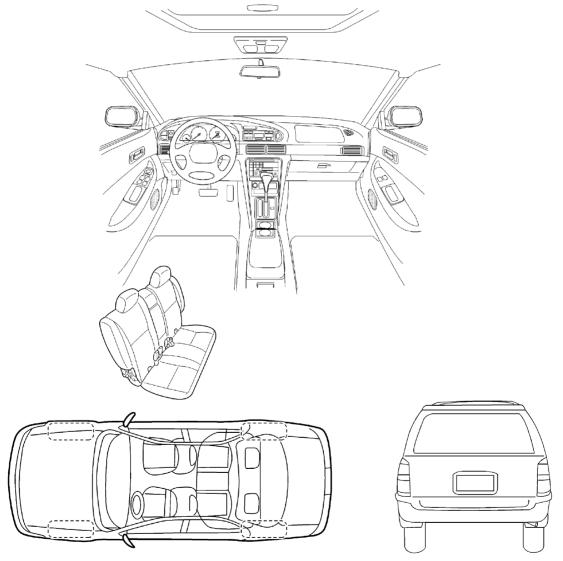
SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

Dear Infiniti Customer:

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

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

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



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

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SQUEAK & RATTLE DIAGNOSTIC WORKSHEET- page 2 Briefly describe the location where the noise occurs: WHEN DOES IT OCCUR? (check the boxes that apply) II. □ anvtime after sitting out in the sun ☐ 1st time in the morning ☐ when it is raining or wet ☐ only when it is cold outside ☐ dry or dusty conditions ☐ only when it is hot outside □ other: III. WHEN DRIVING: IV. WHAT TYPE OF NOISE? ☐ through driveways ☐ squeak (like tennis shoes on a clean floor) □ over rough roads ☐ creak (like walking on an old wooden floor) □ over speed bumps ☐ rattle (like shaking a baby rattle) ☐ only at about ____ mph ☐ knock (like a knock on a door) ☐ tick (like a clock second hand) ☐ on acceleration coming to a stop ☐ thump (heavy, muffled knock noise) □ buzz (like a bumble bee) ☐ on turns : left, right or either (circle) ☐ with passengers or cargo other: ☐ after driving miles or minutes TO BE COMPLETED BY DEALERSHIP PERSONNEL **Test Drive Notes:** Initials of person YES NO 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

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AUTOMATIC DRIVE POSITIONER

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System Description

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- 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, pedal position and door mirror position) for 2 people. If the driver is changes, one-touch operation allows changing to the other driving position.
- The settings (ON/OFF) of the automatic sliding seat (Entry/Exiting operation) at entry/exit can be changed
 as desired, using the display unit in the center of the instrument panel. The set content is transmitted by
 CAN communication, from display unit (without NAVI) or display control unit (with NAVI) to driver seat control unit.
- 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) and door mirror position] can be adjusted with the power seat switch or ADP steering switch or door mirror remote control switch.

NOTE:

- The seat can be manually operated with the ignition switch OFF.
- The door mirrors can be manually operated with the ignition switch turned ACC or ON.

AUTOMATIC OPERATION

Function		Description	
Memory switch operat	ion	The seat, steering and door mirror 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.	
Key fob interlock operation		Perform memory operation, exiting operation and entry operation by pressing key fob 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, return operation can be operated.

Auto operation temporary stop conditions.	When ignition switch turned to START during memory switch operation and return operation, 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 the door mirror remote control switch is operated (when ignition switch turned to ON or ACC). 	
A	When power seat switch turned ON.	
Auto operation stop conditions.	When ADP steering switch turned ON (telescopic operation or tilt operation).	
	When door mirror operates (only memory switch 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—START, the automatic operation is suspended. When the ignition switch returns to ON, it resumes.

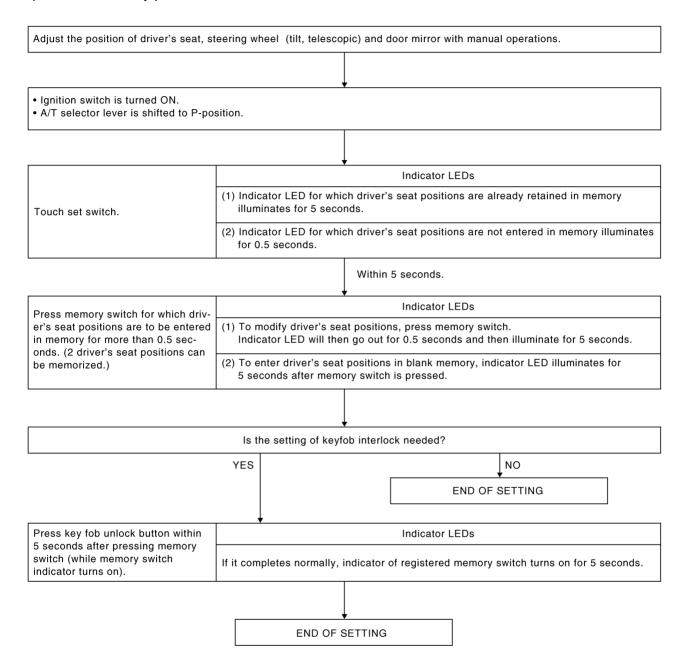
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MEMORY STORING AND KEY FOB INTERLOCK STORING

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



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NOTE:

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

MEMORY SWITCH OPERATION

Selecting the memory

Turn ignition switch "ON" and press desired memory switch for more than 0.5 seconds. (Indicator LED illuminates.)

The driver's seat, door mirror and steering wheel will move to their memorized positions. (During adjustments, indicator LED flashes, then illuminates for 5 seconds after adjustment.)

PIIA6137E

NOTE:

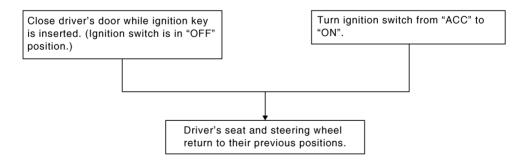
The driver's seat position and steering adjustment functions (see the following table) operate simultaneously in the order of priority.

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

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

ENTRY OPERATION

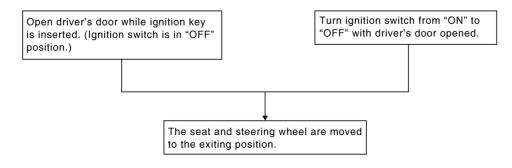
When the seat are on the exiting positions, the following operation moves the seat to the previous position before the exiting operation.



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EXITING OPERATION

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



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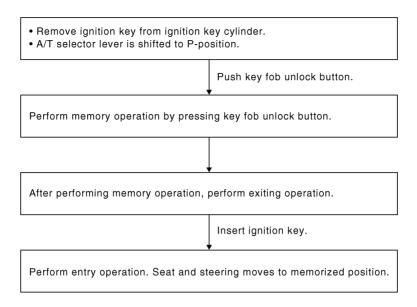
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KEY FOB INTERLOCK OPERATION

• Perform memory operation, exiting operation and entry operation by pressing key fob 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.

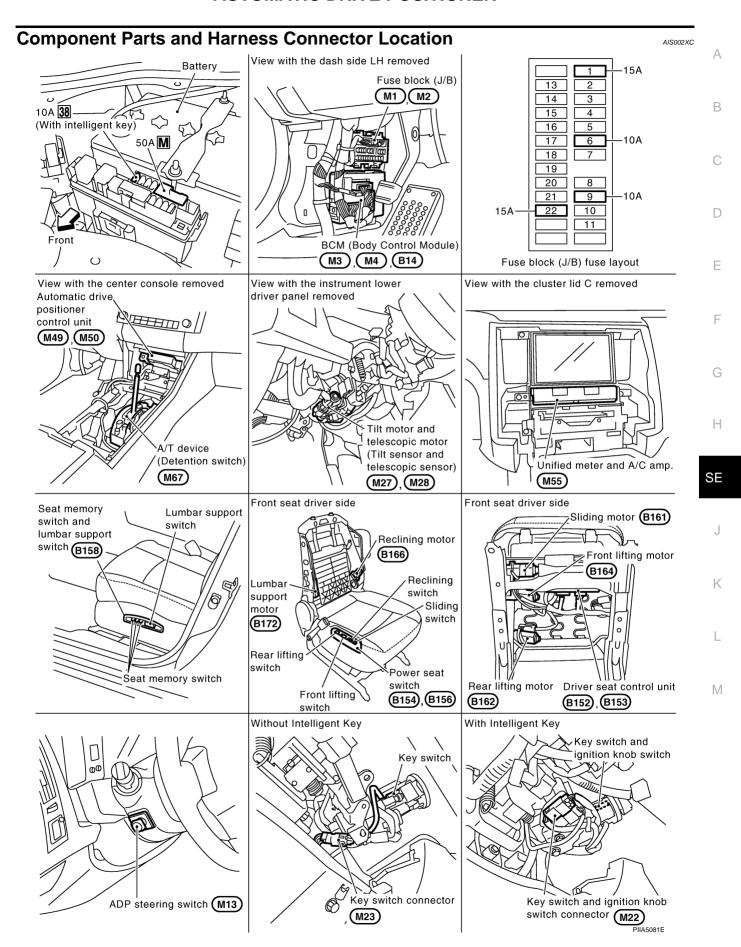
FAIL-SAFE MODE

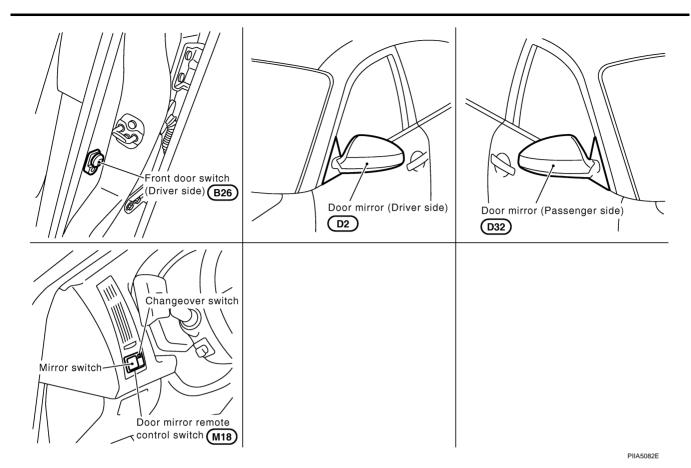
When any manual and automatic operations are not performed, if any motor operations of seats or tilt of steering are detected for approx. 0.1 sec or more, status is judged "Output malfunction". Motor operation will be suspended automatically, and all automatic operations will be ineffective (in this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

OPERATED PORTION	Seat sliding
	Seat reclining
	Seat lifting (Front)
	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.





CAN Communication System Description

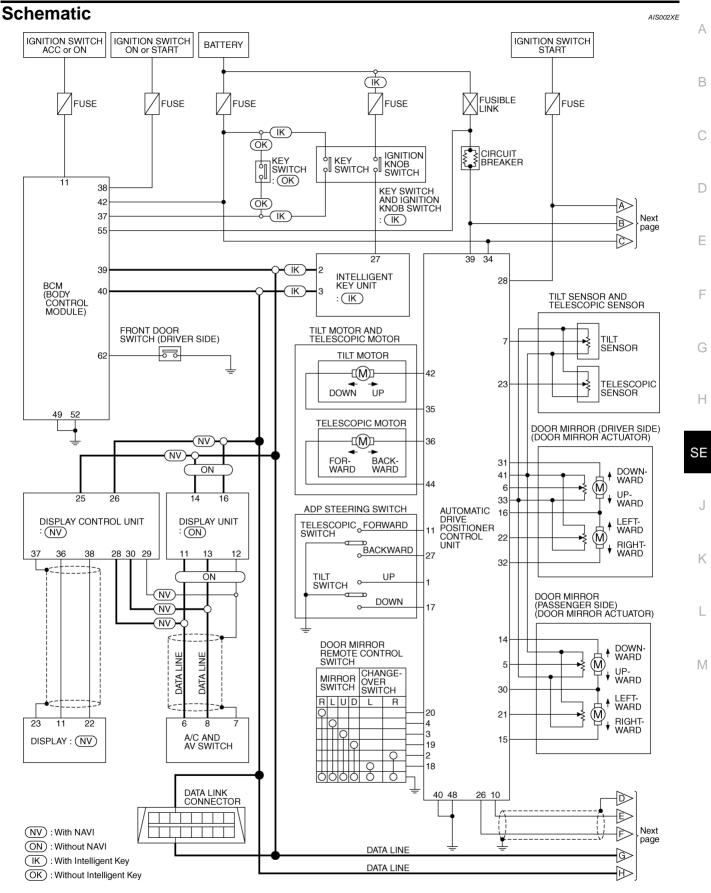
AISOORMA

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

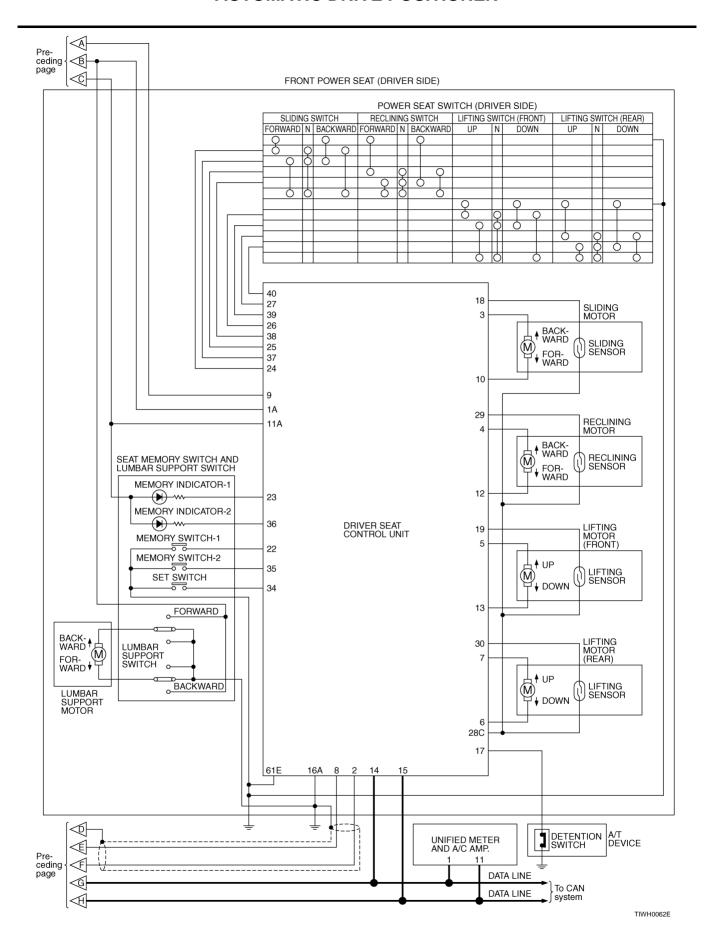
AIS004UO

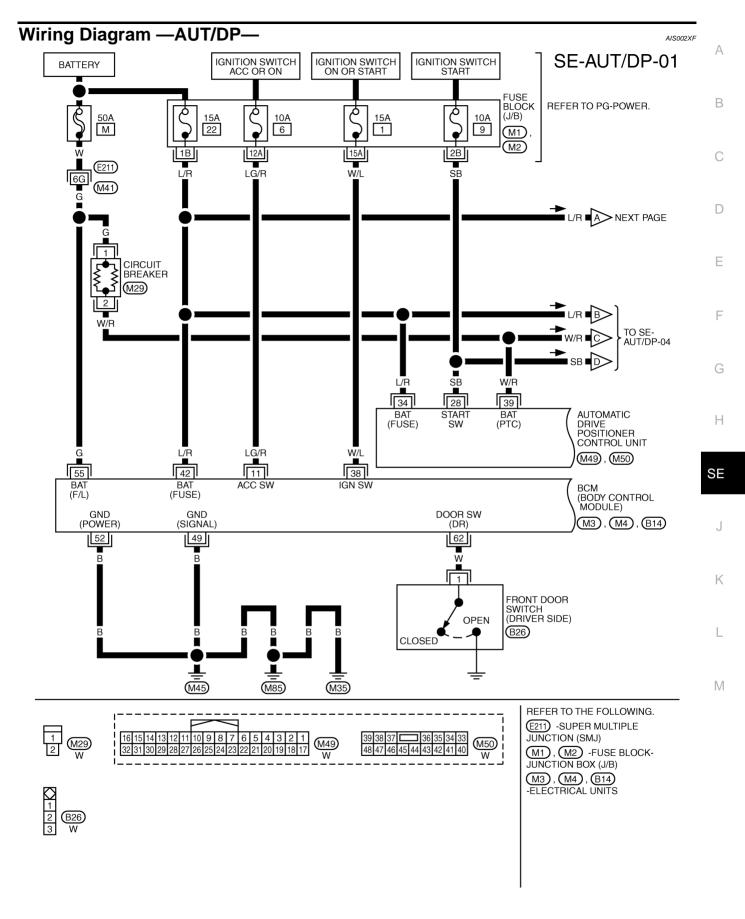
Refer to LAN-30, "CAN Communication Unit".



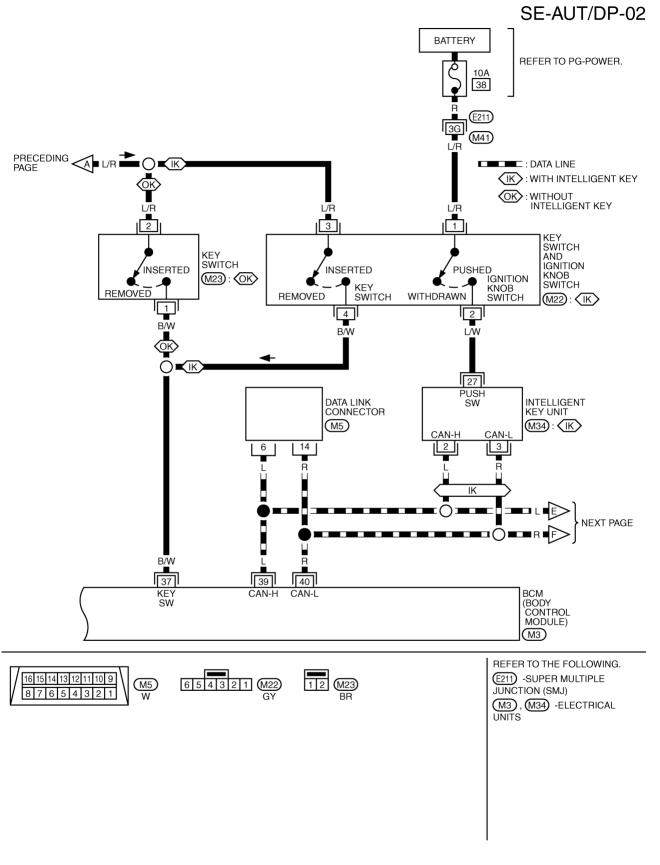
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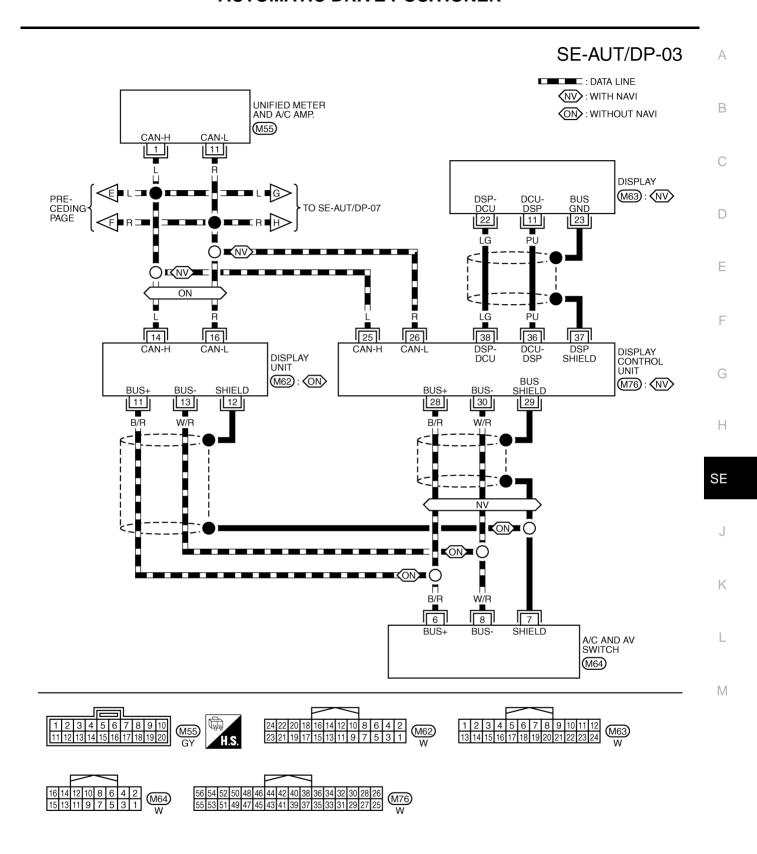




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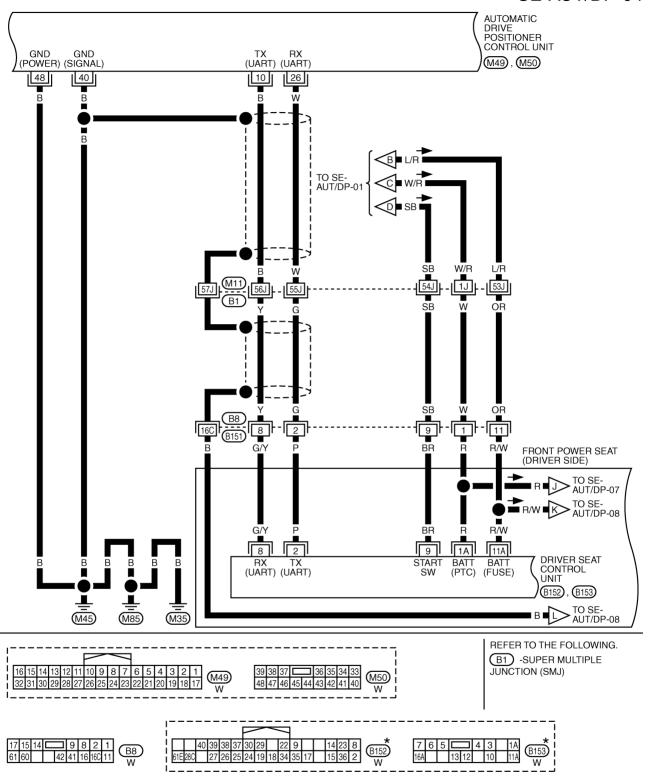


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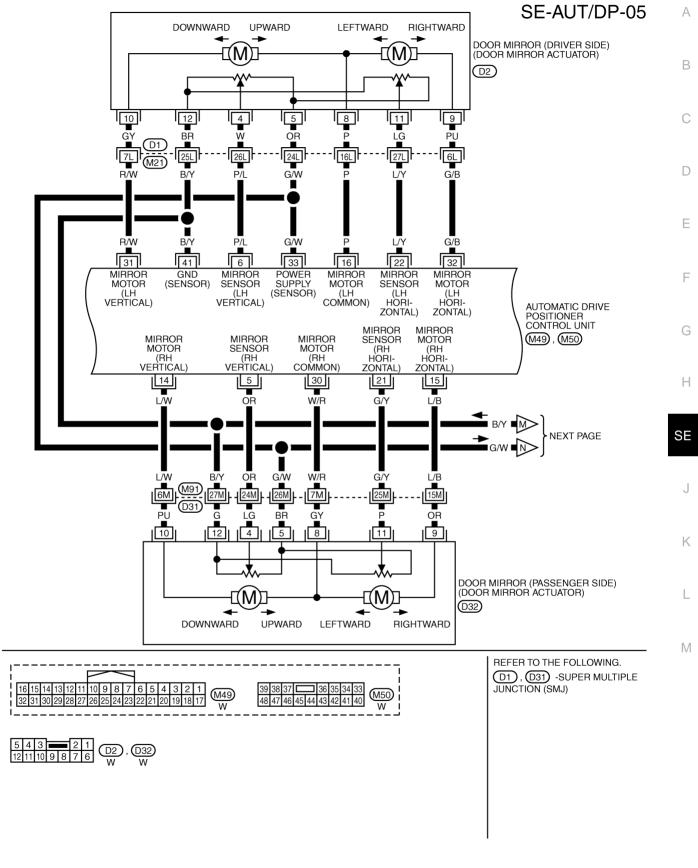
TIWM0312E

SE-AUT/DP-04

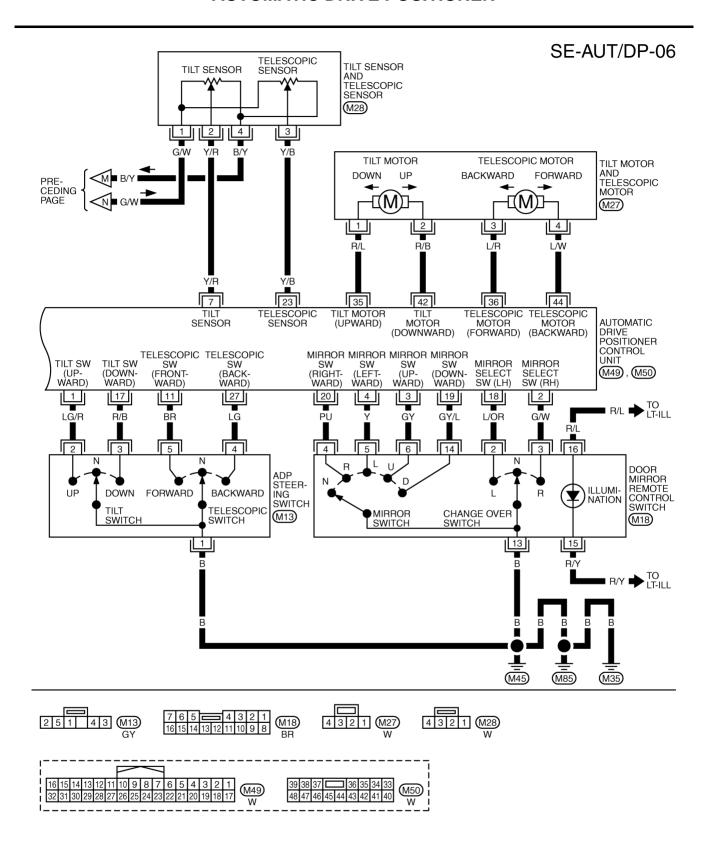


*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

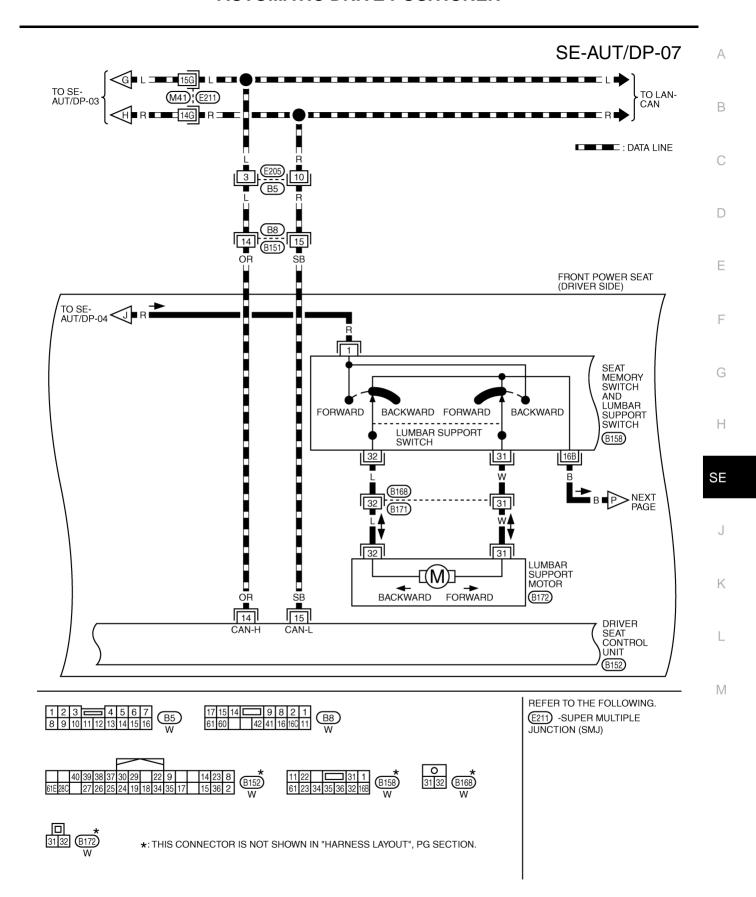
TIWH0063E



TIWM0314E

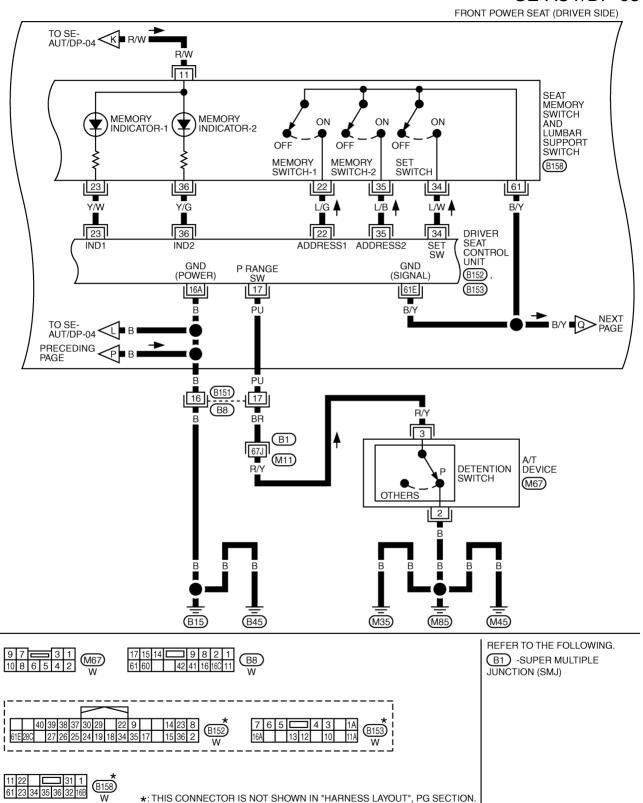


TIWM0986E



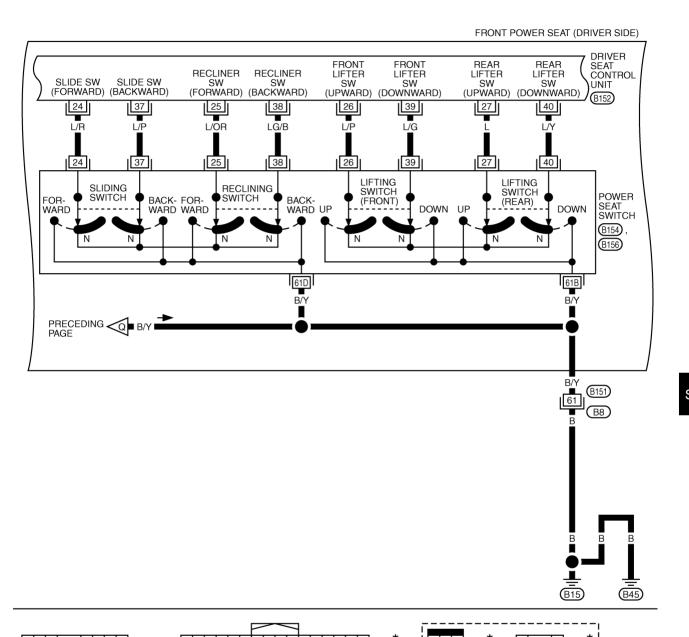
TIWM0316E

SE-AUT/DP-08



TIWH0064E

SE-AUT/DP-09



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

TIWM0318E

B156

(B154)

В

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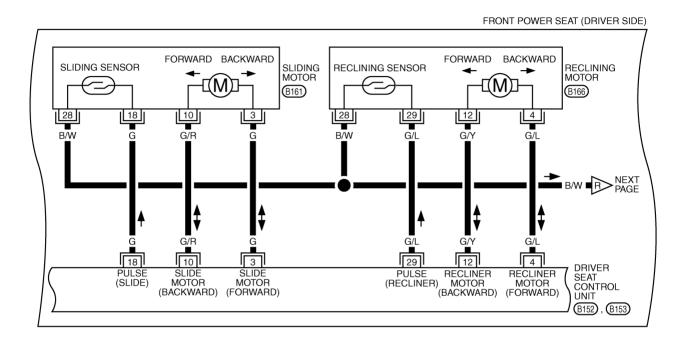
SE

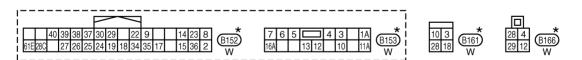
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SE-AUT/DP-10





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

TIWM0319E

LIFTING MOTOR (FRONT)

(B164)

FRONT LIFTER MOTOR

(UPWARD) (DOWNWARD)

SE-AUT/DP-11

В

Α

FRONT POWER SEAT (DRIVER SIDE)

DOWN

6

G/W

6

REAR

LIFTER MOTOR

(UPWARD)

Ľ(M)

LIFTING SENSOR

28B

B/W

В**/W**

GND

(SENSOR GND)

30

G/W

30

PULSE (REAR LIFTER)

LIFTING MOTOR (REAR)

DRIVER SEAT CONTROL UNIT

(B152), (B153)

(B162)

G/B

7

REAR

LIFTER

(DOWNWARD)

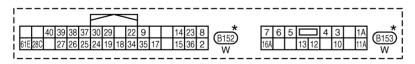
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*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

PRECEDING PAGE R B/W

19

G/Y

19

PULSE (FRONT LIFTER)

LIFTING SENSOR

28A

B/W

DOWN

13

FRONT

LIFTER MOTOR

 $\square(M)$

TIWM0320E

Terminals and Reference Values for BCM

IS002XG

TERMINAL	WIRE COLOR	ITEM	CONDITION	VOLTAGE (V) (Approx.)
11	LG/R	Ignition switch (ACC)	Ignition switch (ACC or ON position)	Battery voltage
		Key switch ON (key is inserted in ignition key cylinder)	Battery voltage	
31	37 B/W Key switch signal	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	R	CAN-L	_	_
42	L/R	Power source (Fuse)	_	Battery voltage
49	В	Ground (signal)	_	0
52	В	Ground (power)	_	0
55	G	Power supply (Fusible link)	_	Battery voltage
62	W	Front door switch (driver side)	ON (Open) → OFF (Closed)	0 → Battery voltage

Terminals and Reference Values for Automatic Drive Positioner Control Unit

AIS002XH

TERMI- NAL	WIRE COLOR	ITEM	CONDITION	VOLTAGE (V) (Approx.)
1.0/5		Tilt switch turned to upward	0	
1	LG/R	Tilt switch UP signal	Other than above	5
2	G/W	Changeover switch RH signal	When changeover switch in RH position	0
			Other than above	5
3	GY	Mirror switch UP signal	When mirror switch in turned to upward position	0
		-	Other than above	5
4	Y	Mirror switch LEFT signal	When mirror switch in turned to left- ward position	0
			Other than above	5
5	OR	Passenger side mirror sensor (vertical) signal	When passenger side mirror motor is UP or DOWN operation	Changes between 3 (close to perk) - 1 (close to valley)
6	P/L	Driver side mirror sensor (vertical) signal	When driver side mirror motor is UP or DOWN operation	Changes between 3 (close to perk) - 1 (close to valley)
7		Tile	Tilt position, top	2
7	Y/R	Tilt sensor signal	Tilt position, bottom	4
10	В	UART LINE (TX)	Memory switch 1 or 2 operated	(V) 6 4 2 0 1 ms
11	BR	Telescopic switch	Telescopic switch turned to forward	0
11 E	DIX	FORWARD signal	Other than above	5

TERMI- NAL	WIRE COLOR	ITEM	CONDITION	VOLTAGE (V) (Approx.)	
14	L/W	Passenger side mirror motor UP signal	When passenger side mirror motor UP operation	1.5 - Battery voltage	
			Other than above	0	
15	L/B	Passenger side mirror motor LEFT signal	When passenger side mirror motor LEFT operation	1.5 - Battery voltage	
			Other than above	0	
	Р	Driver side mirror motor DOWN signal Driver side mirror motor	When driver side mirror motor DOWN operation	1.5 - Battery voltage	
16			Other than above	0	
16			When driver side mirror motor RIGHT operation	1.5 - Battery voltage	
		RIGTH signal	Other than above	0	
47	D/D	Tilt switch DOWN signal	Tilt switch turned to downward	0	
17	R/B		Other than above	5	
18	L/OR	_/OR Changeover switch LH signal	When changeover switch in LH position	0	
			Other than above	5	
19	GY/L	Mirror switch DOWN signal	When mirror switch in turned to downward position	0	
			Other than above	5	
20	PU	Mirror switch RIGHT signal	When mirror switch in turned to right- ward position	0	
			Other than above	5	
21	G/Y	Passenger side mirror sensor (horizontal) signal	When passenger side mirror motor is LEFT or RIGHT operation	Changes between 1 (close to left edge) - 3 (close to right edge)	
22	L/Y	Driver side mirror sensor (horizontal) signal	When driver side mirror motor is LEFT or RIGHT operation	Changes between 1 (close to right edge) - 3 (close to left edge)	
22	V/D	Telescopic sensor input	Telescopic position, top	1	
23	Y/B		Telescopic position, bottom	4	
26	w	UART LINE (RX)	Memory switch 1 or 2 operated	(V) 6 4 2 0 2 ms	
	LG	Telescopic switch	Telescopic switch turned to backward	0	
27		BACKWARD signal	Other than above	5	
28	SB	Ignition switch (START)	Ignition switch (START position) Battery voltage		
30	W/R	Passenger side mirror motor DOWN signal W/R Passenger side mirror motor RIGTH signal	When passenger side mirror motor downward	1.5 - Battery voltage	
			Other than above	0	
			When passenger side mirror motor RIGHT operation	1.5 - Battery voltage	
			Other than above	0	
31	D AA7	Driver side mirror motor	When driver side mirror motor upward	1.5 - Battery voltage	
	R/W	UP signal	Other than above	0	

TERMI- NAL	WIRE COLOR	ITEM	CONDITION	VOLTAGE (V) (Approx.)
32	G/B	Driver side mirror motor LEFT signal	When driver side mirror motor LEFT operation	1.5 - Battery voltage
			Other than above	0
33	G/W	Sensor power supply	_	5
34	L/R	Battery power supply	_	Battery voltage
35	R/L	Tilt motor UP signal	Tilt switch turned to upward	Battery voltage
35			Other than above	0
36	L/R	Telescopic motor	Telescopic switch turned to forward	Battery voltage
30	L/K	FORWARD signal	OFF	0
39	W/R	Battery power supply	_	Battery voltage
40	В	Ground (signal)	_	0
41	B/Y	Sensor ground	_	0
40	R/B	R/B Tilt motor DOWN signal	Tilt switch turned to downward	Battery voltage
42			Other than above	0
4.4	L/W	L/W Telescopic motor BACKWARD signal	Telescopic switch turned to backward	Battery voltage
44			Other than above	0
48	В	Ground (power)	_	0

Terminals and Reference Values for Driver Seat Control Unit

AIS002XI

TERMI- NAL	WIRE COLOR	ITEM	CONDITION	VOLTAGE (V) (Approx.)
1A	R	Power source (Fusible link)	_	Battery voltage
2	Р	UART LINE (TX)	Memory switch 1 or 2 operated	(V) 6 4 2 0 2 ms
3	G	G Sliding motor FORWARD signal	When sliding motor FORWARD operation	Battery voltage
			Other than above	0
4 G/L	G/L	G/L Reclining motor FORWARD signal	When reclining motor FORWARD operation	Battery voltage
			Other than above	0
5	LG	LG Front lifting motor DOWN signal	When front lifting motor DOWN operation	Battery voltage
			Other than above	0
6	G/W	G/W Rear lifting motor	When rear lifting motor UP operation	Battery voltage
		UP signal	Other than above	0
7	7 G/B Rear lifting DOWN sign	Rear lifting motor	When rear lifting motor DOWN operation	Battery voltage
		DOWN Signal	Other than above	0

TERMI- NAL	WIRE COLOR	ITEM	CONDITION	VOLTAGE (V) (Approx.)	
8	G/Y	UART LINE (RX)	Memory switch 1 or 2 switch operated	(V) 6 4 2 0 1 ms	
9	BR	Ignition switch (START)	Ignition switch (START position)	Battery voltage	
10 G/R		Sliding motor BACKWARD signal	When sliding motor BACKWARD operation	Battery voltage	
		27.07.77.11.12 o.g.1.0.1	Other than above	0	
11A	R/W	Power source (Fuse)	_	Battery voltage	
12	G/Y	Reclining motor BACKWARD signal	When reclining motor BACKWARD operation	Battery voltage	
		DAORWARD Signal	Other than above	0	
13	Y	Y Front lifting motor UP output signal	When front lifting motor UP operation	Battery voltage	
			Other than above	0	
14	OR	CAN-H	_	_	
15	SB	CAN-L	_	_	
16A	В	Ground (power)	_	0	
17	DI.I	Detention switch signal	Selector lever other than P position	Battery voltage	
17	PU		Selector lever is sifted to P position	0	
18	G	G Sea	G Seat sliding sensor signal	ON (sliding motor operation)	(V) 6 4 2 0 50 ms
			Other than above	0 or 5	
19	G/Y	Front lifting sensor signal	ON (front lifting motor operation)	(V) 6 4 2 0 50ms	
			Other than above	0 or 5	
22		Power seat memory switch 1 signal	Memory switch 1: ON	0	
	L/G		Memory switch 1: OFF	5	
	Y/W	Power seat memory switch indictor 1 signal	Memory switch 1: ON	1	
23			Memory switch 1: OFF	Battery voltage	
24	L/R	I/R Seat sliding switch	When seat sliding switch FORWARD operation	0	
		L/K	FORWARD signal	Other than above	Battery voltage

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	LTAGE (V)
	Approx.)
25 L/OR Seat reclining switch FORWARD operation	0
FORWARD signal Other than above Batte	ery voltage
When front lifting switch 26 L/P Front lifting switch UP signal UP operation	0
Other than above Batte	ery voltage
When rear lifting switch UP operation When rear lifting switch	0
Other than above Batte	ery voltage
28C B/W Sensor ground —	0
29 G/L Reclining sensor signal ON (reclining motor operation) (V) 6 4 2 0	SIIA0692J
Other than above	0 or 5
30 G/W Rear lifting sensor signal ON (rear lifting motor operation)	SIIA0693J
Other than above	0 or 5
34 L/W Set switch signal Set witch: ON	0
Set witch: OFF	5
35 L/B Power seat memory switch Memory switch 2: ON	0
35 L/B 2 signal Memory switch 2: OFF	5
36 Y/G Power seat memory switch Memory switch 2: ON	1
indictor 2 signal Memory switch 2: OFF Batte	ery voltage
37 L/P Seat sliding switch BACKWARD signal When seat sliding switch BACKWARD operation	0
Other than above Batte	ery voltage
38 LG/B Seat reclining switch BACKWARD signal When seat reclining switch BACKWARD operation	0
Other than above Batte	ery voltage
39 L/G Front lifting switch DOWN signal When front lifting switch DOWN operation	0
Other than above Batte	ery voltage
40 L/Y Rear lifting switch DOWN signal When rear lifting switch DOWN operation	0
Other than above Batte	ery voltage
61E B/Y Ground (signal) —	0

Work Flow AIS002XJ

- Check the symptom and customer's requests.
- Understand the system description. Refer to SE-11, "System Description".
- Perform the preliminary check, refer to SE-35, "Preliminary Check". 3.
- Perform the CAN communication inspection using CONSULT-II, refer to SE-38, "CONSULT-II Function (AUTO DRIVE POS.)".
- Perform the self-diagnosis. Refer to SE-42, "Check CAN Communication System Inspection" .
- Repair or replace depending on the self-diagnostic results.
- Based on the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to SE-42, "Symptom Chart".
- Does the automatic drive positioner system operate normally? If it is normal, GO TO 8. If it is not normal, GO TO 3.
- INSPECTION END

Preliminary Check SETTING CHANGE FUNCTION

AIS002XK

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.

x: Applicable -: Not applicable

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

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

Content	Setting change operation	Indicator LED
The seat sliding turnout and steering wheel up/backward at entry/exit can be operated.	Proce the get quitch for more than 10 coconde	Blinking twice
The seat sliding turnout and steering wheel up/backward at entry/exit can be not operated.	Press the set switch for more than 10 seconds	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 M, located in the fuse and fusible link box.)
- Check 15A fuse [No.22, 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:

NG

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

OK or NG

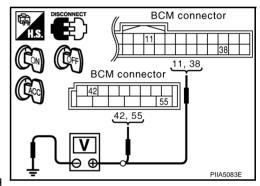
OK >> GO TO 2.

>> If fuse is blown out, be sure to eliminate cause of malfunction before installing new fuse. Refer to SE-15, "Component Parts and Harness Connector Location".

2. CHECK POWER SUPPLY CIRCUIT (BCM)

- 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.)
M3	11 (LG/R)	Ground	ACC	Battery voltage
IVIS	38 (W/L)		ON	
B14	42 (L/R)		OFF	
D14	55 (G)			



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)

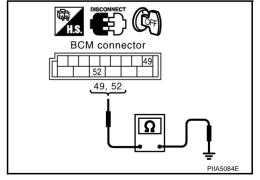
- 1. Turn ignition switch OFF.
- 2. Check continuity between BCM connector B14 terminal 49, 52 and ground.

49 (B) – Ground : Continuity should exist. 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

Check 10A fuse [No.9, located in fuse block (J/B)].

NOTE:

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

OK or NG

OK >> GO TO 5.

NG >> If fuse is blown out, be sure to eliminate cause of malfunction before installing new fuse. Refer to SE-15, "Component Parts and Harness Connector Location".

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

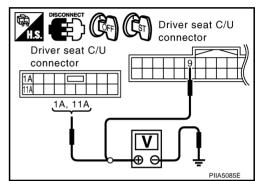
- 1. Disconnect driver seat control unit connector.
- 2. Check voltage between driver seat control unit and ground.

Connector	Terminals (Wire color)		Ignition	Voltage (V)	
Connector	(+)	(-)	switch	(Approx.)	
B152	9 (BR)		START		
B153	1A (R)	Ground	OFF	Battery voltage	
БТЭЭ	11A (R/W)		OFF		

OK or NG

OK >> GO TO 6.

NG >> Repair or replace harness between driver seat control unit and fuse block (J/B).



6. CHECK GROUND CIRCUIT (DRIVER SEAT CONTROL UNIT)

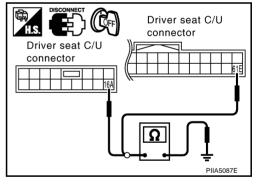
- 1. Turn ignition switch OFF.
- 2. Check continuity between the driver seat control unit connector B152, B153 terminal16A, 61E and ground.

16A (B) – Ground : Continuity should exist. 61E (B/Y) – Ground : Continuity should exist.

OK or NG

OK >> GO TO 7.

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



7. CHECK POWER SUPPLY CIRCUIT (AUTOMATIC DRIVE POSITIONER CONTROL UNIT)

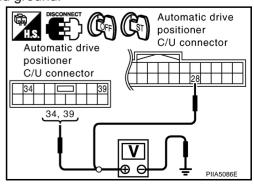
- 1. Disconnect automatic drive positioner control unit connector.
- 2. Check voltage between automatic drive positioner control unit and ground.

Connector	Terminals (Wire color)		Ignition	Voltage (V)
Connector	(+)	(-)	switch	(Approx.)
M49	28 (SB)	START		
M50	34 (L/R)	Ground	START	Battery voltage
M50	39 (W/R)		OFF	

OK or NG

OK >> GO TO 8.

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



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

Check continuity between the automatic drive positioner control unit connector M50 terminal 40, 48 and ground.

40 (B) – Ground

: Continuity should exist.

48 (B) - Ground

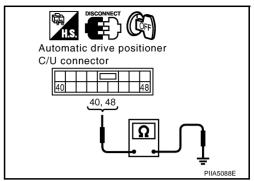
: Continuity should exist.

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.)

AIS002YF

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

CONSULT-II diagnosis items	Inspection item	, self-diagnosis mode	Content
	WORK SUPPORT*1		Changes the setting for each function.
	SELF-DIG RESULTS		Check the self-diagnosis results.
AUTO DRIVE	DATA MONITOR Selection from menu CAN DIAGNOSTIC SUPPORT MONITOR ACTIVE TEST*3		Displays the input data to driver seat control unit and automatic driving positioned control unit on real-time basis.
POSITIONER			The results of transmit / receive diagnosis of CAN communication can be read
			Gives a drive signal to a load to check the operation.
	DRIVER SEAT CONTROL UNIT PART NUMBER		Displays driver seat control unit part No.
BCM* ²	DATA MONITOR Selection from menu		Displays the input data to BCM on real-time basis

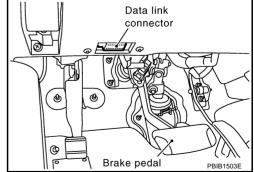
^{*1:} For setting automatic drive positioner functions only.

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.

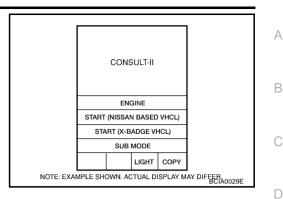


Turn ignition switch "ON".

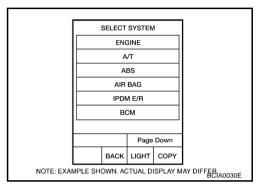
^{*2:} Refer to BL-38, "Data Monitor".

^{*3:} During vehicle driving, do not perform active test.

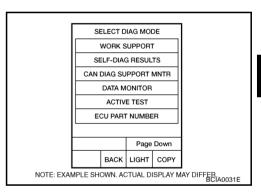
4. Touch "START (NISSAN BASED VHCL)".



 Touch "AUTO DRIVE POS" and "BCM".
 If "AUTO DRIVE POS." is not indicated, refer to GI-39, "CON-SULT-II Data Link Connector (DLC) Circuit".



6. Select diagnosis mode. "DATA MONITOR", "ACTIVE TEST", "SELF-DIAG RESULTS", "ECU PART NUMBER" and "WORK SUPPORT" are available.



SELF-DIAGNOSIS RESULTS Display Item List

CONSULT-II display	Item	Malfunction is detected when	Reference page
CAN COMM CIRC U1000] CAN communication		Malfunction is detected in CAN communication.	<u>SE-42</u>
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-43</u> <u>SE-55</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-45</u> <u>SE-56</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-46</u> <u>SE-57</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-48</u> <u>SE-58</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-50</u> <u>SE-60</u>

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CONSULT-II display	Item	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-60</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-59</u>
P RANGE SW [B2125]	P RANGE SW	With the A/T selector lever in P position (P range switch ON), if the vehicle speed of 7 km/h (4 MPH) or higher was input the detente switch input system is judged malfunctioning.	<u>SE-82</u>
UART COMM [B2128]	UART communication	Malfunction is detected in UART communication.	<u>SE-89</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 [OPERA	TION 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.
MIR CON SW-UP	"ON/OFF"	ON/OFF status judged from the door mirror remote control switch (UP) signal is displayed.
MIR CON SW-DN	"ON/OFF"	ON/OFF status judged from the door mirror remote control switch (DOWN) signal is displayed.
MIR CON SW-RH	"ON/OFF"	ON/OFF status judged from the door mirror remote control switch (RIGHT) signal is displayed.
MIR CON SW-LH	"ON/OFF"	ON/OFF status judged from the door mirror remote control switch (LEFT) signal s displayed.
MIR CHNG SW-R	"ON/OFF"	ON/OFF status judged from the door mirror remote control switch (switching to RIGHT) signal is displayed.
MIR CHNG SW-L	"ON/OFF"	ON/OFF status judged from the door mirror remote control switch (switching to LEFT) signal is displayed.
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.

Monitor item [OPERATIO	ON 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.
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.
P POSI SW	"ON/OFF"	The selector lever position "OFF (P position) / ON (other than P position)" judged from the P range switch signal is displayed.
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.
MIR/SE RH R-L	"V"	Voltage output from RH door mirror sensor (LH/RH) is displayed.
MIR/SE RH U-D	"V"	Voltage output from RH door mirror sensor (UP/DOWN) is displayed.
MIR/SE LH R-L	"V"	Voltage output from LH door mirror sensor (LH/RH) is displayed.
MIR/SE LH U-D	"V"	Voltage output from LH door mirror sensor (UP/DOWN) 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
TILT MOTOR	The tilt motor is activated by receiving the drive signal.
TELESCO MOTOR	The telescopic motor is activated by receiving the drive signal.
SEAT SLIDE	The sliding motor is activated by receiving the drive signal.
SEAT RECLINING	The reclining motor is activated by receiving the drive signal.
SEAT LIFTER FR	The front end lifter motor is activated by receiving the drive signal.
SEAT LIFTER RR	The rear end lifter motor is activated by receiving the drive signal.
MEMORY SW INDCTR	The memory switch indicator is lit by receiving the drive signal.
MIRROR MOTOR RH	The RH mirror motor moves the mirror UP/DOWN and LEFT/RIGHT by receiving the drive signal.
MIRROR MOTOR LH	The LH mirror motor moves the mirror UP/DOWN and LEFT/RIGHT by receiving the drive signal.

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Check CAN Communication System Inspection

1. CHECK SELF-DIAGNOSTIC RESULT

AIS002XL

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. 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-5, "Precautions When Using CONSULT-II".

No >> Inspection END.

Symptom Chart

AIS002XM

Symptom	Diagnoses / service procedure	Reference page
Only patting about a function against he pat with display	Interacted display system (with out NAVI)	<u>AV-57</u>
Only setting change function cannot be set with display.	Navigation system (with NAVI)	<u>AV-87</u>
	Sliding motor circuit check	SE-43
	2. Reclining motor circuit check	<u>SE-45</u>
A part of seat system does not operate (both automati-	3. Front lifter motor circuit check	<u>SE-46</u>
cally and manually).	4. Rear lifter motor circuit check	<u>SE-48</u>
	5. If the above systems are normal, replace the driver seat control unit.	<u>SE-15</u>
	1.Tilt motor circuit check	SE-50
	2. Telescopic motor circuit check	SE-49
A part of steering tilt, telescopic and door mirror does not	3. Mirror motor LH circuit check	SE-52
operate (both automatically and manually).	4. Mirror motor RH circuit check	SE-53
	5. If the above systems are normal, replace the automatic drive positioner control unit.	<u>SE-15</u>
	Sliding sensor circuit check	<u>SE-55</u>
	2. Reclining sensor circuit check	SE-56
A part of seat system does not operate (only automatic	3. Front lifting sensor circuit check	SE-57
operation).	4. Rear lifting sensor circuit check	<u>SE-58</u>
	5. If the above systems are normal, replace the driver seat control unit.	<u>SE-15</u>
	Mirror sensor LH circuit check	<u>SE-61</u>
A part of door mirror system dose not operate (only auto-	2. Mirror sensor RH circuit check	<u>SE-63</u>
matic operation).	3. If all the above systems are normal, replace the automatic drive positioner control unit.	<u>SE-15</u>
	Detention switch (P range switch) circuit check	SE-82
	Key switch and key lock solenoid circuit check (with intelligent key)	SE-83
	3. Key switch circuit inspection (without intelligent key)	<u>SE-85</u>
All the automatic operations do not operate.	4. UART communication line circuit check	<u>SE-89</u>
	5. Tilt sensor circuit check	<u>SE-60</u>
	6. Telescopic sensor circuit check	<u>SE-74</u>
	7. If all the above systems are normal, replace the automatic drive positioner control unit.	<u>SE-15</u>

Symptom	Diagnoses / service procedure	Reference page
	Sliding switch circuit check	SE-68
	2. Reclining switch circuit check	SE-69
A part of seat system does not operate (only manual	3. Front lifting switch circuit check	SE-71
operation).	4. Rear lifting switch circuit check	SE-72
	5. If the above systems are normal, replace the driver seat control unit.	<u>SE-15</u>
	Door mirror remote control (change over switch) circuit check	<u>SE-78</u>
A part of steering tilt, telescopic and door mirror does not	Door mirror remote control (mirror switch) switching circuit check	SE-80
operate (only manual operation).	3. Tilt switch check	SE-76
	4. Telescopic switch check	SE-74
	5. If the above systems are normal, replace the automatic drive positioner control unit.	<u>SE-15</u>
	Seat memory switch circuit check	SE-86
Only memory switch operation dose not operate.	If the above systems are normal, replace the driver seat control unit.	<u>SE-15</u>
	Seat memory indicator lamp circuit check	SE-88
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>
The Entry/Exiting does not operated when door is opened	1. Front door switch (driver side) circuit check	SE-66
and closed. (The Entry/Exiting operates with key switch)	2. If all the above systems are normal, replace the BCM	BCS-16
Only door mirror system dose not operated (only automatic operation).	Steering and door mirror sensor power supply and ground circuit check	<u>SE-65</u>
Only seat sliding and seat reclining operation does not operation	Sliding switch and reclining switch ground circuit check	<u>SE-73</u>
Only sear lifting (front and rear) operation does not operation	Front lifting switch and rear lifting switch ground circuit check	<u>SE-74</u>
Only lumber support does not operate	Lumber support circuit check	SE-90

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.

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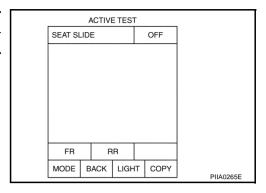
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$\overline{2}$. CHECK FUNCTION

(P) With CONSULT-II

Check operation with "SEAT SLIDE" in ACTIVE TEST.

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



(R) Without CONSULT-II

GO TO 3.

OK or NG

OK >> Sliding motor circuit is OK.

NG >> GO TO 3.

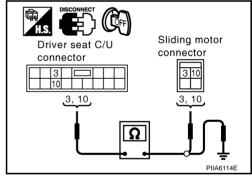
3. CHECK SLIDING MOTOR HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit connector and sliding motor connector.
- Check continuity between driver seat control unit connector B153 terminals 3, 10 and sliding motor connector B161 terminals 3, 10.

3 (G) – 3 (G) : Continuity should exist. 10 (G/R) – 10 (G/R) : Continuity should exist.

4. Check continuity between driver seat control unit connector B153 terminals 3, 10 and ground.

3 (G) – Ground : Continuity should not exist. 10 (G/R) – Ground : Continuity should not exist.



OK or NG

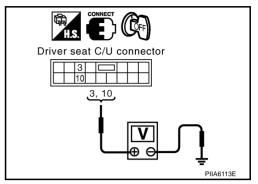
OK >> GO TO 4.

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

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	Terminals (Wire color)		Sliding switch condition	Voltage (V) (Approx.)
(+)		(-)		
B153	3 (G)	3 (G) Ground	FORWARD	Battery voltage
	3 (3)		Other than above	0
	40 (C/D)		BACKWARD	Battery voltage
	10 (G/K)		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.

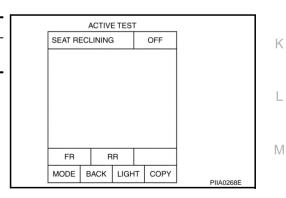
NG >> Repair the malfunctioning part and check again.

2. CHECK FUNCTION

(P) With CONSULT-II

Check operation with "SEAT RECLINING" in ACTIVE TEST.

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



N Without CONSULT-II

GO TO 3.

OK or NG

OK >> Reclining motor circuit is OK.

NG >> GO TO 3.

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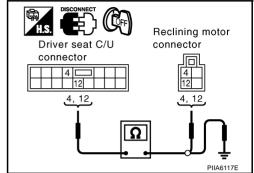
3. CHECK RECLINING MOTOR HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit connector and reclining motor connector.
- Check continuity between driver seat control unit connector B153 terminals 4, 12 and reclining motor connector B166 terminals 4, 12.

4 (G/L) – 4 (G/L) : Continuity should exist. 12 (G/Y) – 12 (G/Y) : Continuity should exist.

4. Check continuity between driver seat control unit connector B153 terminals 4, 12 and ground.

4 (G/L) – Ground : Continuity should not exist. 12 (G/Y) – Ground : Continuity should not exist.



OK or NG

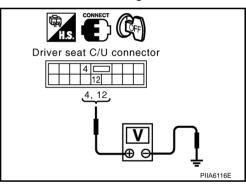
OK >> GO TO 4.

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

4. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

- 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.)
	(+)	(-)		(Арргох.)
	4 (G/L)	Ground	FORWARD	Battery voltage
B153			Other than above	0
			BACKWARD	Battery voltage
	12 (G/1)		Other than above	0



OK or NG

OK >> Replace reclining motor.

NG >> Replace driver seat control unit.

Front Lifting Motor Circuit Check

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1. CHECK FRONT END SEAT LIFTING MECHANISM

TO OTHER TROUT END OF AT EIL THE MECHANION

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.

$\overline{2}$. CHECK FUNCTION

(II) 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.

ACTIVE TEST							
SEAT LIFTER FR					OFF		
	_						
UP DOWN							
MODE BACK LIGH			IT	COPY			
LI					L	PIIA0271E	

(R) Without CONSULT-II

GO TO 3.

OK or NG

OK >> Front lifting motor circuit is OK.

NG >> GO TO 3.

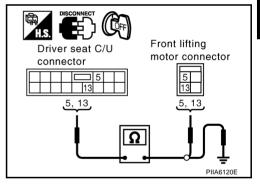
3. CHECK FRONT LIFTING MOTOR HARNESS CONTINUITY

- 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 B153 and terminals 5, 13 and front lifting motor connector B164 terminals 5, 13.

5 (LG) – 5 (LG) : Continuity should exist. 13 (Y) – 13 (Y) : Continuity should exist.

4. Check continuity between driver seat control unit connector B153 and terminals 5, 13 and ground.

5 (LG) – Ground : Continuity should not exist. 13 (Y) – Ground : Continuity should not exist.



OK or NG

OK >> GO TO 4.

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

4. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

Terminals (Wire color)		Front lifting switch condition	Voltage (V) (Approx.)
(+)	(-)		(Арргох.)
5 (LG)	Ground	DOWN	Battery voltage
		Other than above	0
		UP	Battery voltage
13 (1)		Other than above	0
	(Wire	(Wire color) (+) (-) 5 (LG) Ground	(Wire color) (+) (-) Front lifting switch condition DOWN Other than above UP

Driver seat C/U connector 5, 13 PIIA6119E

OK or NG

OK >> Replace front lifting motor.

NG >> Replace driver seat control unit.

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

OK or NG

OK >> GO TO 2.

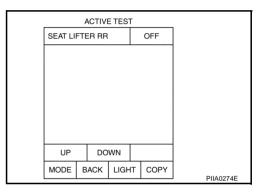
NG >> Repair the malfunctioning part and check again.

2. CHECK FUNCTION

(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

GO TO 3.

OK or NG

OK >> Rear lifting motor check is OK.

NG >> GO TO 3.

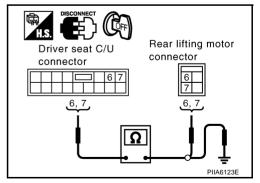
$oldsymbol{3}.$ Check rear lifting harness continuity

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit connector and rear lifting motor connector.
- Check continuity between driver seat control unit connector B153 terminals 6, 7 and lifting motor connector B162 terminals 6, 7.

6 (G/W) - 6 (G/W): Continuity should exist. 7 (G/B) - 7 (G/B): Continuity should exist.

Check continuity between driver seat control unit B153 terminals 6, 7 and ground.

> 6 (G/W) – Ground : Continuity should not exist. 7 (G/B) - Ground : Continuity should not exist.



OK or NG

OK >> GO TO 4.

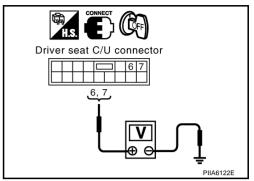
NG >> Repair or replace harness between driver seat control unit and rear lifting motor.

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4. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

Connector		ninals color)	Rear lifting switch condition	Voltage (V) (Approx.)			
	(+)	(-)					
	6 (G/W) 7 (G/B)	Ground	UP	Battery voltage			
B153			Other than above	0			
B133			DOWN	Battery voltage			
	7 (6/6)		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

(P) With CONSULT-II

Check operation with "TELESCO MOTOR" in ACTIVE TEST.

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

	ACTIVE	E TEST	Г		
TELESCO MOTOR OFF					
FR	R	R			
MODE	BACK	LIGH	Т	COPY	PIIA0277E
					FIIAU2//E

⋈ Without CONSULT-II

GO TO 3.

OK or NG

OK >> Steering telescopic motor circuit is OK.

NG >> GO TO 3. SE

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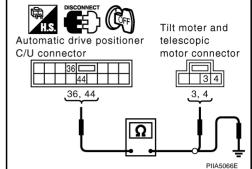
$\overline{3}$. Check telescopic motor harness continuity

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit and tilt motor and telescopic motor connector.
- Check continuity between automatic drive positioner control unit connector M50 terminals 36, 44 and tilt motor and telescopic motor connector M27 terminals 3, 4.

36 (L/R) – 3 (L/R) : Continuity should exist. 44 (L/W) – 4 (L/W) : Continuity should exist.

4. Check continuity between automatic drive positioner control unit connector M50 terminals 36, 44 and ground.

36 (L/R) – Ground :Continuity should not exist. 44 (L/W) – Ground :Continuity should not exist.



OK or NG

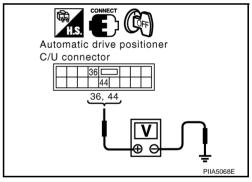
OK >> GO TO 4.

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

Connector		minals e color)	Telescopic switch condition	Voltage (V)
Connector	(+) (-)		relescopic switch condition	(Approx.)
M50	36 (L/R)	Ground	FORWARD	Battery voltage
			Other than above	0
			BACKWARD	Battery voltage
	44 (L/W)		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.

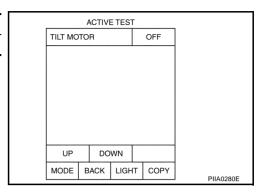
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$\overline{2}$. CHECK FUNCTION

(P) With CONSULT-II

Check operation with "TILT MOTOR" in ACTIVE TEST.

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



W Without CONSULT-II

GO 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.

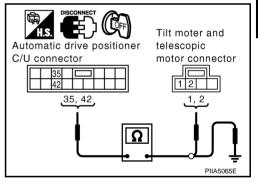
2. Disconnect automatic drive positioner control unit connector and tilt and telescopic motor connector.

 Check continuity between automatic drive positioner control unit connector M50 terminals 35, 42 and tilt and telescopic motor connector M27 terminals 1, 2.

> 35 (R/L) – 1 (R/L) : Continuity should exist. 42 (R/B) – 2 (R/B) : Continuity should exist.

4. Check continuity between automatic drive positioner control unit connector M50 terminals 35, 42 and ground.

35 (R/L) – Ground : Continuity should not exist. 42 (R/B) – Ground : Continuity should not exist.



OK or NG

OK >> GO TO 4.

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

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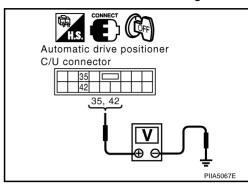
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4. CHECK BCM OUTPUT SIGNAL

- 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		ninals color)	Tilt switch condition	Voltage (V) (Approx.)
	(+)	(-)		
M50	35 (R/L)	Ground	UP	Battery voltage
			Other than above	0
	42 (R/B)	Giodila	DOWN	Battery voltage
	42 (N/D)		Other than above	0



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OK or NG

OK >> Replace tilt and telescopic motor.

NG >> Replace automatic drive positioner control unit.

Driver Side Mirror Motor Circuit Check

1. CHECK DOOR MIRROR FUNCTION

Check the following.

Operation malfunction caused by a foreign object caught in door mirror face edge.

OK or NG

OK >> GO TO 2.

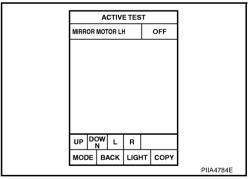
NG >> Repair the malfunctioning parts, and check the symptom again.

2. CHECK MIRROR MOTOR

With CONSULT-II

Check the operation with "MIRROR MOTOR LH" in the ACTIVE TEST.

Test item	Description
MIRROR MOTOR LH	The LH mirror motor moves the mirror UP/DOWN and LEFT/RIGHT by receiving the drive signal.



Without CONSULT-II

GO TO 3.

OK or NG

OK >> Driver side mirror motor circuit is OK.

NG >> GO TO 3.

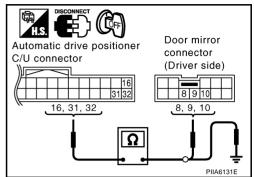
$\overline{3}$. check door mirror motor (driver side) harness continuity

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector and door mirror (driver side) connector.
- Check continuity between automatic drive positioner control unit connector M49 terminal 16, 31, 32 and door mirror (driver side) connector D2 terminal 8, 9, 10.

16 (P) - 8 (P) : Continuity should exist. : Continuity should exist. 31 (R/W) - 10 (GY) 32 (G/B) - 9 (PU) : Continuity should exist.

Check continuity between automatic drive positioner control unit connector M49 terminal 16, 31, 32 and ground.

> 16 (P) - Ground : Continuity should not exist. 31 (R/W) - Ground : Continuity should not exist. 32 (G/B) - Ground : Continuity should not exist.



OK or NG

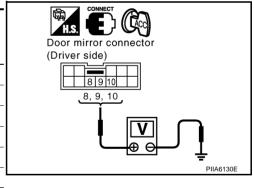
OK >> GO TO 4.

NG >> Repair or replace harness between automatic drive positioner control unit and door mirror (driver side).

4. CHECK MIRROR MOTOR SIGNAL

- 1. Connect automatic drive positioner control unit and door mirror (driver side) connector.
- 2. Turn ignition switch ACC.
- 3. Turn change over switch LH position.
- Mirror switch operate, check voltage between door mirror (driver side) connector and ground.

Connector	Terminals (Wire color)		Mirror switch condition	Voltage (V) (Approx.)
	(+)	(-)		(Αφρίσλ.)
	9 (D)	Ground	DOWN or RIGHT	Battery voltage
8 (P)	0 (F)		Other than above	0
D2	9 (PU)		LEFT	Battery voltage
D2	D2 9 (P0)		Other than above	0
10 (GY)	10 (CV)		UP	Battery voltage
	10 (G1)		Other than above	0



OK or NG

OK >> Replace door mirror motor (driver side).

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

Passenger Side Mirror Motor Circuit Check

CHECK DOOR MIRROR FUNCTION

Check the following.

Operation malfunction caused by a foreign object caught in door mirror face edge.

OK or NG

OK >> GO TO 2.

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

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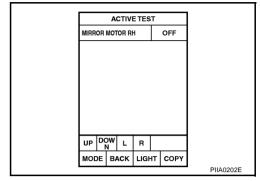
Н

2. MIRROR MOTOR INSPECTION

(P)With CONSULT-II

Check the operation with "MIRROR MOTOR RH" in the ACTIVE TEST.

Test item	Description	
MIRROR MOTOR RH	The RH mirror motor moves the mirror UP/DOWN and LEFT/RIGHT by receiving the drive signal.	



Without CONSULT-II

GO TO 3.

OK or NG

OK >> Passenger side mirror motor circuit is OK.

NG >> GO TO 3.

3. CHECK DOOR MIRROR MOTOR (PASSENGER SIDE) HARNESS CONTINUITY

Turn ignition switch OFF.

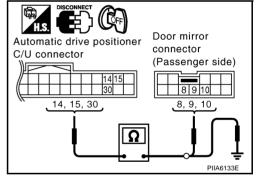
2. Disconnect automatic drive positioner control unit connector and door mirror (passenger side) connector.

3. Check continuity between automatic drive positioner control unit connector M49 terminal 14, 15, 30 and door mirror (passenger side) connector D32 terminal 8, 9, 10.

14 (L/W) - 10 (PU): Continuity should exist.15 (L/B) - 9 (OR): Continuity should exist.30 (W/R) - 8 (GY): Continuity should exist.

4. Check continuity between automatic drive positioner control unit connector M49 terminal 14, 15, 30 and ground.

14 (L/W) – Ground : Continuity should not exist. 15 (L/B) – Ground : Continuity should not exist. 30 (W/R) – Ground : Continuity should not exist.



OK or NG

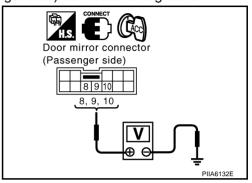
OK >> GO TO 4.

NG >> Repair or replace harness between automatic drive positioner control unit and door mirror (passenger side).

4. CHECK MIRROR MOTOR SIGNAL

- 1. Connect automatic drive positioner control unit and door mirror (passenger side) connector.
- 2. Turn ignition switch ACC.
- Turn change over switch RH position.
- 4. Mirror switch operate, check voltage between door mirror (passenger side) connector and ground.

Connector -	Terminals (Wire color)		Mirror switch condition	Voltage (V)	
	(+)	(-)	Will of Switch Condition	(Approx.)	
	8 (G/Y)	Ground	DOWN or RIGHT	Battery voltage	
D32	0 (0/1)		Other than above	0	
	9 (OR) Gro		LEFT	Battery voltage	
			Other than above	0	
			UP	Battery voltage	
			Other than above	0	



OK or NG

OK >> Replace door mirror motor (passenger side).

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

Sliding Sensor Circuit Check

1. CHECK FUNCTION

(P) With CONSULT-II

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

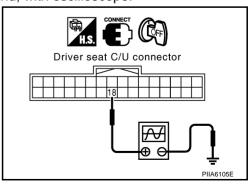
Monitor item [OPERATION or UNIT]	Contents
SLIDE PULSE	The seat sliding position (pulse) judged from the sliding sensor signal is displayed.

	_
DATA MONITOR	
SELECT MONITOR ITEM	
SLIDE PULSE	
RECLN PULSE	
LIFT FR PULSE	
LIFT RR PULSE	
MIR/SEN RH U-D	
Page Up Page Down	
SETTING Numerical Display	
MODE BACK LIGHT COPY	DUA 45505
MODE BACK LIGHT COPY	PIIA4558E

⋈ Without CONSULT-II

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

Connector	_	inals color)	Condition	Signal (Reference value)
	(+)	(-)		(Reference value)
B152	18 (G)	Ground	Sliding motor operation	(V) 6 4 2 0 50 ms



OK or NG

OK >> Sliding sensor circuit is OK.

NG >> GO TO 2.

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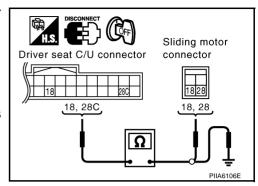
$\overline{2}$. CHECK SLIDING SENSOR HARNESS CONTINUITY

- 1. Disconnect driver seat control unit connector and sliding motor connector.
- Check continuity between driver seat control unit connector B152 terminals 18, 28C and sliding motor B161 terminals 18, 28

18 (G) – 18 (G) : Continuity should exist. 28C (B/W) – 28 (B/W) : Continuity should exist.

3. Check continuity between driver seat control unit B152 terminals 18, 28C and ground.

18 (G) – Ground : Continuity should not exist. 28C (B/W) – Ground : Continuity should not exist.



OK or NG

OK >> Replace sliding motor.

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

Reclining Sensor Circuit Check

AIS002XT

1. CHECK FUNCTION

(P) With CONSULT-II

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

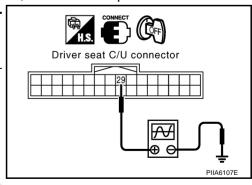
Monitor item [POERATION or UNIT]	Contents
RECLN PULSE	The seat reclining position (pulse) judged from the reclining sensor is displayed

_					•
		DATA M	ONITOF	ł	
	SELECT MONITOR ITEM				
		SLIDE	PULSE		
		RECLN	PULSE		
		LIFT FR	PULSE	:	
		LIFT RE	PULSE		
	MIR/SEN RH U-D				
Ī	Page Up Page Down				
	SETTING Numerical Display				
	MODE	ВАСК	LIGHT	СОРУ	PIIA4558E
					FIIA4000E

W Without CONSULT-II

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

Connector	Term (Wire		Condition	Signal (Reference value)
	(+)	(-)		(itelefence value)
B152	29 (G/L)	Ground	Reclining motor operation	(V) 6 4 2 0



OK or NG

OK >> Reclining sensor circuit is OK.

NG >> GO TO 2.

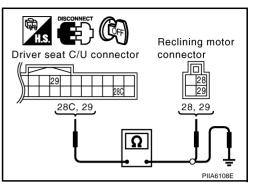
$\overline{2}$. CHECK RECLINING SENSOR HARNESS CONTINUITY

- Disconnect driver seat control unit connector and reclining motor connector.
- Check continuity between driver seat control unit connector B152 terminals 28C, 29 and reclining motor connector B166 terminals 28, 29,

28C (B/W) - 28 (B/W) : Continuity should exist. 29 (G/L) - 29 (G/L) : Continuity should exist.

Check continuity between driver seat control unit connector B152 terminals 28C, 29 and ground.

> 28C (B/W) - Ground : Continuity should not exist. 29 (G/L) - Ground : Continuity should not exist.



OK or NG

OK >> Replace reclining motor.

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

Front Lifting Sensor Circuit Check

1. CHECK FUNCTION

(P) With CONSULT-II

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

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

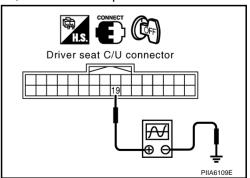
	_
DATA MONITOR	
SELECT MONITOR ITEM	1
SLIDE PULSE	
RECLN PULSE	
LIFT FR PULSE	
LIFT RR PULSE	
MIR/SEN RH U-D	
Page Up Page Down	1
SETTING Numerical Display	1
MODE BACK LIGHT COPY	PIIA4558E
	FIIA4008E

Without CONSULT-II

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

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Connector	Terminals (Wire color)		Condition	Signal (Reference value)
	(+)	(-)		(ixererence value)
B152	19 (G/Y)	Ground	Front lift- ing motor operation	(V) 6 4 2 0 ****50ms



OK or NG

OK >> Front lifting sensor circuit is OK.

NG >> GO TO 2.

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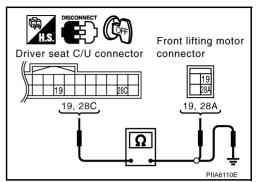
$\overline{2}$. Check front lifting sensor harness continuity

- 1. Disconnect driver seat control unit connector and front lifting motor connector.
- Check continuity between driver seat control unit connector B152 terminals 19, 28C and front lifting motor connector B164 terminals 19, 28A.

19 (G/Y) – 19 (G/Y) : Continuity should exist. 28C (B/W) – 28A (B/W) : Continuity should exist.

Check continuity between driver seat control unit connector B152 terminals 19, 28C and ground.

> 19 (G/Y) – Ground : Continuity should not exist. 28C (B/W) – Ground : Continuity should not exist.



OK or NG

OK >> Replace front lifting motor.

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

Rear Lifting Sensor Circuit Check

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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.

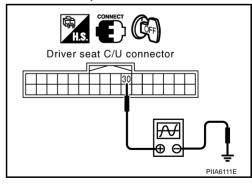
Monitor item [OPERATION or UNIT	Contents
LIFT RR PULSE	The rear lifting position (pulse) judged from the rear lifting sensor is displayed.

	•
DATA MONITOR	
SELECT MONITOR ITEM	1
SLIDE PULSE	
RECLN PULSE	
LIFT FR PULSE	
LIFT RR PULSE	
MIR/SEN RH U-D	
Page Up Page Down	1
SETTING Numerical Display]
MODE BACK LIGHT COPY	PIIA4558E
	FIIM4008E

W Without CONSULT-II

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

Connector	Terminals (Wire color)		Condition	Signal (Reference value)
	(+)	(-)		(Iteleferice value)
B152	30 (G/W)	Ground	Rear lift- ing motor operation	(V) 6 4 2 0 ***50ms



OK or NG

OK >> Rear lifting sensor circuit is OK.

NG >> GO TO 2.

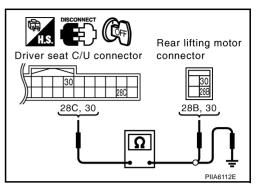
$\overline{2}$. CHECK REAR LIFTING SENSOR HARNESS CONTINUITY

- 1. Disconnect driver seat control unit connector and rear lifting motor connector.
- Check continuity between driver seat control unit connector B152 terminals 28C, 30 and rear lifting motor connector B162 terminals 28B, 30,

28C (B/W) - 28B (B/W) : Continuity should exist. 30 (G/W) - 30 (G/W): Continuity should exist.

Check continuity between driver seat control unit connector B152 terminals 28C, 30 and ground.

> 28C (B/W) - Ground : Continuity should not exist. 30 (G/W) - Ground : Continuity should not exist.



OK or NG

OK >> Replace rear lifting motor.

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

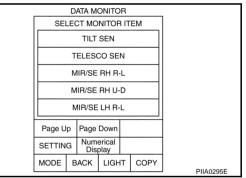
Telescopic Sensor Circuit Check

1. CHECK FUNCTION

(P) With CONSULT-II

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

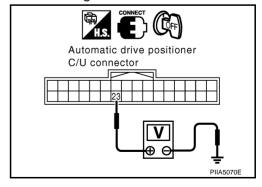
Monitor item [OPERATION or UNIT]		Contents
TELESCO SEN	"√"	The telescoping position (voltage) judged from the telescoping sensor signal is displayed.



Without CONSULT-II

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

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		(Арргох.)
M49	23 (Y/B) Ground	Cround	Telescopic top position	1
		Telescopic bottom position	4	



OK or NG

OK >> Telescopic sensor circuit is OK.

NG >> GO TO 2.

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2. CHECK HARNESS CONTINUITY

- Disconnect automatic drive positioner control unit connector and tilt sensor and telescopic sensor connector.
- Check continuity harness between automatic drive positioner control unit connector M49 terminals 23 and tilt sensor and telescopic sensor connector M28 terminals 3.

23 (Y/B) - 3 (Y/B)

: Continuity should exist.

Check continuity harness between automatic drive positioner control unit connector M49 terminals 23 and ground.

23 (Y/B) - Ground

: Continuity should not exist.

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

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Tilt sensor and

sensor connector

telescopic

Automatic drive positioner

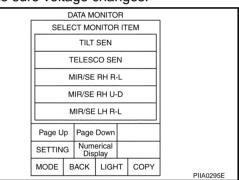
C/U connector

1. CHECK TILT SENSOR

(P) With CONSULT-II

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

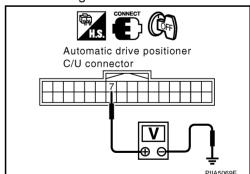
Monitor item [OPERATION or UNIT]		Contents
TILT SEN	"V"	The tilt position (voltage) judged from the tilt sensor signal is displayed.



Without CONSULT-II

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

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)	
	(+)	(-)		(Αρρίολ.)	
M49	M49 7 (Y/R) Gro		Tilt top position	2	
10149	7 (1/13)	Ground	Tilt bottom position	4	



OK or NG

OK >> Tilt sensor circuit is OK.

NG >> GO TO 2.

2. CHECK HARNESS

- 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 M49 terminals 7 and tilt sensor and telescopic sensor connector M28 terminals 2.

7 (Y/R) – 2 (Y/R) : Continuity should exist.

3. Automatic drive positioner control unit connector M49 terminals 7 and ground.

7 (Y/R) – Ground : Continuity should not exist.

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.

Driver Side Mirror Sensor Circuit Check

1. CHECK DOOR MIRROR FUNCTION

Check the following.

Operation malfunction in memory control

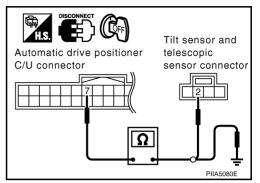
NOTE:

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

OK or NG

OK >> GO TO 2.

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



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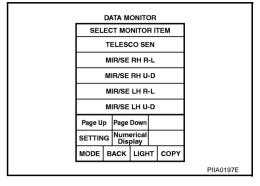
L

2. CHECK MIRROR SENSOR INSPECTION

(P) With CONSULT-II

Make sure "ON" is displayed on "MIR/SE LH R-L, MIR/SE LH U-D" in the DATA MONITOR.

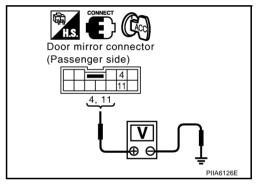
Monitor item [OPERATION or UNIT]		Contents
MIR/SE LH R-L	"√"	Voltage output from LH door mirror sensor (LH/RH) is displayed.
MIR/SE LH U-D "V"		Voltage output from LH door mirror sensor (UP/DOWN) is displayed.



₩ Without CONSULT-II

- Turn ignition switch to ACC position.
- 2. Check voltage between door mirror (driver side) connector and ground.

Con-	Terminals	(Wire color)	Condition Voltage (V) (Approx,)	Voltage (V)
nector	(+)	(-)		(Approx,)
D2	4 (W)	Ground	When motor is UP or DOWN operation	Changes between 3 (close to perk) – 1 (close to valley)
DZ	11 (LG)	Giodila	When motor is LEFT or RIGHT operation	Changes between 3 (close to right edge) – 1 (close to left edge)



OK or NG

OK >> Mirror sensor LH circuit is OK.

NG >> GO TO 3.

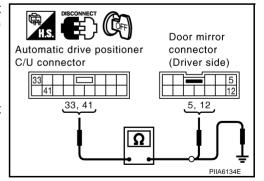
3. CHECK HARNESS CONTINUITY 1

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit and door mirror (driver side) connector.
- 3. Check continuity between automatic drive positioner control unit connector M50 terminals 33, 41 and door mirror (driver side) connector D2 terminals 5, 12.

33 (G/W) – 5 (OR) : Continuity should exist. 41 (B/Y) – 12 (BR) : Continuity should exist.

 Check continuity between automatic drive positioner control unit connector M49 terminals 33, 41 and ground.

> 33 (G/W) – Ground : Continuity should not exist. 41 (B/Y) – Ground : Continuity should not exist.



OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness between automatic drive positioner control unit and door mirror (driver side).

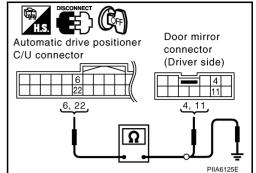
4. CHECK HARNESS CONTINUITY 2

1. Check continuity between automatic drive positioner control unit connector M49 terminal 6, 22 and door mirror (driver side) connector D2 terminal 4, 11.

6 (P/L) – 4 (W) : Continuity should exist. 22 (L/Y) – 11 (LG) : Continuity should exist.

2. Check continuity between automatic drive positioner control unit connector M49 terminal 6, 22 and ground.

6 (P/L) – Ground : Continuity should not exist. 22 (L/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 door mirror (driver side).

Passenger Side Mirror Sensor Circuit Check

1. CHECK DOOR MIRROR FUNCTION

Check the following.

Operation malfunction in memory control

NOTE:

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

OK or NG

OK >> GO TO 2.

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

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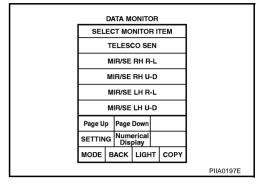
L

2. CHECK MIRROR SENSOR INSPECTION

(II) With CONSULT-II

Make sure "ON" is displayed on "MIR/SE RH R-L, MIR/SE RH U-D" in the DATA MONITOR.

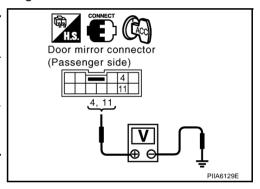
Monitor item [OPERATION or UNIT]		Contents
MIR/SE RH R-L	"V"	Voltage output from RH door mirror sensor (LH/RH) is displayed.
MIR/SE RH U-D "V"		Voltage output from RH door mirror sensor (UP/DOWN) is displayed.



⋈ Without CONSULT-II

- Turn ignition switch to ACC position.
- 2. Check voltage between door mirror (passenger side) connector and ground.

Con-	Terminals	(Wire color)	Condition Voltage (V)	
nector	(+)	(-)	Condition	(Approx.)
D32	4 (LG)	Ground	When motor is UP or DOWN operation	Changes between 3 (close to perk) – 1 (close to valley)
	11 (P)	Olouliu	When motor is LEFT or RIGHT operation	Changes between 1 (close to left edge) – 3 (close to right edge)



OK or NG

OK >> Mirror sensor RH circuit is OK.

NG >> GO TO 3.

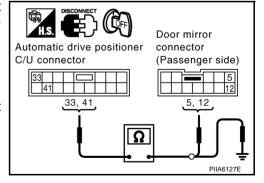
3. CHECK HARNESS CONTINUITY 1

- 1. Disconnect automatic drive positioner control unit and door mirror (passenger side) connector.
- Check continuity between automatic drive positioner control unit connector M50 terminal 33, 41 and door mirror (passenger side) connector D32 terminal 5, 12.

33 (G/W) – 5 (BR) : Continuity should exist. 41 (B/Y) – 12 (G) : Continuity should exist.

3. Check continuity between automatic drive positioner control unit connector M50 terminals 33, 41 and ground.

33 (G/W) – Ground : Continuity should not exist. 41 (B/Y) – Ground : Continuity should not exist.



OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness between automatic drive positioner control unit and door mirror (passenger side).

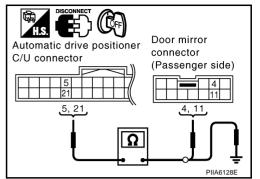
4. CHECK HARNESS CONTINUITY 2

 Check continuity between automatic drive positioner control unit connector M49 terminal 5, 21 and door mirror (passenger side) connector D32 terminal 4, 11.

> 5 (OR) – 4 (LG) : Continuity should exist. 21 (G/Y) – 11 (P) : Continuity should exist.

2. Check continuity between automatic drive positioner control unit connector M49 terminal 5, 21 and ground.

5 (OR) – Ground : Continuity should not exist. 21 (G/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 door mirror (passenger side).

Steering and Door Mirror Sensor Power and Ground Circuit Check

1. CHECK MIRROR SENSOR POWER SUPPLY

1. Turn ignition switch OFF.

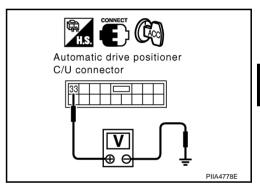
2. Check voltage between automatic drive positioner control unit connector M50 terminal 33 and ground.

33 (G/W) – Ground : Approx. 5V

OK or NG

OK >> GO TO 2.

NG >> Replace automatic drive positioner control unit.



2. CHECK MIRROR SENSOR GROUND CIRCUIT

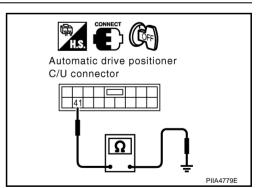
Check continuity between automatic drive positioner control unit connector M50 terminal 41 and ground.

41 (B/Y) – Ground : Continuity should exist.

OK or NG

OK >> GO TO 3.

NG >> Replace automatic drive positioner control unit.



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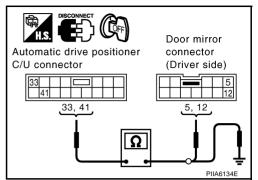
$\overline{3}$. Check harness continuity

- 1. Disconnect automatic drive positioner control unit and door mirror (driver side).
- Check continuity between automatic drive positioner control unit connector M50 terminal 33, 41 and door mirror (driver side) connector D2 terminal 5, 12.

33 (G/W) – 5 (OR) : Continuity should exist. 41 (B/Y) – 12 (BR) : Continuity should exist.

3. Check continuity between automatic drive positioner control unit connector M50 terminal 33, 41 and ground.

33 (G/W) – Ground : Continuity should not exist.
41 (B/Y) – Ground : Continuity should not exist.



OK or NG

NG

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

>> Repair or replace harness between automatic drive positioner control unit and door mirror (driver side).

Front Door Switch (Driver Side) Circuit Check

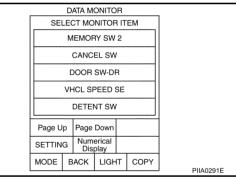
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1. CHECK FUNCTION

(P) With CONSULT-II

Touch "BCM" with "DOOR SW-DR" on the DATA MONITOR, check ON/OFF operation when the driver door is open and closed. *: Refer to <u>BL-38</u>, "<u>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

GO TO 2.

OK or NG

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

NG >> GO TO 2.

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

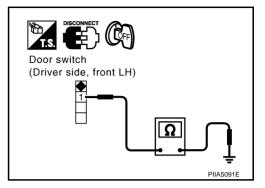
- 1. Turn ignition switch OFF.
- 2. Disconnect front door switch connector.
- 3. Check continuity between front door switch connector and ground part of door switch.

Terminals		Door switch	Continuity
1	Ground part of	Pushed	No
'	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 B14 terminal 62 and front door switch connector B26 terminal 1.

62 (W) – 1 (W) : Continuity should exist.

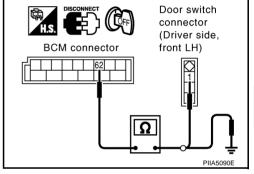
3. Check continuity between BCM connector B14 terminal 62 and ground.

62 (W) – Ground : Continuity should not exist.

OK or NG

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

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



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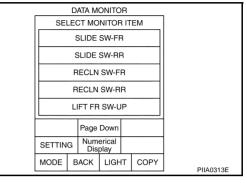
Sliding Switch Circuit Check

1. CHECK FUNCTION

(P) With CONSULT-II

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

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

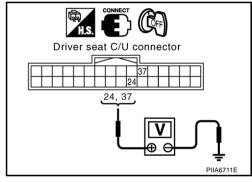


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W Without CONSULT-II

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

		inals color)	Sliding switch condition	Voltage (V) (Approx.)
	(+)	(-)		(Арргох.)
B152 -	24 (L/R)	Ground	FORWARD	0
			Other than above	Battery voltage
			BACKWARD	0
	37 (L/P)		Other than above	Battery voltage



OK or NG

OK >> Sliding switch circuit is OK.

NG >> GO TO 2.

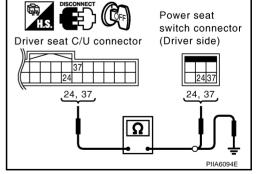
2. CHECK HARNESS CONTINUITY

- 1. Disconnect driver seat control unit connector and power seat switch (driver side) connector.
- Check continuity between driver seat control unit connector B152 terminals 24, 37 and driver power seat switch connector B154 terminals 24, 37.

24 (L/R) – 24 (L/R) : Continuity should exist. 37 (L/P) – 37 (L/P) : Continuity should exist.

 Check continuity between driver seat control unit connector B152 terminals 24, 37 and ground.

24 (L/R) – Ground : Continuity should not exist. 37 (L/P) – Ground : Continuity should not exist.



OK or NG

OK >> GO TO 3.

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

$\overline{3}$. Check sliding switch

Sliding switch operate, check continuity between power seat switch connector B154 terminal 24, 27 and 61D.

Connector	Terminal		Sliding switch condition	Continuity
	24	- 61D	FORWARD	Yes
B154	24		Other than above	No
D134	37		BACKWARD	Yes
			Other than above	No

Power seat switch (Driver side) 24 37 24, 37 PIIA6101E

OK or NG

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

NG >> Replace driver power seat switch.

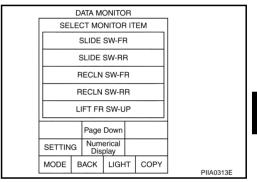
Reclining Switch Check

1. CHECK FUNCTION

(P) With CONSULT-II

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

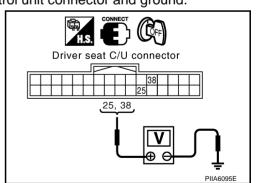
Monitor item [OPERATION or	-	Contents
RECLN SW - FR	"ON/ OFF"	ON/OFF status judged from the reclining switch (FR) signal is displayed.
RECLN SW - RR	"ON/ OFF"	ON/OFF status judged from the reclining switch (RR) signal is displayed.



⋈ Without CONSULT-II

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

Connector	Terminals (Wire color)		Reclining switch condition	Voltage (V) (Approx.)
	(+)	(-)	Condition	(πρρίολ.)
B152	25 (L/OR)	Ground	FORWARD	0
			Other than above	Battery voltage
			BACKWARD	0
	38 (LG/B)		Other than above	Battery voltage



OK or NG

OK >> Reclining switch is OK.

NG >> GO TO 2. Α

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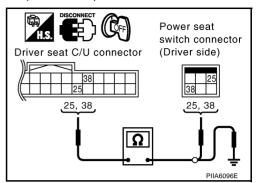
2. CHECK HARNESS CONTINUITY

- 1. Disconnect driver seat control unit connector and power seat switch (driver side) connector.
- Check continuity between driver seat control unit connector B152 terminals 25, 38 and power seat switch (driver side) connector B154 terminals 25, 38.

25 (L/OR) – 25 (L/OR) : Continuity should exist. 38 (LG/B) – 38 (LG/B) : Continuity should exist.

 Check continuity between driver seat control unit connector B152 terminals 25, 38 and ground.

> 25 (LO/R) – Ground : Continuity should not exist. 38 (LG/B) – Ground : Continuity should not exist.



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

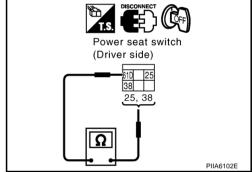
Reclining switch operate, check continuity between power seat switch connector B154 terminal 25, 38 and 61D.

Connector	Terminal		Reclining switch condition	Continuity
	25		FORWARD	Yes
B154	23	61D	Other than above	No
D134	.38	- 010	BACKWARD	Yes
			Other than above	No

OK or NG

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

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



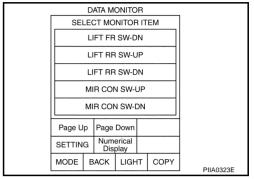
Front Lifting Switch Circuit Check

1. CHECK FUNCTION

(II) 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.

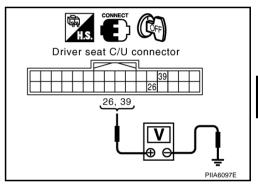
Monitor item [OPERATION or		Contents
LIFT FR SW - DN	"ON/ OFF"	ON/OFF status judged from the FR lifter switch (DOWN) signal is displayed.
LIFT RR SW – UP	"ON/ OFF"	ON/OFF status judged from the RR lifter switch (UP) signal is displayed.



⋈ 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	(дрргох.)
	26 (L/P)	Ground	UP	0
B152			Other than above	Battery voltage
			DOWN	0
	39 (L/G)		Other than above	Battery voltage



OK or NG

OK >> Front lifting switch circuit is OK.

NG >> GO TO 2.

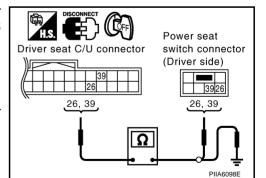
2. CHECK HARNESS CONTINUITY

- Disconnect driver seat control unit connector and power seat switch (driver side) connector.
- Check continuity between driver seat control unit connector B152 terminals 26, 39 and driver seat switch connector B156 terminals 26, 39.

26 (L/P) – 26 (L/P) : Continuity should exist. 39 (L/G) – 39 (L/G) : Continuity should exist.

 Check continuity between driver seat control unit connector B152 terminals 26, 39 and ground

26 (L/P) – Ground : Continuity should not exist. 39 (L/G) – Ground : Continuity should not exist.



OK or NG

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 FRONT END LIFTING SWITCH

Front lifting switch operate, check continuity between driver seat switch connector B156 terminal 26, 39 and 61B.

Connector	Terminals		Front lifting switch condition	Continuity
	26		UP	Yes
B156	20	— 61B	Other than above	No
D130	39		DOWN	Yes
	39		Other than above	No

Power seat switch (Driver side) 26, 39

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OK or NG

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

NG >> Replace driver power seat switch.

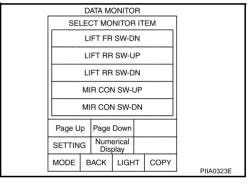
Rear Lifting Switch Circuit Check

1. CHECK FUNCTION

(P) With CONSULT-II

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

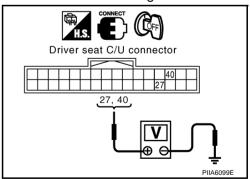
Monitor ite [OPERATION		Contents
LIFT RR SW-UP	"ON/OFF"	(ON/OFF) status judged from the RR lifter switch (UP) signal is displayed.
LIFT RR SW-DN	"ON/OFF"	(ON/OFF) status judged from the RR lifter switch (DOWN) signal is displayed.



⊗ Without CONSULT-II

- 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.)
	(+)	(-)	Condition	(дриох.)
B152	27 (L)	- Ground	UP	0
			Other than above	Battery voltage
	40 (L/Y)		DOWN	0
			Other than above	Battery voltage



OK or NG

OK >> Rear seat lifting switch circuit is OK.

NG >> GO TO 2.

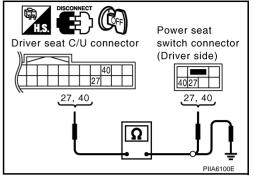
$\overline{2}$. CHECK REAR LIFTING SWITCH HARNESS CONTINUITY

- Disconnect driver seat control unit connector and driver power seat switch connector.
- Check continuity between driver seat control unit connector B152 terminals 27, 40 and power seat switch (driver side) connector B156 terminals 27, 40,

27 (L) - 27 (L) : Continuity should exist. 40 (L/Y) - 40 (L/Y): Continuity should exist.

Check continuity between driver seat control unit connector B152 terminals 27, 40 and ground.

> : Continuity should not exist. 27 (L) - Ground 40 (L/Y) - Ground : Continuity should not exist.



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

Rear lifting switch operate, check continuity between driver seat switch connector B156 terminal 27, 40 and 61B.

Connector	Terminal		Rear lifting switch condition	Continuity
B156	27	- 61B	UP	Yes
			Other than above	No
	40		DOWN	Yes
			Other than above	No

OK or NG

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

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

Power seat switch (Driver side) 40|27 27, 40 PIIA6104E

Sliding Switch and Reclining Switch Ground Circuit Check

1. CHECK POWER SEAT SWITCH GROUND CIRCUIT

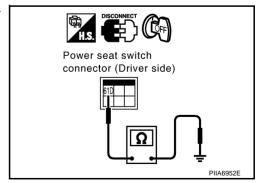
- 1. Turn ignition switch OFF.
- 2. Disconnect power seat switch connector.
- Check continuity between power seat switch connector B154 terminal 61D and ground.

OK or NG

NG

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

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



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Front Lifting Switch and Rear Lifting Switch Ground Circuit Check

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1. CHECK POWER SEAT SWITCH GROUND CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect power seat switch connector.
- 3. Check continuity between power seat switch connector B156 terminal 61B and ground.

61B (B/Y) - Ground

: Continuity should exist.

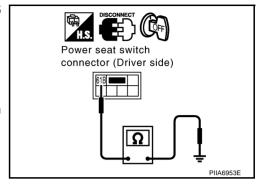
OK or NG

OK

>> Check the condition of the harness and connector.

NG

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



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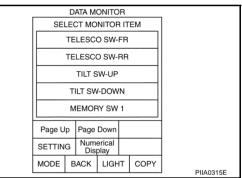
Telescopic Switch Circuit Check

1. CHECK FUNCTION

(P) With CONSULT-II

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

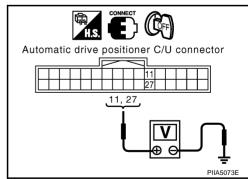
Monitor ite [OPERATION o		Contents
TELESCO SW-FR	"ON/OFF"	(ON/OFF) status judged from the telescoping switch (FR) signal is displayed.
TELESCO SW-RR	"ON/OFF"	(ON/OFF) status judged from the telescoping switch (RR) signal is displayed.



⋈ 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.)
	(+)	(-)		(Арргох.)
	11 (BR)	Ground	FORWARD	0
M49			Other than above	5
IVI49			BACKWARD	0
	27 (LG)		Other than above	5



OK or NG

OK >> Telescopic switch circuit is OK.

NG >> GO TO 2.

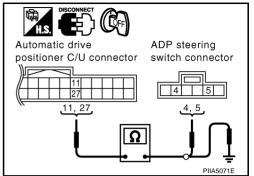
$\overline{2}$. CHECK TELESCOPIC CIRCUIT HARNESS CONTINUITY

- 1. Disconnect automatic drive positioner control unit connector and ADP steering switch connector.
- Check continuity between automatic drive positioner control unit connector M49 terminals 11, 27 and ADP steering switch connector M13 terminals 4. 5.

11 (BR) – 5 (BR) : Continuity should exist. 27 (LG) – 4 (LG) : Continuity should exist.

3. Check continuity between automatic drive positioner control unit connector M49 terminals 11, 27 and ground.

11 (BR) – Ground : Continuity should not exist. 27 (LG) – Ground : Continuity should not exist.



OK or NG

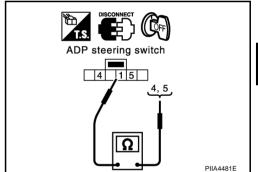
OK >> GO TO 3.

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

3. CHECK TELESCOPIC SWITCH

ADP steering switch operate, check continuity between ADP steering switch connector M13 terminal 4, 5 and 1.

Connector	Terminal		ADP steering switch condition	Continuity
M13	5	1	FORWARD	Yes
	5		Other than above	No
	4	'	BACKWARD	Yes
	4		Other than above	No



OK or NG

OK >> GO TO 4.

NG >> Replace ADP steering switch.

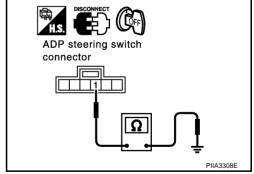
4. CHECK ADP STEERING SWITCH GROUND CIRCUIT

Check continuity between ADP steering switch connector M13 terminal 1 and ground.

OK or NG

OK >> Check the condition of the harness and connector.
NG >> Replace or replace harness between ADP ste

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



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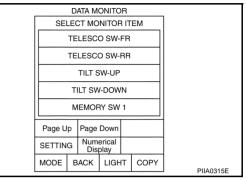
Tilt Switch Circuit Check

1. CHECK FUNCTION

(P) With CONSULT-II

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

Monitor ite [OPERATION o		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.

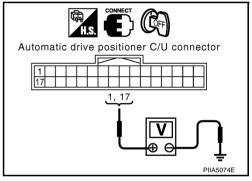


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W Without CONSULT-II

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

Connector	Terminals (Wire color)		Tilt switch condition	Voltage (V) (Approx.)
	(+)	(-)		(дрргох.)
	1 (LG/R)	Ground	UP	0
M49			Other than above	5
10149			DOWN	0
			Other than above	5



OK or NG

OK >> Tilt switch circuit is OK.

NG >> GO TO 2.

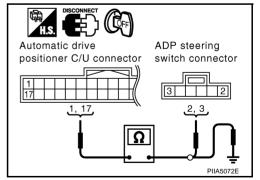
2. CHECK TILT SWITCH CIRCUIT HARNESS CONTINUITY

- 1. Disconnect automatic drive positioner control unit connector and ADP steering switch connector.
- 2. Check continuity between automatic drive positioner control unit connector M49 terminals 1, 17 and ADP steering switch connector M13 terminals 2, 3.

1 (LG/R) – 2 (LG/R) : Continuity should exist. 17 (R/B) – 3 (R/B) : Continuity should exist.

Check continuity between automatic drive positioner control unit connector M49 terminals 1, 17 and ground.

> 1 (LG/R) – Ground : Continuity should not exist. 17 (R/B) – GRound : Continuity should not exist.



OK or NG

OK >> GO TO 3.

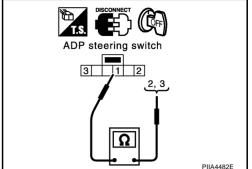
NG >> Repair or replace harness between automatic drive positioner control unit and ADP steering switch.

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

ADP steering switch operate, check continuity between ADP steering switch.

Connector	Terminal		ADP steering switch condition	Continuity
M13	2	1	UP	Yes
	2		Other than above	No
	3		DOWN	Yes
			Other than above	No



OK or NG

OK >> GO TO 6.

NG >> Replace ADP steering switch.

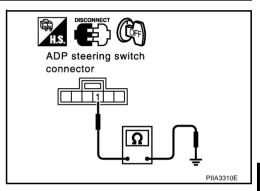
4. CHECK ADP STEERING SWITCH GROUND CIRCUIT

Check continuity between ADP steering switch connector M13 terminal 1 and ground.

OK or NG

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

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



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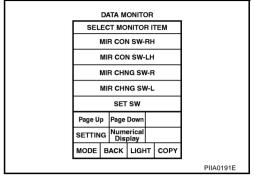
Door Mirror Remote Control Switch (Changeover Switch) Circuit Check 1. CHECK FUNCTION

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(P) With CONSULT-II

Check the operation on "MIR CHNG SW-R" or "MIR CHNG SW-L" in the DATA MONITOR.

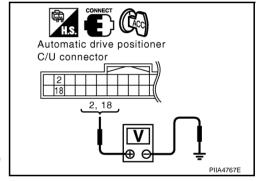
Monitor iten [OPERATION or		Contents
MIR CHNG SW-R	"ON/ OFF"	ON/OFF status judged from the door mirror remote control switch (switching to RIGHT) signal is displayed.
MIR CHNG SW-L	"ON/ OFF"	ON/OFF status judged from the door mirror remote control switch (switching to LEFT) signal is displayed.



(W) Without CONSULT-II

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

Connector	Terminals	(Wire color)	Change over switch condition	Voltage (V) (Approx.)
	(+)	(-)		
	2 (G/W)		RIGHT	0
M49	2 (0/11)	Ground	Other than above	5
	18 (L/OR)	Ground	LEFT	0
	10 (L/OK)		Other than above	5



OK or NG

OK >> Door mirror remote control switch (changeover switch) circuit is OK.

NG >> GO TO 2.

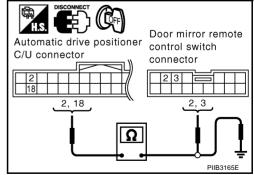
2. CHECK CHANGEOVER SWITCH CIRCUIT HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit and door mirror remote control unit connector.
- 3. Check continuity between automatic drive positioner control unit connector M49 terminal 2, 18 and door mirror remote control switch connector M18 terminal 2, 3.

2 (G/W) - 3 (G/W) : Continuity should exist. 18 (L/OR) - 2 (L/OR) : Continuity should exist.

4. Check continuity between automatic drive positioner control unit connector M49 terminal 2, 18 and ground.

2 (G/W) – Ground : Continuity should not exist. 18 (L/OR) – Ground : Continuity should not exist.



OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness between automatic drive positioner control unit and door remote control switch.

3. CHECK DOOR MIRROR REMOTE CONTROL SWITCH GROUND CIRCUIT

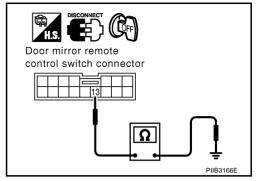
Check continuity between door mirror remote control switch connector M18 terminal 13 and ground.

13 (B) – Ground : Continuity should exist.

OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness.



4. CHECK DOOR MIRROR REMOTE CONTROL SWITCH (CANGEOVER SWITCH)

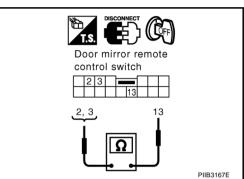
Change over switch operate, check continuity between door mirror remote control switch connector M18 terminal 5, 6 and 7.

Connector	Terminal		Change over switch condition	Continuity
M18 -	3	13	RIGHT	Yes
			Other than above	No
	2		LEFT	Yes
		Other than above	No	

OK or NG

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

NG >> Replace door mirror remote control switch.



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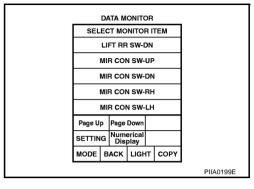
Door Mirror Remote Control Switch (Mirror Switch) Circuit Check 1. CHECK DOOR MIRROR REMOTE CONTROL SWITCH (MIRROR SWITCH) SIGNAL

AIS003BZ

(P) With CONSULT-II

Check the operation on "MIR CON SW-UP/DN" and "MIR CON SW-RH/LH" in the DATA MONITOR.

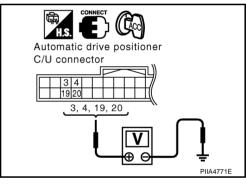
Monitor item [OPERATION or	-	Contents
MIR CON SW-UP	"ON/ OFF"	ON/OFF status judged from the door mirror remote control switch (UP) signal is displayed.
MIR CON SW-DN	"ON/ OFF"	ON/OFF status judged from the door mirror remote control switch (DOWN) signal is displayed.
MIR CON SW-RH	"ON/ OFF"	ON/OFF status judged from the door mirror remote control switch (RIGHT) signal is displayed.
MIR CON SW-LH	"ON/ OFF"	ON/OFF status judged from the door mirror remote control switch (LEFT) signal s displayed.



Without CONSULT-II

- 1. Turn ignition switch to ACC position.
- Mirror switch operate, check voltage between automatic drive positioner control unit connector and ground.

Connector	Terminals (Wire color)		Mirror switch condition	Voltage (V)
Connector	(+)	(-)	Will of Switch Condition	(Approx.)
	3 (GY)	Ground	UP	0
			Other than above	5
	4 (Y)		LEFT	0
M49			Other than above	5
10143	19 (GY/L)		DOWN	0
			Other than above	5
	20 (PU)		RIGHT	0
			Other than above	5



OK or NG

OK >> Door mirror remote control switch (mirror switch) circuit is OK.

NG >> GO TO 2.

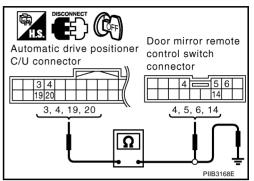
$\overline{2}$. CHECK HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit and door mirror remote control switch connector.
- 3. Check continuity between automatic drive positioner control unit connector M49 terminal 3, 4, 19, 20 and door mirror remote control switch connector M18 terminal 4, 5, 6, 14.

3 (GY) - 6 (GY)
 4 (Y) - 5 (Y)
 Continuity should exist.
 19 (GY/L) - 14 (GY/L)
 Continuity should exist.
 (PU) - 4 (PU)
 Continuity should exist.

4. Check continuity between automatic drive positioner control unit connector M49 terminal 3, 4, 19, 20 and ground.

3 (GY) – Ground : Continuity should not exist.
 4 (Y) – Ground : Continuity should not exist.
 19 (GY/L) – Ground : Continuity should not exist.
 20 (PU) – Ground : Continuity should not exist.



OK or NG

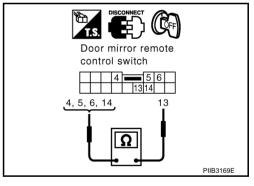
OK >> GO TO 4.

NG >> Repair or replace harness between automatic drive positioner control unit and door mirror remote control switch.

3. CHECK DOOR MIRROR REMOTE CONTROL SWITCH (MIRROR SWITCH)

Mirror switch operate, check continuity between door mirror remote control switch connector M18 terminal 1, 2, 3, 4 and 7.

Connector	Terminal		Mirror switch condition	Continuity
	4	13	RIGHT	Yes
	4		Other than above	No
	5		LEFT	Yes
M18	5		Other than above	No
	6		UP	Yes
			Other than above	No
	14		DOWN	Yes
			Other than above	No



OK or NG

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

NG >> Replace door mirror remote control switch.

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Detention Switch (P Range Switch) Circuit Check

1. CHECK FUNCTION

AIS002XW

(P) With CONSULT-II

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

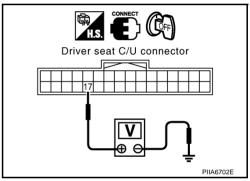
Monitor iten [OPERATION or		Contents
P POSITION SW	"ON/ OFF"	The selector lever position "P position (ON)/other than P position (OFF)" judged from the detente switch signal is displayed.

DATA MONITOR	
SELECT MONITOR ITEM	
MEMORY SW 2	
CANCEL SW	
DOOR SW-DR	
VHCL SPEED SE	
P POSITION SW	
Page Up Page Down	
SETTING Numerical Display	
MODE BACK LIGHT COPY	PIIA6950E

⋈ Without CONSULT-II

- 1. Turn ignition switch OFF.
- Check voltage between drive seat control unit conductor and ground.

Connector		ninals color)	Condition	Voltage (V) (Approx.)
	(+)	(-)		
B152	17 (PU)	Ground	Selector lever sifted to P position.	0
	17 (FO)	Glouila	Selector lever other than P position.	Battery voltage



OK or NG

OK >> Detention switch circuit is OK.

NG >> GO TO 2.

2. CHECK DETENTION SWITCH POWER SUPPLY CIRCUIT HARNESS

- 1. Key is removed form ignition key cylinder.
- 2. Disconnect driver seat control unit connector and A/T device (detention switch) connector.
- Check continuity between driver seat control unit connector B152 terminal 17 and A/T device (detention switch) connector M67 terminal 3.

17 (PU) – 3 (R/Y) : Continuity should exist.

 Check continuity between driver seat control unit connector B152 terminal 17 and ground.

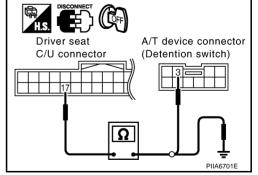
17 (PU) – Ground : Continuity should not exist.

OK or NG

NG

OK >> GO TO 3.

>> Repair or replace harness between driver seat control unit and A/T device (detention switch).



$\overline{3}$. CHECK DETENTION SWITCH

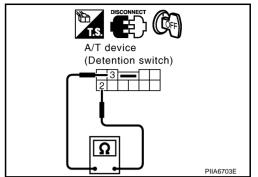
Check continuity between detection switch connector M67 terminal 2 and 3.

Connector	Terminal		Condition	Continuity
M67 2	2	P position	Yes	
IVIO7	2	3	Other than P position	No

OK or NG

OK >> GO TO 4.

NG >> Replace detention switch.



4. CHECK DETENTION SWITCH GROUND HARNESS

Check continuity between automatic drive positioner control unit connector M67 terminal 2 and ground.

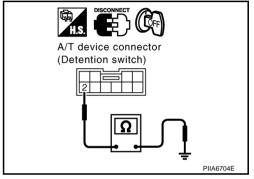
: Continuity should exist.

OK or NG

NG

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

>> Repair or replace harness between detention switch and ground.



Key Switch and Key Lock Solenoid Circuit Check (With Intelligent Key)

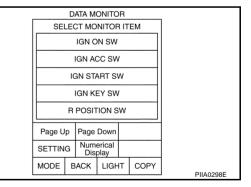
1. CHECK KEY SWITCH AND KEY LOCK SOLENOID POWER SUPPRY CIRCUIT

(II) With CONSULT-II

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

*: Refer to BL-38, "Data Monitor".

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



® Without CONSULT-II

ĞO TO 2.

OK or NG

OK >> Key switch and ignition knob circuit is OK.

NG >> GO TO 2.

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$\overline{2}$. Check key switch and key lock solenoid power supply circuit

- 1. Turn ignition switch OFF.
- 2. Disconnect key switch and ignition knob switch connector.
- Check voltage between key switch and key lock solenoid connector M22 terminal 3 and ground.

3 (L/R) - Ground

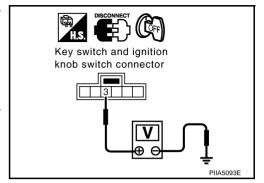
: Battery voltage.

OK or NG

OK >> GO TO 3.

NG

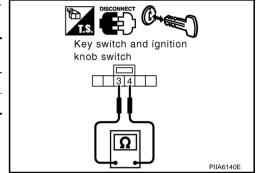
>> Check harness between key switch and key lock solenoid and fuse.



3. CHECK KEY SWITCH

Check continuity between key switch and ignition knob switch connector M22 terminal 3 and 4.

Con- nector	Terr	minal	Condition	Continuity
M22 3 4		1	Key is inserted in ignition key cylinder.	Yes
		4	Key is removed from ignition key cylinder.	No



OK or NG

OK >> GO TO 4.

NG >> Replace detention switch.

4. CHECK HARNESS CONTINUITY

- 1. Disconnect key switch and ignition knob switch connector and BCM connector.
- 2. Check continuity between key switch and ignition knob switch connector M22 terminal 4 and BCM connector M3 terminal 37.

4 (B/W) - 37 (B/W)

: Continuity should exist.

Check continuity between key switch and ignition knob switch connector M22 terminal 4 and ground.

4 (B/W) - Ground

: Continuity should not exist.

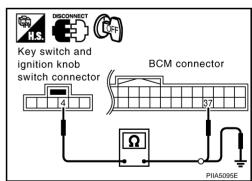
OK or NG

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

(II) With CONSULT-II

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

*: Refer to BL-38, "Data Monitor"

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

	DATA M	ОПІТО	R		
SEI	ECT MO				
	IGN C				
	IGN A	CC SW	,		
	IGN ST	ART SI	N		
	IGN KI	EY SW	,		
	R POSIT	TON S	w		
Page U	p Page	Down			
SETTIN	G Num Dis				
MODE	BACK	PIIA0298E			
					- FIIAUZ9UL

⋈ Without CONSULT-II

GO TO 2.

OK or NG

OK >> Key switch circuit is OK.

NG >> GO TO 2.

2. CHECK KEY SWITCH AND KEY LOCK SOLENOID POWER SUPPLY CIRCUIT

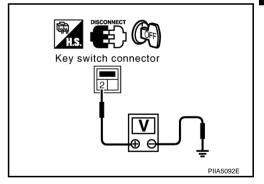
- 1. Turn ignition switch OFF.
- Disconnect key switch connector.
- 3. Check voltage between key switch connector M23 terminal 2 and ground.

: Battery voltage.

OK or NG

OK >> GO TO 3.

NG >> Check harness between key switch and fuse.



3. CHECK KEY SWITCH

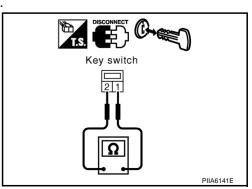
Check continuity between key switch connector M23 terminal 1 and 2.

Con- nector	Terr	minal	Condition	Continuity
M23 1 2		2	Key is inserted in ignition key cylinder.	Yes
IVIZO			Key is removed from ignition key cylinder.	No

OK or NG

OK >> GO TO 4.

NG >> Replace key switch.



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4. CHECK HARNESS CONTINUITY

- 1. Disconnect key switch and connector and BCM connector.
- Check continuity between key switch connector M23 terminal 1 and BCM connector M3 terminal 37.

1 (B/W) – 37 (B/W) : Continuity should exist.

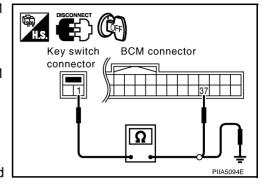
Check continuity between key switch connector M23 terminal 1 and ground.

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

OK or NG

OK >> Key switch and circuit is OK.

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



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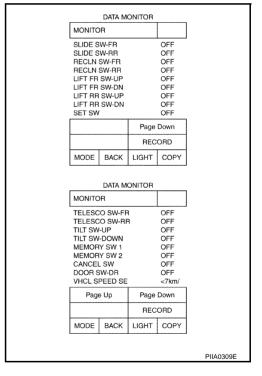
Seat Memory Switch Circuit Check

1. CHECK FUNCTION

(P) With CONSULT-II

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

Monitor [OPERATION		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

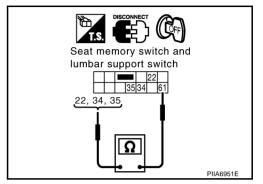
OK >> Seat memory switch circuit is OK.

NG >> GO TO 2.

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

- 1. Turn ignition switch OFF.
- 2. Disconnect seat memory switch and lumber support switch connector.
- 3. Check continuity between seat memory switch and lumber support switch connector B158 terminal 22, 34, 35 and 61.

Connec- tor	Terminals		Condition	Continuity
	34		Set switch: ON	Yes
B158 22		Set switch: OFF	No	
	22	61	Memory switch 1: ON	Yes
	22		Memory switch 1: OFF	No
	35		Memory switch 2: ON	Yes
			Memory switch 2: OFF	No



OK or NG

OK >> GO TO 3.

NG >> Replace seat memory switch and lumber support switch and lumber support switch.

3. CHECK HARNESS CONTINUITY

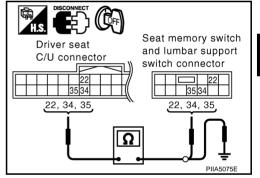
- 1. Disconnect driver seat control unit connector.
- Check continuity between driver seat control unit connector B152 terminals 22, 34, 35 and seat memory switch and lumber support switch connector B158 terminals 22, 34, 35.

22 (L/G) – 22 (L/G) : Continuity should exist. 34 (L/W) – 34 (L/W) : Continuity should exist. 35 (L/B) – 35 (L/B) : Continuity should exist.

3. Check continuity between automatic drive positioner control unit connector M152 terminals 22, 34, 35 and ground.

22 (L/G) – Ground : Continuity should not exist. 34 (L/W) – Ground : Continuity should not exist.

35 (L/B) – Ground : 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 and lumber support switch.

4. CHECK SEAT MEMORY SWITCH AND LUMBER SUPPORT SWITCH GROUND CIRCUIT

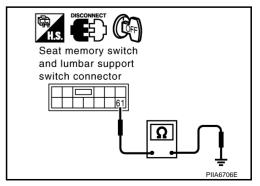
Check continuity between seat memory switch and lumber support switch B158 terminal 61 and ground.

61 (B/Y) – Ground : Continuity should exist.

OK or NG

OK >> Replace driver seat control unit.

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



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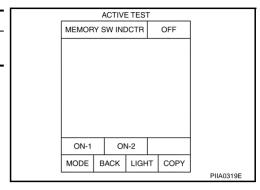
Memory Indicator Lamp Circuit Check

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.



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(R) Without CONSULT-II

ĞO TO 2.

OK or NG

OK >> Memory indicator lamp circuit is OK.

NG >> GO TO 2.

2. CHECK SEAT MEMORY SWITCH AND LUMBER SUPPORT SWITCH POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect seat memory switch and lumber support switch connector.
- 3. Check voltage between seat memory switch and lumber support switch connector B158 terminal 11 and ground.

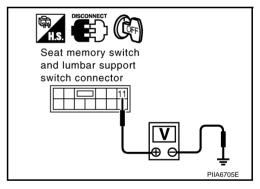
11 (R/W) – Ground : Battery voltage

OK or NG

OK >> GO TO 4.

NG >> Repair or

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



3. CHECK HARNESS CONTINUITY

- Disconnect driver seat control unit connector.
- Check continuity between driver seat control unit connector B152 terminals 23 (Y/W), 36 (Y/G) and seat memory switch and lumber support switch connector B158 terminals 23, 36.

23 (Y/W) – 23 (Y/W) : Continuity should exist. 36 (Y/G) – 36 (Y/G) : Continuity should exist.

Check continuity between driver seat control unit connector B152 terminals 23, 36 and ground.

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

Driver seat C/U connector Seat memory switch and lumbar support switch connector 23 36 23, 36 23, 36 PIIASOTTE

OK or NG

OK >> GO TO 5.

NG >> Repair or replace harness between automatic drive positioned control unit and seat memory switch and lumber support switch.

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4. CHECK SEAT MEMORY SWITCH INDICATOR SIGNAL

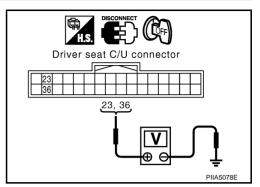
Check voltage between driver seat control unit connector B152 terminals 23, 36 and ground.

> 23 (Y/W) - Ground : Battery voltage 36 (Y/G) - Ground : Battery voltage

OK or NG

OK >> Memory indicator lamp circuit is OK.

NG >> Replace seat memory switch and lumber support switch.



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Uart Communication Line Circuit Check

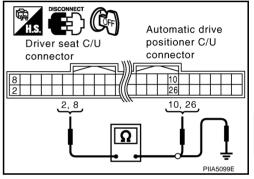
1. CHECK UART LINE HERNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit connector and automatic drive positioner control unit connector.
- Check continuity between driver seat control unit connector B152 terminal 2, 8 and automatic drive positioner connector M49 terminal 10, 26.

2 (P) - 26 (W) : Continuity should exist. 8 (G/Y) - 10 (B): Continuity should exist.

Check continuity between driver seat control unit connector B152 terminal 2, 8 and ground.

> 2 (P) - Ground : Continuity should not exist. 8 (G/Y) - Ground : Continuity should not exist.



OK or NG

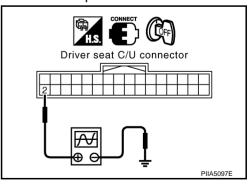
OK >> GO TO 2.

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

2. CHECK UART LINE SIGNAL 1

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

Connector	Terminals (Wire color)		Condition	Signal (Reference value)	
	(+)	(-)		(ixelefelice value)	
B152	2 (P)	Ground	Seat memory switch 1 or 2 opera- tion	(V) 6 4 2 0 2 ms	



OK or NG

OK >> GO TO 3.

NG >> Check the flowing.

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

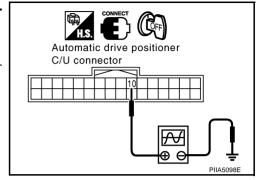
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3. CHECK UART LINE SIGNAL 2

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

Connector	Terminals (Wire color)		Condition	Signal (Reference value)	
	(+)	(-)		(ivererence value)	
M49	10 (B)	Ground	Seat memory switch 1 or 2 opera- tion	(V) 6 4 2 0 1 ms	



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.

Lumber Support Circuit Check

AIS003C1

1. CHECK LUMBER SUPPORT SWITCH

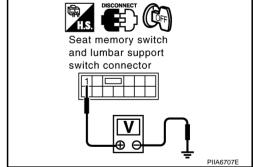
- 1. Turn ignition switch OFF.
- 2. Disconnect seat memory switch and lumber support switch connector.
- 3. Check voltage between seat memory switch and lumber support switch connector B158 terminal 1 and ground.

1 (R) – Ground: : Battery voltage

OK or NG

OK >> GO TO 2.

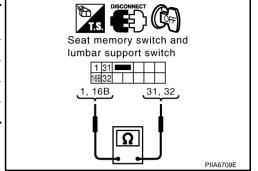
NG >> Repair or replace harness between fuse block (J/B) and seat memory switch and lumber support switch.



2. CHECK LUMBER SUPPORT SWITCH

Lumber support switch operate, check continuity seat memory switch and lumber support switch connector B158 terminal 31, 32 and 1, 16B.

Con- nector	Terminal		Lumber support switch condition	Continuity
B158	31	1	BACKWARD	Yes
		16B	Other than above	No
	32	1	FORWARD	Yes
		16B	Other than above	No



OK or NG

OK >> GO TO 3.

NG >> Replace power seat switch.

3. CHECK LUMBER SUPPORT MOTOR HARNESS

- 1. Disconnect lumber support motor connector.
- Check continuity between seat memory switch and lumber support port switch connector B158 terminal 31, 32 and lumber support motor connector B172 terminal 31, 32.

31 (W) – 31 (W) 32 (L) – 32 (L) : Continuity should exist.

: Continuity should exist.

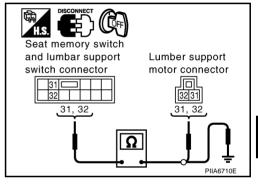
Check continuity between seat memory switch and lumber support switch connector B158 terminal 31, 32 and ground.

31 (W) – Ground

: Continuity should not exist.

32 (L) – **Ground**

: Continuity should not exist.



OK or NG

NG

OK >> GO TO 4.

>> Repair or replace harness between seat memory switch and lumber support switch and lumber support motor.

4. CHECK LUMBER SUPPORT SWITCH GROUND CIRCUIT

Check continuity between lumber support switch connector B158 terminal 16B and ground.

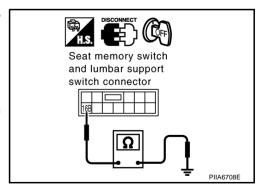
16B (B) – Ground : Continuity should exist.

OK or NG

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

NG >> Repair or replace harness between seat memory s

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



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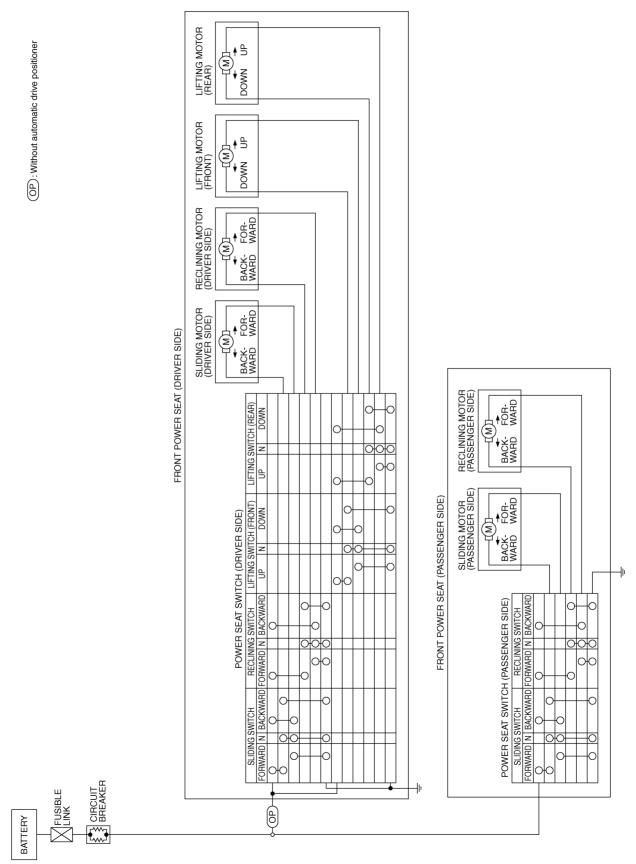
L

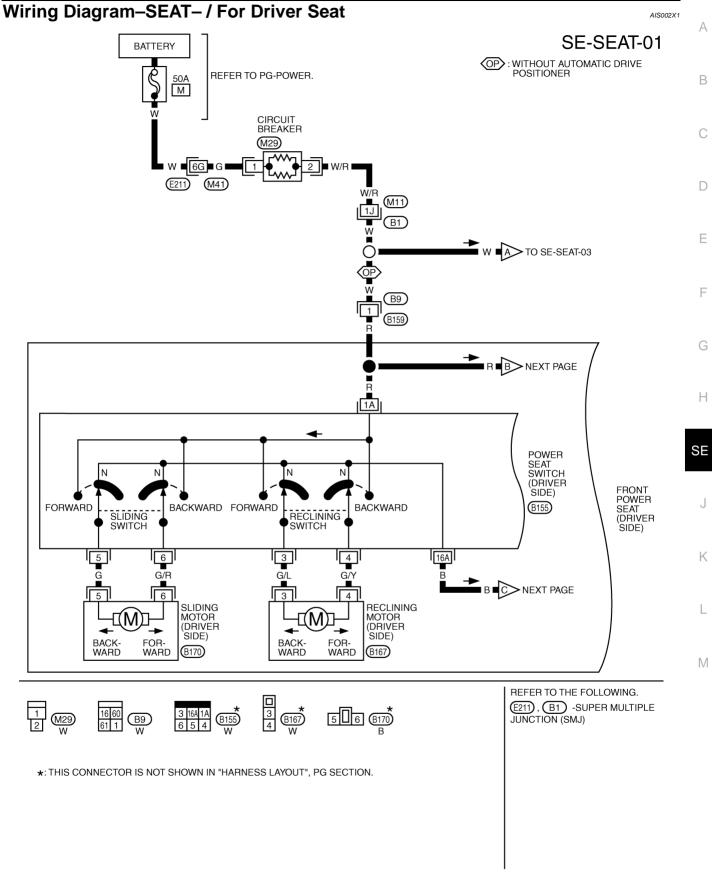
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POWER SEAT PFP:87016

Schematic

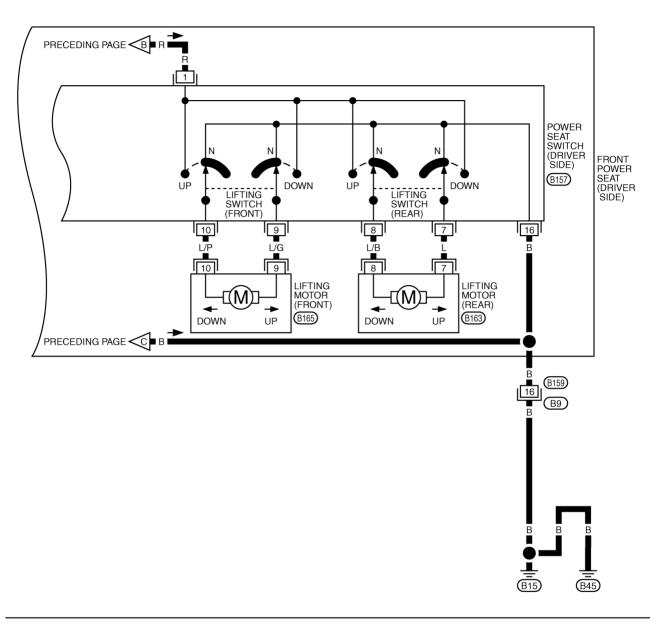




TIWM0303E

SE-93 2005 FX Revision: 2005 July

SE-SEAT-02





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

TIWM0304E

Wiring Diagram-SEAT- / For Passenger Seat

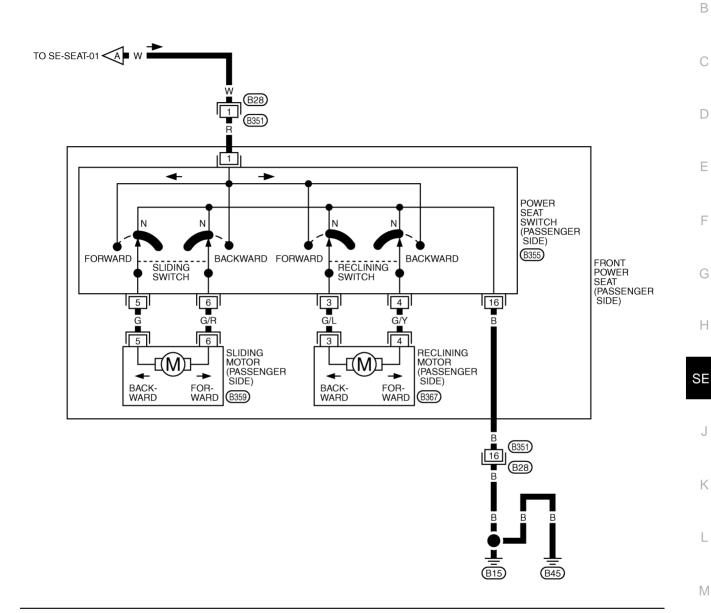
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SE-SEAT-03





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

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POWER SEAT

Trouble Diagnosis

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A trouble diagnosis of a automatic drive positioner interlocking power seat is refer to <u>SE-11, "AUTOMATIC DRIVE POSITIONER"</u>.

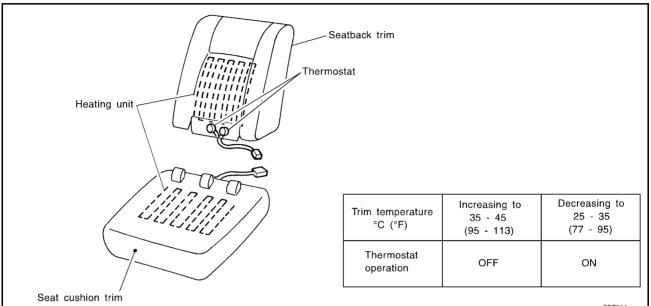
HEATED SEAT

HEATED SEAT PFP:87335

Description

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.



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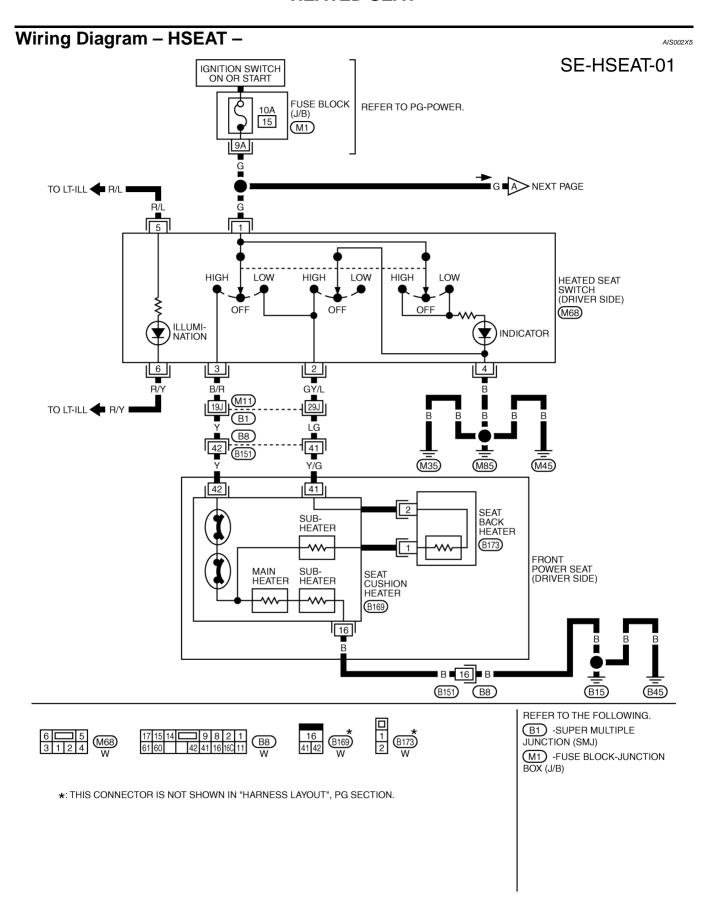
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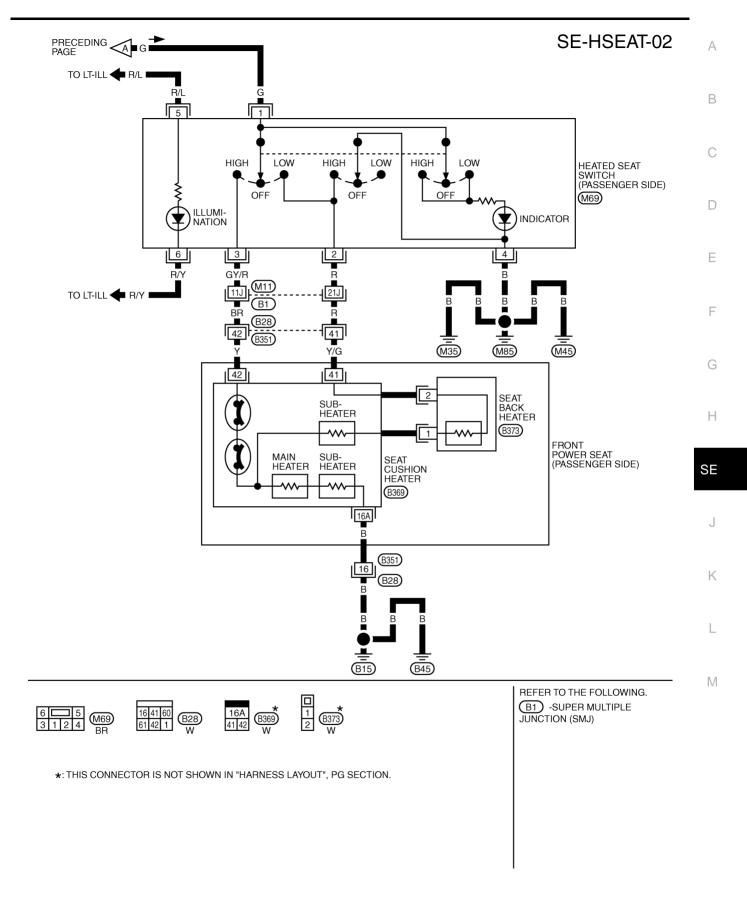
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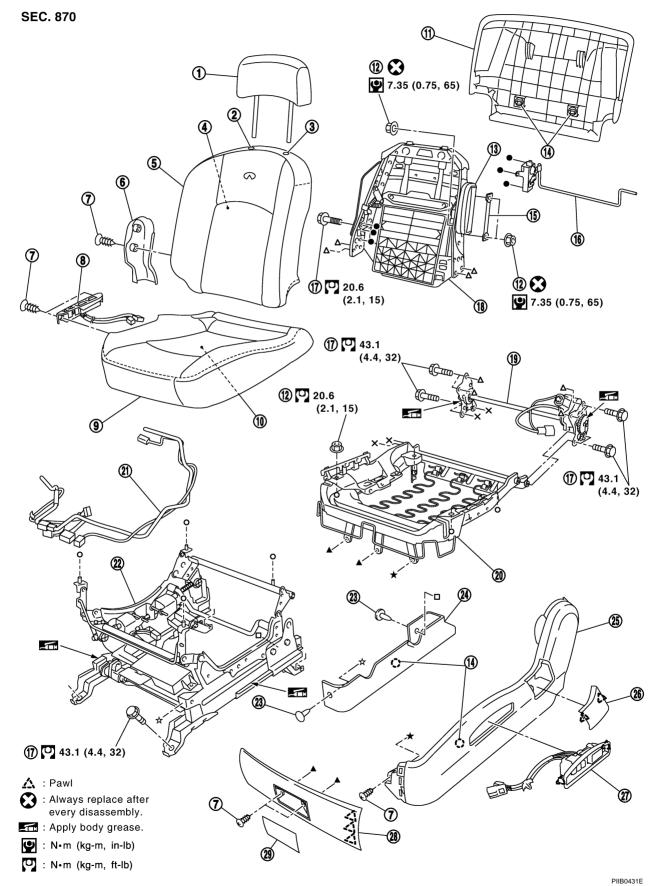


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FRONT SEAT PFP:87000

Removal and Installation

AIS002X6



FRONT SEAT

1. Headrest 2. Headrest holder (free) 3. Headrest holder (locked) 4. Seatback pad 5. Seatback trim 6. Seat cushion inner finisher 7. Screw Seat cushion trim 8. Power seat switch assembly 9. 10. Seat cushion pad 11. Seatback garnish 12. Nut 13. Side air bag module Clip (C101) 14. Inner cloth stay 15. 16. Lumber support device Bolt Seatback frame 17. 18. 19. Reclining device assembly 20. Seat cushion frame 21. Seat harness assembly 22. Seat adjust assembly 23. Clip (C103) 24. Seat adjust assembly cover 25. Seat cushion outer finisher 26. Seat cushion outer finisher cover 27. Power seat memory switch assembly 28. Seat cushion forward finisher 29. Seat cushion forward finisher lid

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FRONT SEAT

REMOVAL

When removing or installing the seat trim, carefully handle it to keep dirt out and avoid damage.

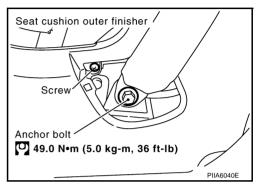
CAUTION:

- Before removing the front seat, turn ignition switch OFF, disconnect both battery cables and wait at 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 seat cushion outer finisher cover.
- 2. Remove the front seat belt anchor bolt. Refer to <u>SB-3</u>, "Removal and Installation of Front Seat Belt".

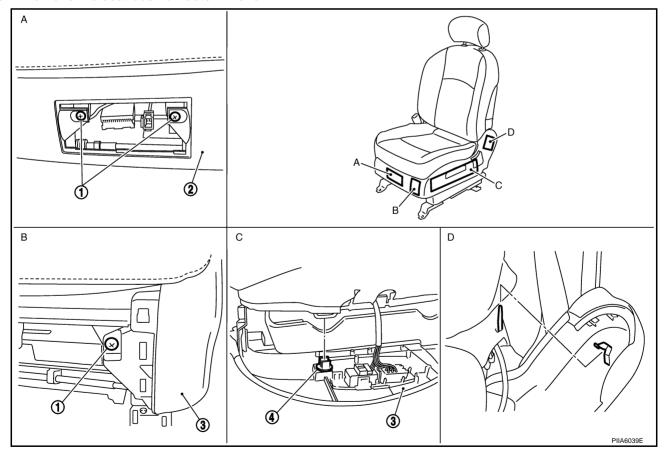
CAUTION:

Set the front and rear cushion lifter to the down position.

3. Remove the screw.



- 4. Remove the seat cushion forward finisher lid.
- 5. Remove the seat cushion forward finisher.
- 6. Remove the seat cushion outer finisher.



1. Screw

2. Seat cushion forward finisher

3. Seat cushion outer finisher

Clip(C101)

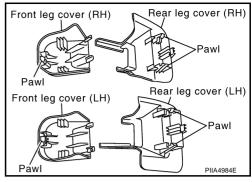
7. Remove the power seat memory switch assembly.

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8. Remove the front and rear leg cover (LH and 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 LH and RH of the rear leg cover and tabs engaged into the rail. Then pull the cover toward the rear of the vehicle.



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 and rear cushion lifter to the top position.

- 10. Disconnect both battery cables.
- 11. Remove the harness connector for the side air bag module.
- 12. Remove the power seat harness connector and vehicle harness fixing clip.
- 13. Remove the front seat.

NOTE:

When removing and installing, using waste, protect the parts from damage where it may interfere with others.

INSTALLATION

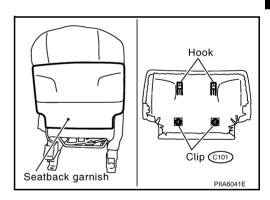
Install in the reverse order of removal.

NOTE:

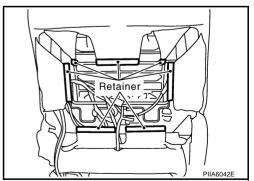
Be sure to insert the rear end tab of the rear leg cover under the rail.

REMOVAL OF SEATBACK TRIM AND PAD

1. Remove the seatback garnish.



2. Remove the retainer.



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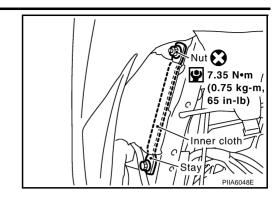
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FRONT SEAT

3. Remove the stay securing the inner cloth.

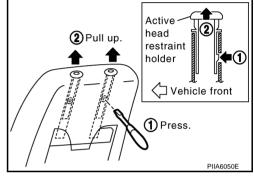


- 4. Remove the headrest.
- Remove the headrest holder.

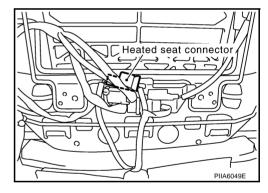
From the back of the seatback, press the headrest holder tab of the stay pipe hole to disengage. Then pull the headrest holder up to remove.

NOTE:

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



6. Remove the heated seat connector.



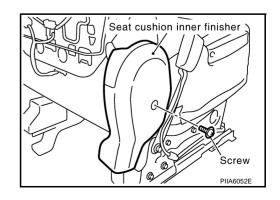
7. After removing the seatback trim and pad, remove the hog rings to separate the trim, pad, and seatback heater unit.

INSTALLATION OF SEATBACK TRIM AND PAD

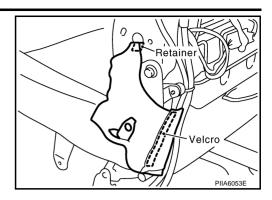
Install in the reverse order of removal.

REMOVAL OF SEAT CUSHION TRIM AND PAD

1. Remove the seat cushion inner finisher.

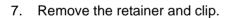


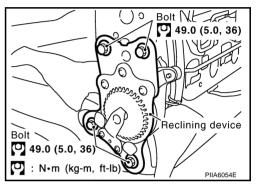
Remove the velcro and retainer.

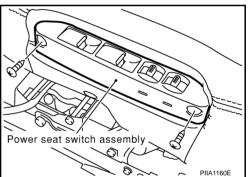


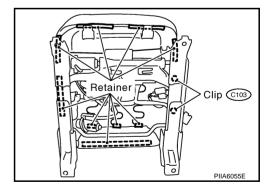
- 3. Remove the seat harness connector.
- Remove the seatback frame.
- Remove the reclining device assembly.











8. After removing the seat cushion trim and pad, remove the hog rings to separate the trim and pad and the seat cushion heater unit.

INSTALLATION OF SEAT CUSHION TRIM AND PAD

Install in the reverse order of removal.

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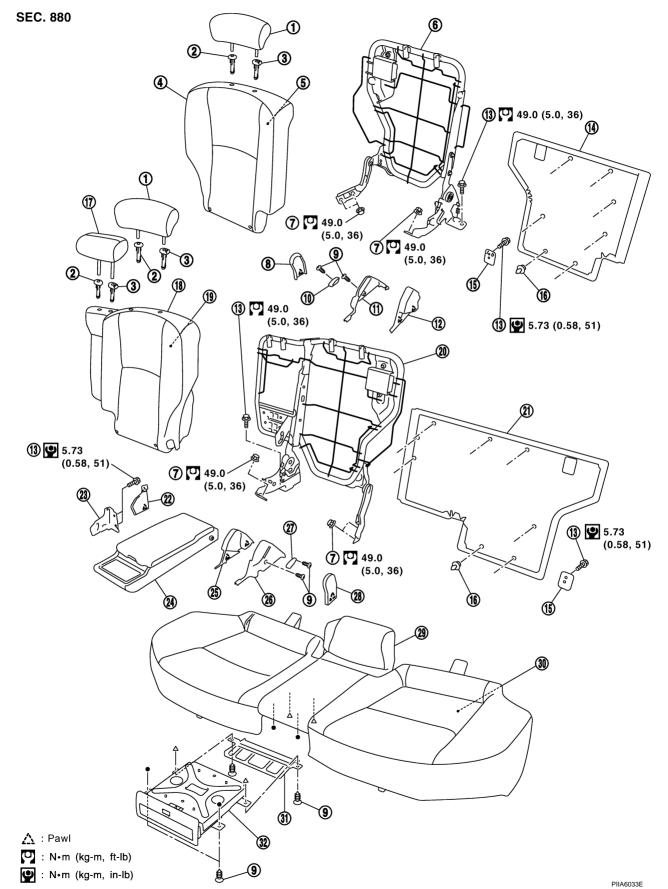
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REAR SEAT PFP:88300

Removal and Installation

AIS002X8



REAR SEAT

Headrest (side) 2. Headrest holder (free) 3. Headrest holder (locked) 1. 4. Seatback trim (RH) 5. Seatback pad (RH) 6. Seatback frame (RH) 7. Nut Seat hinge cover (RH) 9. Screw 8. 10. Reclining lever (RH) 11. Reclining device outer cover (RH) 12. Reclining device inner cover (RH) Bolt Seatback garnish (RH) 13. 15. Trunk net hook 16. Clip (C101) Headrest (center) Seatback trim (LH) 17. 18. Seatback frame (LH) 19. Seatback pad (LH) 21. Seatback garnish (LH) 22. Armrest bracket cover 23. Armrest bracket 24. Armrest 25. Reclining device inner cover (LH) 26. Reclining device outer cover (LH) 27. Reclining lever (LH) 29. Seat cushion trim 30. Seat cushion pad 28. Seat hinge cover (LH) 31. Cup holder bracket 32. Cup holder

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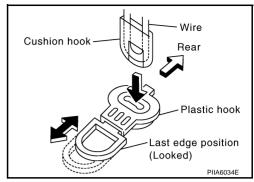
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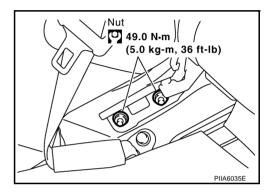
REAR SEAT

REMOVAL

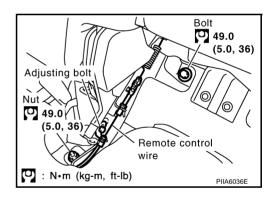
Pull the lock at the front bottom of the seat cushion forward (1 for each side), and pull the seat cushion upward to release the wire from the plastic hook, then pull the seat cushion forward to remove.



2. Remove the seatback mounting nuts.



Remove the seatback mounting bolt and nut. Remove the remote control wire.



INSTALLATION

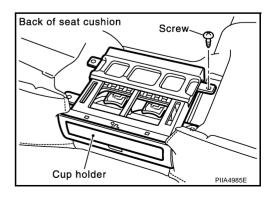
Install in the reverse order of removal.

NOTE:

After rear wheel house finisher assembly is remove the seatback is installed. Refer to EI-43, "Removal and Installation".

REMOVAL OF SEAT CUSHION TRIM AND PAD

1. Remove the cup holder in the back of the seat cushion.



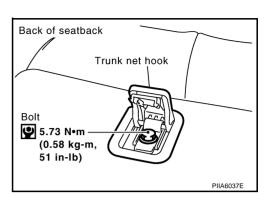
2. Removal the hog rings to separate the trim and pad.

INSTALLATION OF SEAT CUSHION TRIM AND PAD

Install in the reverse order of removal.

REMOVAL OF SEATBACK TRIM AND PAD

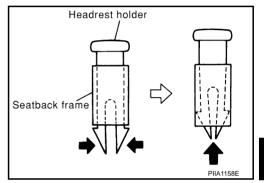
1. Remove the trunk net hook in the back of the seatback.



- 2. After removing the seatback garnish, remove the hog rings.
- 3. Remove the headrest.
- 4. Remove the headrest holder. Squeeze and pull up headrest holder tabs to remove from seatback frame.

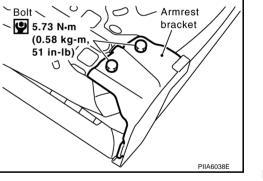
NOTE:

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



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5. Remove the armrest (LH only).



6. After removing the seatback trim and pad, separate the trim and pad.

INSTALLATION OF SEATBACK TRIM AND PAD

Install in the reverse order of removal.

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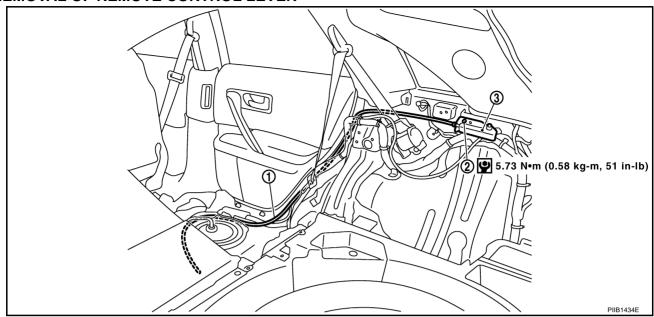
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REAR SEAT

REMOVAL OF REMOTE CONTROL LEVER



- 1. Remote control wire
- 2. Bolt

- 3. Remote control lever
- 1. Remove the rear seat. Refer to SE-108, "REMOVAL".
- 2. Remove the luggage side finisher assembly. Refer to EI-43, "Removal and Installation" .
- 3. Remove the remote control lever.
- 4. Remove the remote control lever mounting bolt.
- 5. Remove the remote control lever assembly.

INSTALLATION OF REMOTE CONTROL LEVER

Install in the reverse order of removal.