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# PRECAUTIONS

# PRECAUTIONS

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

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

### WARNING:

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

# Precautions for Work

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

Then rub with a soft and dry cloth.

Oily foul: Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%), and wipe the fouled area.
 Then dip a cloth into fresh water, and wring the water out of the cloth to wipe the detergent off. Then rub

with a soft and dry cloth.

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

# PREPARATION

# PREPARATION Special Service Tool

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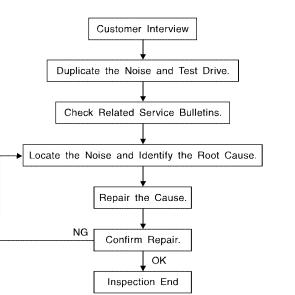
The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number (Kent-Moore No.) Tool name		Description
 (J-39570) Chassis ear	SIIA0993E	Locating the noise
— (J-43980) NISSAN Squeak and Rat- tle Kit	SIIA0994E	Repairing the cause of noise

# **Commercial Service Tool**

(Kent-Moore No.) Tool name		Description	
(J-39565) Engine ear	SilA0995E	Locating the noise	

# SQUEAK AND RATTLE TROUBLE DIAGNOSES Work Flow



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### **CUSTOMER INTERVIEW**

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

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

### DUPLICATE THE NOISE AND TEST DRIVE

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

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: J-39570, Engine Ear: J-39565 and mechanic's 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 fasteners can be broken or lost during the repair, resulting in the creation of new noise.
- tapping or pushing/pulling the component that you suspect is causing the noise.
   Do not tap or push/pull the component with excessive force, otherwise the noise will be eliminated only temporarily.
- feeling for a vibration with your hand by touching the component(s) that you suspect is (are) causing the noise.
- placing a piece of paper between components that you suspect are causing the noise.
- looking for loose components and contact marks.
   Refer to <u>SE-7, "Generic Squeak and Rattle Troubleshooting"</u>.

### **REPAIR THE CAUSE**

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

### **CAUTION:**

### Do not use excessive force as many components are constructed of plastic and may be damaged. Always check with the Parts Department for the latest parts information.

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

URETHANE PADS [1.5 mm (0.059 in) thick]

Insulates connectors, harness, etc.

76268-9E005: 100×135 mm (3.94×5.31 in)/76884-71L01: 60×85 mm (2.36×3.35 in)/76884-71L02: 15×25mm(0.59×0.98 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 (1.97×1.97 in)/73982-50Y00: 10 mm (0.39 in) thick, 50×50 mm (1.97×1.97 in)

INSULATOR (Light foam block)

	15-71L00: 30 mm (1.18 in) thick, 30×50 mm (1.18×1.97 in)	۸
Used	T CLOTHTAPE d to insulate where movement does not occur. Ideal for instrument panel applications.	А
rials,	70-4B000: 15×25 mm (0.59×0.98 in) pad/68239-13E00: 5 mm (0.20 in) wide tape roll. The following mate- not found in the kit can also be used to repair squeaks and rattles. 1W (TEFLON) TAPE	В
Insul	lates where slight movement is present. Ideal for instrument panel applications.	
	CONE GREASE d in place of UHMW tape that will be visible or not fit.	С
Note	: Will only last a few months.	
	CONE SPRAY when grease cannot be applied.	D
DUC	T TAPE	D
	to eliminate movement.	
	IFIRM THE REPAIR	E
	firm that the cause of a noise is repaired by test driving the vehicle. Operate the vehicle under the same litions as when the noise originally occurred. Refer to the notes on the Diagnostic Worksheet.	
Ger	neric Squeak and Rattle Troubleshooting	F
Refe	r to Table of Contents for specific component removal and installation information.	
INS		G
Most	t incidents are caused by contact and movement between:	
1	The cluster lid A and instrument panel	
2. /	Acrylic lens and combination meter housing	Н
3. I	Instrument panel to front pillar garnish	
4. I	Instrument panel to windshield	SE
	Instrument panel mounting pins	3E
6. \	Wiring harnesses behind the combination meter	
7. /	A/C defroster duct and duct joint	J
	se incidents can usually be located by tapping or moving the components to duplicate the noise or by	
	sing on the components while driving to stop the noise. Most of these incidents can be repaired by apply- elt cloth tape or silicone spray (in hard to reach areas). Urethane pads can be used to insulate wiring har-	
ness		Κ
CAU	ITION:	
Do r	not use silicone spray to isolate a squeak or rattle. If you saturate the area with silicone, you will be able to recheck the repair.	L
CEN	ITER CONSOLE	
Com	ponents to pay attention to include:	M
1. 3	Shifter assembly cover to finisher	
2. /	A/C control unit and cluster lid C	

3. Wiring harnesses behind audio and A/C control unit

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

### DOORS

Pay attention to the:

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

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

### TRUNK

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

- 1. Trunk lid bumpers 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/HEADLINER

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

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

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

### **OVERHEAD CONSOLE (FRONT AND REAR)**

Overhead console noises are often caused by the console panel clips not being engaged correctly. Most of these incidents are repaired by pushing up on the console at the clip locations until the clips engage. In addition look for:

- 1. Loose harness or harness connectors.
- 2. Front console map/reading lamp lense loose.
- 3. Loose screws at console attachment points.

### SEATS

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

Cause of seat noise include:

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

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

### UNDERHOOD

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

Causes of transmitted underhood noise include:

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

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

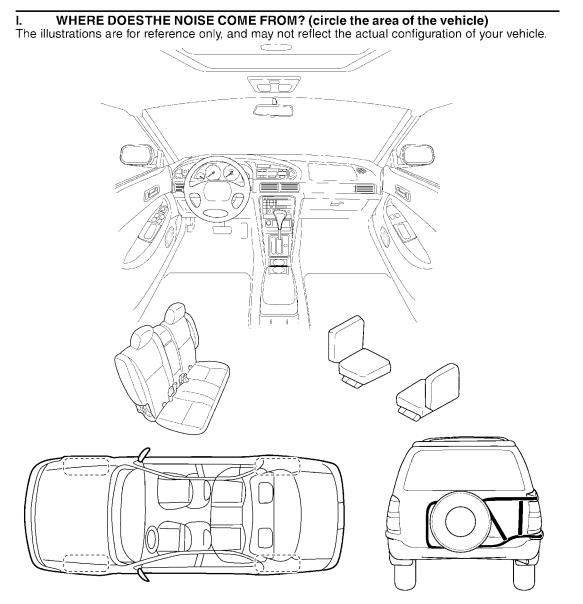
### **Diagnostic Worksheet**



SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

Dear Nissan Customer:

We are concerned about your satisfaction with your Nissan vehicle. Repairing a squeak or rattle sometimes can be very difficult. To help us fix your Nissan 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.



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:		
II. WHEN DOES IT OCCUR? (che	eck the boxes that apply)	
□ anytime	after sitting out in the sun	
□ 1 <sup>st</sup> 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	G 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)	
on acceleration	tick (like a clock second hand)	
coming to a stop	thump (heavy, muffled knock noise)	
🖵 on turns : left, right or either (circle)	🖵 buzz (like a bumble bee)	
with passengers or cargo		
🗅 other:		

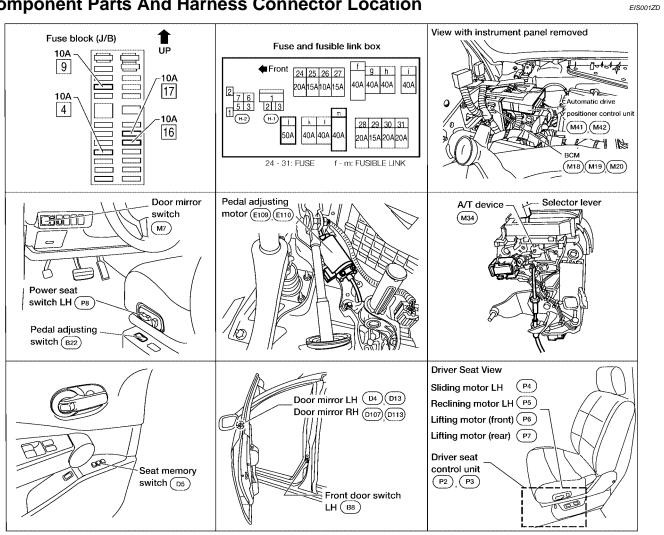
### TO BE COMPLETED BY DEALERSHIP PERSONNEL Test Drive Notes:

□ after driving \_\_\_\_\_ miles or \_\_\_\_\_ minutes

		YES	NO	Initials of person performing	
Vehicle test driven with customer - Noise verified on test drive - Noise source located and repaired - Follow up test drive performed to confirm repair					
VIN:	Customer Name: _				
W.O. #:	Date:	_			SBT844

### This form must be attached to Work Order

# AUTOMATIC DRIVE POSITIONER Component Parts And Harness Connector Location



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# **Manual Operation**

The driving position [seat position, pedal position (accelerator, brake) and door mirror position] can be adjusted with the power seat switch LH or pedal adjusting switch or door mirror switch.

### NOTE:

- The door mirrors can be manually operated with the ignition switch turned ACC or ON.
- Only when A/T shift lever is in P position, adjusting pedal operates (except when ignition switch turned to OFF).
- If A/T device (park switch) error is detected, manual adjustable pedal operation cannot be performed when ignition switch turns ON.

# **Automatic Operation**

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	Function	Description	
Memory operation		The seat, pedal (accelerator, brake) and door mirror move to the stored driving position by pushing seat memory switch (1 or 2).	
Entry/Exit- ing function Entry operation		At Exit, the seat moves backward. (Exiting position)	
		At entry, the seat returns from Exiting position to the previous driving position before the Exiting operation.	
Keyfob interlock operation		Perform memory operation, turnout operation and return 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 front door switch LH ON (open)  $\rightarrow$  OFF (close)  $\rightarrow$  ON (open), the Entry/Exiting function becomes possible.
- After Exiting operation is carried out, return operation can be operated.

Auto operation temporary stop conditions.	When ignition switch is turned to START during seat memory switch operation and return operation, seat memory switch operation and return operation is stopped.
Auto operation stop conditions.	• When the vehicle speed becomes 7 km/h (4 MPH) or higher (memory switch operation and entry operation).
	• When the setting switch, seat memory switch 1 or 2 are pressed.
	• When A/T shift lever is in any position other than P.
	• When the door mirror switch is operated (when ignition switch turned to ON).
	When power seat switch turned ON.
	When pedal adjusting switch turned ON.
	<ul> <li>When front seat sliding Entry/Exiting setting is OFF (entry/exiting operation).</li> </ul>

### NOTE:

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

# **System Description**

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- The system automatically moves the front seat to facilitate entry/exit to/from the vehicle. The driver seat control unit can also store the optimum driving positions (front seat, pedal position and door mirror position) for 2 people. If the front seat is changed, 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.

### FAIL- SAFE MODE

When any manual and automatic operations are not performed, if any motor operations of seats or pedals are detected for T2 or more, status is judged "Output error".

OPERATED PORTION	T2	
Seat sliding	Approx. 0.1 sec.	/
Seat reclining	Same as above	
Seat lifting (Front)	Same as above	E
Seat lifting (Rear)	Same as above	
Pedal adjust	Same as above	

# CANCEL OF FAIL-SAFE MODE

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

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### MEMORY STORING AND KEYFOB INTERLOCK STORING

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

Adjust the position of driv	er's seat, ped	al and door mirror with manual operations.		
<ul> <li>Ignition switch is turned</li> <li>A/T shift lever is shifted</li> </ul>				
		-		
		Indicator LEDs		
Touch set switch		(1) Indicator LED for which driver's seat positions are already retained in memory illuminates for 5 seconds.		
		(2) Indicator LED for which driver's seat positions are not entered in memory illuminates for 0.5 seconds.		
		Within 5 seconds		
		Indicator LEDs		
Press seat memory switch driver's seat positions are entered in memory for mo	to be ore than	(1) To modify driver's seat positions, press seat memory switch. Indicator LED will then go out for 0.5 seconds and then illuminate for 5 seconds.		
0.5 seconds. (2 driver's se positions can be memoriz		(2) To enter driver's seat positions in blank memory, indicator LED illuminates for 5 seconds after seat memory switch is pressed.		
		Does keyfob interlock set?		
	YES	NO		
		END OF SETTING		
ļ				
Press keyfob unlock button within 5 seconds after pressing seat memory switch (while seat memory switch indicator turns on).		Indicator LEDs		
		If it completes normally, indicator of registered seat memory switch turns on for 5 seconds.		
		<b>v</b>		
		END OF SETTING		

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### NOTE:

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

### MEMORY OPERATION

Selecting the memorized position.

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

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

### NOTE:

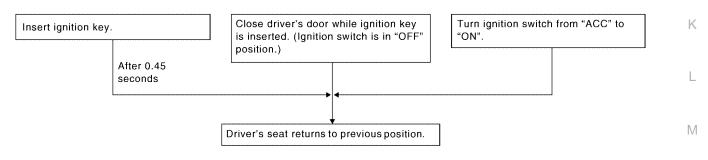
The front seat position and pedal adjustment functions (see the following table) operate simultaneously in the order of priority.

Priority	Function	Priority	Function	-
1	Seat sliding, (door mirror LH/RH)*	4	Seat lifter-FR	Н
2	Pedal	5	Seat lifter-RR	
3	Seat reclining			SF

\*: In conjunction with sliding the seat, the door mirrors are positioned.

### ENTRY OPERATION

When the seat is in the exiting positions, the following operation moves the seat to the previous position before the exiting operation.



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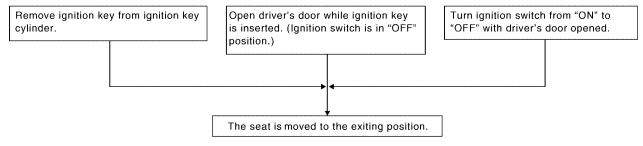
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### **EXITING OPERATION**

At Entry/Exiting, the seat is automatically moved to the exiting position.



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### **REVERSE TILT MIRROR**

When the door mirror switch is set to L or R and the transmission is shifted into reverse, the selected door mirror will tilt downward. The door mirror will return to the original position when the transmission is shifted to any position other than reverse, the door mirror switch is set to N or the ignition switch is turned OFF.

### **KEYFOB INTERLOCK OPERATION**

• The system performs memory operation, exiting operation and return operation by pressing keyfob unlock button.

<ul> <li>Remove ignition key from ignition key cylinder.</li> <li>A/T shift lever is shifted to P position.</li> </ul>		
	Push keyfob unlock button	
Perform memory operation by pressing keyfob unlock button.		
	-	
After performing memory operation, perform exiting op	eration.	
	Insert ignition key.	
Perform entry operation. Seat moves to memorized pos	iition.	

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### NOTE:

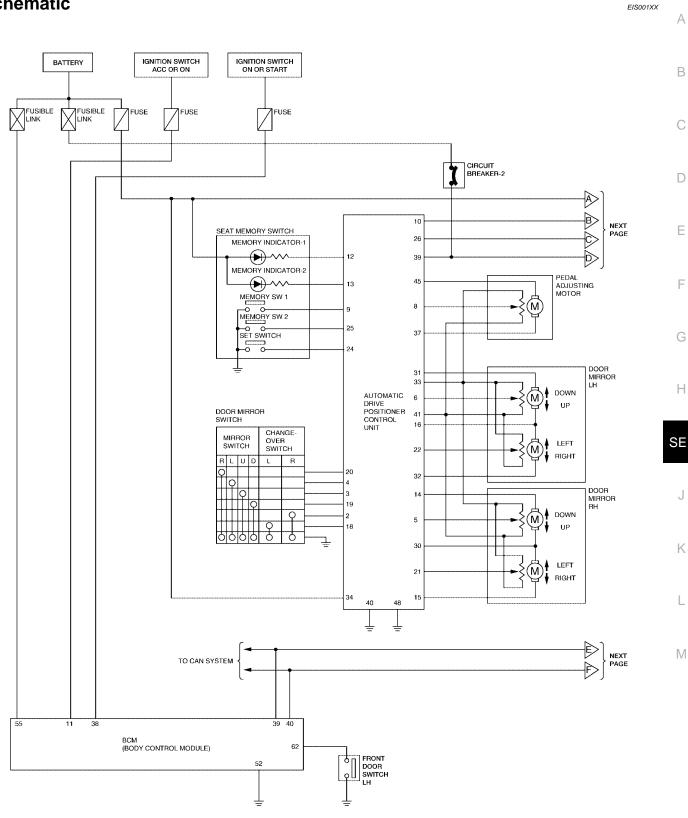
- If Entry/Exiting operation is cancelled, the system performs memory operation only.
- If ignition switch turns ON in the middle of memory operation, the system does not perform exiting operation after memory operation.
- If ignition switch turns ON in the middle of exiting operation, entry operation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

### **CAN Communication System Description**

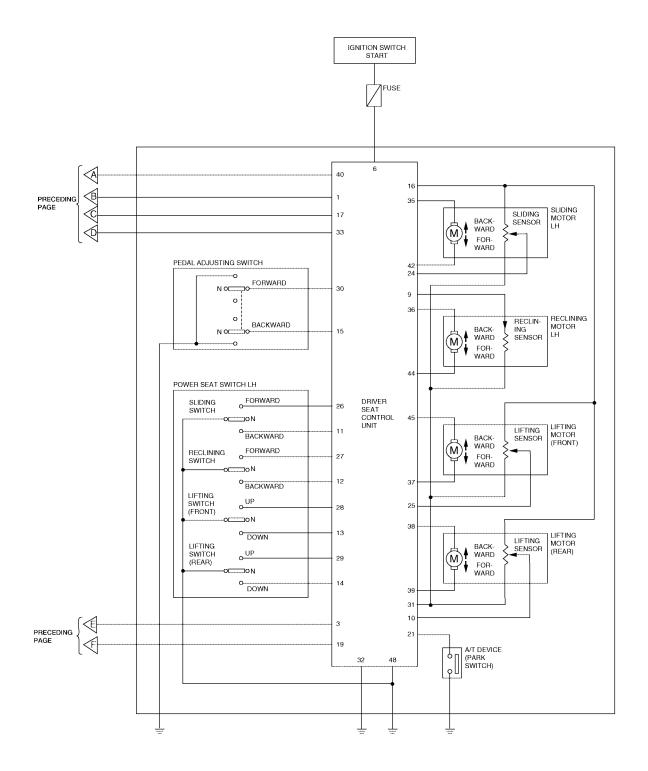
EIS001ZE

Refer to LAN-5, "CAN COMMUNICATION" .

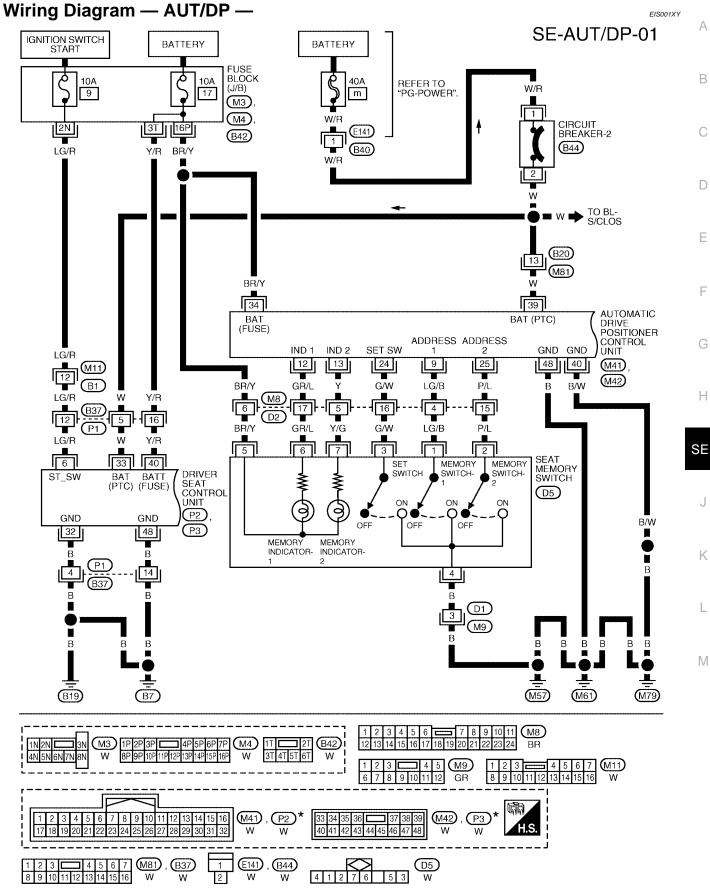
# Schematic



WIWA1432E

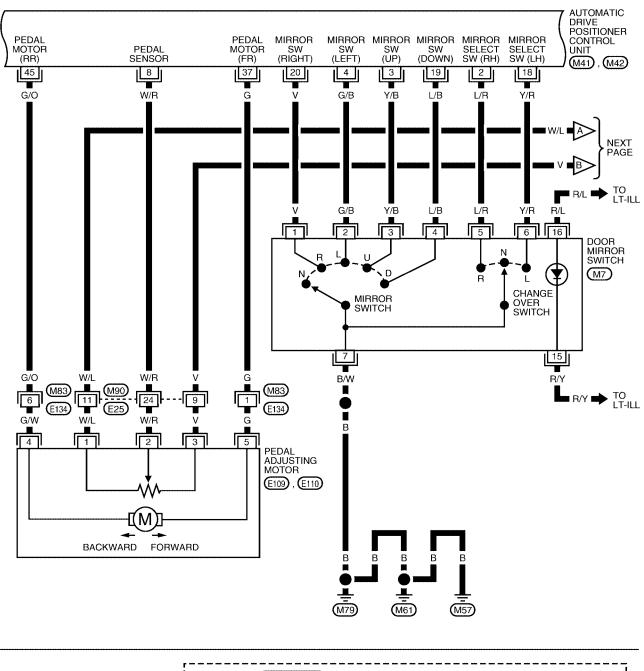


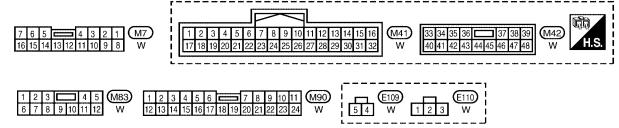
WIWA0441E



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

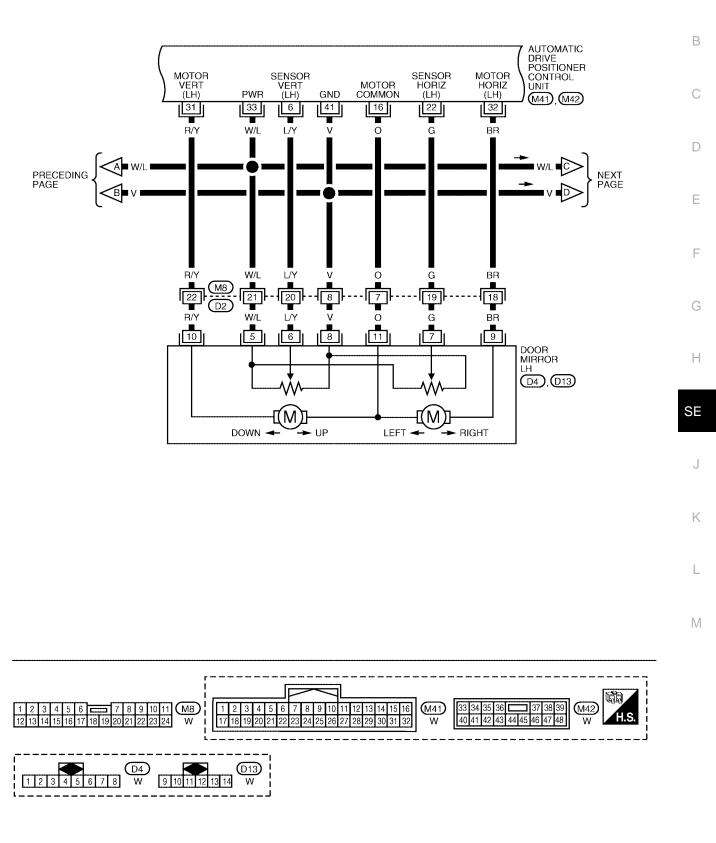
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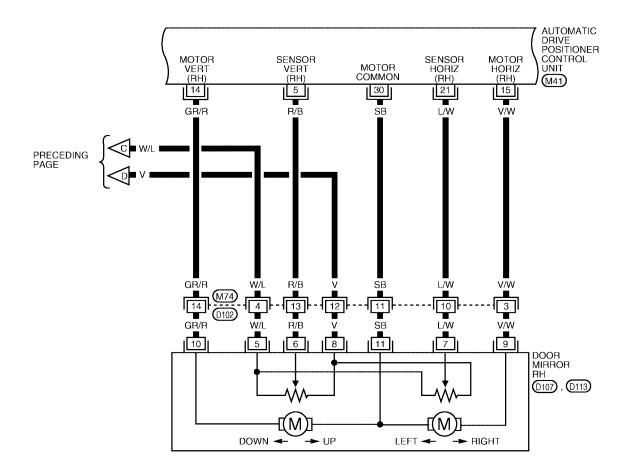


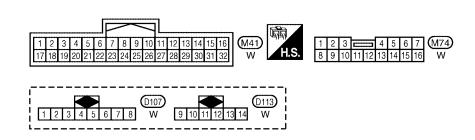
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А



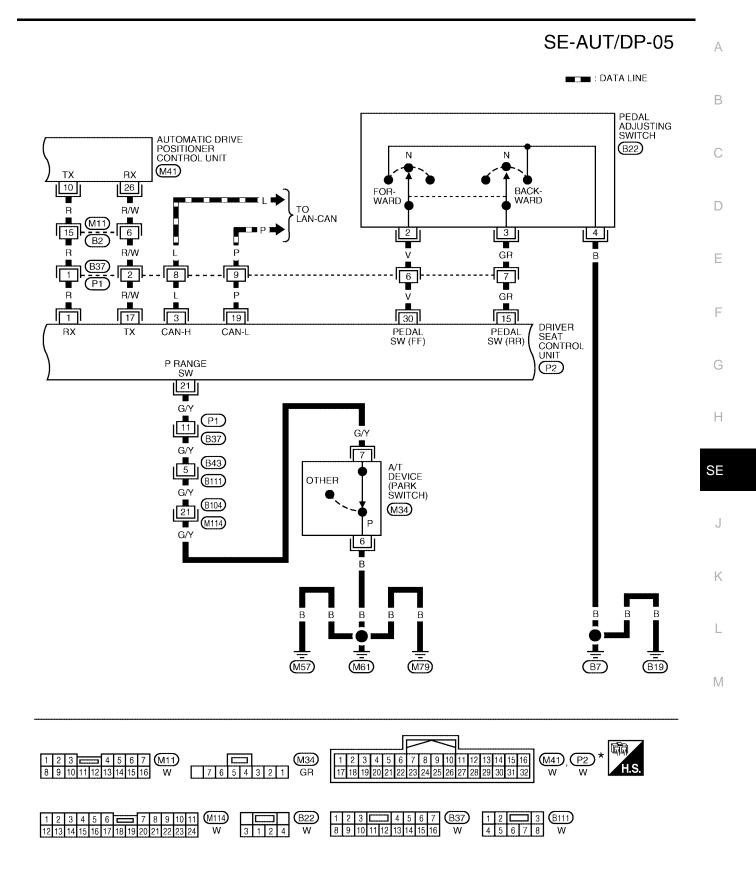
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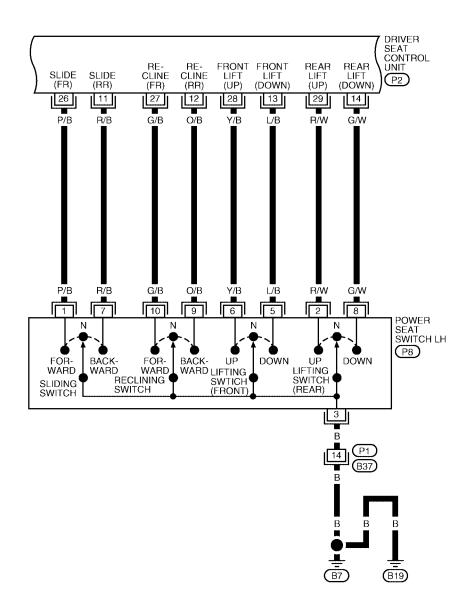
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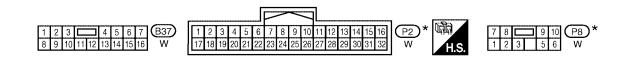




\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

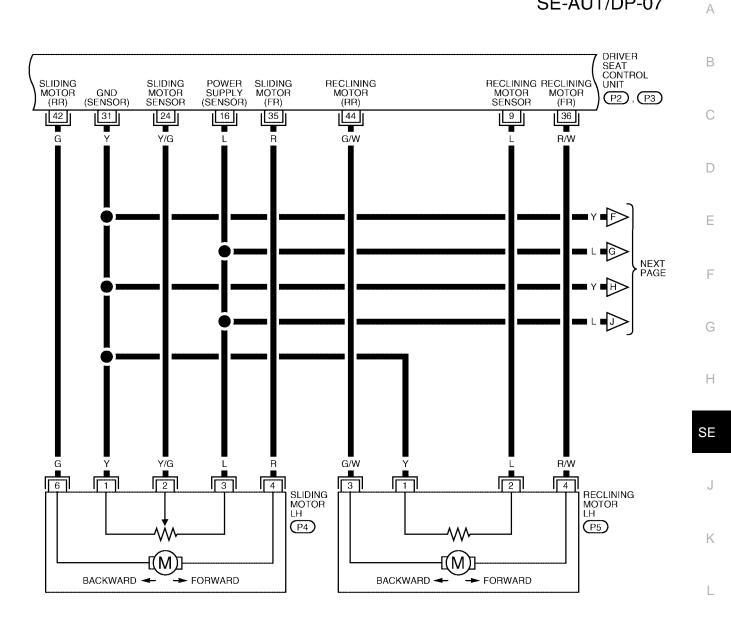
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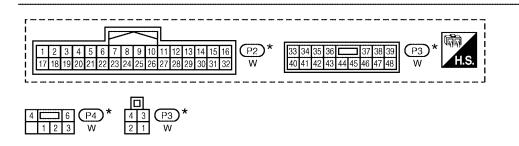




\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

LIWA0485E

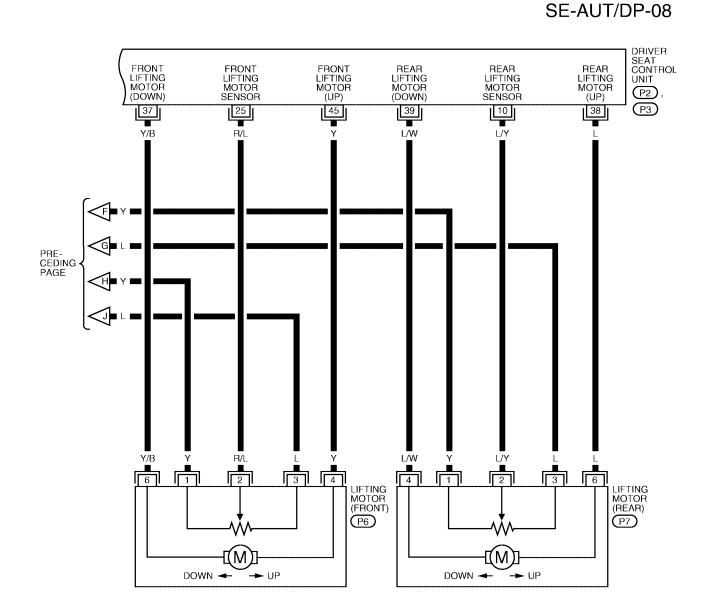


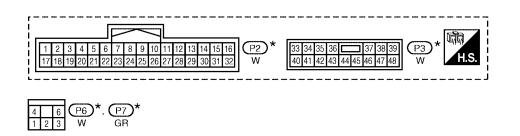


\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

WIWA0447E

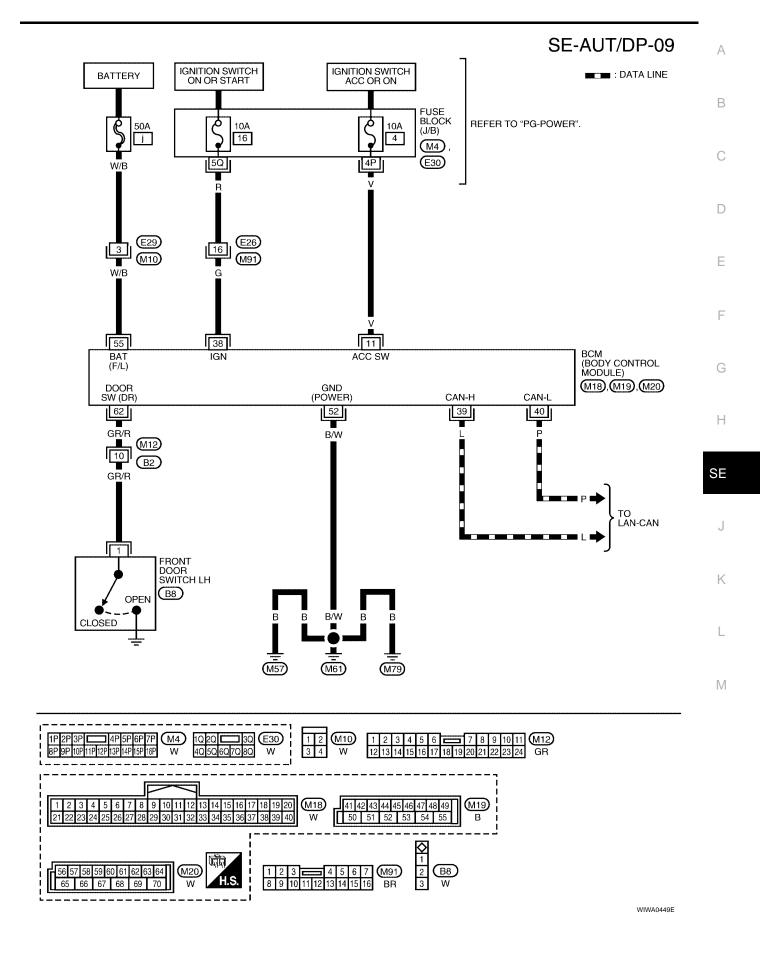
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\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

WIWA0448E



# **Terminals and Reference Values for BCM**

EIS001XZ

Terminal	Wire Color	ltem	Condition	Voltage (V) (Approx.)
11	V	Ignition switch (ACC or ON)	Ignition switch (ACC or ON position)	Battery voltage
38	G	Ignition switch (ON or START)	Ignition switch (ON or START posi- tion)	Battery voltage
39	L	CAN-H	—	_
40	Р	CAN-L	—	_
52	B/W	Ground	—	0
55	W/B	Battery power supply	—	Battery voltage
62	GR/R	Front door switch LH	$ON\;(Open)\toOFF\;(Closed)$	$0 \rightarrow Battery voltage$

# Terminals and Reference Values for Driver Seat Control Unit

EIS001ZH

Terminal	Wire Color	ltem	Condition	Voltage (V) (Approx.)
1	R	UART LINE (RX)	Pedal adjusting switch ON (FOR- WARD or BACKWARD operation)	(V) 6 4 2 0 1 ms PIIA4813E
3	L	CAN-H		_
6	LG/R	Ignition switch (START)	Ignition switch (START position)	Battery voltage
9	L	Reclining sensor signal	ON (seat reclining motor opera- tion)	(V) 6 2 0 •••50ms SIIA0692J
			Other than above	0 or 5
10	L/Y	Rear lifting sensor signal	ON (rear lifting motor operation)	(V) 6 4 2 0 •••50ms SIIA0693J
			Other than above	0 or 5
11	R/B	Sliding switch BACKWARD sig- nal	ON (seat sliding switch BACK- WARD operation)	0
		1101	Other than above	Battery voltage
12	O/B	Reclining switch BACKWARD signal	ON (seat reclining switch BACK- WARD operation)	0
		Signal	Other than above	Battery voltage
13	L/B	Front lifting switch DOWN signal	ON (front lifting switch DOWN operation)	0
			Other than above	Battery voltage

Terminal	Wire Color	Item	Condition	Voltage (V) (Approx.)
14	G/W	Rear lifting switch DOWN signal	ON (rear lifting switch DOWN operation)	0
			Other than above	Battery voltage
15	GR	Pedal adjusting switch BACK- WARD signal	ON (pedal adjusting switch BACK- WARD operation)	0
			Other than above	Battery voltage
16	L	Seat sensor power	Igntion switch (ACC or ON posi- tion)	5
17	R/W	UART LINE (TX)	Pedal adjusting switch ON (FOR- WARD or BACKWARD operation)	(V) 6 4 2 0 2 ms PIIA4814E
19	Р	CAN-L	_	_
			Selector lever in P position	0
21	G/Y	A/T device (park switch) signal	Selector lever in other than P position with key in ignition cylin- der	Battery voltage
24	Y/G	Seat sliding sensor signal	ON (seat sliding motor operation)	(V) 6 2 0 50 ms PIIA3277E
			Other than above	0 or 5
25	R/L	Front lifting sensor signal	ON (front lifting motor operation)	(V) 6 2 0 • • • • • • • • • • • • •
			Other than above.	0 or 5
26	P/B	Seat sliding switch FORWARD signal	ON (seat sliding switch FOR- WARD operation)	0
		Signal	Other than above	Battery voltage
27	G/B	Seat reclining switch FOR- WARD signal	ON (seat reclining switch FOR- WARD operation)	0
			Other than above	Battery voltage
28	Y/B	Front lifting switch UP signal	ON (front lifting switch UP opera- tion)	0
			Other than above	Battery voltage
29	R/W	Rear lifting switch UP signal	ON (rear lifting switch UP opera- tion)	0
			Other than above	Battery voltage

Terminal	Wire Color	Item	Condition	Voltage (V) (Approx.)
30	V	Pedal adjusting switch FOR- WARD signal	ON (pedal adjusting switch FOR- WARD operation)	0
		WARD Signal	Other than above	Battery voltage
31	Y	Sensor ground	—	0
32	В	Ground		0
33	W	Battery power supply (PTC)		Battery voltage
35	R	Sliding motor FORWARD out- put signal	Sliding switch FORWARD opera- tion (Motor operated)	Battery voltage
		put signal	Other than above	0
36	R/W	Reclining motor FORWARD out-	Reclining switch FORWARD oper- ation (Motor operated)	Battery voltage
		put signal	Other than above	0
37	Y/B	Front lifting motor DOWN output	Front lifting switch DOWN opera- tion (Motor operated)	Battery voltage
		signal	Other than above	0
38		Rear lifting motor UP output sig-	Rear end lifting switch UP opera- tion (Motor operated)	Battery voltage
		nal	Other than above	0
39	L/W	Rear lifting motor DOWN output	Rear end lifting switch DOWN operation (Motor operated)	Battery voltage
		signal	Other than above	0
40	Y/R	Battery power supply		Battery voltage
42	G	Sliding motor BACKWARD out-	Sliding switch BACKWARD oper- ation (Motor operated)	Battery voltage
		put signal	Other than above	0
44	G/W	Reclining motor BACKWARD output signal	Reclining switch BACKWARD operation (Motor operated)	Battery voltage
		output signal	Other than above	0
45	Y	Front lifting motor UP output sig-	Front lifting switch UP operation (Motor operated)	Battery voltage
		1101	Other than above	0
48	В	Ground	_	0

# Terminals and Reference Values for Automatic Drive Positioner Control Unit EISO0127

Terminal	Wire Color	Item	Condition	Voltage (V) (Approx.)
2	L/R	Changeover switch RH signal	Changeover switch in RH position	0
2	L/IX	Changeover switch Kri signal	Other than above	5
3	Y/B	Mirror owitch LID oignal	Mirror switch in UP position	0
3	T/D	Y/B Mirror switch UP signal	Other than above	5
4	G/B Mirror switch LEFT signal	Mirror owitch   EET signal	Mirror switch in LEFT position	0
4	G/B	Mirror switch LEFT signal	Other than above	5
5	R/B	Mirror sensor (RH vertical) sig- nal	Mirror motor RH is UP or DOWN operation	Changes between 3.4 (close to perk) 0.6 (close to valley)
6	L/Y	Mirror sensor (LH vertical) sig- nal	Mirror motor LH is UP or DOWN operation	Changes between 3.4 (close to perk) 0.6 (close to valley)
8	W/R	Pedal sensor input signal	Pedal position front end	0.5
0	vv/r	reual sensor input signal	Pedal position rear end	4.5

Terminal	Wire Color	Item	Condition	Voltage (V) (Approx.)
0		Power seat memory switch 1	Memory switch 1 ON	0
9	LG/B	signal	Memory switch 1 OFF	5
10	R	UART LINE (TX)	Pedal adjusting switch ON (FOR- WARD or BACKWARD operation)	(V) 6 4 2 0 1 ms PIIA4813E
40		Power seat memory switch	Memory switch 1 ON	0
12	GR/L	indictor 1 signal	Memory switch 1 OFF	Battery voltage
10		Power seat memory switch	Memory switch 2 ON	0
13	Y	indictor 2 signal	Memory switch 2 OFF	Battery voltage
			Mirror motor RH UP operation	1.5 - Battery voltage
14	GR/R	Mirror motor RH UP signal	Other than above	0
. –		· · · · · · · · · · · · · · · · · · ·	Mirror motor RH LEFT operation	1.5 - Battery voltage
15	V/W	Mirror motor RH LEFT signal	Other than above	0
			Mirror motor LH DOWN operation	1.5 - Battery voltage
	~	Mirror motor LH DOWN signal	Other than above	0
16	0		Mirror motor LH RIGHT operation	1.5 - Battery voltage
		Mirror motor LH RIGHT signal	Other than above	0
40		<b>a</b>	Changeover switch in LH position	0
18	Y/R	Changeover switch LH signal	Other than above	5
10			Mirror switch in DOWN position	0
19	L/B	Mirror switch DOWN signal	Other than above	5
00			Mirror switch in RIGHT position	0
20	V	Mirror switch RIGHT signal	Other than above	5
21	L/W	Mirror sensor (RH horizontal) signal	Mirror motor RH is LEFT or RIGHT operation	Changes between 3.4 (close to left edge) 0.6 (close to right edge)
22	G	Mirror sensor (LH horizontal) signal	Mirror motor LH is LEFT or RIGHT operation	Changes between 3.4 (close to left edge) 0.6 (close to right edge)
24	G/W	Power seat set switch signal	Set switch 1 ON	0
24	G/ VV	i owei seat set switch signal	Set switch 1 OFF	5
25	P/L	Power seat memory switch 2	Memory switch 2 ON	0
20	1/6	signal	Memory switch 2 OFF	5
26	R/W	UART LINE (RX)	Pedal adjusting switch ON (FOR- WARD or BACKWARD operation)	(V) 6 4 2 0 2 ms PIIA4814E
		Mirror motor RH DOWN signal	Mirror motor RH DOWN operation Other than above	1.5 - Battery voltage 0
30	SB		Mirror motor RH RIGHT operation	1.5 - Battery voltage
		Mirror motor RH RIGHT signal	Other than above	0

Terminal	Wire Color	ltem	Condition	Voltage (V) (Approx.)
24			Mirror motor LH UP operation	1.5 - Battery voltage
31	R/Y	Mirror motor LH UP signal	Other than above	0
32	BR	Mirror motor I H   EET signal	Mirror motor LH LEFT operation	1.5 - Battery voltage
32	DK	Mirror motor LH LEFT signal	Other than above	0
33	W/L	Sensor power supply		5
34	BR/Y	Battery power supply		Battery voltage
37	37 G	G Pedal adjust motor FORWARD signal	Pedal adjust motor FORWARD operation (Motor operated)	Battery voltage
			Other than above	0
39	W	Battery power supply		Battery voltage
40	В	Ground	—	0
41	V	Sensor ground		0
45	G/O	Pedal adjust motor BACK-	Pedal adjust motor BACKWARD operation (Motor operated)	Battery voltage
		WARD signal	Other than above	0
48	В	Ground		0

### Work Flow

EIS001ZJ

- 1. Check the symptom and customer's requests.
- 2. Understand the system description. Refer to <u>SE-12, "System Description"</u>.
- 3. Perform the preliminary check. Refer to <u>SE-33, "Preliminary Check"</u>.
- 4. Check the self-diagnosis results using CONSULT-II. Refer to <u>SE-36</u>, "CONSULT-II Function (AUTO <u>DRIVE POS.)</u>".
- 5. Repair or replace depending on the self-diagnostic results.
- 6. Based on the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to <u>SE-40</u>, <u>"Symptom Chart"</u>.
- Does the automatic drive positioner system operate normally? If it is normal, GO TO 8. If it is not normal, GO TO 3.
- 8. Inspection End.

### **Preliminary Check** SETTING CHANGE FUNCTION

EIS001ZK

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

×: Applicable -: Not applicable

Setting item	Content	CONSULT-II (WORK SUPPORT)	Display unit	Default setting	Factory setting	
	The distance at exiting opera-	40mm		×	×	С
SEAT SLIDE VOLUME SET	tion can be selected from the	80mm	] —	_	—	
	following 3 modes.	150mm		_	_	D
Sliding Front Seat When Entry/Exiting Vehicle	The seat sliding turnout and return at entry/exit can be selected: ON (operated)–OFF (not operated)	ON	ON: Indicator lamp ON	_	×	
		OFF	OFF: Indicator lamp OFF	×	_	E
Reset custom settings*	All settings to default.	_	Default: Setting button ON	_	—	F

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

Content	Setting change operation	Indicator LEDs	G
The seat sliding turnout and return at entry/exit can be oper- ated.	Press the set switch for more than 10 seconds	Blinking twice	Н
The seat sliding turnout and return at entry/exit cannot be operated.		Blinking once	SE

\*: Setting of sliding front seat for entry/exit of vehicle is ON at factory-shipment. But if custom settings are reset, setting turns OFF.

### NOTE:

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

### POWER SUPPLY AND GROUND CIRCUIT INSPECTION

### 1. CHECK BCM FUSES

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

, ,			
Unit	Power source	Fuse No.	L
	Battery power supply	j (50A)	
BCM	ON or START power supply	16 (10A)	M
	ACC or ON power supply	4 (10A)	

NOTE:

Refer to SE-11, "Component Parts And Harness Connector Location" .

### OK or NG

OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to SE-11, "Component Parts And Harness Connector Location" .

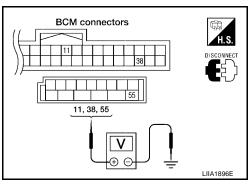
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# 2. CHECK BCM POWER SUPPLY CIRCUIT

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

Connector	Term (Wire		Power source	Condition	Voltage (V) (Approx.)	BCM (
	(+)	(-)	oouroo		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
M20	55 (W/B)	Ground	Battery power supply	Ignition switch OFF	Battery voltage	
M19	38 (G)	Ground	lgnition power supply	Ignition switch ON or START	Battery voltage	
1119	11 (V)	Ground	ACC power supply	Ignition switch ACC or ON	Battery voltage	



### OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.

# 3. CHECK BCM GROUND CIRCUIT

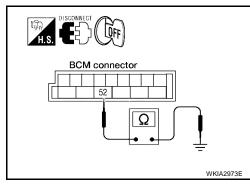
- 1. Turn ignition switch OFF.
- 2. Check continuity between BCM connector M19 terminal 52 and ground.

### 52 (B/W) - 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 harness.



# 4. CHECK FUSES

Check if any of the following fuses for the driver seat control unit and automatic drive positioner control unit are blown.

Unit	Power source	Fuse No.	
	START power supply	9 (10A)	
Driver seat control unit	Battery power supply	17 (10A)	
	Battery power supply	<b>m</b> (40A)	

### NOTE:

Refer to SE-11, "Component Parts And Harness Connector Location" .

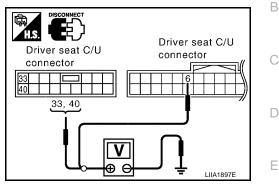
### OK or NG

- OK >> GO TO 5.
- NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to <u>SE-11, "Component Parts And Harness Connector Location"</u>.

# 5. CHECK DRIVER SEAT CONTROL UNIT POWER SUPPLY CIRCUIT

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

Connector	Terminals or (Wire color)		Power source	Condition	Voltage (V) (Approx.)	
	(+)	(—)	500100		(Applox.)	
P3	33 (W), 40 (Y/R)	Ground	Battery power supply	Ignition switch ACC or ON	Battery voltage	
P2	6 (LG/R)	Ground	START power supply	Ignition switch START	Battery voltage	



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### OK or NG

OK >> GO TO 6.

NG >> Repair or replace harness.

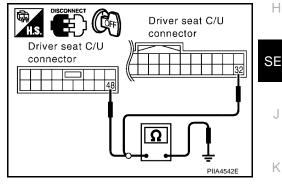
# 6. CHECK DRIVER SEAT CONTROL UNIT GROUND CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Check continuity between the driver seat control unit connector P2 terminals 32, 48 and ground.
  - 32 (B) Ground
  - 48 (B) Ground
- : Continuity should exist.

: Continuity should exist.

### OK or NG

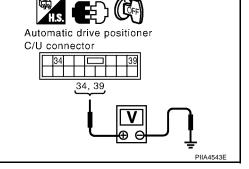
- OK >> Driver seat control unit circuit check is OK, GO TO 7.
- NG >> Repair or replace harness.



# 7. CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT POWER SUPPLY CIRCUIT

- Disconnect automatic drive positioner control unit connector. 1.
- 2. Check voltage between automatic drive positioner control unit connector M42 terminals 34, 39 and ground.

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		(Applox.)
M42	34 (BR/Y)	Ground	Ignition switch OFF	Battery voltage
	39 (W)	Ground	Ignition switch OFF	Battery voltage



### OK or NG

OK >> GO TO 8.

NG >> Repair or replace harness.

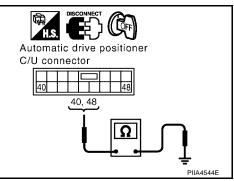
# 8. CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT GROUND CIRCUIT

Check continuity between the automatic drive positioner control unit connector M42 terminals 40, 48 and ground.

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

OK or NG

- OK >> Automatic drive positioner control unit circuit is OK.
- NG >> Repair or replace harness.



# **CONSULT-II Function (AUTO DRIVE POS.)**

EIS001ZL

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

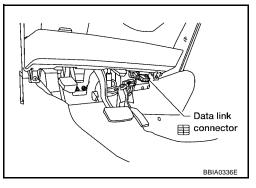
AUTO DRIVE POS. diagnostic mode	Description
WORK SUPPORT	Supports inspections and adjustments. Commands are transmitted to the driver seat control unit for setting the status suitable for required operation, input/output signals are received from the driver seat control unit and received data is displayed.
SELF-DIAG RESULTS	Displays driver seat control unit self-diagnosis results.
DATA MONITOR	Displays driver seat control unit input/output data in real time.
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.
ACTIVE TEST	Operation of electrical loads can be checked by sending drive signal to them.
ECU PART NUMBER	Driver seat control unit part number can be read.

### **CONSULT-II INSPECTION PROCEDURE**

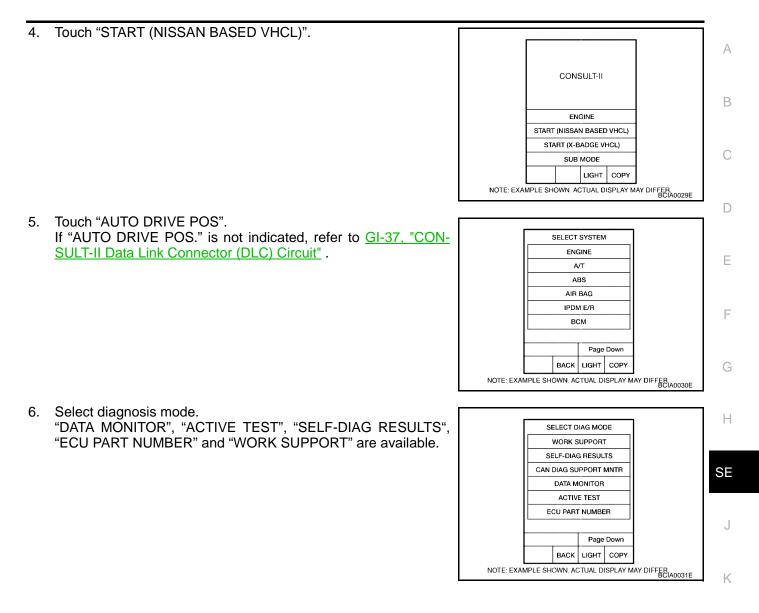
### **CAUTION:**

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.
- 2. Connect CONSULT-II and CONSULT-II CONVERTER to the data link connector.



3. Turn ignition switch ON.



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#### 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-40</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-42</u> <u>SE-53</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-43</u> <u>SE-54</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-44</u> <u>SE-55</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-46</u> <u>SE-56</u>
ADJ PEDAL MOTOR [B2117]	Pedal adjust motor	When any manual and automatic operations are not performed, if motor operations of seat pedal is detected for 0.1 second or more, status is judged "Output error".	<u>SE-47</u> <u>SE-57</u>
ADJ PEDAL SEN- SOR [B2120]	Pedal adjust sensor	When pedal adjust sensor detects 0.5V or lower, or 4.5V or higher, for 0.5 seconds or more.	<u>SE-57</u>
DETENT SW [B2126]	Park SW	With the A/T shift lever in P position (Park switch OFF), if the vehicle speed of 7 km/h (4 MPH) or higher was input the park switch input system is judged malfunctioning.	<u>SE-77</u>
UART COMM [B2128]	UART communica- tion	Malfunction is detected in UART communication.	<u>SE-79</u>

#### NOTE:

- If park switch error is detected, manual adjustable pedal operation cannot be performed when ignition switch turns ON.
- The displays of CAN communication and detection 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 park 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

#### CAN DIAGNOSIS SUPPORT MONITOR

Monitor item [UNIT]		Contents	
INITIAL DIAG [OK/NG]		When CAN communication circuit is malfunctioning, it displays "NG".	
TRANSMIT DIAG	[OK/UNKWN]		
BCM	[OK/UNKWN]	Displays [OK/UNKWN] condition of the CAN communication judged by each sig-	
METER/M&A	[OK/UNKWN]	nal input.	
ECM	[OK/UNKWN]		

#### SELECTIOM FROM MEMU

Monitor item [OPERATION or UNIT]		Contents
SLIDE SW-FR	"ON/OFF"	ON/OFF status judged from the sliding switch (FR) signal is displayed.
SLIDE SW-RR	"ON/OFF"	ON/OFF status judged from the sliding switch (RR) signal is displayed.
RECLN SW-FR	"ON/OFF"	ON/OFF status judged from the reclining switch (FR) signal is displayed.
RECLN SW-RR	"ON/OFF"	ON/OFF status judged from the reclining switch (RR) signal is displayed.
LIFT FR SW-UP	"ON/OFF"	ON/OFF status judged from the FR lifter switch (UP) signal is displayed.
LIFT FR SW-DN	"ON/OFF"	ON/OFF status judged from the FR lifter switch (DOWN) signal is displayed.
LIFT RR SW-UP	"ON/OFF"	ON/OFF status judged from the RR lifter switch (UP) signal is displayed.
LIFT RR SW-DN	"ON/OFF"	ON/OFF status judged from the RR lifter switch (DOWN) signal is displayed.
MIR CON SW-UP	"ON/OFF"	ON/OFF status judged from the door mirror switch (UP) signal is displayed.
MIR CON SW-DN	"ON/OFF"	ON/OFF status judged from the door mirror switch (DOWN) signal is displayed.
MIR CON SW-RH	"ON/OFF"	ON/OFF status judged from the door mirror switch (RIGHT) signal is displayed.
MIR CON SW-LH	"ON/OFF"	ON/OFF status judged from the door mirror switch (LEFT) signal s displayed.
MIR CHNG SW-R	"ON/OFF"	ON/OFF status judged from the door mirror switch (switching to RIGHT) signal is displayed.
MIR CHNG SW-L	"ON/OFF"	ON/OFF status judged from the door mirror switch (switching to LEFT) signal is displayed.
SET SW	"ON/OFF"	ON/OFF status judged from the setting switch signal is displayed.
PEDAL SW-FR	"ON/OFF"	ON/OFF status judged from the pedal adjusting switch (FR) signal is displayed.
PEDAL SW-RR	"ON/OFF"	ON/OFF status judged from the pedal adjusting switch (RR) signal is displayed.
MEMORY SW 1	"ON/OFF"	ON/OFF status judged from the seat memory switch 1 signal is displayed.
MEMORY SW 2	"ON/OFF"	ON/OFF status judged from the seat memory switch 2 signal is displayed.
DETENT SW	"ON/OFF"	The selector lever position "OFF (P position) / ON (other than P position)" judged from the park 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 PULSE	_	Value (32768) when battery connects is as standard. If it moves BACKWARD, the value increases. If it moves FORWARD, the value decreases.
LIFT FR PULSE	_	Value (32768) when battery connects is as standard. If it moves DOWN, the value increases. If it moves UP, the value decreases.
LIFT RR PULSE	_	Value (32768) when battery connects is as standard. If it moves DOWN, the value increases. If it moves UP, the value decreases.
MIR/SEN RH R-L	"V"	Voltage output from RH door mirror sensor (LH/RH) is displayed.
MIR/SEN RH U-D	"V"	Voltage output from RH door mirror sensor (UP/DOWN) is displayed.
MIR/SEN LH R-L	"V"	Voltage output from LH door mirror sensor (LH/RH) is displayed.
MIR/SEN LH U-D	"V"	Voltage output from LH door mirror sensor (UP/DOWN) is displayed.
PEDAL SEN	"V"	The pedal position (voltage) judged from the pedal adjust sensor signal is displayed.

#### ACTIVE TEST

#### CAUTION:

#### During vehicle driving, do not perform active test.

#### NOTE:

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

Test item	Description
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.
PEDAL MOTOR	The pedal adjust 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.

# **CAN Communication Inspection Using CONSULT-II (Self-Diagnosis)**

EIS001ZM

**1. SELF-DIAGNOSTIC RESULT CHECK** 

#### **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.

- Connect to CONSULT-II, and select "AUTO DRIVE POS" on the "SELECT DIAG SYSTEM" screen. 1.
- Select "SELF-DIAG RESULTS" on "SELECT DIAG MODE" screen. 2.
- 3. Check U1000 displayed in self-diagnostic results.

OK or NG

OK >> Inspection End.

NG >> Refer to LAN-3, "Precautions When Using CONSULT-II" .

## Symptom Chart

EIS001ZN

Symptom	Diagnoses / se	ervice procedure	Refer to page
	1. Preliminary check		<u>SE-33</u>
	2. CAN communication inspection using CONSULT-II (self- diagnosis)		<u>SE-40</u>
Only setting change function cannot be set with display.	3. If the above systems are normal, check display sys- tem	Integrated display system (with out NAVI)	<u>AV-86</u>
		Navigation system (with NAVI)	<u>AV-113</u>
	1. Sliding motor circuit inspection		<u>SE-42</u>
	2. Reclining motor circuit inspection		<u>SE-43</u>
A part of seat system does not operate (both automati-	3. Lifting motor (front) circuit inspection		<u>SE-44</u>
cally and manually).	4. Lifting motor (rear) circuit inspection		<u>SE-46</u>
	5. If the above systems are normal, replace the driver seat control unit		<u>SE-11</u>
	1. Pedal adjusting motor circuit inspection		<u>SE-47</u>
A part of padal adjust and door mirror doop not approte	2. Mirror motor LH circuit check		<u>SE-49</u>
A part of pedal adjust and door mirror does not operate (both automatically and manually).	3. Mirror motor RH circuit check		<u>SE-50</u>
	4. If the above systems are normal, replace the automatic drive positioner control unit.		<u>SE-11</u>

Symptom	Diagnoses / service procedure	Refer to page
	1. Sliding sensor circuit inspection	<u>SE-53</u>
	2. Reclining sensor circuit inspection	<u>SE-54</u>
A part of seat system does not operate (only automatic	3. Lifting sensor (front) circuit inspection	<u>SE-55</u>
operation).	4. Lifting sensor (rear) circuit inspection	<u>SE-56</u>
	5. If the above systems are normal, replace the driver seat control unit	<u>SE-11</u>
	1. Mirror sensor LH circuit check	<u>SE-58</u>
A part of door mirror system does not operate (only	2. Mirror sensor RH circuit check	<u>SE-60</u>
automatic operation).	3. If the above systems are normal, replace the automatic drive positioner control unit.	<u>SE-11</u>
	1. Park switch circuit inspection	<u>SE-77</u>
	2. UART communication line circuit inspection	<u>SE-79</u>
All of the automatic operations do not operate.	3. Pedal adjusting sensor circuit inspection	<u>SE-57</u>
	4. If all the above systems are normal, replace the auto- matic drive positioner control unit.	<u>SE-11</u>
	1. Sliding switch circuit inspection	<u>SE-62</u>
	2. Reclining switch circuit inspection	<u>SE-63</u>
A part of seat system does not operate (only manual	3. Lifting switch (front) circuit inspection	<u>SE-65</u>
operation).	4. Lifting switch (rear) circuit inspection	<u>SE-66</u>
	5. If the above systems are normal, replace the driver seat control unit	<u>SE-11</u>
	1. Pedal adjusting switch circuit inspection	<u>SE-68</u>
	2. Door mirror switch (change over switch) circuit inspection	<u>SE-70</u>
A part of pedal adjust and door mirror does not operate (only manual operation).	3. Door mirror switch (mirror switch) switching circuit inspection	<u>SE-71</u>
	4. If the above systems are normal, replace the automatic drive positioner control unit	<u>SE-11</u>
	1. Seat memory switch circuit inspection	<u>SE-73</u>
Only memory switch operation.	2. If the above systems are normal, replace the driver seat control unit	<u>SE-11</u>
	1. Seat memory indicator lamp circuit inspection	<u>SE-75</u>
Seat memory indicator lamps 1 and 2 do not illuminate.	2. If all the above systems are normal, replace the driver seat control unit.	<u>SE-11</u>
The Entry/Exiting does not operate when door is opened	1. Front door switch circuit inspection	<u>SE-78</u>
and closed. (The Entry/Exiting operates with key switch)	2. If all the above systems are normal, replace the BCM.	<u>BCS-19</u>
Only door mirror system does not operate (only manual operation).	1.Door mirror switch ground circuit inspection	<u>SE-72</u>
Only door mirror system does not operate (only auto- matic operation).	1. Door mirror sensor power supply and ground circuit inspection	<u>SE-76</u>
Only seat system does not operate (only manual opera- tion).	1. Power seat switch ground circuit inspection	<u>SE-67</u>
	1. Mirror switch is not in L or R position.	_
Reverse tilt mirrors do not operate.	2. CAN communication inspection using CONSULT-II (self- diagnosis)	<u>SE-40</u>
	3. Door mirror sensor power supply and ground circuit inspection	<u>SE-76</u>

## **Sliding Motor Circuit Inspection**

1. CHECK SEAT SLIDING MECHANISM

Check the following.

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

#### OK or NG

OK >> GO TO 2.

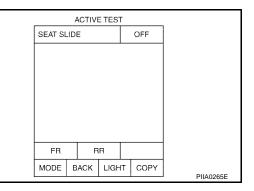
>> Repair the malfunctioning part and check again. NG

## 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.



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#### Without CONSULT-II

GO TO 3.

OK or NG

OK >> Sliding motor circuit is OK. NG

>> GO TO 3.

## 3. CHECK SLIDING MOTOR CIRCUIT HARNESS CONTINUITY

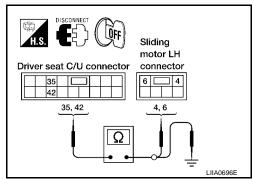
- Turn ignition switch OFF. 1.
- 2. Disconnect driver seat control unit and sliding motor LH.
- 3. Check continuity between driver seat control unit connector P3 terminals 35, 42 and sliding motor connector B307 terminals 4, 6.
  - 35 (R) 4 (R) 42 (G) - 6 (G)
- : Continuity should exist.
- : Continuity should exist.
- Check continuity between driver seat control unit connector P3 4. terminals 35, 42 and ground.

35 (R) - Ground 42 (G) - Ground

: Continuity should not exist. : Continuity should not exist.

#### OK or NG

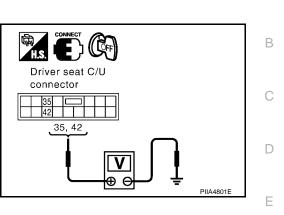
- OK >> GO TO 4.
- NG >> Repair or replace harness.





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

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		(Applox.)
P3 -	35 (R) Ground 42 (G)	Ground	Sliding switch ON (FORWARD operation)	Battery voltage
			Other than above	0
			Sliding switch ON (BACKWARD operation)	Battery voltage
		Other than above	0	



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#### OK or NG

OK >> Replace sliding motor. Refer to <u>SE-89, "FRONT SEAT"</u>.

NG >> Replace driver seat control unit. Refer to <u>SE-89, "FRONT SEAT"</u>.

## Reclining Motor LH Circuit Inspection

## 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.

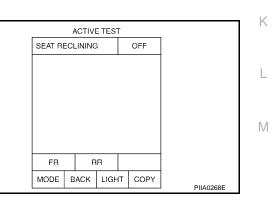
NG >> Repair the malfunctioning part and check again.

## 2. CHECK FUNCTION

#### With CONSULT-II

Check operation with "SEAT RECLINING" in ACTIVE TEST.

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



#### **Without CONSULT-II**

GO TO 3.

OK or NG

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

## 3. CHECK RECLINING MOTOR CIRCUIT HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit and reclining motor LH.
- 3. Check continuity between driver seat control unit connector P3 terminals 36, 44 and reclining motor LH connector P5 terminals 3, 4.
  - 36 (R/W) 4 (R/W) 44 (G/W) - 3 (G/W)
- : Continuity should exist. : Continuity should exist.
- Check continuity between driver seat control unit connector P3 4. terminals 36, 44 and ground.
  - 36 (R/W) Ground 44 (G/W) - Ground
- : Continuity should not exist. : Continuity should not exist.

#### OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness.

Terminals

(Wire color)

(-)

Ground

(+)

36 (R/W)

44 (G/W)

### 4. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

- Connect the driver seat control unit and reclining motor L 1.
- 2. Check voltage between driver seat control unit connect ground.

SIGNAL		
otor LH.		
nnector and	H.S. CONNECT	
Voltage (V) (Approx.)	Driver seat C/U connector	
attery voltage		
0		
attery voltage		PIIA4802E

#### OK or NG

Connector

P3

- OK >> Replace reclining motor. Refer to <u>SE-89, "FRONT SEAT"</u>.
- >> Replace driver seat control unit. Refer to SE-89, "FRONT SEAT" . NG

Condition

Reclining switch ON

Reclining switch ON

(BACKWARD operation)

Other than above

Other than above

(FORWARD operation)

## Lifting Motor (Front) Circuit Inspection 1. CHECK FRONT END SEAT LIFTING MECHANISM

#### Check the following.

Operation malfunction caused by lifter mechanism deformation, pinched harness or other foreign materials

0

Battery

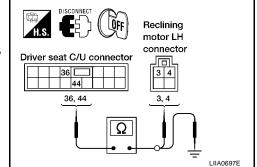
Battery

- Operation malfunction caused by foreign materials adhered to the lifting motor (front) or lead screws
- Operation malfunction and interference with other parts by installation

#### OK or NG

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

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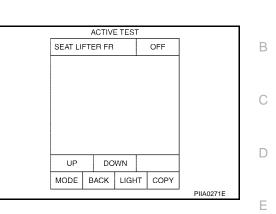


## 2. CHECK FUNCTION

#### (P) With CONSULT-II

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

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



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#### **Without CONSULT-II**

ĞO TO 3.

#### OK or NG

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

NG >> GO TO 3.

## 3. CHECK LIFTING MOTOR (FRONT) CIRCUIT HARNESS CONTINUITY

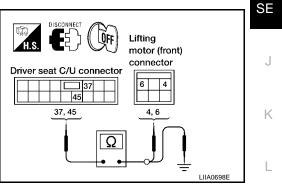
- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit and lifting motor (front).
- 3. Check continuity between driver seat control unit connector P3 terminals 37, 45 and lifting motor (front) connector P6 terminals 4, 6.

37 (Y/B) - 6 (Y/B) 45 (Y) - 4 (Y) : Continuity should exist. : Continuity should exist.

- 4. Check continuity between driver seat control unit connector P3 terminals 37, 45 and ground.
  - 37 (Y/B) Ground
- : Continuity should not exist. : Continuity should not exist.
- 45 (Y) Ground
- OK or NG

OK

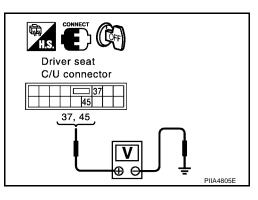
- >> GO TO 4.
- NG >> Repair or replace harness.



### 4. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

Connector	Terminals (Wire color)		Condition	Voltage (V)
	(+)	(-)		(Approx.)
P3	37 (Y/B) 45 (Y)	Ground	Lifting switch (front) ON (DOWN operation)	Battery voltage
			Other than above	0
			Llifting switch (front) ON (UP operation)	Battery voltage
			Other than above	0



#### OK or NG

OK >> Replace lifting motor (front). Refer to <u>SE-89, "FRONT SEAT"</u>

NG >> Replace driver seat control unit. Refer to <u>SE-89, "FRONT SEAT"</u>.

### Lifting Motor (Rear) Circuit Inspection 1. CHECK REAR SEAT LIFTING MECHANISM

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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 lifting motor (rear) or lead screws
- Operation malfunction and interference with other parts by poor installation

#### OK or NG

OK >> GO TO 2.

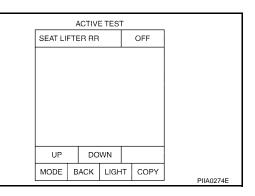
NG >> Repair the malfunctioning part and check again.

### 2. CHECK FUNCTION $\mathbf{2}$

#### (B) With CONSULT-II

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

SEAT LIFTER RRThe lifting motor (rear) is activated by receiving the drive signal.		Test item	Description
	-		The lifting motor (rear) is activated by receiving the drive signal.



#### **Without CONSULT-II**

ĞO TO 3.

OK or NG

- OK >> Lifting motor (rear) circuit is OK.
- NG >> GO TO 3.

## 3. CHECK LIFTING MOTOR (REAR) CIRCUIT HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit and lifting motor (rear).
- 3. Check continuity between driver seat control unit connector P3 terminals 38, 39 and lifting motor (rear) connector P7 terminals 4, 6.

38 (L) - 6 (L) 39 (L/W) - 4 (L/W) : Continuity should exist. : Continuity should exist.

Check continuity between driver seat control unit P3 terminals 4 38, 39 and ground.

38 (L) - Ground

- : Continuity should not exist.
- 39 (L/W) Ground
- : Continuity should not exist.

OK or NG

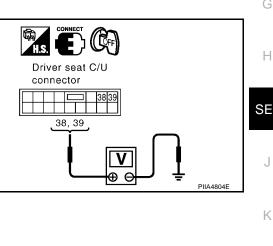
OK >> GO TO 4.

NG >> Repair or replace harness.

### 4. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)	
	(+)	(-)		(Αρριολ.)	
	38 (L) 	Ground	Lifting switch (rear) ON (UP operation)	Battery voltage	
P3			Other than above	0	
ГJ		Giouna	Lifting switch (rear) ON (DOWN operation)	Battery voltage	
			Other than above	0	



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38 39

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Driver seat C/U connector

38, 39

Lifting

6 4

motor (rear) connector

4,6

А

В

Ε

F

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Κ

L

Μ

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#### OK or NG

- OK >> Replace lifting motor (rear). Refer to <u>SE-89, "FRONT SEAT"</u>
- NG >> Replace driver seat control unit. Refer to <u>SE-89, "FRONT SEAT"</u>.

## Pedal Adjusting Motor Circuit Inspection

#### 1. CHECK PEDAL ADJUSTING MECHANISM

#### Check the following.

- Operation malfunction caused by pedal adjusting 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.

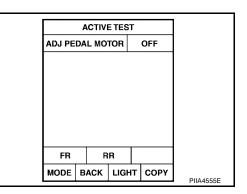
NG >> Repair the malfunctioning part and check again.

## 2. CHECK FUNCTION

#### (I) With CONSULT-II

Check operation with "ADJ PEDAL MOTOR" in ACTIVE TEST.

Test item	Description
ADJ PEDAL MOTOR	The pedal adjusting motor is activated by receiving the drive signal.



#### **Without CONSULT-II**

ĞO TO 3.

#### OK or NG

OK >> Pedal adjusting motor circuit is OK.

NG >> GO TO 3.

### 3. CHECK PEDAL ADJUSTING MOTOR CIRCUIT HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit and pedal adjusting motor.
- 3. Check continuity between automatic drive positioner control unit connector M42 terminals 37, 45 and pedal adjusting motor connector E109 terminals 4, 5.
  - 37 (G) 5 (G)

: Continuity should exist.

45 (G/O) - 4 (G/W) : Continu

: Continuity should exist.

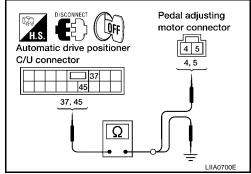
- 4. Check continuity between automatic drive positioner control unit connector M42 terminals 37, 45 and ground.
  - 37 (G) Ground 45 (G/O) - Ground
- : Continuity should not exist.

: Continuity should not exist.

#### OK or NG

OK >> GO TO 4.

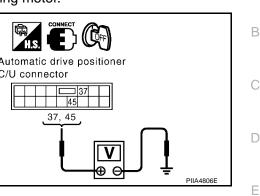
NG >> Repair or replace harness.



#### 4. CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT OUTPUT SIGNAL

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

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		(Appiox.)
	37 (G)		Pedal adjusting switch ON (FORWARD operation)	Battery voltage
			Other than above	0
M42	45 (G/O)	Ground	Pedal adjusting switch ON (BACKWARD opera- tion)	Battery voltage
			Other than above	0



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OK or NG

OK >> Replace pedal adjusting motor. Refer to <u>SE-81, "Removal and Installation"</u>.

NG >> Replace automatic drive positioner control unit.

## Mirror Motor LH Circuit Check

### 1. CHECK DOOR MIRROR LH MECHANISM

Check the following items.

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

#### OK or NG

OK >> GO TO 2.

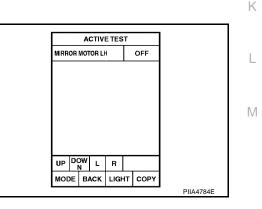
NG >> Repair the malfunctioning parts, and check the symptom again.

## 2. CHECK FUNCTION

#### (I) With CONSULT-II

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

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



#### **Without CONSULT-II**

ĞO TO 3.

OK or NG

OK >> Mirror motor LH circuit is OK.

NG >> GO TO 3.

## 3. CHECK MIRROR MOTOR LH CIRCUIT HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit and door mirror LH.
- 3. Check continuity between automatic drive positioner control unit connector M41 terminals 16, 31, 32 and door mirror LH connector D13 terminals 9, 10, 11.
  - 16 (O) 11 (O)

32 (BR) - 9 (BR)

- : Continuity should exist.
- 31 (R/Y) 10 (R/Y)
- : Continuity should exist. : Continuity should exist.
- Check continuity between automatic drive positioner control unit 4 connector M41 terminals 16, 31, 32 and ground.
  - 16 (O) Ground 31 (R/Y) - Ground
- : Continuity should not exist.
  - : Continuity should not exist.
- 32 (BR) Ground
- : Continuity should not exist.

#### OK or NG

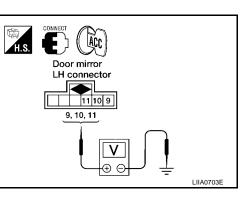
OK >> GO TO 4.

NG >> Repair or replace harness.

### 4. CHECK MIRROR MOTOR SIGNAL

- 1. Turn ignition switch to ACC.
- Check voltage between door mirror LH connector and ground. 2.

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)		
	(+)	(-)		(Applox.)		
	10 (R/Y) 9 (BR) 11 (O)	(R/Y) 9 Ground	Mirror motor is operated UP	1.5 - Battery voltage		
			Other than above	0		
D13			Mirror motor is operated LEFT	1.5 - Battery voltage		
		(BR)			Other than above	0
			Mirror motor is operated DOWN or RIGHT	1.5 - Battery voltage		
		(0)	Other than above	0		



Door mirror

LH connector

9, 10, 11

11 10 9

LIIA0701E

OFF

16

31 32

Ω

Automatic drive positioner

16, 31, 32

C/U connector

#### OK or NG

- OK >> Replace door mirror LH. Refer to <u>GW-106, "Door Mirror Assembly"</u>.
- NG >> Repair or replace harness.

## Mirror Motor RH Circuit Check

## 1. CHECK DOOR MIRROR RH MECHANISM

#### Check the following items.

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.

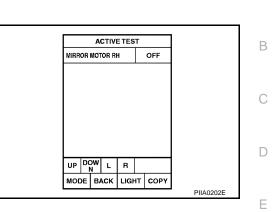
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## 2. CHECK FUNCTION

#### (I) With CONSULT-II

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

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



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#### Without CONSULT-II

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#### OK or NG

OK >> Mirror motor RH circuit is OK.

NG >> GO TO 3.

### **3.** CHECK DOOR MIRROR RH CIRCUIT HARNESS CONTINUITY

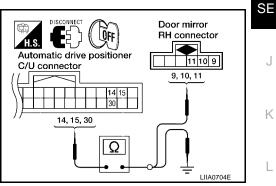
- 1. Turn ignition switch OFF.
- Disconnect automatic drive positioner control unit and door mirror RH connector. 2.
- 3. Check continuity between automatic drive positioner control unit connector M41 terminals 14, 15, 30 and door mirror RH connector D113 terminals 9, 10, 11.
  - 14 (GR/R) 10 (GR/R) 15 (V/W) - 9 (V/W) 30 (SB) - 11 (SB)
- : Continuity should exist.
- : Continuity should exist. : Continuity should exist.
- Check continuity between automatic drive positioner control unit
- connector M41 terminals 14, 15, 30 and ground.
  - 14 (GR/R) Ground
- : Continuity should not exist.
- 15 (V/W) Ground
- 30 (SB) Ground

: Continuity should not exist.

- : Continuity should not exist.

#### OK or NG

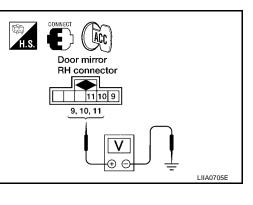
- OK >> GO TO 4.
- NG >> Repair or replace harness.



## 4. CHECK MIRROR MOTOR SIGNAL

- 1. Turn ignition switch to ACC.
- 2. Check voltage between door mirror RH connector and ground.

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		
	10 (GR/R)	Ground	Mirror motor is operated UP	1.5 - Battery voltage
			Other than above	0
D113	9 (V/W) Ground		Mirror motor is operated LEFT	1.5 - Battery voltage
			Other than above	0
			Mirror motor is operated DOWN or RIGHT	1.5 - Battery voltage
			Other than above	0



#### OK or NG

OK >> Replace door mirror motor RH. Refer to <u>GW-106</u>, "Door Mirror Assembly".

NG >> Repair or replace harness.

## **Sliding Sensor Circuit Inspection**

#### **1. CHECK FUNCTION**

#### (P) With CONSULT-II

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

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

 e palee enangeel	
DATA MONITOR	1
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	PIIA4558E

#### **Without CONSULT-II**

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

•		•				
Connector		Terminals (Wire color) Condition		Signal	Driver seat C/U connector	
	(+)	(-)				H
P2	24 (Y/G)	Ground	Sliding motor operation	(V) 6 4 2 0 50 ms PIIA3277E	PIIA4556E	SE

#### OK or NG

OK >> Sliding sensor circuit is OK.

NG >> GO TO 2.

## 2. CHECK SLIDING SENSOR CIRCUIT HARNESS CONTINUITY

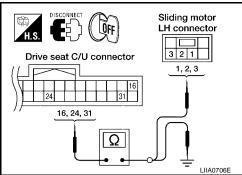
- 1. Disconnect driver seat control unit connector and sliding motor LH connector.
- 2. Check continuity between driver seat control unit connector P2 terminals 16, 24, 31 and sliding motor P4 terminals 1, 2, 3.

16 (L) - 3 (L) 24 (Y/G) - 2 (Y/G) 31 (Y) - 1 (Y)

- : Continuity should exist. : Continuity should exist.
- : Continuity should exist.
- 3. Check continuity between driver seat control unit P2 terminals 16, 24, 31 and ground.
  - 16 (L) Ground
- : Continuity should not exist.
- 24 (Y/G) Ground 31 (Y) - Ground
- : Continuity should not exist.
- : Continuity should not exist.

#### OK or NG

- OK >> Replace sliding motor. Refer to <u>SE-89, "FRONT SEAT"</u>.
- NG >> Repair or replace harness.



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## **Reclining Sensor Circuit Inspection**

#### 1. CHECK FUNCTION

#### (P) With CONSULT-II

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

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

			-
D			
SELEC		DR ITEM	
5	LIDE PUL	SE	
R	ECLN PU	.SE	
LI	FT FR PU	.SE	
LI			
м			
Page Up	Page Dov	'n	-
SETTING	]		
MODE B	ACK LIC	нт сору	PIIA4558E

#### **Without CONSULT-II**

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

3					
Connector	Term (Wire	inals color)	Condition	Signal	Driver seat C/U connector
	(+)	(-)			
P2	9 (L)	Ground	Reclining motor operation	(V) 6 4 2 0 50 ms FIIA3278E	PIIA4559E

#### OK or NG

OK >> Reclining sensor circuit is OK.

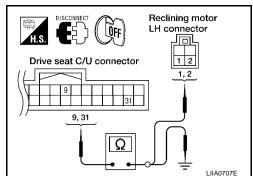
NG >> GO TO 2.

## 2. CHECK RECLINING SENSOR CIRCUIT HARNESS CONTINUITY

- 1. Disconnect driver seat control unit and reclining motor LH.
- 2. Check continuity between driver seat control unit connector P2 terminals 9, 31 and reclining motor LH connector B311 terminals 1, 2.
  - 9 (L) 2 (L) 31 (Y) - 1 (Y)
- : Continuity should exist.
- : Continuity should exist.
- 3. Check continuity between driver seat control unit connector P2 terminals 9, 31 and ground.
  - 9 (L) Ground 31 (Y) - Ground
- : Continuity should not exist. : Continuity should not exist.

#### OK or NG

- OK >> Replace reclining motor. Refer to <u>SE-89, "FRONT SEAT"</u>.
- NG >> Repair or replace harness.



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## Lifting Sensor (Front) Circuit Inspection

#### **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 [OPEF	RATION or UNIT]	Contents	DATA MONITOR
	-	The frent lifting position (pulse) judged	SELECT MONITOR ITEM
LIFT FR PULSE		The front lifting position (pulse) judged from the lifting sensor (front) is dis-	SLIDE PULSE
LIFT FR FULSE	_	played	RECLN PULSE
		played	LIFT FR PULSE
			LIFT RR PULSE
			MIR/SEN RH U-D
			Page Up Page Down

#### **Without CONSULT-II**

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

	l, with osc			control unit connector and		G
Connector		inals color)	Condition	Signal	Driver seat C/U connector	
	(+)	(-)				Η
P2	25 (R/L)	Ground	Lifting motor (front) operation	(V) 6 4 2 0 50 ms PIIA3276E	PilA4561E	SE

#### OK or NG

OK >> Front lifting sensor is OK.

NG >> GO TO 2.

### 2. CHECK FRONT LIFTING SENSOR CIRCUIT HARNESS CONTINUITY

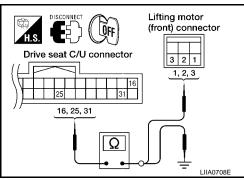
- 1. Disconnect driver seat control unit and lifting motor (front).
- 2. Check continuity between driver seat control unit connector P2 terminals 16, 25, 31 and lifting motor (front) connector P6 terminals 1, 2, 3.

16 (L) - 3 (L)	: Continuity should exist.
25 (R/L) - 2 (R/L)	: Continuity should exist.
31 (Y) - 1 (Y)	: Continuity should exist.

3. Check continuity between driver seat control unit connector P2 terminals 16, 25, 31 and ground.

16 (L) - Ground
25 (R/L) - Ground
31 (Y) - Ground

: Continuity should not exist. : Continuity should not exist. : Continuity should not exist.



SETTING Numerical Display

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#### OK or NG

OK >> Replace lifting motor (front). Refer to SE-89, "FRONT SEAT" .

NG >> Repair or replace harness. EIS001ZX

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### Lifting Sensor (Rear) Circuit Inspection 1. CHECK REAR END LIFTING SENSOR INPUT/OUTPUT SIGNAL

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

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

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	DA					
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	s	LIDE	PULSE	1		
	R	ECLN	PULS	E		
	LI					
LIFT RR PULSE						
	MI					
Page Up Page Down						
SETTING Numerical Display						]
MODE BACK LIGHT COPY						PIIA4558E

#### **Without CONSULT-II**

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

ground	, mai ee	Sincooop	0.		
Connector	Term (Wire	inals color)	Condition	Signal	Driver seat C/U connector
	(+)	(-)			
P2	10 (L/Y)	Ground	Lifting motor (rear) operation	(V) 6 4 2 0 50 ms PIIA3278E	PIIA4563E

#### OK or NG

OK >> Rear lifting sensor circuit is OK.

NG >> GO TO 2.

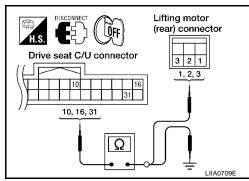
### 2. CHECK REAR LIFTING SENSOR CIRCUIT HARNESS CONTINUITY

- 1. Disconnect driver seat control unit and lifting motor (rear).
- 2. Check continuity between driver seat control unit connector P2 terminals 10, 16, 31 and lifting motor (rear) connector P7 terminals 1, 2, 3.
  - 10 (L/Y) 2 (L/Y)
  - 16 (L) 3 (L)
  - 31 (Y) 1 (Y)
- : Continuity should exist. : Continuity should exist.
- : Continuity should exist.
- 3. Check continuity between driver seat control unit connector P2 terminals 10, 16, 31 and ground.
  - 10 (L/Y) Ground

16 (L) - Ground

31 (Y) - Ground

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



- OK or NG
- OK >> Replace lifting motor (rear). Refer to <u>SE-89, "FRONT SEAT"</u>.
- NG >> Repair or replace harness.

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## **Pedal Adjusting Sensor Circuit Inspection**

### 1. CHECK FUNCTION

#### (I) With CONSULT-II

Operate the pedal adjusting switch with "PEDAL SEN" on the DATA MONITOR to make sure the voltage changes.

Monitor item TION or	•	Contents
PEDAL SEN	"V"	The pedal adjusting position (voltage) judged from the pedal adjust sensor signal is displayed.

			1
DA			
SELEC	T MONITOR IT	ЕМ	
MIF	R/SEN RH U-D		
MI	R/SEN RH R-L		
MI	R/SEN LH U-D		
MI			
F			
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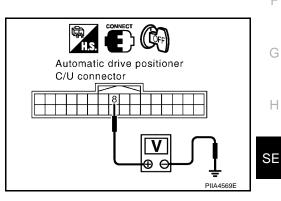
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### **Without CONSULT-II**

- 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.)
	(+)	()		(Applox.)
M41	f	Pedal front end position	0.5	
11141	8 (W/R)	Ground	Pedal back end position	4.5



#### OK or NG

- OK >> Pedal adjusting sensor circuit is OK.
- NG >> GO TO 2.

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## 2. CHECK PEDAL ADJUSTING SENSOR CIRCUIT HARNESS CONTINUITY

- 1. Disconnect automatic drive positioner control unit and pedal adjusting sensor.
- 2. Check continuity between automatic drive positioner connector M41, M42 terminals 8, 33, 41 and pedal adjusting sensor connector E110 terminals 1, 2, 3.

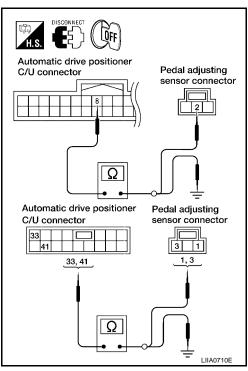
8 (W/R) - 2 (W/R)	: Continuity should exist.
33 (W/L) - 1 (W/L)	: Continuity should exist.
41 (V) - 3 (V)	: Continuity should exist.

3. Check continuity between automatic drive positioner control unit connector M41, M42 terminals 8, 33, 41 and ground.

8 (W/R) - Ground	: Continuity should not exist.
33 (W/L) - Ground	: Continuity should not exist.
41 (V) - Ground	: Continuity should not exist.

#### OK or NG

- OK >> Replace pedal adjusting motor. Refer to <u>SE-81</u>, <u>"Removal and Installation"</u>.
- NG >> Repair or replace harness.



### **Mirror Sensor LH Circuit Check**

**1. CHECK DOOR MIRROR FUNCTION** 

Check the following items.

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.

## 2. CHECK MIRROR SENSOR INSPECTION

#### (I) With CONSULT-II

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

#### **Without CONSULT-II**

- 1. Turn ignition switch to ACC.
- 2. Check voltage between door mirror LH connector and ground.

Con-	Terminals	(Wire color)	Condition	Voltage (V)	
nector	(+)	(–)	Condition	(Approx.)	
ри	7 (G)	When motor is LEFT or RIGHT operation	Changes between 3.4 (close to right edge) – 0.6 (close to left edge)		
	D4 Ground 6 (L/Y)		When motor is UP or DOWN operation	Changes between 3.4 (close to peak) – 0.6 (close to valley)	



OK >> Mirror sensor LH is OK.

NG >> GO TO 3.

## 3. CHECK HARNESS CONTINUITY 1

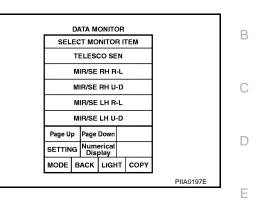
- 1. Disconnect automatic drive positioner control unit and door mirror LH.
- 2. Check continuity between automatic drive positioner control unit connector M42 terminals 33, 41 and door mirror LH connector D2 terminals 5, 8.

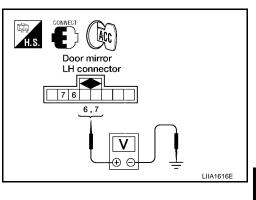
33 (W/L) - 5 (W/L)

41 (V) - 8 (V)

#### : Continuity should exist. : Continuity should exist.

- 3. Check continuity between automatic drive positioner control unit connector M42 terminals 33, 41 and ground.
  - 33 (W/L) Ground
  - 41 (V) Ground
- : Continuity should not exist. : Continuity should not exist.
- Door mirror DISCONNEC LH connector E LOFF H.S. Automatic drive positioner 8 5 C/U connector 5,8 33 41 33,41 Ω LIIA1617E





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- OK >> GO TO 4.
- NG >> Repair or replace harness.

## 4. CHECK HARNESS CONTINUITY 2

- 1. Disconnect automatic drive positioner control unit and door mirror LH.
- 2. Check continuity between automatic drive positioner control unit connector M41 terminals 6, 22 and door mirror LH connector D4 terminals 6, 7.

6 (	(L/Y)	) - 6 (	(L/Y)

: Continuity should exist.

: Continuity should not exist.

: Continuity should not exist.

22 (G) - 7 (G) : Continuity should exist.

3. Check continuity between automatic drive positioner control unit connector M41 terminals 6, 22 and ground.

6 (L/Y) - Ground

22 (G) - Ground

#### OK or NG

OK >> Replace door mirror LH. Refer to <u>GW-106</u>, "Door Mirror <u>Assembly"</u>. NG >> Repair or replace harness.

## **Mirror Sensor RH Circuit Check**

### 1. CHECK DOOR MIRROR FUNCTION

Check the following items.

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.

## 2. CHECK MIRROR SENSOR INSPECTION

#### (I) With CONSULT-II

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

#### **Without CONSULT-II**

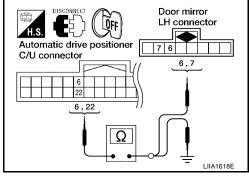
- 1. Turn ignition switch to ACC.
- 2. Check voltage between door mirror RH connector and ground.

Con-	Terminals	(Wire color)	Condition	Voltage(V)
nector	(+)	(-)	(Approx.)	
D107	7 (L/W)	Ground	LEFT or RIGHT 3.4 (cld	Changes between 3.4 (close to left edge) – 0.6 (close to right edge)
D107 –	6 (R/B)	Ground	When motor is UP or DOWN operation	Changes between 3.4 (close to peak) – 0.6 (close to valley)

#### OK or NG

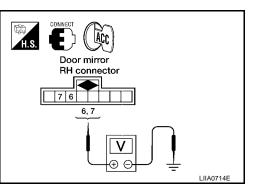
OK >> Mirror sensor RH is OK.

NG >> GO TO 3.



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	М	IR/SE	LH R	- L.		
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## 3. CHECK HARNESS CONTINUITY 1

- 1. Disconnect automatic drive positioner control unit and door mirror RH.
- 2. Check continuity between automatic drive positioner control unit connector M42 terminals 33, 41 and door mirror RH connector D107 terminals 5, 8.

```
33 (W/L) - 5 (W/L)
41 (V) - 8 (V)
```

: Continuity should exist.

: Continuity should exist.

Check continuity between automatic drive positioner control unit 3. connector M42 terminals 33, 41 and ground.

> 33 (W/L) - Ground 41 (V) - Ground

: Continuity should not exist.

: Continuity should not exist.

#### OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness.

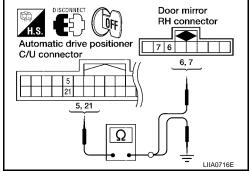
#### 4. CHECK HARNESS CONTINUITY 2

- Disconnect automatic drive positioner control unit and door mirror RH. 1.
- 2. Check continuity between automatic drive positioner control unit connector M41 terminals 5, 21 and door mirror RH connector D107 terminals 6, 7.

5 (R/B) - 6 (R/B)	
21 (L/W) - 7 (L/W)	

: Continuity should exist. : Continuity should exist.

- 3. Check continuity between automatic drive positioner control unit connector M41 terminals 5, 21 and ground.
  - 5 (R/B) Ground
  - 21 (L/W) Ground
- : Continuity should not exist. : Continuity should not exist.



#### OK or NG

- OK >> Replace door mirror RH. Refer to GW-106, "Door Mirror Assembly".
- NG >> Repair or replace harness.

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Door mirror **RH** connector

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5, 8

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2 Automatic drive positioner

33, 41

C/U connector

33 41 А

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## **Sliding Switch Circuit Inspection**

### 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.

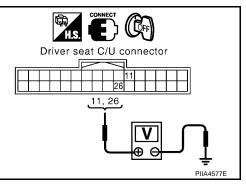
Monitor item [OPER- ATION or UNIT]		Contents
SLIDE SW- FR	"ON/ OFF"	ON / OFF status judged from the sliding switch (FR) sig- nal is displayed.
SLIDE SW- RR	"ON/ OFF"	ON / OFF status judged from the sliding switch (RR) signal is displayed.

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SEI	LEC	ст мо				
	ę	SLIDE	SW-FF	3		
	ę	BLIDE	SW-RF	7		
	F	ECLN	SW-F	R		
	R	ECLN				
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#### Without CONSULT-II

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

Connector	Term (Wire)		Condition	Voltage (V) (Approx.)	
	(+)	(-)		(//pp/ox.)	
	11 (R/B)	Ground	Sliding switch ON (BACKWARD oper- ation)	0	
D2	P2 Grou 26 (P/B)		Ground	Other than above	Battery voltage
12		Ground	Sliding switch ON (FORWARD opera- tion)	0	
			Other than above	Battery voltage	



#### OK or NG

OK >> Sliding switch circuit is OK.

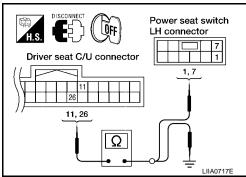
NG >> GO TO 2.

## 2. CHECK SLIDING SWITCH CIRCUIT HARNESS CONTINUITY

- 1. Disconnect driver seat control unit connector and power seat switch LH connector.
- 2. Check continuity between driver seat control unit connector P2 terminals 11, 26 and power seat switch LH connector P8 terminals 1, 7.
  - 11 (R/B) 7 (R/B) 26 (P/B) - 1 (P/B)
- : Continuity should exist.
- : Continuity should exist.
- 3. Check continuity between driver seat control unit connector P2 terminals 11, 26 and ground.
  - 11 (R/B) Ground
  - 26 (P/B) Ground
- : Continuity should not exist. : Continuity should not exist.

#### OK or NG

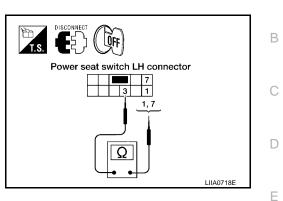
- OK >> GO TO 3.
- NG >> Repair or replace harness.



## 3. CHECK SLIDING SWITCH

Check continuity between power seat switch LH as follows.

Connector	Terminal		Condition	Continuity	
Connector	(+)	(-)	Condition	Continuity	
	7		Sliding switch ON (BACKWARD operation)	Yes	
P8 —		3	Other than above	No	
	1	5	Sliding switch ON (FORWARD operation)	Yes	
			Other than above	No	



### OK or NG

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

NG >> Replace power seat switch LH. Refer to <u>SE-89, "FRONT SEAT"</u>.

## **Reclining Switch Inspection**

#### 1. CHECK FUNCTION

#### With CONSULT-II

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

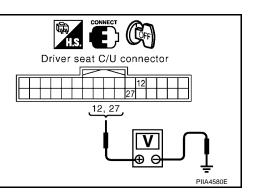
Monitor item [OPERA- TION or UNIT]		Contents	
RECLN SW FR	"ON/ OFF"	ON/OFF status judged from the reclining switch (FR) signal is displayed.	
RECLN SW -RR	"ON/ OFF"	ON/OFF status judged from the reclining switch (RR) signal is displayed.	

	D	ata M	ONITO	R				
SEI	EM							
	SLIDE SW-FR							
	SLIDE SW-RR							
	RECLN SW-FR							
	L	FT FR	SW-U	P				
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## 🛞 Without CONSULT-II

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

Connector	Term (Wire		Condition	Voltage (V) (Approx.)		
	(+)	(-)				
	12 (O/B)		Reclining switch ON (BACKWARD oper- ation)	0		
P2		Ground	Other than above	ve Battery voltage		
P2 -	27 (G/B)	Ground	Reclining switch ON (FORWARD opera- tion)	0		
			Other than above	Battery voltage		



#### OK or NG

OK >> Reclining switch circuit is OK.

NG  $\rightarrow$  GO TO 2.

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## 2. CHECK RECLINING SWITCH CIRCUIT HARNESS CONTINUITY

- 1. Disconnect driver seat control unit and power seat switch LH.
- 2. Check continuity between driver seat control unit connector P2 terminals 12, 27 and power seat switch LH connector P8 terminals 9, 10.

12 (O/B) - 9 (O/B) : Continuity should exist.

- : Continuity should exist.
- Check continuity between driver seat control unit connector P2 3. terminals 12, 27 and ground.
  - 12 (O/B) Ground
- : Continuity should not exist.
- 27 (G/B) Ground

27 (G/B) - 10 (G/B)

: Continuity should not exist.

OK or NG

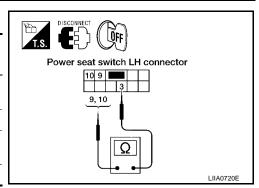
OK >> GO TO 3.

NG >> Repair or replace harness.

## 3. RECLINING SWITCH INSPECTION

Check continuity between power seat switch LH as follows.

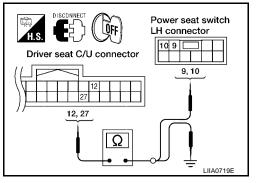
Connector	Terminal		Condition	Continuity	
Connector	(+)	(-)	Condition	Continuity	
	9 P8 3		Reclining switch ON (BACKWARD operation)	Yes	
P8 -		2	Other than above	No	
	10	Reclining switch ON (FORWARD operation)	Yes		
			Other than above	No	



OK or NG

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

NG >> Replace power seat switch LH. Refer to SE-89, "FRONT SEAT" .



## Lifting Switch (Front) Circuit Inspection

## **1. CHECK FUNCTION**

#### (P) With CONSULT-II

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

Monitor item [OPERA- TION or UNIT]		Contents
LIFT FR SW- 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.

	DATA M	ONITC	B					В
r	ECT MC			EM	]			
	LIFT FR	SW-D	N					
	LIFT RF	SW-L	P					C
	LIFT RF	SW-E	N					0
	VIR CO	N SW-I	JP					
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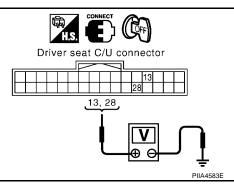
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### **Without CONSULT-II**

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

Connector	Term (Wire		Condition	Voltage (V) (Approx.)		
	(+)	(-)				
P2	13 (L/B)		Lifting switch (front) ON (DOWN operation)	0		
		Ground	Other than above Battery volta			
	28 (Y/B)	Giouna	Lifting switch (front) ON (UP operation)	0		
			Other than above	Battery voltage		



#### OK or NG

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

NG >> GO TO 2.

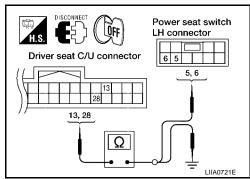
## 2. CHECK LIFTING SWITCH (FRONT) CIRCUIT HARNESS CONTINUITY

- 1. Disconnect driver seat control unit and power seat switch LH.
- 2. Check continuity between driver seat control unit connector P2 terminals 13, 28 and power seat switch LH connector P2 terminals 5, 6.
  - 13 (L/B) 5 (L/B)
- : Continuity should exist.
- 28 (Y/B) 6 (Y/B)
- : Continuity should exist.
- Check continuity between driver seat control unit connector P2 terminals 13, 28 and ground

13 (L/B) - Ground 28 (Y/B) - Ground : Continuity should not exist. : Continuity should not exist.

#### OK or NG

- OK >> GO TO 3.
- NG >> Repair or replace harness.



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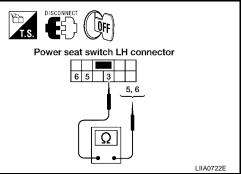
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## 3. CHECK LIFTING SWITCH (FRONT)

Check continuity between power seat switch LH as follows.

Connector	Termi	inals	Condition	Continuity
Connector	(+)	(—)	Condition	
P8	5		Lifting switch (front) ON (DOWN operation)	Yes
		2	Other than above	No
	6	3	Lifting switch (front) ON (UP operation)	Yes
			Other than above	No



#### OK or NG

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

NG >> Replace power seat switch LH. Refer to <u>SE-89, "FRONT SEAT"</u>.

## Lifting Switch (Rear) Circuit Inspection

### 1. CHECK FUNCTION

#### With CONSULT-II

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

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

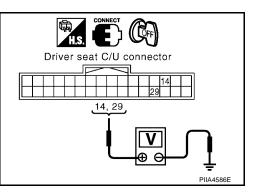
	D.	ata M	ONITO	R		_
SE	LEC	ст мо				
	LI	FT FR				
	LI	FT RF				
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	М	R CO				
	М	R CO	v SW-[	ΟN		
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## 🛞 Without CONSULT-II

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

Connector	Termi (Wire		Condition	Voltage (V)	
	(+)	(–)		(Approx.)	
	14 (G/W)		Lifting switch (rear) ON (DOWN operation)	0	
P2		Ground	Battery voltage		
P2 -	29 (R/W)	Ground	Lifting switch (rear) ON (UP operation)	0	
			Other than above	Battery voltage	



#### OK or NG

OK >> Rear lifting switch circuit is OK.

NG >> GO TO 2.

No Yes No No ector. 39, "FRONT SEAT" .

## 2. CHECK LIFTING SWITCH (REAR) CIRCUIT HARNESS CONTINUITY

- 1. Disconnect driver seat control unit and power seat switch LH.
- 2. Check continuity between driver seat control unit connector P2 terminals 14, 29 and power seat switch connector P8 terminals 2, 8.
  - 14 (G/W) 8 (G/W) 29 (R/W) - 2 (R/W)
- : Continuity should exist. : Continuity should exist.
- 3. Check continuity between driver seat control unit connector P2 terminals 14, 29 and ground.
  - 14 (G/W) Ground
- : Continuity should not exist.
- 29 (R/W) Ground
- : Continuity should not exist.

OK or NG

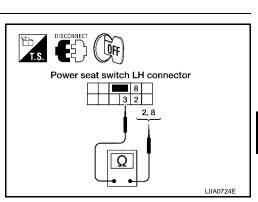
OK >> GO TO 3.

NG >> Repair or replace harness.

## 3. CHECK LIFTING SWITCH (REAR)

Check continuity between power seat switch LH as follows.

Connector	Terminals		Condition	Continuity
	(+)	(-)	Condition	Continuity
	8	3	Lifting switch (rear) ON (DOWN operation)	Yes
Do			Other than above	No
P8			Lifting switch (rear) ON (UP operation)	Yes
			Other than above	No



#### OK or NG

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

NG >> Replace power seat switch LH. Refer to <u>SE-89, "FRONT SEAT"</u>.

### Power Seat Switch Ground Inspection 1. CHECK POWER SEAT SWITCH GROUND CIRCUIT

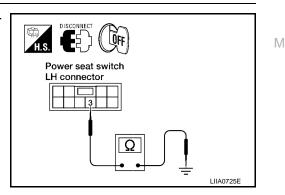
Check continuity between power seat switch LH connector B305 terminal 3 and ground.

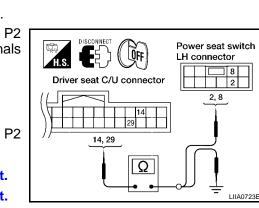
#### 3 (B) - Ground

#### : Continuity should exist.

#### OK or NG

- OK >> Check the condition of the harness and connector.
- NG >> Repair or replace harness.





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## **Pedal Adjusting Switch Circuit Inspection**

#### 1. CHECK FUNCTION

#### () With CONSULT-II

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

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

 DATA MONITOR

 SELECT MONITOR ITEM

 MIR CHNG SW-R

 MIR CHNG SW-L

 PEDAL SW-FR

 PEDAL SW-RR

 DETENT SW

 Page Up

 Page Down

 SETTING

 Numerical

 Display

 MODE

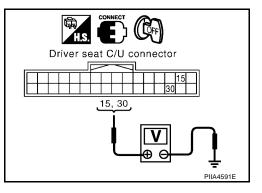
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#### **Without CONSULT-II**

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

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		(Applox.)
P2	15 (G/Y)	Ground	Pedal adjusting switch ON (BACKWARD oper- ation)	0
			Other than above	Battery voltage
	30 (V)		Pedal adjusting switch ON (FORWARD opera- tion)	0
			Other than above	Battery voltage



#### OK or NG

OK >> Pedal adjusting switch circuit is OK.

NG >> GO TO 2.

## 2. CHECK PEDAL ADJUSTING SWITCH CIRCUIT HARNESS CONTINUITY

- 1. Disconnect driver seat control unit and pedal adjusting switch.
- Check continuity between driver seat control unit connector P2 terminals 15, 30 and pedal adjusting switch connector B22 terminals 2, 3.

15 (G/Y) - 2 (G/Y) 30 (V) - 3 (V) : Continuity should exist. : Continuity should exist.

3. Check continuity between driver seat control unit connector P2 terminals 15, 30 and ground.

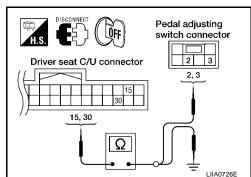
15 (G/Y) - Ground

- : Continuity should not exist. : Continuity should not exist.
- 30 (V) Ground

OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.



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## $\overline{\mathbf{3.\ check\ pedal\ adjusting\ switch}}$

Termi		inals	- Condition	Continuity	
Connector (+)	(-)	Condition	Continuity	Pedal adjusting switch	
2 B22 3	2		Pedal adjusting switch ON (BACKWARD operation)	Yes	
			Other than above	No	
	3	Pedal adjusting switch ON (FORWARD operation)	Yes	Ω	
			Other than above	No	

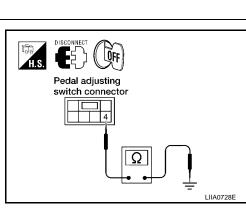
>> Replace pedal adjusting switch. NG

## 4. CHECK PEDAL ADJUSTING SWITCH GROUND CIRCUIT

Check continuity between pedal adjusting switch connector B22 terminal 4 and ground.

4 (B) - Ground

: Continuity should exist.



OK or NG

- OK >> Check the condition of the harness and connector.
- NG >> Repair or replace harness.

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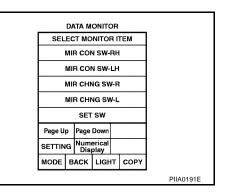
## Door Mirror Switch (Changeover Switch) Circuit Check

#### 1. CHECK FUNCTION

#### (B)With CONSULT-II

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

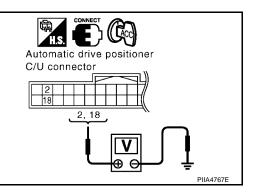
Monitor item [O or UN		Contents
MIR CHNG S W–R	"ON/OFF"	ON/OFF status judged from the door mirror switch (switching to RIGHT) signal is displayed.
MIR CHNG S W-L	"ON/OFF"	ON/OFF status judged from the door mirror switch (switching to LEFT) signal is displayed.



#### **Without CONSULT-II**

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

Connector	Terminals	(Wire color)	Condition	Voltage (V) (Approx.)
	(+)	(-)	Contaition	
	2 (L/R) 18 (Y)	Ground	Changeover switch RIGHT position	0
M41			Other than above	5
1014 1			Changeover switch LEFT position	0
			Other than above	5



#### OK or NG

OK >> Door mirror switch (changeover switch) is OK.

NG >> GO TO 2.

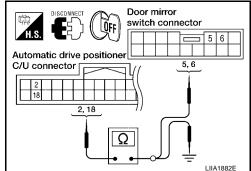
## 2. CHECK DOOR MIRROR SWITCH CIRCUIT HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit and door mirror switch .
- Check continuity between automatic drive positioner control unit connector M41 terminals 2, 18 and door mirror switch connector M7 terminals 5, 6.
  - 2 (L/R) 5 (L/R)
- : Continuity should exist.
- 18 (Y/R) 6 (Y/R)
- : Continuity should exist.
- 4. Check continuity between automatic drive positioner control unit connector M41 terminals 2, 18 and ground.

2 (L/R) - Ground 18 (Y/R) - Ground : Continuity should not exist. : Continuity should not exist.

#### OK or NG

- OK >> GO TO 3.
- NG >> Repair or replace harness.



Revision: September 2005

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## 3. CHECK DOOR MIRROR SWITCH (CHANGEOVER SWITCH)

Check continuity between door mirror switch as follows.

Connector	Terminals		Condition	Continuity
	(+)	(-)	Condition	Continuity
M7	5	7	Changeover switch RIGHT position	Yes
			Other than above	No
	6		Changeover switch LEFT position	Yes
			Other than above	No

#### OK or NG

- OK >> Check the condition of the harness and the connector.
- NG >> Replace door mirror switch.

## Door Mirror Switch (Mirror Switch) Circuit Check

1. CHECK DOOR MIRROR SWITCH (MIRROR SWITCH) SIGNAL

#### With CONSULT-II

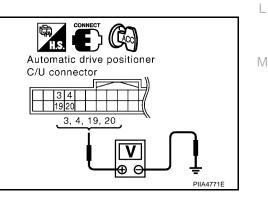
Check the operation on "MIR CON SW–UP/DN" and "MIR CON SW–RH/LH" in the DATA MONITOR.

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



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

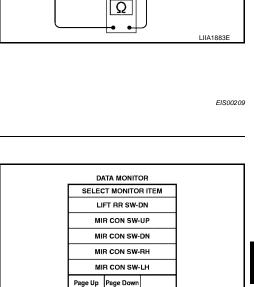
Connector -	Terminals (Wire color)		Condition	Voltage (V)
	(+)	(-)		(Approx.)
M41 -	3 (Y/B)	Ground	Mirror switch UP operation	0
	э (т/б)		Other than above	5
	4 (G/B)		Mirror switch LEFT operation	0
			Other than above	5
	19 (L/B)		Mirror switch DOWN operation	0
			Other than above	5
	20 (V)		Mirror switch RIGHT operation	0
	20 (V)		Other than above	5



OK or NG

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

NG >> GO TO 2.



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## 2. CHECK HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit and door mirror switch.
- 3. Check continuity between automatic drive positioner control unit connector M41 terminals 3, 4, 19, 20 and door mirror switch connector M7 terminals 1, 2, 3, 4.

3 (Y/B) - 3 (Y/B)	: Continuity should exist.
4 (G/B) - 2 (G/B)	: Continuity should exist.
19 (L/B) - 4 (L/B)	: Continuity should exist.
20 (V) - 1 (V)	: Continuity should exist.

4. Check continuity between automatic drive positioner control unit connector M41 terminals 3, 4, 19, 20 and ground.

3 (Y/B) - Ground
4 (G/B) - Ground
19 (L/B) - Ground
20 (V) - Ground

- I: Continuity should not exist.: Continuity should not exist.
  - : Continuity should not exist.
- Ground : Continuity should not exist.

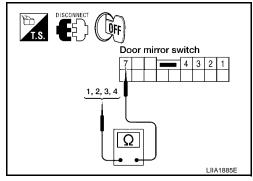
#### OK or NG

- OK >> GO TO 3.
- NG >> Repair or replace harness.

### **3.** CHECK DOOR MIRROR SWITCH (MIRROR SWITCH)

Check continuity between door mirror switch as follows.

Connector	Terminals		Switch condition	Continuity
M7	1	7	Mirror switch RIGHT operation	Yes
			Other than above	No
	2		Mirror switch LEFT operation	Yes
	2		Other than above	No
	3		Mirror switch UP operation	Yes
			Other than above	No
	4		Mirror switch DOWN operation	Yes
			Other than above	No



#### OK or NG

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

NG >> Replace door mirror switch.

## **Door Mirror Switch Ground Circuit Inspection 1.** CHECK DOOR MIRROR SWITCH GROUND CIRCUIT

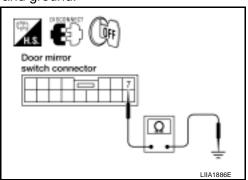
Check continuity between door mirror switch connector M7 terminal 7 and ground.

#### 7 (B/W) - Ground

: Continuity should exist.

#### OK or NG

- OK >> GO TO 2.
- NG >> Repair or replace harness.



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## 2. CHECK DOOR MIRROR SWITCH (CHANGEOVER SWITCH)

Check continuity between door mirror switch as follows.

Connector	Term	ninals	Condition	Continuity	
	(+)	(-)	Condition		
M7	5	7	Changeover switch RIGHT position	Yes	
			Other than above	No	
	6		Changeover switch LEFT position	Yes	
	0		Other than above	No	



- OK >> Check the condition of the harness and the connector.
- NG >> Replace door mirror switch.

## **Seat Memory Switch Circuit Inspection**

## 1. CHECK FUNCTION

### With CONSULT-II

With "SET SW, MEMORY SW 1, MEMORY SW 2" on the DATA MONITOR, operate the switch to check ON/OFF operation.

Monitor item [OP UNIT		Contents
MEMORY SW 1	"ON/OFF"	ON/OFF status judged from the seat memory switch 1 signal is displayed.
MEMORY SW 2	"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.

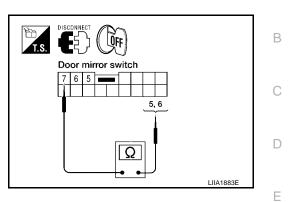
### **Without CONSULT-II**

ĜO TO 2.

### OK or NG

OK >> Seat memory switch circuit is OK.

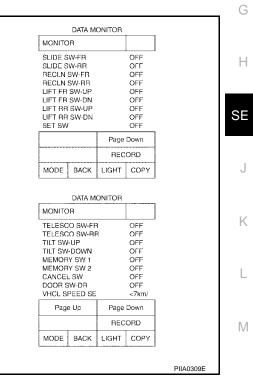
NG >> GO TO 2.



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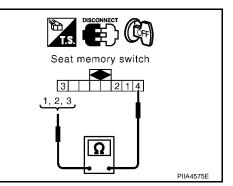


## **AUTOMATIC DRIVE POSITIONER**

## 2. CHECK SEAT MEMORY SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect seat memory switch.
- 3. Operate the setting switch and seat memory switch.
- 4. Check continuity between seat memory switch terminals as follows.

Con-	Tern	ninal	Condition	Continuity	
nector	(+) (-)		Condition	Contributy	
D5 2	1		Memory switch 1 ON	Yes	
	1		Memory switch 1: OFF	No	
	2	2 4	Memory switch 2: ON	Yes	
			Memory switch 2: OFF	No	
	3	3	Set switch: ON	Yes	
	3		Set switch: OFF	No	



OK or NG

OK >> GO TO 3.

NG >> Replace seat memory switch. Refer to EI-30, "Front Door".

## 3. CHECK HARNESS CONTINUITY

- 1. Disconnect automatic drive positioner control unit.
- 2. Check continuity between automatic drive positioner control unit connector M41 terminals 9, 24, 25 and seat memory switch connector D5 terminals 1, 2, 3.
  - 9 (LG/B) 1 (LG/B) 24 (G/W) - 3 (G/W) 25 (P/L) - 2 (P/L)
- : Continuity should exist. : Continuity should exist.
- : Continuity should exist.
- 3. Check continuity between automatic drive positioner control unit connector M41 terminals 9, 24, 25 and ground.
  - 9 (LG/B) Ground
- : Continuity should not exist.
- 24 (G/W) Ground
- : Continuity should not exist.
- 25 (P/L) Ground : Continuity should not exist.
- OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness.

### 4. CHECK SEAT MEMORY SWITCH GROUND CIRCUIT

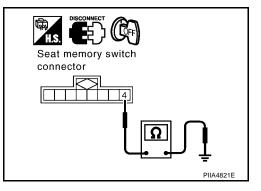
Check continuity between seat memory switch D5 terminal 4 and ground.

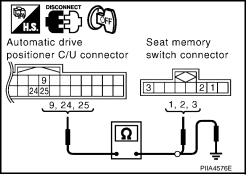
### 4 (B) - Ground

: Continuity should exist.

### OK or NG

- OK >> Replace automatic drive positioner control unit.
- NG >> Repair or replace harness.





## Seat Memory Indicator Lamp Circuit Inspection

## 1. CHECK FUNCTION

### With CONSULT-II

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

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

### **Without CONSULT-II**

GO TO 2.

### OK or NG

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

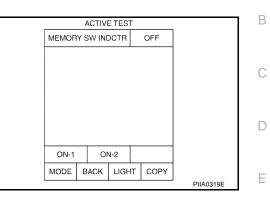
## 2. CHECK SEAT MEMORY SWITCH POWER SUPPLY CIRCUIT

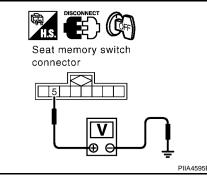
- 1. Turn ignition switch OFF.
- 2. Disconnect seat memory switch.
- 3. Turn ignition switch ON.
- 4. Check voltage between seat memory switch connector D5 terminal 5 and ground.

### 5 (BR/Y) - Ground : Battery voltage

### OK or NG

- OK >> GO TO 3.
- NG >> Repair or replace harness.





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## 3. CHECK SEAT MEMORY INDICATOR CIRCUIT HARNESS CONTINUITY

- 1. Disconnect automatic drive positioner control unit.
- 2. Check continuity between automatic drive positioner control unit connector M41 terminals 12, 13 and seat memory switch connector D5 terminals 6, 7.

12 (GR/L) - 6 (GR/L)

13 (Y) - 7 (Y/G)

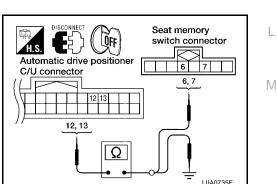
- : Continuity should exist. : Continuity should exist.
- 3. Check continuity between automatic drive positioner control unit connector M41 terminals 12, 13 and ground.
  - 12 (GR/L) Ground

13 (Y) - Ground

: Continuity should not exist. : Continuity should not exist.

### OK or NG

- OK >> GO TO 4.
- NG >> Repair or replace harness.



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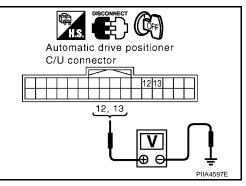
### 4. CHECK SEAT MEMORY SWITCH INDICATOR SIGNAL

Check voltage between automatic drive positioner control unit connector M41 terminals 12, 13 and ground.

12 (GR/L) - Ground 13 (Y) - Ground : Battery voltage : Battery voltage

OK or NG

- OK >> Replace automatic drive positioner control unit.
- NG >> Replace seat memory switch. Refer to EI-30, "Front Door"



## Door Mirror Sensor Power Supply and Ground Circuit inspection

1. CHECK DOOR MIRROR SENSOR CIRCUIT HARNESS CONTINUITY

EIS0020D

- 1. Disconnect automatic drive positioner control unit and door mirror (LH and RH).
- 2. Check continuity between automatic drive positioner control unit connector M42 terminals 33, 41 and door mirror LH connector D4 LH, D107 RH terminals 5, 8.

33 (W/L) - 5 (W/L) : Continuity should exist. 41 (V) - 8 (V) : Continuity should exist. Check continuity between automatic drive positioner control unit 3. connector M42 terminals 33, 41 and ground. Door mirror (LH) connector 33 (W/L) - Ground : Continuity should not exist. Automatic drive positioner 41 (V) - Ground : Continuity should not exist. 4 8 C/U connector Door mirror 33 OK or NG (RH) connector 41 OK >> GO TO 2. 33, 41 8 5 NG >> Repair or replace harness. 4, 5, 8

## 2. CHECK MIRROR SENSOR POWER SUPPLY

- 1. Connect automatic drive positioner control unit and door mirror LH.
- 2. Turn ignition switch to ACC.
- 3. Check voltage between automatic drive positioner control unit connector M42 terminal 33 and ground.

### 33 (W/L) - Ground

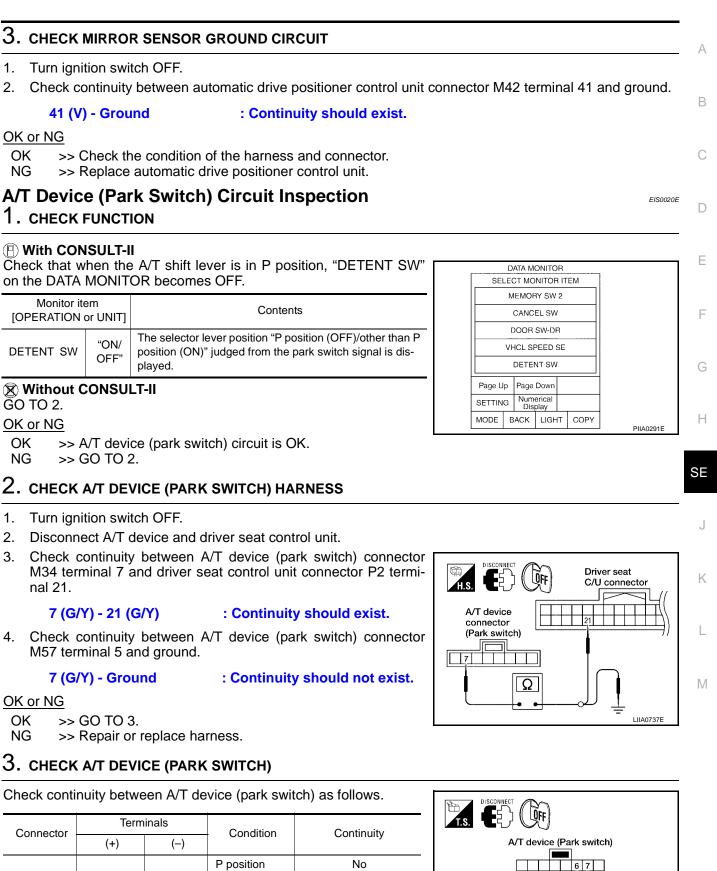
: Approx. 5V

### OK or NG

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

LIIA0736E

## AUTOMATIC DRIVE POSITIONER



OK or NG

M34

OK >> A/T device is OK.

6

7

Other than

P position

NG >> Replace A/T device.



Yes

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## Front Door Switch LH Circuit Inspection

### **1. CHECK FUNCTION**

### (P) With CONSULT-II

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

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

### **Without CONSULT-II**

GO TO 2.

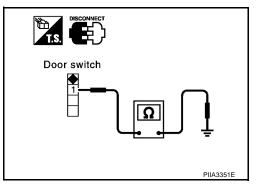
### OK or NG

OK >> Front door switch LH circuit is OK. NG >> GO TO 2.

## 2. CHECK FRONT DOOR SWITCH LH

- 1. Turn ignition switch OFF.
- 2. Disconnect front door switch LH.
- 3. Check continuity between front door switch Ih connector part of door switch as follows.

Connec-	Tern	ninals	Condition	Continuity	
tor	(+)	(-)	Condition		
B8			With the front door switch LH pressed	No	
Бо	I	Ground	With the front door switch LH released	Yes	
	<b>`</b>				



### OK or NG

>> GO TO 3. OK

NG >> Replace front door switch LH.

## 3. check harness continuity

- 1. Disconnect BCM.
- Check continuity between BCM connector M20 terminal 62 and 2. front door switch LH connector B8 terminal 1.

### 62 (GR/R) - 1 (GR/R)

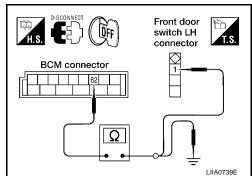
### : Continuity should exist.

3. Check continuity between BCM connector M20 terminal 62 and ground.

#### 62 (GR/R) - Ground : Continuity should not exist.

### OK or NG

- OK >> Front door switch LH circuit is OK.
- NG >> Repair or replace harness.



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	MEMORY SW 2						
CANCEL SW							
	C	OOR	SW-DI	٦			
	Vŀ	ICL SF	PEED	SE			
	DETENT SW						
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DATA MONITOR

EIS0020G

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## **AUTOMATIC DRIVE POSITIONER**

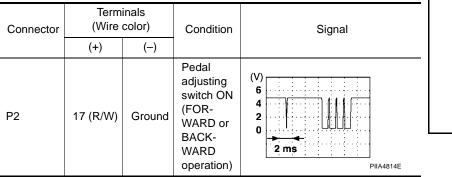
### **UART Communication Line Circuit Inspection** 1. CHECK UART LINE INPUT/OUTPUT SIGNAL 1

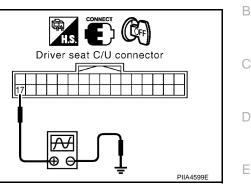
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- 1. Turn ignition switch OFF.
- 2. Check signal between driver seat control unit connector and ground, with oscilloscope.





### OK or NG

OK >> GO TO 2.

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

## 2. CHECK UART LINE INPUT/OUTPUT SIGNAL 2

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

Check signal between automatic drive positioner control unit con- nector ground, with oscilloscope.						J	
Connector	Terminals ctor (Wire color)		Condition Signal		Automatic drive positioner C/U connector		
	(+)	()		5		Κ	
M41	10 (R)	Ground	Pedal adjusting switch ON (FOR- WARD or BACK- WARD operation)	(V) 6 4 2 0 1 ms	PIIA4816E	L	

### OK or NG

OK >> GO TO 3.

NG >> Check the following.

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

## 3. CHECK UART LINE HARNESS

- 1. Disconnect driver seat control unit and automatic drive positioner control unit.
- Check continuity between driver seat control unit connector P2 terminals 1, 17 and automatic drive positioner connector M41 terminals 10, 26.
  - 1 (R) 10 (R)
- : Continuity should exist.
- : Continuity should exist.
- 3. Check continuity between driver seat control unit connector P2 terminals 1, 17 and ground.

1 (R) - Ground

17 (R/W) - Ground

17 (R/W) - 26 (R/W)

: Continuity should not exist.

: Continuity should not exist.

### OK or NG

OK >> GO TO 4.

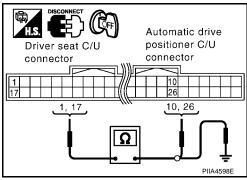
NG >> Repair or replace harness.

### 4. CHECK DRIVER SEAT CONTROL UNIT

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

### OK or NG

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



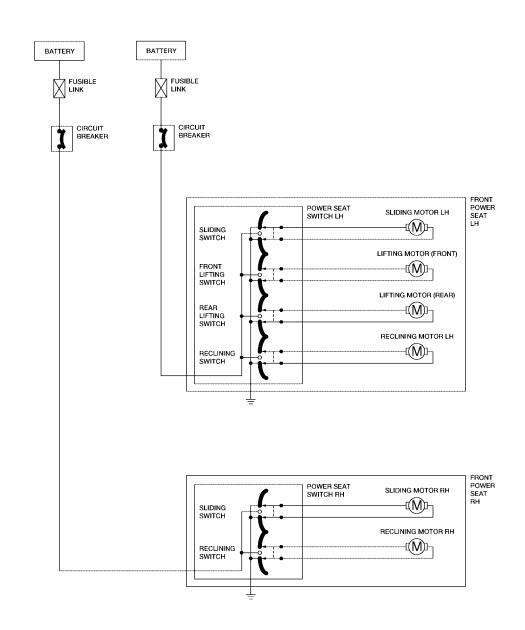
## AUTOMATIC DRIVE POSITIONER

Removal and Installation	EIS0022M	^
Refer to ACC-3, "ACCELERATOR CONTROL SYSTEM" and BR-6, "BRAKE PEDAL".		А
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## POWER SEAT Schematic

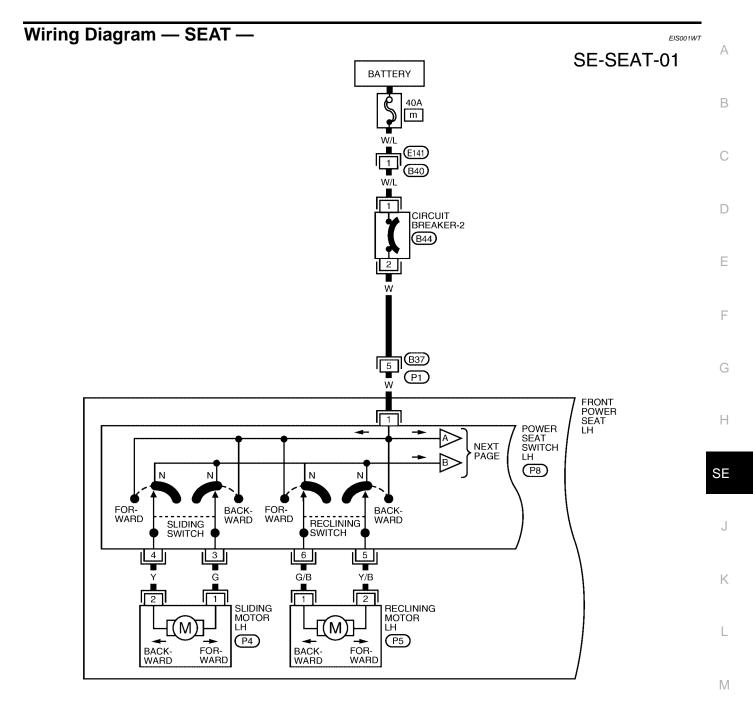
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WIWA0450E

## **POWER SEAT**





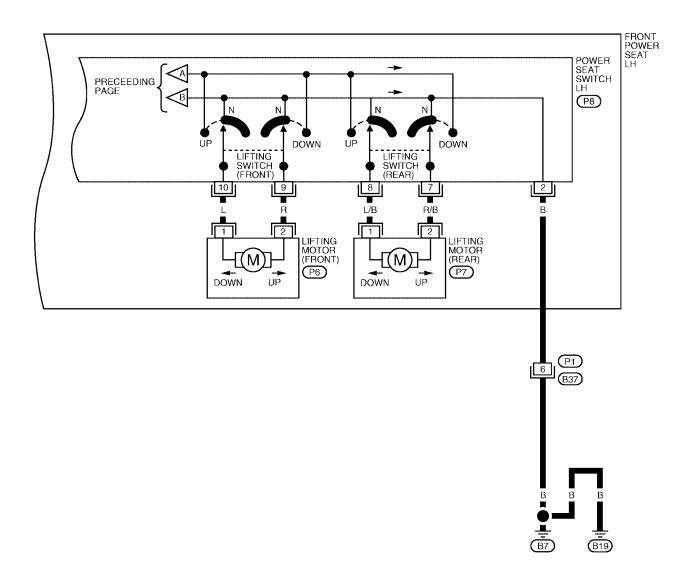
(P8)\* 4 8 6 5 3 7 2 1 10 9

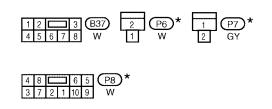
 $\boldsymbol{\star}$  : THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

WIWA0451E

## **POWER SEAT**

### SE-SEAT-02

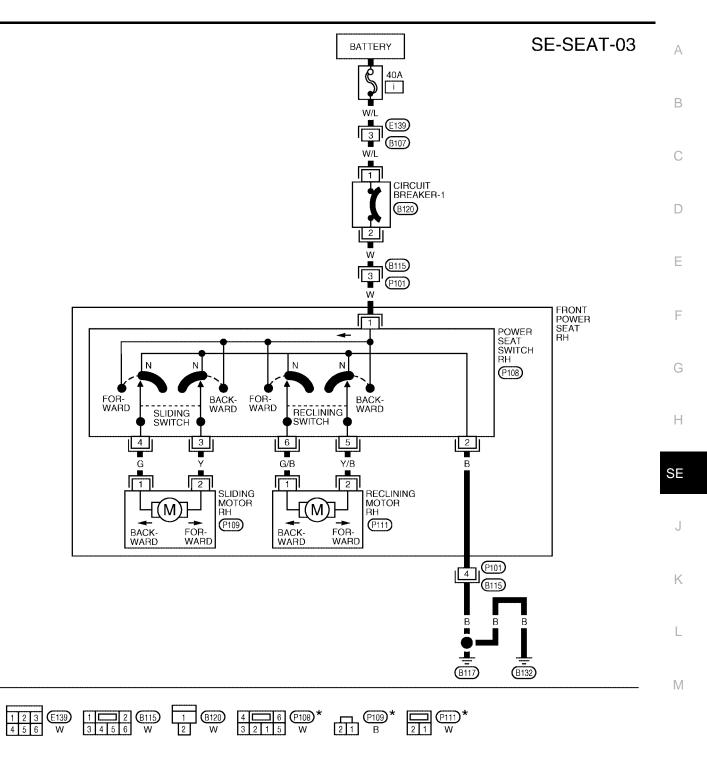




\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

WIWA0452E

**POWER SEAT** 



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

WIWA0453E

## **HEATED SEAT**

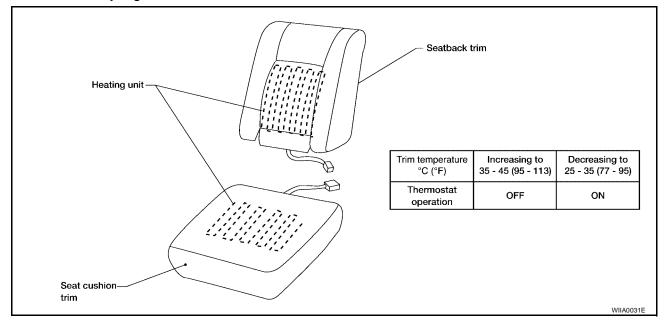
## HEATED SEAT

PFP:87335

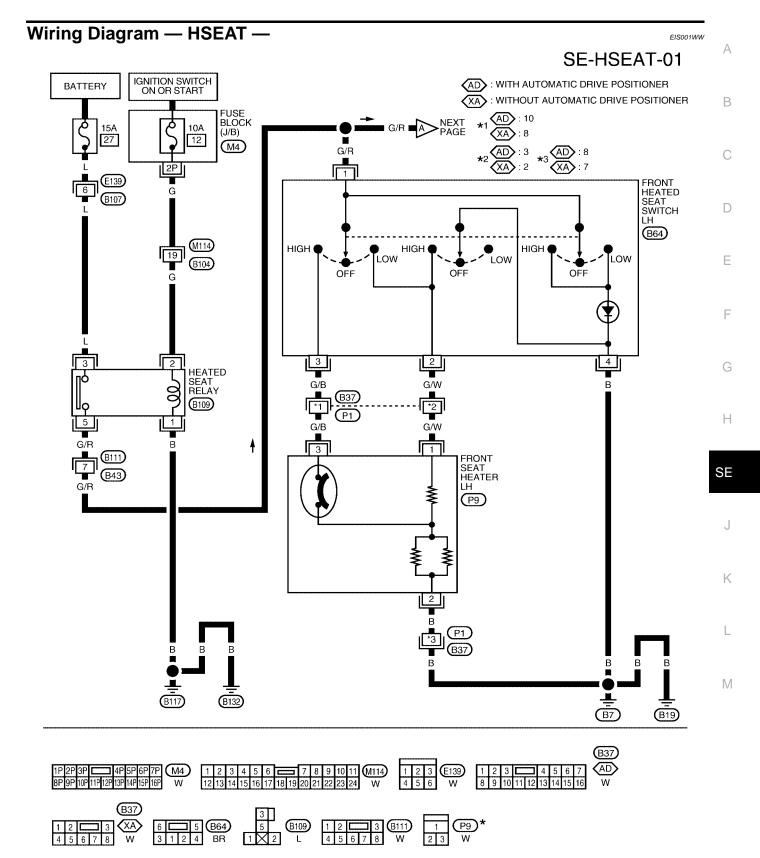
## Description

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



## **HEATED SEAT**



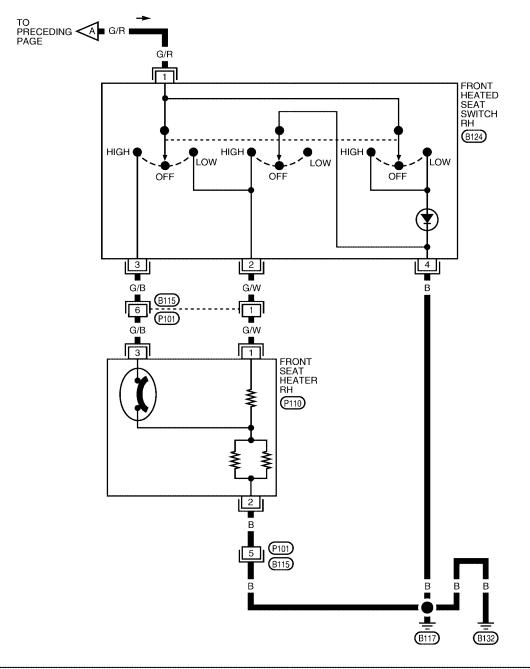
\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

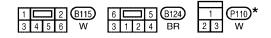
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SE-87

## **HEATED SEAT**

## SE-HSEAT-02

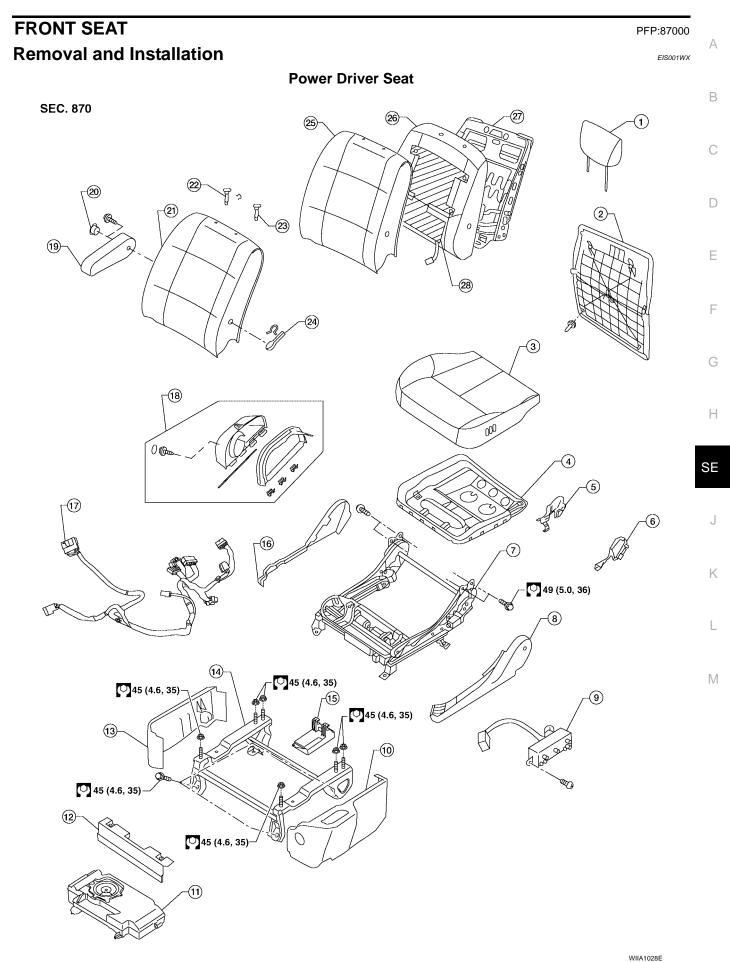




\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

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**FRONT SEAT** 

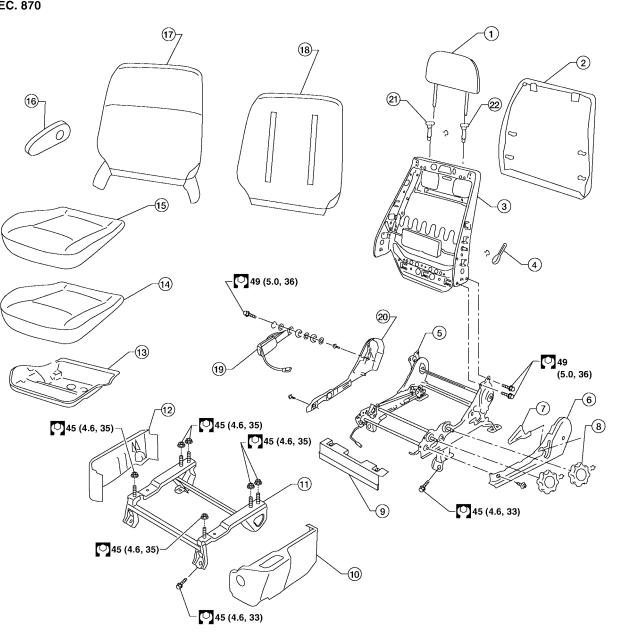


- 1. Headrest
- 4. Seat cushion frame
- 7. Driver seat power frame assembly
- 10. Outer pedestal finisher
- 13. Inner pedestal finisher
- 16. Seat cushion inner finisher
- 19. Armrest assembly
- 22 Headrest holder with locking clip
- 25. Seatback trim cover (without side air bag)
- 28. Seatback cushion heater unit (without side air bag) if equipped

- 2. Seatback board
- 5. RH inner hinge cover
- 8. Seat cushion outer finisher
- 11. Sub woofer
- 14. Pedestal
- 17. Driver seat wiring harness
- 20. Armrest bolt cover
- 23 Headrest holder with multi position lock
- 26 Seatback cushion (without side air bag)

- 3. Seat cushion trim cover
- 6. LH inner hinge cover
- 9. Power seat switch
- 12. Seat cushion front finisher
- 15. Driver seat control unit
- 18. Cup holder assembly
- 21. Seatback assembly (with side air bag)
- 24. Lumbar support handle
- 27 Seatback frame (without side air bag)

**Manual Driver Seat** 



- 1. Headrest
- 4. Lumbar support handle
- 2. Seatback board
- 5. Driver seat frame assembly
- Seatback frame 3.
- 6. Seat cushion outer finisher

**SE-91** 

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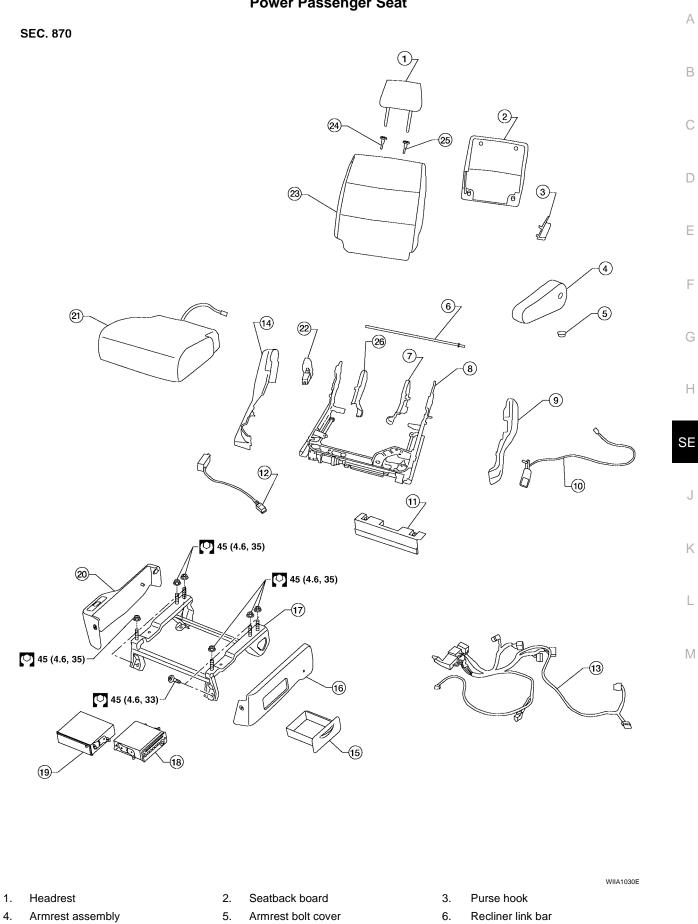
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- 7. Recliner release handle
- 10. Outer pedestal finisher
- 13. Seat cushion frame
- 16. Armrest assembly
- 19. Seat belt buckle assembly
- 22. Headrest holder with multi position lock
- 8. Seat cushion adjusting knobs
- 11. Pedestal
- 14. Seat cushion pad
- 17. Seatback trim cover
- 20. Seat cushion inner finisher
- 9. Seat cushion front finisher
- 12. Inner pedestal finisher
- 15. Seat cushion trim cover
- 18. Seatback pad
- 21. Headrest holder with locking clip

**Power Passenger Seat** 

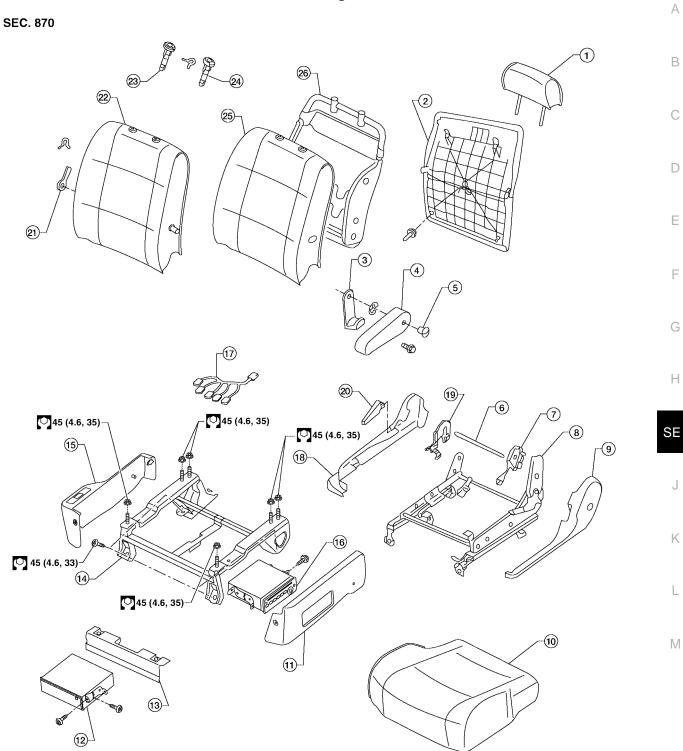


- 7. RH inner hinge cover
- 10. Seat belt assembly
- 13. Passenger power seat harness
- 16. Inner pedestal finisher
- 19. NAVI control unit
- 22. Recliner motor
- 25. Headrest holder with multi position lock
- 8. Passenger seat power frame assem- 9. bly
- 11. Seat cushion front finisher
- 14. Seat cushion outer finisher
- 17. Pedestal
- 20. Outer pedestal finisher
- 23. Seatback assembly
- 26. LH inner hinge cover

- Seat cushion inner finisher
- 12. Power seat switch
- 15. Storage bin
- 18. DVD player
- 21. Seat cushion assembly
- 24. Headrest holder with locking clip

### Manual Passenger Seat





- Headrest 1.
- 4. Armrest assembly
- 2. Seatback board
- 5. Armrest bolt cover
- 3. Purse hook
- Recliner link bar 6.

**SE-95** 

WIIA1031E

- 7. LH inner hinge cover
- 10. Seat cushion assembly
- 13. Seat cushion front finisher
- 16. DVD player

25. Seatback pad

- 19. RH inner hinge cover
- 22. Seat back trim cover
- 8. Seat frame assembly
- 11. Pedestal inner finisher
- 14. Pedestal
- 17. Wiring harness
- 20. Recliner handle
- 23. Headrest holder with locking clip
- 26. Seatback frame

- 9. Seat cushion inner finisher
- 12. NAVI control unit
- 15. Pedestal outer finisher
- 18. Seat cushion outer finisher
- 21. Lumbar support handle
- 24. Headrest holder with multi position lock

### REMOVAL

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

### CAUTION:

- Before removing the front seat, turn the 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 while installing the seat. Always handle it with care.
- After front side air bag module inflates, front seatback assembly must be replaced.
- Front passenger seat is equipped with an Occupant Classification System sensor and control module. Do not disassemble front passenger seat cushion assembly or remove the trim as this will affect the Occupant Classification System calibration.
- Always replace passenger seat cushion as an assembly.
- 1. Slide the seat until the four body mounting bolts are visible and a tool can be inserted. **NOTE:** 
  - If disassembling the seat after removal, set the front/rear cushion lifters to the top position.
- 2. Disconnect both battery cables and wait at least 3 minutes.
- 3. Disconnect the side air bag module harness connector.
- 4. Remove the four body mounting bolts.
- 5. Disconnect the power seat harness connectors (if equipped) and remove the seat from the vehicle. **NOTE:**

When removing and installing the seat, use shop cloths to protect the vehicle from damage.

### INSTALLATION

Installation is in the reverse order of removal.

## Disassembly and Assembly SEATBACK TRIM AND PAD

#### WARNING:

Removal of front side air bag module should only be done to allow deployment of front side air bag module prior to disposal of seatback assembly.

### NOTE:

Only complete seatback assemblies can be replaced on vehicles equipped with side air bags.

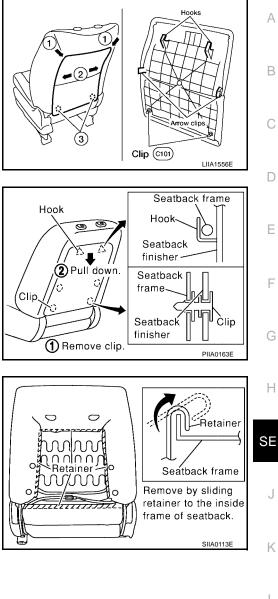
#### NOTE:

Be sure to set the front/rear cushion lifter to the top position.

EIS001WY

- 1. Remove the seatback finisher from the back of the seatback.
  - 1. Bend both top corners inward (one at a time) to release the top hooks.
  - 2. Shift the seatback finisher to the Left and Right to release the middle hooks.
  - 3. Separate the trim clips from the seatback frame to remove the seatback finisher.

Remove the seatback board from the back of the seatback.



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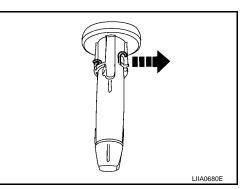
3. Remove the retainer.

2.

4. Remove the headrest.

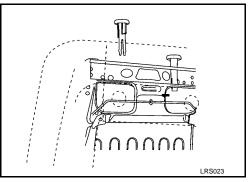
### NOTE:

The spring clip on the RH headrest holder must be released to remove the headrest from the seat back.

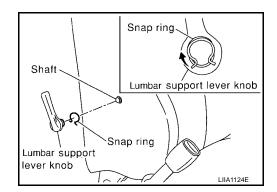


 From inside of the seatback, squeeze the headrest holder tabs at the base of the stay pipe and pull the up to remove.
 NOTE:

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



6. Remove the snap ring and the lumbar support lever knob.



7. Disconnect the seatback heater harness. Remove the seatback trim and pad assembly. Remove the hog ring to separate the seatback trim from the pad and the heater unit.

### **REMOVAL OF SEATBACK ASSEMBLY**

- 1. After completing the steps 1 and 2 of "Seatback Trim and Pad", remove the side air bag harness connector from the seat cushion.
- 2. Remove the mounting bolts (2 for each side) and seatback assembly.

### INSTALLATION OF SEATBACK ASSEMBLY

Installation is in the reverse order of removal.

### SEAT CUSHION TRIM AND PAD

### CAUTION:

- Front passenger seat is equipped with an Occupant Classification System sensor and control module. Do not disassemble front passenger seat cushion assembly or remove the trim as this will affect the Occupant Classification System calibration.
- Always replace passenger seat cushion as an assembly.
- When removed, the passenger seat cushion must always be placed pan side UP to prevent damage.
- During installation, the wire harness clips must be reinstalled in the holes they were originally in. Do not add additional clips.
- The Occupant Classification System control module can only be replaced as part of the seat cushion assembly.

### NOTE:

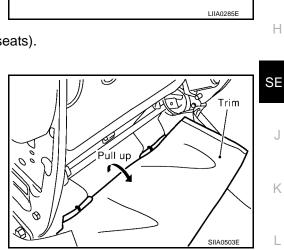
If the vehicle has been involved in a collision, the seat must be inspected for damage. Refer to <u>SRS-59, "COL-LISION DIAGNOSIS"</u>.

### Disassembly

1. Remove the power seat switch knobs and trim plate (or recline knobs on manual seat).

2. Remove the front seat cushion finisher (inner).

- 3. Remove the power seat switch screws (or lift knobs on manual seats).
- 4. Remove four bolts and the seat cushion assembly.
- 5. Release the trim retainer from the seat cushion frame, then remove the harness connector for the seat heater.
- 6. For driver seat only, after removing the seat cushion assembly, remove the hog rings to separate the trim cover from the pad and seat cushion heater unit.

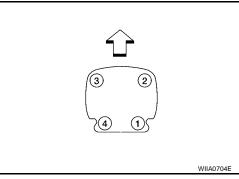


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### Assembly

Assembly is in the reverse order of disassembly.

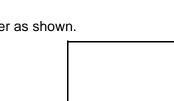
- Tighten the front seat cushion to frame bolts in the order as shown.
- ⇐: Vehicle front.



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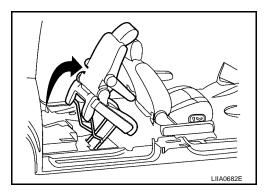
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# Removal and Installation SECOND ROW

### Removal

- 1. Lift handle and tilt seat forward.
- 2. Remove seat base trim cover.
- 3. Remove seat anchor bolts and seat assembly.
- 4. Remove seat striker covers and seat strikers.



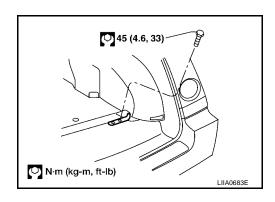
### Installation

Installation is in the reverse order of removal.

### THIRD ROW

### Removal

- 1. Retract the seat into the cargo floor position.
- 2. Remove the hinge bolts from the seat assembly.
- 3. Remove the seat assembly.

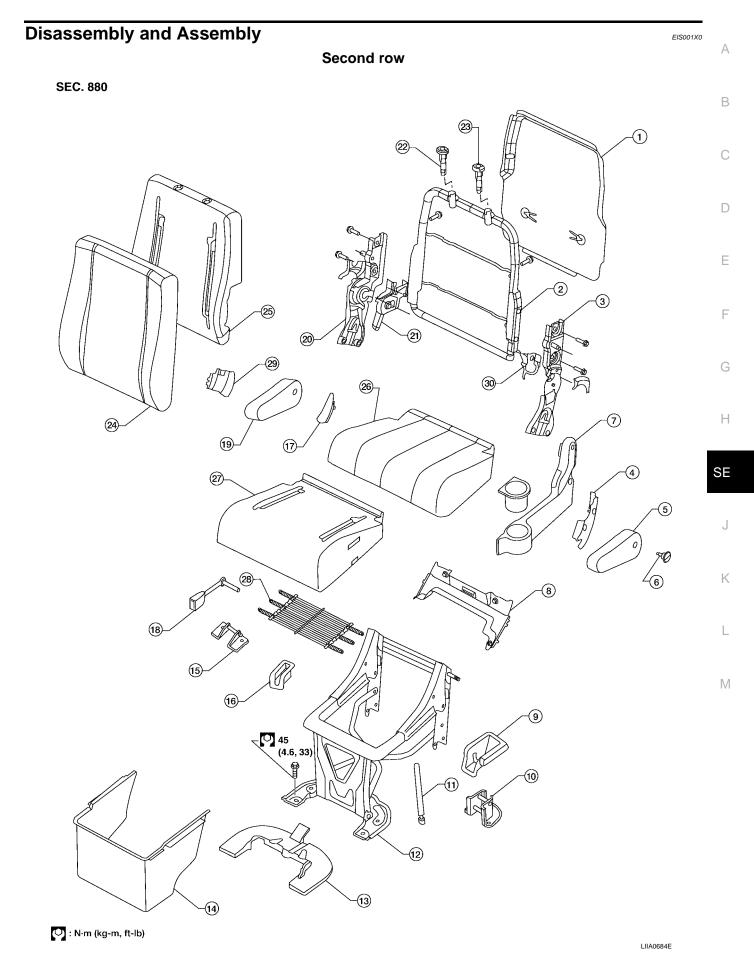


### Installation

Installation is in the reverse order of removal.

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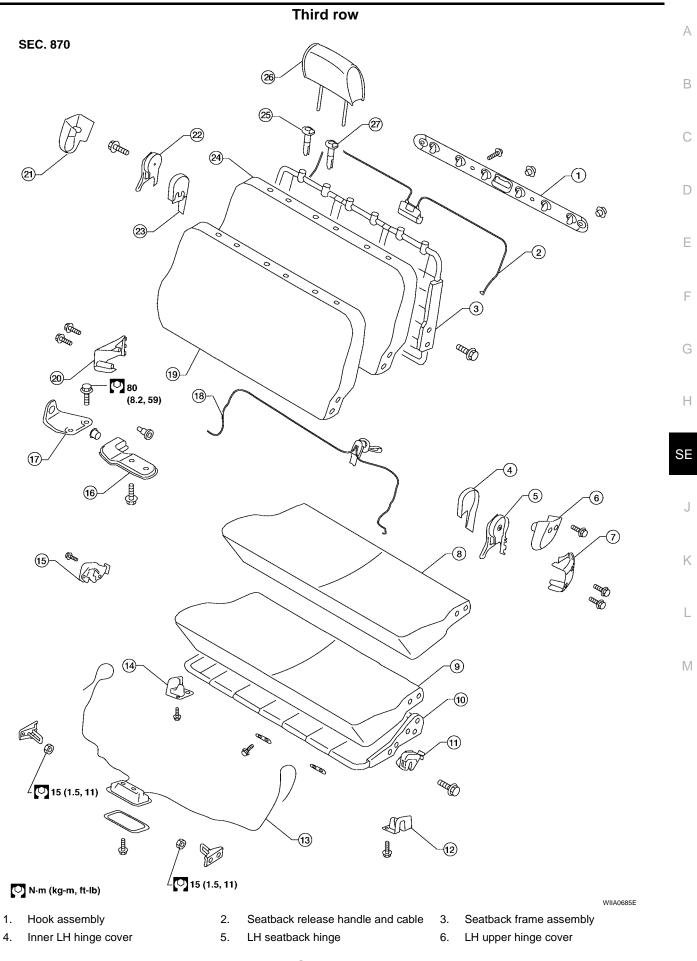
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- 1. Seatback
- 4. LH seatback hinge cover
- 7. LH cushion hinge cover
- 10. LH seat anchor striker
- 13. Seat base trim cover
- 16. RH seat anchor cover
- 19. RH armrest
- 22. RH headrest guide
- 25. Seatback pad
- 28 Flexmat assembly

- 2. Seatback frame
- 5. LH arm rest
- 8. Isofix cover
- 11. Lift assist cylinder
- 14. Seat base apron
- 17. RH cushion hinge cover
- 20. RH hinge
- 23. LH headrest guide
- 26 Seat cushion trim cover
- 29 RH seatback hinge cover

- 3. Seatback hinge LH
- 6. Armrest bolt cover
- 9. LH seat anchor cover
- 12. Seat base and hinge assembly
- 15. RH seat anchor striker
- 18. Seat belt buckle
- 21. RH inner recliner cover
- 24 Seatback trim cover
- 27 Seat cushion pad
- 30 LH inner recliner cover



Revision: September 2005

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2005 Quest

- 7. LH lower hinge cover
- 10. Seat cushion frame assembly
- 13. Seat lock cable assembly
- 16. Seat assembly hinge RH/LH
- 19. Seatback trim cover
- 22. RH seatback hinge
- 25. Locking headrest guide

- Seat cushion trim cover
- 11. LH seat lock assembly
- 14. RH seat lock cover

8.

- 17. Seat assembly hinge anchor RH/LH
- 20. RH lower hinge cover
- 23. Inner RH hinge cover
- 26. Headrest guide

- 9. Seat cushion pad
- 12. LH seat lock cover
- 15. RH seat lock assembly
- 18. Assist strap and release assembly
- 21. RH upper hinge cover
- 24. Seatback pad
- 27. Headrests