

SECTION **SE**  
SEAT

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M

**CONTENTS**

<b>PRECAUTIONS</b> .....	<b>3</b>	Schematic .....	16
Service Notice .....	3	Wiring Diagram–AUT/DP– .....	17
Precautions for Supplemental Restraint System (SRS) “AIR BAG” and “SEAT BELT PRE-TENSIONER” .....	3	Terminals and Reference Values for BCM .....	27
Precautions for work .....	3	Terminals and Reference Values for Driver Seat Control Unit .....	29
Trouble diagnosis precaution .....	3	Work Flow .....	31
<b>PREPARATION</b> .....	<b>5</b>	Preliminary Check .....	31
Special Service Tools .....	5	SETTING CHANGE FUNCTION .....	31
Commercial Service Tools .....	5	POWER SUPPLY AND GROUND CIRCUIT INSPECTION .....	32
<b>SQUEAK AND RATTLE TROUBLE DIAGNOSES</b> .....	<b>6</b>	CONSULT–II Function .....	34
Work Flow .....	6	CONSULT–II BASIC OPERATION PROCEDURE .....	35
CUSTOMER INTERVIEW .....	6	IVMS COMMUNICATION INSPECTION. ....	35
DUPLICATE THE NOISE AND TEST DRIVE .....	7	COMMUNICATION SYSTEM A .....	37
CHECK RELATED SERVICE BULLETINS .....	7	COMMUNICATION SYSTEM B .....	38
LOCATE THE NOISE AND IDENTIFY THE ROOT CAUSE .....	7	COMMUNICATION SYSTEM C .....	38
REPAIR THE CAUSE .....	7	WORK SUPPORT .....	38
CONFIRM THE REPAIR .....	8	SELF-DIAGNOSIS RESULTS .....	38
Generic Squeak and Rattle Troubleshooting .....	8	DATA MONITOR .....	40
INSTRUMENT PANEL .....	8	ACTIVE TEST .....	42
CENTER CONSOLE .....	8	On Board Diagnosis .....	43
DOORS .....	8	DIAGNOSIS ITEM .....	43
TRUNK .....	9	COMMUNICATION DIAGNOSIS .....	43
SUNROOF/HEADLINER .....	9	COMMUNICATION SYSTEM A .....	45
SEATS .....	9	COMMUNICATION SYSTEM B .....	45
UNDERHOOD .....	9	COMMUNICATION SYSTEM C .....	45
Diagnostic Worksheet .....	10	SWITCH MONITOR .....	46
<b>AUTOMATIC DRIVE POSITIONER</b> .....	<b>12</b>	ON BOARD DIAGNOSIS FOR AUTOMATIC DRIVE POSITIONER .....	48
System Description .....	12	Symptom Chart .....	50
FAIL–SAFE MODE .....	12	Seat Sliding Circuit Inspection 1 .....	52
CANCEL OF FAIL-SAFE MODE .....	12	Seat Reclining Circuit Inspection 1 .....	53
MANUAL OPERATION .....	12	Front End Seat Lifting Circuit Inspection 1 .....	55
AUTOMATIC OPERATION .....	12	Rear End Seat Lifting Circuit Inspection 1 .....	56
MEMORY STORING .....	13	Steering Wheel Telescopic Circuit Inspection 1 .....	58
AUTO RETURN 1: PROCEDURE A AND AUTO RETURN 2: PROCEDURE B .....	13	Steering Wheel Tilt Circuit Inspection 1 .....	59
AUTO RETURN 3 .....	14	Seat Sliding Circuit Inspection 2 .....	61
AUTO RETURN 4 .....	14	Seat Reclining Circuit Inspection 2 .....	62
Component Parts and Harness Connector Location. ....	15	Front End Seat Lifting Circuit Inspection 2 .....	63

Rear End Lifting Circuit Inspection 2 .....	64	Description .....	101
Detention Switch Circuit Inspection .....	65	Schematic .....	102
Telescopic Sensor Circuit Inspection .....	67	Wiring Diagram – HSEAT – .....	103
Tilt Sensor Circuit Inspection .....	68	Terminals and Reference Values for Rear Power	
Key Switch and Key Lock Solenoid Circuit Inspe-		Seat Control Unit LH .....	110
tion. ....	69	Terminals and Reference Values for Rear Power	
Front Door Switch (Driver Side) Circuit Inspection...	71	Seat Control Unit RH .....	110
Vehicle Speed Signal Inspection .....	72	<b>FRONT SEAT .....</b>	<b>111</b>
Seat Memory Switch Circuit Inspection .....	74	Removal and Installation .....	111
Seat Sliding Circuit Inspection 3 .....	76	REMOVAL .....	115
Seat Reclining System Inspection 3 .....	78	INSTALLATION .....	116
Front End Seat Lifting Circuit Inspection 3. ....	80	Disassembly and Assembly .....	116
Rear End Seat Lifting Circuit Inspection 3 .....	82	SEATBACK TRIM AND PAD .....	116
Steering Wheel Telescopic System Inspection 2. ...	84	REMOVAL OF SEATBACK ASSEMBLY .....	117
Steering Wheel Tilt System Inspection 2. ....	86	INSTALLATION OF SEATBACK ASSEMBLY ...	117
Seat Memory Indicator lamp System Inspection ...	88	SEAT CUSHION TRIM AND PAD .....	117
<b>POWER SEAT .....</b>	<b>90</b>	<b>REAR SEAT .....</b>	<b>118</b>
System Description .....	90	Removal and Installation .....	118
Component Parts and Harness Connector Location..	90	REMOVAL OF MANUAL SEAT (BENCH SEAT)..	121
Schematic .....	91	INSTALLATION OF MANUAL SEAT (BENCH	
Wiring Diagram–SEAT– .....	92	SEAT) .....	121
Terminals and Reference Values for Power Seat		REMOVAL OF POWER SEAT (SPLIT SEAT) ..	121
Switch .....	98	INSTALLATION OF POWER SEAT (SPLIT	
Terminals and Reference Values for Rear Power		SEAT) .....	122
Seat Control Unit LH .....	98	Disassembly and Assembly .....	122
Terminals and Reference Values for Rear Power		SLIDING MOTOR & UNIT .....	122
Seat Control Unit RH .....	99	CENTER SEATBACK ASSEMBLY .....	123
<b>HEATED SEAT .....</b>	<b>101</b>		

# PRECAUTIONS

## PRECAUTIONS

PFP:00001

### Service Notice

EIS0000M

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

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

EIS0000N

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. 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

EIS000E4

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

### Trouble diagnosis precaution

EIS000E5

- When carrying out the IVMS control unit input/output signal inspection, be sure to connect the checking adapter III(special service tool) to prevent incorrect diagnosis.
- With the battery connected, if each local control unit (LCU) connector is left disconnected for at least 1 minute, the IVMS control unit stores a communication inactive failure. After reconnecting the connector,

## PRECAUTIONS

---

any of the following steps shall be done. "Disconnect the IVMS control unit BAT power supply" or "using CONSULT-II, execute Erase memory".

# PREPARATION

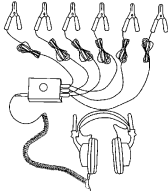
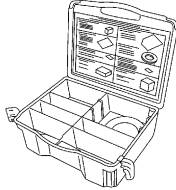
## PREPARATION

PFP:00002

### Special Service Tools

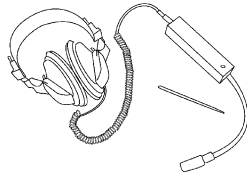
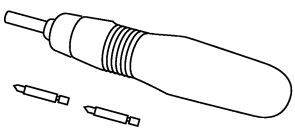
EIS0002Q

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	Location the noise
(J-43980) NISSAN Squeak and Rattle Kit   SIIA0994E	Repairing the cause of noise

### Commercial Service Tools

EIS000ZR

Tool name	Description
Engine ear   SIIA0995E	Location the noise
Power tool   PBIC0191E	

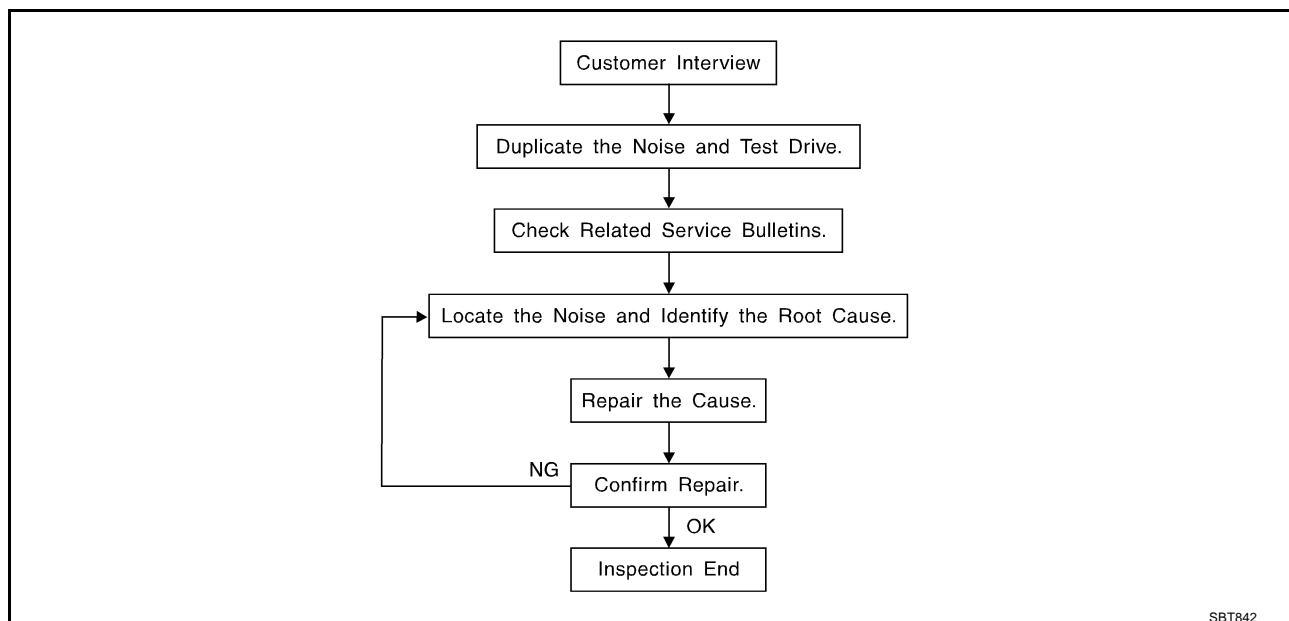
# SQUEAK AND RATTLE TROUBLE DIAGNOSES

## SQUEAK AND RATTLE TROUBLE DIAGNOSES

PFP:00000

### Work Flow

E/S000ZS



### 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-10, "Diagnostic Worksheet"](#). This information is necessary to duplicate the conditions that exist when the noise occurs.

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

# SQUEAK AND RATTLE TROUBLE DIAGNOSES

## 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 mechanics stethoscope).
2. Narrow down the noise to a more specific area and identify the cause of the noise by:
  - removing the components in the area that you suspect the noise is coming from.  
Do not use too much force when removing clips and fasteners, otherwise clips and fastener can be broken or lost during the repair, resulting in the creation of new noise.
  - tapping or pushing/pulling the component that you suspect is causing the noise.  
Do not tap or push/pull the component with excessive force, otherwise the noise will be eliminated only temporarily.
  - feeling for a vibration with your hand by touching the component(s) that you suspect is (are) causing the noise.
  - placing a piece of paper between components that you suspect are causing the noise.
  - looking for loose components and contact marks.  
Refer to [SE-8, "Generic Squeak and Rattle Troubleshooting"](#).

## 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 [1.5mm(0.059 in) thick]**

**Insulates connectors, harness, etc.**

**76268-9E005: 100×135mm(3.94×5.31 in)/76884-71L01: 60×85mm(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: 45mm(1.77 in) thick, 50×50mm(1.97×1.97 in)/73982-50Y00: 10mm(0.39 in) thick, 50×50mm(1.97×1.97 in)**

# SQUEAK AND RATTLE TROUBLE DIAGNOSES

---

## INSULATOR (Light foam block)

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

## FELT CLOTHTAPE

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

68370-4B000: 15×25mm(0.59×0.98 in) pad/68239-13E00: 5mm(0.20 in) wide tape roll The following materials, not found in the kit, can also be used to repair squeaks and rattles.

## UHMW(TEFLON) TAPE

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

## SILICONE GREASE

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

Note: Will only last a few months.

## SILICONE SPRAY

Use when grease cannot be applied.

## DUCT TAPE

Use to eliminate movement.

## CONFIRM THE REPAIR

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

## Generic Squeak and Rattle Troubleshooting

EIS000ZT

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

## INSTRUMENT PANEL

Most incidents are caused by contact and movement between:

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

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

### CAUTION:

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

## CENTER CONSOLE

Components to pay attention to include:

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

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

## DOORS

Pay attention to the:

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

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



# SQUEAK AND RATTLE TROUBLE DIAGNOSES

## TRUNK

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

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

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

## SUNROOF/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.

## SEATS

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

Cause of seat noise include:

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

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

## UNDERHOOD

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

Causes of transmitted underhood noise include:

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

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

A

B

C

D

E

F

G

H

SE

J

K

L

M

# SQUEAK AND RATTLE TROUBLE DIAGNOSES

## Diagnostic Worksheet

EIS000ZU



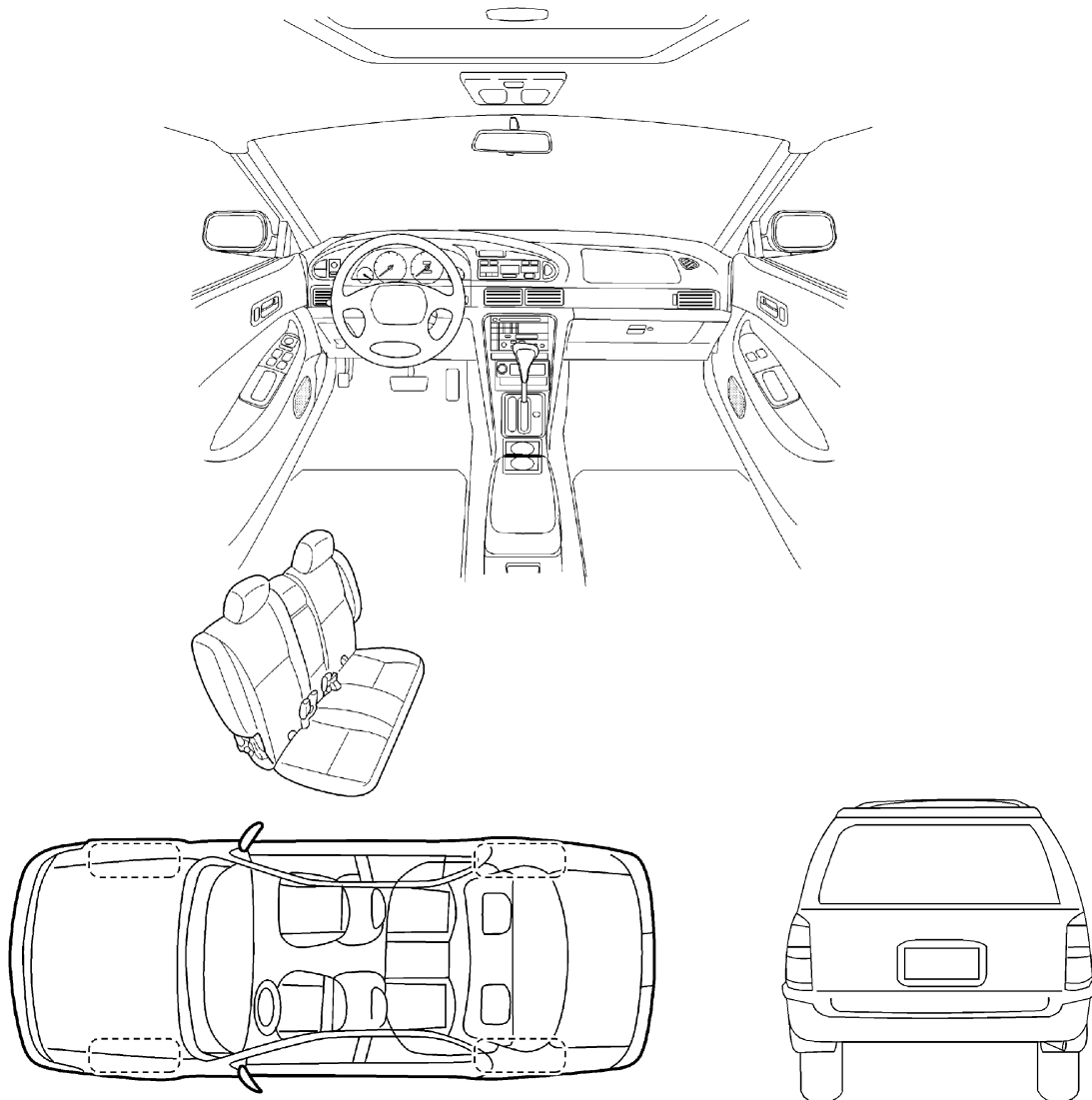
### SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

Dear Infiniti Customer:

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

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

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



Continue to 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.

SBT860

# SQUEAK AND RATTLE TROUBLE DIAGNOSES

## SQUEAK & RATTLE DIAGNOSTIC WORKSHEET- page 2

Briefly describe the location where the noise occurs:

---

---

---

### II. WHEN DOES IT OCCUR? (check the boxes that apply)

- |  |   |
|--|---|
| <input type="checkbox"/> anytime                             | <input type="checkbox"/> after sitting out in the sun |
| <input type="checkbox"/> 1 <sup>st</sup> time in the morning | <input type="checkbox"/> when it is raining or wet    |
| <input type="checkbox"/> only when it is cold outside        | <input type="checkbox"/> dry or dusty conditions      |
| <input type="checkbox"/> only when it is hot outside         | <input type="checkbox"/> other: _____                 |

### III. WHEN DRIVING:

- through driveways
- over rough roads
- over speed bumps
- only at about \_\_\_\_ mph
- on acceleration
- coming to a stop
- on turns : left, right or either (circle)
- with passengers or cargo
- other: \_\_\_\_\_
- after driving \_\_\_\_ miles or \_\_\_\_ minutes

### IV. WHAT TYPE OF NOISE?

- squeak (like tennis shoes on a clean floor)
- creak (like walking on an old wooden floor)
- rattle (like shaking a baby rattle)
- knock (like a knock on a door)
- tick (like a clock second hand)
- thump (heavy, muffled knock noise)
- buzz (like a bumble bee)

### TO BE COMPLETED BY DEALERSHIP PERSONNEL

#### Test Drive Notes:

---

---

	YES	NO	Initials of person performing
Vehicle test driven with customer	<input type="checkbox"/>	<input type="checkbox"/>	_____
- Noise verified on test drive	<input type="checkbox"/>	<input type="checkbox"/>	_____
- Noise source located and repaired	<input type="checkbox"/>	<input type="checkbox"/>	_____
- Follow up test drive performed to confirm repair	<input type="checkbox"/>	<input type="checkbox"/>	_____

VIN: \_\_\_\_\_ Customer Name: \_\_\_\_\_

W.O. #: \_\_\_\_\_ Date: \_\_\_\_\_

SBT844

**This form must be attached to Work Order**

# AUTOMATIC DRIVE POSITIONER

## AUTOMATIC DRIVE POSITIONER

PF:28491

### System Description

E/S000E8

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

### FAIL-SAFE MODE

- If the following conditions are met, the status is judged "Output malfunction" and all auto operations are inhibited. If the ignition switch is turned ON without any manual operation of seat sliding, seat reclining, or steering tilt function (switch input). If the signals from all seat sliding, seat reclining, and steering tilt sensors are input without any auto operation signals. Then within 2.5 seconds after that, the seat is slid by 6 mm(0.24 in) or more, reclined by 1° or more, or the steering wheel is tilted by 1° or more.

### CANCEL OF FAIL-SAFE MODE

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

### MANUAL OPERATION

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

### NOTE:

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

### AUTOMATIC OPERATION

Function	Description
Memory storing	Memorizing driving position for 2 people
Auto return 1, 2	The seat, steering wheel and door mirror move to the stored driving position.
Auto return 3	At entry/exit, the seat and steering wheel returns from the turnout position to the driving position.
Auto return 4	At entry/exit, the seat moves backward, and the steering wheel moves forward and upward.

- During automatic operation, if the ignition switch is turned ON→START, the automatic operation is suspended. When the ignition switch returns to ON, it resumes.
- Disconnecting the battery erases the stored memory. After connecting the battery, insert the key into the ignition cylinder and turn the driver door switch ON (open)→OFF (close)→ON (open), the auto return 4 operation becomes possible.

### NOTE:

After auto return 4 is carried out, auto return 2 and 3 can be operated.

Auto operation stop conditions.	<ul style="list-style-type: none"><li>● When the vehicle speed becomes 7km/h (4MPH) or higher (auto return 1, 2, and 3).</li><li>● When the manual switch is operated.</li><li>● When any two or more switches among the setting switch, memory switch 1, or 2 are pressed simultaneously.</li><li>● When the tilt sensor or telescoping sensor malfunction is detected.</li><li>● When the A/T selector lever is shifted to a position other than P-position (auto return 1 and 2).</li></ul>
---------------------------------	--

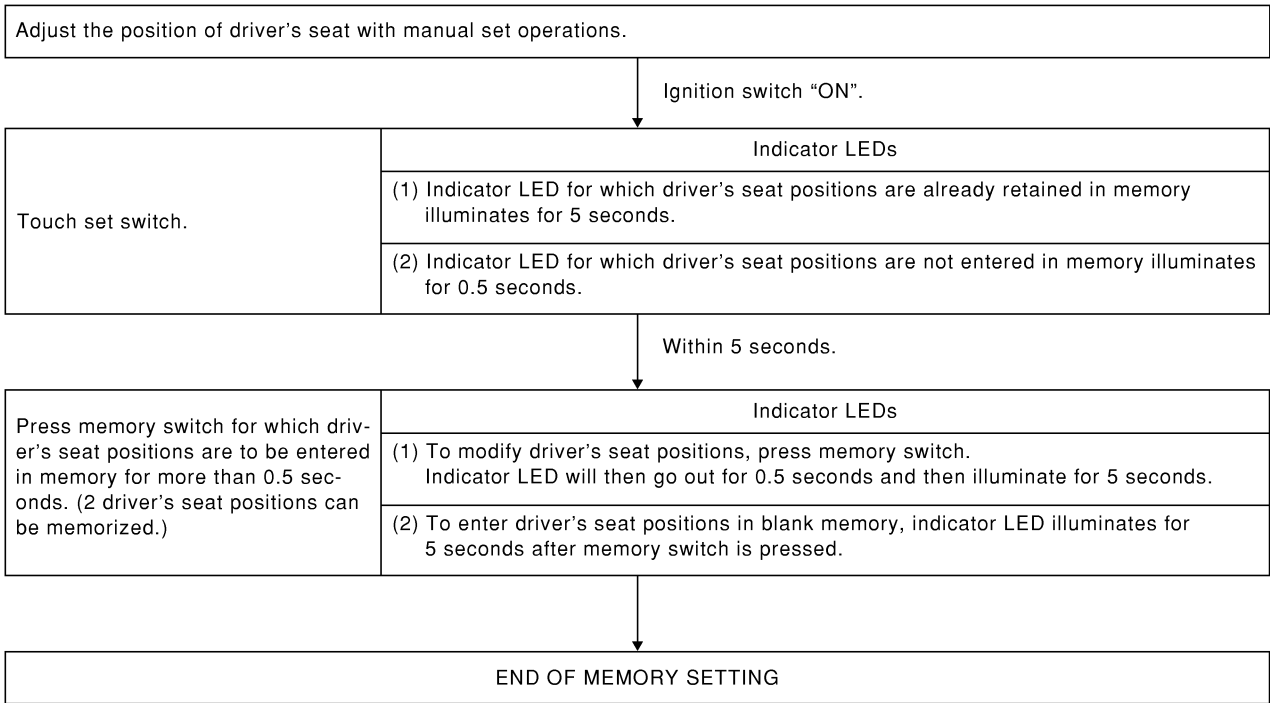
# AUTOMATIC DRIVE POSITIONER

## MEMORY STORING

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

A  
B  
C  
D  
E  
F  
G  
H

### PROCEDURE FOR STORING MEMORY



SE

SEL592W

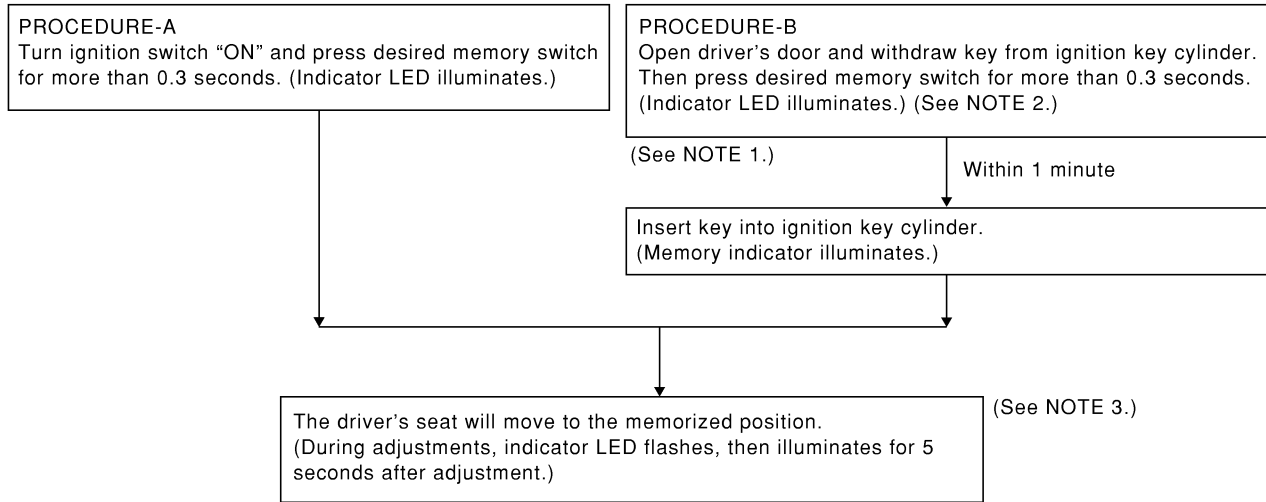
**NOTE:**

- The memory switch can be reset within 0.5 seconds (0.5 is excluded) after the switch is pressed. If it is too late, press the setting switch and memory switch again.

J  
K  
L  
M

## AUTO RETURN 1: PROCEDURE A AND AUTO RETURN 2: PROCEDURE B

### SELECTING THE MEMORIZED POSITION



SEL593W

**NOTE:**

1. Do not keep cancel switch pressed as it will not operate. Refer to [SE-31, "SETTING CHANGE FUNCTION"](#).
2. Automatic exiting setting will be performed.

# AUTOMATIC DRIVE POSITIONER

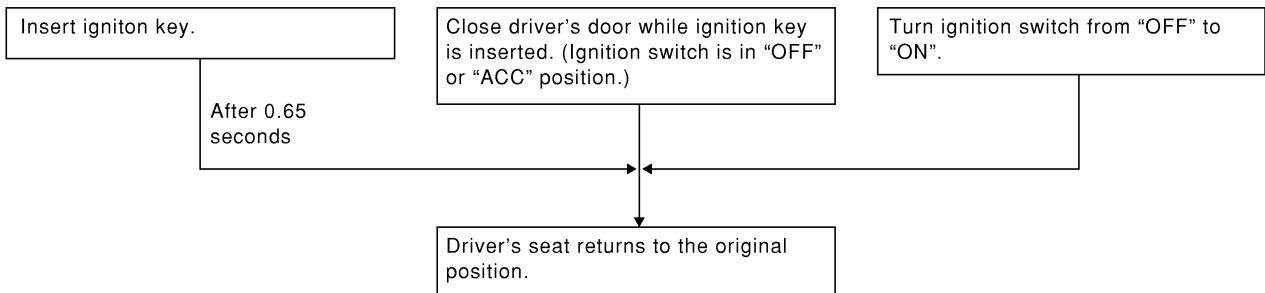
3. The driver's seat position and steering adjustment (see the following Table) operate simultaneously in the order of priority.

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

4. In conjunction with sliding the seat, the door mirrors are positioned vertically, and then horizontally (Auto return 1).  
 5. The mirror moves when the ignition switch is in ACC (Auto return 2)

### AUTO RETURN 3

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



SEL595W

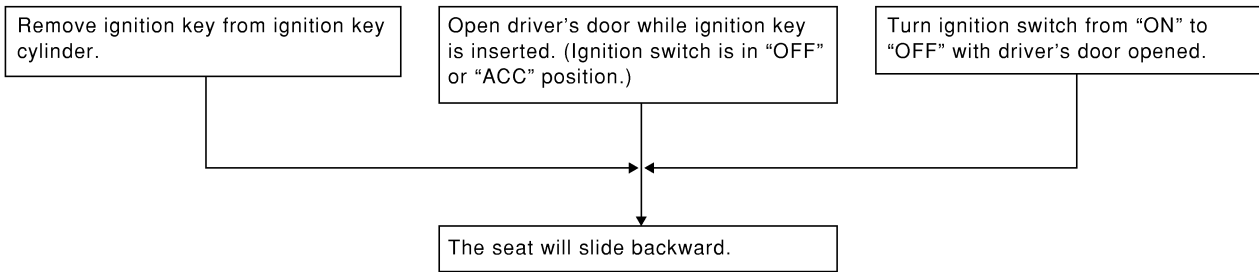
**NOTE:**

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

### AUTO RETURN 4

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

- Seat: moves backward.
- Steering wheel: tilted upward and extended fully.



SEL594W

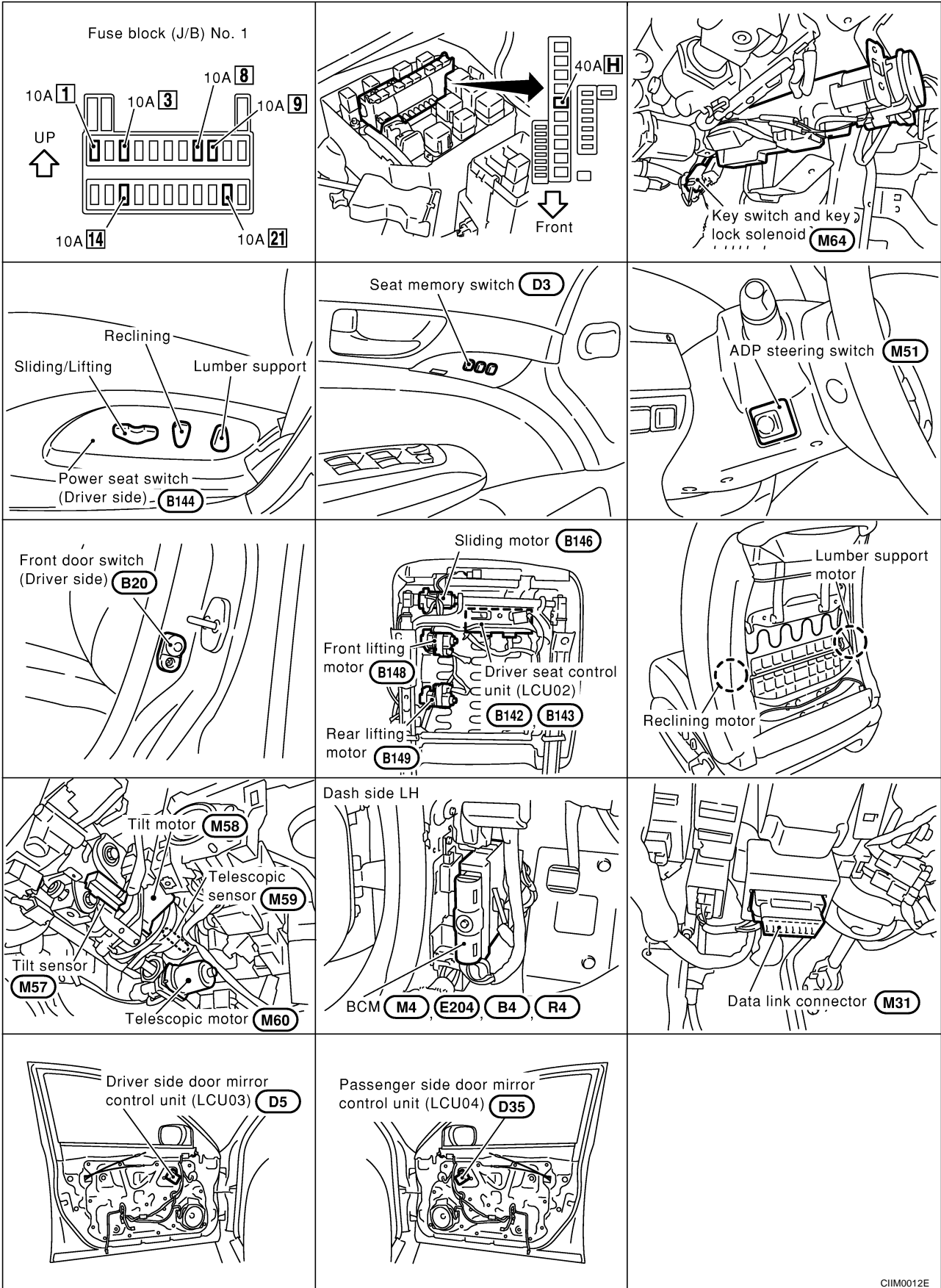
**NOTE:**

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

# AUTOMATIC DRIVE POSITIONER

## Component Parts and Harness Connector Location

E/S000E9



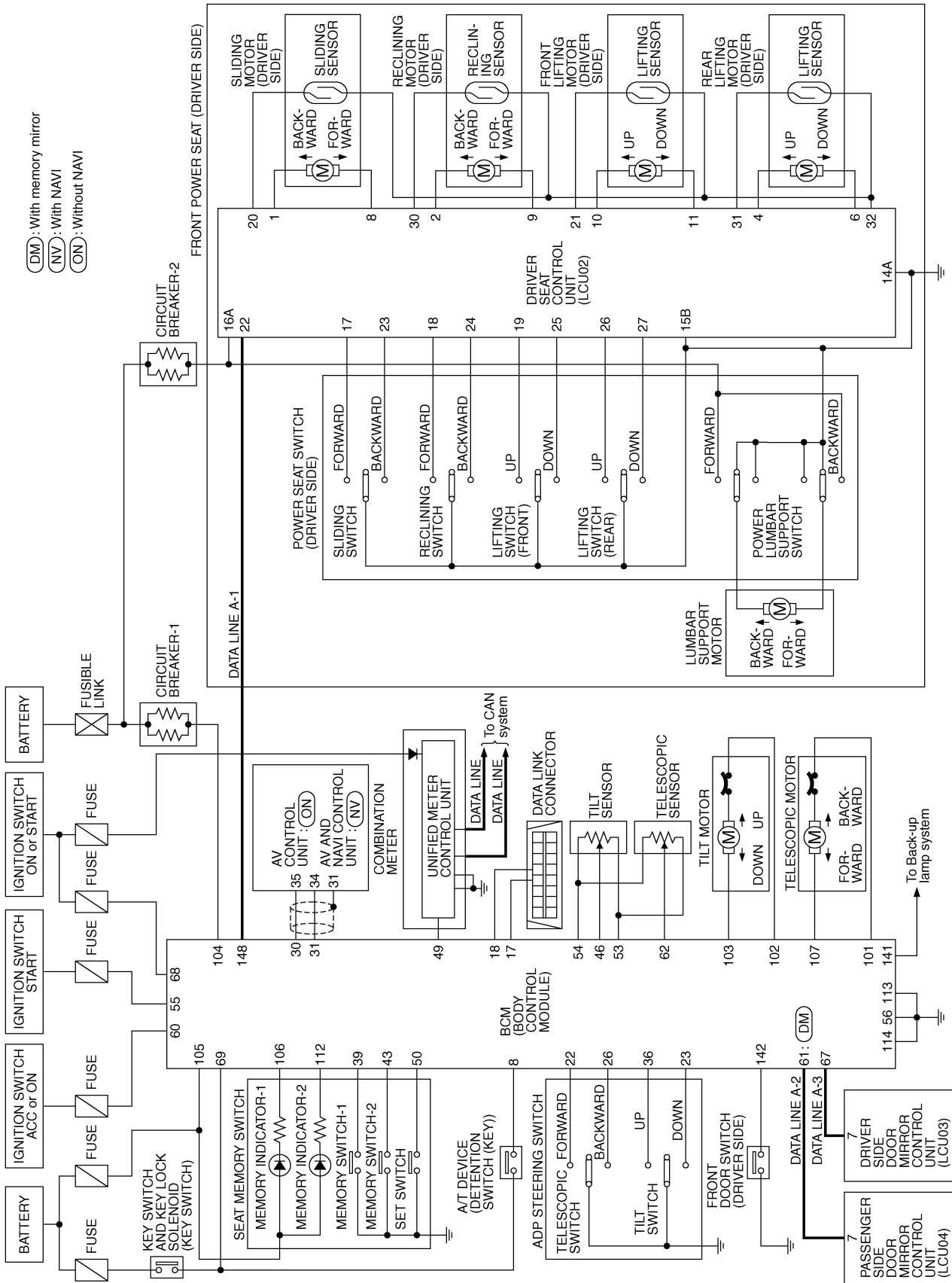
CIIM0012E

A  
B  
C  
D  
E  
F  
G  
H  
SE  
J  
K  
L  
M

# AUTOMATIC DRIVE POSITIONER

## Schematic

EIS0010G



TIWM0075E

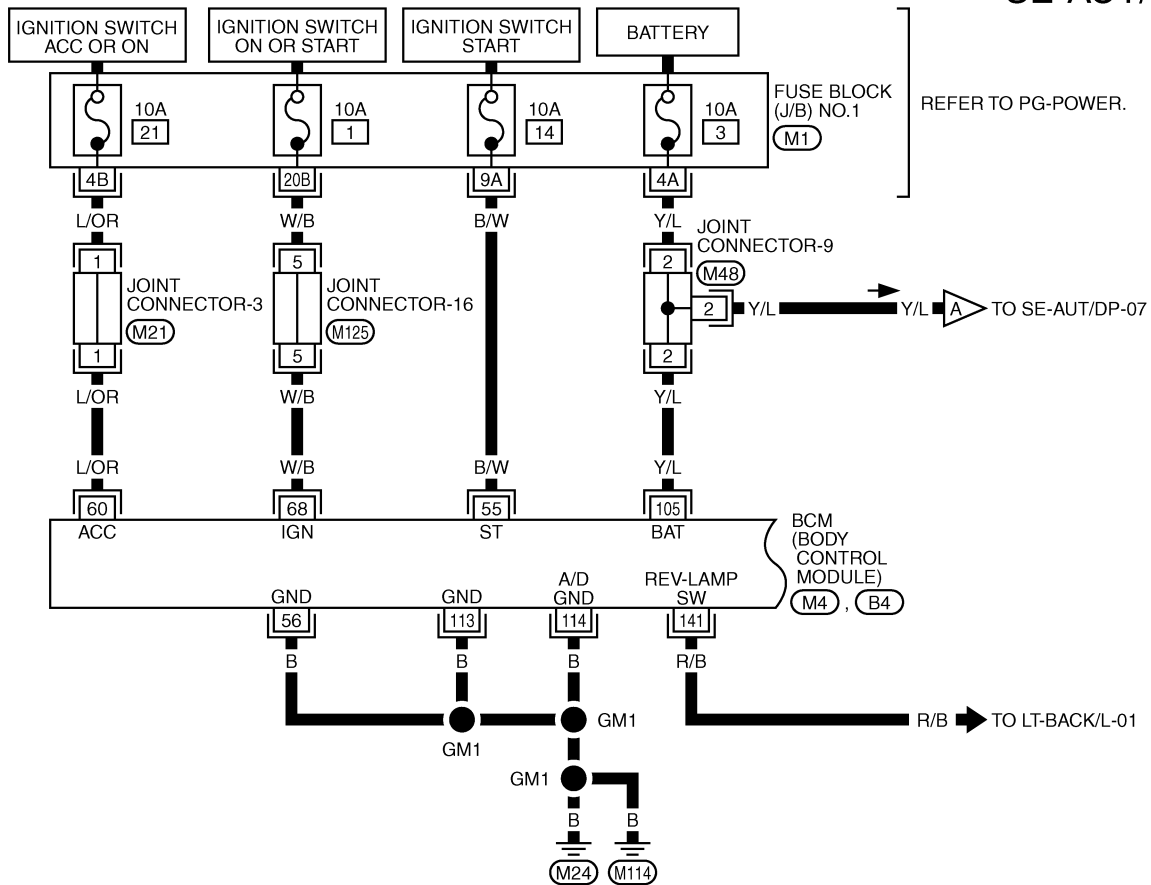


# AUTOMATIC DRIVE POSITIONER

## Wiring Diagram-AUT/DP-

EIS0010H

### SE-AUT/DP-01



1	1	1	1	1	1	1	2	2
3	3	3	3	3	3	3	2	2

(M21)  
GY

1	1	1	2	2	3	3	3
4	4	4	4	4	5	5	5

(M48), (M125)  
B B

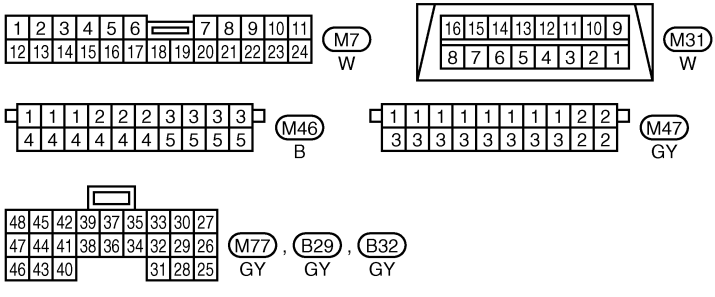
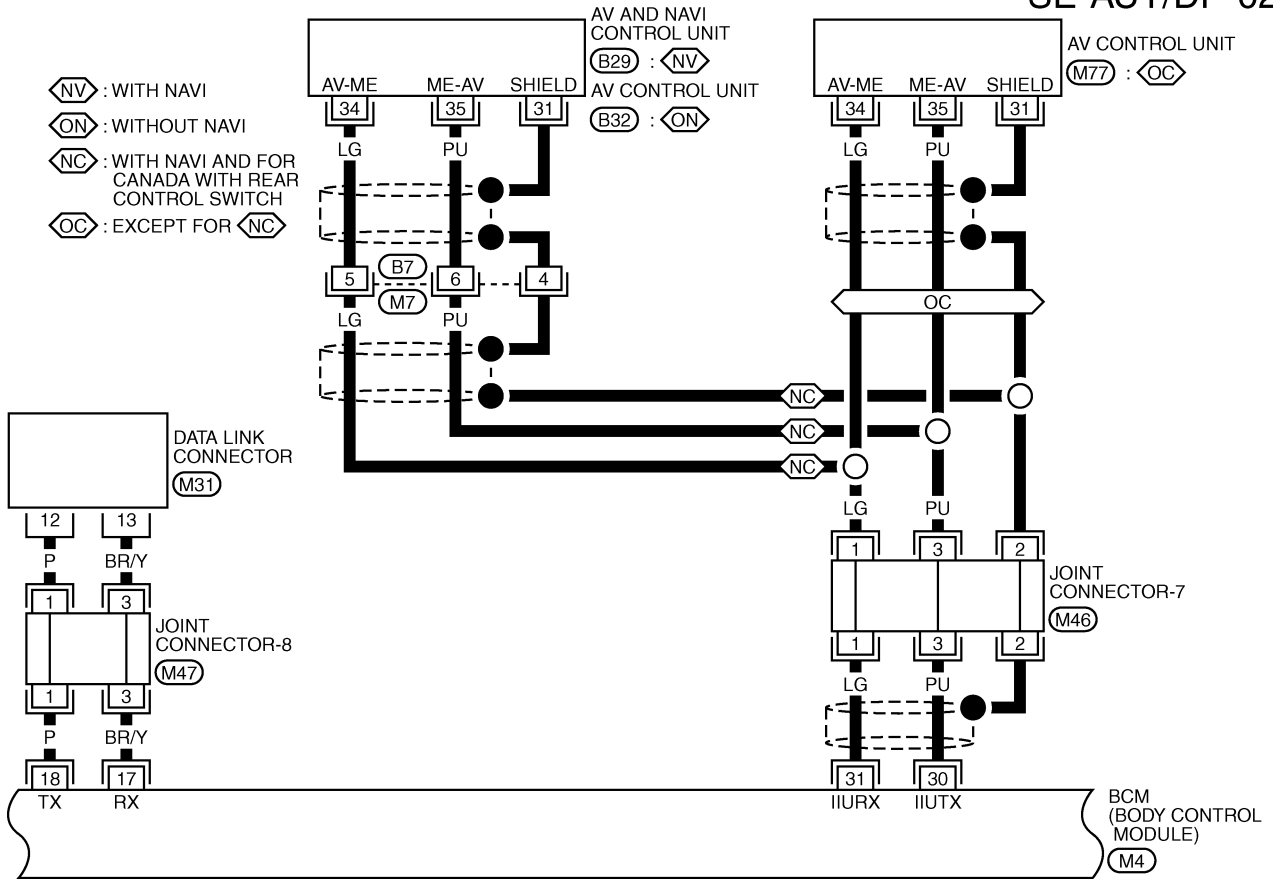
REFER TO THE FOLLOWING.  
 (M1) -FUSE BLOCK-JUNCTION BOX (J/B) NO.1  
 (M4), (B4) -ELECTRICAL UNITS

TIWM0076E

A  
B  
C  
D  
E  
F  
G  
H  
SE  
J  
K  
L  
M

# AUTOMATIC DRIVE POSITIONER

## SE-AUT/DP-02

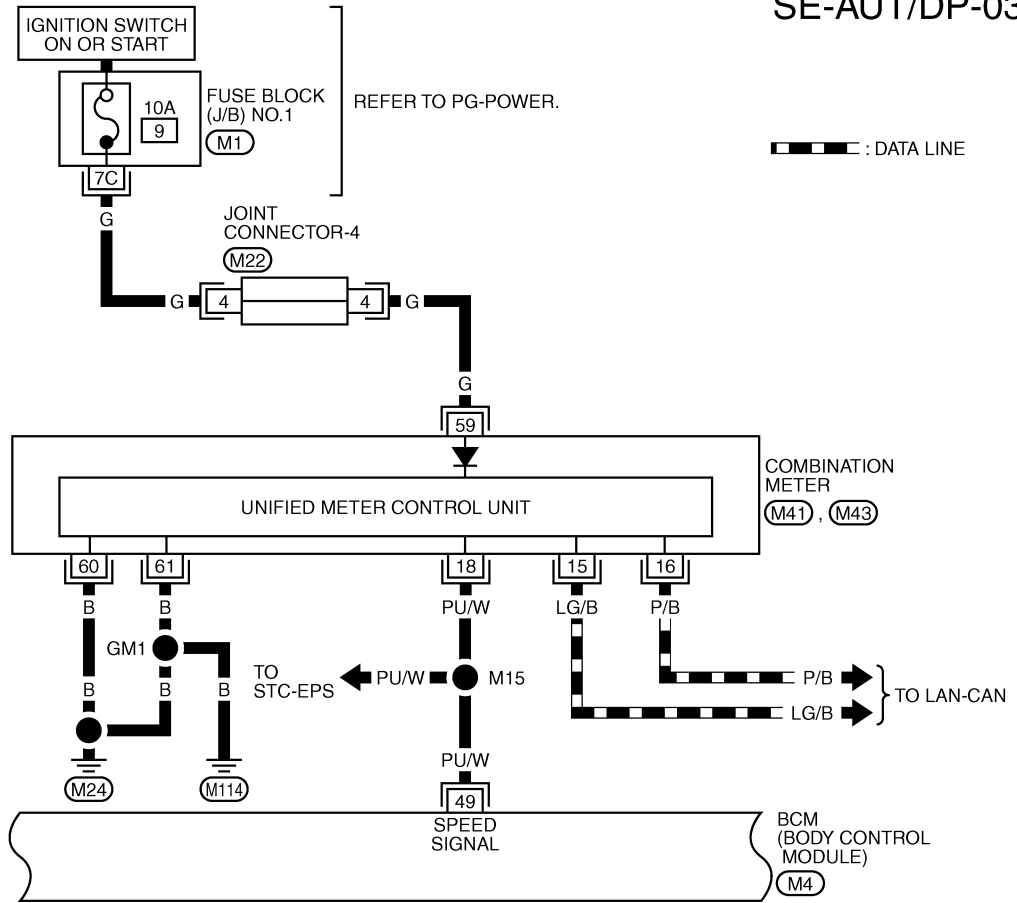


REFER TO THE FOLLOWING.  
**M4** -ELECTRICAL UNITS

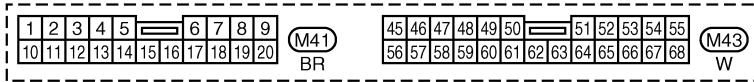
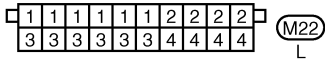
TIWM0077E

# AUTOMATIC DRIVE POSITIONER

SE-AUT/DP-03



▬ : DATA LINE



REFER TO THE FOLLOWING.

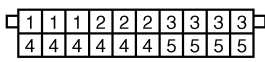
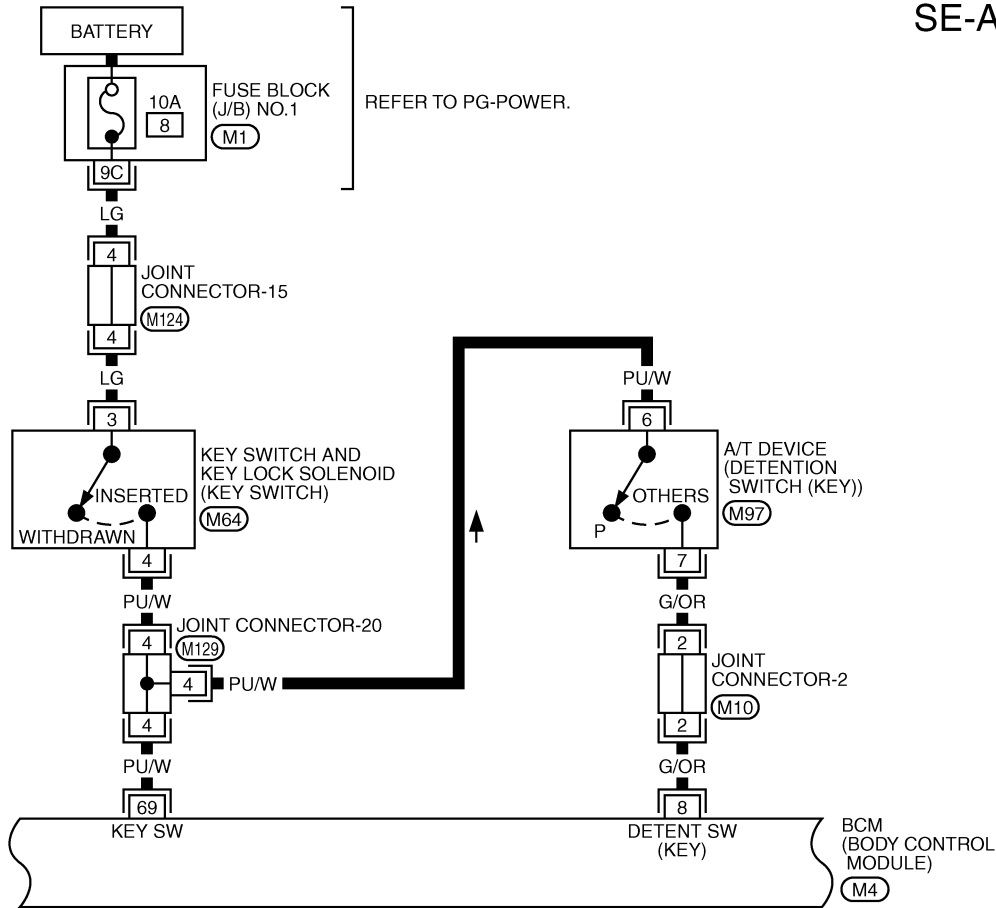
(M1) - FUSE BLOCK-JUNCTION BOX (J/B) NO.1

(M4) - ELECTRICAL UNITS

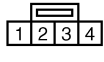
TIWM0078E

# AUTOMATIC DRIVE POSITIONER

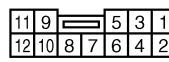
SE-AUT/DP-04



(M10), (M124), (M129)  
B B B



(M64)  
W



(M97)  
W

REFER TO THE FOLLOWING.

(M1) -FUSE BLOCK-JUNCTION BOX (J/B) NO.1

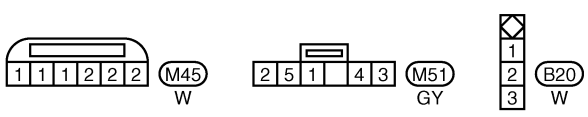
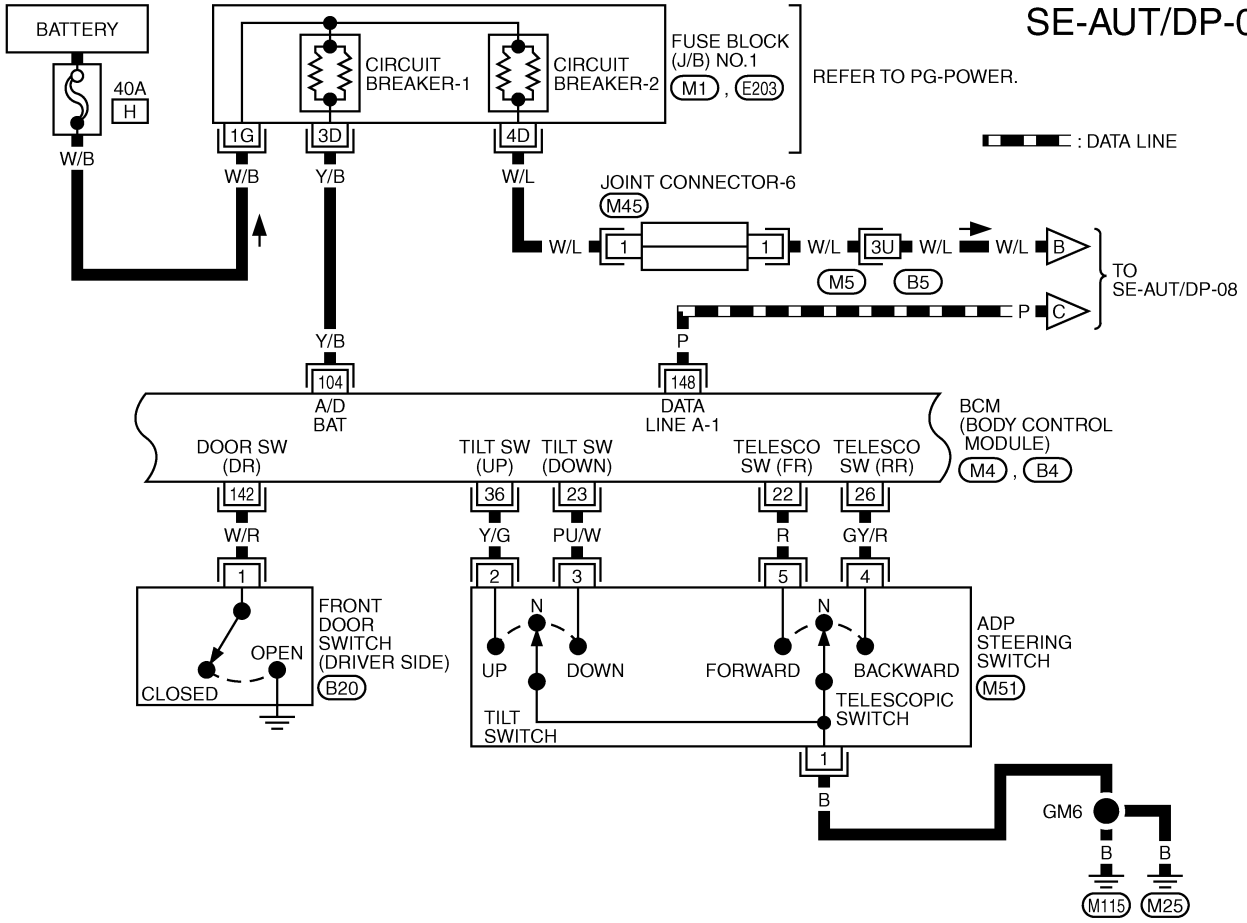
(M4) -ELECTRICAL UNITS

TIWM0079E

# AUTOMATIC DRIVE POSITIONER

**SE-AUT/DP-05**

A  
B  
C  
D  
E  
F  
G  
H  
SE  
J  
K  
L  
M

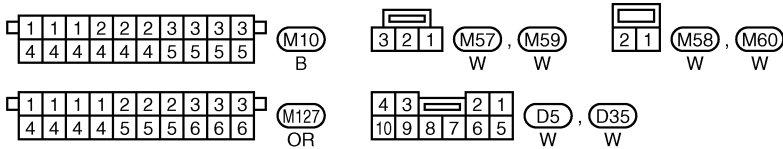
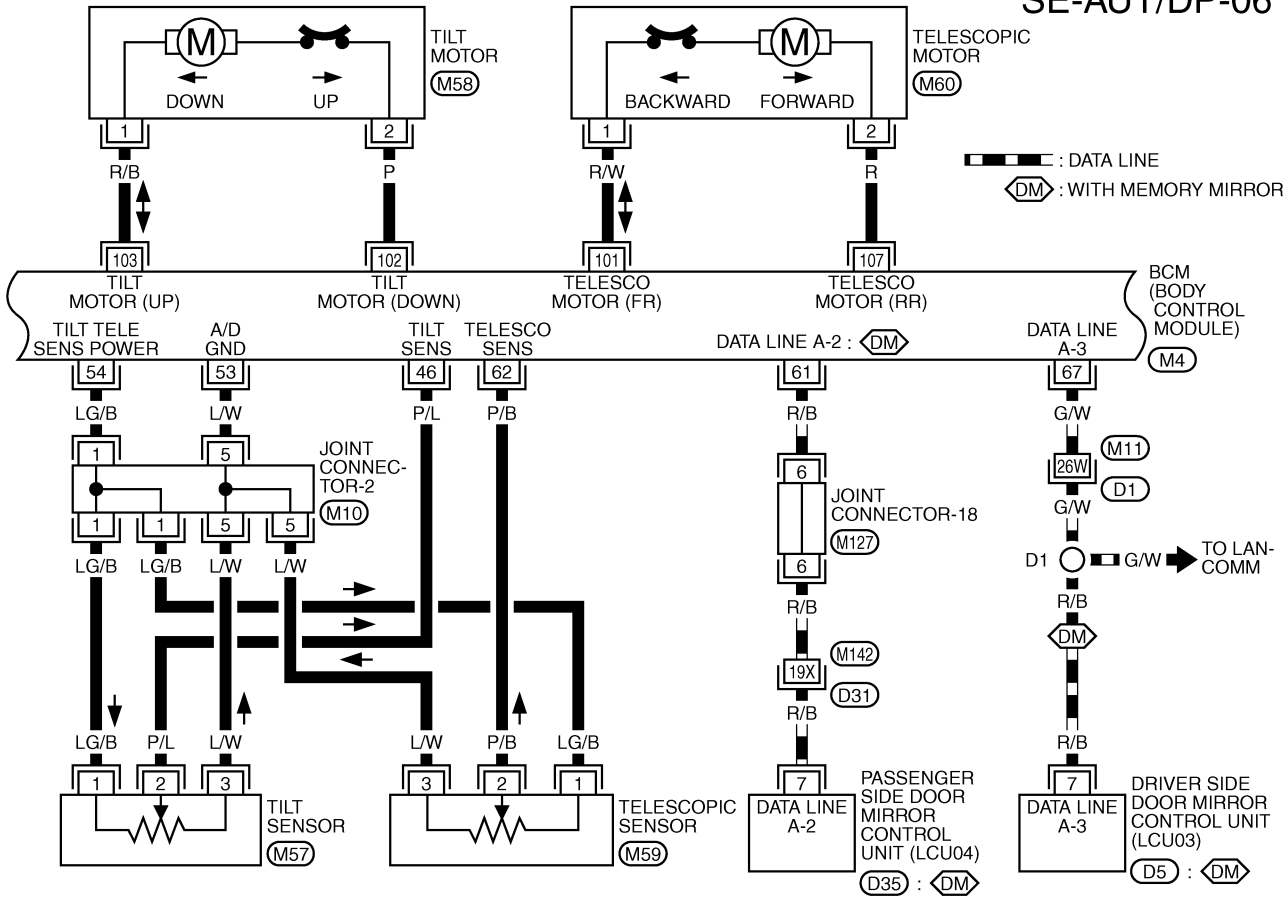


REFER TO THE FOLLOWING.  
 (M5) -SUPER MULTIPLE JUNCTION (SMJ)  
 (M1), (E203) -FUSE BLOCK-JUNCTION BOX (J/B) NO.1  
 (M4), (B4) -ELECTRICAL UNITS

TIVM0080E

# AUTOMATIC DRIVE POSITIONER

SE-AUT/DP-06

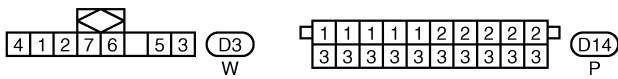
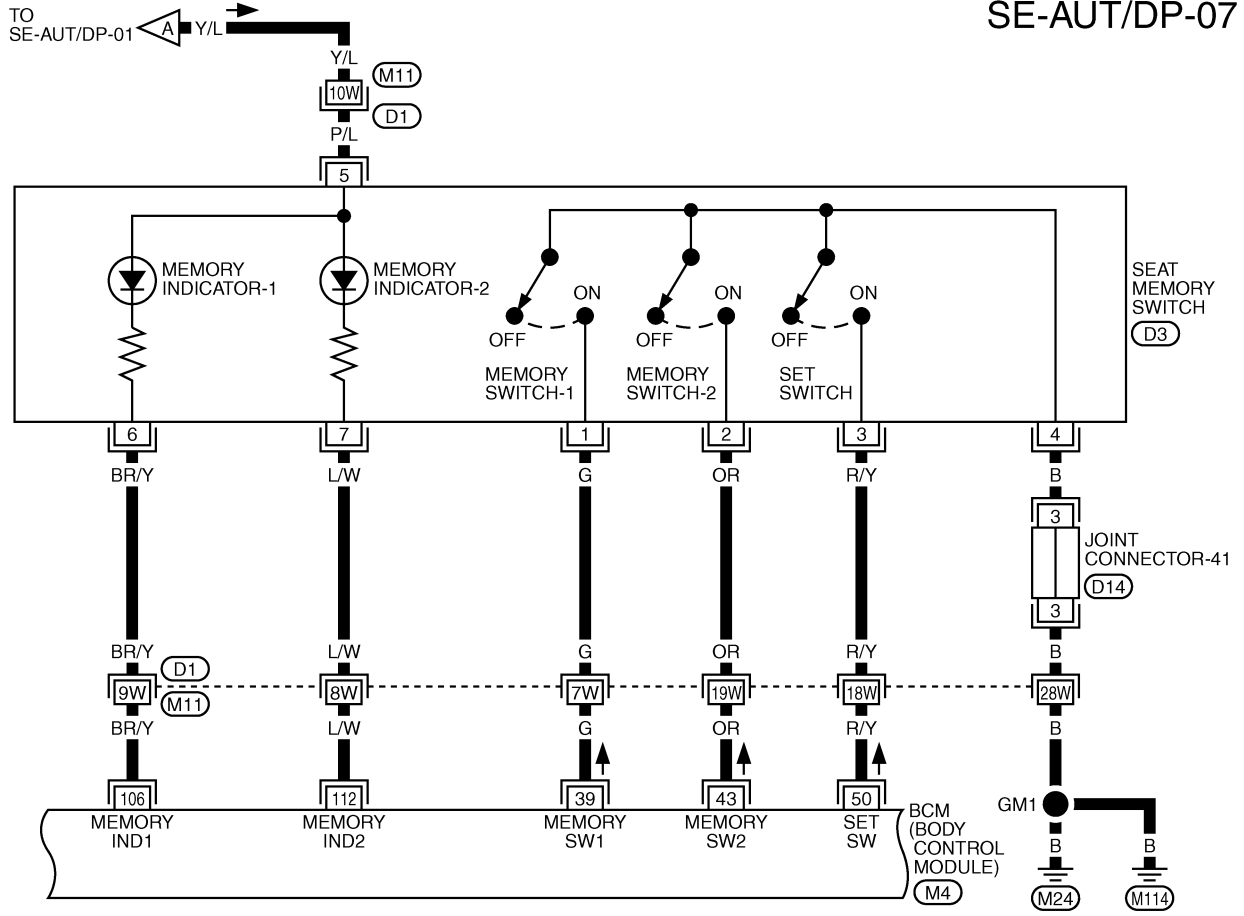


REFER TO THE FOLLOWING.  
 (D1), (D31) -SUPER MULTIPLE JUNCTION (SMJ)  
 (M4) -ELECTRICAL UNITS

TIWM0101E

# AUTOMATIC DRIVE POSITIONER

SE-AUT/DP-07



REFER TO THE FOLLOWING.

(D1) -SUPER MULTIPLE JUNCTION (SMJ)

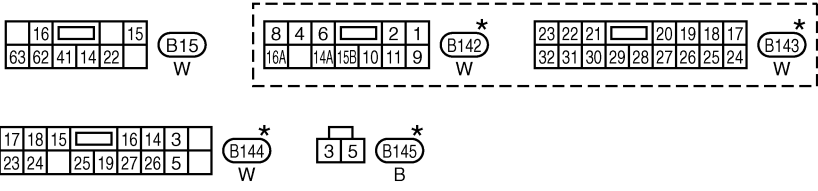
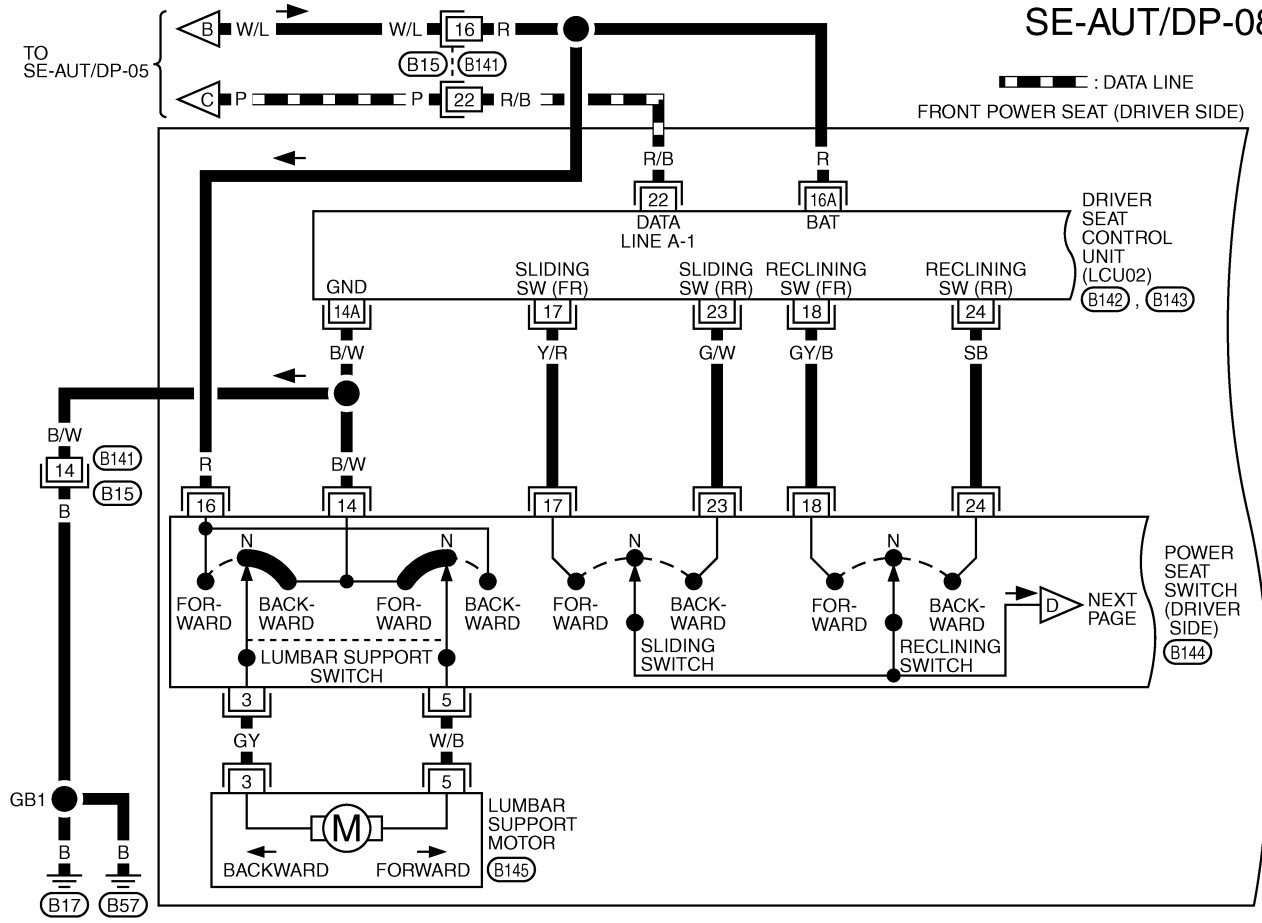
(M4) -ELECTRICAL UNITS

A  
B  
C  
D  
E  
F  
G  
H  
SE  
J  
K  
L  
M

TIVM0082E

# AUTOMATIC DRIVE POSITIONER

SE-AUT/DP-08



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

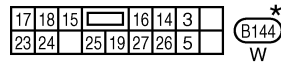
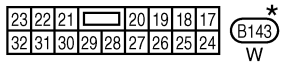
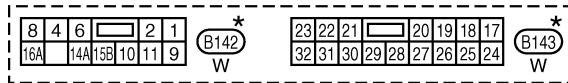
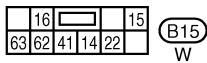
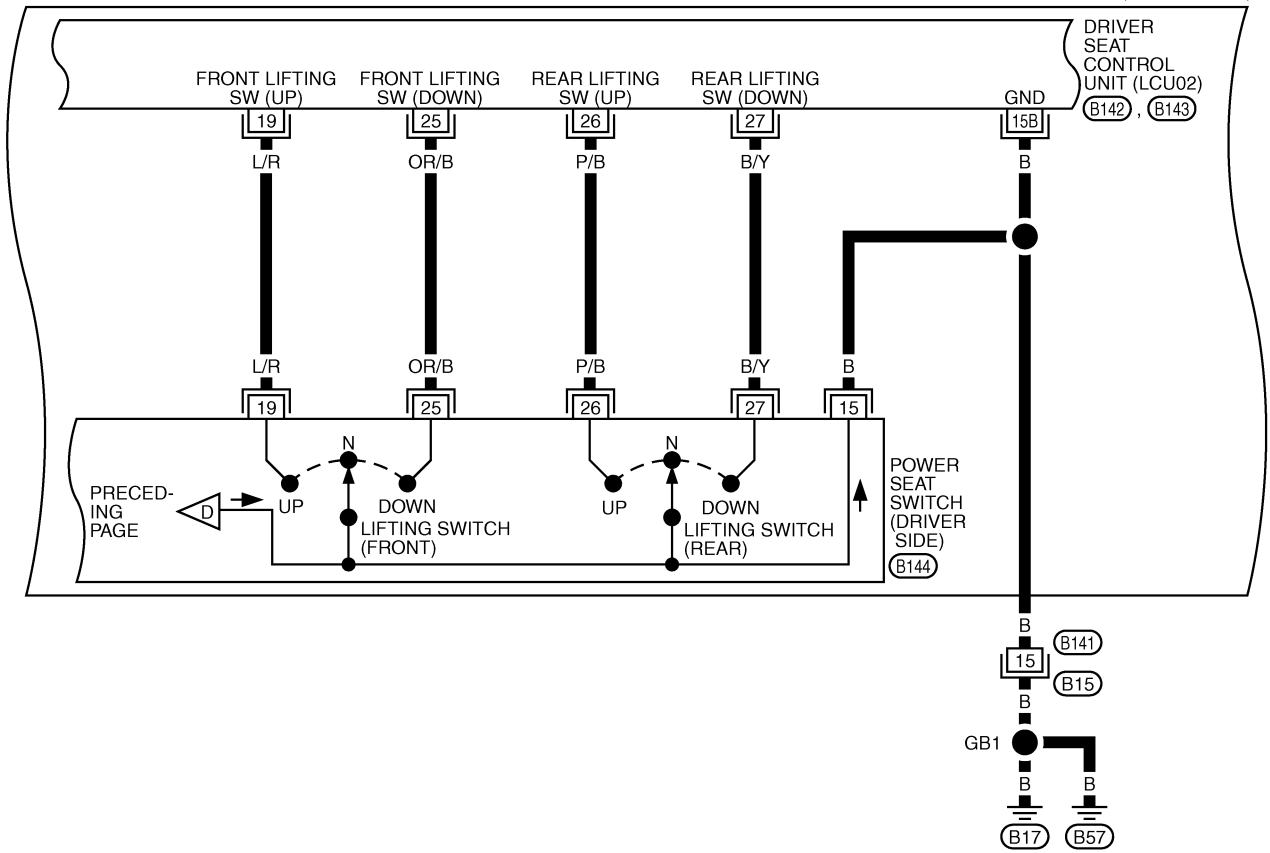
TIWM0083E



# AUTOMATIC DRIVE POSITIONER

## SE-AUT/DP-09

FRONT POWER SEAT (DRIVER SIDE)

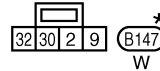
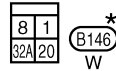
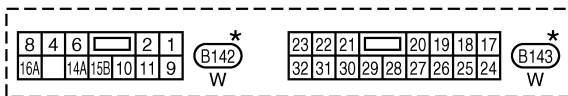
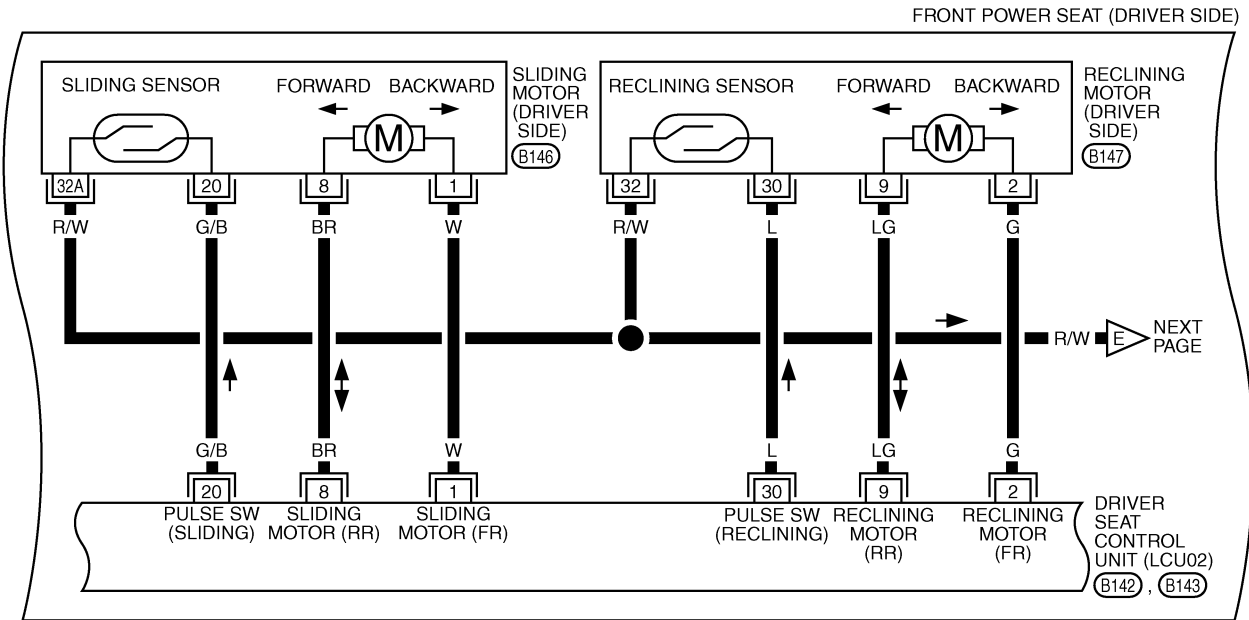


\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

TIVM0084E

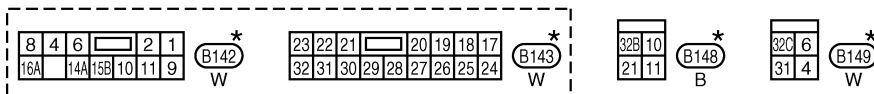
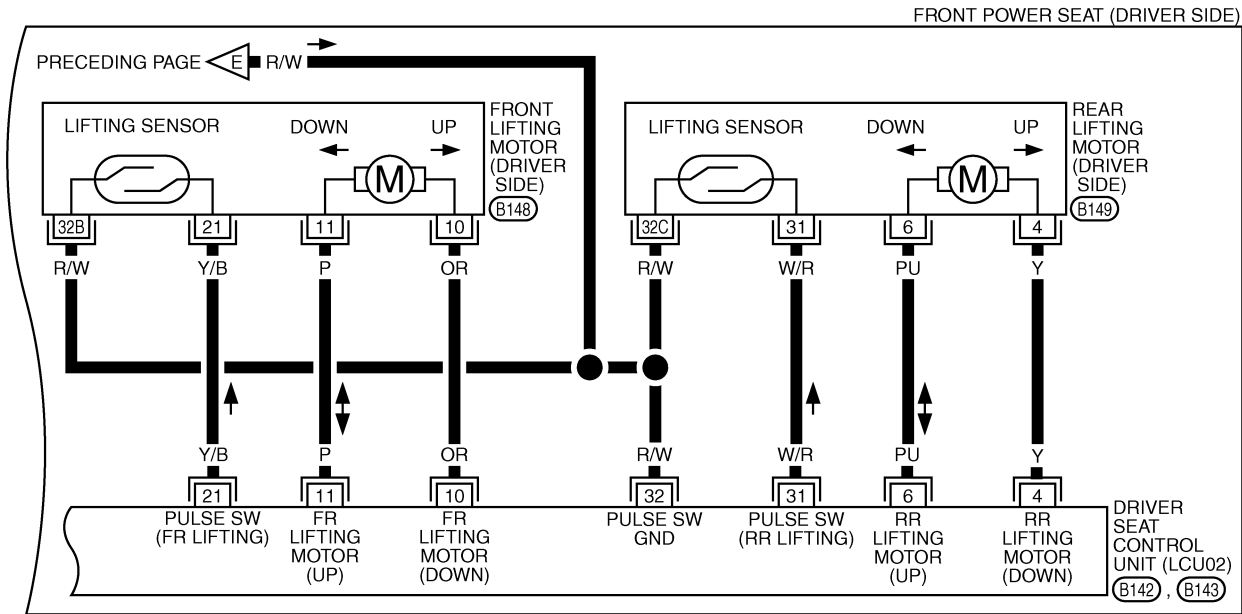
# AUTOMATIC DRIVE POSITIONER

SE-AUT/DP-10



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

TIWM0085E



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

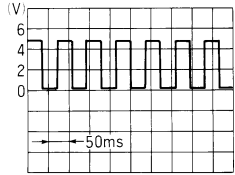
TIWM0089E

EIS00154

## Terminals and Reference Values for BCM

Terminal	WIRE COLOR	ITEM	CONDITION	VOLTAGE (V)	
8	G/OR	Detent switch signal.	Selector lever in P-position.	0V	
			Selector lever in other than P-position.	Battery voltage	
17	BR/Y	Data link (RX line)	—	—	
18	P	Data link (TX line)	—	—	
22	R	Telescopic switch signal	Telescoping switch	Forward operation (Motor operated)	0V
				OFF	Approx. 5V

# AUTOMATIC DRIVE POSITIONER

Terminal	WIRE COLOR	ITEM	CONDITION		VOLTAGE (V)
23	PU/W	Tilt switch DOWN signal	Tilt switch	DOWN operation (Motor operated)	0V
				OFF	Approx. 5V
26	GY/R	Telescopic switch RR signal	Telescoping switch	Backward operation (Motor operated)	0V
				OFF	Approx. 5V
30	PU	Monitor line (TX)	—		—
31	LG	Monitor line (RX)	—		—
36	Y/G	Tilt switch UP signal	Tilt switch	UP operation (Motor operated)	0V
				OFF	Approx. 5V
39	G	Memory switch 1 signal	Memory switch 1	ON	0V
				OFF	Approx. 5V
43	OR	Memory switch 2 signal	Memory switch 2	ON	0V
				OFF	Approx. 5V
46	P/L	Tilt sensor input/output	Tilt position, top		Approx. 2V
			Tilt position, bottom		Approx. 4V
49	PU/W	Vehicle speed signal (2-pulse).	When vehicle speed is approx. 40 km/h (25MPH).		
50	R/Y	Seat memory setting switch signal.	Setting switch	ON	0V
				OFF	Approx. 5V
53	L/W	Tilt and telescopic sensor ground.	Ignition switch ON		0V
54	LG/B	Tilt and telescopic sensor power supply.	Ignition switch OFF		Approx. 5V
56	B	Ground	Ignition switch ON		0V
60	L/OR	ACC power supply	Ignition switch ACC		Battery voltage
62	P/B	Telescopic sensor input/output	Telescoping position, top		Approx. 2V
			Telescoping position, bottom		Approx. 4V
68	W/B	IGN power supply	Ignition switch ON		Battery voltage
69	PU/W	Key detection switch signal.	Insert the key (ON).		Battery voltage
			Remove the key (OFF).		0V
101	R/W	Telescopic motor FR signal	Telescoping switch	ON (forward operation)	Battery voltage
				OFF	0V
102	P	Tilt motor DOWN signal	Tilt switch	ON (DOWN operation)	Battery voltage
				OFF	0V
103	R/B	Tilt motor UP signal	Tilt switch	ON (UP operation)	Battery voltage
				OFF	0V

# AUTOMATIC DRIVE POSITIONER

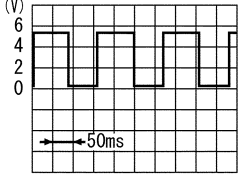
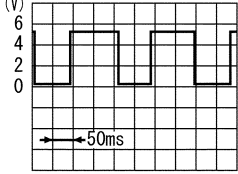
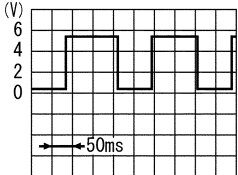
Terminal	WIRE COLOR	ITEM	CONDITION		VOLTAGE (V)
104	Y/B	Power supply for tilt and telescopic device.	Ignition switch OFF		Battery voltage
105	Y/L	BAT power supply	Ignition switch OFF		Battery voltage
106	BR/Y	Power seat memory indicator 1 signal.	Indicator 1	ON	0V
				OFF	Battery voltage
107	R	Telescopic motor RR signal.	Telescoping switch	ON (backward operation)	Battery voltage
				OFF	0V
112	L/W	Power seat memory indicator 2 signal.	Indicator 2	ON	0V
				OFF	Battery voltage
113	B	Ground	Ignition switch ON		0V
114	B	Ground for tilt and telescoping device.	Ignition switch ON		0V
142	W/R	Driver door switch signal.	Driver door open (ON)		0V
			Driver door closed (OFF)		Battery voltage
148	P	Data line A-1	—		—

## Terminals and Reference Values for Driver Seat Control Unit

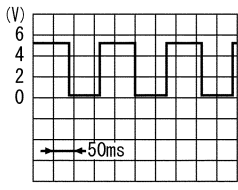
EIS00155

TERMINAL	WIRE COLOR	ITEM	CONDITION		VOLTAGE (V)
1	W	Sliding motor FR output signal	Sliding switch	Forward operation (Motor operated)	Battery voltage
				OFF	0V
2	G	Reclining motor FR output signal	Reclining switch	Forward operation (Motor operated)	Battery voltage
				OFF	0V
4	Y	Rear end lifter motor DOWN output signal	Rear end lifter switch	DOWN operation (Motor operated)	Battery voltage
				OFF	0V
6	PU	Rear end lifter motor UP output signal	Rear end lifter switch	UP operation (Motor operated)	Battery voltage
				OFF	0V
8	BR	Sliding motor RR output signal	Sliding switch	Backward operation (Motor operated)	Battery voltage
				OFF	0V
9	LG	Reclining motor RR output signal	Reclining switch	Backward operation (Motor operated)	Battery voltage
				OFF	0V
10	OR	Front end lifter motor DOWN output signal	Front end lifter switch	DOWN operation (Motor operated)	Battery voltage
				OFF	0V
11	P	Front end lifter motor UP signal	Front end lifter switch	UP operation (Motor operated)	Battery voltage
				OFF	0V
14A	B/W	Ground	Ignition switch ON		0V
15B	B				
16A	R	BAT power supply	Ignition switch OFF		Battery voltage

# AUTOMATIC DRIVE POSITIONER

TERMI-NAL	WIRE COLOR	ITEM	CONDITION		VOLTAGE (V)
17	Y/R	Sliding switch FR Input/output	Sliding switch	ON (forward operation)	0V
				OFF	Approx. 5V
18	GY/B	Reclining switch FR input/output	Reclining switch	ON (forward operation)	0V
				OFF	Approx. 5V
19	L/R	Front end lifter switch UP input/output	Front end lifter switch	ON (UP operation)	0V
				OFF	Approx. 5V
20	G/B	Sliding sensor input/output	Sliding motor operation		 <p style="text-align: right; font-size: small;">SIIA0690J</p>
			Other than above.		Approx. 0V or 5V
21	Y/B	Front end lifter sensor input/output	Front end lifter motor operation		 <p style="text-align: right; font-size: small;">SIIA0691J</p>
			Other than above.		Approx. 0V or 5V
22	R/B	Data line A-1	—		—
23	G/W	Sliding switch RR input/output	Sliding switch	ON (backward operation)	0V
				OFF	Approx. 5V
24	SB	Reclining switch RR input/output	Reclining switch	ON (backward operation)	0V
				OFF	Approx. 5V
25	OR/B	Front end lifter switch DOWN input/output	Front end lifter switch	ON (DOWN operation)	0V
				OFF	Approx. 5V
26	P/B	Rear end lifter switch UP input/output	Rear end lifter switch	ON (UP operation)	0V
				OFF	Approx. 5V
27	B/Y	Rear end lifter switch DOWN input/output	Rear end lifter switch	ON (DOWN operation)	0V
				OFF	Approx. 5V
30	L	Reclining sensor input/output	Reclining motor operation		 <p style="text-align: right; font-size: small;">SIIA0692J</p>
			Other than above.		Approx. 0V or 5V

# AUTOMATIC DRIVE POSITIONER

TERMI-NAL	WIRE COLOR	ITEM	CONDITION	VOLTAGE (V)
31	W/R	Rear end lifter sensor input/output	Rear end lifter motor operation	
			Other than above.	Approx. 0V or 5V
32	R/W	Ground (sensor)	Ignition switch ON	0V

## Work Flow

E/IS0001

1. Check the symptom and customer's requests.
2. Understand the system description. Refer to [SE-12, "System Description"](#) .
3. Perform the preliminary check. Refer to [SE-31, "Preliminary Check"](#) .
4. Perform the communication diagnosis. With CONSULT-II, Refer to [SE-35, "IVMS Communication Diagnosis"](#) . Without CONSULT-II, refer to [SE-43, "COMMUNICATION DIAGNOSIS"](#) . Is the communication diagnosis result OK? If OK, GO TO 7. If NG, GO TO 5.
5. Repair or replace depending on the diagnosis result.
6. Perform the communication diagnosis again. With CONSULT-II, refer to [SE-35, "IVMS Communication Diagnosis"](#) . Without CONSULT-II, refer to [SE-43, "COMMUNICATION DIAGNOSIS"](#) . Is the communication diagnosis result OK? If OK, GO TO 7. If NG, GO TO 5.
7. Perform the self-diagnosis. With CONSULT-II, refer to [SE-38, "SELF-DIAGNOSIS RESULTS"](#) . Without CONSULT-II, refer to [SE-48, "ON BOARD DIAGNOSIS FOR AUTOMATIC DRIVE POSITIONER"](#) . Is the self-diagnosis result OK? If OK, GO TO 11. If NG, GO TO 8.
8. Repair or replace depending on the self-diagnosis result.
9. Perform the self-diagnosis again. With CONSULT-II, refer to [SE-38, "SELF-DIAGNOSIS RESULTS"](#) . Without CONSULT-II, refer to [SE-48, "ON BOARD DIAGNOSIS FOR AUTOMATIC DRIVE POSITIONER"](#) . Is the self-diagnosis result OK? If OK, GO TO 11. If NG, GO TO 8.
10. Based on the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to [SE-50, "Symptom Chart"](#) .
11. Does the automatic drive positioner system operate normally? If it is normal, GO TO 12. If it is not normal, GO TO 10.
12. Inspection end.

## Preliminary Check SETTING CHANGE FUNCTION

E/IS000EF

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

Setting item	Content	CONSULT-II (WORK SUPPORT)	Display unit	Factory setting
AUTO RETURN PART SET	The applied parts at entry/exit (the auto return 3 and 4) can be selected from the following 4 modes.	Mode 1 Steering wheel and seat	—	×
		Mode 2 Steering wheel only		—
		Mode 3 Seat only		—
		Mode 4 No operation		—

# AUTOMATIC DRIVE POSITIONER

Setting item	Content	CONSULT-II (WORK SUPPORT)	Display unit	Factory setting
Lift Steering Column When Exiting Vehicle	Lift and return of the steering wheel at entry and exit can be selected: ON (operated)–OFF (not operated)	—	ON: Indicator lamp ON	×
			OFF: Indicator lamp OFF	—
Adjust Driver Seat When Exiting Vehicle	The seat sliding turnout and return at entry/exit can be selected: ON (operated)–OFF (not operated)	—	ON: Indicator lamp ON	×
			OFF: Indicator lamp OFF	—

×:Applicable –: Not applicable

**NOTE:**

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

## POWER SUPPLY AND GROUND CIRCUIT INSPECTION

### 1. FUSE INSPECTION

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

Unit	Terminal No.	Power source	Fuse No.
BCM	105	Power source	#3
	60	ACC power supply	#21
	55	START power supply	#14
	68	IGN power supply	#1

**NOTE:**

Refer to [SE-15, "Component Parts and Harness Connector Location"](#) .

**OK or NG?**

OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of problem before installing new fuse. Refer to [PG-2, "POWER SUPPLY ROUTING"](#) .

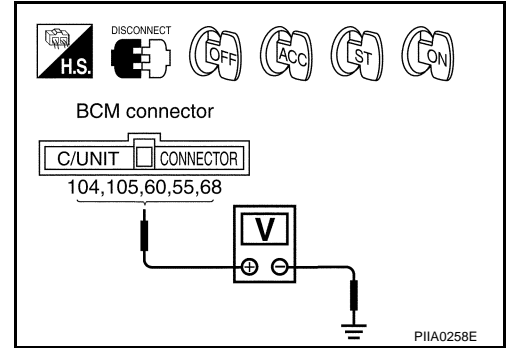


# AUTOMATIC DRIVE POSITIONER

## 2. POWER SUPPLY CIRCUIT INSPECTION (BCM)

Disconnect the connector M4 on the BCM, measure the voltage between terminal of the harness connector M4 and body ground (refer to the "Chart" below).

Terminals		Power source	Condition	Voltage (V)
(+)				
Connector	Terminal			
M4	104(Y/B), 105(Y/L)	BAT power supply	Ignition switch OFF	Battery voltage
	60(L/OR)	ACC power supply	Ignition switch ACC	Battery voltage
	55(B/W)	START power supply	Ignition switch START	Battery voltage
	68(W/B)	IGN power supply	Ignition switch ON	Battery voltage



**OK or NG?**

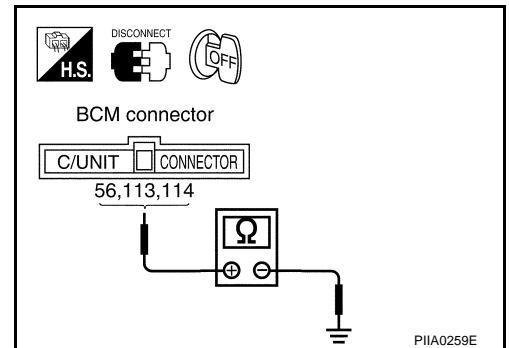
OK >> GO TO 3.

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

## 3. GROUND CIRCUIT INSPECTION (BCM).

Check the continuity between the following terminal Nos. of the BCM connector M4 and body ground.

Terminals		Condition	Continuity
(+)			
Connector	Terminal		
M4	56(B)	Ignition switch OFF	Should exist
	113(B)	Ignition switch OFF	Should exist
	114(B)	Ignition switch OFF	Should exist



**OK or NG?**

OK >> System is OK.

- Check the driver seat control unit. GO TO 4.

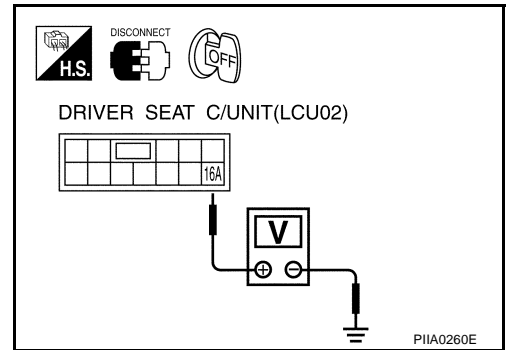
NG >> Repair or replace the harness.

# AUTOMATIC DRIVE POSITIONER

## 4. POWER SUPPLY CIRCUIT INSPECTION (DRIVER SEAT CONTROL UNIT)

Disconnect the driver seat control unit connector B142. Referring to the table below, check voltage between terminal No. 16A on the harness connector and body ground.

Terminals		Power source	Condition	Voltage (V)
(+)				
Connector	Terminal			
B142	16A(R)	BAT power supply	Ignition switch OFF	Battery voltage



OK or NG?

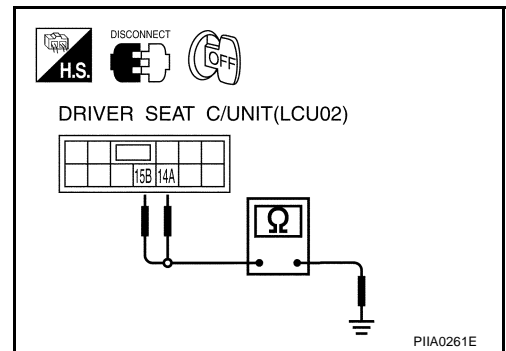
OK >> GO TO 5

NG >> Check harness for open and short between driver seat control unit and circuit breaker-2.

## 5. GROUND CIRCUIT INSPECTION (DRIVER SEAT CONTROL UNIT)

Check continuity between the following terminals on the driver seat control unit harness connector B142.

Terminals		Condition	Continuity
(+)			
Connector	Terminal		
M4	14A(B/W)	Ignition switch OFF	Should exist
	15B(B)	Ignition switch OFF	Should exist



OK or NG?

OK >> System is OK.

NG >> Repair or place harness.

## CONSULT-II Function

EIS000EG

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

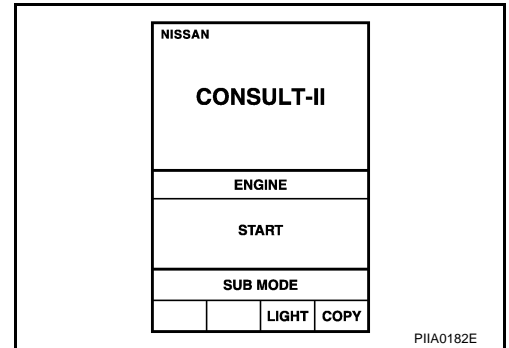
IVMS diagnosis part.	Inspection item, self-diagnosis mode.	Content
IVMS – COMM CHECK	IVMS– COMM DIAGNOSIS	Diagnoses a communication malfunction, inactive communication, and sleep malfunction in the communication line between the BCM and each LCU.
	WAKE– UP DIAGNOSIS	Diagnoses the wake-up signals output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

\*:For setting seat and steering functions only.

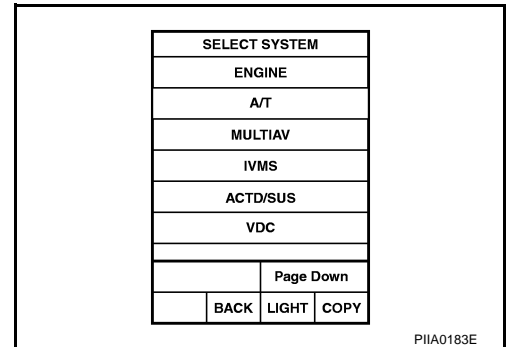
# AUTOMATIC DRIVE POSITIONER

## CONSULT-II BASIC OPERATION PROCEDURE

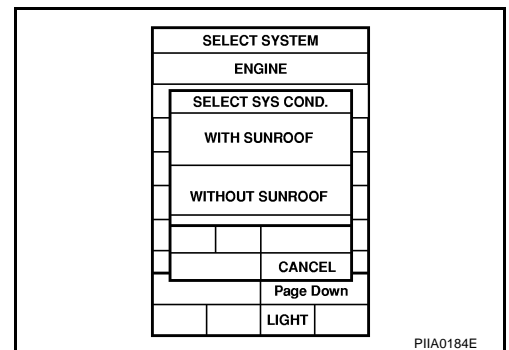
1. With the ignition switch OFF, connect CONSULT-II to the data link connector, and turn the ignition switch ON.
2. Touch "START".



3. Touch "IVMS" on the "SELECT SYSTEM" screen.



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



## IVMS COMMUNICATION INSPECTION.

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

### IVMS Communication Diagnosis

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

#### NOTE:

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

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

Malfunction	CONSULT-II display item	Diagnosis content
Communication malfunction	COMM DATA	<ul style="list-style-type: none"> <li>● Communicating with each LCU is judged normal when communication is normally completed and when both transmitted data and received data are equal. In other cases, it is judged malfunctioning. If the communication is inactive, no diagnosis result is displayed.</li> </ul>
Inactive communication	NO RESPONSE	<ul style="list-style-type: none"> <li>● Communicating with each LCU is judged normal when at least 1 communication is normally completed within 3 trials. In other cases, it is judged malfunctioning.</li> </ul>

# AUTOMATIC DRIVE POSITIONER

Malfunction	CONSULT-II display item	Diagnosis content
Sleep malfunction	SLEEP	<ul style="list-style-type: none"> <li>● Check that each LCU switches to sleep mode.</li> </ul>
Communication malfunction*	PAST COMM DATA	<ul style="list-style-type: none"> <li>● The records when communication signal, malfunctions were continuously detected while the communication was normal are displayed, or a malfunction was detected during the sleep control in the past are displayed.</li> </ul>
Inactive communication*	PAST NO RESPONSE	<ul style="list-style-type: none"> <li>● The records when inactive communications were continuously detected while the communication was normal are displayed.</li> </ul>

\*: Faulty item record

## Operation Procedure

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

## Wake-up Diagnosis.

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

## Operation Procedure

1. Touch "IVMS–COMM CHECK" on the "SELECT TEST ITEM" screen.
2. Touch "WAKE-UP DIAGNOSIS" on the "SELECT DIAG ITEM" screen.
3. Touch "START" on the "WAKE–UP DIAGNOSIS" screen to start the diagnosis.
4. Touch "NEXT" to select the local control unit (LCU) to be diagnosed.
5. Check that any malfunction is displayed. If necessary, touch "PRINT" to keep the record.
6. Carry out the inspection of the malfunctioning item.

## Trouble Diagnosis Chart

Malfunctioning item	Display unit	CONSULT-II IVMS communication diagnosis content	Self-diagnosis trouble code No.	Malfunctioning system and reference
COMM DATA	One LCU is displayed.	POWER WINDOW C/U–DR "COMM DATA"	24	Replace the displayed LCU.
		DOOR MIRROR C/U–RH "COMM DATA"	27	
		DOOR MIRROR C/U–LH "COMM DATA"	37	
		POWER SEAT C/U–DR "COMM DATA"	47	
	Multiple LCUs are displayed	BCM "COMM FAIL1","COMM FAIL2"	Displays in order of 24 →27→37→47 →and cycles from 24.	Communication system A: Refer to <a href="#">SE-37. "COMMUNICATION SYSTEM A"</a> .

# AUTOMATIC DRIVE POSITIONER

Malfunctioning item	Display unit	CONSULT-II IVMS communication diagnosis content	Self-diagnosis trouble code No.	Malfunctioning system and reference
NO RESPONSE	One LCU is displayed.	POWER WINDOW C/U-DR "NO RESPONSE"	25	Communication system B: Refer to <a href="#">SE-38, "COMMUNICATION SYSTEM B"</a> .
		DOOR MIRROR C/U-RH "NO RESPONSE"	28	
		DOOR MIRROR C/U-LH "NO RESPONSE"	38	
		POWER SEAT C/U-DR "NO RESPONSE"	48	
	Multiple LCUs are displayed	BCM/HARNESS	Displays in order of 25→28→38→48 and cycles from 25.	Communication system C: Refer to <a href="#">SE-38, "COMMUNICATION SYSTEM C"</a> .
SLEEP malfunction	One LCU is displayed.	POWER WINDOW C/U-DR "SLEEP"	No self-diagnosis function	Replace the displayed LCU.
		DOOR MIRROR C/U-RH "SLEEP"		
		DOOR MIRROR C/U-LH "SLEEP"		
		POWER SEAT C/U-DR "SLEEP"		
	Multiple LCUs are displayed	All the above control units are displayed.	No self-diagnosis function	Communication system A: Refer to <a href="#">SE-37, "COMMUNICATION SYSTEM A"</a> .

**NOTE:**

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

## COMMUNICATION SYSTEM A

### 1. BCM INSPECTION

Replace the BCM with a known-good one, and carry out the communication diagnosis. Refer to [SE-35, "IVMS Communication Diagnosis"](#) .

OK or NG?

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

### 2. LCU INSPECTION

- Replace with the previously installed BCM.
- Replace the LCU with a known-good one, and carry out the communication diagnosis. Refer to [SE-35, "IVMS Communication Diagnosis"](#) .

OK or NG?

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

# AUTOMATIC DRIVE POSITIONER

---

## COMMUNICATION SYSTEM B

### 1. HARNESS CONNECTOR INSPECTION

---

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

OK or NG?

- OK >> GO TO 2.
- NG >> Repair the terminals and connectors.

### 2. LCU INSPECTION

---

Replace the malfunctioning LCU with a known-good one, and carry out the communication diagnosis. Refer to [SE-35, "IVMS Communication Diagnosis"](#) .

OK or NG?

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

## COMMUNICATION SYSTEM C

### 1. HARNESS CONNECTOR INSPECTION

---

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

OK or NG?

- OK >> GO TO 2.
- NG >> Repair the terminals and connectors.

### 2. BCM INSPECTION

---

Replace the malfunctioning BCM with a known-good one, and carry out the communication diagnosis. Refer to [SE-35, "IVMS Communication Diagnosis"](#) .

OK or NG?

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

## WORK SUPPORT

### Operation Procedure

1. "AUTO DRIVE POSITIONER" on the "SELECT TEST ITEM" screen.
2. Touch "WORK SUPPORT" on the "SELECT DIAG MODE" screen.
3. Touch "AUTO RETURN PART SET" on the "SELECT WORK ITEM" screen.
4. Touch "START".
5. Touch the desired "MODE 1–MODE4".
6. Touch "CHANGE SET".
7. Settings are changed and "Present status: Mode(1–4)" is displayed.
8. Touch "END".

### Display Item List

Refer to [SE-31, "SETTING CHANGE FUNCTION"](#) .

## SELF-DIAGNOSIS RESULTS

### Operation Procedure

1. Touch "AUTO DRIVE POSITIONER" on the "SELECT TEST ITEM" screen.
2. Touch "SELF-DIAG RESULTS" on the "SELECT DIAG MODE" screen.
3. Touch "START" on the "SELF-DIAG RESULTS" screen.
4. The seat and steering wheel automatically move, and the self-diagnosis for the seat and steering wheel starts.

# AUTOMATIC DRIVE POSITIONER

5. Within 15 seconds after the self-diagnosis for the seat and steering wheel are completed, drive the vehicle at a speed of 7km/h (4 MPH) or higher for the vehicle speed sensor self-diagnosis.
6. After the diagnosis is completed, the faulty system name is displayed.
7. When the faulty items are displayed, touch "COPY" to keep the records.
8. Touch "ERASE".
9. Perform the self-diagnosis again to check that any malfunctioning item is displayed.
10. Perform the inspection on the displayed items.

## Display Item List

Malfunctioning system	Malfunction detecting condition	Diagnostic procedure	Reference page
SEAT SLIDE	When the sliding motor moves the seat backward for 2.5 seconds, and then forward for 2.5 seconds, if the sliding sensor pulse change amount is within 2 pulses.	Sliding motor check Sliding sensor check	<a href="#">SE-52</a> <a href="#">SE-61</a>
SEAT RECLINING	When the reclining motor moves the seat forward for 2.5 seconds, and then backward for 2.5 seconds, if the reclining sensor pulse change amount is within 2 pulses.	Reclining motor check Reclining sensor check	<a href="#">SE-53</a> <a href="#">SE-62</a>
SEAT LIFTER-FR	When the lifter motor (front end) moves the seat downward for 2.5 seconds, and then upward for 2.5 seconds, if the lifter sensor (front end) pulse change amount is within 2 pulses.	Front lifting motor check front end lifting sensor check	<a href="#">SE-55</a> <a href="#">SE-63</a>
SEAT LIFTER-RR	When the lifter motor (rear end) moves the seat downward for 2.5 seconds, and then upward for 2.5 seconds, if the lifter sensor (rear end) pulse change amount is within 2 pulses.	Rear lifting motor check Rear end lifting sensor check	<a href="#">SE-56</a> <a href="#">SE-64</a>
STEERING TILT	When the tilt motor moves the steering wheel upward for 1 second, and then downward for 1 second, if the tilt sensor output voltage is 0.2V or less.	Tilt motor check Tilt sensor check	<a href="#">SE-59</a> <a href="#">SE-68</a>
STEERING TELESCO	When the telescope motor moves the steering wheel forward for 1 second, and then backward for 1 second, if the telescoping sensor output voltage is 0.2V or less.	Telescopic motor check Telescopic sensor check	<a href="#">SE-58</a> <a href="#">SE-67</a>
DOOR MIRROR-LH-UP-DOWN DOOR MIRROR-LH-L-R	When LH door mirror sensor detects 0.2V or lower, or 4.5V or higher, for 0.5 seconds or more.	Mirror sensor check	<a href="#">GW-101</a>
DOOR MIRROR-RH-UP-DOWN DOOR MIRROR-RH-L-R	When RH door mirror sensor detects 0.2V or lower, or 4.5V or higher, for 0.5 seconds or more.	Mirror sensor check	<a href="#">GW-101</a>
VEHICLE SPEED SENSOR	When the vehicle speed is less than 7 km/h (4 MPH) for 15 seconds after the diagnosis for the seat and steering wheel is completed.	Vehicle speed sensor check	<a href="#">SE-72</a>

A  
B  
C  
D  
E  
F  
G  
H  
J  
K  
L  
M

SE

# AUTOMATIC DRIVE POSITIONER

## Auto Drive Positioner Incident Memory

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

Malfunctioning system	Malfunction detecting condition	Diagnostic procedure	Reference page
SEAT SLIDE "PAST OUTPUT FAIL"	If the following conditions are met, the seat sliding output system is judged malfunctioning. If there is no manual input in the past or any auto operation output, and then within 2.5 seconds the sliding sensor receives an input signal showing that the seat has slid by 6 mm or more.	—	—
SEAT RECLINING "PAST OUTPUT FAIL"	If the following conditions are met, the seat reclining output system is judged malfunctioning. If there is no manual input in the past nor any auto operation output, and then within 2.5 seconds the reclining sensor receives an input signal showing that the seat has reclined by 1° or more.	—	—
STEERING TILT "PAST OUTPUT FAIL"	If the following conditions are met, the steering tilt output system is judged malfunctioning. If there is no manual input in the past nor any auto operation output, and then within 2.5 seconds the steering tilt sensor receives an input signal showing that the steering wheel is tilted by 1° or more.	—	—
DETENTION SW "PAST INPUT FAIL"	With the A/T selector lever in P-position (Detent switch OFF), if the vehicle speed of 7 km/h (4 MPH) or higher was input for at least 2 seconds, the detent switch input system is judged malfunctioning.	Detention switch check	<a href="#">SE-65</a>
TELESCO SENSOR "PAST"	If the voltage value detected by the telescopic sensor was 0.1V or less, or 4.9 v or more, the telescoping sensor is judged malfunctioning.	Telescopic sensor check	<a href="#">SE-67</a>
TILT SENSOR "PAST"	If the voltage value detected by the tilt sensor was 0.1V or less, or 4.9 v or more, the tilt sensor is judged malfunctioning.	Tilt sensor check	<a href="#">SE-68</a>

## DATA MONITOR

### Operation Procedure

- Touch "AUTO DRIVE POSITIONER" on the "SELECT TEST ITEM" screen.
- Touch "DATA MONITOR" on the "SELECT DIAG MODE" screen.
- Touch either "MAIN SIGNALS" or "SELECTION FROM MENU" on the "DATA MONITOR" screen.

MAIN SIGNALS	Monitor main items.
SELECTION FROM MENU	Select and monitor the item.

- Touch "START".
- If "SELECTION FROM MENU" is selected, touch the desired monitor item. If "MAIN SIGNALS" is selected, main items are monitored.
- During monitoring, touching "COPY" can start recording the monitor item status.



# AUTOMATIC DRIVE POSITIONER

## Display Item List

Monitor item [OPERATION or UNIT]	Contents
SLIDE SW-FR "ON/OFF"	Operation (ON)/open (OFF) status judged from the sliding switch (FR) signal is displayed.
SLIDE SW-RR "ON/OFF"	Operation (ON)/open (OFF) status judged from the sliding switch (RR) signal is displayed.
RECLN SW-FR "ON/OFF"	Operation (ON)/open (OFF) status judged from the reclining switch (FR) signal is displayed.
RECLIN SW-RR "ON/OFF"	Operation (ON)/open (OFF) status judged from the reclining switch (RR) signal is displayed.
LIFT FR SW-UP "ON/OFF"	Operation (ON)/open (OFF) status judged from the FR lifter switch (UP) signal is displayed.
LIFT FR SW-DN "ON/OFF"	Operation (ON)/open (OFF) status judged from the FR lifter switch (DOWN) signal is displayed.
LIFT RR SW-UP "ON/OFF"	Operation (ON)/open (OFF) status judged from the RR lifter switch (UP) signal is displayed.
LIFT RR SW-DN "ON/OFF"	Operation (ON)/open (OFF) status judged from the RR lifter switch (DOWN) signal is displayed.
MIR CON SW-UP "ON/OFF"	Operation (ON)/open (OFF) status judged from the door mirror remote control switch (UP) signal is displayed.
MIR CON SW-DN "ON/OFF"	Operation (ON)/open (OFF) status judged from the door mirror remote control switch (DOWN) signal is displayed.
MIR CON SW-RH "ON/OFF"	Operation (ON)/open (OFF) status judged from the door mirror remote control switch(RIGHT) signal is displayed.
MIR CON SW-LH "ON/OFF"	Operation (ON)/open (OFF) status judged from the door mirror remote control switch(LEFT) signal s displayed.
MIR CHNG SW-R "ON/OFF"	Operation (ON)/open (OFF) status judged from the door mirror remote control switch(switching to RIGHT) signal is displayed.
MIR CHNG SW-L "ON/OFF"	Operation (ON)/open (OFF) status judged from the door mirror remote control switch(switching to LEFT) signal is displayed.
SET SW "ON/OFF"	Operation (ON)/open (OFF) status judged from the setting switch signal is displayed.
TELESCO SW-FR "ON/OFF"	Operation (ON)/open (OFF) status judged from the telescoping switch (FR) signal is displayed.
TELESCO SW-RR "ON/OFF"	Operation (ON)/open (OFF) status judged from the telescoping switch (RR) signal is displayed.
TILT SW-UP "ON/OFF"	Operation (ON)/open (OFF) status judged from the tilt switch (UP) signal is displayed.
TILT SW-DOWN "ON/OFF"	Operation (ON)/open (OFF) status judged from the tilt switch (DOWN) signal is displayed.
MEMORY SW1 "ON/OFF"	Operation (ON)/open (OFF) status judged from the seat memory switch 1 signal is displayed.
MEMORY SW2 "ON/OFF"	Operation (ON)/open (OFF) status judged from the seat memory switch 2 signal is displayed.
CANCEL SW "ON/OFF"	Setting status is displayed with the display unit: "Active (ON)/inactive (OFF)"
DOOR SW DR "ON/OFF"	Door open (ON)/door closed (OFF) status judged from the driver door switch is displayed.
VHCL SPEED SE "<7km/>7km"	The present vehicle speed (less than 7 km/h (4 MPH), or 7 km/h (4 MPH) or higher) is displayed.
DETENT SW "ON/OFF"	The selector lever position "P position (ON)/other than P position (OFF)" judged from the detent switch signal is displayed.
IGN ON SW "ON/OFF"	Ignition key switch IGN ON/ignition switch START, ACC, or OFF status judged from the ignition switch signal is displayed.

A  
B  
C  
D  
E  
F  
G  
H  
SE  
J  
K  
L  
M

# AUTOMATIC DRIVE POSITIONER

Monitor item [OPERATION or UNIT]	Contents
IGN ACC SW "ON/OFF"	Ignition key switch ACC or IGN ON/ignition switch START, or OFF status judged from the ignition switch signal is displayed.
IGN START SW "ON/OFF"	Ignition key switch START, ON/ignition switch IGN, ACC, or OFF status judged from the ignition switch signal is displayed.
IGN KEY SW "ON/OFF"	Key inserted (ON)/key removed (OFF) status judged from the key detection switch is displayed.
R POSITION SW "ON/OFF"	R position (ON)/Other than R position of shift position signal from back-up lamp relay is displayed.
TILT SEN "V"	The tilt position (voltage) judged from the tilt sensor signal is displayed.
TELESCO SEN "V"	The telescoping position (voltage) judged from the telescoping sensor signal is displayed.
MIR/SE RH R-L "ON/OFF"	ON (normal value)/OFF (abnormal value) *of voltage value judged from RH door mirror sensor output voltage (LH/RH) is displayed.
MIR/SE RH U-D "ON/OFF"	ON (normal value)/OFF (abnormal value) *of voltage value judged from RH door mirror sensor output voltage (UP/DOWN) is displayed.
MIR/SE LH R-L "ON/OFF"	ON (normal value)/OFF (abnormal value) *of voltage value judged from LH door mirror sensor output voltage (LH/RH) is displayed.
MIR/SE LH U-D "ON/OFF"	ON (normal value)/OFF (abnormal value) *of voltage value judged from LH door mirror sensor output voltage (UP/DOWN) is displayed.
Voltage "V"	Displays measured values by voltage probe.
Frequency "ms,Hz,%"	Displays value measured with pulse probe.

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

## ACTIVE TEST

### Operation Procedure

1. Touch "AUTO DRIVE POSITIONER" on the "SELECT TEST ITEM" screen.
2. Touch "ACTIVE TEST" on the "SELECT DIAG MODE" screen.
3. Touch the item to be tested, and check the operation.
4. During the operation check, touching "OFF" deactivates the operation.

### Display Item List

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

# AUTOMATIC DRIVE POSITIONER

EIS0012Q

## On Board Diagnosis

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

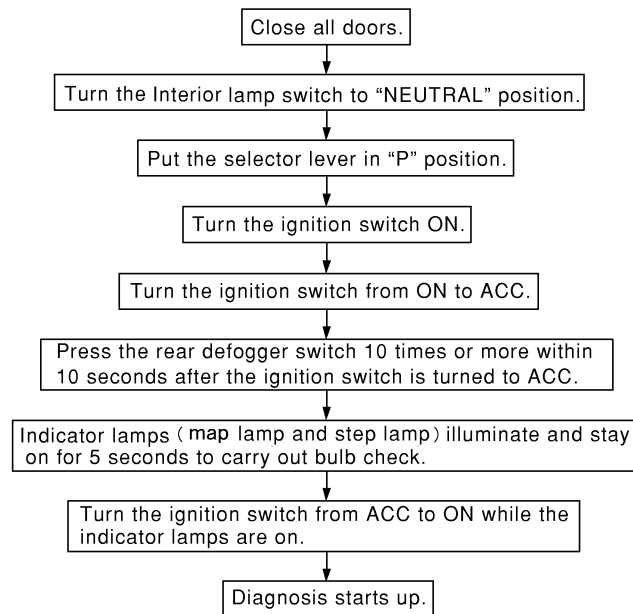
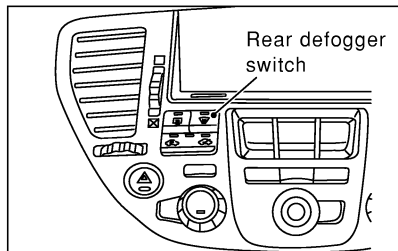
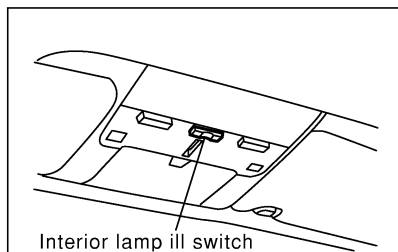
### DIAGNOSIS ITEM

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

### COMMUNICATION DIAGNOSIS

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

#### Operation Procedure



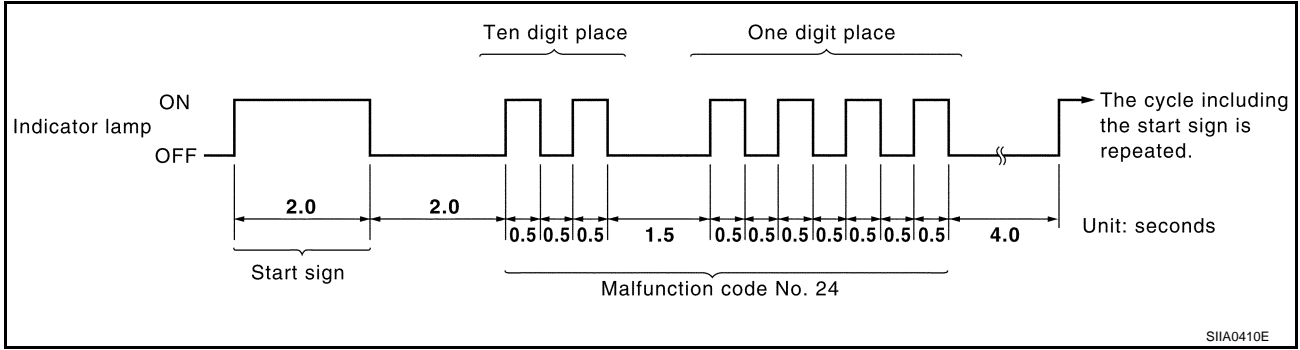
S1IA0409E

#### Diagnosis Result Display

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

# AUTOMATIC DRIVE POSITIONER

## Diagnosis Trouble Code Indication Example



## Trouble Diagnosis Chart

Malfunctioning item	Display unit	CONSULT-II IVMS communication diagnosis content	Self-diagnosis trouble code No.	Malfunctioning system and reference
COMM DATA	One LCU is displayed.	POWER WINDOW C/U-DR "COMM DATA"	24	Replace the displayed LCU.
		DOOR MIRROR C/U-RH "COMM DATA"	27	
		DOOR MIRROR C/U-LH "COMM DATA"	37	
		POWER SEAT C/U-DR "COMM DATA"	47	
	Multiple LCUs are displayed	BCM "COMM FAIL1" ,"COMM FAIL2"	Displays in order of 24 →27→37→47 →and cycles from 24.	
NO RESPONSE	One LCU is displayed.	POWER WINDOW C/U-DR "NO RESPONSE"	25	Communication system B: Refer to <a href="#">SE-45, "COMMUNICATION SYSTEM B"</a> .
		DOOR MIRROR C/U-RH "NO RESPONSE"	28	
		DOOR MIRROR C/U-LH "NO RESPONSE"	38	
		POWER SEAT C/U-DR "NO RESPONSE"	48	
	Multiple LCUs are displayed	BCM/HARNESS	Displays in order of 25→28→38→48 and cycles from 25.	
SLEEP malfunction	One LCU is displayed.	POWER WINDOW C/U-DR "SLEEP"	No self-diagnosis function	Replace the displayed LCU.
		DOOR MIRROR C/U-RH "SLEEP"		
		DOOR MIRROR C/U-LH "SLEEP"		
		POWER SEAT C/U-DR "SLEEP"		
	Multiple LCUs are displayed	All the above control units are displayed.	No self-diagnosis function	

**NOTE:**

- For a specific local control unit(LCU), either "PAST COMM DATA" or "PAST NO RESPONSE" may be displayed instead of the above results. This is caused by the data record, so erase the records.  
(The display only shows the incident records, they are not malfunctions caused during the diagnosis. One possible cause is that an irreproducible incident occurred.)

# AUTOMATIC DRIVE POSITIONER

- Follow the steps below to erase the memory.  
Carry out either disconnect BCM battery power supply or erase memory with CONSULT-II.
- With the battery connected, if the local control unit(LCU) connector is disconnected and left for approximately 1 minute, the BCM stores "NO RESPONSE" record.

## Cancel Of Communication Diagnosis

If the following conditions are satisfied, the communication diagnosis is cancelled.

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

## COMMUNICATION SYSTEM A

### 1. BCM INSPECTION

Replace the BCM with a known-good one, and carry out the communication diagnosis. Refer to [SE-43, "COMMUNICATION DIAGNOSIS"](#).

OK or NG?

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

### 2. LCU INSPECTION

1. Replace with the previously installed BCM.
2. Replace the LCU with a known-good one, and carry out the communication diagnosis. Refer to [SE-43, "COMMUNICATION DIAGNOSIS"](#).

OK or NG?

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

## COMMUNICATION SYSTEM B

### 1. HARNESS CONNECTOR INSPECTION

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

OK or NG?

- OK >> GO TO 2.
- NG >> Repair the terminals and connectors.

### 2. LCU INSPECTION

Replace the malfunctioning LCU with a known-good one, and carry out the communication diagnosis. Refer to [SE-43, "COMMUNICATION DIAGNOSIS"](#).

OK or NG?

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

## COMMUNICATION SYSTEM C

### 1. HARNESS CONNECTOR INSPECTION

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

OK or NG?

- OK >> GO TO 2.
- NG >> Repair the terminals and connectors.

# AUTOMATIC DRIVE POSITIONER

## 2. BCM INSPECTION

Replace the malfunctioning BCM with a known-good one, and carry out the communication diagnosis. Refer to [SE-43, "COMMUNICATION DIAGNOSIS"](#).

OK or NG?

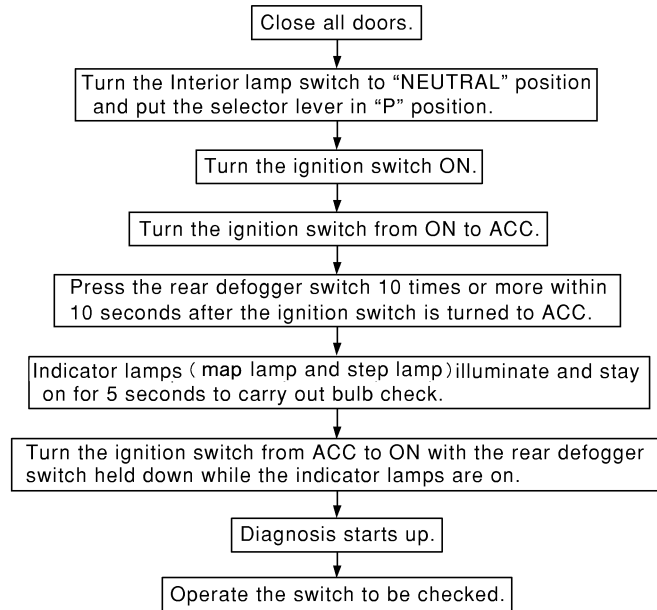
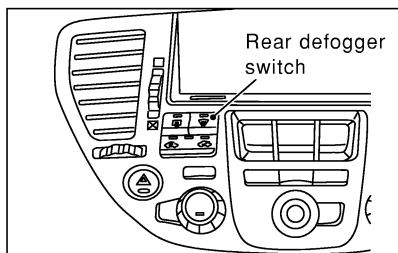
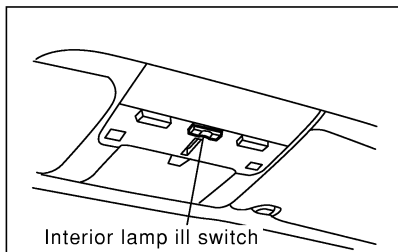
OK >> Replace the BCM

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

### SWITCH MONITOR

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

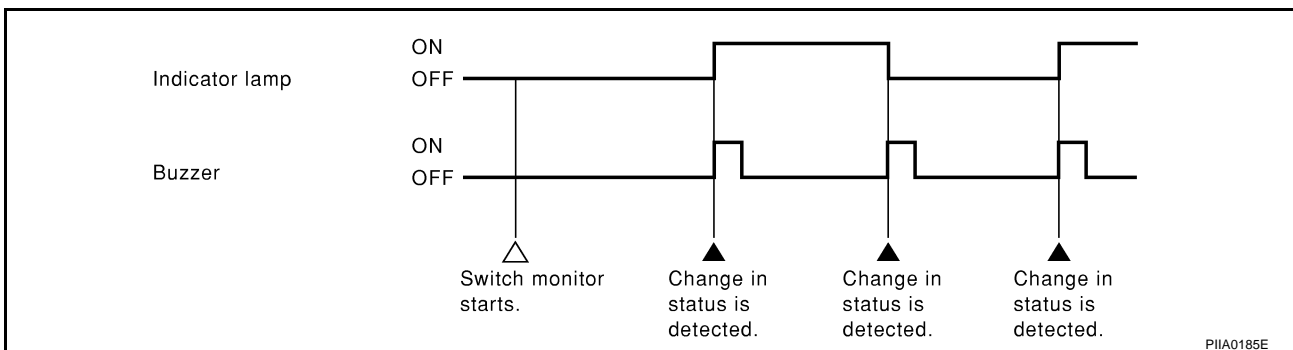
#### Operation Procedure



SIIA0411E

#### Diagnosis Result Display

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



#### Diagnosis Item

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

# AUTOMATIC DRIVE POSITIONER

Control unit	Item
BCM	Detent switch
	Steering wheel position switch (telescopic switch and tilt switch)
	Seat memory switch (memory switch 1, memory switch 2, and setting switch).
	Driver door switch
	Door mirror remote control switch
Driver seat control unit	Slide switch(FR/RR)
	Reclining switch(FR/RR)
	Front end lifting switch(UP/DOWN)
	Rear end lifting switch(UP/DOWN)

A  
B  
C  
D  
E  
F  
G  
H  
J  
K  
L  
M

SE

## Cancel Of Switch Monitor

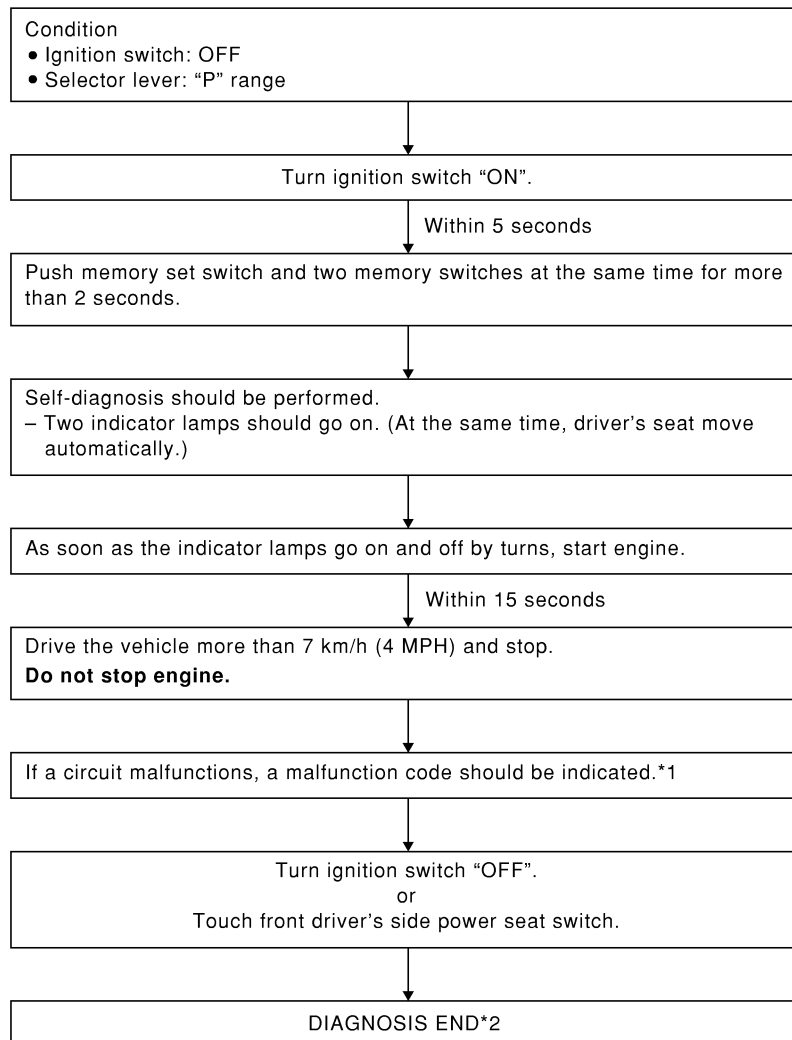
If the following conditions are satisfied, the switch monitor is cancelled.

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

# AUTOMATIC DRIVE POSITIONER

## ON BOARD DIAGNOSIS FOR AUTOMATIC DRIVE POSITIONER

- Check the operations of the auto drive positioner system.



SEL596W

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

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



# AUTOMATIC DRIVE POSITIONER

## Diagnosis Result Display

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

Code No.	Detected items	Indication of seat memory switches 1 and 2	Explanation
1	Seat sliding	IND1, IND2	While the seat motors are moving for 2.5 seconds, if the number of seat sliding/reclining/lifting sensor pulses changes 2 times or less, the seat device is determined to be malfunctioning.
2	Seat reclining	IND1, IND2	
3	Seat lifting front	IND1, IND2	
4	Seat lifting rear	IND1, IND2	
5	Steering telescopic	IND1, IND2	While the steering motors are moving, if the steering sensor output changes 0.2 volts or less, the steering device is determined to be malfunctioning.
6	Steering tilt	IND1, IND2	
7	Door mirrors (upper and lower)	IND1, IND2	When output voltage of either LH or RH door mirror sensor continues at less than 0.2V or more than 4.5V for 0.5 seconds or more, the door mirror is determined to be malfunctioning.
8	Door mirrors (LH and RH)	IND1, IND2	When output voltage of either LH or RH door mirror sensor continues at less than 0.2V or more than 4.5V for 0.5 seconds or more, the door mirror is determined to be malfunctioning.
9	Vehicle speed sensor circuit	IND1, IND2	If the vehicle speed sensor output of less than 7 km/h (4 MPH) is detected, the vehicle speed sensor is determined to be malfunctioning.
-	No malfunction in the above items	SW1 IND SW2 IND 0.5 sec. 0.5 sec. 5 sec.	—

PIIA0190E

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

# AUTOMATIC DRIVE POSITIONER

## Symptom Chart

EIS000EH

Symptom	Malfunctioning system and reference
A part of seat system does not operate (both automatically and manually).	Seat sliding system. Refer to <a href="#">SE-52, "Seat Sliding Circuit Inspection 1"</a> .
	Seat reclining system. Refer to <a href="#">SE-53, "Seat Reclining Circuit Inspection 1"</a> .
	Front end seat lifter system. Refer to <a href="#">SE-55, "Front End Seat Lifting Circuit Inspection 1"</a> .
	Rear end seat lifter system. Refer to <a href="#">SE-56, "Rear End Seat Lifting Circuit Inspection 1"</a> .
	If the above systems are normal, replace the BCM .
A part of steering wheel system does not operate (both automatically and manually).	Steering wheel telescoping system. Refer to <a href="#">SE-58, "Steering Wheel Telescopic Circuit Inspection 1"</a> .
	Steering wheel tilt system. Refer to <a href="#">SE-59, "Steering Wheel Tilt Circuit Inspection 1"</a> .
	If the above systems are normal, replace the BCM.
Door mirrors cannot be actuated by both automatic and manual.	Door mirror LH/RH switching system. Refer to <a href="#">GW-93, "Door Mirror Remote Control Switch (Changeover switch) Circuit Inspection"</a> .
	Door mirror UP/DOWN and LH/RH adjustment system. Refer to <a href="#">GW-98, "Door Mirror Remote Control Switch (Mirror Switch) System Inspection"</a> .
	Mirror motor system. Refer to <a href="#">GW-99, "Mirror Motors Circuit Inspection"</a> .
	If the above systems are normal, replace the BCM.
A part of steering wheel system does not operate (only automatic operation).	Seat sliding system. Refer to <a href="#">SE-61, "Seat Sliding Circuit Inspection 2"</a> .
	Seat reclining system. Refer to <a href="#">SE-62, "Seat Reclining Circuit Inspection 2"</a> .
	Front end seat lifter system. Refer to <a href="#">SE-63, "Front End Seat Lifting Circuit Inspection 2"</a> .
	Rear end seat lifter system. Refer to <a href="#">SE-64, "Rear End Lifting Circuit Inspection 2"</a> .
	If the above systems are normal, replace the driver seat control unit.
Door mirrors cannot be actuated in automatic mode.	R position signal system. Refer to <a href="#">GW-95, "Back-up Input Signal Circuit Inspection In R Position"</a> .
	Mirror sensor system. Refer to <a href="#">GW-101, "Mirror Sensors Circuit Inspection 2"</a> .
	If the above systems are normal, replace the door mirror control unit.

# AUTOMATIC DRIVE POSITIONER

Symptom	Malfunctioning system and reference	
All the automatic operations do not operate.	Detent switch system. Refer to <a href="#">SE-65, "Detention Switch Circuit Inspection"</a> .	
	Telescopic sensor system. Refer to <a href="#">SE-67, "Telescopic Sensor Circuit Inspection"</a> .	
	Tilt sensor system. Refer to <a href="#">SE-68, "Tilt Sensor Circuit Inspection"</a> .	
	Key switch and key lock solenoid system. Refer to <a href="#">SE-69, "Key Switch and Key Lock Solenoid Circuit Inspection."</a>	
	Driver door switch system. Refer to <a href="#">SE-71, "Front Door Switch (Driver Side) Circuit Inspection."</a>	
	Vehicle speed signal system. Refer to <a href="#">SE-72, "Vehicle Speed Signal Inspection"</a>	
	R position signal system. Refer to <a href="#">GW-95, "Back-up Input Signal Circuit Inspection In R Position"</a> .	
	Door mirror LH/RH switching system. Refer to <a href="#">GW-93, "Door Mirror Remote Control Switch (Changeover switch) Circuit Inspection"</a> .	
	Mirror sensor system. Refer to <a href="#">GW-101, "Mirror Sensors Circuit Inspection 2"</a> .	
	If all the above systems are normal, replace the BCM.	
Only automatic operation (auto return 1 and 2) does not operate. (Seat or steering wheel memory does not work.)	Seat memory switch system. Refer to <a href="#">SE-74, "Seat Memory Switch Circuit Inspection"</a> .	
	If the above systems are normal, replace the BCM.	
Only manual operation does not operate.	Seat sliding system. Refer to <a href="#">SE-76, "Seat Sliding Circuit Inspection 3"</a> .	
	Seat reclining system. Refer to <a href="#">SE-78, "Seat Reclining System Inspection 3"</a> .	
	Front end seat lifter system. Refer to <a href="#">SE-80, "Front End Seat Lifting Circuit Inspection 3."</a> .	
	Rear end seat lifter system. Refer to <a href="#">SE-82, "Rear End Seat Lifting Circuit Inspection 3"</a> .	
	Steering wheel telescoping system. Refer to <a href="#">SE-84, "Steering Wheel Telescopic System Inspection 2."</a> .	
	Steering wheel tilt system. Refer to <a href="#">SE-86, "Steering Wheel Tilt System Inspection 2."</a> .	
	Door mirror UP/DOWN and LH/RH adjustment system. Refer to <a href="#">GW-98, "Door Mirror Remote Control Switch (Mirror Switch) System Inspection"</a> .	
	If all the above systems are normal, replace the driver seat control unit for the seat system, the IBCM for the steering wheel system.	
	Seat memory indicator lamps 1 and 2 do not illuminate.	Seat memory indicator lamp system. Refer to <a href="#">SE-88, "Seat Memory Indicator lamp System Inspection"</a> .
		If the above systems are normal, replace the IVMS control unit.

A  
B  
C  
D  
E  
F  
G  
H  
SE  
J  
K  
L  
M

# AUTOMATIC DRIVE POSITIONER

Symptom	Malfunctioning system and reference
Auto driving position system self-diagnosis does not work.	Detent switch system. Refer to <a href="#">SE-65, "Detention Switch Circuit Inspection"</a>
	Seat memory switch system. Refer to <a href="#">SE-74, "Seat Memory Switch Circuit Inspection"</a> .
	Seat memory indicator lamp system. Refer to <a href="#">SE-88, "Seat Memory Indicator lamp System Inspection"</a> .
	If all the above systems are normal, retry the self-diagnosis. If the self-diagnosis are still disable, check the driver seat control unit connector and terminals for looseness and damage.

## Seat Sliding Circuit Inspection 1

E/IS000E/

### 1. SEAT SLIDING MECHANISM INSPECTION

Check the following items.

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

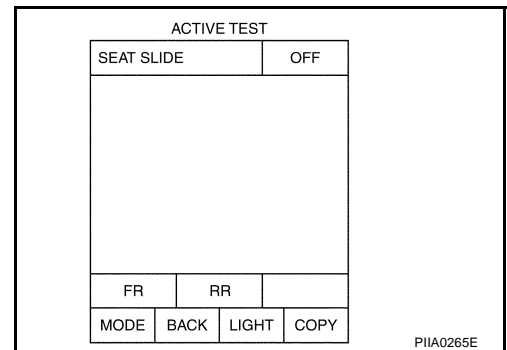
OK or NG?

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

### 2. FUNCTIONAL INSPECTION

With CONSULT-II

- Check the operation with "SEAT SLIDE" in ACTIVE TEST. Refer to [SE-42, "ACTIVE TEST"](#) .



Without CONSULT-II

- Perform the self-diagnosis. Refer to [SE-48, "ON BOARD DIAGNOSIS FOR AUTOMATIC DRIVE POSITIONER"](#) .

OK or NG?

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

# AUTOMATIC DRIVE POSITIONER

## 3. HARNESS CONTINUITY INSPECTION

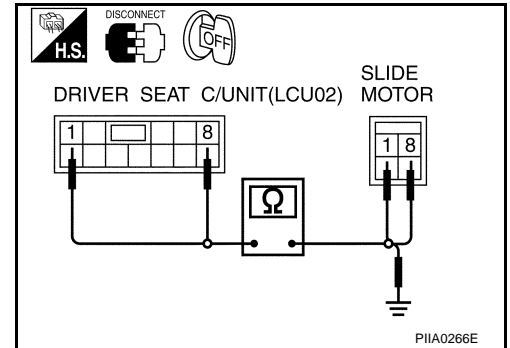
- Turn the ignition switch OFF, and disconnect the connectors B142,B146 for the driver seat control unit and sliding motor (driver side).
- Check the continuity between terminals No. 1(W), No. 8(BR) on the connector B142 for the driver seat control unit and terminals No. 1(W), No. 8(BR) on the seat harness connector B146 for the sliding motor, and between terminals No. 1, No. 8 on the seat harness connector B142 for the driver seat control unit and body ground.

Terminals				Continuity
(+)		(-)		
Connector	Terminal	Connector	Terminal	
B142	1(W)	B146	1(W)	Should exist
	8(BR)		8(BR)	Should exist
	1(W)	Ground		Should not exist
	8(BR)	Ground		Should not exist

**OK or NG?**

OK >> GO TO 4.

NG >> Repair or replace harness.



## 4. DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL INSPECTION

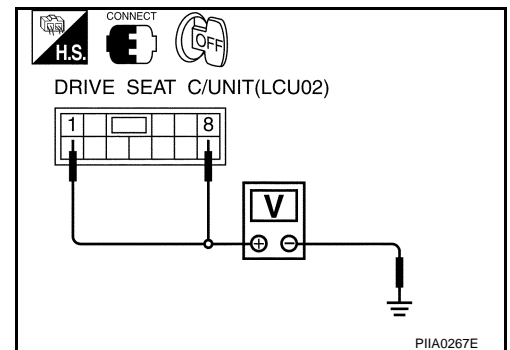
- Connect the connectors B142,B146 for the driver seat control unit and sliding motor.
- Check the voltage between terminals No. 1(W), No. 8(BR) on the seat harness connector B142 for the driver seat control unit and body ground.

Terminals			Condition	Voltage (V)
(+)		(-)		
Connector	Terminal			
B142	1(W)	Ground	Sliding switch (FR operation)	Battery voltage
	8(BR)	Ground	Sliding switch (RR operation)	Battery voltage
	1(W),8(BR)	Ground	Sliding switch OFF	0V

**OK or NG?**

OK >> Replace the sliding motor.

NG >> Replace the driver seat control unit.



## Seat Reclining Circuit Inspection 1

### 1. SEAT RECLINING MECHANISM INSPECTION

Check the following items.

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

**OK or NG?**

OK >> GO TO 2.

NG >> Repair the malfunction part and check again.

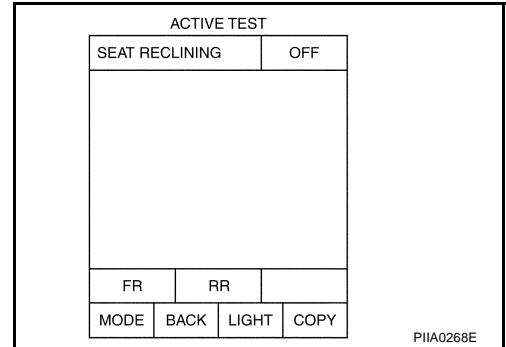
EIS000EJ

# AUTOMATIC DRIVE POSITIONER

## 2. FUNCTIONAL INSPECTION

④ With CONSULT-II

- Check the operation with "SEAT RECLINING" in ACTIVE TEST.  
Refer to [SE-42, "ACTIVE TEST"](#) .



⊗ Without CONSULT-II

- Perform the self-diagnosis. Refer to [SE-48, "ON BOARD DIAGNOSIS FOR AUTOMATIC DRIVE POSITIONER"](#) .

OK or NG?

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

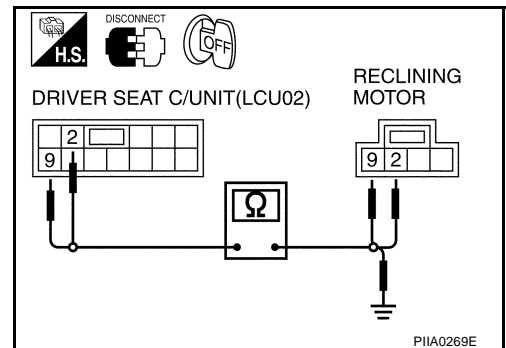
## 3. HARNESS CONTINUITY INSPECTION

- Turn the ignition switch OFF, and disconnect the connectors B142,B147 for the driver seat control unit and reclining motor (driver side).
- Check the continuity between terminals No. 2(G), No. 9(LG) on the seat harness connector B142 for the driver seat control unit and terminals No. 2(G), No. 9(LG) on the seat harness connector B147 for the reclining motor, and between terminals No. 2(G), No. 9(LG) on the harness connector B142 for the driver seat control unit and body ground.

Terminals				Continuity
(+)		(-)		
Connector	Terminal	Connector	Terminal	
B142	2(G)	B147	2(G)	Should exist
	9(LG)		9(LG)	Should exist
	2(G)	Ground		Should not exist
	9(LG)	Ground		Should not exist

OK or NG?

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

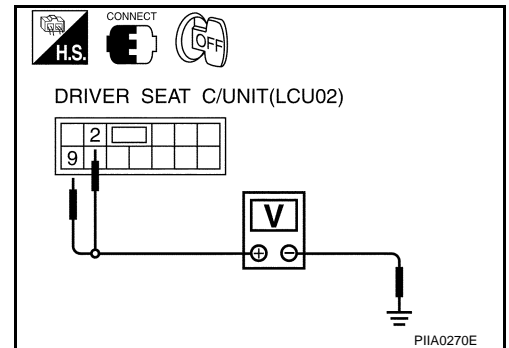


# AUTOMATIC DRIVE POSITIONER

## 4. DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL INSPECTION

- Connect the connectors B142,B147 for the driver seat control unit and reclining motor.
- Check the voltage between terminals No. 2(G), No. 9(LG) on the seat harness connector B142 for the driver seat control unit and body ground.

Terminals		Condition	Voltage (V)
(+)			
Connector	Terminal	(-)	
B142	2(G)	Ground	Reclining switch (FR operation) Battery voltage
	9(LG)	Ground	Reclining switch (RR operation) Battery voltage
	2(G),9(LG)	Ground	Reclining switch OFF 0V



OK or NO?

- OK >> Replace the reclining motor.
- NO >> Replace the driver seat control unit.

## Front End Seat Lifting Circuit Inspection 1

EIS000EK

### 1. FRONT END SEAT LIFTING MECHANISM INSPECTION

Check the following items.

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

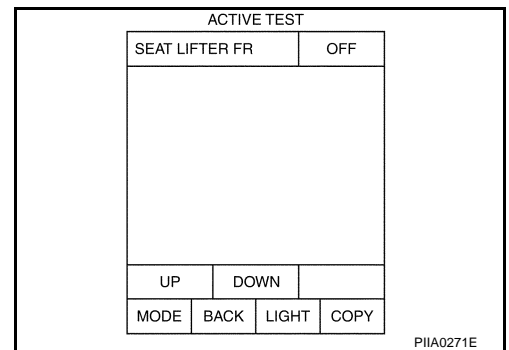
OK or NO?

- OK >> GO TO 2.
- NO >> Repair the malfunctioning part and check again.

### 2. FUNCTIONAL INSPECTION.

☑ With CONSULT-II

- Check the operation with "SEAT LIFTER FR" in ACTIVE TEST. Refer to [SE-42, "ACTIVE TEST"](#).



☒ Without CONSULT-II

- Carry out the self-diagnosis. Refer to [SE-48, "ON BOARD DIAGNOSIS FOR AUTOMATIC DRIVE POSITIONER"](#).

OK or NO?

- OK >> System is OK.
- NO >> GO TO 3

# AUTOMATIC DRIVE POSITIONER

## 3. HARNESS CONTINUITY INSPECTION.

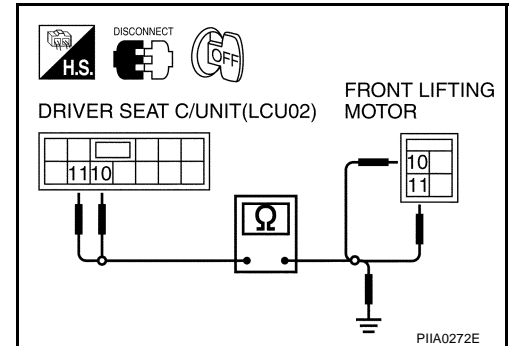
- Turn the ignition switch OFF, and disconnect the connectors B142,B148 for the driver seat control unit and front lifting motor (driver side).
- Check the continuity between terminals No. 10(OR), No. 11(P) on the harness connector B142 for the driver seat control unit and terminals No. 10(OR), No. 11(P) on the seat harness connector B148 for the front lifting motor (driver side), and between terminals No. 10(OR), No. 11(P) on the harness connector B142 for the driver seat control unit and body ground.

Terminals				Continuity
(+)		(-)		
Connector	Terminal	Connector	Terminal	
B142	10(OR)	B148	10(OR)	Should exist
	11(P)		11(P)	Should exist
	10(OR)	Ground		Should not exist
	11(P)	Ground		Should not exist

OK or NO?

OK >> GO TO 4

NO >> Repair or replace harness.



## 4. DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL INSPECTION

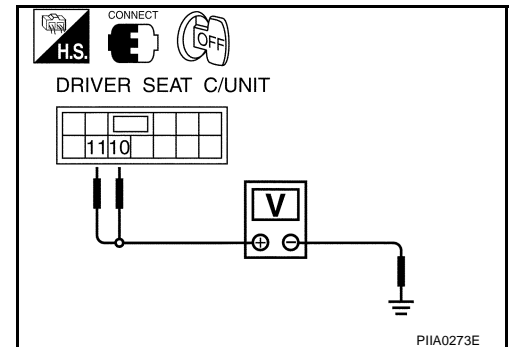
- Connect the connectors B142,B148 for the driver seat control unit and front lifting motor (driver side).
- Check the voltage between terminals No. 10(OR), No. 11(P) on the seat harness connector B142 for the driver seat control unit and body ground.

Terminals			Condition	Voltage (V)
(+)		(-)		
Connector	Terminal			
B142	11(P)	Ground	Front end lifting switch (UP operation)	Battery voltage
	10(OR)	Ground	Front end lifting switch (DOWN operation)	Battery voltage
	10(OR), 11(P)	Ground	Front end lifting switch OFF	0V

OK or NO?

OK >> Replace the front lifting motor (driver side).

NO >> Replace the driver seat control unit.



## Rear End Seat Lifting Circuit Inspection 1

### 1. REAR END SEAT LIFTING MECHANISM INSPECTION

Check the following items.

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

OK or NO?

OK >> GO TO 2.

NO >> Repair the malfunctioning part and check again.

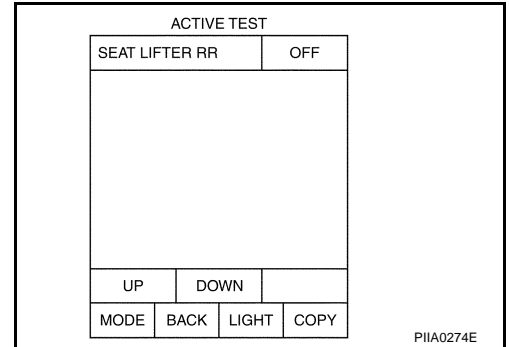


# AUTOMATIC DRIVE POSITIONER

## 2. FUNCTIONAL INSPECTION

☑ With CONSULT-II

- Check the operation with "SEAT LIFTER RR" in ACTIVE TEST. Refer to [SE-42, "ACTIVE TEST"](#).



☒ Without CONSULT-II

- Carry out the self-diagnosis. Refer to [SE-48, "ON BOARD DIAGNOSIS FOR AUTOMATIC DRIVE POSITIONER"](#).

OK or NO?

- OK >> System is OK.
- NO >> GO TO 3

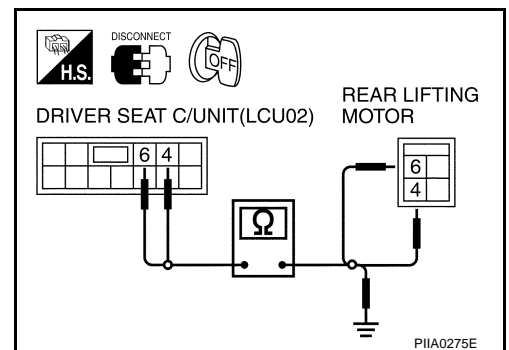
## 3. HARNESS CONTINUITY INSPECTION

- Turn the ignition switch OFF, and disconnect the connectors B142, B149 for the driver seat control unit and rear lifting motor (driver side).
- Check the continuity between terminals No. 4(Y), No. 6(PU) on the seat harness connector B142 for the driver seat control unit and terminals No. 4(Y), No. 6(PU) on the seat harness connector B149 for the rear lifting motor (driver side), and between terminals No. 4(Y), No. 6(PU) on the harness connector B142 for the driver seat control unit and body ground.

Terminals				Continuity
(+)		(-)		
Connector	Terminal	Connector	Terminal	
B142	4(Y)	B149	4(Y)	Should exist
	6(PU)		6(PU)	Should exist
	4(Y)	Ground		Should not exist
	6(PU)	Ground		Should not exist

OK or NO?

- OK >> GO TO 4
- NO >> Repair or replace harness.

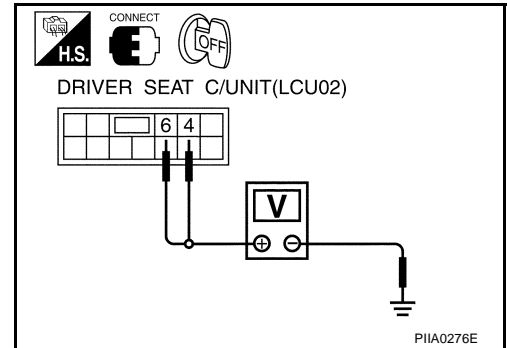


# AUTOMATIC DRIVE POSITIONER

## 4. DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL INSPECTION

- Connect the connectors B142, B149 for the driver seat control unit and rear lifting motor (driver side).
- Check the voltage between terminals No. 4(Y), No. 6(PU) the harness connector B142 for the driver seat control unit and body ground.

Terminals		Condition	Voltage (V)	
(+)				
Connector	Terminal	(-)		
B142	6(PU)	Ground	Rear end lifting switch (UP operation)	Battery voltage
	4(Y)	Ground	Rear end lifting switch (DOWN operation)	Battery voltage
	4(Y), 6(PU)	Ground	Rear end lifting switch OFF	0V



OK or NO?

- OK >> Replace the rear lifting motor (driver side).
- NO >> Replace the driver seat control unit.

## Steering Wheel Telescopic Circuit Inspection 1

EIS000EM

### 1. STEERING WHEEL TELESCOPIC MECHANISM INSPECTION

Check the following items.

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

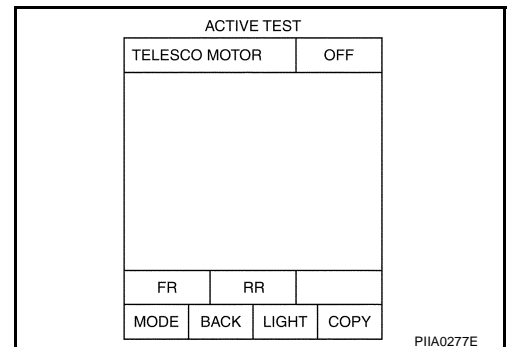
OK or NO?

- OK >> GO TO 2.
- NO >> Repair the malfunctioning part and check again.

### 2. FUNCTIONAL INSPECTION

With CONSULT-II

- Check the operation with "TELESCO MOTOR" in ACTIVE TEST. Refer to [SE-42, "ACTIVE TEST"](#).



Without CONSULT-II

- Carry out the self-diagnosis. Refer to [SE-48, "ON BOARD DIAGNOSIS FOR AUTOMATIC DRIVE POSITIONER"](#).

OK or NO?

- OK >> System is OK.
- NO >> GO TO 3.

# AUTOMATIC DRIVE POSITIONER

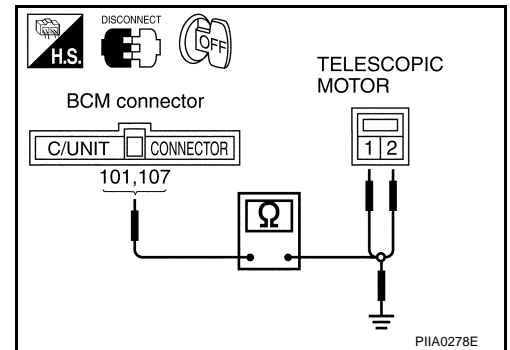
## 3. HARNESS CONTINUITY INSPECTION

- Turn the ignition switch OFF, and disconnect the connectors M4, M60 for the BCM and telescopic motor.
- Check the continuity between terminals No. 101(R/W), No. 107(R) on the harness connector M4 for the BCM and terminals No. 1(R/W), No. 2(R) on the seat harness connector M60 for the telescopic motor, and between terminals No. 101(R/W), No. 107(R) on the harness connector M4 for the BCM and body ground.

Terminals				Continuity
(+)		(-)		
Connector	Terminal	Connector	Terminal	
M4	101(R/W)	M60	1(R/W)	Should exist
	107(R)		2(R)	Should exist
	101(R/W)	Ground		Should not exist
	107(R)	Ground		Should not exist

OK or NO?

- OK >> GO TO 4  
 NO >> Repair or replace harness.



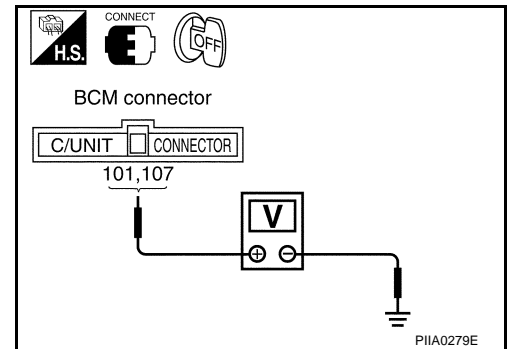
## 4. BCM OUTPUT SIGNAL INSPECTION

- Connect the connectors M4, M60 between the BCM and telescopic motor.
- Check the voltage between terminals No. 101(R/W), No. 107(R) on the harness connector M4 for the BCM and body ground.

Terminals			Condition	Voltage (V)
(+)		(-)		
Connector	Terminal			
M4	101(R/W)	Ground	Telescopic switch (FR operation)	Battery voltage
	107(R)	Ground	Telescopic switch (RR operation)	Battery voltage
	101(R/W), 107(R)	Ground	Telescopic switch OFF	0V

OK or NG?

- OK >> Replace the telescopic motor.  
 NG >> Replace the BCM.



## Steering Wheel Tilt Circuit Inspection 1

### 1. STEERING WHEEL TILT MECHANISM INSPECTION

Check the following items.

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

OK or NG?

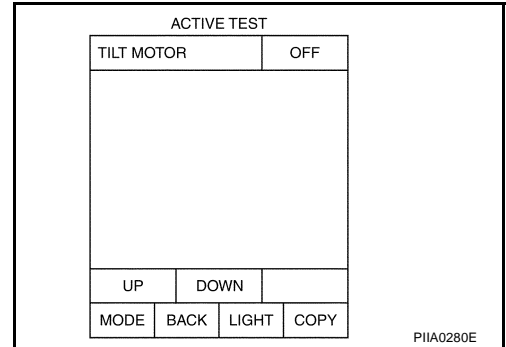
- OK >> GO TO 2.  
 NG >> Repair the malfunctioning part.

# AUTOMATIC DRIVE POSITIONER

## 2. FUNCTIONAL INSPECTION

☑ With CONSULT-II

- Check the operation with "TILT MOTOR" in ACTIVE TEST. Refer to [SE-42, "ACTIVE TEST"](#).



☒ Without CONSULT-II

- Carry out the self-diagnosis. Refer to [SE-48, "ON BOARD DIAGNOSIS FOR AUTOMATIC DRIVE POSITIONER"](#).

OK or NG?

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

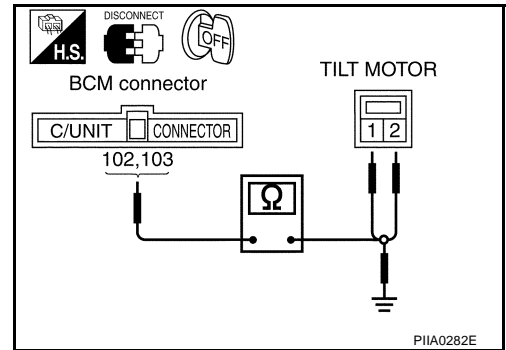
## 3. HARNESS CONTINUITY INSPECTION

- Turn the ignition switch OFF, and disconnect the connectors M4, M58 for the BCM and tilt motor.
- Check the continuity between terminals No. 102(P), No. 103(R/B) on the harness connector for the BCM and terminals No. 1(R/B), No. 2(P) on the harness connector M58 for the tilt motor, and between terminals No. 102(P), No. 103(R/B) on the harness connector M4 for the BCM and body ground.

Terminals				Continuity
(+) Terminal		(-) Terminal		
Connector	Terminal	Connector	Terminal	
M4	102(P)	M58	2(P)	Should exist
	103(R/B)		1(R/B)	Should exist
	102(P)	Ground		Should not exist
	103(R/B)	Ground		Should not exist

OK or NG?

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

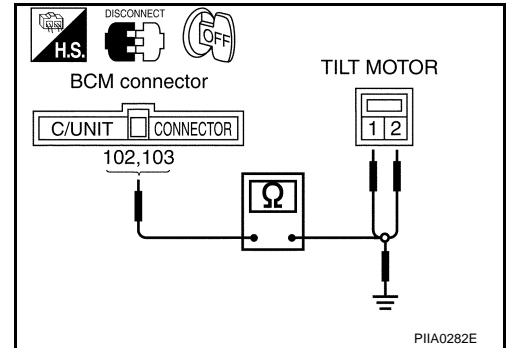


# AUTOMATIC DRIVE POSITIONER

## 4. BCM OUTPUT SIGNAL INSPECTION

- Connect the connectors M4, M58 for the BCM and tilt motor.
- Check the voltage between terminals No. 102(P), No. 103(R/B) on the harness connector M4 for the BCM and body ground.

Terminals		Condition	Voltage (V)	
(+)				
Connector	Terminal	(-)		
M4	103(R/B)	Ground	Tilt switch (UP operation)	Battery voltage
	102(P)	Ground	Tilt switch (DOWN operation)	Battery voltage
	102(P), 103(R/B)	Ground	Tilt switch OFF	0V



OK or NG?

- OK >> Replace the tilt motor.
- NG >> Replace the BCM.

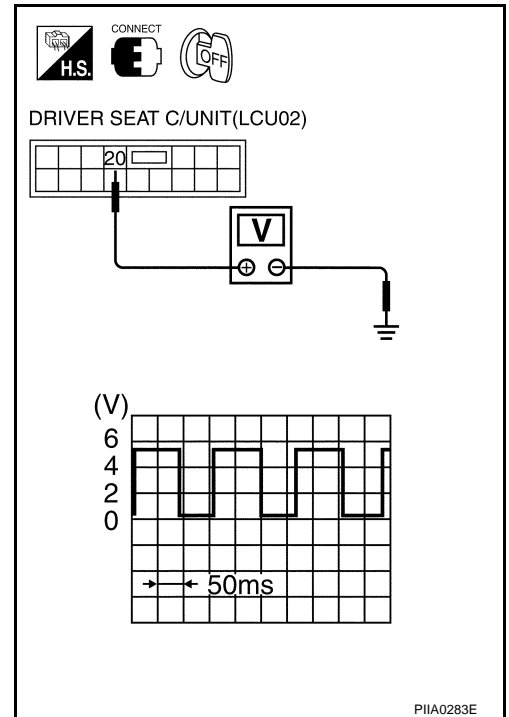
## Seat Sliding Circuit Inspection 2

EIS000EO

### 1. SLIDING SENSOR INPUT/OUTPUT SIGNAL INSPECTION

- Turn the ignition switch OFF.
- Check the voltage between terminal No. 20(G/B) on the harness connector B143 for the driver seat control unit and body ground, using an oscilloscope.

**No.20(G/B) –body ground**      :: **Voltage waveform**  
**(Sliding motor operation)**



OK or NG?

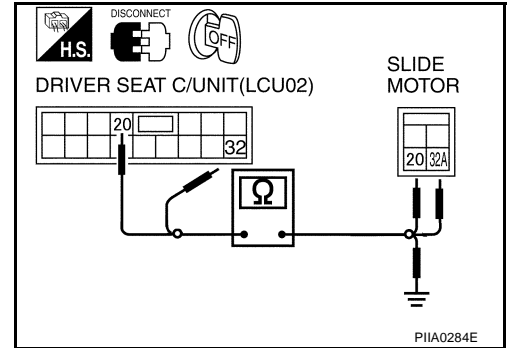
- OK >> System is OK.
- NG >> GO TO 2.

# AUTOMATIC DRIVE POSITIONER

## 2. HARNESS CONTINUITY INSPECTION

- Disconnect the connectors B143, B146 for the driver seat control unit and sliding motor (driver side).
- Check the continuity between terminals No. 20(G/B), No. 32(R/W) on the harness connector B143 for the driver seat control unit and terminals No. 20(G/B), No. 32A(R/W) on the harness connector B146 for the sliding motor (driver side), and between terminals No. 20(G/B), No. 32(R/W) on the harness connector B143 for the driver seat control unit and body ground.

Terminals				Continuity
(+) Terminal		(-) Terminal		
Connector	Terminal	Connector	Terminal	
B143	20(G/B)	B146	20(G/B)	Should exist
	32(R/W)		32A(R/W)	Should exist
	20(G/B)	Ground		Should not exist
	32(R/W)	Ground		Should not exist



OK or NG?

- OK >> Replace the sliding motor.
- NG >> Repair or replace harness.

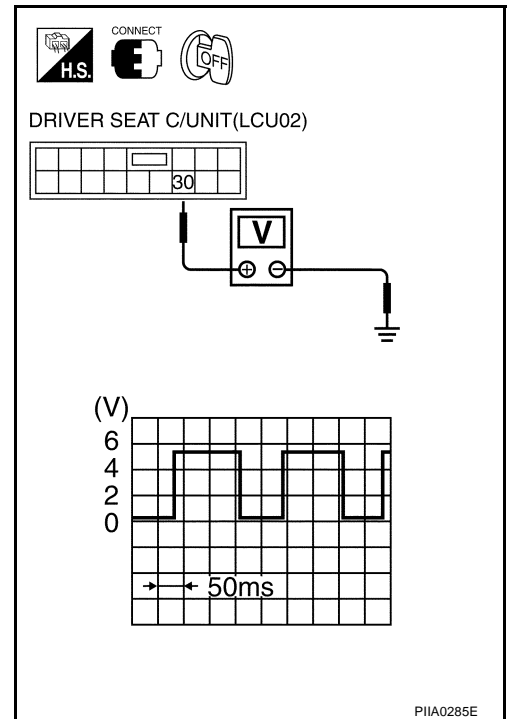
## Seat Reclining Circuit Inspection 2

EIS000EP

### 1. RECLINING SENSOR INPUT/OUTPUT SIGNAL INSPECTION

- Turn the ignition switch OFF.
- Check the voltage between terminal No. 30(L) on the harness connector B143 for the driver seat control unit and body ground, using an oscilloscope.

**No.30(L) – body ground                    :: Voltage waveform  
(Reclining motor operation)**



OK or NG?

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

# AUTOMATIC DRIVE POSITIONER

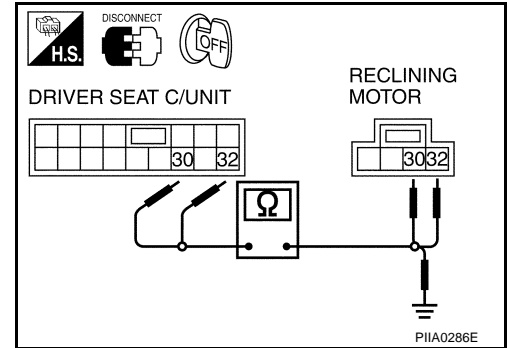
## 2. HARNESS CONTINUITY INSPECTION

- Disconnect the connectors B143, B147 for the driver seat control unit and reclining motor (driver side).
- Check the continuity between terminals No. 30(L), No. 32(R/W) on the harness connector B143 for the driver seat control unit and terminals No. 30(L), No. 32(R/W) on the harness connector B147 for the reclining motor (driver side), and between terminals No. 30(L), No. 32(R/W) on the harness connector B143 for the driver seat control unit and body ground.

Terminals				Continuity
(+)		(-)		
Connector	Terminal	Connector	Terminal	
B143	30(L)	B146	30(L)	Should exist
	32(R/W)		32(R/W)	Should exist
	30(L)	Ground		Should not exist
	32(R/W)	Ground		Should not exist

**OK or NG?**

- OK >> Replace the reclining motor (driver side).
- NG >> Repair or replace harness.



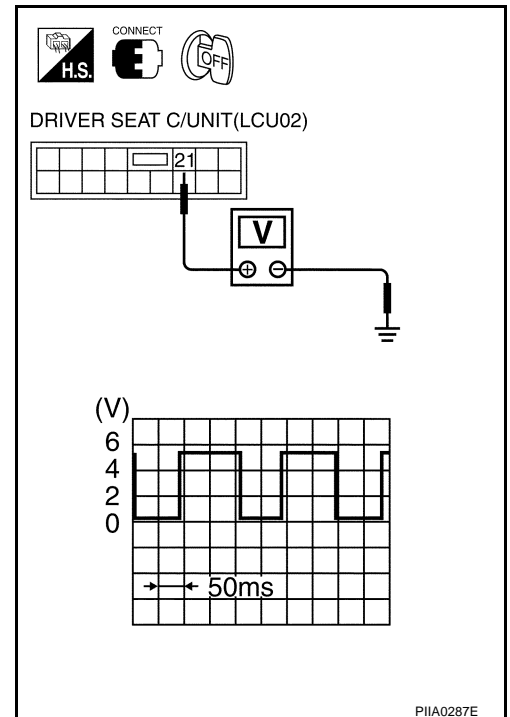
## Front End Seat Lifting Circuit Inspection 2

EIS000EQ

### 1. FRONT END LIFTING SENSOR INPUT/OUTPUT SIGNAL INSPECTION

- Turn the ignition switch OFF.
- Check the voltage between terminal No. 21 (Y/B) on the harness connector B143 for the driver seat control unit and body ground, using an oscilloscope.

**No.21(Y/B) – body ground**      :: Voltage waveform  
**(Front lifting motor operation)**



**OK or NG?**

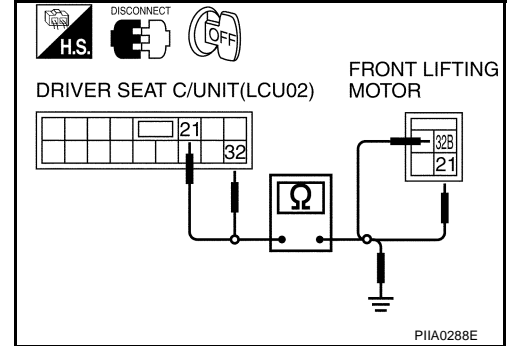
- OK >> System is OK.
- NG >> GO TO 2.

# AUTOMATIC DRIVE POSITIONER

## 2. HARNESS CONTINUITY INSPECTION

- Disconnect the connectors B143, B148 for the driver seat control unit and front lifting motor (driver side).
- Check the continuity between terminals No. 21(Y/B), No. 32(R/W) on the harness connector B143 for the driver seat control unit and terminals No. 21(Y/B), No. 32B(R/W) on the harness connector B148 for the front lifting motor (driver side), and between terminals No. 21(Y/B), No. 32(R/W) on the harness connector B143 for the driver seat control unit and body ground.

Terminals				Continuity
(+) (+)		(-) (-)		
Connector	Terminal	Connector	Terminal	
B143	21(Y/B)	B146	21(Y/B)	Should exist
	32(R/W)		32B(R/W)	Should exist
	21(Y/B)	Ground		Should not exist
	32(R/W)	Ground		Should not exist



**OK or NG?**

- OK >> Replace the front lifting motor (driver side).
- NG >> Repair or replace harness.

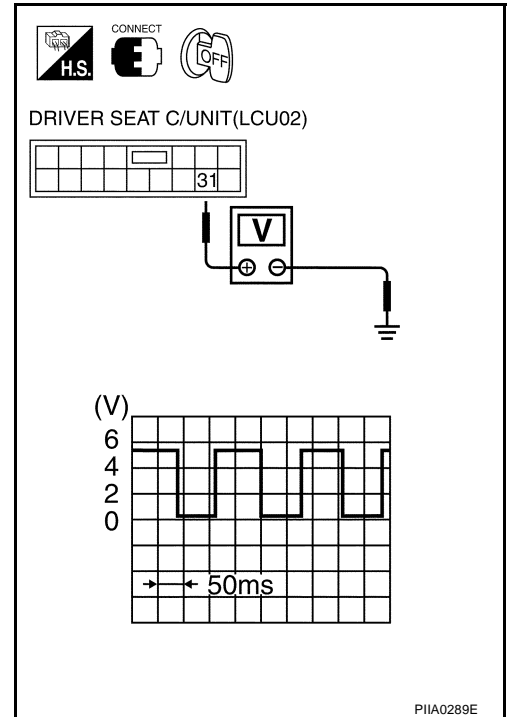
## Rear End Lifting Circuit Inspection 2

EIS000ER

### 1. REAR END LIFTING SENSOR INPUT/OUTPUT SIGNAL INSPECTION

- Turn the ignition switch OFF.
- Check the voltage between terminals No. 31(W/R) on the harness connector B143 for the driver seat control unit and body ground, using an oscilloscope.

**No.31(W/R) – body ground : : Voltage waveform  
(Rear lifting motor operation)**



**OK or NG?**

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



# AUTOMATIC DRIVE POSITIONER

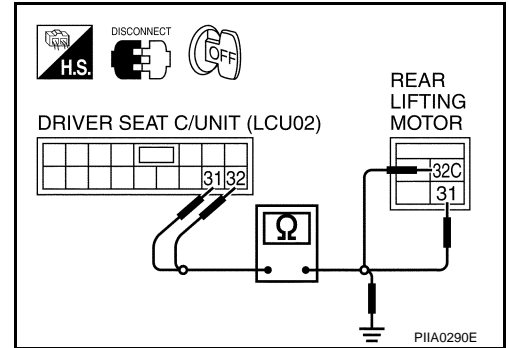
## 2. HARNESS CONTINUITY INSPECTION

- Disconnect the connectors B143 ,B149 for the driver seat control unit and rear lifting motor (driver side).
- Check the continuity between terminals No. 31(W/R), No. 32(R/W) on the harness connector B143 for the driver seat control unit and terminals No. 31(W/R), No. 32C(R/W) on the harness connector B149 for the rear lifting motor (driver side), and between terminals No. 31(W/R), No. 32(R/W) on the harness connector B143 for the driver seat control unit and body ground.

Terminals				Continuity
(+)		(-)		
Connector	Terminal	Connector	Terminal	
B143	31(W/R)	B146	31(W/R)	Should exist
	32(R/W)		32C(R/W)	Should exist
	31(W/R)	Ground		Should not exist
	32(R/W)	Ground		Should not exist

OK or NG?

- OK >> Replace the rear lifting motor (driver side).  
 NG >> Repair or replace harness.

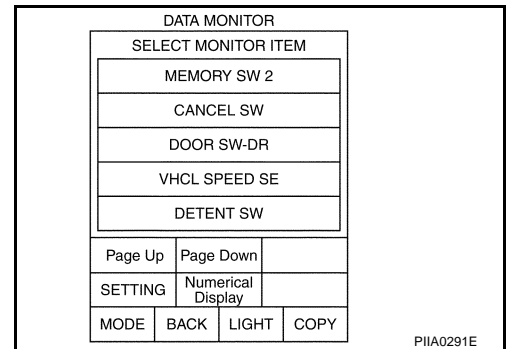


## Detention Switch Circuit Inspection

### 1. FUNCTIONAL INSPECTION

With CONSULT-II

- Check that when the A/T selector lever is in P-position, "DETENT SW" on the DATA MONITOR becomes ON. Refer to [SE-40, "DATA MONITOR"](#) .



Without CONSULT-II

- Carry out "SWITCH MONITOR" in the self-diagnosis function, and operate the A/T selector lever to check. Refer to [SE-46, "SWITCH MONITOR"](#) .

OK or NG?

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

# AUTOMATIC DRIVE POSITIONER

## 2. DETENTION SWITCH INSPECTION

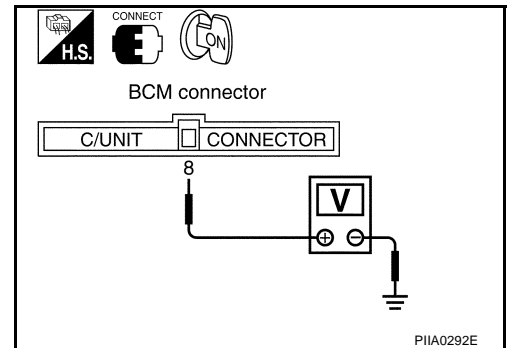
- Turn the ignition switch OFF.
- With the ignition switch inserted, check the voltage between terminal No. 8(G/OR) on the harness connector M4 for the BCM and body ground.

Terminals		Condition	Voltage (V)
(+)			
Connector	Terminal		
M4	8(G/OR)	Ground	P-position 0V
		Ground	Other than P-position Battery voltage

OK or NG?

OK >> GO TO 3

NG >> Replace the detention switch.



## 3. DETENTION SWITCH POWER SUPPLY CIRCUIT HARNESS INSPECTION

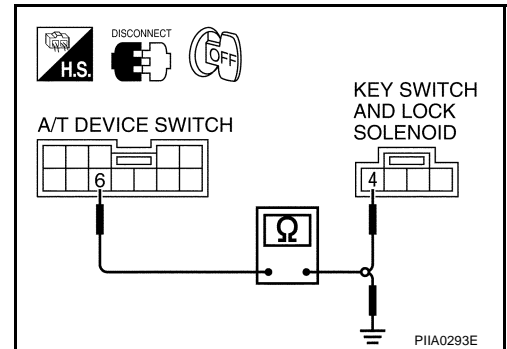
- Disconnect the key switch and key lock solenoid connector M64.
- Check the continuity at the harness between terminal No. 6(PU/W) on the harness connector M97 for the A/T device (detention switch) and terminal No. 4(PU/W) on the harness connector M64 for the key switch and key lock solenoid, and between terminal No. 6(PU/W) on the harness connector M97 for the A/T device (detention switch) and body ground.

Terminals				Continuity
(+)		(-)		
Connector	Terminal	Connector	Terminal	
M97	6(PU/W)	M64	4(PU/W)	Should exist
	6(PU/W)	Ground		Should not exist

OK or NG?

OK >> GO TO 4

NG >> Repair or replace harness.



## 4. DETENTION SWITCH SIGNAL HARNESS INSPECTION

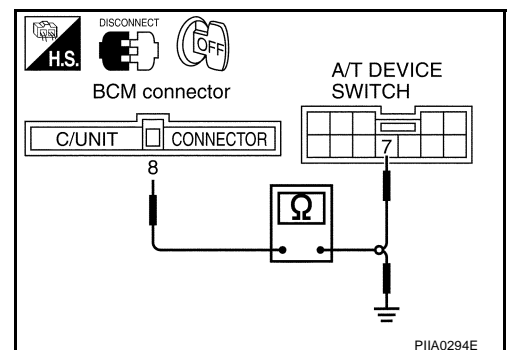
- Disconnect the BCM connector M4.
- Check the continuity at the harness between terminal No. 7(G/OR) on the harness connector M97 for the A/T device (detention switch) and terminal No. 8(G/OR) on the harness connector M4 for the BCM, and between terminal No. 8(G/OR) on the harness connector M4 for the BCM and body ground.

Terminals				Continuity
(+)		(-)		
Connector	Terminal	Connector	Terminal	
M4	8(G/OR)	M97	7(G/OR)	Should exist
	8(G/OR)	Ground		Should not exist

OK or NG?

OK >> Replace the BCM.

NG >> Repair or replace harness.



# AUTOMATIC DRIVE POSITIONER

EIS000ET

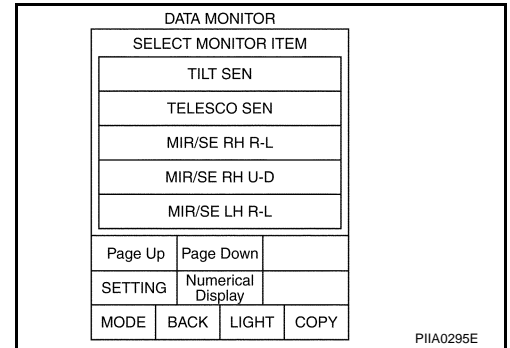
## Telescopic Sensor Circuit Inspection

### 1. FUNCTIONAL INSPECTION

① With CONSULT-II

- Operate the telescopic switch with "TELESCO SEN" on the DATA MONITOR to check that the voltage changes. Refer to [SE-40, "DATA MONITOR"](#).

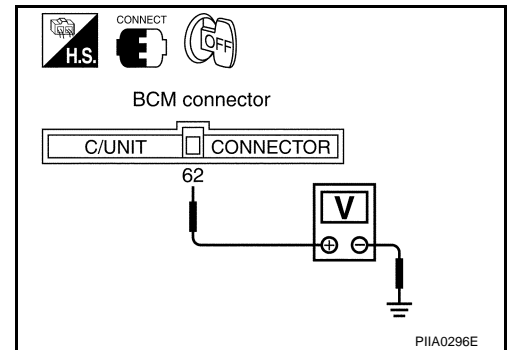
Telescopic switch UP operation           ::: Voltage drops  
Telescopic switch DOWN operation       ::: Voltage increases



② Without CONSULT-II

- Check the voltage between terminal No. 62(P/B) on the harness connector M4 for the BCM and body ground.

Terminals		Condition	Voltage (V)
(+)			
Connector	Terminal	(-)	
M4	62(P/B)	Ground	Telescopic top position Approx.2V
		Ground	Telescopic bottom position Approx.4V



OK or NG?

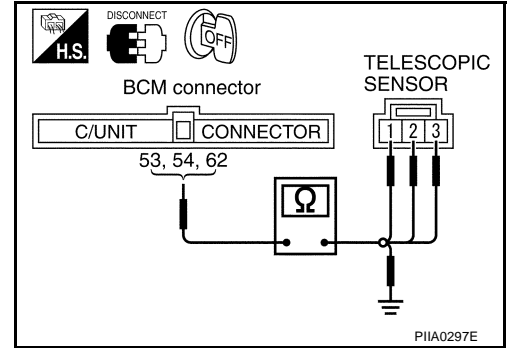
- OK    >> System is OK.
- NG    >> GO TO 2.

# AUTOMATIC DRIVE POSITIONER

## 2. HARNESS CONTINUITY INSPECTION

- Disconnect the connectors M59, M4 for the telescopic sensor and BCM.
- Check the continuity at the harness between terminals No. 1(LG/B), No. 2(P/B), No. 3(L/W) on the harness connector M59 for the telescopic sensor and terminals No. 53(L/W), No. 54(LG/B), No. 62(P/B) on the harness connector M4 for the BCM, and between terminals No. 53(L/W), No. 54(LG/B), No. 62(P/B) on the harness connector M4 for the BCM and body ground.

Terminals				Continuity
(+)		(-)		
Connector	Terminal	Connector	Terminal	
M4	53(L/W)	M59	3(L/W)	Should exist
	54(LG/B)		1(LG/B)	Should exist
	62(P/B)		2(P/B)	Should exist
	53(L/W)	Ground		Should not exist
	54(LG/B)	Ground		Should not exist
	62(P/B)	Ground		Should not exist



OK or NG?

- OK >> Replace the telescopic sensor.
- NG >> Repair or replace harness.

## Tilt Sensor Circuit Inspection

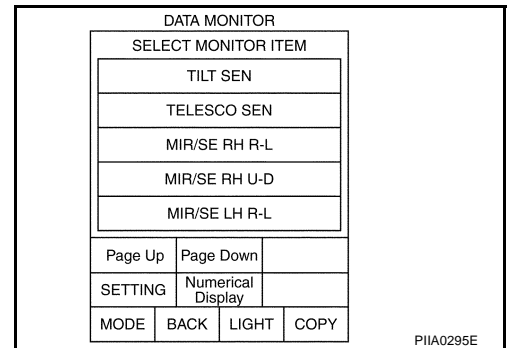
### 1. FUNCTIONAL INSPECTION

EIS000EU

With CONSULT-II

- With "TILT SEN" on the DATA MONITOR, operate the tilt switch to check that the voltage changes. Refer to [SE-40, "DATA MONITOR"](#).

- Tilt switch UP operation : : Voltage drops
- Tilt switch DOWN operation : : Voltage increases



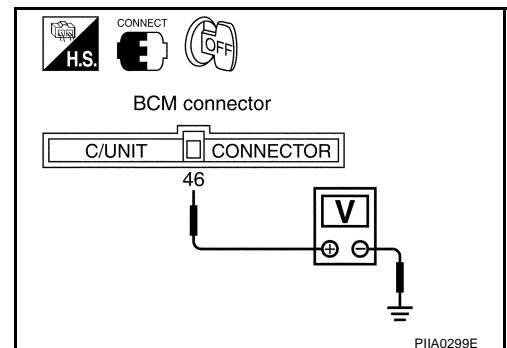
Without CONSULT-II

- Check the voltage between terminal No. 46(P/L) on the harness connector M4 for the BCM and body ground.

Terminals			Condition	Voltage (V)
(+)		(-)		
Connector	Terminal			
M4	46(P/L)	Ground	Tilt top position	Approx.2V
		Ground	Tilt bottom position	Approx.4V

OK or NG?

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

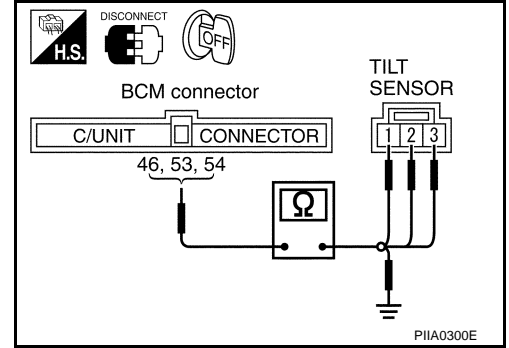


# AUTOMATIC DRIVE POSITIONER

## 2. HARNESS INSPECTION

- Disconnect the connectors M57, M4 for the tilt sensor and BCM.
- Check the continuity at the harness between terminals No. 1(LG/B), No. 2(P/L), No. 3(L/W) on the harness connector M57 for the tilt sensor and terminals No. 46(P/L), No. 53(L/W), No. 54(LG/B) on the harness connector M4 for the BCM, and between terminals No. 46(P/L), No. 53(L/W), No. 54(LG/B) on the harness connector M4 for the BCM and body ground.

Terminals				Continuity
(+)		(-)		
Connector	Terminal	Connector	Terminal	
M4	46(P/L)	M59	2(P/L)	Should exist
	53(L/W)		3(L/W)	Should exist
	54(LG/B)		1(LG/B)	Should exist
	46(P/L)	Ground		Should not exist
	53(L/W)	Ground		Should not exist
	54(LG/B)	Ground		Should not exist



OK or NG?

- OK >> Replace the tilt sensor.
- NG >> Repair or replace harness.

## Key Switch and Key Lock Solenoid Circuit Inspection.

EIS0043M

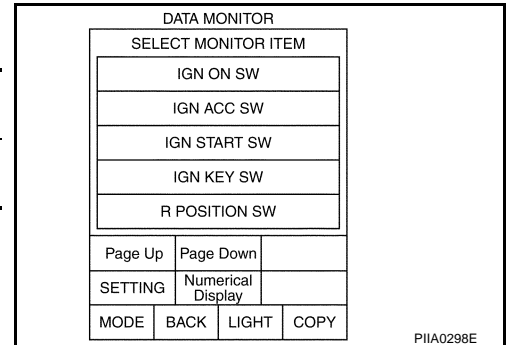
### 1. CHECK KEY SWITCH AND KEY LOCK SOLENOID

Connect the key switch and key lock solenoid connector M64.

#### With CONSULT-II

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

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



#### Without CONSULT-II

GO TO 2.

OK or NG

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

# AUTOMATIC DRIVE POSITIONER

## 2. CHECK FUSE

Check if any of the following fuses is blown.

Unit	Terminal No.	Power source	Fuse No.
Fuse block (J/B) No. 2	6N	BAT power supply	#32

**NOTE:**

Refer to [SE-15, "Component Parts and Harness Connector Location"](#).

**OK or NG**

OK >> GO TO 3.

NG >> If fuse is blown, be sure to eliminate cause of problem before installing new fuse. Refer to [SE-15, "Component Parts and Harness Connector Location"](#).

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

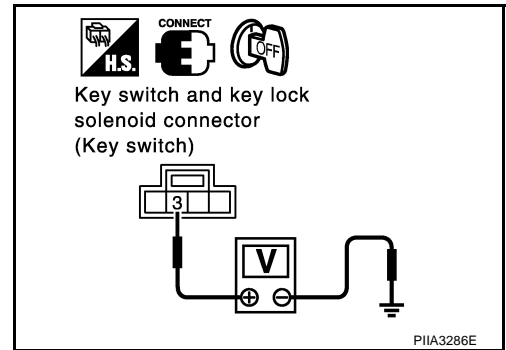
1. Turn ignition switch OFF,
2. Disconnect key switch connector and key lock solenoid connector.
3. Check voltage between key switch and key lock solenoid connector M64 terminal 3 (LG) and body ground.

**3 (LG) – Ground : Battery voltage.**

**OK or NG**

OK >> GO TO 4.

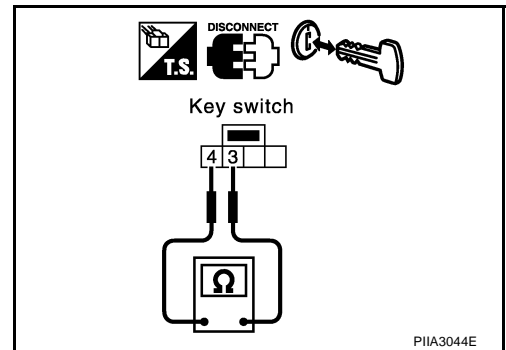
NG >> Check harness between key switch and key lock solenoid and fuse.



## 4. CHECK KEY SWITCH

Check continuity between key switch.

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



**OK or NG**

OK >> GO TO 5.

NG >> Replace detention switch.

# AUTOMATIC DRIVE POSITIONER

## 5. CHECK HARNESS CONTINUITY

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

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

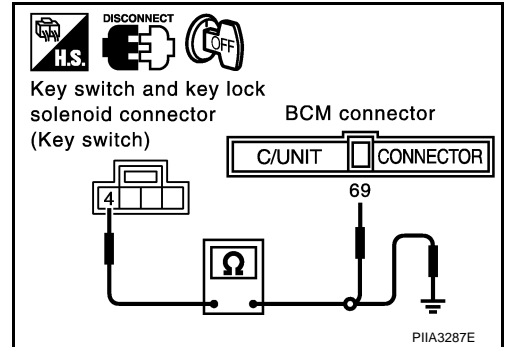
3. Check continuity between key switch and key lock solenoid connector M64 terminal 4 (PU/W) and body ground.

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

OK or NG

OK >> GO TO 6.

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



## 6. CHECK KEY SWITCH SIGNAL

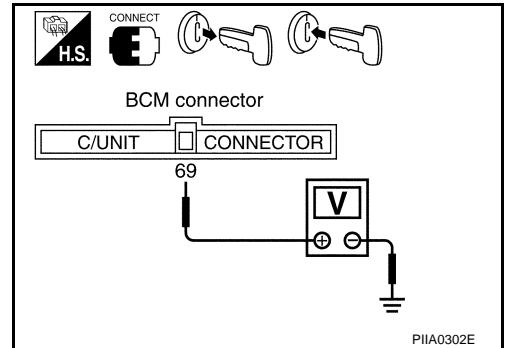
Check voltage between BCM connector body ground.

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

OK or NG

OK >> System is OK.

NG >> GO TO 5

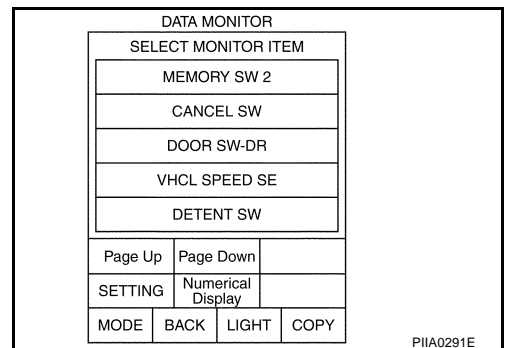


## Front Door Switch (Driver Side) Circuit Inspection.

### 1. FUNCTIONAL INSPECTION

☑ With CONSULT-II

- With "DOOR SW DR" on the DATA MONITOR, check ON/OFF operation when the driver door is open and closed. Refer to [SE-40, "DATA MONITOR"](#).



☒ Without CONSULT-II

- Carry out "SWITCH MONITOR" in the self-diagnosis function, and open and close the driver door to check. Refer to [SE-46, "SWITCH MONITOR"](#).

OK or NG?

OK >> System is OK.

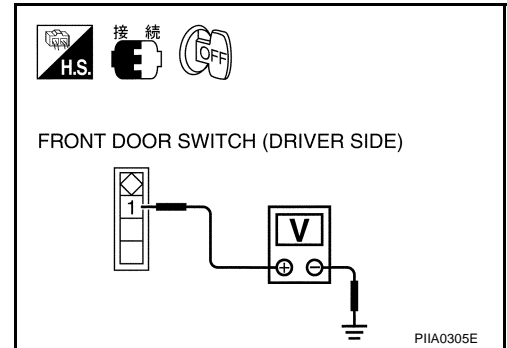
NG >> GO TO 2.

# AUTOMATIC DRIVE POSITIONER

## 2. FRONT DOOR SWITCH (DRIVER SIDE) INSPECTION

- Remove the front door switch (driver side).
- Check the voltage between terminal No. 1(W/R) on the front door switch (driver side) connector B20 terminal No.1(W/R) and body ground.

Terminals		Condition	Voltage (V) (Approx)
(+)	(-)		
Con- nector	Terminal		
B20	1	Ground	0
		Ground	Battery voltage



**OK or NG?**

- OK >> Repair or replace harness.
- NG >> Replace the driver door switch.

## Vehicle Speed Signal Inspection

EIS000EX

### 1. CHECK THE SYMPTOM

Check that the speedometer in the combination meter operates normally.

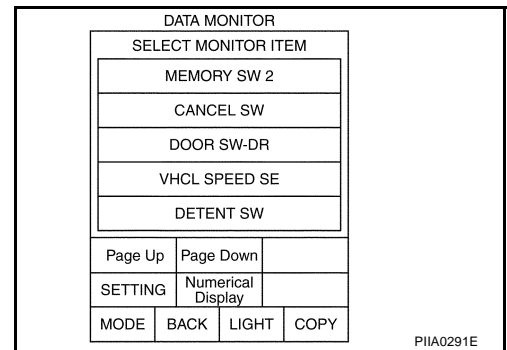
**OK or NG?**

- OK >> GO TO 2.
- NG >> Check the vehicle speed signal. Refer to [DI-21, "Inspection/Vehicle Speed Signal"](#) .

### 2. FUNCTIONAL INSPECTION

With CONSULT-II

- With " VHCL SPEED SE " on the DATA MONITOR, check the vehicle speed signal. Refer to [SE-40, "DATA MONITOR"](#) .



Without CONSULT-II

- Carry out the self-diagnosis. Refer to [SE-48, "ON BOARD DIAGNOSIS FOR AUTOMATIC DRIVE POSITIONER"](#) .

**OK or NG?**

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



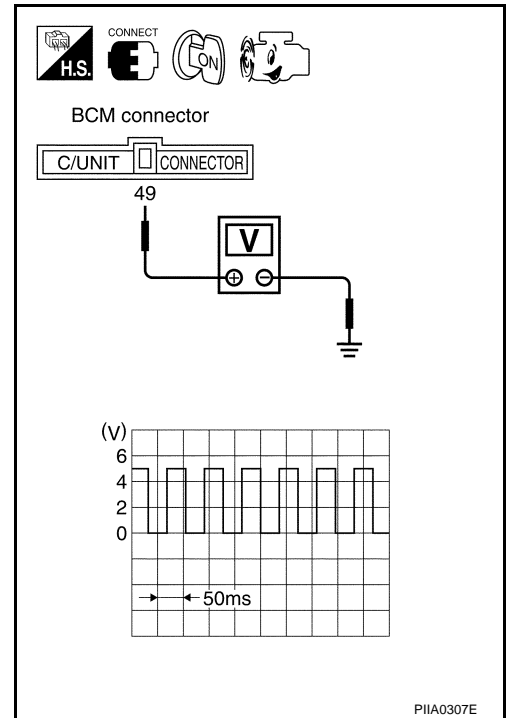
# AUTOMATIC DRIVE POSITIONER

## 3. VEHICLE SPEED INPUT/OUTPUT INSPECTION

- Start the engine, and check the voltage between terminal No. 49(PU/W) on the harness connector M4 for the BCM and body ground, using an oscilloscope.

**No.49(PU/W) – body ground**

**: Voltage waveform  
(When vehicle speed is approx. 40km/h(25MPH))**



OK or NG?

- OK >> Replace the BCM.
- NG >> GO TO 4.

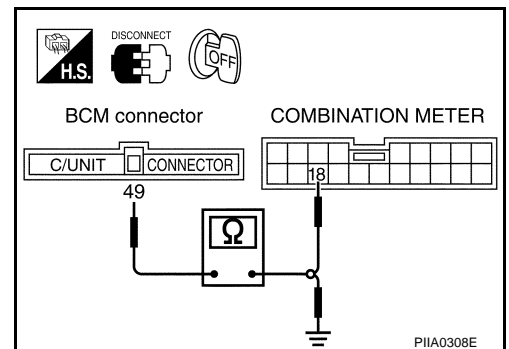
## 4. HARNESS CONTINUITY INSPECTION

- Turn the ignition switch OFF, and disconnect the connectors M4,M41for the BCM and combination meter.
- Check the continuity between terminal No. 49(PU/W) on the harness connector M4 for the BCM and terminal No. 18(PU/W) on the harness connector M41 for the combination meter, and between terminal No. 49(PU/W) on the harness connector M4 for the BCM and body ground.

Terminals				Continuity
(+)		(-)		
Connector	Terminal	Connector	Terminal	
M4	49(PU/W)	M41	18(PU/W)	Should exist
	49(PU/W)	Ground		Should not exist

OK or NG?

- OK >> Replace the meter control unit.
- NG >> Repair or replace harness.



# AUTOMATIC DRIVE POSITIONER

EIS000EY

## Seat Memory Switch Circuit Inspection

### 1. FUNCTIONAL INSPECTION

④ With CONSULT-II

- With "SET SW, MEMORY SW1 MEMORY SW2" on the DATA MONITOR, operate the switch to check ON/OFF operation. Refer to [SE-40, "DATA MONITOR"](#).

DATA MONITOR			
MONITOR			
SLIDE SW-FR		OFF	
SLIDE SW-RR		OFF	
RECLN SW-FR		OFF	
RECLN SW-RR		OFF	
LIFT FR SW-UP		OFF	
LIFT FR SW-DN		OFF	
LIFT RR SW-UP		OFF	
LIFT RR SW-DN		OFF	
SET SW		OFF	
		Page Down	
		RECORD	
MODE	BACK	LIGHT	COPY

DATA MONITOR			
MONITOR			
TELESCO SW-FR		OFF	
TELESCO SW-RR		OFF	
TILT SW-UP		OFF	
TILT SW-DOWN		OFF	
MEMORY SW 1		OFF	
MEMORY SW 2		OFF	
CANCEL SW		OFF	
DOOR SW-DR		OFF	
VHCL SPEED SE		<7km/	
		Page Up	Page Down
		RECORD	
MODE	BACK	LIGHT	COPY

PIIA0309E

⊗ Without CONSULT-II

- Carry out "switch monitor" in the self-diagnosis function, and operate "Setting switch, memory switch 1, memory switch 2" to check. Refer to [SE-46, "SWITCH MONITOR"](#).

OK or NG?

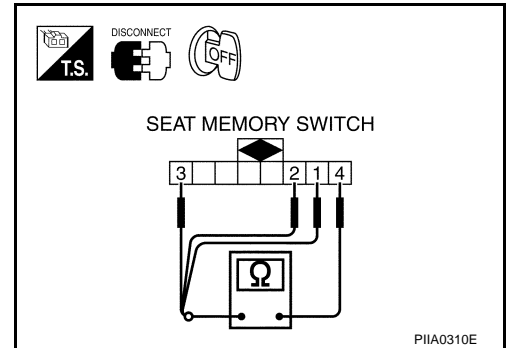
OK >> System is OK.  
NG >> GO TO 2.

# AUTOMATIC DRIVE POSITIONER

## 2. SEAT MEMORY SWITCH INSPECTION

- Turn the ignition switch OFF, and disconnect the seat memory switch connector D3.
- Operate the setting switch and memory switch, and check the continuity between terminals No. 1(G), No. 2(OR), No. 3(R/Y) and No. 4(B) on the seat memory switch connector D3.

Terminals		Condition	Continuity
(+)			
Con- nector	Terminal	(-)	
D3	3(R/Y)	Set switch ON	Should exist
		Set switch OFF	Should not exist
	1(G)	Memory switch 1 ON	Should exist
		Memory switch 1 OFF	Should not exist
	2(OR)	Memory switch 2 ON	Should exist
		Memory switch 2 OFF	Should not exist



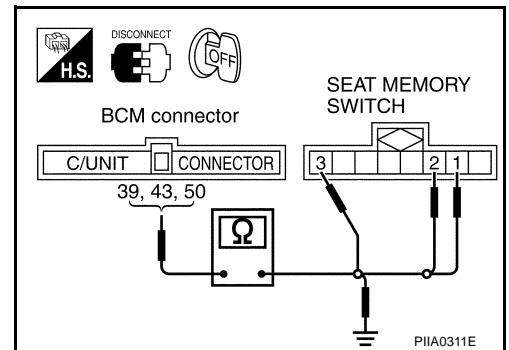
**OK or NG?**

- OK >> GO TO 3.  
 NG >> Replace the seat memory switch.

## 3. HARNESS CONTINUITY INSPECTION

- Disconnect the BCM connector M4.
- Check the continuity between terminals No. 39(G), No. 43(OR), No. 50(R/Y) on the harness connector M4 for the BCM and terminals No. 1(G), No. 2(OR), No. 3(R/Y) on the harness connector D3 for the seat memory switch, and between terminals No. 39(G), No. 43(OR), No. 50(R/Y) on the harness connector M4 for the BCM and body ground.

Terminals				Continuity
(+)		(-)		
Connector	Terminal	Connector	Terminal	
M4	39(G)	D3	1(G)	Should exist
	43(OR)		2(OR)	Should exist
	50(R/Y)		3(R/Y)	Should exist
	39(G)	Ground		Should not exist
	43(OR)	Ground		Should not exist
	50(R/Y)	Ground		Should not exist



**OK or NG?**

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

# AUTOMATIC DRIVE POSITIONER

## 4. SEAT MEMORY SWITCH GROUND CIRCUIT INSPECTION

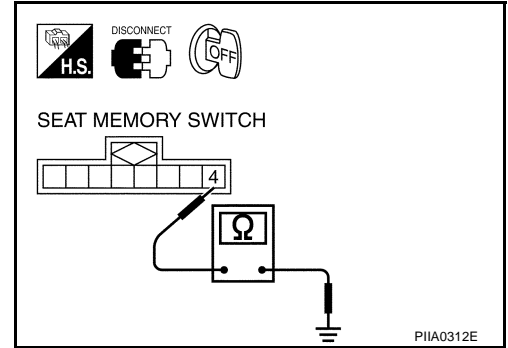
- Check the continuity at harness between terminal No. 4(B) on the harness connector D3 for the seat memory switch and body ground.

**No.4(B) – body ground**

**::Continuity should exist**

OK or NG?

- OK >> Replace the BCM.
- NG >> Repair or replace harness.



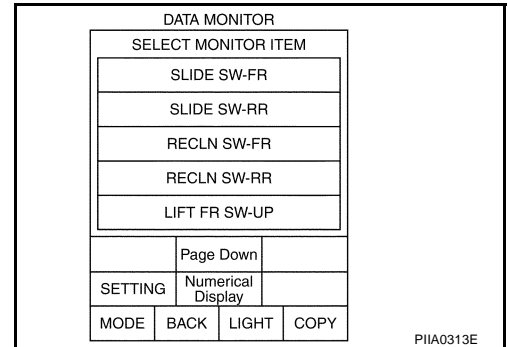
## Seat Sliding Circuit Inspection 3

EIS000EZ

### 1. FUNCTIONAL INSPECTION

④ With CONSULT-II

- With "SLIDE SW-FR,SLIDE SW-RR" on the DATA MONITOR, operate the sliding switch to check ON/OFF operation. Refer to [SE-40, "DATA MONITOR"](#) .



⊗ Without CONSULT-II

- Carry out "SWITCH MONITOR" in the self-diagnosis function, and operate the sliding switch to check. Refer to [SE-46, "SWITCH MONITOR"](#) .

OK or NG?

- OK >> ④ Carry out and check "POWER SEAT C/U-DR" in the wake-up diagnosis. Refer to [SE-36, "Wake-up Diagnosis."](#) .
  - If NG, replace the driver seat control unit.

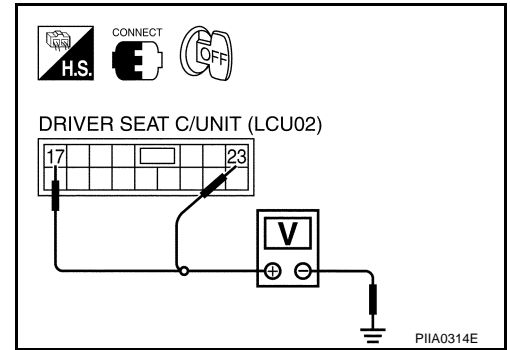
NG >> GO TO 2

# AUTOMATIC DRIVE POSITIONER

## 2. SLIDING SWITCH INPUT/OUTPUT INSPECTION

- Check the voltage between terminals No. 17(Y/R), No. 23(G/W) on the seat harness connector B143 for the driver seat control unit and body ground.

Terminals		Condition	Voltage (V)
(+)			
Connector	Terminal	(-)	
B143	17(Y/R)	Ground	Sliding switch ON(FR operation)
			Sliding switch OFF
	23(G/W)	Ground	Sliding switch ON(RR operation)
			Sliding switch OFF



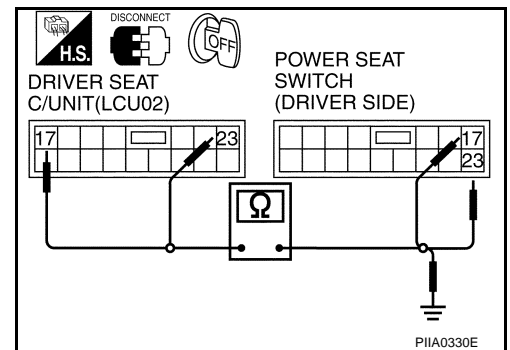
OK or NG?

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

## 3. HARNESS CONTINUITY INSPECTION

- Disconnect the connectors for the driver seat control unit and power seat switch(driver side).
- Check the continuity between terminals No. 17(Y/R), No. 23(G/W) on the harness connector B143 for the driver seat control unit and terminals No. 17(Y/R), No. 23(G/W) on the harness connector B144 for the driver power seat switch, and between terminals No. 17(Y/R), No. 23(G/W) on the harness connector B143 for the driver seat control unit and body ground.

Terminals				Continuity
(+)		(-)		
Connector	Terminal	Connector	Terminal	
B143	17(Y/R)	B144	17(Y/R)	Should exist
	23(G/W)		23(G/W)	Should exist
	17(Y/R)	Ground		Should not exist
	23(G/W)	Ground		Should not exist



OK or NG?

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

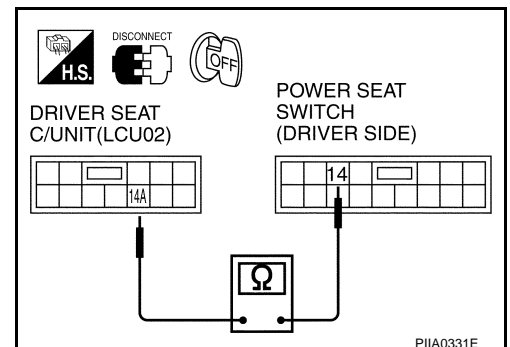
## 4. POWER SEAT SWITCH GROUND CIRCUIT INSPECTION

- Check the continuity between terminal No. 14A(B/W) on the harness connector B142 for the driver seat control unit and terminal No. 14(B/W) on the seat harness connector B144 for the power seat switch.

**No.14A(B/W) – No.14(B/W) ::Continuity should exist**

OK or NG?

- OK >> Replace the driver power seat switch.
- NG >> Repair or replace harness.



# AUTOMATIC DRIVE POSITIONER

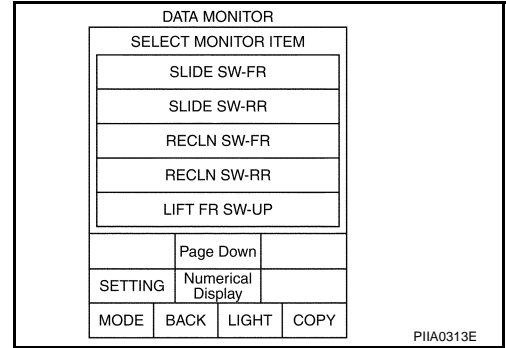
E/S000F0

## Seat Reclining System Inspection 3

### 1. FUNCTIONAL INSPECTION

④ With CONSULT-II

- With "RECLINING SW-FR, RECLINING SW-RR" on the DATA MONITOR, operate the reclining switch to check ON/OFF operation. Refer to [SE-40, "DATA MONITOR"](#).



⊗ Without CONSULT-II

- Carry out "SWITCH MONITOR" in the self-diagnosis function, and operate the reclining switch to check. Refer to [SE-46, "SWITCH MONITOR"](#).

OK or NG?

- OK >> ④ Carry out and check "POWER SEAT C/U-DR" in the wake-up diagnosis. Refer to [SE-36, "Wake-up Diagnosis."](#)
- If NG, replace the driver seat control unit.

NG >> GO TO 2

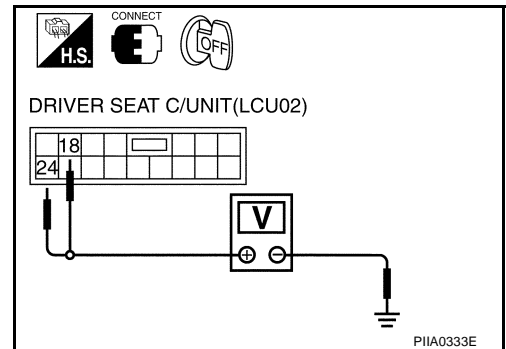
### 2. RECLINING SWITCH INPUT/OUTPUT INSPECTION

- Check the voltage between terminals No. 18(GY/B), No. 24(SB) on the seat harness connector B143 for the driver seat control unit and body ground.

Terminals		Condition	Voltage (V)
(+)	(-)		
Connector	Terminal		
B143	18(GY/B)	Reclining switch ON(FR operation)	0V
		Reclining switch OFF	Approx.5V
	24(SB)	Reclining switch ON(RR operation)	0V
		Reclining switch OFF	Approx.5V

OK or NG?

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



# AUTOMATIC DRIVE POSITIONER

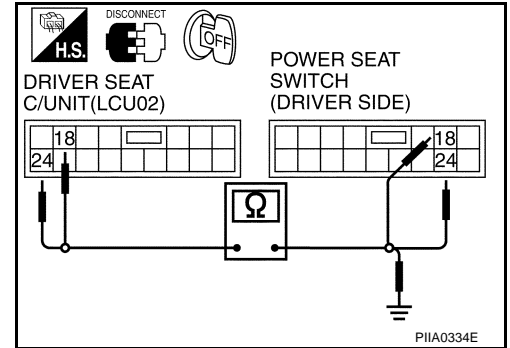
## 3. HARNESS CONTINUITY INSPECTION

- Disconnect the connectors B143, B144 for the driver seat control unit and power seat switch (driver side).
- Check the continuity between terminals No. 18 (GY/B), No. 24 (SB) on the harness connector B143 for the driver seat and terminals No. 18 (GY/B), No. 24 (SB) on the harness connector B144 for the power seat switch, and between terminals No. 18 (GY/B), No. 24 (SB) on the harness connector B143 for the driver seat control unit and body ground.

Terminals				Continuity
(+)		(-)		
Connector	Terminal	Connector	Terminal	
B143	18(GY/B)	B144	18(GY/B)	Should exist
	24(SB)		24(SB)	Should exist
	18(GY/B)	Ground		Should not exist
	24(SB)	Ground		Should not exist

**OK or NG?**

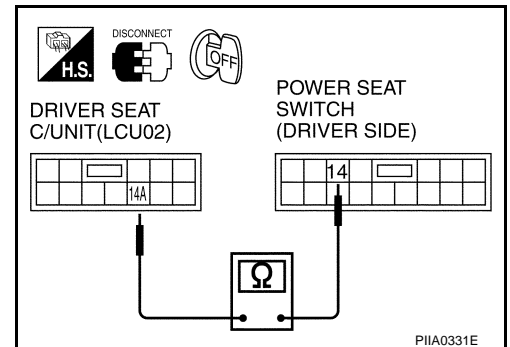
- OK >> GO TO 4  
 NG >> Repair or replace harness.



## 4. POWER SEAT SWITCH GROUND CIRCUIT INSPECTION

- Check the continuity between terminal No. 14A (B/W) on the seat harness connector B142 for the driver seat control unit and terminal No. 14 (B/W) on the seat harness connector B144 for the power seat switch.

**No.14A(B/W) – No.14(B/W) : :Continuity should exist**



**OK or NG?**

- OK >> Replace the driver power seat switch.  
 NG >> Repair or harness.

A  
B  
C  
D  
E  
F  
G  
H  
SE  
J  
K  
L  
M

# AUTOMATIC DRIVE POSITIONER

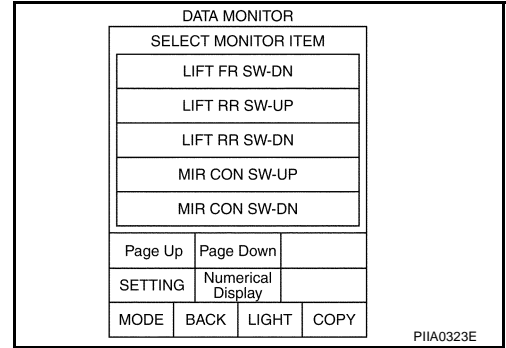
## Front End Seat Lifting Circuit Inspection 3.

E/S000F1

### 1. FUNCTIONAL INSPECTION

④ With CONSULT-II

- With "LIFT FR SW-UP,LIFT FR SW-DN" on the DATA MONITOR, operate the front lifting switch(driver side) to check ON/OFF operation. Refer to [SE-40, "DATA MONITOR"](#) .



⊗ Without CONSULT-II

- Carry out "SWITCH MONITOR" in the self-diagnosis function, and operate the front lifting switch(driver side) to check. Refer to [SE-46, "SWITCH MONITOR"](#) .

OK or NG?

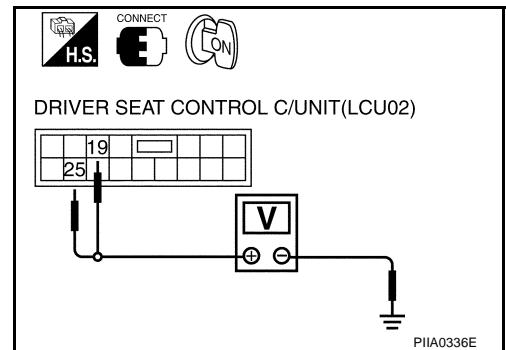
- OK >> ④ Carry out and check "POWER SEAT C/U-DR" in the wake-up diagnosis. Refer to [SE-36, "Wake-up Diagnosis."](#) .
- If NG, replace the driver seat control unit.

NG >> GO TO 2

### 2. FRONT END LIFTING SWITCH INPUT/OUTPUT INSPECTION

- Check the voltage between terminals No. 19(L/R), No. 25(OR/B) on the harness connector B143 for the driver seat control unit and body ground.

Terminals		Condition	Voltage (V)
(+)	(-)		
Connector	Terminal		
B143	19(L/R)	Front lifting switch ON(UP operation)	0V
		Front lifting switch OFF	Approx.5V
	25(OR/B)	Front lifting switch ON (DOWN operation)	0V
		Front lifting switch OFF	Approx.5V



OK or NG?

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



# AUTOMATIC DRIVE POSITIONER

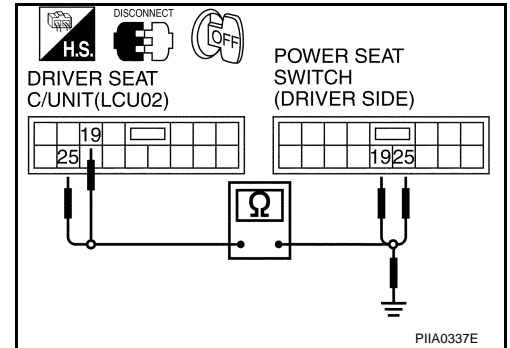
## 3. HARNESS CONTINUITY INSPECTION

- Disconnect the connectors B143, B144 for the driver seat control unit and power seat switch(driver side).
- Check the continuity between terminals No. 19(L/R), No. 25(OR/B) on the harness connector B143 for the driver seat control unit and terminals No. 19(L/R), No. 25(OR/B) on the harness connector B144 for the power seat switch(driver side), and between terminals No. 19(L/R), No. 25(OR/B) on the harness connector for the driver seat control unit and body ground.

Terminals				Continuity
(+)		(-)		
Connector	Terminal	Connector	Terminal	
B143	19(L/R)	B144	19(L/R)	Should exist
	25(OR/B)		25(OR/B)	Should exist
	19(L/R)	Ground		Should not exist
	25(OR/B)			Should not exist

**OK or NG?**

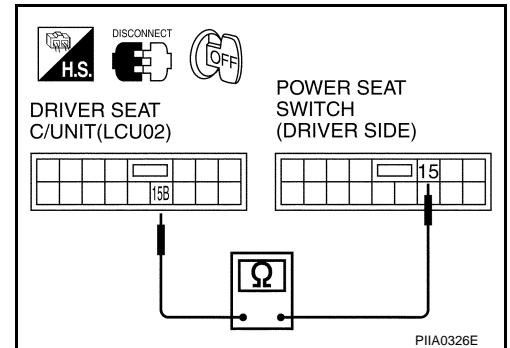
- OK >> GO TO 4  
 NG >> Repair or replace harness.



## 4. POWER SEAT SWITCH GROUND CIRCUIT INSPECTION

- Check the continuity between terminal No. 15B(B) on the seat harness connector B142 for the driver seat control unit and terminal No. 15(B) on the seat harness connector B144 for the power seat switch.

**No.15B(B) – No.15(B) ::Continuity should exist**



**OK or NG?**

- OK >> Replace the power seat switch(driver side).  
 NG >> Repair or replace harness.

# AUTOMATIC DRIVE POSITIONER

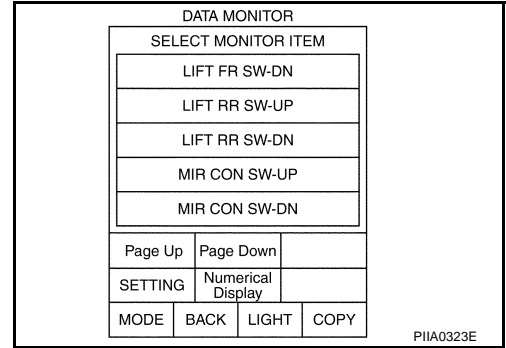
E/S000F2

## Rear End Seat Lifting Circuit Inspection 3

### 1. FUNCTIONAL INSPECTION

④ With CONSULT-II

- With "LIFT RR SW-UP,LIFT RR SW-DN" on the DATA MONITOR, operate the rear lifting switch(driver side) to check ON/OFF operation. Refer to [SE-40, "DATA MONITOR"](#) .



⊗ Without CONSULT-II

- Carry out "SWITCH MONITOR" in the self-diagnosis function, and operate the rear lifting switch to check. Refer to [SE-46, "SWITCH MONITOR"](#) .

OK or NG?

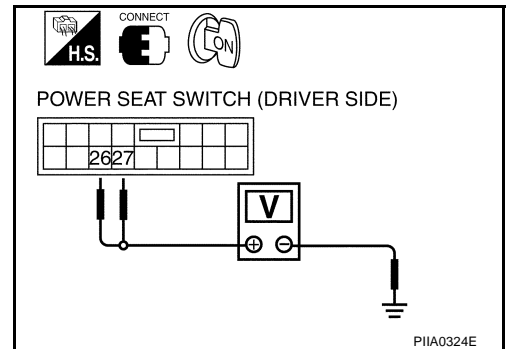
- OK >> ④ Carry out and check "POWER SEAT C/U-DR" in the wake-up diagnosis. Refer to [SE-36, "Wake-up Diagnosis."](#) .
- If NG, replace the driver seat control unit.

NG >> GO TO 2

### 2. REAR END LIFTING SWITCH INPUT/OUTPUT INSPECTION

- Check the voltage between terminals No. 26(P/B), No. 27(B/Y) on the harness connector B143 for the driver seat control unit and body ground.

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



OK or NG?

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

# AUTOMATIC DRIVE POSITIONER

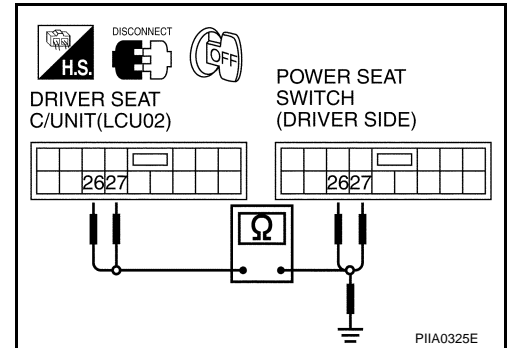
## 3. HARNESS CONTINUITY INSPECTION

- Disconnect the connectors B143, B144 for the driver seat control unit and driver power seat switch.
- Check the continuity between terminals No. 26(P/B), No. 27(B/Y) on the seat harness connector B143 for the driver seat control unit and terminals No. 26(P/B), No. 27(B/Y) on the seat harness connector B144 for the power seat switch, and between terminals No. 26(P/B), No. 27(B/Y) on the seat harness connector B143 for the driver seat control unit and body ground.

Terminals				Continuity
(+)		(-)		
Connector	Terminal	Connector	Terminal	
B143	26(P/B)	B144	26(P/B)	Should exist
	27(B/Y)		27(B/Y)	Should exist
	26(P/B)	Ground		Should not exist
	27(B/Y)	Ground		Should not exist

**OK or NG?**

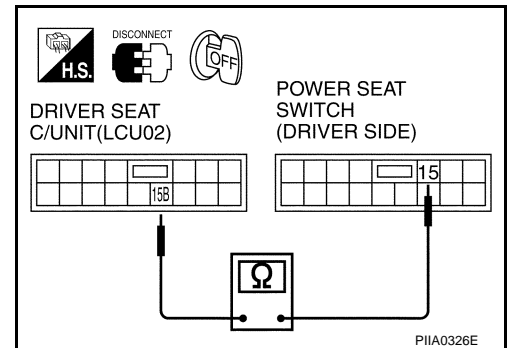
- OK >> GO TO 4  
 NG >> Repair or replace harness.



## 4. POWER SEAT SWITCH GROUND CIRCUIT INSPECTION

- Check the continuity between terminal No. 15B(B) on the seat harness connector B142 for the driver seat control unit and terminal No. 15(B) on the seat harness connector B144 for the power seat switch.

**No.15B(B) – No.15(B) : :Continuity should exist**



**OK or NG?**

- OK >> Replace the power seat switch(driver side).  
 NG >> Repair or replace harness.

# AUTOMATIC DRIVE POSITIONER

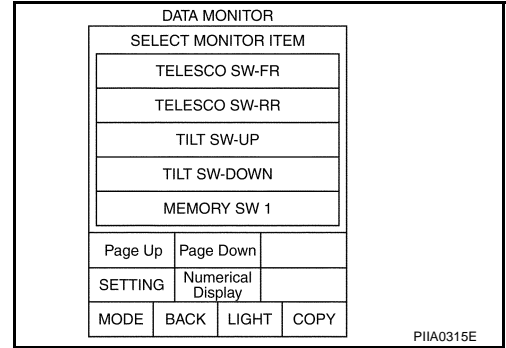
## Steering Wheel Telescopic System Inspection 2.

E/S000F3

### 1. FUNCTIONAL INSPECTION

④ With CONSULT-II

- With "TELESCO SW-FR, TELESCO SW-RR" on the DATA MONITOR, operate the ADP steering switch to check ON/OFF operation. Refer to [SE-40, "DATA MONITOR"](#).



⊗ Without CONSULT-II

- Carry out "SWITCH MONITOR" in the self-diagnosis function, and operate the ADP steering switch to check. Refer to [SE-46, "SWITCH MONITOR"](#).

OK or NG?

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

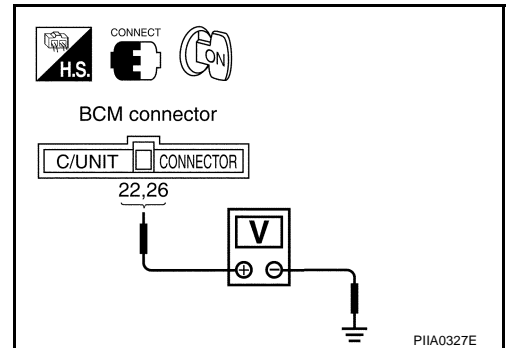
### 2. TELESCOPIC SWITCH INPUT/OUTPUT INSPECTION

- Check the voltage between terminals No. 22(R), No. 26(GY/R) on the harness connector M4 for the BCM and body ground.

Terminals		Condition	Voltage (V)
(+)	(-)		
Connector	Terminal		
M4	22(R)	Telescopic switch ON(FR operation)	0V
		Telescopic switch OFF	Approx.5V
	26(GY/R)	Telescopic switch ON (RR operation)	0V
		Telescopic switch OFF	Approx.5V

OK or NG?

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



# AUTOMATIC DRIVE POSITIONER

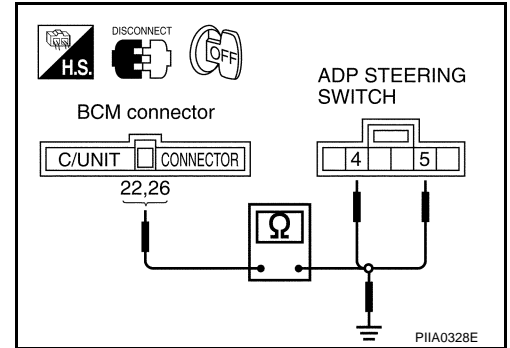
## 3. HARNESS CONTINUITY INSPECTION

- Disconnect the connectors M4, M51 for the BCM and ADP steering switch.
- Check the continuity between terminals No. 22(R), No. 26(GY/R) on the harness connector M4 for the BCM and terminals No. 4(GY/R), No. 5(R) on the harness connector M51 for the ADP steering switch, and between terminals No. 22(R), No. 26(GY/R) on the harness connector M4 for the BCM and body ground.

Terminals				Continuity
(+)		(-)		
Connector	Terminal	Connector	Terminal	
M4	22(R)	M51	5(R)	Should exist
	26(GY/R)		4(GY/R)	Should exist
	22(R)	Ground		Should not exist
	26(GY/R)	Ground		Should not exist

OK or NG?

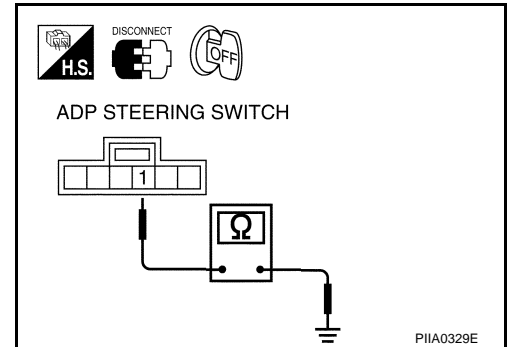
- OK >> GO TO 4  
 NG >> Repair or replace harness.



## 4. ADP STEERING SWITCH GROUND CIRCUIT INSPECTION

- Check the continuity between terminal No. 1(B) on the harness connector M51 for the ADP steering switch and body ground.

**No.1(B) – body ground : :Continuity should exist**



OK or NG?

- OK >> Replace the ADP steering switch.  
 NG >> Replace or replace harness.

# AUTOMATIC DRIVE POSITIONER

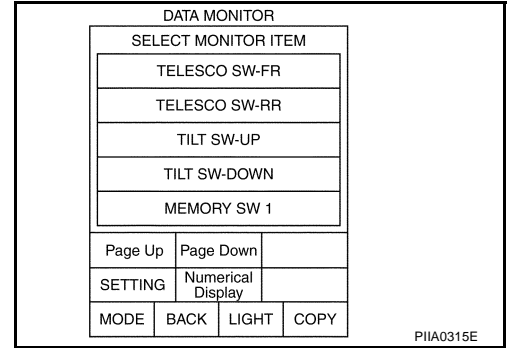
## Steering Wheel Tilt System Inspection 2.

EIS000F4

### 1. FUNCTIONAL INSPECTION

④ With CONSULT-II

- With "TILT SW-UP,TILT SW-DOWN" on the DATA MONITOR, operate the ADP steering switch to check ON/OFF operation. Refer to [SE-40, "DATA MONITOR"](#).



⊗ Without CONSULT-II

- Carry out "SWITCH MONITOR" in the self-diagnosis function, and operate the ADP steering switch to check. Refer to [SE-46, "SWITCH MONITOR"](#).

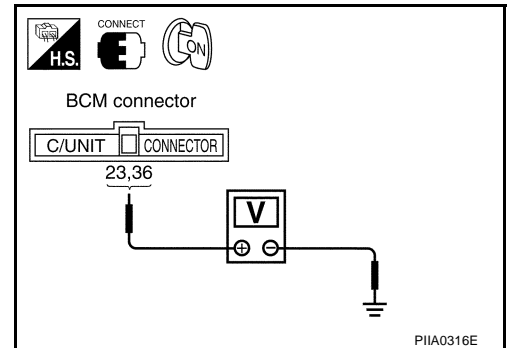
OK or NG?

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

### 2. ADP STEERING SWITCH (TILT) INPUT/OUTPUT INSPECTION

- Check the voltage between terminals No. 23(PU/W), No. 36(Y/G) on the harness connector M4 for the BCM and body ground.

Terminals		(-)	Condition	Voltage (V)
(+) Terminal				
Con- nector	Terminal			
M4	23(PU/W)	Ground	Tilt switch ON (DOWN operation)	0V
			Tilt switch OFF	Approx.5V
	36(Y/G)	Ground	Tilt switch ON (UP operation)	0V
			Tilt switch OFF	Approx.5V



OK or NG?

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

# AUTOMATIC DRIVE POSITIONER

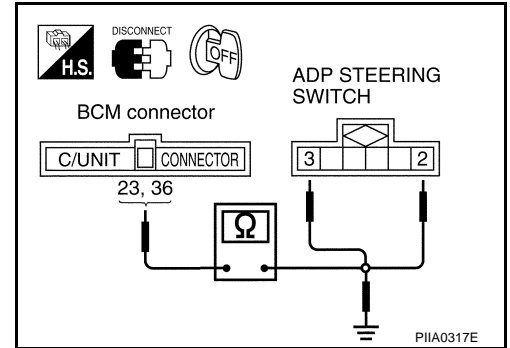
## 3. HARNESS CONTINUITY INSPECTION

- Disconnect the connectors M4, M51 for the BCM and ADP steering switch.
- Check the continuity between terminals No. 23(PU/W), No. 36(Y/G) on the harness connector for the BCM and terminals No. 2(Y/G), No. 3(PU/W) on the harness connector M51 for the ADP steering switch, and between terminals No. 23(PU/W), No. 36(Y/G) on the harness connector M4 for the BCM and body ground.

Terminals				Continuity
(+)		(-)		
Connector	Terminal	Connector	Terminal	
M4	23(PU/W)	M51	3(PU/W)	Should exist
	36(Y/G)		2(Y/G)	Should exist
	23(PU/W)	Ground		Should not exist
	36(Y/G)	Ground		Should not exist

**OK or NG?**

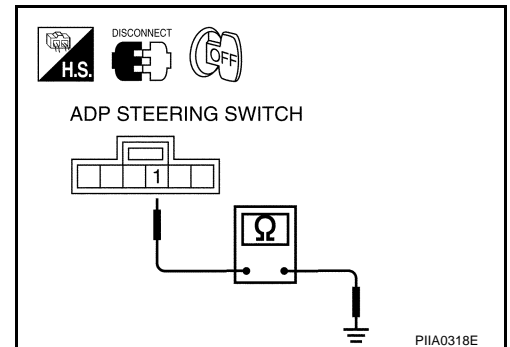
- OK >> GO TO 4
- NG >> Repair or replace harness.



## 4. ADP STEERING SWITCH GROUND CIRCUIT INSPECTION

- Check the continuity between terminal No. 1(B) on the harness connector M51 for the ADP steering switch and body ground.

**No.1(B) – body ground : :Continuity should exist**



**OK or NG?**

- OK >> Replace the ADP steering switch.
- NG >> Repair or replace harness.

# AUTOMATIC DRIVE POSITIONER

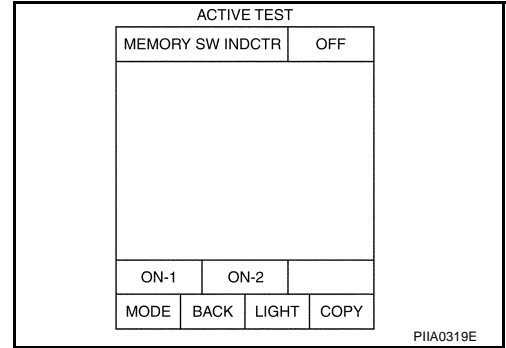
## Seat Memory Indicator lamp System Inspection

E/S000F5

### 1. FUNCTIONAL INSPECTION

④ With CONSULT-II

- With "MEMORY SW INDCTR" in ACTIVE TEST, check the operation. Refer to [SE-42, "ACTIVE TEST"](#).



⊗ Without CONSULT-II

- GO TO 2

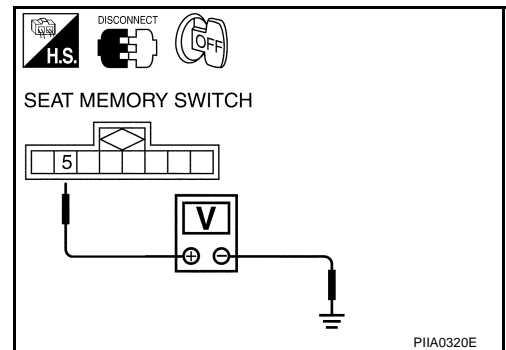
OK or NG?

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

### 2. SEAT MEMORY SWITCH POWER SUPPLY CIRCUIT INSPECTION

- Turn the ignition switch OFF, and disconnect the seat memory switch connector D3.
- Check the voltage between terminal No. 5(P/L) on the harness connector D3 for the seat memory switch and body ground.

No.5(P/L) – body ground      ::Battery voltage



OK or NG?

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



# AUTOMATIC DRIVE POSITIONER

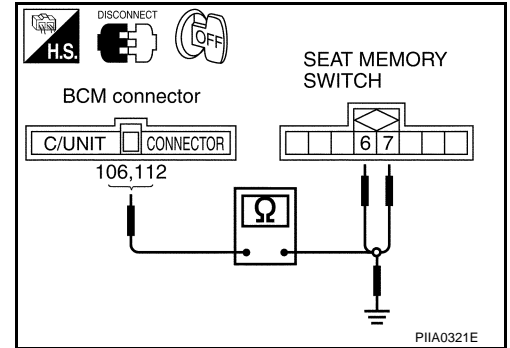
## 3. HARNESS CONTINUITY INSPECTION

- Disconnect the BCM connector M4.
- Check the continuity between terminals No. 106(BR/Y), No. 112(L/W) on the harness connector M4 for the BCM and terminals No. 6(BR/Y), No. 7(L/W) on the harness connector D3 for the seat memory switch, and between terminals No. 106(BR/Y), No. 112(L/W) on the harness connector M4 for the BCM and body ground.

Terminals				Continuity
(+)		(-)		
Connector	Terminal	Connector	Terminal	
M4	106 (BR/Y)	D3	6(BR/Y)	Should exist
	112(L/W)		7(L/W)	Should exist
	106 (BR/Y)	Ground		Should not exist
	112(L/W)	Ground		Should not exist

OK or NG?

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



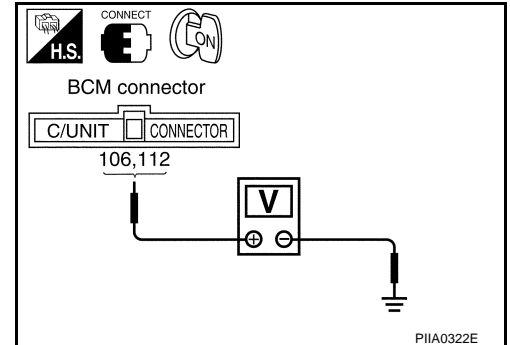
## 4. SEAT MEMORY SWITCH INDICATOR SIGNAL INSPECTION

- Connect the connectors M4,D3 for the BCM and seat memory switch.
- Turn the ignition switch ON, and check the voltage between terminals No. 106(BR/Y), No. 112(L/W) on the harness connector M4 for the BCM and body ground.

Terminals			Condition	Voltage (V)
(+)		(-)		
Con-connector	Terminal	(-)		
M4	106 (BR/Y)	Ground	Memory switch 1 ON	0V
			Memory switch 1 OFF	Battery voltage
	112(L/W)	Ground	Memory switch 2 ON	0V
			Memory switch 2 OFF	Battery voltage

OK or NG?

- OK >> Replace the BCM.  
 NG >> Replace the seat memory switch.



A  
B  
C  
D  
E  
F  
G  
H  
SE  
J  
K  
L  
M

# POWER SEAT

## POWER SEAT

PFP:87016

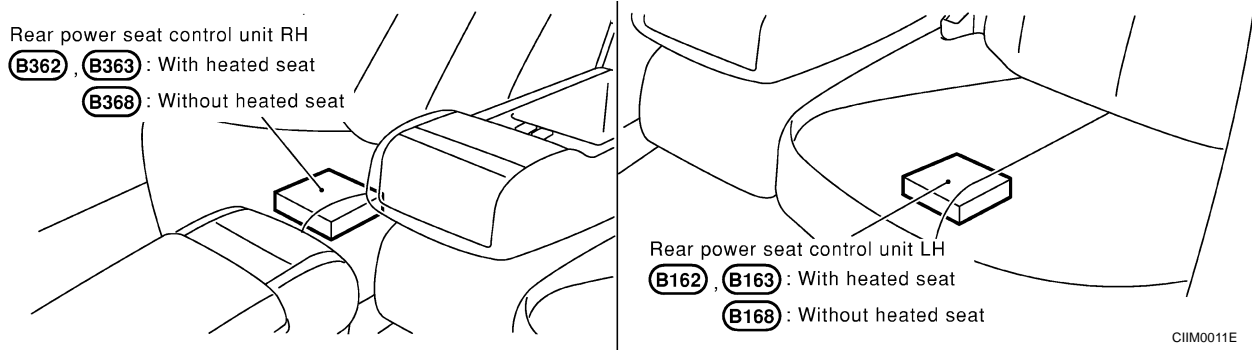
### System Description

E/S000ZK

- Operating the switch on the RH/LH rear door can slide the RH/LH seat separately.
- Operating the auto return switch or opening the rear door can move the seat backward.
- The LH seat moves backward when the driver seat is moved backward by the auto driving position system.

### Component Parts and Harness Connector Location

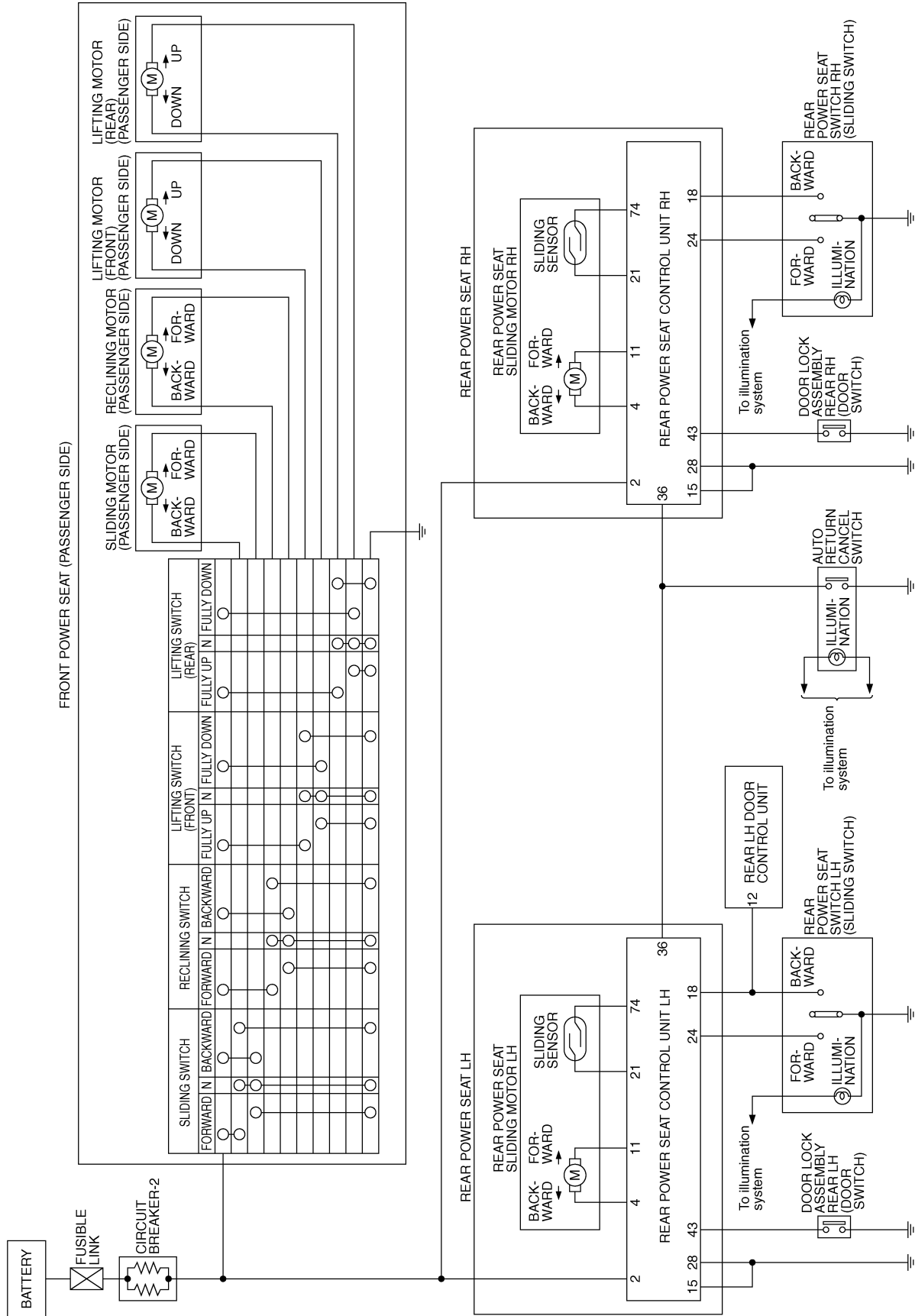
E/S000ZL



# POWER SEAT

## Schematic

EIS0014T



TIWM0060E

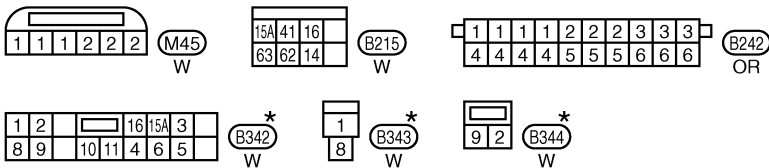
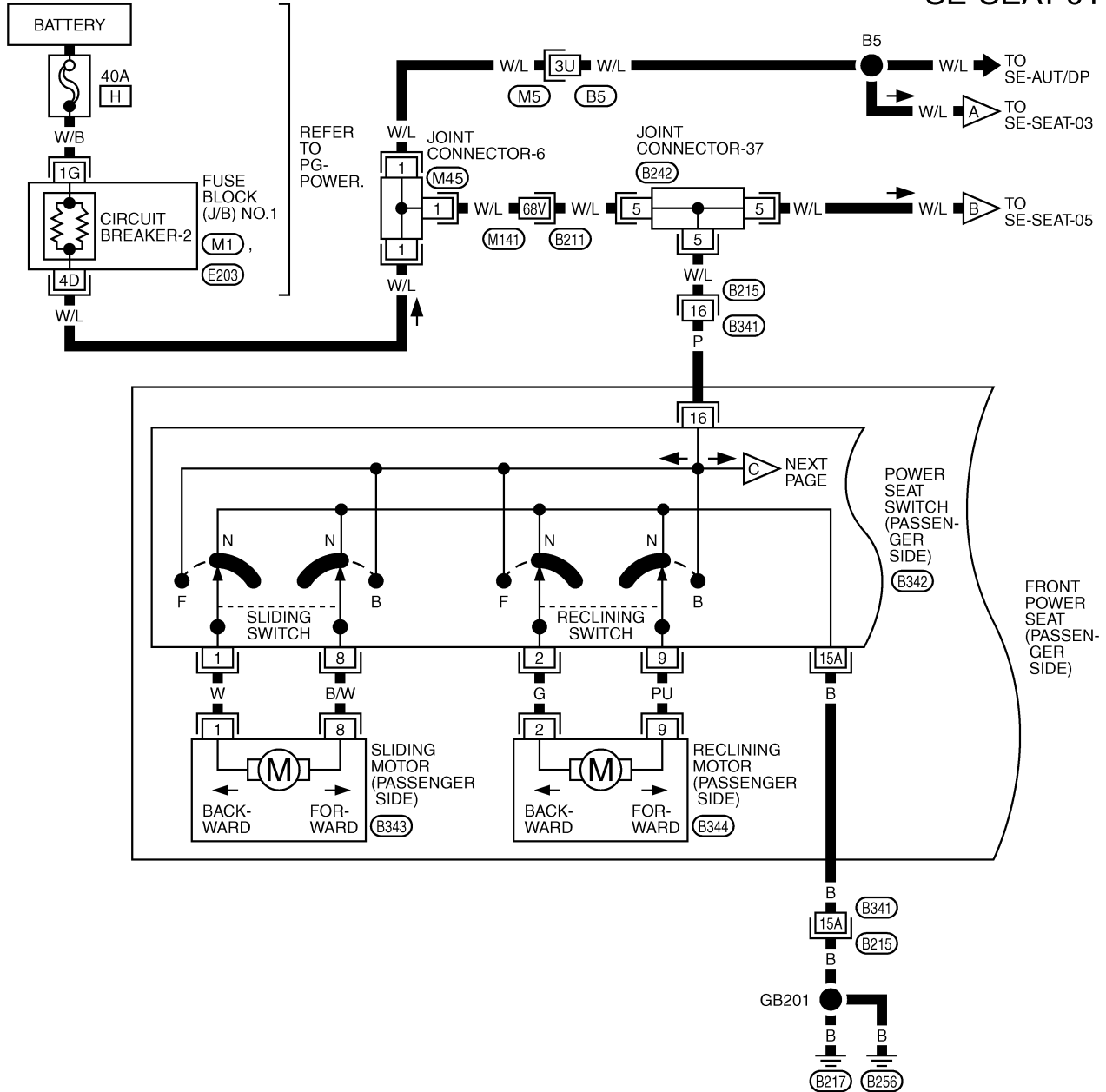
A  
B  
C  
D  
E  
F  
G  
H  
SE  
J  
K  
L  
M

# POWER SEAT

EIS0002N

## Wiring Diagram-SEAT-

### SE-SEAT-01



REFER TO THE FOLLOWING.  
 (M5), (B211) -SUPER MULTIPLE JUNCTION (SMJ)  
 (M1), (E203) -FUSE BLOCK-JUNCTION BOX (J/B) NO.1

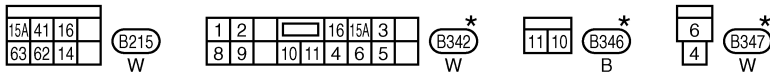
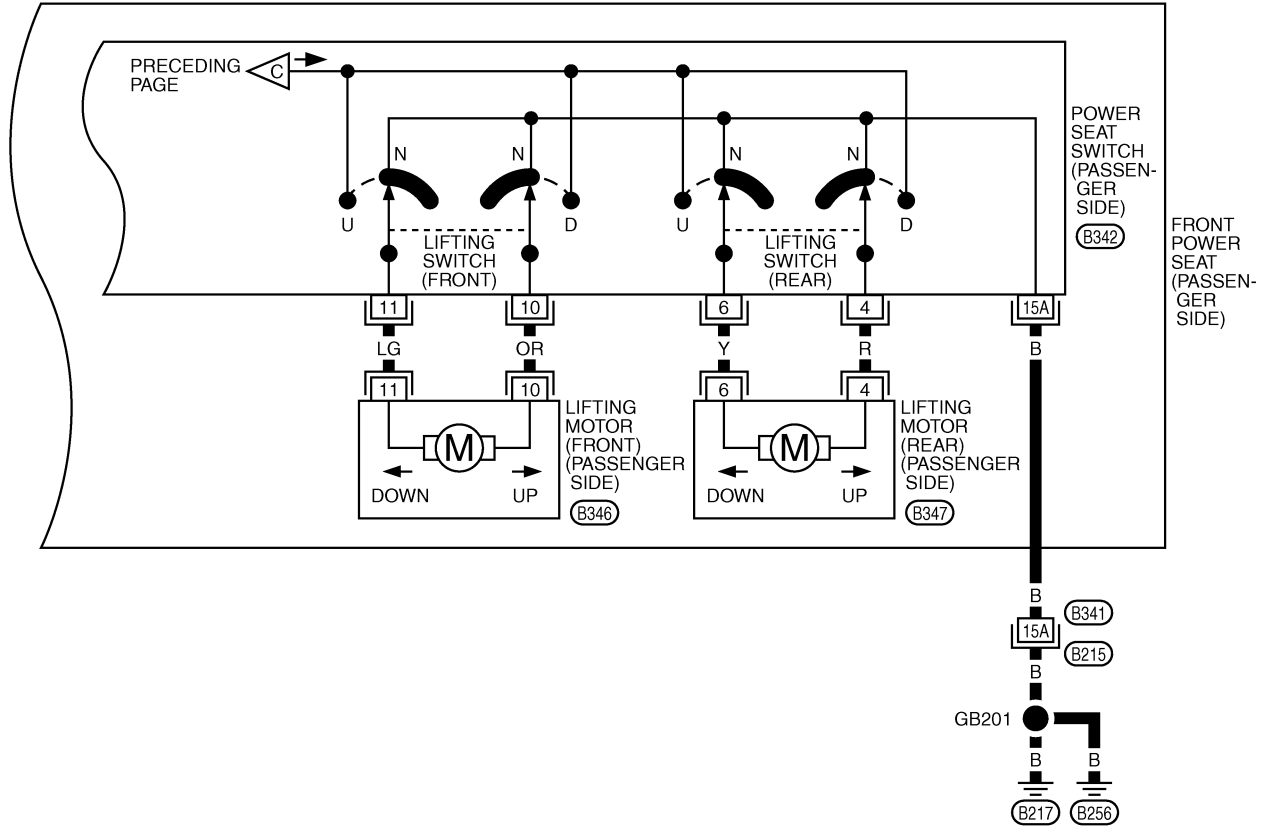
\*: THIS CONNECTOR IS NOT SHOWN IN "HARNES LAYOUT", PG SECTION.

TIWM0061E

# POWER SEAT

SE-SEAT-02

A  
B  
C  
D  
E  
F  
G  
H  
SE  
J  
K  
L  
M

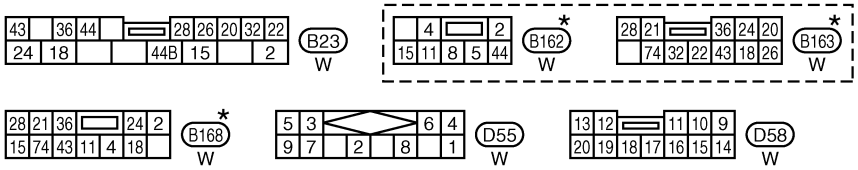
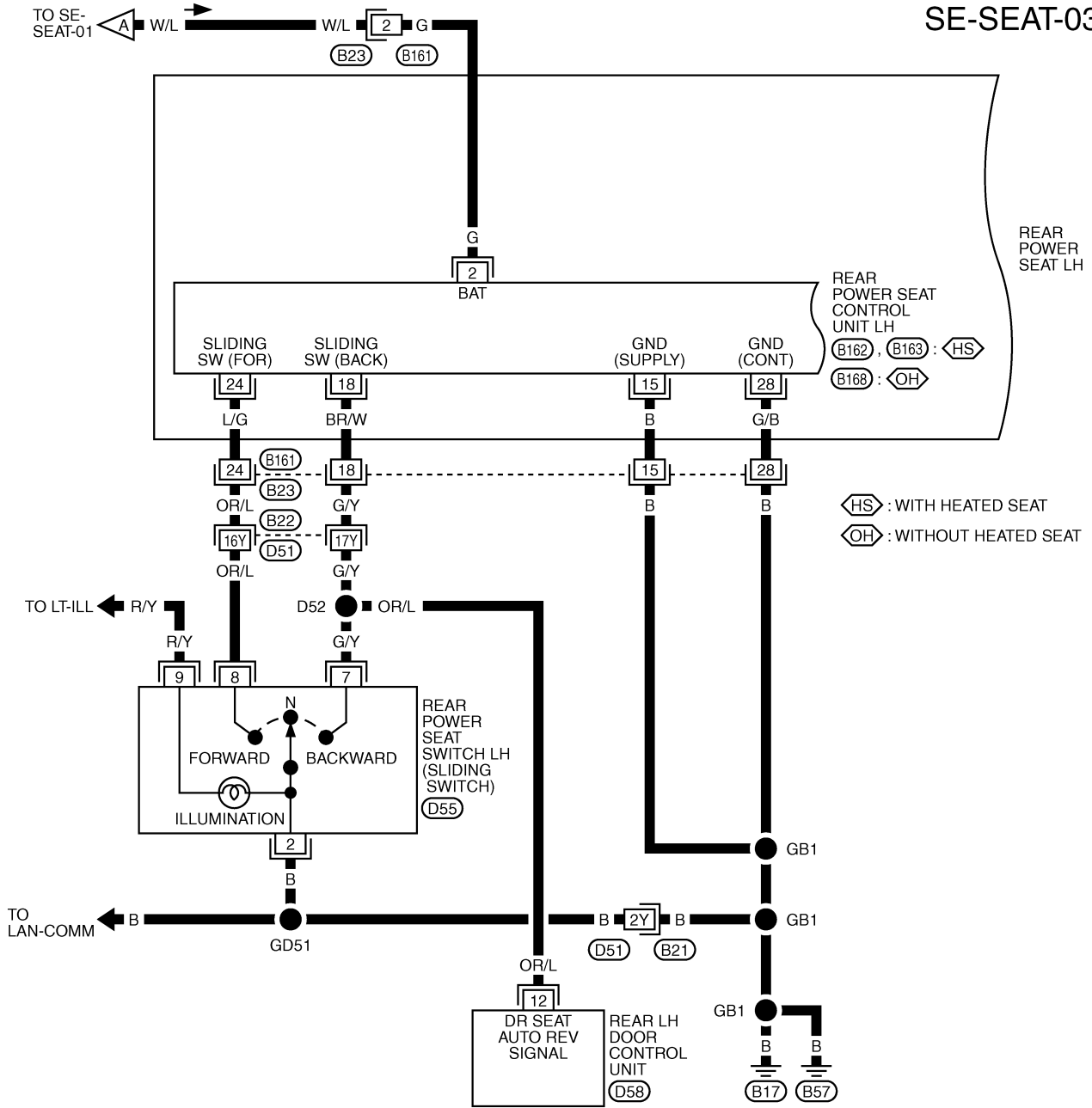


\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

TIWM0062E

# POWER SEAT

SE-SEAT-03

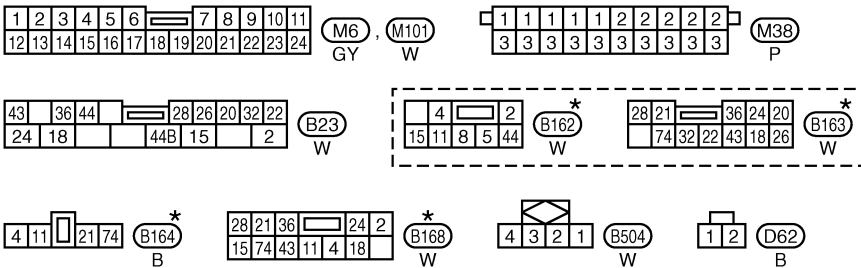
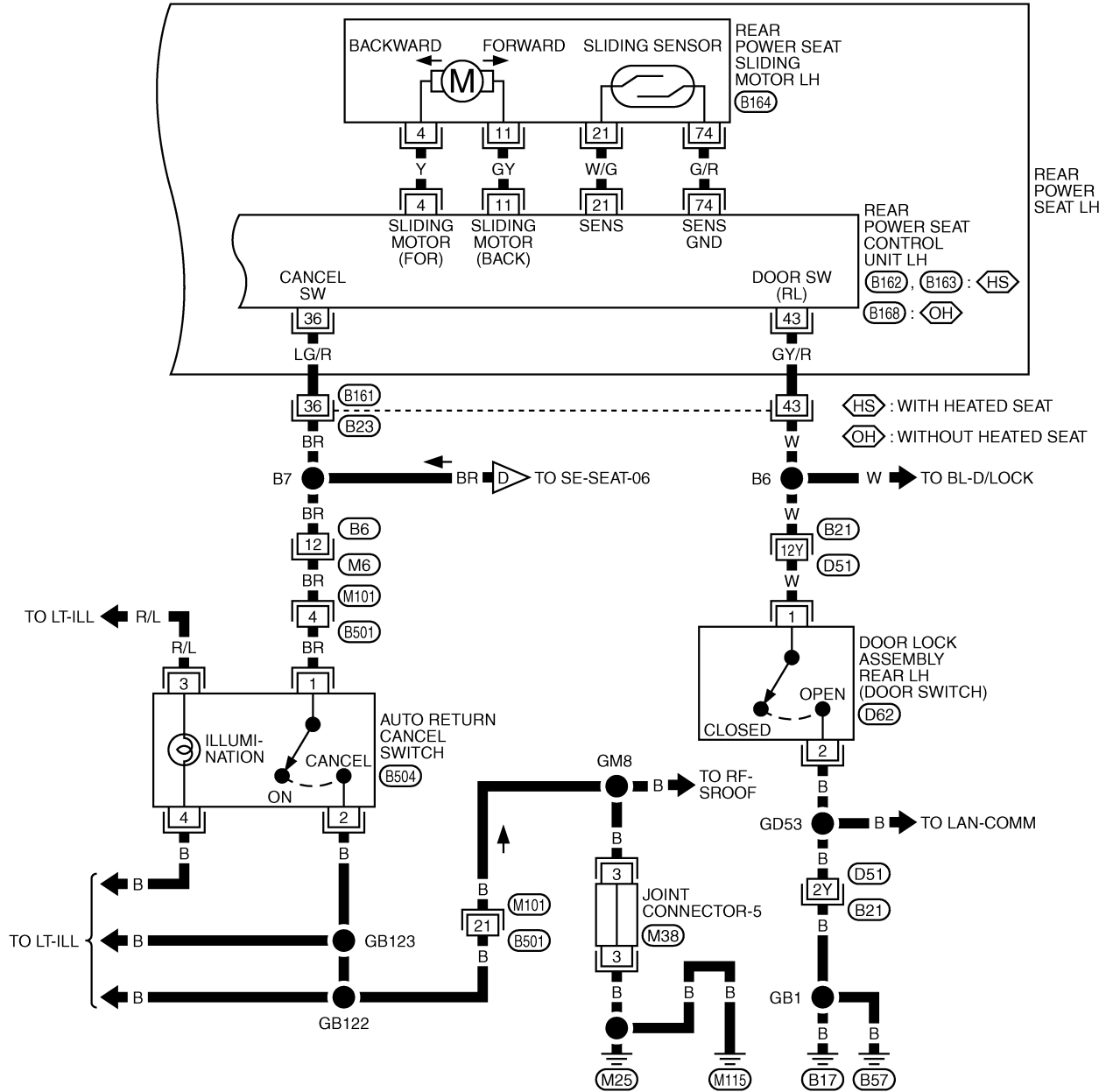


REFER TO THE FOLLOWING.  
 (B21), (B22) -SUPER MULTIPLE JUNCTION (SMJ)

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

# POWER SEAT

SE-SEAT-04



REFER TO THE FOLLOWING.

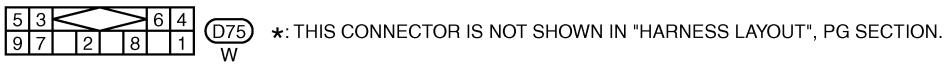
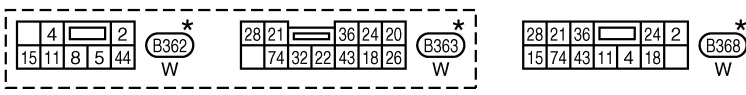
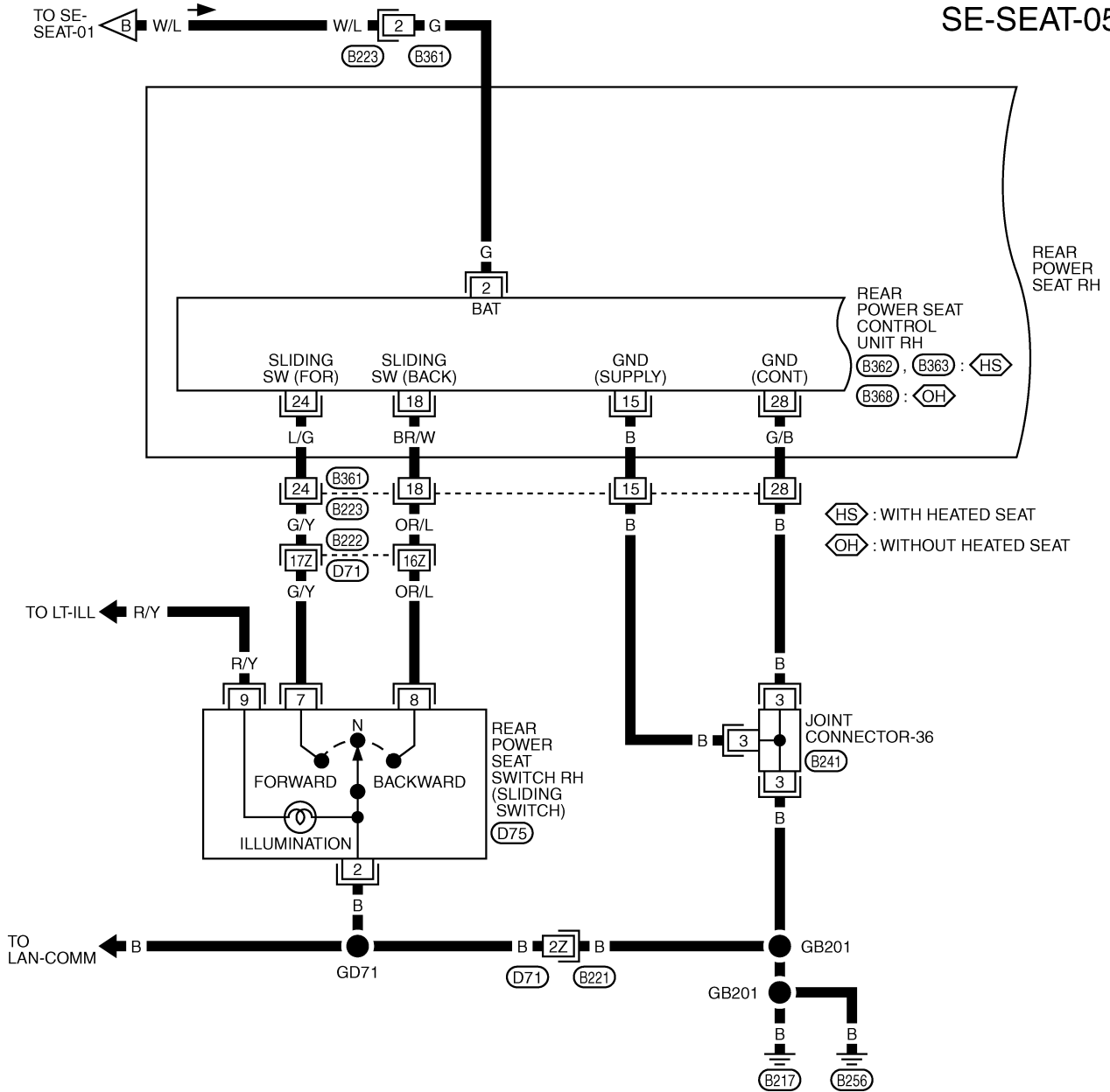
(B21) -SUPER MULTIPLE JUNCTION (SMJ)

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

TIWM0105E

# POWER SEAT

SE-SEAT-05



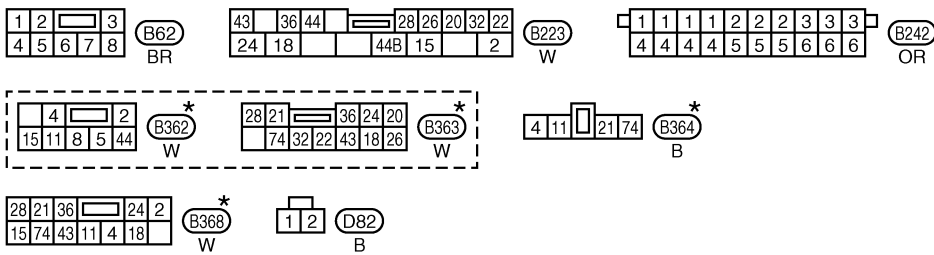
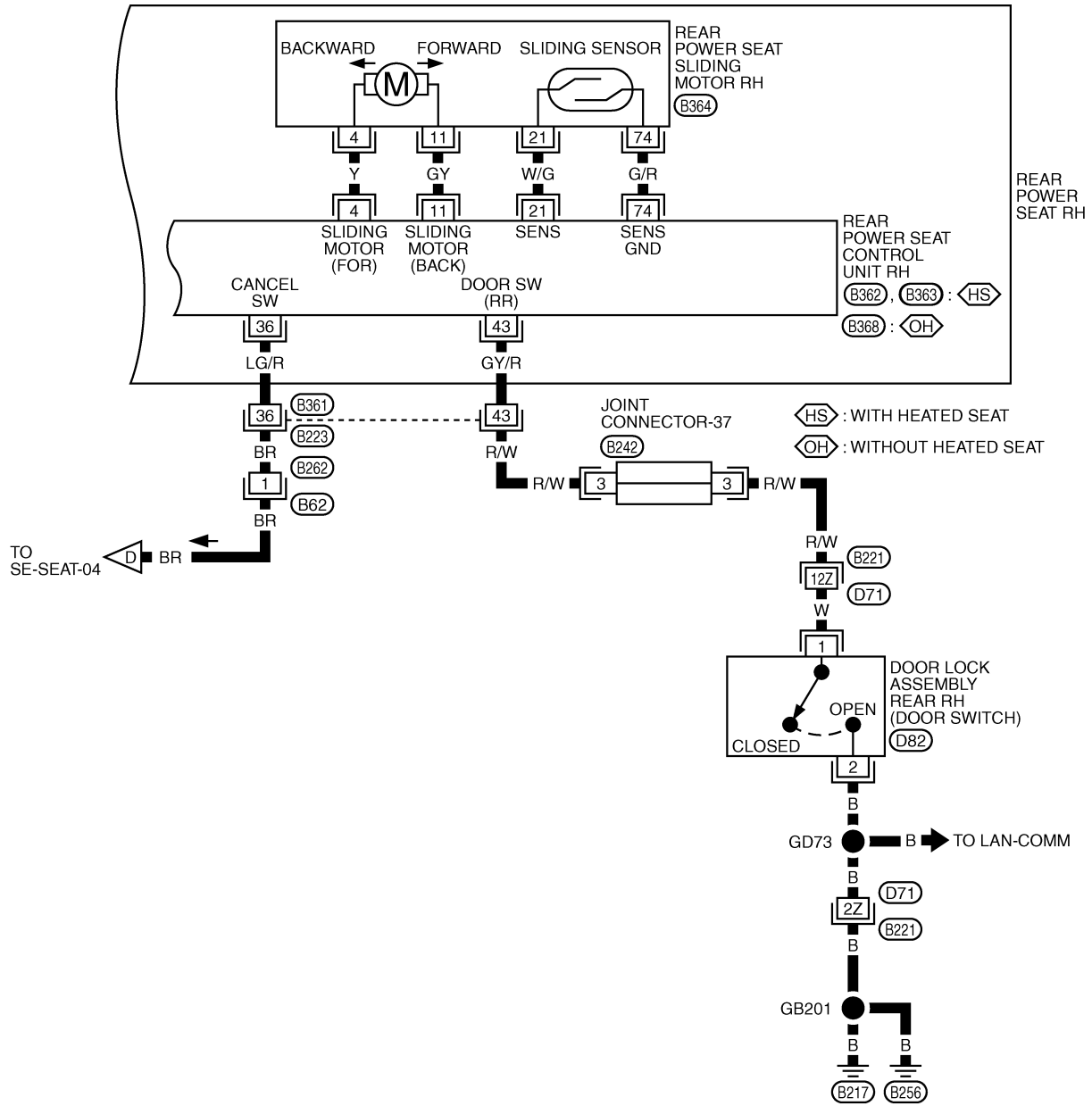
REFER TO THE FOLLOWING.

(B221), (B222) -SUPER MULTIPLE JUNCTION (SMJ)



# POWER SEAT

SE-SEAT-06



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

REFER TO THE FOLLOWING.  
 B221 -SUPER MULTIPLE JUNCTION (SMJ)

TIWM0066E

# POWER SEAT

## Terminals and Reference Values for Power Seat Switch

EIS0014U

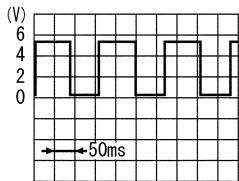
TERMI-NAL	WIRE COLOR	ITEM	Ignition switch	CONDITION	VOLTAGE (V)
1	W	Sliding motor FR signal	OFF	When sliding switch FR is operated.	Battery voltage
				Other than above.	0V
2	G	Reclining motor FR signal	OFF	When reclining switch FR is operated.	Battery voltage
				Other than above.	0V
4	R	Rear lifting switch DOWN signal	OFF	When rear lifting switch DOWN is operated.	Battery voltage
				Other than above.	0V
6	Y	Rear lifting switch UP signal	OFF	When rear lifting switch UP is operated.	Battery voltage
				Other than above.	0V
8	B/W	Sliding motor RR signal	OFF	When sliding switch RR is operated.	Battery voltage
				Other than above.	0V
9	PU	Reclining motor RR signal	OFF	When reclining switch RR is operated.	Battery voltage
				Other than above	0V
10	OR	Front lifting switch DOWN signal	OFF	When front lifting switch DOWN is operated.	Battery voltage
				Other than above	0V
11	LG	Front lifting switch UP signal	OFF	When front lifting switch UP is operated.	Battery voltage
				Other than above	0V
15A	B	Ground	ON	—	0V
16	P	BAT power supply	OFF	—	Battery voltage

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

EIS0014V

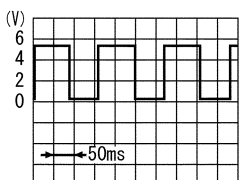
TERMI-NAL	WIRE COLOR	ITEM	Ignition switch	CONDITION	VOLTAGE (V)
2	G	BAT power supply	OFF	—	Battery voltage
4	Y	Sliding motor, FR signal	OFF	Other than above.	0V
				When sliding switch FR is operated.	Battery voltage
11	GY	Sliding motor, RR signal	OFF	When sliding switch RR is operated.	Battery voltage
				Other than above.	0V
15	B	Ground	ON	—	0V
18	BR/W	Sliding switch RR signal	OFF	When sliding switch RR is operated.	0V
				Other then above	Battery voltage

# POWER SEAT

TERMI-NAL	WIRE COLOR	ITEM	Ignition switch	CONDITION	VOLTAGE (V)
21	W/G	Sliding sensor signal	OFF	Sliding device active	 <p style="text-align: right; font-size: small;">S1IA0690J</p>
				Sliding device inactive	0V or 5V
24	L/G	Sliding switch FR signal	OFF	When sliding switch FR is operated.	0V
				Other than above.	Battery voltage
28	G/B	Ground	ON	—	0V
36	LG/R	Cancel switch signal	OFF	Cancel switch ON with rear door (LH) open.	5V
				Cancel switch ON with rear door (LH) close.	0V
				Cancel switch CANCEL	0V
43	RL	Rear door switch (LH) signal	OFF	Rear door (LH) open (ON)	0V
				Rear door LH) close (OFF)	Battery voltage
74	G/R	Ground (sensor system)	OFF	—	0V

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

EIS0014X

TERMI-NAL	WIRE COLOR	ITEM	Ignition switch	CONDITION	VOLTAGE (V)
2	G	BAT power supply	OFF	—	Battery voltage
4	Y	Sliding motor, FR signal	OFF	When sliding switch FR is operated.	Battery voltage
				Other than above.	0V
11	GY	Sliding motor, RR signal	OFF	When sliding switch RR is operated.	Battery voltage
				Other than above.	0V
15	B	Ground	ON	—	0V
18	G/Y	Sliding switch RR signal	OFF	When sliding switch RR is operated.	0V
				Other than above	Battery voltage
21	W/G	Sliding sensor signal	OFF	Sliding device active	 <p style="text-align: right; font-size: small;">S1IA0690J</p>
				Sliding device inactive	0V or 5V

## POWER SEAT

TERMI- NAL	WIRE COLOR	ITEM	Ignition switch	CONDITION	VOLTAGE (V)
24	L/G	Sliding switch FR signal	OFF	When sliding switch FR is oper- ated.	0V
				Other than above.	Battery voltage
28	G/B	Ground	ON	—	0V
36	LG/R	Cancel switch sig- nal	OFF	Cancel switch ON with rear door (RH) open.	5V
				Cancel switch ON with rear door (RH) close.	0V
				Cancel switch CANCEL	0V
43	RL	Rear door switch (RH) signal	OFF	Rear door RH) open (ON)	0V
				Rear door (RH) close (OFF)	Battery voltage
74	G/R	Ground (sensor system)	ON	—	0V

# HEATED SEAT

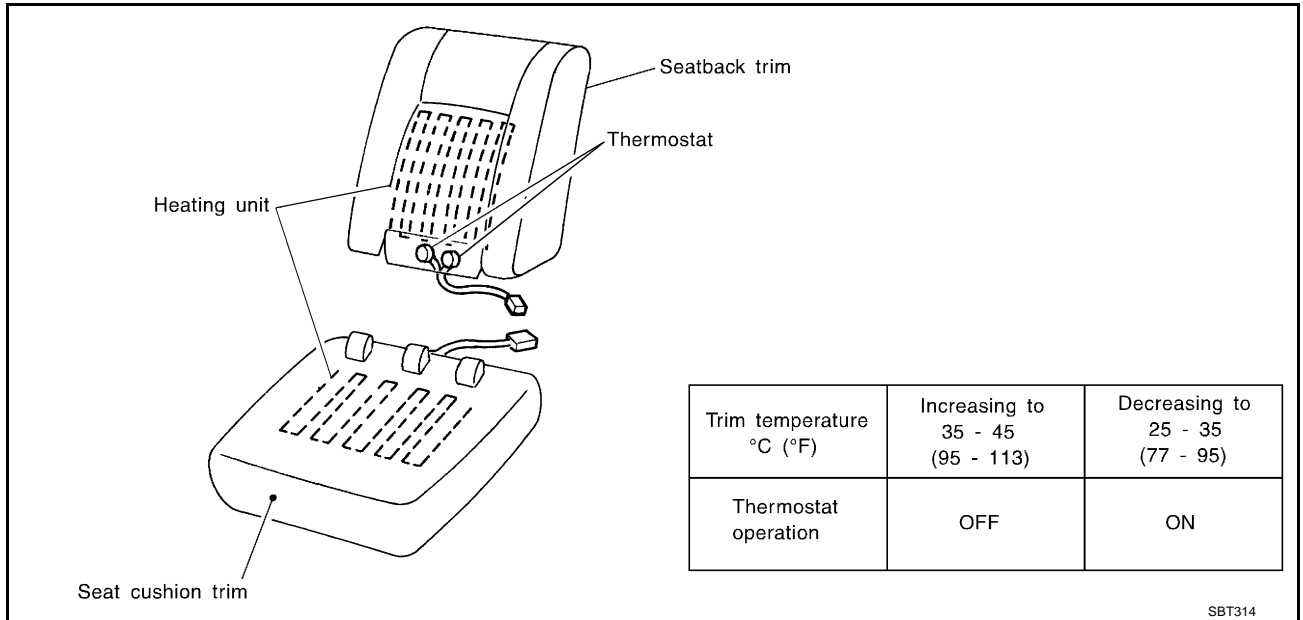
## HEATED SEAT

PFP:87335

### Description

EIS00152

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

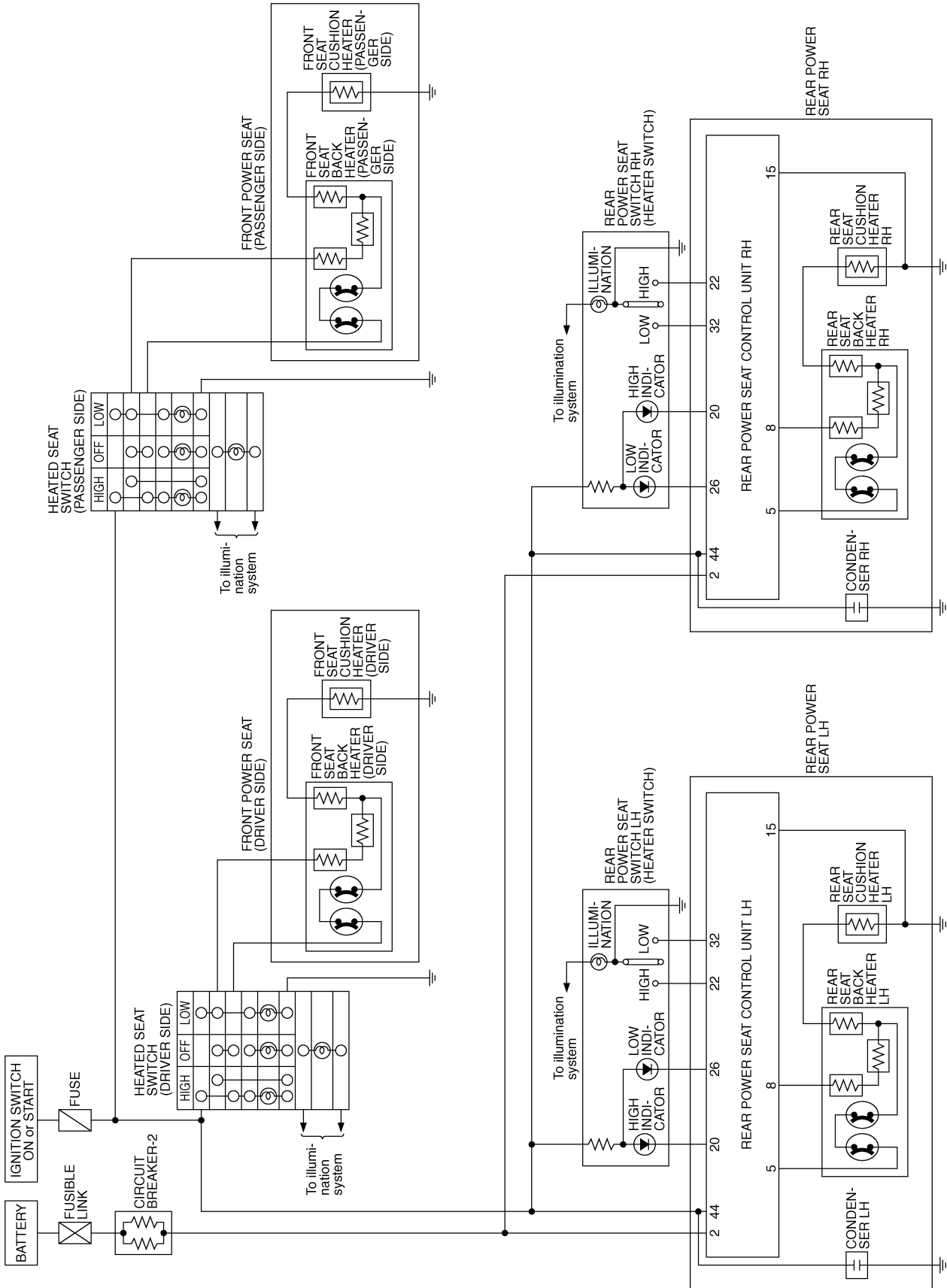


A  
B  
C  
D  
E  
F  
G  
H  
SE  
J  
K  
L  
M

# HEATED SEAT

## Schematic

EIS000Z0



TIWM0067E

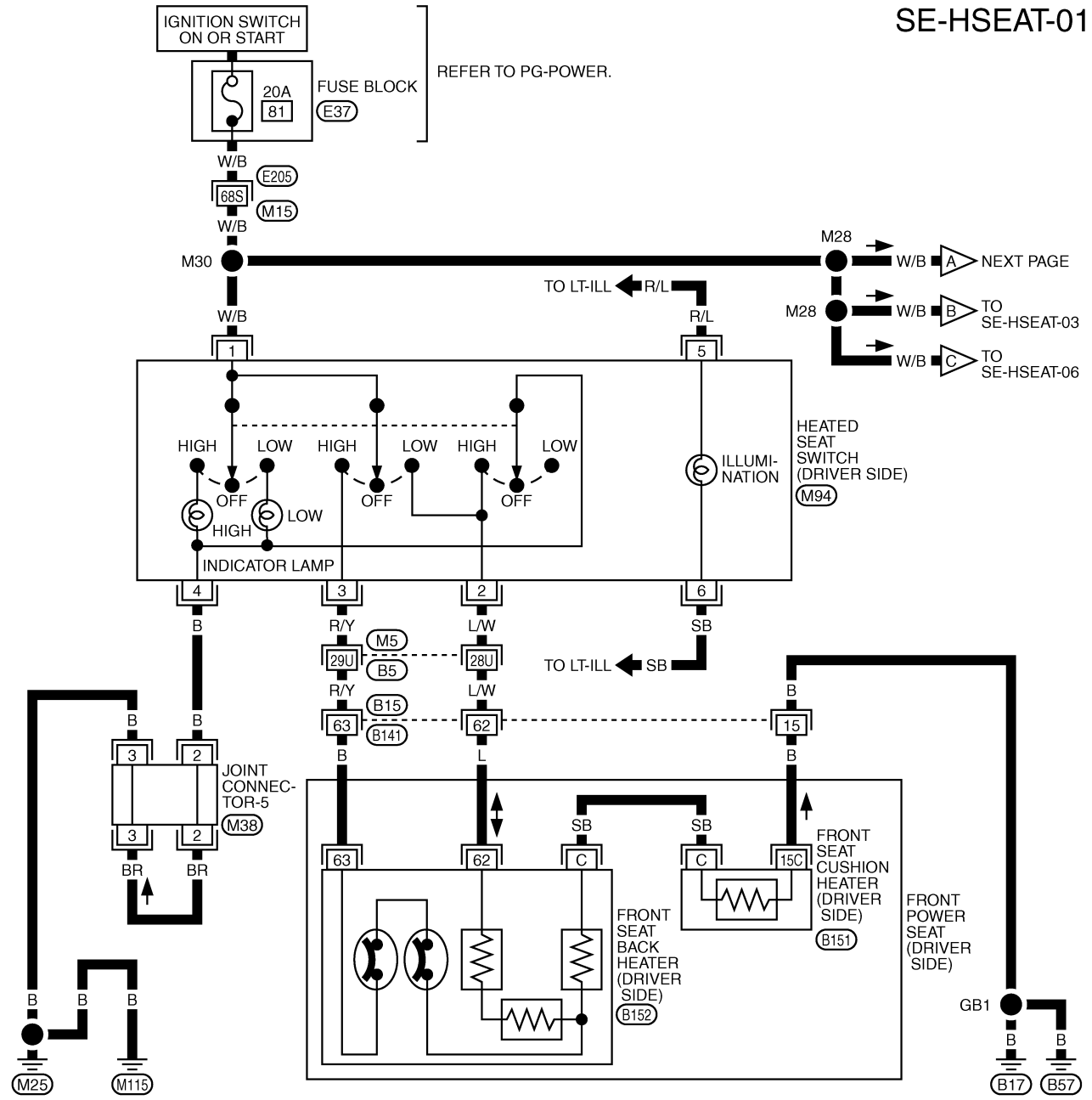
# HEATED SEAT

## Wiring Diagram – HSEAT –

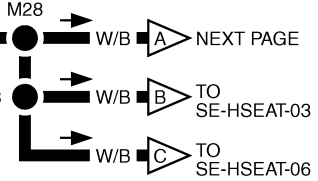
EIS000ZP

SE-HSEAT-01

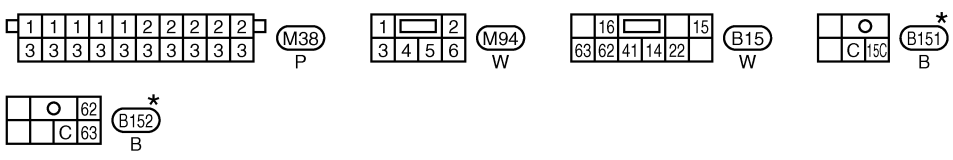
A  
B  
C  
D  
E  
F  
G  
H  
SE  
J  
K  
L  
M



REFER TO PG-POWER.



REFER TO THE FOLLOWING.  
 (M5), (E205) -SUPER MULTIPLE JUNCTION (SMJ)  
 (E37) -FUSE BLOCK

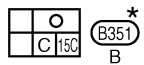
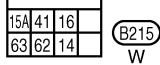
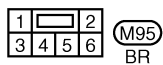
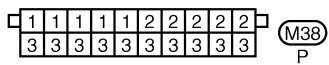
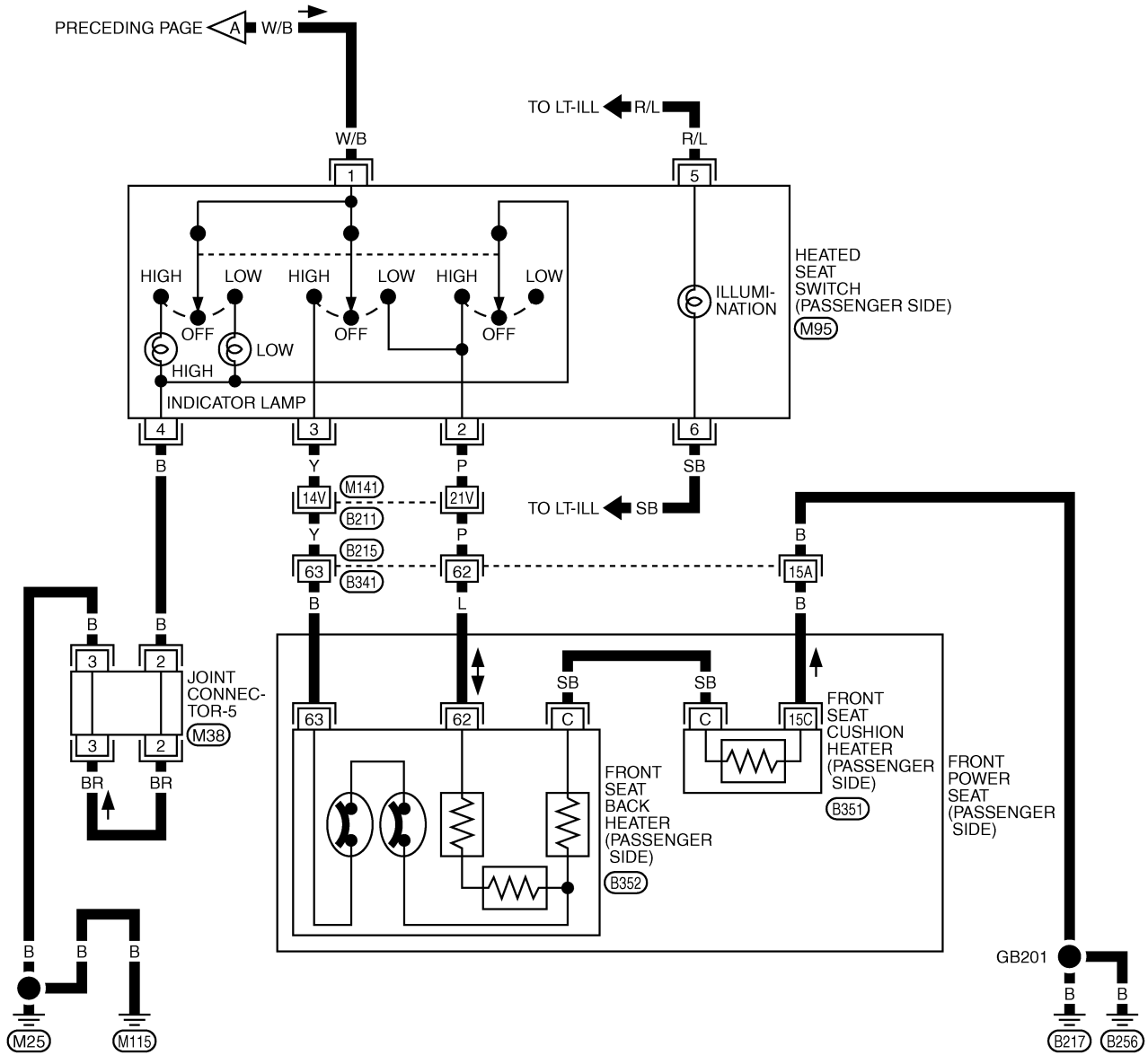


\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

TIVM0068E

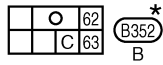
# HEATED SEAT

SE-HSEAT-02



REFER TO THE FOLLOWING.

(B211) -SUPER MULTIPLE JUNCTION (SMJ)



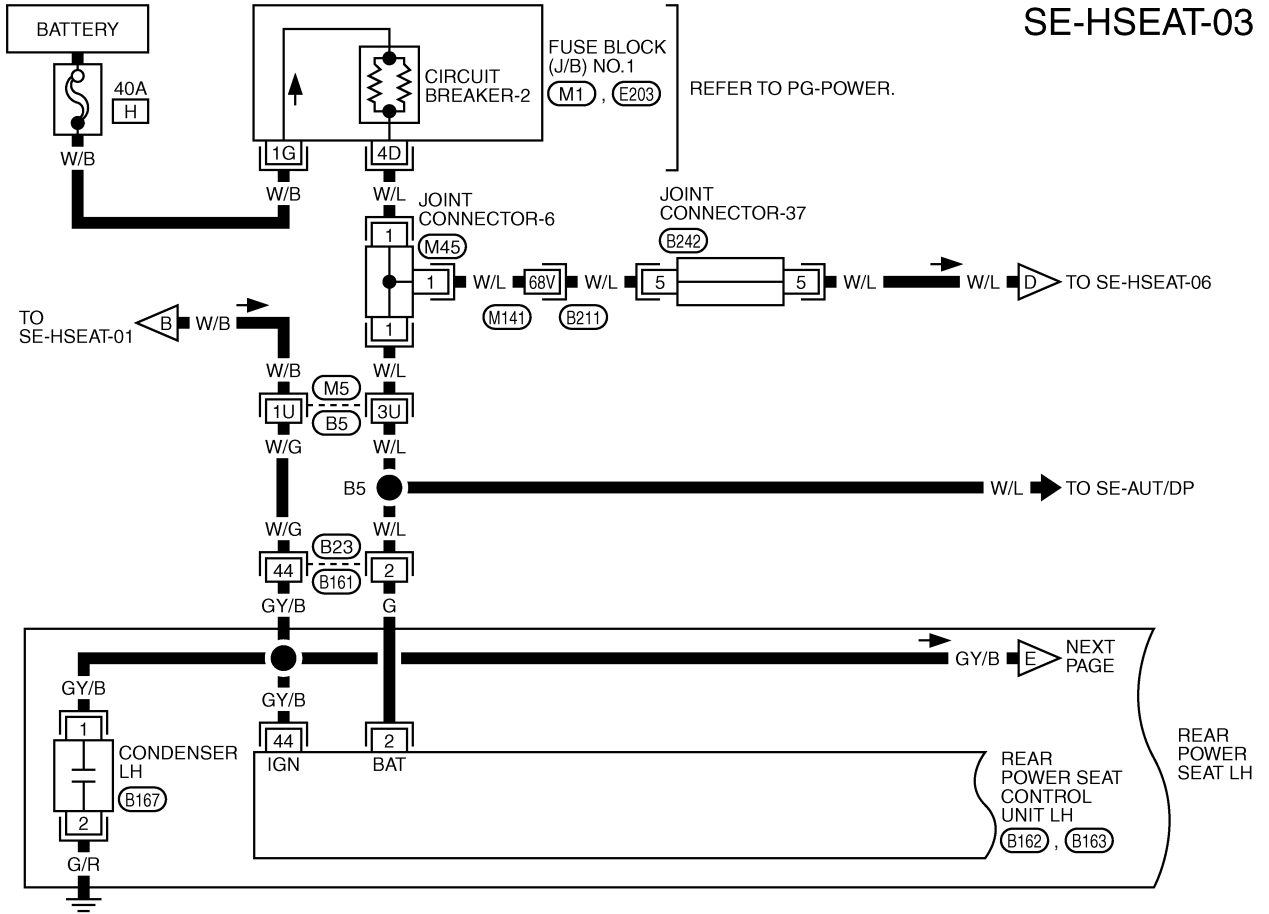
\*: THIS CONNECTOR IS NOT SHOWN IN "HARNES LAYOUT", PG SECTION.

TIWM0069E

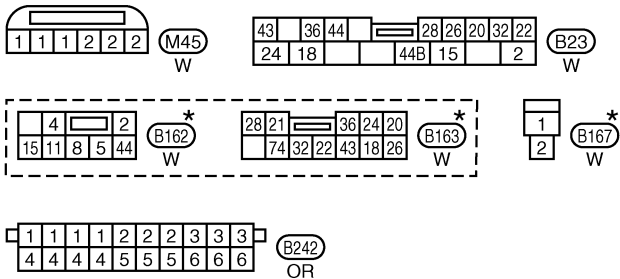


# HEATED SEAT

SE-HSEAT-03



A  
B  
C  
D  
E  
F  
G  
H  
SE  
J  
K  
L  
M



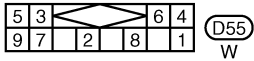
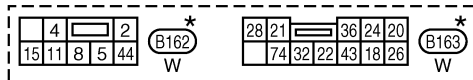
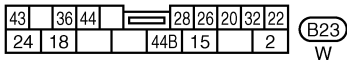
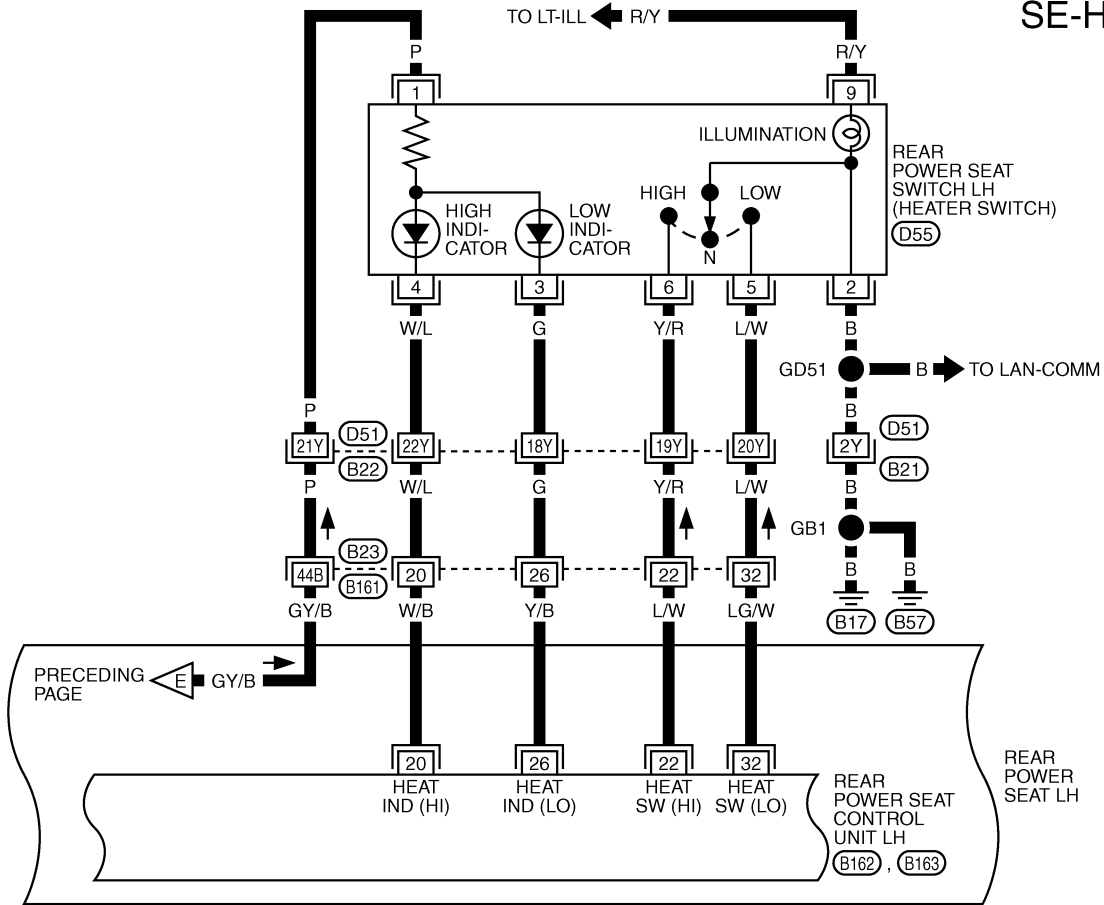
REFER TO THE FOLLOWING.  
 (M5), (B211) -SUPER MULTIPLE JUNCTION (SMJ)  
 (M1), (E203) -FUSE BLOCK-JUNCTION BOX (J/B) NO.1

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

TIVM0070E

# HEATED SEAT

SE-HSEAT-04



REFER TO THE FOLLOWING.

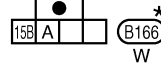
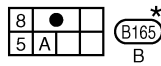
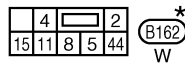
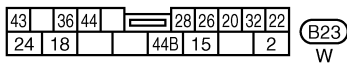
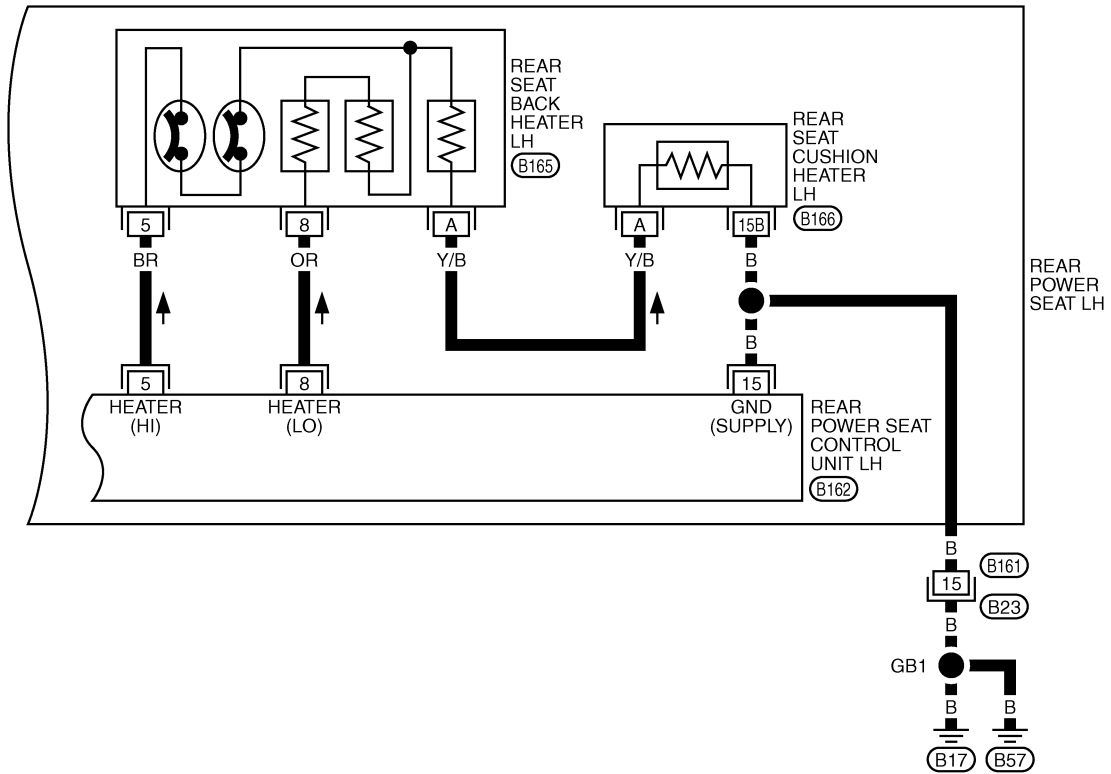
(B21), (B22) -SUPER MULTIPLE JUNCTION (SMJ)

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

TIWM0071E

# HEATED SEAT

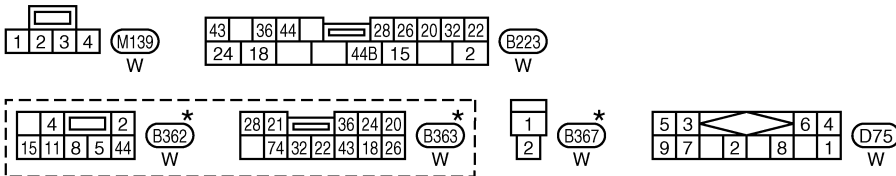
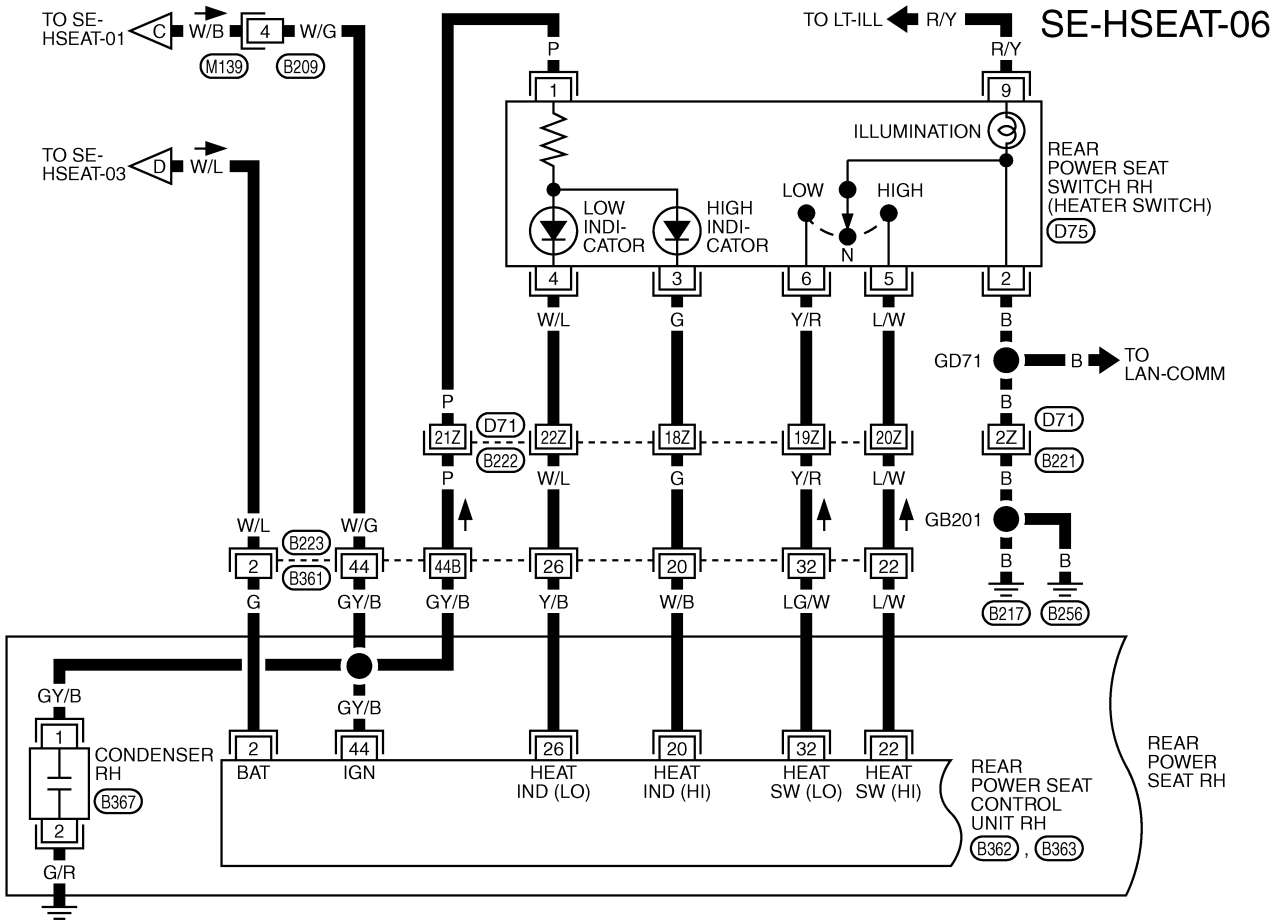
SE-HSEAT-05



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

TIVM0072E

# HEATED SEAT



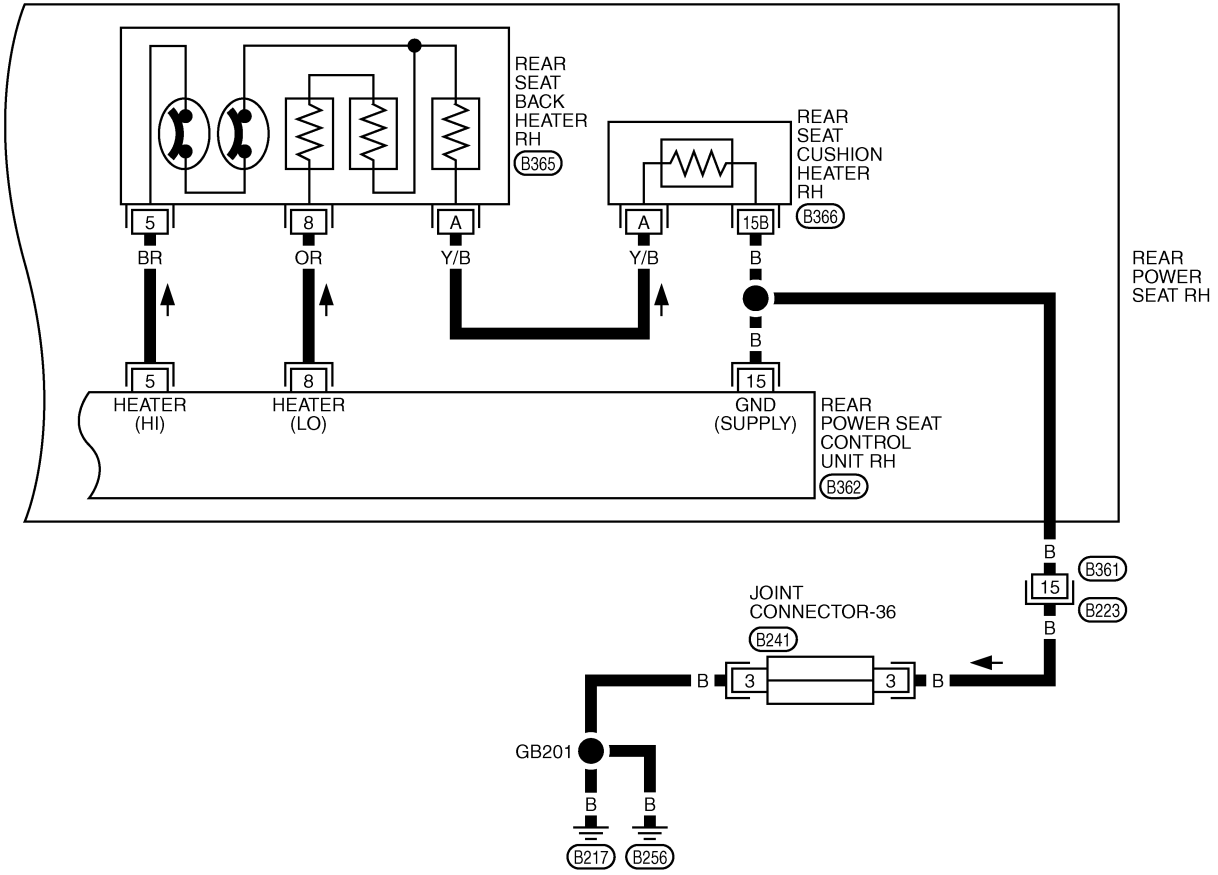
REFER TO THE FOLLOWING.  
 (B221), (B222) -SUPER MULTIPLE JUNCTION (SMJ)

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

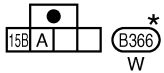
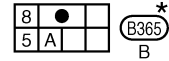
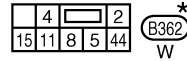
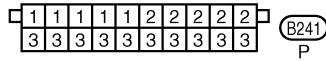
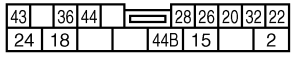
TIWM0073E

# HEATED SEAT

SE-HSEAT-07



A  
B  
C  
D  
E  
F  
G  
H  
SE  
J  
K  
L  
M



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

TIWM0074E

# HEATED SEAT

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

EIS00153

TER-MINAL	WIRE COLOR	ITEM	Ignition switch	CONDITION	DATA (DC)
2	G	BAT power supply	OFF	—	Battery voltage
5	BR	Heater Hi signal	OFF	Heater Hi operation	Approx.10V
				Other than above	0V
8	OR	Heater Lo signal	OFF	Heater Lo operation	Approx.10V
				—	0V
				Other than above	0V
15	B	Ground	ON	—	0V
20	W/B	Heater indicator Hi signal	OFF	Heater Hi operation (lit)	Approx.1V
				Other than above	Approx.10V
22	L/W	Heater switch—Hi signal	OFF	Heater switch (Hi) —ON (pressed)	0V
				Heater switch (Hi)—OFF	Approx.5V
26	Y/B	Heater indicator Lo signal	OFF	Heater Lo operation (lit)	Approx.1V
				Other than above	Approx.10V
32	LG/W	Heater switch—Lo signal	OFF	Heater switch (Lo)—ON (pressed)	0V
44	GY/B	IGN power supply		—	Battery voltage

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

EIS00157

TER-MINAL	WIRE COLOR	ITEM	Ignition switch	CONDITION	DATA (DC)
2	G	BAT power supply	OFF	—	Battery voltage
5	BR	Heater Hi signal	OFF	Heater Hi operation	Approx.10V
				Other than above	0V
8	OR	Heater Lo signal	OFF	Heater Lo operation	Approx.10V
				Other than above	0V
15	B	Ground	ON	—	0V
20	W/B	Heater indicator Hi signal	OFF	Heater Hi operation (lit)	Approx.1V
				Other than above	Approx.10V
22	L/W	Heater switch—Hi signal	OFF	Heater switch (Hi) —ON (pressed)	0V
				Heater switch (Hi)—OFF	Approx.5V
26	Y/B	Heater indicator Lo signal	OFF	Heater Lo operation (lit)	Approx.1V
				u7Other than above	Approx.10V
32	LG/W	Heater switch—Lo signal	OFF	Heater switch (Lo)—ON (pressed)	0V
				Heater switch (Lo)—OFF	Approx.5V
44	GY/B	IGN power supply	OFF	—	Battery voltage

# FRONT SEAT

---

## FRONT SEAT

PFP:87000

## Removal and Installation

*EIS000FJ*

A

B

C

D

E

F

G

H

**SE**

J

K

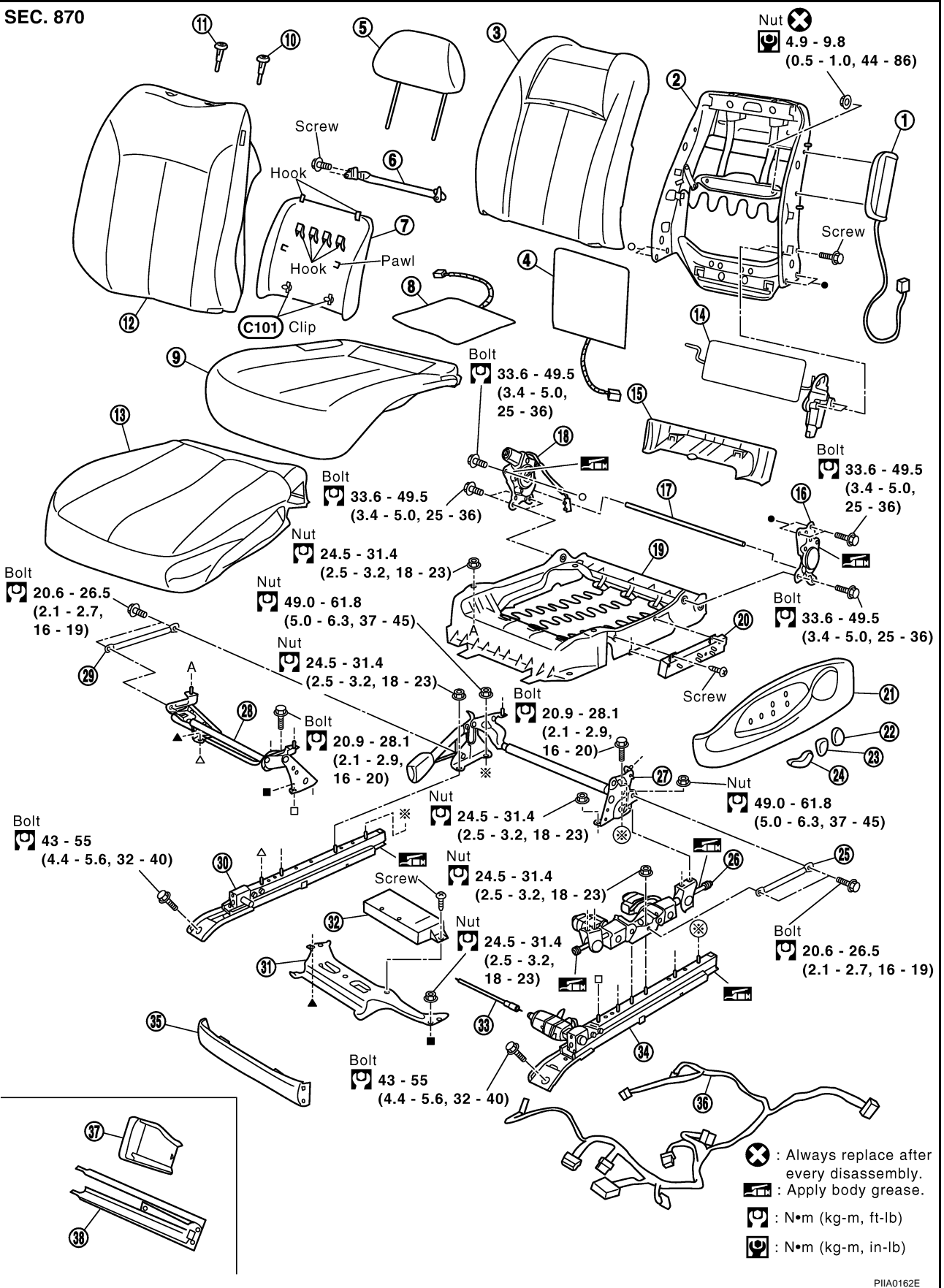
L

M

# FRONT SEAT

## Driver side power seat.

SEC. 870



PIIA0162E

- 1. Driver side air bag module
- 4. Seat back heater unit

- 2. Seat back frame
- 5. Headrest

- 3. Seat back pad
- 6. Seat back grip belt



## FRONT SEAT

- 
- |                                      |                                     |                                     |
|--------------------------------------|-------------------------------------|-------------------------------------|
| 7. Seat back board                   | 8. Seat cushion heater unit         | 9. Seat cushion pad                 |
| 10. Headrest holder (locked)         | 11. Headrest holder (free)          | 12. Seat back trim                  |
| 13. Seat cushion trim                | 14. Seat lumbar unit                | 15. Seat cushion rear finisher      |
| 16. Reclining device (LH)            | 17. Reclining device rod            | 18. Reclining device (RH)           |
| 19. Seat cushion frame               | 20. Power seat switch (driver side) | 21. Seat cushion outer finisher     |
| 22. Lumbar support switch knob       | 23. Reclining switch knob           | 24. Slide-lifter switch knob        |
| 25. Seat cushion rod (LH)            | 26. Lifter motor unit assembly      | 27. Seat lifter link bracket (rear) |
| 28. Seat lifter link bracket (front) | 29. Seat cushion rod (RH)           | 30. Inner sliding assembly          |
| 31. Driver seat control unit bracket | 32. Driver seat control unit        | 33. Flexible wire                   |
| 34. Outer sliding assembly           | 35. Seat cushion front finisher     | 36. Driver power seat harness       |
| 37. Front leg cover (LH/RH)          | 38. Rear leg cover (LH/RH)          |                                     |

A

B

C

D

E

F

G

H

**SE**

J

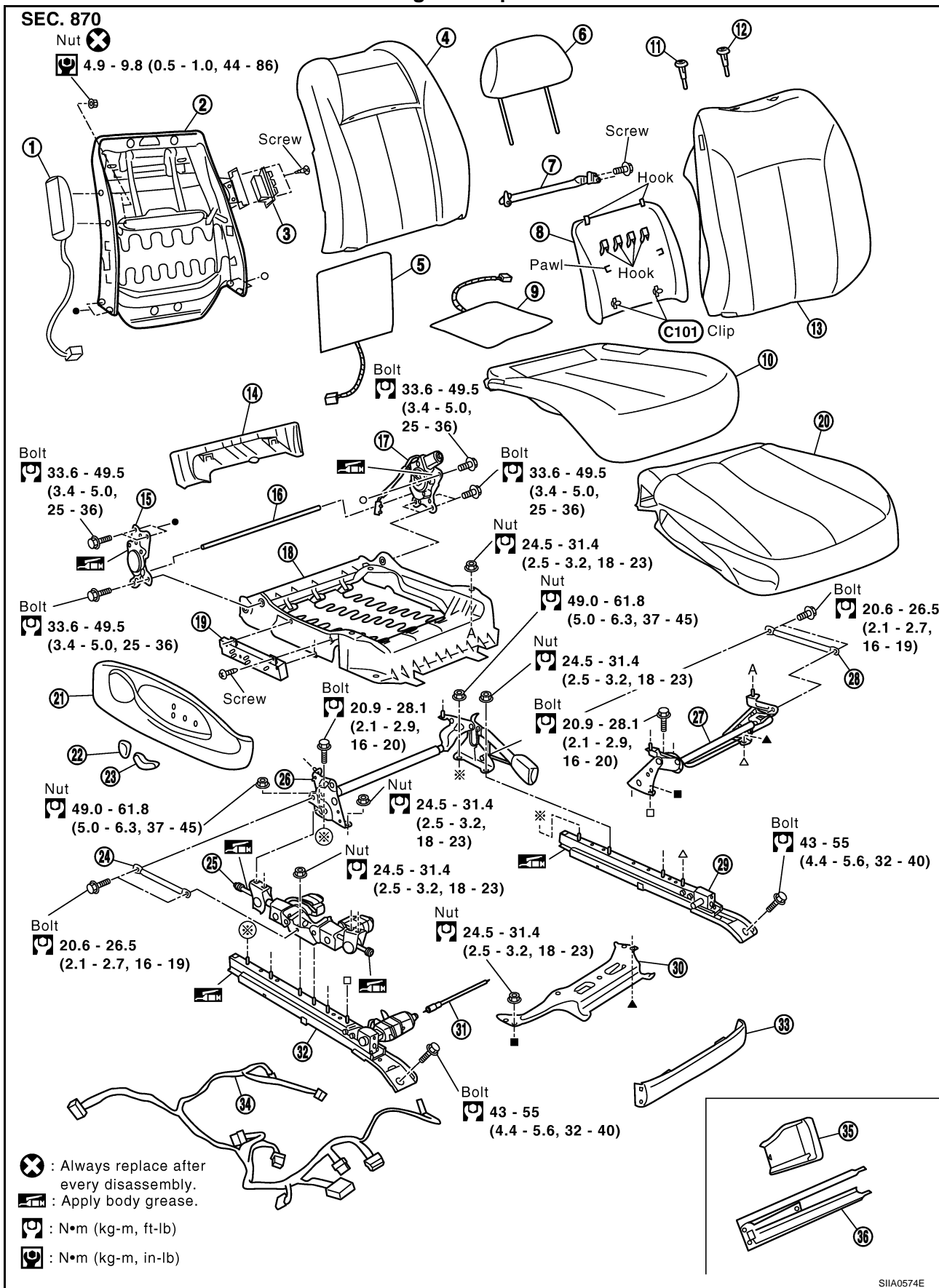
K

L

M

# FRONT SEAT

## Passenger side power seat



S1IA0574E

1. Front side air bag module  
4. Seat back trim

2. Seat back frame  
5. Seat back heater unit

3. Passenger power seat switch (seatback)  
6. Headrest

# FRONT SEAT

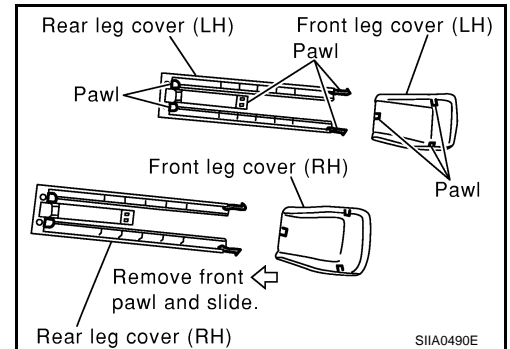
- |                                  |                                     |                                      |
|----------------------------------|-------------------------------------|--------------------------------------|
| 7. Seat back grip belt           | 8. Seat back board                  | 9. Seat cushion heater unit          |
| 10. Seat cushion pad             | 11. Headrest holder (free)          | 12. Headrest holder (locked)         |
| 13. Seat back trim               | 14. Seat cushion rear finisher      | 15. Reclining device (RH)            |
| 16. Reclining device rod         | 17. Reclining device (LH)           | 18. Seat cushion frame               |
| 19. Passenger power seat switch  | 20. Seat cushion trim               | 21. Seat cushion outer finisher      |
| 22. Reclining switch knob        | 23. Slide-lifter switch knob        | 24. Seat cushion rod (RH)            |
| 25. Lifter motor assembly        | 26. Seat lifter link bracket (rear) | 27. Seat lifter link bracket (front) |
| 28. Seat cushion rod (LH)        | 29. Inner sliding assembly          | 30. Bracket                          |
| 31. Flexible wire                | 32. Outer sliding assembly          | 33. Seat cushion front finisher      |
| 34. Passenger power seat harness | 35. Front leg cover (LH/RH)         | 36. Rear leg cover (LH/RH)           |

## REMOVAL

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

### CAUTION:

- Before removing the front seat, turn the ignition switch off, disconnect both battery cables and wait and least 3 minutes.
  - When checking the power seat circuit for continuity using a circuit tester, do not confuse its connector with the side air bag module connector. Such an error may cause the air bag to deploy.
  - Do not drop, tilt, or bump the side air bag module installing in the seat. Always handle it with care.
1. Remove the front leg cover and rear leg cover.(LH/RH)



### NOTE:

1. Slide the seat backward, and disconnect the front tabs on the front leg cover. Then move the cover toward the rear of the vehicle, and pull up to remove.
  2. Slide the seat forward, then disengage the tabs on the front RH/LH of the rear leg cover and tabs engaged into the rail. Then pull the cover toward the rear of the vehicle.
2. Slide the seat until the body mounting bolts (4) are visible and a tool can be inserted.

### NOTE:

- When disassembling the driver seat after removal, set the front/rear cushion lifter to the top position.
  - For the power Ottoman seat, operate the Ottoman switch to move the Ottoman part forward until it reaches around the middle position.
3. Disconnect the battery negative cable.
  4. Remove the harness connector for the side air bag module.
  5. Remove the body mounting bolts (4) and seat belt anchor bolt (1).  
To remove the seat belt anchor bolt, refer to [SB-3, "Removal and Installation of Front Seat Belt"](#) in "Seat Belt (SB)" section.
  6. Remove the power seat harness connector and vehicle harness fixing clip out of the vehicle.

### NOTE:

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

# FRONT SEAT

## INSTALLATION

- Install in the reverse order of removal.

### NOTE:

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

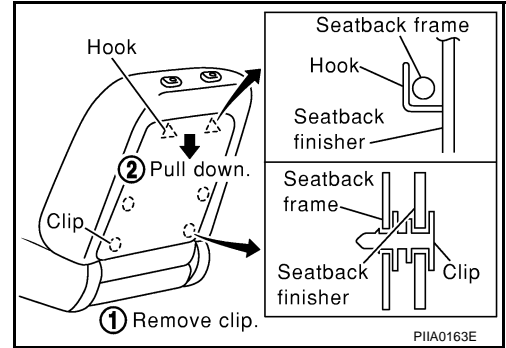
## Disassembly and Assembly SEATBACK TRIM AND PAD

EIS000FL

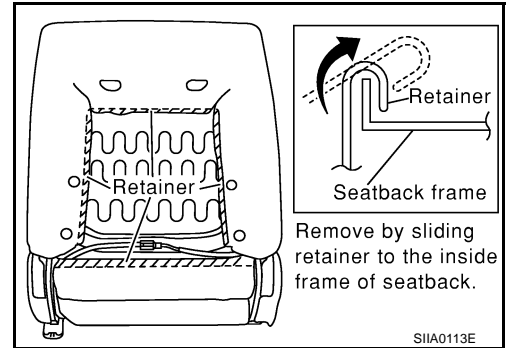
### NOTE:

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

1. Remove the seatback board from the back of the seatback.



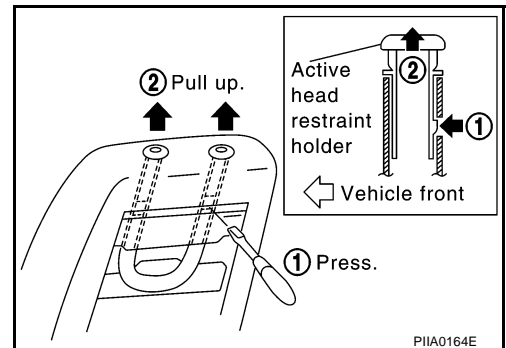
2. Remove the retainer.



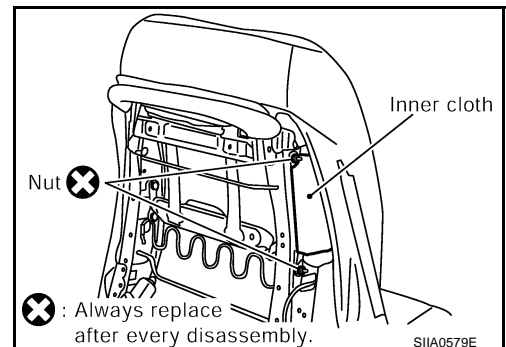
3. From the back of the seatback, press the headrest holder tab of the stay pipe hole to disengage. Then pull the headrest holder up to remove.

### NOTE:

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

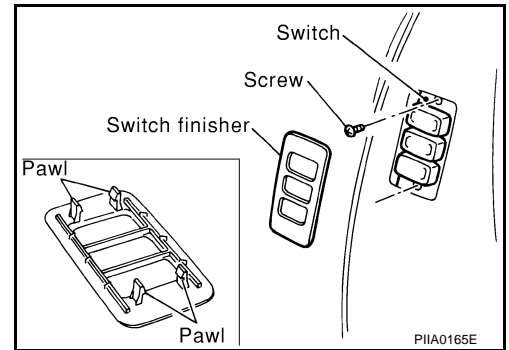


4. Remove the stay securing the inner cloth.



## FRONT SEAT

5. Remove the switch finisher at the side of the seatback.(passenger side seat only)



6. Remove the seat heater harness connector. After removing the seatback trim and pad, remove the hog ring to separate the trim, pad, and seatback heater unit.

### REMOVAL OF SEATBACK ASSEMBLY

1. After completing the steps 1 and 2 of "Seatback trim and pad", remove the harness connectors for the reclining motor and lumbar support motor (driver seat only).
2. Pull out the harness connector for the side air bag from the seat cushion.
3. Remove the reclining device mounting bolts (2 for each side) on the seatback frame, and remove the seatback assembly.

#### NOTE:

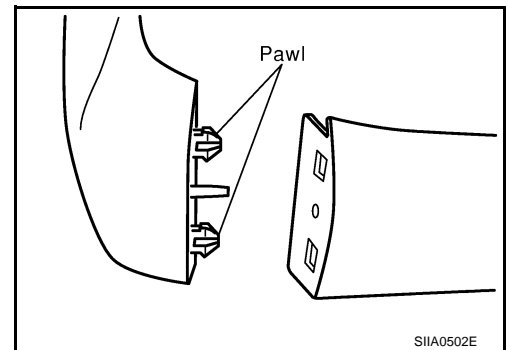
When assembling the seatback frame, make sure that the reclining device are locked on both sides, and be sure to temporarily tighten the bolts, then tighten them finally.

### INSTALLATION OF SEATBACK ASSEMBLY

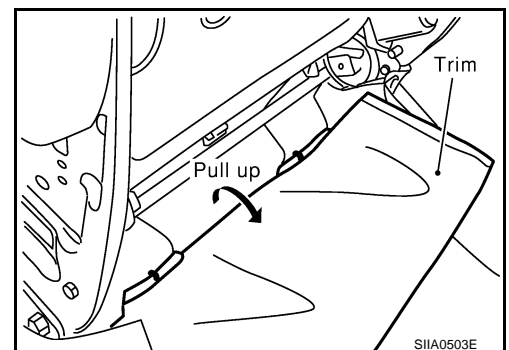
- Install in the reverse order of removal.

### SEAT CUSHION TRIM AND PAD

1. Remove the front seat cushion finisher (front and rear).
2. Remove the power seat switch knob.
3. Remove the front seat cushion finisher (outer).



4. Remove the power seat switch assembly (screws: 3).
5. Partially pull off the trim at the rear of the seat cushion forward, and remove the hog rings on the seat cushion pad.



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

# REAR SEAT

PFP:88300

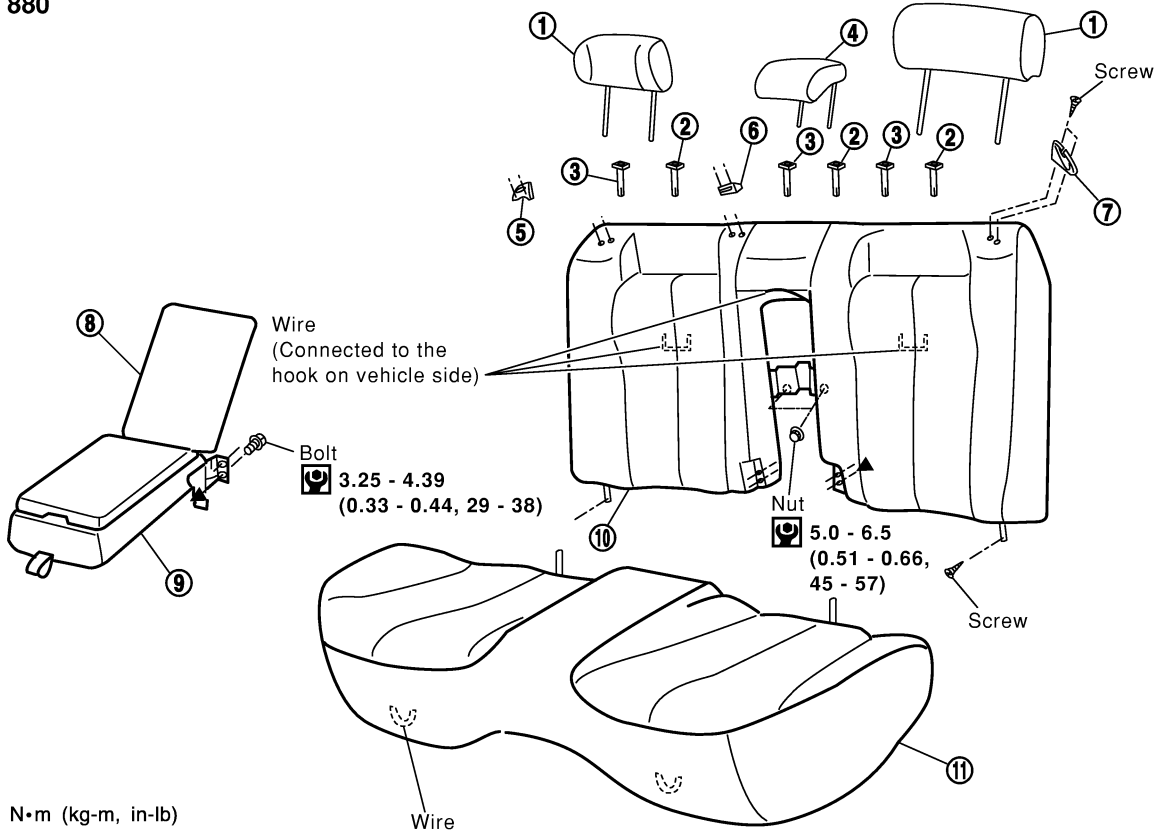
EIS00A7Q

## REAR SEAT

### Removal and Installation

#### Manual seat (bench seat)

SEC. 880

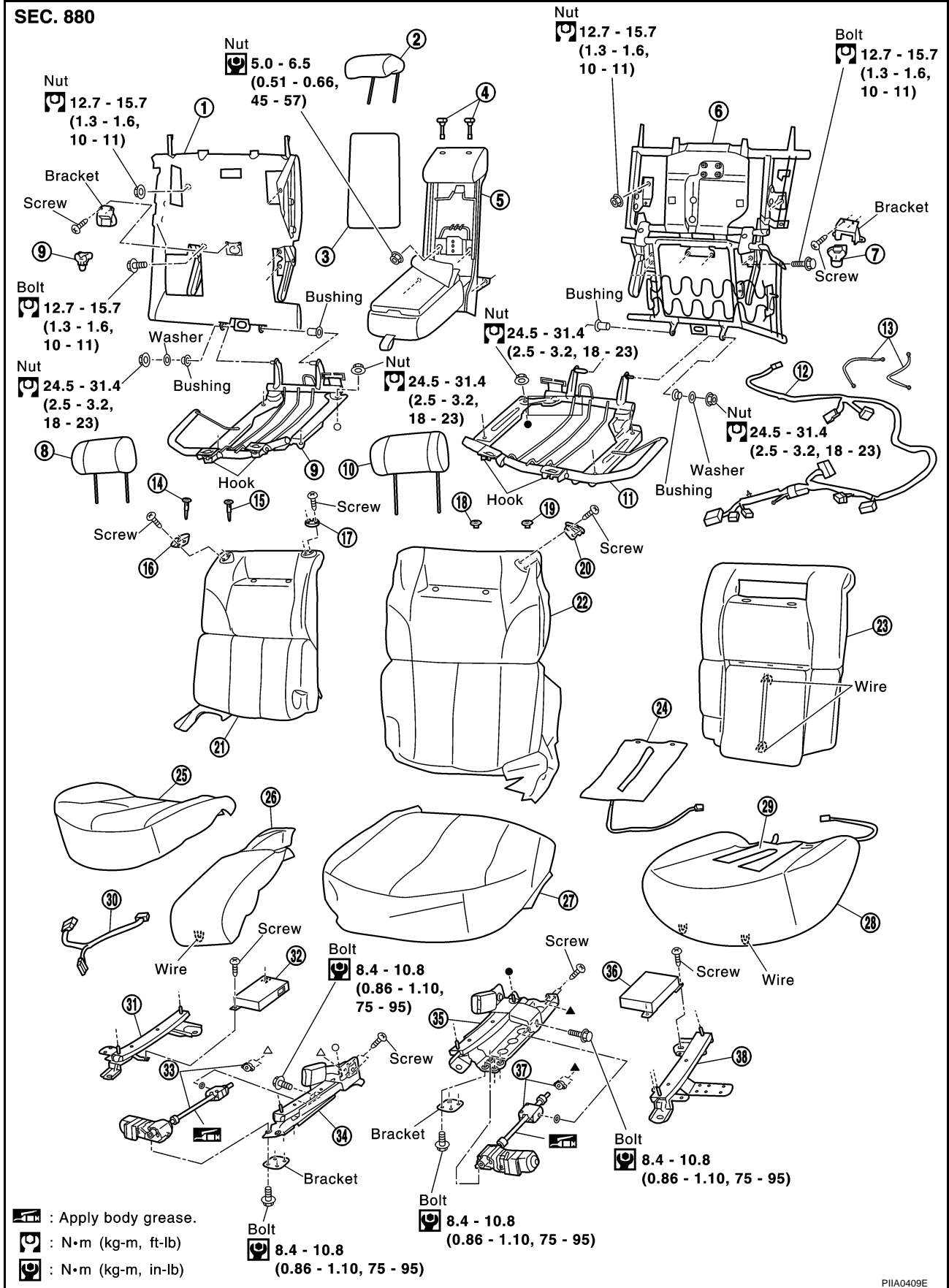


SIIA0401E

- |                                 |                                    |                             |
|---------------------------------|------------------------------------|-----------------------------|
| 1. Headrest (RH/LH)             | 2. Headrest holder (locked)        | 3. Headrest holder (free)   |
| 4. Headrest (center)            | 5. Seat belt guide (RH)            | 6. Seat belt guide (center) |
| 7. Seat belt guide (LH)         | 8. Rear seat back board            | 9. Rear seat armrest        |
| 10. Rear seat back trim and pad | 11. Rear seat cushion trim and pad |                             |

# REAR SEAT

## Power seat (split cushion)



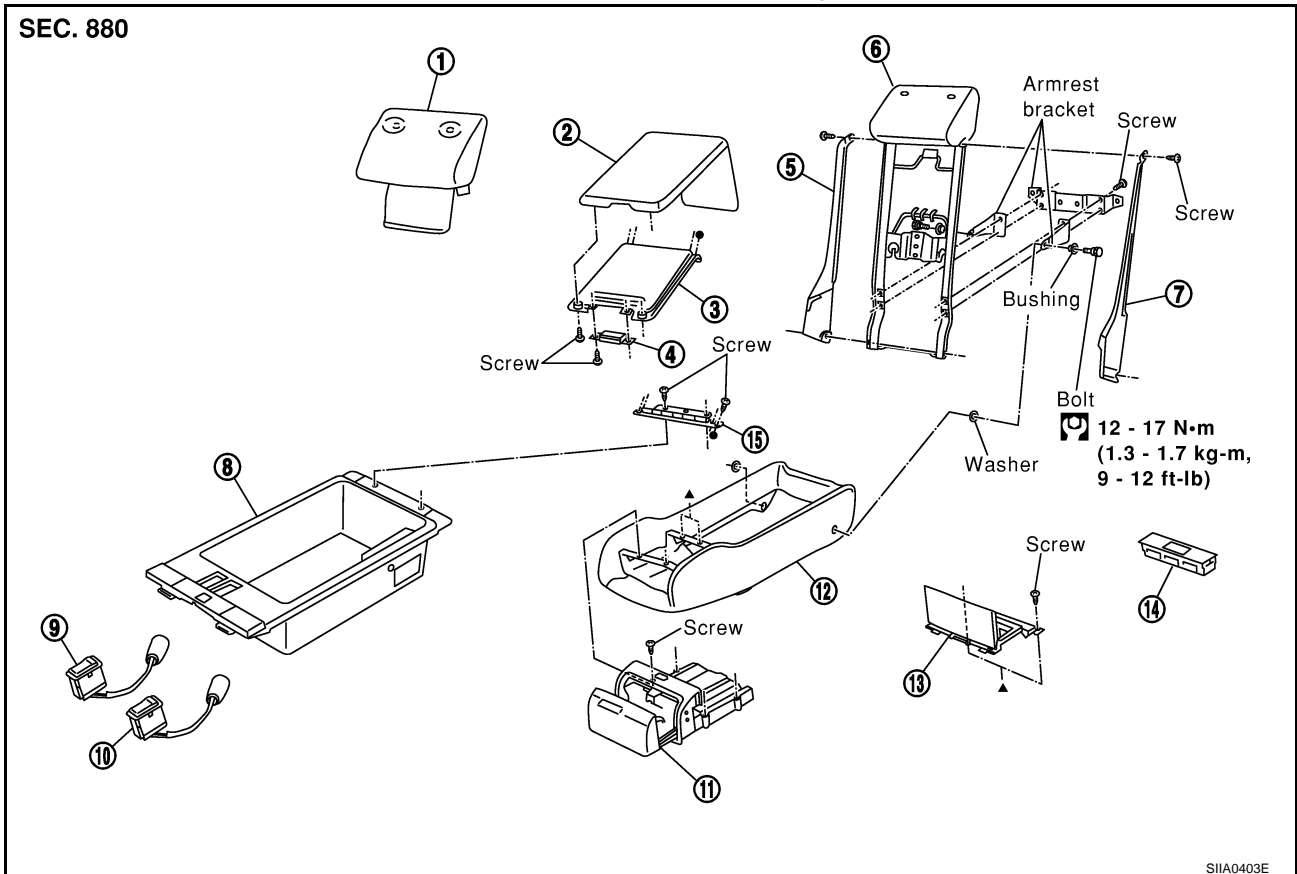
A  
B  
C  
D  
E  
F  
G  
H  
SE  
J  
K  
L  
M

- |                             |                                  |                             |
|-----------------------------|----------------------------------|-----------------------------|
| 1. Rear seatback frame (RH) | 2. Headrest (center)             | 3. Rear seatback board      |
| 4. Headrest holder          | 5. Rear center seatback assembly | 6. Rear seatback frame (LH) |

# REAR SEAT

- |                                    |  |                                 |
|------------------------------------|--|---------------------------------|
| 7. Rear seat hook                  | 8. Headrest (RH)                       | 9. Rear seat cushion frame (RH) |
| 10. Headrest (LH)                  | 11. Rear seat cushion frame (LH)       | 12. Rear power seat harness A   |
| 13. Ground harness                 | 14. Headrest holder (free)             | 15. Headrest holder (locked)    |
| 16. Seat belt guide (RH)           | 17. Seat belt guide (center)           | 18. Headrest holder (power RH)  |
| 19. Headrest holder (power LH)     | 20. Seat belt guide (LH)               | 21. Seatback trim and pad (RH)  |
| 22. Seatback trim (LH)             | 23. Seatback pad (LH)                  | 24. Seatback heater unit        |
| 25. Seat cushion trim and pad (RH) | 26. Seat cushion trim and pad (center) | 27. Seat cushion trim (LH)      |
| 28. Seat cushion pad (LH)          | 29. seat cushion heater unit           | 30. Rear power seat harness B   |
| 31. Rear seat slide, outer (RH)    | 32. Power seat control unit (RH)       | 33. Sliding motor unit (RH)     |
| 34. Rear seat slide, inner (RH)    | 35. Rear seat slide, inner (LH)        | 36. Seat control unit (LH)      |
| 37. Sliding motor unit (LH)        | 38. Rear seat slide, outer (LH)        |                                 |

## Center seatback assembly



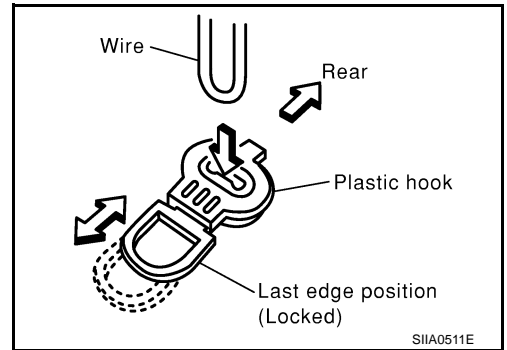
- |                                |                              |  |
|--------------------------------|------------------------------|--|
| 1. Rear seatback trim (center) | 2. Armrest lid assembly      | 3. Armrest lid finisher                |
| 4. Armrest lid lock            | 5. Seatback side screen (RH) | 6. Rear seat center back frame and pad |
| 7. Seatback side screen (LH)   | 8. Armrest tray box          | 9. TV and sunshade switch              |
| 10. Cancel switch              | 11. Seat switch              | 12. Cup holder                         |
| 13. Armrest frame and pad      | 14. Switch lid               | 15. Rear control switch assembly       |
| 16. Lid hinge                  |                              |  |



# REAR SEAT

## REMOVAL OF MANUAL SEAT (BENCH SEAT)

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



2. Partially remove the seatback board to disconnect the harness connector and remove the nuts (2) on the sunshade switch.
3. Remove the RH and LH screws (2) on the seatback.
4. Slide the seatback upward to pull off the wire from the vehicle-side hook, and remove the seatback.
5. After removing, remove the hog ring to separate the trim and pad.

## INSTALLATION OF MANUAL SEAT (BENCH SEAT)

- Install in the reverse order of removal.

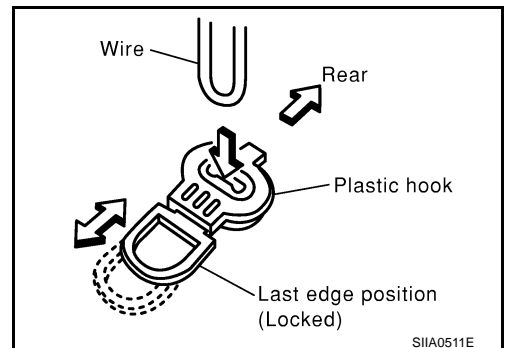
## REMOVAL OF POWER SEAT (SPLIT SEAT)

### NOTE:

Remove the LH and RH seat before removing the center seat.

### Center Seat

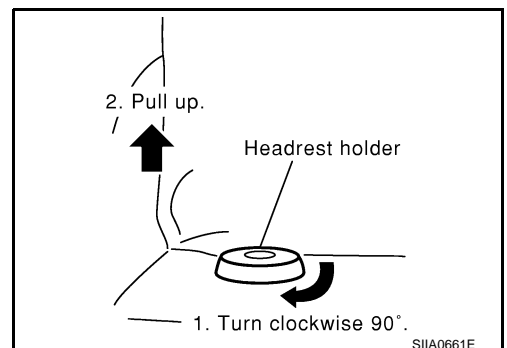
1. Pull the lock (1) at the front bottom of the seat cushion forward, and pull the seat cushion upward to release the wire from the plastic hook.



2. Remove the Velcro fastener at the rear of the seat cushion trim, and pull the seat cushion trim forward to remove.
3. Partially remove the seatback board to disconnect the harness connectors for rear control switch and rear seat control unit.
4. Remove the nuts (4), and slide the center seatback assembly upward to remove.
5. After removing, remove the hog ring to separate the trim and pad.

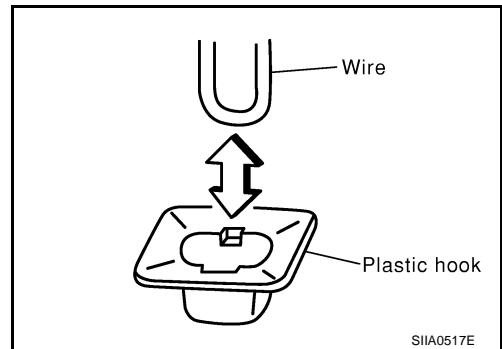
### RH/LH Seat

1. Remove the headrest holders at the right and left.
  - For the RH seat, remove the headrest, and turn the headrest holder toward the front of the vehicle by 90° to remove.
  - For the LH seat, move the headrest to the lower limit to remove it. Then insert a slotted screwdriver into the hole on the headrest holder to pull up. Release the tab (1) on the headrest holder to remove the headrest holder.

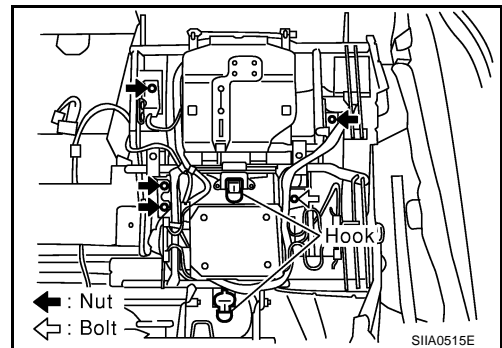


## REAR SEAT

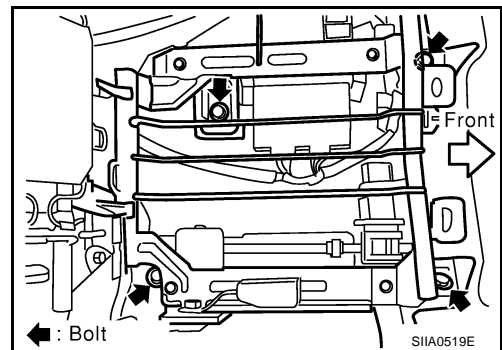
2. Raise the bottom of the seat cushion to release the wire from the plastic hook (2 for each side), then pull the seat cushion forward to remove. (For the LH seat, disconnect the harness connector for the seat heater).



3. Access the hooks (2 for each side) from between the seatback pad and rear seatback frame, and pull them downward to remove the wire. Then, slide the seatback upward to remove.
4. Remove nuts (4 for each side) and bolts (1 for each side) to remove the power unit frame assembly.



5. Remove the mounting bolts (4 for each side) and disconnect the vehicle-side harness connector on the seat cushion frame.



6. After removing, remove the hog ring to separate the trim and pad, and rear seat heater unit (only LH-side).

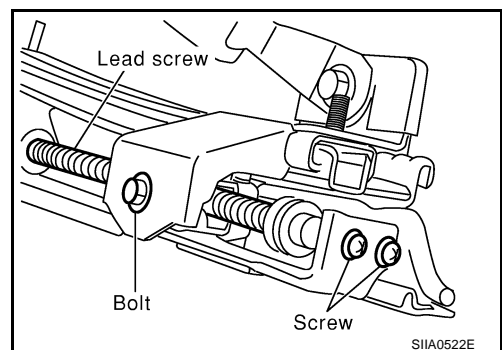
### INSTALLATION OF POWER SEAT (SPLIT SEAT)

- Install in the reverse order of removal.

### Disassembly and Assembly SLIDING MOTOR & UNIT

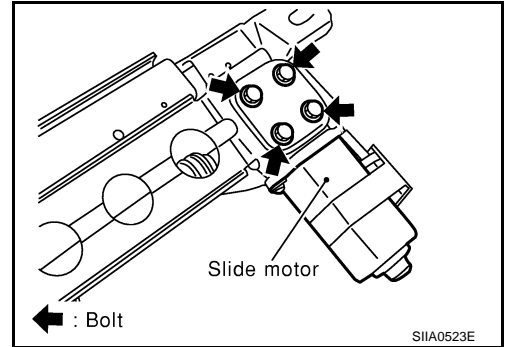
EIS000FO

1. Remove mounting bolts (1 for each side) and screws (2 for each side) on the lead screw unit.

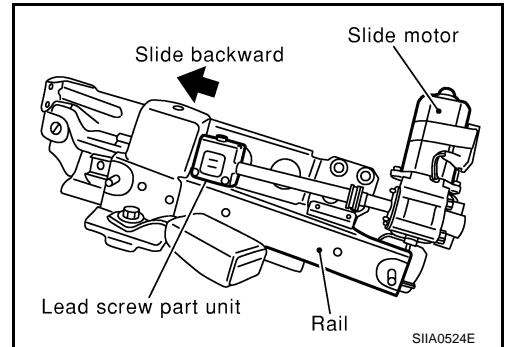


## REAR SEAT

- Remove the sliding motor mounting bolt.



- Slide the unit mounting bracket backward (on seat belt buckle side) to make space to take the unit out.
- Pull the sliding motor and unit out of the unit mounting bracket.

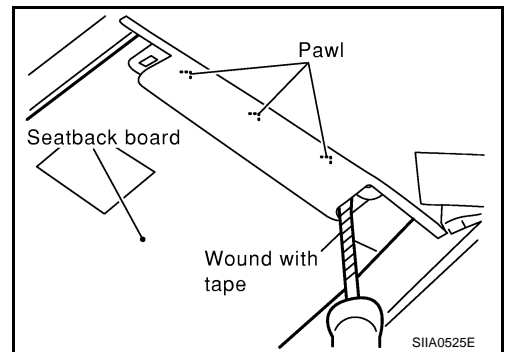


**NOTE:**

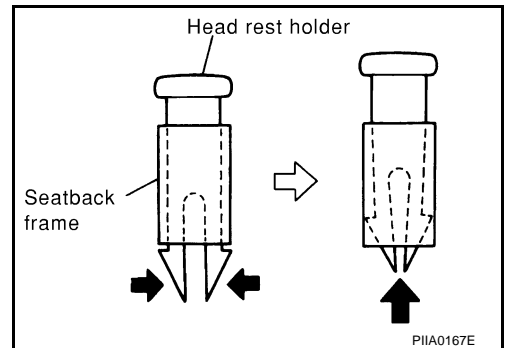
When installing the sliding rail to the seat cushion frame, slide the outer rail until it aligns to the inner rail, then install it.

### CENTER SEATBACK ASSEMBLY

- Remove the seatback board.



- Remove the seatback side screen at the right and left (screws: 2 for each side).
- Remove the armrest bracket (screws: 6).
- Remove the hog ring on the rear seatback trim (center) and headrest holder (screws: 2).



- Remove the armrest lid hinge (screws: 6) and armrest lid lock (screws: 2).

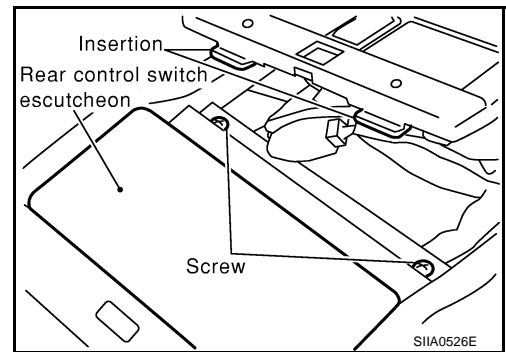
A  
B  
C  
D  
E  
F  
G  
H

SE

J  
K  
L  
M

## REAR SEAT

6. Release the tabs (2) on the armrest box, and disconnect the connectors for various switches.
7. Release the tab (1 for each) for each switch from the armrest box to separate.
8. Disconnect the connector for the rear control switch to remove the switch lid (screws: 2) and rear control switch.



9. Remove the cup holder assembly (screws: 4).

