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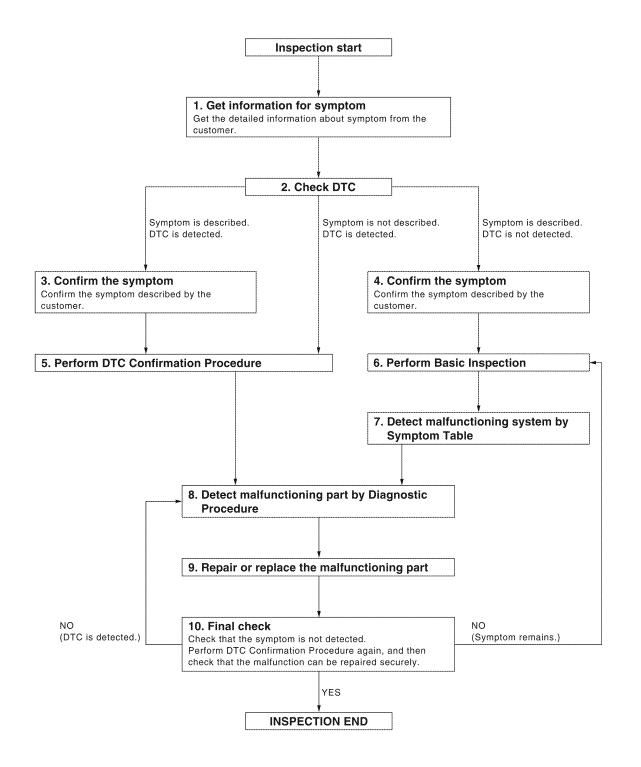
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### **BASIC INSPECTION**

### DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

**WORK FLOW** 



### DIAGNOSIS AND REPAIR WORKFLOW

# < BASIC INSPECTION > 1. GET INFORMATION FOR SYMPTOM the incident/malfunction occurred). >> GO TO 2

Get the detailed information from the customer about the symptom (the condition and the environment when

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2 . CHECK DTC WITH AUTOMATIC DRIVE POSITIONER SYSTEM Check "Self Diagnostic Result" with CONSULT-III.

Refer to ADP-116, "DTC Index".

Is any symptom described and any DTC is displayed?

Symptom is described, DTC is displayed.>>GO TO 3

Symptom is not described, DTC is displayed.>>GO TO 7

Symptom is described, DTC is not displayed.>>GO TO 4

3. CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

>> GO TO 7

### CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

>> GO TO 5

### 5. CHECK NORMAL OPERATING CONDITION

Check normal operating condition. Refer to ADP-149, "Description".

Is the incident normal operation?

>> Inspection End. YES

NO >> GO TO 6

### **6.** PERFORM BASIC INSPECTION

Isolate the malfunctioning point with the basic inspection. Refer to ADP-7, "Preliminary Check".

>> GO TO 8

### 7 . PERFORM DTC CONFIRMATION PROCEDURE

Perform the confirmation procedure for the detected DTC.

Is the DTC displayed?

YES >> GO TO 9

NO >> Check intermittent incident. Refer to GI-38, "Intermittent Incident".

### 8. PERFORM COMPONENT FUNCTION CHECK

Perform the component function check for the isolated malfunctioning point.

>> GO TO 9

### $oldsymbol{9}$ . DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

Isolate the malfunctioning point by performing the diagnosis procedure relevant to the symptom during the component diagnosis.

>> GO TO 10

### 10. REPAIR OR REPLACE

Repair or replace the malfunctioning part.

### **DIAGNOSIS AND REPAIR WORKFLOW**

### < BASIC INSPECTION >

>> GO TO 11

### 11. FINAL CHECK

Perform the DTC confirmation procedure (if DTC is detected) or component function check (if no DTC is detected) again, and then check that the malfunction can be repaired securely.

### Are all malfunctions corrected?

YES >> Inspection End.
Symptom is detected.>> GO TO 4
DTC is detected.>> GO TO 7

### **INSPECTION AND ADJUSTMENT**

#### < BASIC INSPECTION > INSPECTION AND ADJUSTMENT Α **Preliminary Check** INFOID:0000000004115486 1. FOREIGN OBJECTS В Check the following: objects on or behind the seats that could cause binding · objects under the seats that may be interfering with the seat's moving parts · objects under pedals that may interfere with movement Are there any foreign objects that could be causing interference? YES >> Remove objects. D NO >> GO TO 2 2. WIRING CONNECTIONS Е Disconnect harness connectors. Check terminals for damage or loose connections. Reconnect harness connectors. F Are any connectors damaged or loose? >> Repair or replace damaged parts. YES NO >> GO TO 3 3. POWER AND GROUND

Check power supply and ground circuits for control unit. Refer to ADP-43, "DRIVER SEAT CONTROL UNIT:

Is the inspection result normal?

Diagnosis Procedure".

YES >> Refer to ADP-116, "DTC Index".

NO >> Repair or replace as necessary.

### Special Repair Requirement

Refer to Owner's Manual for Automatic Drive Positioner system operating instructions.

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### PRE-INSPECTION FOR DIAGNOSTIC

< BASIC INSPECTION >

### PRE-INSPECTION FOR DIAGNOSTIC

Basic Inspection

### 1. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and ground circuit as shown below.

- Driver seat control unit: Refer to <u>ADP-43, "DRIVER SEAT CONTROL UNIT: Diagnosis Procedure"</u>.
- Automatic drive positioner control unit: Refer to <u>ADP-43</u>, "<u>AUTOMATIC DRIVE POSITIONER CONTROL</u> UNIT: Diagnosis Procedure".

#### Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace the malfunctioning part.

### 2. CHECK MANUAL FUNCTION

Check the manual function operations by operating the relevant switches as shown below.

- Seat (slide, reclining, lifting front, lifting rear)
- Pedal assembly (forward, backward)
- Door mirror

#### Do all manual functions operate normally?

YES >> GO TO 3

NO (Seat, pedal, door mirror)>>Go to SYMPTOM 1, refer to <u>ADP-147, "Symptom Table"</u>. And, GO TO 4 if the result of SYMPTOM 1 is OK.

### $3.\,$ CHECK MEMORY FUNCTION 1

Register the seat positions (refer to Owner's Manual) and check that all parts of the seat, pedals, steering wheel and door mirrors move to their memory positions correctly.

#### Are the operations normal?

YES >> Check each malfunction according to the instruction of the SYMPTOM 4, refer to <u>ADP-147</u>, "Symptom Table".

No (memory indicator operates normally)>> Go to SYMPTOM 2, refer to ADP-147, "Symptom Table".

No (memory indicator does not operate normally either)>> GO TO 5

### 4. CHECK MEMORY FUNCTION 2

Register the seat positions (refer to Owner's Manual) and check that all parts of the seat, pedals and door mirrors move to their memory positions correctly.

#### Are the operations normal?

YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident".

NO >> GO TO 7

### 5. CHECK SEAT MEMORY SWITCH/MEMORY INDICATOR

Check the seat memory switch/memory switch indicator of the SYMPTOM 5, refer to <u>ADP-147, "Symptom Table"</u>.

#### Is the inspection result normal?

YES >> GO TO 6

NO >> Repair or replace the malfunctioning part.

#### **6.** CHECK OPERATION CONDITION

Check the memory operation conditions (refer to <u>ADP-11, "AUTOMATIC DRIVE POSITIONER SYSTEM : System Description"</u>).

#### Are all operation conditions fulfilled?

YES >> Go to SYMPTOM 6, refer to ADP-147, "Symptom Table".

NO >> Fulfill the operation conditions. Refer to <u>ADP-11, "AUTOMATIC DRIVE POSITIONER SYSTEM :</u>
System Description".

### 7. CHECK MECHANISM

### Check for the following.

Mechanism deformation or pinched foreign materials.

### PRE-INSPECTION FOR DIAGNOSTIC

### < BASIC INSPECTION >

• Interference with other parts because of poor installation. Is any malfunction present in the relevant parts?

>> Go to SYMPTOM 3, refer to <u>ADP-147, "Symptom Table"</u>. >> Repair or replace the malfunctioning part. YES

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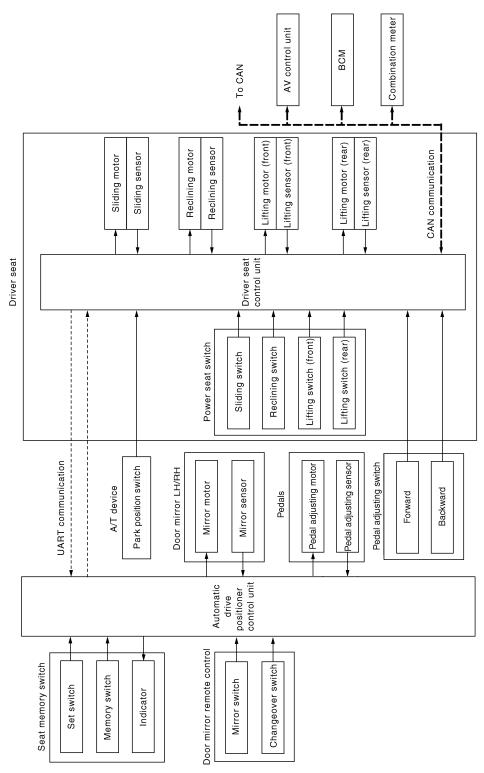
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### **FUNCTION DIAGNOSIS**

# AUTOMATIC DRIVE POSITIONER SYSTEM AUTOMATIC DRIVE POSITIONER SYSTEM

AUTOMATIC DRIVE POSITIONER SYSTEM: System Diagram

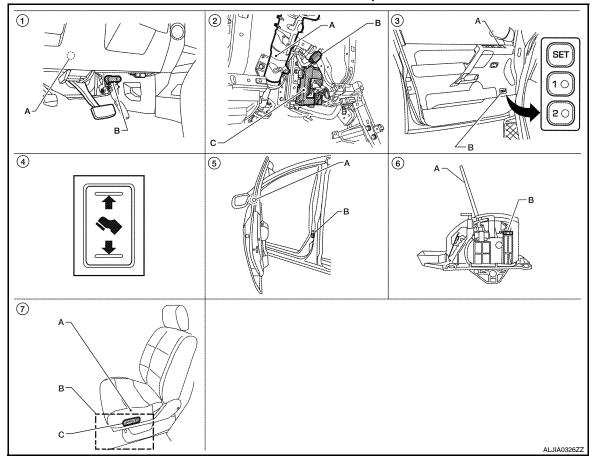


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### < FUNCTION DIAGNOSIS >

### AUTOMATIC DRIVE POSITIONER SYSTEM: Component Parts Location INFOID:000000004115490



- A. Automatic drive positioner control 2. unit M33, M34 B. Pedal adjusting motor assembly E109, E110
- Pedal adjusting switch M96
- A. Sliding motor LH B204 (driver seat view), reclining motor LH B205, lifting motor (front) B206, lifting motor (rear) B207
  - B. Driver seat control unit B202, B203
  - C. Power seat switch LH B208

- A. Steering column
  - B. Key switch and key lock solenoid
  - C. BCM M18, M19, M20 (view with instrument panel removed)
- A. Door mirrror LH D4, RH D107 B. Front door switch LH B8
- A. Door mirror remote control switch
  - B. Seat memory switch D5
- A. A/T selector lever B. A/T device (park position switch) M203

### AUTOMATIC DRIVE POSITIONER SYSTEM: System Description

#### **OUTLINE**

The system automatically moves the driver seat, pedal assembly and door mirror position by the driver seat control unit and the automatic drive positioner control unit. The driver seat control unit corresponds with the automatic drive positioner control unit by UART communication.

Function	Description
Manual function	The driving position (seat, pedal assembly and door mirror position) can be adjusted by using the power seat switch, pedal adjusting switch or door mirror remote control switch.
Memory function	The seat, pedal assembly and outside mirror move to the stored driving position by pressing seat memory switch (1 or 2).

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### < FUNCTION DIAGNOSIS >

Function		Description
Entry/Exit assist function		On exit, the seat moves backward.
Liftiy/Lxit assist fullction	Entry	On entry, the seat returns from exiting position to the previous driving position.

### AUTOMATIC DRIVE POSITIONER SYSTEM : Component Description INFOID:0000000004115492

### **CONTROL UNITS**

Item	Function
Driver seat control unit	<ul> <li>Main unit of automatic drive positioner system</li> <li>It is connected to the CAN.</li> <li>It communicates with the automatic drive positioner control unit via UART communication.</li> </ul>
Automatic drive positioner control unit	<ul> <li>It communicates with the driver seat control unit via UART communication.</li> <li>Perform various controls with the instructions of driver seat control unit.</li> <li>Perform the controls of the pedal adjusting, door mirror and the seat memory switch.</li> </ul>
BCM	Transmit the following status to the driver seat control unit via CAN communication.  • Front door LH: OPEN/CLOSE  • Ignition switch position: ACC/ON  • Door lock: UNLOCK (remote keyless entry request switch operation)  • Key ID  • Key switch: Insert/Pull out ignition key  • Starter: CRANKING/OTHER
Combination meter	Transmit the vehicle speed signal to the driver seat control unit via CAN communication.
AV control unit	The setting change of auto drive positioner system can be performed on the display.
A/T device (park position switch)	Transmit the shift position signal (P range) to the driver seat control unit.

### **INPUT PARTS**

#### **Switches**

Item	Function
Key switch and key lock solenoid	The key switch is installed to detect the key inserted/removed status.
Front door switch LH	Detect front door (driver side) open/close status.
A/T device (park position switch)	Detect the P range position of A/T selector lever.
Set switch	The registration and system setting can be performed with its operation.
Seat memory switch 1/2	The registration and operation can be performed with its operation.
Power seat switch	The following switch is installed.  Reclining switch  Lifting switch (front)  Lifting switch (rear)  Sliding switch  The specific parts can be operated with the operation of each switch.
Pedal adjusting switch	The following switch is installed.  • Pedal forward  • Pedal backward  The specific parts can be operated with the operation of each switch.
Door mirror remote control switch	The following switch is installed.  • Mirror switch  • Changeover switch  The specific parts can be operated with the operation of each switch.

Sensors

### < FUNCTION DIAGNOSIS >

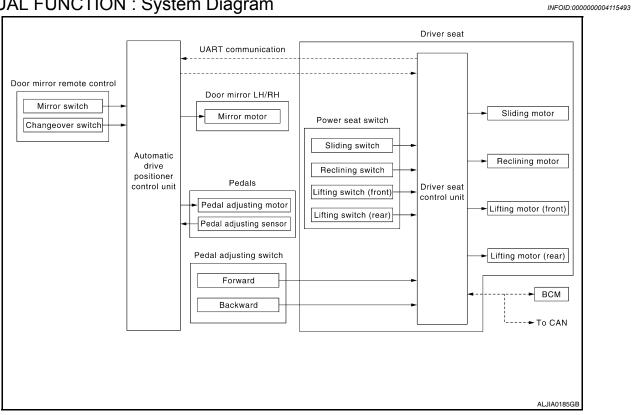
Item	Function	
Door mirror sensor (LH/RH)	Detect the up/down and left/right position of outside mirror face.	
Pedal adjusting sensor	Detect the forward/backward position of pedal assembly.	
Lifting sensor (front)	Detect the up/down position of seat lifting (front).	
Lifting sensor (rear)	Detect the up/down position of seat lifting (rear).	
Reclining sensor	Detect the tilt of seatback.	
Sliding sensor	Detect the front/rear position of seat.	

#### **OUTPUT PARTS**

Item	Function
Door mirror motor (LH/RH)	Move the outside mirror face upward/downward and left/right.
Pedal adjusting motor	Move the pedal assembly forward/backward.
Lifting motor (front)	Move the seat lifting (front) upward/downward.
Lifting motor (rear)	Move the seat lifting (rear) upward/downward.
Reclining motor	Tilt and raise up the seatback.
Sliding motor	Slide the seat forward/backward.
Seat memory indicator	Illuminates or flashes according to the registration/operation status.

### MANUAL FUNCTION

### MANUAL FUNCTION: System Diagram



### MANUAL FUNCTION: System Description

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#### **OUTLINE**

The driving position (seat, pedal assembly and door mirror position) can be adjusted manually with power seat switch, pedal adjusting switch and door mirror remote control switch.

#### **OPERATION PROCEDURE**

### **ADP-13**

### < FUNCTION DIAGNOSIS >

- 1. Turn ignition switch ON.
- 2. Operate power seat switch, pedal adjusting switch or door mirror remote control switch.
- 3. The driver seat, pedal assembly or door mirror operates according to the operation of each switch.

#### **DETAIL FLOW**

#### Seat

Order	Input	Output	Control unit condition
1	Power seat switch (sliding, lifting, reclining)	_	The power seat switch signal is inputted to the driver seat control unit when the power seat switch is operated.
2	_	Motors (sliding, lifting, reclining)	The driver seat control unit outputs signals to each motor according to the power seat switch input signal.

#### Adjustable pedals

Order	Input	Output	Control unit condition
1	Pedal adjusting switch	_	The pedal adjusting switch signal is input to the automatic drive positioner control unit when the pedal adjusting switch is operated.
2	_	Motor	The automatic drive positioner control unit actuates the motor according to the operation of the pedal adjusting switch signal from the driver seat control unit.
3	Sensors (forward, backward)	_	The automatic drive positioner control unit recognizes any operation limit of each actuator via each sensor and will not operate the actuator anymore at that time.

#### Door Mirror

Order	Input	Output	Control unit condition
1	Door mirror remote control switch	_	The door mirror remote control switch signal is inputted to the automatic drive positioner control unit when the door mirror remote control switch is operated.
2	_	Motors (Door mirror motor)	The automatic drive positioner control unit actuates each motor according to the operation of the door mirror remote control switch.

#### NOTE:

The door mirrors can be operated manually when ignition switch is in either ACC or ON position. The ignition switch signal (ACC/ON) is transmitted from BCM to the driver seat control unit via CAN communication and from the driver seat control unit to the automatic drive positioner control unit via UART communication.

### < FUNCTION DIAGNOSIS >

### MANUAL FUNCTION: Component Parts Location

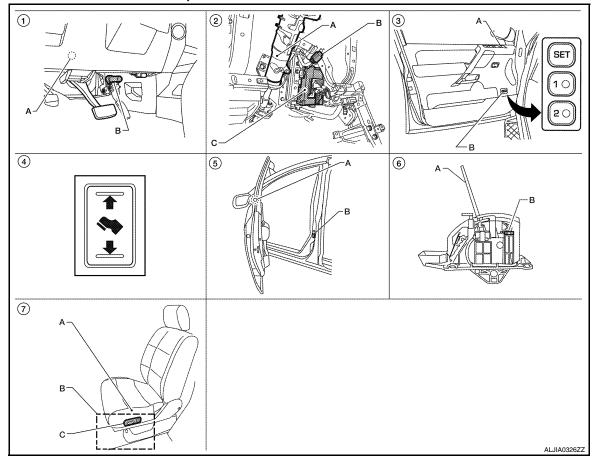
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- A. Automatic drive positioner control 2. unit M33, M34 B. Pedal adjusting motor assembly E109, E110
- Pedal adjusting switch M96
- A. Sliding motor LH B204 (driver seat view), reclining motor LH B205, lifting motor (front) B206, lifting motor (rear) B207
  - B. Driver seat control unit B202, B203
  - C. Power seat switch LH B208

- A. Steering column
  - B. Key switch and key lock solenoid
  - C. BCM M18, M19, M20 (view with instrument panel removed)
- A. Door mirrror LH D4, RH D107 B. Front door switch LH B8
- A. Door mirror remote control switch
  - B. Seat memory switch D5
- A. A/T selector lever B. A/T device (park position switch) M203

### MANUAL FUNCTION: Component Description

#### **CONTROL UNITS**

Item Function • Operates the specific seat motor with the signal from the power seat switch. Transmits the ignition switch signal (ACC/ON) via UART communication to the Driver seat control unit automatic drive positioner control unit. Transmits the pedal adjusting switch signal via UART communication to the automatic drive positioner control unit.

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### < FUNCTION DIAGNOSIS >

ltem	Function	
Automatic drive positioner control unit	Operates the specific motor with the signal from driver seat control unit or door mirror remote control switch.	
ВСМ	Recognizes the following status and transmits it to the driver seat control unit via CAN communication.  • Ignition position: ACC/ON	

### **INPUT PARTS**

### Switches

Item	Function	
Power seat switch	The following switch is installed.  Reclining switch  Lifting switch (front)  Lifting switch (rear)  Sliding switch  The specific parts can be operated with the operation of each switch.	
Pedal adjusting switch	The following switch is installed.  • Pedal forward  • Pedal backward  The specific parts can be operated with the operation of each switch.	
Door mirror remote control switch	The following switch is installed.  • Mirror switch  • Changeover switch  The specific parts can be operated with the operation of each switch.	

#### Sensors

Item	Function
Pedal adjusting sensor	Detect the forward/backward position of pedal assembly.

### **OUTPUT PARTS**

Item	Function
Door mirror motor (LH/RH)	Move the outside mirror face upward/downward and left/right.
Pedal adjusting motor	Move the pedal assembly forward/backward.
Lifting motor (front)	Move the seat lifter (front) upward/downward.
Lifting motor (rear)	Move the seat lifter (rear) upward/downward.
Reclining motor	Tilt and raise up the seatback.
Sliding motor	Slide the seat forward/backward.

### MEMORY FUNCTION

### < FUNCTION DIAGNOSIS >

#### MEMORY FUNCTION: System Diagram INFOID:0000000004115497 Driver seat Seat memory switch **UART** communication Memory switch Sliding motor Indicator Sliding sensor Door mirror LH/RH Reclining motor Mirror motor Reclining sensor Automatic Mirror sensor drive Driver seat

Pedals

Pedal adjusting motor Pedal adjusting sensor control unit

Lifting motor (front) Lifting sensor (front)

Lifting motor (rear) Lifting sensor (rear)

### MEMORY FUNCTION: System Description

positioner

control unit

INFOID:0000000004115498

#### **OUTLINE**

The driver seat control unit can store the optimum driving positions (seat, pedal assembly and door mirror position) for 2 people. If the front seat position is changed, one-touch (pressing desired memory switch for more than 0.5 second) operation allows changing to the other driving position.

Further information for the memory storage procedure. Refer to Owner's Manual.

#### OPERATION PROCEDURE

- Turn ignition switch ON.
- Press desired memory switch for more than 0.5 second.
- Front seat LH, pedal assembly and door mirror will move to the memorized position.

#### OPERATION CONDITION

Satisfy all of the following items. The memory function is not performed if these items are not satisfied.

Item	Request status
Ignition position	ON
Switch inputs	
Power seat switch	
Pedal adjusting switch	OFF
Door mirror control switch	(Not operated)
Set switch	
Seat memory switch	
A/T selector lever	P position

#### **DETAIL FLOW**

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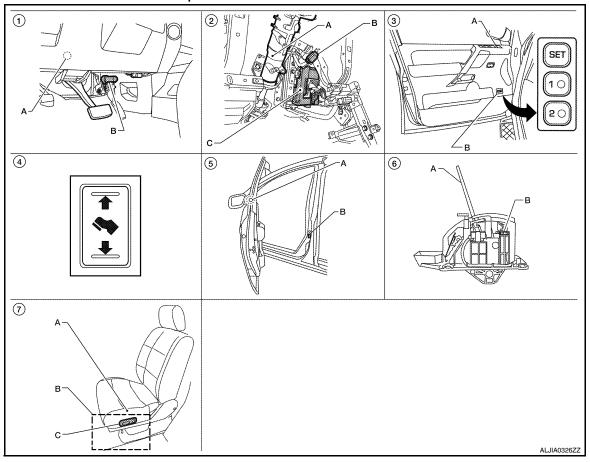
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### < FUNCTION DIAGNOSIS >

Order	Input	Output	Control unit condition
1	Memory switch	_	The memory switch signal is inputted to the automatic drive positioner control unit when memory switch 1 or 2 is operated.  Memory switch signal is input to driver seat control unit via UART communication.
2	_	Motors (seat, pedal adjusting, door mirror)	Driver seat control unit operates each motor of seat when it recognizes the memory switch pressed for 0.5 second or more and requests each motor operation to automatic drive positioner control unit via UART communication. The automatic drive positioner control unit operates each motor.
		Memory switch Indicator	Driver seat control unit requests the flashing of memory indicator to automatic drive positioner control unit via UART communication while either of the motors is operating. The automatic drive positioner control unit illuminates the memory indicator.
3	Sensors (seat, pedal adjust- ing, door mirror)	_	Driver seat control unit judges the operating seat position with each seat sensor input. The positions of the adjustable pedals and outside mirror are monitored with each sensor signal that is input from auto drive positioner control unit via UART communication. Driver seat control unit stops the operation of each motor when each part reaches the recorded address.
4	_	Memory switch Indicator	Driver seat control unit requests the illumination of memory indicator to auto drive positioner control unit via UART communication after all motors stop. The auto driving positioner control unit illuminates the memory indicator for 5 seconds.

### MEMORY FUNCTION : Component Parts Location

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#### < FUNCTION DIAGNOSIS >

- 1. A. Automatic drive positioner control 2. unit M33, M34
  - B. Pedal adjusting motor assembly E109, E110

A. Sliding motor LH B204 (driver seat view), reclining motor LH B205, lift-

- Pedal adjusting switch M96
- A. Steering column B. Key switch and key lock solenoid M27
  - C. BCM M18, M19, M20 (view with instrument panel removed)
- A. Door mirrror LH D4, RH D107 B. Front door switch LH B8
- A. Door mirror remote control switch D10
  - B. Seat memory switch D5
- A. A/T selector lever
  - B. A/T device (park position switch)

M203

ing motor (front) B206, lifting motor (rear) B207 B. Driver seat control unit B202,

B203 C. Power seat switch LH B208

### MEMORY FUNCTION: Component Description

### **CONTROL UNITS**

**Function** Item · The address of each part is recorded. · Operates each motor of seat to the registered position. Driver seat control unit · Requests the operations of pedal assembly and door mirror to automatic drive positioner control unit. Operates the pedal adjusting motor and door mirror with the instructions from the Automatic drive positioner control unit driver seat control.

### **INPUT PARTS**

#### Switches

Item	Function
Memory switch 1/2	The registration and memory function can be performed with its operation.

#### Sensors

Item	Function	
Door mirror sensor (LH/RH)	Detect the up/down and left/right position of outside mirror face.	
Pedal adjusting sensor	Detect the forward/backward position of pedal assembly.	
Lifting sensor (front)	Detect the up/down position of seat lifting (front).	
Lifting sensor (rear)	Detect the up/down position of seat lifting (rear).	
Reclining sensor	Detect the tilt of seatback.	
Sliding sensor	Detect the front/rear position of seat.	

#### **OUTPUT PARTS**

Item	Function	
Door mirror motor (LH/RH)	Move the outside mirror face upward/downward and left/right.	
Pedal adjusting motor Move the pedal assembly forward/backward.		
Lifting motor (front)	Move the seat lifter (front) upward/downward.	
Lifting motor (rear)	Move the seat lifter (rear) upward/downward.	
Reclining motor	Tilt and raise up the seatback.	
Sliding motor	Slide the seat forward/backward.	
Memory indicator	Illuminates or blinks according to the registration/operation status.	

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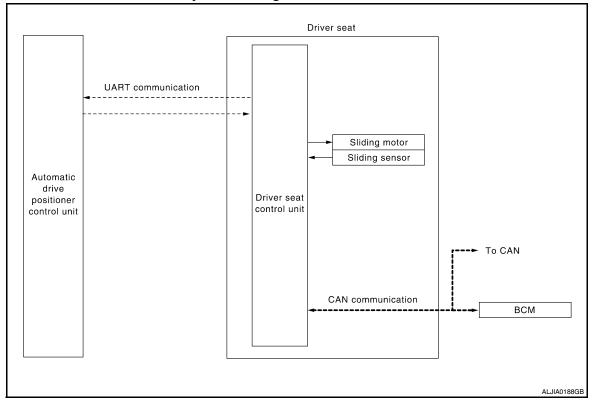
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### **EXIT ASSIST FUNCTION**

### **EXIT ASSIST FUNCTION: System Diagram**

INFOID:0000000004115501



### **EXIT ASSIST FUNCTION: System Description**

INFOID:0000000004115502

#### **OUTLINE**

When exiting, if the conditions are satisfied, the seat is moved backward from normal sitting position. The seat slide amount at entry/exit operation can be changed.

#### NOTE:

- This function is set to OFF before delivery (initial setting).
- Further information for the system setting procedure. Refer to Owner's Manual.

#### **OPERATION PROCEDURE**

- 1. Open the driver door with ignition switch in OFF position.
- 2. Front seat LH will move to the exiting position.

#### **OPERATION CONDITION**

Satisfy all of the following items. The exit assist function is not performed if these items are not satisfied.

Item	Request status
Ignition switch	OFF
System setting [Entry/exit assist function]	ON
Initialization	Done
Switch inputs  Power seat switch  Pedal adjusting switch  Door mirror remote control switch  Set switch  Seat memory switch	OFF (Not operated)
A/T selector lever	P position

**DETAIL FLOW** 

### < FUNCTION DIAGNOSIS >

Order	Input	Output	Control unit condition
1	Front door switch LH	_	Driver seat control unit receives front door switch LH signal (open) from BCM via CAN communication.
2	_	Motor (seat sliding)	Driver seat control unit operates the seat sliding motor, which recognizes that the front door LH is opened with ignition switch OFF.

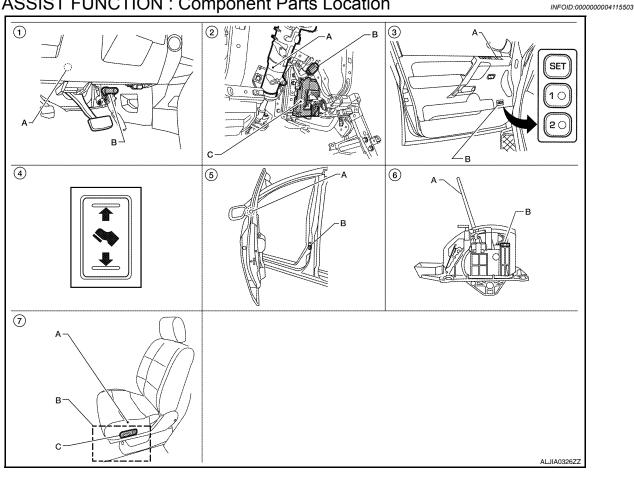
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### **EXIT ASSIST FUNCTION: Component Parts Location**



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- A. Automatic drive positioner control 2. unit M33, M34
  - B. Pedal adjusting motor assembly E109, E110
- Pedal adjusting switch M96
- A. Steering column
  - B. Key switch and key lock solenoid
  - C. BCM M18, M19, M20 (view with instrument panel removed)
- A. Door mirrror LH D4, RH D107
  - B. Front door switch LH B8
- B. Seat memory switch D5
- A. A/T selector lever

A. Sliding motor LH B204 (driver seat view), reclining motor LH B205, lifting motor (front) B206, lifting motor (rear) B207

B. Driver seat control unit B202, B203

C. Power seat switch LH B208

**EXIT ASSIST FUNCTION: Component Description** 

**CONTROL UNITS** 

A. Door mirror remote control switch D10

B. A/T device (park position switch) M203

INFOID:0000000004115504

### < FUNCTION DIAGNOSIS >

Item	Function		
Driver seat control unit	Operates the seat sliding motor for a constant amount.		
ВСМ	Recognizes the following status and transmits it to the driver seat control unit via CAN communication.  • Front door LH: OPEN/CLOSE		

### **INPUT PARTS**

#### Switches

Item	Function	
Front door switch LH	Detect front door LH open/close status.	

#### Sensors

Item	Function	
Sliding sensor	Detect the front/rear position of seat.	

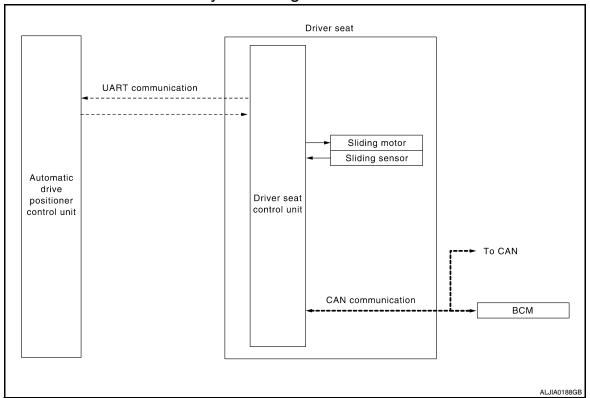
### **OUTPUT PARTS**

Item	Function	
Sliding motor	Slide the seat forward/backward.	

### **ENTRY ASSIST FUNCTION**

### **ENTRY ASSIST FUNCTION: System Diagram**

INFOID:0000000004115505



### ENTRY ASSIST FUNCTION : System Description

INFOID:0000000004115506

### **OUTLINE**

The seat is in the exiting position when either following condition (A or B) is satisfied, the seat returns from exiting position to the previous driving position.

NOTE:

### < FUNCTION DIAGNOSIS >

- This function is set to OFF before delivery (initial setting).
- Further information for the system setting procedure. Refer to Owner's Manual.

### **OPERATION PROCEDURE**

- 1. A: Turn the ignition switch ON.
  - B: Turn the ignition switch from OFF to ACC after closing the driver door.
- 2. Front seat LH will return from the exiting position to entry position.

### **OPERATION CONDITION**

Satisfy all of the following items. The entry assist function is not performed if these items are not satisfied.

Item	Request status
Seat	The vehicle is not moved after performing the exit assist function.
Switch inputs     Power seat switch     Pedal adjusting switch     Door mirror control switch     Set switch     Memory switch	OFF (Not operated)
A/T selector lever	P position

### **DETAIL FLOW**

Order	Input	Output	Control unit condition
1	Door switch/Ignition switch	_	Driver seat control unit receives the signals of ignition switch signal and front door switch from BCM via CAN communication.
2	_	Motor (sliding)	Driver seat control unit operates the sliding motor when the operating conditions are satisfied.
Sensor (sliding)		_	Sensor monitors the operating positions of seat and then stops the operation of motor when seat reaches the recorded address.

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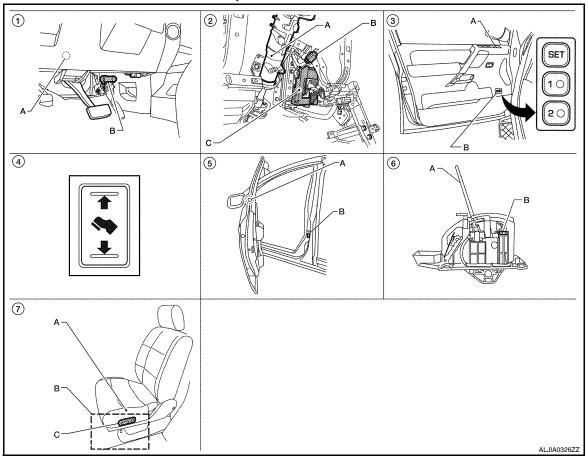
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### **ENTRY ASSIST FUNCTION: Component Parts Location**

INFOID:0000000004115507



- 1. A. Automatic drive positioner control 2. unit M33, M34 B. Pedal adjusting motor assembly E109, E110
- Pedal adjusting switch M96
- 7. A. Sliding motor LH B204 (driver seat view), reclining motor LH B205, lifting motor (front) B206, lifting motor (rear) B207
  - B. Driver seat control unit B202, B203
  - C. Power seat switch LH B208

- A. Steering column
  - B. Key switch and key lock solenoid
  - C. BCM M18, M19, M20 (view with instrument panel removed)
- A. Door mirrror LH D4, RH D107
  - B. Front door switch LH B8
- A. Door mirror remote control switch
  - B. Seat memory switch D5
- A. A/T selector lever B. A/T device (park position switch) M203

INFOID:0000000004115508

### **ENTRY ASSIST FUNCTION: Component Description**

**CONTROL UNITS** 

Item	Function	
Driver seat control unit	According to the ignition signal and front door switch LH signal from BCM,  Operates the seat sliding motor for a constant amount.	
ВСМ	Recognizes the following status and transmits it to the driver seat control unit via CAN communication.  • Front door LH: OPEN/CLOSE  • Ignition switch position: ACC/ON	

### **INPUT PARTS**

### < FUNCTION DIAGNOSIS >

### Switches

Item	Function	
Front door switch LH	Detect front door LH open/close status.	

### Sensors

Item	Function	
Sliding sensor	Detect the front/rear position of seat.	

### **OUTPUT PARTS**

Item	Function
Sliding motor	Slide the seat forward/backward.

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### DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

### < FUNCTION DIAGNOSIS >

### DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

### **Diagnosis Description**

The auto drive positioner system can be checked and diagnosed for component operation with CONSULT-III. DIAGNOSTIC MODE

Diagnostic mode [AUTO DRIVE POS.]	Description		
WORK SUPPORT	Changes the setting of each function.		
SELF-DIAG RESULTS	Performs self-diagnosis for the auto drive positioner system and displays the results.		
DATA MONITOR	Displays input signals transmitted from various switches and sensors to driver seat control unit in real time.		
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.		
ACTIVE TEST	Drive each output device.		
ECU PART NUMBER	Displays part numbers of driver seat control unit parts.		

### **CONSULT-III Function**

INFOID:0000000004115510

INFOID:0000000004115509

# SELF-DIAGNOSIS RESULTS Refer to <u>ADP-116</u>, "DTC Index".

### **DATA MONITOR**

Monitor Item	Unit	Main Signals	Selection From Menu	Contents
SET SW	"ON/OFF"	×	×	ON/OFF status judged from the setting switch signal.
MEMORY SW1	"ON/OFF"	×	×	ON/OFF status judged from the seat memory switch 1 signal.
MEMORY SW2	"ON/OFF"	×	×	ON/OFF status judged from the seat memory switch 2 signal.
SLIDE SW-FR	"ON/OFF"	×	×	ON/OFF status judged from the sliding switch (forward) signal.
SLIDE SW-RR	"ON/OFF"	×	×	ON/OFF status judged from the sliding switch (backward) signal.
RECLN SW-FR	"ON/OFF"	×	×	ON/OFF status judged from the reclining switch (forward) signal.
RECLN SW-RR	"ON/OFF"	×	×	ON/OFF status judged from the reclining switch (backward) signal.
LIFT FR SW-UP	"ON/OFF"	×	×	ON/OFF status judged from the lifting switch front (up) signal.
LIFT FR SW-DN	"ON/OFF"	×	×	ON/OFF status judged from the lifting switch front (down) signal.
LIFT RR SW-UP	"ON/OFF"	×	×	ON/OFF status judged from the lifting switch rear (up) signal.
LIFT RR SW-DN	"ON/OFF"	×	×	ON/OFF status judged from the lifting switch rear (down) signal.
MIR CON SW-UP	"ON/OFF"	×	×	ON/OFF status judged from the mirror switch (up) signal.
MIR CON SW-DN	"ON/OFF"	×	×	ON/OFF status judged from the mirror switch (down) signal.
MIR CON SW-RH	"ON/OFF"	×	×	ON/OFF status judged from the door mirror remote control switch (passenger side) signal.
MIR CON SW-LH	"ON/OFF"	×	×	ON/OFF status judged from the door mirror remote control switch (driver side) signal.

### **DIAGNOSIS SYSTEM (DRIVER SEAT C/U)**

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### < FUNCTION DIAGNOSIS >

Monitor Item	Unit	Main Signals	Selection From Menu	Contents
MIR CHNG SW-R	"ON/OFF"	×	×	ON/OFF status judged from the door mirror remote control switch (switching to right) signal.
MIR CHNG SW-L	"ON/OFF"	×	×	ON/OFF status judged from the door mirror remote control switch (switching to left) signal.
PEDAL SW-FR	"ON/OFF"	×	×	ON/OFF status judged from the pedal adjusting switch (forward) signal.
PEDAL SW-RR	"ON/OFF"	×	×	ON/OFF status judged from the pedal adjusting switch (backward) signal.
DETENT SW	"ON/OFF"	×	×	The selector lever position "OFF (P position) / ON (other than P position)" judged from the detention switch signal.
STARTER SW	"ON/OFF"	×	×	Ignition key switch ON (START, ON)/OFF (ACC, OFF) status judged from the ignition switch signal.
SLIDE PULSE	_	_	×	Value (32768) when battery connections are standard. If it moves backward, the value increases. If it moves forward, the value decreases.
RECLN PULSE	_	-	×	Value (32768) when battery connections are standard. If it moves backward, the value increases. If it moves forward, the value decreases.
LIFT FR PULSE	_	-	×	Value (32768) when battery connections are standard. If it moves DOWN, the value increases. If it moves UP, the value decreases.
LIFT RR PULSE	_	-	×	Value (32768) when battery connections are standard. If it moves DOWN, the value increases. If it moves UP, the value decreases.
MIR/SEN RH U-D	"V"	-	×	Voltage input from door mirror sensor (passenger side) up/down is displayed.
MIR/SEN RH R-L	"V"	-	×	Voltage input from door mirror sensor (passenger side) left/right is displayed.
MIR/SEN LH U-D	"V"	-	×	Voltage input from door mirror sensor (driver side) up/down is displayed.
MIR/SEN LH R-L	"V"	_	×	Voltage input from door mirror sensor (driver side) left/right is displayed.
PEDAL SEN	" <b>V</b> "	_	×	Pedal position (voltage) judged from the pedal adjusting sensor signal is displayed.

### **ACTIVE TEST**

### **CAUTION:**

When driving vehicle, do not perform active test.

Test item	Description
SEAT SLIDE	Activates/deactivates the sliding motor.
SEAT RECLINING	Activates/deactivates the reclining motor.
SEAT LIFTER FR	Activates/deactivates the lifting motor (front).
SEAT LIFTER RR	Activates/deactivates the lifting motor (rear).
ADJ PEDAL MOTOR	Activates/deactivates the pedal adjusting motor.
MIRROR MOTOR RH	Activates/deactivates the mirror motor (passenger side).
MIRROR MOTOR LH	Activates/deactivates the mirror motor (driver side).
MEMORY SW INDCTR	Turns ON/OFF the memory indicator.

**WORK SUPPORT** 

### DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

### < FUNCTION DIAGNOSIS >

Work item	Content	Item
		40 mm
SEAT SLIDE VOLUME SET	The amount of seat sliding for entry/exit assist can be selected from 3 items.	80 mm
		150 mm
EXIT SEAT SLIDE SETTING	Entry/exit assist (seat) can be selected:	ON
EXIT SEAT SLIDE SETTING	ON (operated) – OFF (not operated)	OFF

### **COMPONENT DIAGNOSIS**

### U1000 CAN COMM CIRCUIT

Description BINFOID:000000004115511 B

Refer to LAN-4, "System Description".

DTC Logic

### DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition	Possible cause
U1000	CAN COMM CIR- CUIT	<ul> <li>Driver seat control unit cannot communicate to other control units.</li> <li>Driver seat control unit cannot communicate for more than the specified time.</li> </ul>	Harness or connectors (CAN communication line is open or shorted)

### DTC CONFIRMATION PROCEDURE

### **1**. STEP 1

Turn ignition switch ON and wait at least 3 seconds.

>> GO TO 2

### 2. STEP 2

Check "Self diagnostic result" with CONSULT-III.

#### Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to <u>LAN-10</u>, "Self-Diagnosis".

NO >> Inspection End.

### Special Repair Requirement

Refer to Owner's Manual.

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### **B2112 SLIDING MOTOR**

#### < COMPONENT DIAGNOSIS >

### **B2112 SLIDING MOTOR**

Description INFOID:000000004115514

- The seat sliding motor is installed to the power seat frame assembly.
- The seat sliding motor is installed with the driver seat control unit.
- · Slides the seat frontward/rearward by changing the rotation direction of sliding motor.

DTC Logic

#### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2112	SEAT SLIDE	The driver seat control unit detects the output of sliding motor output terminal for 0.1 second or more even if the sliding switch is not input.	Driver seat control unit

#### DTC CONFIRMATION PROCEDURE

### **1.** STEP 1

Turn ignition switch ON.

>> GO TO 2

### 2. STEP 2

Check "Self diagnostic result" with CONSULT-III.

#### Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to <u>ADP-30. "Diagnosis Procedure"</u>.

NO >> Inspection End.

#### NOTE:

First perform diagnosis for B2126 if B2126 is detected. Refer to ADP-38, "Diagnosis Procedure".

### Diagnosis Procedure

INFOID:0000000004115516

### 1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Check "Self diagnostic result" with CONSULT-III.
- 3. Erase the DTC.
- 4. Perform DTC confirmation procedure. Refer to ADP-30, "DTC Logic".

### Is the DTC displayed again?

YES >> GO TO 2

NO >> Check intermittent incident. Refer to GI-38, "Intermittent Incident".

### $oldsymbol{2}$ . CHECK COMPONENTS

Refer to ADP-68, "Component Function Check" and ADP-82, "Component Function Check".

>> Inspection End.

#### **B2113 RECLINING MOTOR** < COMPONENT DIAGNOSIS > **B2113 RECLINING MOTOR** Α Description INFOID:0000000004115517 The seat reclining motor is installed to the seatback assembly. В The seat reclining motor is activated with the driver seat control unit. Tilts the seatback frontward/rearward by changing the rotation direction of reclining motor. **DTC Logic** INFOID:0000000004115518 DTC DETECTION LOGIC D Trouble diagnosis DTC No. DTC detecting condition Possible cause name The driver seat control unit detects the output of re-Е B2113 SEAT RECLINING clining motor output terminal for 0.1 second or more Driver seat control unit even if the reclining switch is not input. DTC CONFIRMATION PROCEDURE F 1. STEP 1 Turn ignition switch ON. >> GO TO 2 $\mathbf{2}$ .STEP 2 Н Check "Self diagnostic result" with CONSULT-III. Is the DTC detected? YES >> Perform diagnosis procedure. Refer to ADP-31, "Diagnosis Procedure". NO >> Inspection End. NOTE: ADP First perform diagnosis for B2126 if B2126 is detected. Refer to ADP-38, "Diagnosis Procedure". Diagnosis Procedure INFOID:0000000004115519 PERFORM DTC CONFIRMATION PROCEDURE Turn ignition switch ON. 2. Check "Self diagnostic result" with CONSULT-III. 3. Erase the DTC.

- Perform DTC confirmation procedure. Refer to ADP-31, "DTC Logic".

#### Is the DTC displayed again?

YES >> GO TO 2

NO >> Check intermittent incident. Refer to GI-38, "Intermittent Incident".

### 2. CHECK COMPONENTS

Refer to ADP-70, "Component Function Check" and ADP-84, "Component Function Check".

>> Inspection End.

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### **B2114 SEAT LIFTER FR**

#### < COMPONENT DIAGNOSIS >

### **B2114 SEAT LIFTER FR**

Description INFOID:000000004115520

- The lifting motor (front) is installed to the power seat frame assembly.
- The lifting motor (front) is activated with the driver seat control unit.
- Tilts the seat front up/down by changing the rotation direction of lifting motor (front).

DTC Logic

#### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2114	SEAT LIFTER FR	The driver seat control unit detects the output of lifting motor (front) output terminal for 0.1 second or more even if the lifting switch is not input.	Driver seat control unit

### DTC CONFIRMATION PROCEDURE

### 1. STEP 1

Turn ignition switch ON.

>> GO TO 2

### 2. STEP 2

Check "Self diagnostic result" with CONSULT-III.

#### Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to <a href="ADP-32">ADP-32</a>, "Diagnosis Procedure".

NO >> Inspection End.

#### NOTE:

First perform diagnosis for B2126 if B2126 is detected. Refer to ADP-38, "Diagnosis Procedure".

## Diagnosis Procedure

INFOID:0000000004115522

- 1. Turn ignition switch ON.
- 2. Check "Self diagnostic result" with CONSULT-III.

1. PERFORM DTC CONFIRMATION PROCEDURE

- 3. Erase the DTC.
- 4. Perform DTC confirmation procedure. Refer to ADP-32, "DTC Logic".

#### Is the DTC displayed again?

YES >> GO TO 2

NO >> Check intermittent incident. Refer to GI-38, "Intermittent Incident".

### 2. CHECK COMPONENTS

Refer to ADP-72, "Component Function Check" and ADP-86, "Component Function Check".

>> Inspection End.

#### **B2115 SEAT LIFTER RR** < COMPONENT DIAGNOSIS > **B2115 SEAT LIFTER RR** Α Description INFOID:0000000004115523 The lifting motor (rear) is installed to the power seat frame assembly. В The lifting motor (rear) is activated with the driver seat control unit. Tilts the seat rear up/down by changing the rotation direction of lifting motor (rear). **DTC Logic** INFOID:0000000004115524 DTC DETECTION LOGIC D Trouble diagnosis DTC No. DTC detecting condition Possible cause name The driver seat control unit detects the output of lift-Е B2115 SEAT LIFTER RR ing motor (rear) output terminal for 0.1 second or · Driver seat control unit more even if the lifting switch is not input. DTC CONFIRMATION PROCEDURE F 1. STEP 1 Turn ignition switch ON. >> GO TO 2 $\mathbf{2}$ . STEP 2 Н Check "Self diagnostic result" with CONSULT-III. Is the DTC detected? YES >> Perform diagnosis procedure. Refer to <u>ADP-33, "Diagnosis Procedure"</u>. NO >> Inspection End. NOTE: ADP First perform diagnosis for B2126 if B2126 is detected. Refer to ADP-38, "Diagnosis Procedure". Diagnosis Procedure INFOID:0000000004115525 PERFORM DTC CONFIRMATION PROCEDURE Turn ignition switch ON. Check "Self diagnostic result" with CONSULT-III. 3. Erase the DTC. Perform DTC confirmation procedure. Refer to ADP-33, "DTC Logic". Is the DTC displayed again? YES >> GO TO 2 NO >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". 2. CHECK COMPONENTS

Refer to ADP-74, "Component Function Check" and ADP-88, "Component Function Check".

>> Inspection End.

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### **B2117 ADJ PEDAL MOTOR**

Description INFOID:0000000004115526

- The pedal adjusting sensor is installed to pedal adjusting motor assembly.
- The resistance of pedal adjusting sensor is changed according to the forward/backward position of pedal assembly.
- The terminal voltage of automatic drive positioner control unit will be changed according to a change of pedal adjusting sensor resistance. Automatic drive positioner control unit calculates the pedal position from the voltage.

DTC Logic INFOID:000000004115527

#### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2117	ADJ PEDAL MOTOR	When any manual or automatic operations are not performed, if motor operation is detected for 0.1 second or more, status is judged "Output error".	Harness and connectors     (pedal adjusting sensor circuit is opened/shorted, pedal adjusting sensor power supply circuit is opened/shorted.)     Pedal adjusting sensor

#### DTC CONFIRMATION PROCEDURE

### 1. STEP 1

Turn ignition switch ON.

>> GO TO 2

### 2. STEP 2

Check "Self diagnostic result" with CONSULT-III.

#### Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-34, "Diagnosis Procedure".

NO >> Inspection End.

## Diagnosis Procedure

INFOID:0000000004115528

### 1. CHECK PEDAL ADJUSTING MECHANISM

Check the following.

- Operation malfunction caused by pedal adjusting mechanism deformation or pinched harness or other foreign materials
- · Operation malfunction and interference with other parts by poor installation

### Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace the malfunctioning part and check again.

### 2. CHECK FUNCTION

- Turn ignition switch ON.
- Check "ADJ PEDAL MOTOR" in "Active test" mode with CONSULT-III.

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

#### Is the inspection result normal?

YES >> Pedal adjusting motor assembly circuit is OK.

NO >> GO TO 3

### **B2117 ADJ PEDAL MOTOR**

#### < COMPONENT DIAGNOSIS >

# 3. CHECK PEDAL ADJUSTING MOTOR ASSEMBLY CIRCUIT HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit and pedal adjusting motor assembly.
- 3. Check continuity between automatic drive positioner control unit connector M34 (A) terminals 37, 45 and pedal adjusting motor assembly connector E109 (B) terminals 1, 2.

37 - 1 : Continuity should exist.45 - 2 : Continuity should exist.

4. Check continuity between automatic drive positioner control unit connector M34 (A) terminals 37, 45 and ground.

37 - Ground : Continuity should not exist.45 - Ground : Continuity should not exist.

#### Is the inspection result normal?

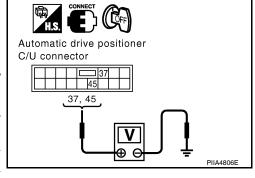
YES >> GO TO 4

NO >> Repair or replace harness.

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

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

Connec- Term		inals	Condition	Voltage (V)	
tor	(+)	(-)	Condition	(Approx.)	
	37		Pedal adjusting switch ON (FORWARD operation)	Battery voltage	
M34		Ground	Other than above	0	
	45		Pedal adjusting switch ON (BACKWARD operation)	Battery voltage	
			Other than above	0	



#### Is the inspection result normal?

YES >> Replace pedal adjusting motor assembly. Refer to ADP-156, "Removal and Installation".

NO >> GO TO 5

### $oldsymbol{5}$ . CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-153, "Removal and Installation"</u>.

NO >> Repair or replace the malfunctioning part.

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### **B2120 ADJ PEDAL SENSOR**

< COMPONENT DIAGNOSIS >

### **B2120 ADJ PEDAL SENSOR**

Description INFOID:000000004115523

- The pedal adjusting sensor is installed in the pedal adjusting motor assembly.
- The resistance of pedal adjusting sensor is changed according to the forward/backward position of pedal adjusting motor assembly.
- The terminal voltage of automatic drive positioner control unit will be changed according to a change of pedal adjusting sensor resistance. Automatic drive positioner control unit calculates the pedal assembly position from the voltage.

DTC Logic

#### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2120	ADJ PEDAL SENSOR	The input voltage of pedal adjusting sensor is 0.5V or less or 4.5V or higher, for 0.5 seconds or more.	Harness and connectors     (Pedal adjusting sensor circuit is opened/shorted, pedal adjusting sensor power supply circuit is opened/shorted.)      Pedal adjusting sensor

#### DTC CONFIRMATION PROCEDURE

### 1. STEP 1

Turn ignition switch ON.

>> GO TO 2

### **2**. STEP 2

Check "Self diagnostic result" with CONSULT-III.

### Is the DTC is detected?

YES >> Perform diagnosis procedure. Refer to ADP-36, "Diagnosis Procedure".

NO >> Inspection End.

### Diagnosis Procedure

INFOID:0000000004115531

### 1. CHECK PEDAL ADJUSTING SENSOR SIGNAL

- 1. Turn ignition switch ON.
- 2. Select "PEDAL SEN" in "Data monitor" mode with CONSULT-III.
- 3. Check the pedal adjusting sensor signal under the following condition.

Monitor item	Condition		Value
PEDAL SEN	Pedal position	Forward	0.5V
FLDAL SLIN	r edai position	Backward	4.5V

#### Is the value normal?

YES >> Pedal adjusting circuit is OK.

NO >> GO TO 2

### 2. CHECK PEDAL ADJUSTING MOTOR ASSEMBLY CIRCUIT HARNESS CONTINUITY

#### **B2120 ADJ PEDAL SENSOR**

## < COMPONENT DIAGNOSIS >

1. Disconnect automatic drive positioner control unit and pedal adjusting motor assembly.

 Check continuity between automatic drive positioner connector M33 (A) terminal 8, M34 (C) terminals 33 and 41 and pedal adjusting motor assembly connector E110 (B) terminals 3, 4, 5.

> 8 - 4 : Continuity should exist. 33 - 3 : Continuity should exist. 41 - 5 : Continuity should exist.

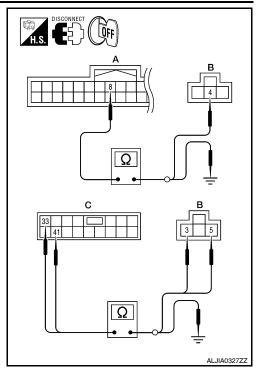
 Check continuity between automatic drive positioner control unit connector M33 (A) terminal 8, M34 (C) terminals 33 and 41 and ground.

8 - Ground : Continuity should not exist.
33 - Ground : Continuity should not exist.
41 - Ground : Continuity should not exist.

#### Is the inspection result normal?

YES >> Replace pedal adjusting motor assembly. Refer to <u>ADP-156</u>, "Removal and Installation".

NO >> Repair or replace harness.



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## **B2126 DETENT SW**

Description INFOID:000000004115532

- Park position switch is installed on A/T device. It is turned OFF when the A/T selector lever is in P position.
- The driver seat control unit judges that the A/T selector lever is in P position if continuity does not exist in this
  circuit.

DTC Logic

#### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2126	DETENT SW	A/T selector lever is in P position and the vehicle speed of 7±4km/h is detected.	Harness and connectors     (Park position switch circuit is opened/shorted.)     Park position switch     Combination meter     (CAN communication )

#### DTC CONFIRMATION PROCEDURE

## 1. STEP 1

Drive the vehicle at 7±4km/h or more.

>> GO TO 2

## 2. STEP 2

Check "Self diagnostic result" with CONSULT-III.

#### Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-38, "Diagnosis Procedure".

NO >> Inspection End.

## Diagnosis Procedure

1. CHECK DTC

Check "Self diagnostic result" for BCM with CONSULT-III.

#### Are other DTCs detected?

YES >> Check the DTC.

NO >> GO TO 2

# 2. CHECK DETENTION SWITCH SIGNAL

- Turn ignition switch ON.
- 2. Select "DETENT SW" in "Data Monitor" mode with CONSULT-III.
- 3. Check detention switch signal under the following condition.

Monitor item	Cor	Status	
DETENT SW	A/T selector lever	P position	OFF
	A I Selector level	Other than above	ON

INFOID:0000000004115534

#### Is the status normal?

YES >> A/T device (park position switch) circuit is OK.

NO >> GO TO 3

## 3. CHECK A/T DEVICE (PARK POSITION SWITCH) HARNESS

#### **B2126 DETENT SW**

## < COMPONENT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- 2. Disconnect A/T device and driver seat control unit.
- Check continuity between A/T device connector M203 terminal 6 and driver seat control unit connector B202 terminal 21.

#### 6 - 21

#### : Continuity should exist.

4. Check continuity between A/T device connector M203 terminal 6 and ground.

## 6 - Ground : Continuity should not exist.

# Ω

A/T device

connector

6

# Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

## 4. CHECK PARK POSITION SWITCH

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

Terminals		Condition	Continuity
	E 6	P position	Yes
5 6	U	Other than P position	No

## Is the inspection result normal?

YES >> GO TO 5

NO >> Replace A/T device. Refer to TM-217, "Control Device Removal and Installation".

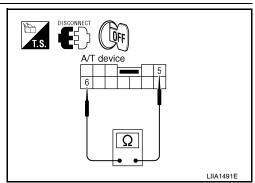
# 5. CHECK INTERMITTENT INCIDENT

Refer to GI-38. "Intermittent Incident".

## Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-152, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.



Driver seat

C/U connector

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## **B2128 UART COMMUNICATION LINE**

< COMPONENT DIAGNOSIS >

## **B2128 UART COMMUNICATION LINE**

Description INFOID:000000004115535

Driver seat control unit performs UART communication with the automatic drive positioner control unit using 2 communication lines, TX and RX line. Driver seat control unit receives the operation signals of pedal adjusting switch, door mirror remote control switch, set switch and memory switch and the position signals of adjustable pedal sensor and door mirror sensor from the automatic drive positioner control unit and transmits the operation request signal.

DTC Logic

#### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2128	UART COMM	The communication between driver seat control unit and automatic drive positioner control unit is interrupted for a period of time.	<ul> <li>UART communication line (UART communication line is open or shorted)</li> <li>Driver seat control unit</li> <li>Automatic drive positioner control unit</li> </ul>

#### DTC CONFIRMATION PROCEDURE

## 1. STEP 1

Turn ignition switch ON.

>> GO TO 2

## 2. STEP 2

Operate pedal adjusting switch for more than 2 seconds.

>> GO TO 3

## 3. PROCEDURE 3

Check "Self diagnostic result" with CONSULT-III.

#### Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-40, "Diagnosis Procedure".

NO >> Inspection End.

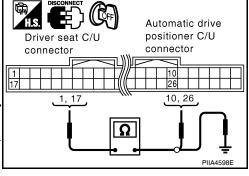
## Diagnosis Procedure

INFOID:0000000004115537

## 1. CHECK UART COMMUNICATION LINE CONTINUITY

- Turn ignition switch OFF.
- Disconnect driver seat control unit and automatic drive positioner control unit.
- Check continuity between driver seat control unit harness connector and automatic drive positioner control unit harness connector.

Driver seat control unit connector	Terminal	Automatic drive positioner control unit connector	Terminal	Continuity
B202	1	M33	10	Yes
BZUZ	17	IVIOO	26	163



4. Check continuity between driver seat control unit harness connector and ground.

## **B2128 UART COMMUNICATION LINE**

## < COMPONENT DIAGNOSIS >

Driver seat control unit con- nector	Terminal	01	Continuity
B202	1	Ground	No
D2U2	17		NO

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Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident".

NO >> Repair or replace harness.

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## **POWER SUPPLY AND GROUND CIRCUIT**

#### < COMPONENT DIAGNOSIS >

## POWER SUPPLY AND GROUND CIRCUIT

**BCM** 

**BCM**: Diagnosis Procedure

INFOID:0000000004115538

## 1. CHECK FUSES AND FUSIBLE LINK

Check that the following fuses and fusible link are not blown.

Terminal No.	Signal name	Fuses and fusible link No.
57	Pottory power cupply	22 (15A)
70	Battery power supply	F (50A)
11	Ignition ACC or ON	4 (10A)
38	Ignition ON or START	59 (10A)

#### Is the fuse blown?

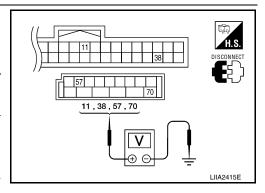
YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

NO >> GO TO 2

# 2. CHECK POWER SUPPLY CIRCUIT

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

Connector	Terminals		Power	Condition	Voltage (V) (Ap-	
Connector	(+)	(-)	source	Condition	prox.)	
M18	11	Ground	ACC power supply	Ignition switch ACC or ON	Battery voltage	
	38	Ground	Ignition power supply	Ignition switch ON or START	Battery voltage	
M20	57	Ground	Battery power supply	Ignition switch OFF	Battery voltage	
IVIZU	70	Ground	Battery power supply	Ignition switch OFF	Battery voltage	



#### Is the measurement value normal?

YES >> GO TO 3

NO >> Repair or replace harness.

## 3. CHECK GROUND CIRCUIT

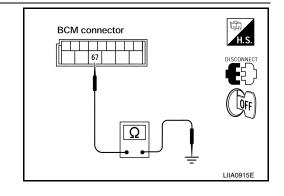
Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector	Connector Terminal		Continuity
M20	67		Yes

#### Does continuity exist?

YES >> Inspection End.

NO >> Repair or replace harness.



## DRIVER SEAT CONTROL UNIT

## POWER SUPPLY AND GROUND CIRCUIT

#### < COMPONENT DIAGNOSIS >

## DRIVER SEAT CONTROL UNIT: Diagnosis Procedure

#### INFOID:0000000004115539

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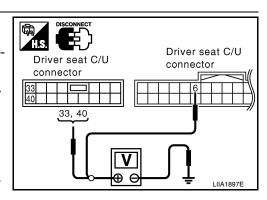
#### NOTE:

Do not disconnect the battery negative terminal and the driver seat control unit connector until DTC is confirmed with CONSULT-III.

## CHECK POWER SUPPLY CIRCUIT

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

		Terminals		Power		Voltage (V)
Ī	(+)					
_	Driver seat control unit connector	Terminal	(–)	source	Condition	(Approx.)
_	B202	6	Ground	START power sup- ply	Ignition switch START	Battery
	B000	33	Giodila	Battery	Ignition	voltage
	B203	40		power sup- ply	switch OFF	



#### Is the inspection result normal?

YES >> GO TO 2

NO

- >> Check the following.
  - · Repair or replace harness.
  - · Circuit breaker.

## $oldsymbol{2}$ . CHECK GROUND CIRCUIT

Check continuity between the driver seat control unit harness connector and ground.

Driver seat control unit connector	Terminal		Continuity
B202	32	Ground	Yes
B203	48		165

# Driver seat C/U connector Driver seat C/U connector Driver seat C/U connector Driver seat C/U connector

#### Is the inspection result normal?

YES >> Driver seat control unit power supply and ground circuit are OK.

NO >> Repair or replace harness.

## DRIVER SEAT CONTROL UNIT: Special Repair Requirement

## 1. PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

>> Refer to Owner's Manual.

## AUTOMATIC DRIVE POSITIONER CONTROL UNIT

## AUTOMATIC DRIVE POSITIONER CONTROL UNIT : Diagnosis Procedure

#### NOTE

Do not disconnect the battery negative terminal and the driver seat control unit connector until DTC is confirmed with CONSULT-III.

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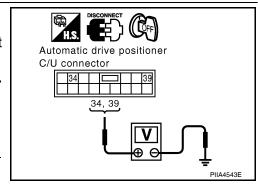
## POWER SUPPLY AND GROUND CIRCUIT

#### < COMPONENT DIAGNOSIS >

# 1. CHECK POWER SUPPLY CIRCUIT

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

Te				
(+)	Voltage (V)			
Automatic drive positioner control unit connector Terminal		(-)	(Approx.)	
M34	34	Ground	Battery voltage	
IVI34	39	Giouna	Battery voltage	



## Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace harness.

## 2. CHECK GROUND CIRCUIT

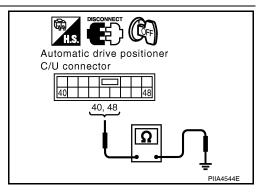
Check continuity between the automatic drive positioner control unit harness connector and ground.

Automatic drive positioner control unit connector	Terminal		Continuity	
M34	40	Ground	Yes	
IVI34	48	1	res	

#### Is the inspection result normal?

YES >> Automatic drive positioner control unit power supply and ground circuit are OK.

NO >> Repair or replace harness.



## AUTOMATIC DRIVE POSITIONER CONTROL UNIT: Special Repair Requirement

INFOID:0000000004115542

# 1. PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

>> Refer to Owner's Manual.

## SLIDING SWITCH

Description INFOID:0000000004115543

Sliding switch is equipped to the power seat switch LH on the seat cushion trim cover. The operation signal is input to the driver seat control unit when the sliding switch is operated.

## Component Function Check

## 1. CHECK FUNCTION

- Select "SLIDE SW-FR", "SLIDE SW-RR" in "Data monitor" mode with CONSULT-III.
- Check sliding switch signal under the following conditions.

Monitor item	Condition	Status	
SLIDE SW-FR	Sliding switch (forward)	Operate	ON
SLIDE SW-FR	Silding Switch (lorward)	Release	OFF
SLIDE SW-RR	Sliding switch (backward)	Operate	ON
SLIDE SW-RR	Siluling Switch (backward)	Release	OFF

#### Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to ADP-45, "Diagnosis Procedure".

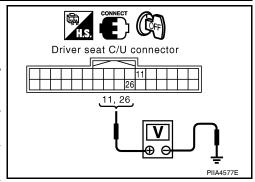
## Diagnosis Procedure

## 1. CHECK SLIDING SWITCH SIGNAL

Turn ignition switch OFF.

Check voltage between driver seat control unit harness connector and ground.

Driver seat control unit connector	Termi		Condition		Voltage (V) (Approx.)
	(+)	(-)			(, 166.6.1.)
	11			Operate (backward)	0
B202	11	Ground	Sliding	Release	Battery voltage
B202	26		Ground	switch	Operate (forward)
	26			Release	Battery voltage



#### Is the inspection result normal?

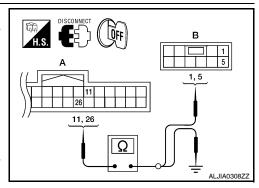
YES >> GO TO 5 NO >> GO TO 2

# 2. CHECK SLIDING SWITCH CIRCUIT

- Disconnect driver seat control unit and power seat switch LH.
- Check continuity between driver seat control unit harness connector and power seat switch LH harness connector.

Driver seat control unit connector	Terminal	Power seat switch LH connector	Terminal	Continuity
B202 (A)	A) B208 (B)		1	Yes
5202 (A)	26	D200 (B)	5	163

Check continuity between driver seat control unit harness connector and ground.



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#### < COMPONENT DIAGNOSIS >

Driver seat control unit connector	Terminal	Overal	Continuity
B202 (A)	11	Ground	No
B202 (A)	26		INO

#### Is the inspection result normal?

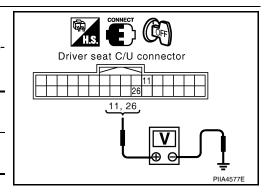
YES >> GO TO 3

NO >> Repair or replace harness.

# ${f 3}.$ CHECK DRIVER SEAT CONTROL UNIT OUTPUT

- Connect the driver seat control unit.
- 2. Turn ignition switch ON.
- Check voltage between driver seat control unit harness connector and ground.

Driver seat control unit	Term	Voltage (V)	
connector	(+)	(-)	(Approx.)
B202	11	Ground	Battery voltage
D202	26	Giouna	Dattery Voltage



#### Is the inspection result normal?

YES >> GO TO 4

NO >> Replace driver seat control unit. Refer to ADP-152, "Removal and Installation".

## 4. CHECK SLIDING SWITCH

Refer to ADP-46, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 5

NO >> Replace power seat switch LH. Refer to <u>SE-43</u>, "<u>Disassembly and Assembly</u>".

## 5. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

## Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-152, "Removal and Installation"</u>.

NO >> Repair or replace malfunctioning part.

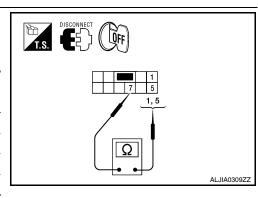
## Component Inspection

INFOID:0000000004115546

# 1. CHECK SLIDING SWITCH

- Turn ignition switch OFF.
- 2. Disconnect power seat switch LH.
- 3. Check continuity between power seat switch LH terminals.

Ter	minal	- Condition		Continuity
Power sea	at switch LH			Continuity
	1 S	Sliding switch (backward)	Operate	Yes
7	'	Silding Switch (backward)	Release	No
,	5	Sliding switch (forward)	Operate	Yes
	3	Silding Switch (lorward)	Release	No



## Is the inspection result normal?

YES >> Inspection End.

NO >> Replace power seat switch LH. Refer to SE-43, "Disassembly and Assembly".

## **RECLINING SWITCH**

#### < COMPONENT DIAGNOSIS >

## **RECLINING SWITCH**

Description INFOID:000000004115547

Reclining switch is equipped to the power seat switch LH on the seat cushion trim cover. The operation signal is input to the driver seat control unit when the reclining switch is operated.

## Component Function Check

## 1. CHECK FUNCTION

- 1. Select "RECLN SW-FR", "RECLN SW-RR" in "Data monitor" mode with CONSULT-III.
- 2. Check reclining switch signal under the following conditions.

Monitor item	Condition	Condition	
RECLN SW-FR	Reclining switch (forward)	Operate	ON
NEGLIN GW-I IX	(ioiwaid)	Release	OFF
RECLN SW-RR	Reclining switch (backward)	Operate	ON
RECLIN SW-RR	Reclining Switch (backward)	Release	OFF

#### Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <a href="ADP-47">ADP-47</a>, "Diagnosis Procedure".

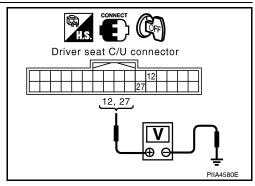
## Diagnosis Procedure

## 1. CHECK RECLINING SWITCH SIGNAL

1. Turn ignition switch OFF.

2. Check voltage between driver seat control unit harness connector and ground.

Driver seat	Tern	ninals	Condition		Voltage (V)			
control unit connector	(+)	(-)			(Approx.)			
	12	— Ground	- Ground			//	Operate (backward)	0
B202				Reclining	Release	Battery voltage		
D202	27			switch	Operate (forward)	0		
				Release	Battery voltage			



#### Is the inspection result normal?

YES >> GO TO 5

NO >> GO TO 2

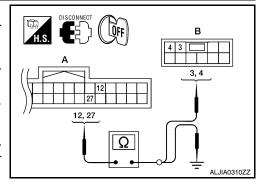
# 2. CHECK RECLINING SWITCH CIRCUIT

1. Disconnect driver seat control unit and power seat switch LH.

Check continuity between driver seat control unit harness connector and power seat switch LH harness connector.

Driver seat control unit connector	Terminal	Power seat switch LH connector	Terminal	Continuity
B202 (A)	12	B208 (B)	3	Yes
5202 (A)	27	D200 (B)	4	165

Check continuity between driver seat control unit harness connector and ground.



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#### < COMPONENT DIAGNOSIS >

Driver seat control unit connector	Terminal	0 1	Continuity
D202 (A)	12	Ground	No
B202 (A)	27		NO

#### Is the inspection result normal?

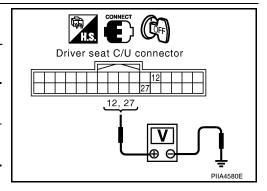
YES >> GO TO 3

NO >> Repair or replace harness.

# ${f 3}.$ CHECK DRIVER SEAT CONTROL UNIT OUTPUT

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

Driver seat control	Termir	Voltage (V)	
unit connector	(+)	(-)	(Approx.)
B202	12	Ground	Battery voltage
B202	27	Ground	Ballery Vollage



#### Is the inspection result normal?

YES >> GO TO 4

NO >> Replace driver seat control unit. Refer to <u>ADP-152, "Removal and Installation"</u>.

## 4. CHECK RECLINING SWITCH

Refer to ADP-48, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 5

NO >> Replace power seat switch LH. Refer to SE-43, "Disassembly and Assembly".

## 5. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-152, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

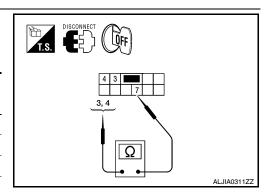
# Component Inspection

INFOID:0000000004115550

# 1. CHECK RECLINING SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect power seat switch LH.
- 3. Check continuity between power seat switch LH terminals.

Terr	ninals	- Condition		Continuity	
Power sea	at switch LH				
	3	Reclining switch	Operate	Yes	
7	3	(backward)	Release	No	
,	4	Reclining switch	Operate	Yes	
	4	(forward)	Release	No	



## Is the inspection result normal?

YES >> Inspection End.

NO >> Replace power seat switch LH. Refer to <u>SE-43, "Disassembly and Assembly"</u>.

## LIFTING SWITCH (FRONT)

#### < COMPONENT DIAGNOSIS >

## LIFTING SWITCH (FRONT)

**Description** 

Lifting switch (front) is equipped to the power seat switch LH on the seat cushion trim cover. The operation signal is input to the driver seat control unit when the lifting switch (front) is operated.

## Component Function Check

## 1. CHECK FUNCTION

- 1. Select "LIFT FR SW-UP", "LIFT FR SW-DN" in "DATA MONITOR" mode with CONSULT-III.
- 2. Check lifting switch (front) signal under the following conditions.

Monitor item	Condition		Status
LIFT FR SW-UP	Lifting switch front (up)	Operate	ON
LIFT FR SW-OF	Litting Switch from (up)	Release	OFF
LIFT FR SW-DN	Lifting switch front (down)	Operate	ON
LIFT FR 300-DIN	Litting Switch from (down)	Release	OFF

#### Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to ADP-49, "Diagnosis Procedure".

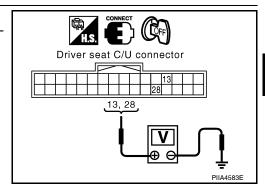
## Diagnosis Procedure

## 1. CHECK LIFTING SWITCH SIGNAL

1. Turn ignition switch OFF.

2. Check voltage between driver seat control unit harness connector and ground.

		ninals	Condition		Voltage (V)																	
control unit connector	(+)	(-)	Condition		(Approx.)																	
	13			Operate (down)	0V																	
B202	10	Ground	Lifting switch	Release	Battery voltage																	
												İ	ĺ						i	(front)	Operate (up)	0V
	28			Release	Battery voltage																	



## Is the inspection result normal?

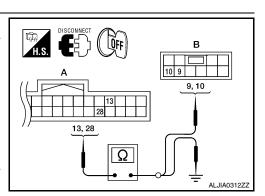
YES >> GO TO 5 NO >> GO TO 2

# 2. CHECK LIFTING SWITCH (FRONT) CIRCUIT

- 1. Disconnect driver seat control unit and power seat switch LH.
- Check continuity between driver seat control unit harness connector and power seat switch LH harness connector.

Driver seat control unit connector	Terminal	Power seat switch LH connector	Terminal	Continuity
B202 (A)	13	B208 (B)	9	Yes
D202 (A)	28	B200 (B)	10	163

Check continuity between driver seat control unit harness connector and ground.



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## **LIFTING SWITCH (FRONT)**

#### < COMPONENT DIAGNOSIS >

Driver seat control unit connector	Terminal	Our ad	Continuity
B202 (A)	13	Ground	No
	28		INO

#### Is the inspection result normal?

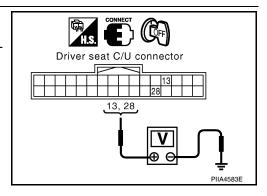
YES >> GO TO 3

NO >> Repair or replace harness.

# ${f 3}.$ CHECK DRIVER SEAT CONTROL UNIT OUTPUT

- Connect the driver seat control unit.
- Turn ignition switch OFF.
- 3. Check voltage between driver seat control unit harness connector and ground.

Driver seat control unit	Term	Voltage (V)	
connector	(+)	(-)	(Approx.)
B202	13	Ground	Battery voltage
D202	28	Ground	Battery voltage



#### Is the inspection result normal?

YES >> GO TO 4

NO >> Replace driver seat control unit. Refer to ADP-152, "Removal and Installation".

## 4. CHECK LIFTING SWITCH (FRONT)

Refer to ADP-50, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 5

NO >> Replace power seat switch LH. Refer to <u>SE-43. "Disassembly and Assembly"</u>.

## 5. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

## Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-152, "Removal and Installation"</u>.

NO >> Repair or replace the malfunctioning part.

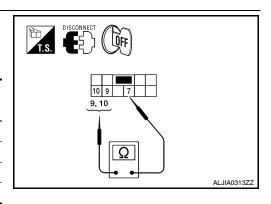
## Component Inspection

INFOID:0000000004115554

# 1. CHECK LIFTING SWITCH (FRONT)

- Turn ignition switch OFF.
- 2. Disconnect power seat switch LH.
- 3. Check continuity between power seat switch LH terminals.

Terr	minal	Condition		Continuity	
Power sea	t switch LH	Condition		Continuity	
	9	Lifting switch front (down)	Operate	Yes	
7		Litting Switch Horit (down)	Release	No	
,	10	Lifting switch front (up)	Operate	Yes	
10	Litting Switch Horit (up)	Release	No		



#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace power seat switch LH. Refer to SE-43, "Disassembly and Assembly".

## **LIFTING SWITCH (REAR)**

#### < COMPONENT DIAGNOSIS >

## LIFTING SWITCH (REAR)

Description INFOID:0000000004115555

Lifting switch (rear) is equipped to the power seat switch LH on the seat cushion trim cover. The operation signal is inputted to the driver seat control unit when the lifting switch (rear) is operated.

## Component Function Check

## 1. CHECK FUNCTION

- 1. Select "LIFT RR SW-UP", "LIFT RR SW-DN" in "Data monitor" mode with CONSULT-III.
- 2. Check lifting switch (rear) signal under the following conditions.

Monitor item	Condition		Status
LIFT RR SW-UP	Lifting switch rear (up)	Operate	ON
LIFT RR SW-UP	Lifting switch rear (up)	Release	OFF
LIFT RR SW-DN	Lifting switch rear (down)	Operate	ON
LIFT KK 3W-DN	Litting Switch real (down)	Release	OFF

#### Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to ADP-51, "Diagnosis Procedure".

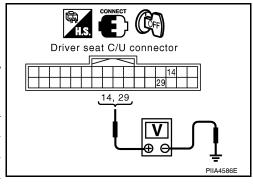
## Diagnosis Procedure

# 1. CHECK LIFTING SWITCH (REAR) SIGNAL

1. Turn ignition switch OFF.

Check voltage between driver seat control unit harness connector and ground.

Driver seat	Term	ninals			Voltage (V)	
control unit connector	(+)	(-)			(Approx.)	
	14			Operate (down)	0	
B202			Lifting d switch	Release	Battery voltage	
D202	20		Ground		Operate (up)	0
	29			Release	Battery voltage	



## Is the inspection result normal?

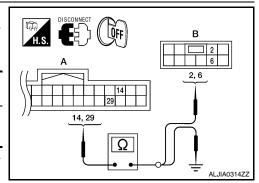
YES >> GO TO 5 NO >> GO TO 2

2. CHECK LIFTING SWITCH (REAR) CIRCUIT

- 1. Disconnect driver seat control unit and power seat switch LH.
- Check continuity between driver seat control unit harness connector and power seat switch LH harness connector.

Driver seat control unit connector	Terminal	Power seat switch LH connector	Terminal	Continuity
B202 (A)	14	B208 (B)	2	Yes
B202 (A)	29	D200 (B)	6	165

Check continuity between driver seat control unit harness connector and ground.



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#### < COMPONENT DIAGNOSIS >

Driver seat control unit connector	Terminal	Our set	Continuity
B202 (A)	14	Ground	No
B202 (A)	29		INO

#### Is the inspection result normal?

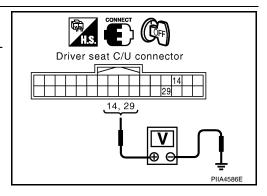
YES >> GO TO 3

NO >> Repair or replace harness.

# ${f 3}.$ CHECK DRIVER SEAT CONTROL UNIT OUTPUT

- Connect the driver seat control unit.
- 2. Turn ignition switch OFF.
- 3. Check voltage between driver seat control unit harness connector and ground.

Driver seat control unit	Ter	minals	Voltage (V)	
connector	(+)	(-)	(Approx.)	
B202	14	Ground	Pattony voltago	
D2U2	29	Giouna	Battery voltage	



#### Is the inspection result normal?

YES >> GO TO 4

NO >> Replace driver seat control unit. Refer to ADP-152, "Removal and Installation".

## 4. CHECK LIFTING SWITCH (REAR)

Refer to ADP-52, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 5

NO >> Replace power seat switch LH. Refer to <u>SE-43. "Disassembly and Assembly"</u>.

## CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

## Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-152, "Removal and Installation"</u>.

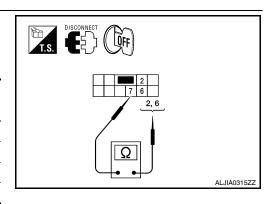
NO >> Repair or replace the malfunctioning part.

## Component Inspection

1. CHECK LIFTING SWITCH (REAR)

- Turn ignition switch OFF.
- 2. Disconnect power seat switch LH.
- 3. Check continuity between power seat switch LH terminals.

Terr	minal	Condition		Continuity
Power seat switch LH		Condition		Continuity
	2	Lifting switch rear (down)	Operate	Yes
7	2	Litting switch rear (down)	Release	No
,	6	Lifting switch rear (up)	Operate	Yes
0	Litting Switch rear (up)	Release	No	



INFOID:0000000004115558

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace power seat switch LH. Refer to SE-43, "Disassembly and Assembly".

## PEDAL ADJUSTING SWITCH

#### < COMPONENT DIAGNOSIS >

## PEDAL ADJUSTING SWITCH

**Description** 

Pedal adjusting switch is on the instrument panel. The operation signal is input to the driver seat control unit when the pedal adjusting switch is operated. The pedal adjusting switch signal is sent to the automatic drive positioner control unit via UART communication.

## Component Function Check

# 1. CHECK FUNCTION

- 1. Select "PEDAL SW-FR", "PEDAL SW-RR" in "Data monitor" mode with CONSULT-III.
- 2. Check pedal adjusting switch signal under the following conditions.

Monitor item Condition			Status
PEDAL SW-FR	Pedal adjusting switch (forward)	Operate	ON
FEDAL SW-FR	redai adjusting switch (lorward)	Release	OFF
PEDAL SW-RR	Pedal adjusting switch (backward)	Operate	ON
FLOAL SW-M	redai adjusting switch (backward)	Release	OFF

#### Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-53. "Diagnosis Procedure"</u>.

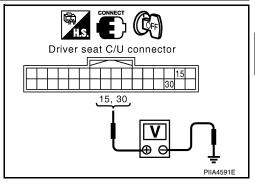
## Diagnosis Procedure

1. CHECK PEDAL ADJUSTING SWITCH SIGNAL

1. Turn ignition switch OFF.

2. Check voltage between driver seat control unit harness connector and ground.

Driver seat	Terminals		0 1111		Voltage (V)
control unit connector	(+)	(-)	Condition		(Approx.)
	30	- Ground	Pedal ad- justing	Operate (forward)	0
B202				Release	Battery voltage
B202			switch	Operate (backward)	0
				Release	Battery voltage



Is the inspection result normal?

YES >> GO TO 5 NO >> GO TO 2

2. CHECK PEDAL ADJUSTING SWITCH CIRCUIT

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## PEDAL ADJUSTING SWITCH

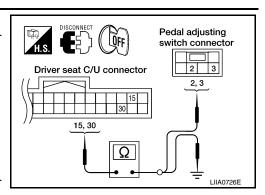
#### < COMPONENT DIAGNOSIS >

- 1. Disconnect driver seat control unit and pedal adjusting switch.
- Check continuity between driver seat control unit harness connector and pedal adjusting switch harness connector.

Driver seat control unit connector	Terminal	Pedal adjusting switch connector	Terminal	Continuity
B202	15	M96	2	Yes
B202	30	IVISO	3	163

Check continuity between driver seat control unit harness connector and ground.

Driver seat control unit connector	Terminal		Continuity
B202	15	Ground	No
	30		INO



#### Is the inspection result normal?

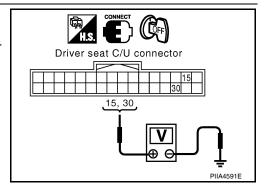
YES >> GO TO 3

NO >> Repair or replace harness.

# ${f 3}.$ CHECK DRIVER SEAT CONTROL UNIT OUTPUT

- Connect the driver seat control unit.
- 2. Turn ignition switch OFF.
- 3. Check voltage between driver seat control unit harness connector and ground.

Driver seat control unit	Terminals		Voltage (V)	
connector	(+)	(-)	(Approx.)	
B202	15	Ground	Battery voltage	
B202	30	Ground	Battery voltage	



#### Is the inspection result normal?

YES >> GO TO 4

NO >> Replace driver seat control unit. Refer to <u>ADP-152</u>, "Removal and Installation".

## 4. CHECK PEDAL ADJUSTING SWITCH

Refer to ADP-55, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 5

NO >> Replace pedal adjusting switch. Refer to <u>IP-10, "Exploded View"</u>.

## $oldsymbol{5}$ . CHECK PEDAL ADJUSTING SWITCH GROUND CIRCUIT

Check continuity between pedal adjusting switch connector M96 terminal 1 and ground.

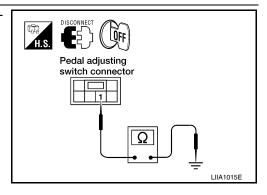
## 1 - Ground

: Continuity should exist.

#### Is the inspection result normal?

YES >> GO TO 6

NO >> Repair or replace harness.



## 6. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

## PEDAL ADJUSTING SWITCH

#### < COMPONENT DIAGNOSIS >

## Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-153, "Removal and Installation"</u>.

NO >> Repair or replace the malfunctioning part.

## Component Inspection

#### INFOID:0000000004115562

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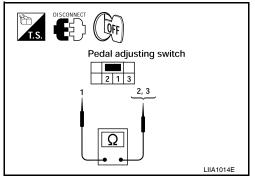
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# 1. CHECK PEDAL ADJUSTING SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect pedal adjusting switch.
- 3. Check continuity between pedal adjusting switch terminals.

Terminal		Condition		Continuity
Pedal adjusting switch				
	2 Peda	Pedal adjusting switch	Operate	Yes
1	2	(backward)	Release	No
3	Pedal adjusting switch	Operate	Yes	
	3	(forward)	Release	No



#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace pedal adjusting switch. Refer to IP-10, "Exploded View".

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## SEAT MEMORY SWITCH

Description INFOID:000000004115563

The seat memory switch is installed on the front door LH trim. The operation signal is input to the automatic drive positioner control unit when the memory switch is operated.

## Component Function Check

INFOID:0000000004115564

## 1. CHECK FUNCTION

- 1. Select "MEMORY SW 1", "MEMORY SW 2", "SET SW" in "Data monitor" mode with CONSULT-III.
- 2. Check seat memory switch signal under the following conditions.

Monitor item	Conc	Condition	
MEMORY SW1	Memory switch 1	Push	ON
	Memory Switch	Release	OFF
MEMORY SW2	Memory switch 2	Push	ON
	Memory Switch 2	Release	OFF
SET SW	Set switch	Push	ON
	Set Switch	Release	OFF

#### Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-56. "Diagnosis Procedure"</u>.

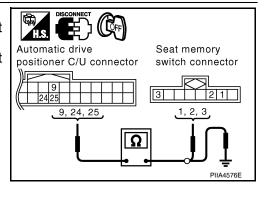
## Diagnosis Procedure

INFOID:0000000004115565

# 1. CHECK MEMORY SWITCH CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect automatic drive positioner control unit and seat memory switch.
- 3. Check continuity between automatic drive positioner control unit harness connector and seat memory switch harness connector.

Automatic drive positioner control unit connector	Terminal	Seat memory switch connector	Terminal	Continuity
	9		1	
M33	24	D5	3	Yes
	25		2	



4. Check continuity between automatic drive positioner control unit harness connector and ground.

Automatic drive positioner control unit connector	Terminal		Continuity
	9	Ground	
M33	24		No
	25		

#### Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace harness.

## $oldsymbol{2}$ . CHECK MEMORY SWITCH GROUND CIRCUIT

#### **SEAT MEMORY SWITCH**

#### < COMPONENT DIAGNOSIS >

Check continuity between seat memory switch harness connector and ground.

Seat memory switch connector	Terminal	Ground	Continuity
D5	4		Yes

# Seat memory switch connector

#### Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

# 3. CHECK SEAT MEMORY SWITCH

Refer to ADP-57, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 4

NO >> Replace seat memory switch. Refer to ADP-154, "Removal and Installation".

## 4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-153, "Removal and Installation".

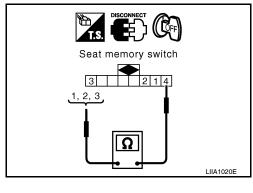
NO >> Repair or replace the malfunctioning part.

## Component Inspection

# 1. CHECK SEAT MEMORY SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect seat memory switch.
- 3. Check continuity between seat memory switch terminals.

Term Seat mem		Condition		Continuity
	1	1 Memory switch 1	Push	Yes
	1		Release	No
4	2	Memory switch 2 Set switch	Push	Yes
7	2		Release	No
3	3		Push	Yes
	J		Release	No



#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace seat memory switch. Refer to <u>ADP-154</u>, "Removal and Installation".

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#### < COMPONENT DIAGNOSIS >

# DOOR MIRROR REMOTE CONTROL SWITCH CHANGEOVER SWITCH

## **CHANGEOVER SWITCH: Description**

INFOID:0000000004115567

Changeover switch is integrated into door mirror remote control switch.

Changeover switch has three positions (L, N and R).

It changes door mirror motor operation by transmitting control signal to automatic drive positioner control unit.

## CHANGEOVER SWITCH: Component Function Check

#### INFOID:0000000004115568

## 1. CHECK CHANGEOVER SWITCH FUNCTION

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

Refer to ADP-26, "CONSULT-III Function".

#### Is the inspection result normal?

YES >> Changeover switch function is OK.

NO >> Refer to ADP-58, "CHANGEOVER SWITCH: Diagnosis Procedure".

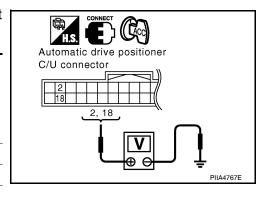
## CHANGEOVER SWITCH: Diagnosis Procedure

#### INFOID:0000000004115569

## 1. CHECK CHANGEOVER SWITCH SIGNAL

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

Terminals					
(+)			Change over switch	Voltage (V) (Approx.)	
Automatic drive positioner control unit connector	Terminal	(-)	condition		
	2		RIGHT	0	
M33	2	Ground	Other than above	5	
IVIOO	18	Ground	LEFT	0	
			Other than above	5	



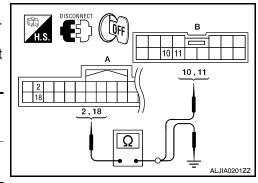
#### Is the inspection result normal?

YES >> GO TO 6 NO >> GO TO 2

# 2. CHECK HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- Disconnect automatic drive positioner control unit and door mirror remote control switch.
- 3. Check continuity between automatic drive positioner control unit connector and door mirror remote control switch connector.

Automatic drive positioner control unit connector	Terminal	Door mirror re- mote control switch connector	Terminal	Continuity
M33 (A)	2	D10 (B)	11	Yes
W33 (A)	18	D10 (B)	10	165



4. Check continuity between automatic drive positioner control unit connector and ground.

#### < COMPONENT DIAGNOSIS >

Automatic drive positioner control unit connector	Terminal		Continuity
M33 (A)	2	Ground	No
IVIOO (A)	18		140

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#### Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

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# ${f 3.}$ CHECK DOOR MIRROR REMOTE CONTROL SWITCH GROUND CIRCUIT

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

Door mirror remote control switch connector	Terminal	Ground	Continuity
D10	7		Yes

# DISCONNECT COFF

#### Is the inspection result normal?

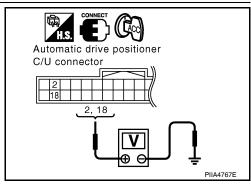
YES >> GO TO 4

NO >> Repair or replace harness.

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

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

Termi			
(+)		Voltage (V)	
Automatic drive positioner control unit connector	Terminal	(-)	(Approx.)
M33	2	Ground	5
IVIOO	18	Ground	3



#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace automatic drive positioner control unit. Refer to ADP-153, "Removal and Installation".

## 5. CHECK CHANGEOVER SWITCH

Check changeover switch.

Refer to ADP-59, "CHANGEOVER SWITCH: Component Inspection".

#### Is the inspection result normal?

YES >> Refer to GI-38, "Intermittent Incident".

NO >> Replace door mirror remote control switch. Refer to ADP-155, "Removal and Installation".

## 6. CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to GI-38, "Intermittent Incident".

## Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-153, "Removal and Installation".

NO >> Repair or replace the malfunctioning parts.

## CHANGEOVER SWITCH: Component Inspection

1. CHECK CHANGEOVER SWITCH

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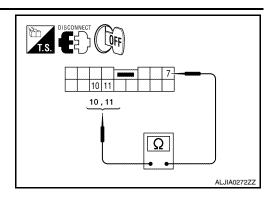
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#### < COMPONENT DIAGNOSIS >

Check door mirror remote control switch.

Terminal		Change over switch	Continuity	
Door mirror remote	control switch	condition	Continuity	
10		LEFT	Yes	
10	7	Other than above	No	
11	RIGHT	Yes		
	Other than above	No		



INFOID:0000000004115571

INFOID:0000000004115572

INFOID:0000000004115573

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace door mirror remote control switch. Refer to ADP-155, "Removal and Installation".

#### MIRROR SWITCH

## MIRROR SWITCH: Description

It operates angle of the door mirror face.

It transmits mirror face adjust operation to automatic drive positioner control unit.

## MIRROR SWITCH: Component Function Check

## 1. CHECK MIRROR SWITCH FUNCTION

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

Refer to ADP-26, "CONSULT-III Function".

#### Is the inspection result normal?

YES >> Mirror switch function is OK.

NO >> Refer to ADP-60, "MIRROR SWITCH: Diagnosis Procedure".

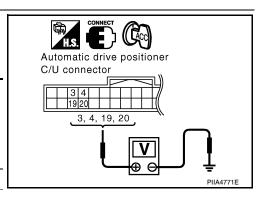
## MIRROR SWITCH: Diagnosis Procedure

# 1. CHECK MIRROR SWITCH FUNCTION

1. Turn ignition switch to ACC.

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

Terminals (+)				
			Mirror switch	Voltage (V)
Automatic drive positioner control unit connector	Terminal	(–)	Condition	(Approx.)
	3		UP	0
	3		Other than above	5
	4		LEFT	0
M33	4	Ground	Other than above	5
IVIOO	19	Giodila	DOWN	0
	19		Other than above	5
	20		RIGHT	0
	20		Other than above	5



#### Is the inspection result normal?

YES >> GO TO 6 NO >> GO TO 2

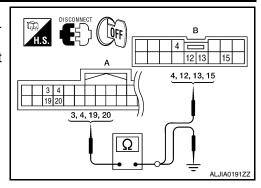
## 2. CHECK HARNESS CONTINUITY

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## < COMPONENT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- Disconnect automatic drive positioner control unit and door mirror remote control switch.
- Check continuity between automatic drive positioner control unit connector and door mirror remote control switch connector.

Automatic drive positioner control unit connector	Terminal	Door mirror remote control switch connector	Terminal	Continuity	
M33 (A)	3		15		
	4	D10 (B)	13	Yes	
	19		12	res	
	20		4		



4. Check continuity between automatic drive positioner control unit connector and ground.

Automatic drive positioner control unit connector	Terminal		Continuity
M33 (A)	3		
	4	Ground	No
	19		
	20		

#### Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

# 3. Check door mirror remote control switch ground circuit

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

Door mirror remote control switch connector	Terminal	Ground	Continuity
D10	7		Yes

# H.S. DISCONNECT OFF

#### Is the inspection result normal?

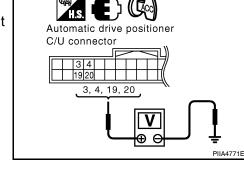
YES >> GO TO 4

NO >> Repair or replace harness.

# 4. CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT OUTPUT SIGNAL

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

Te			
(+)		Voltage (V)	
Automatic drive positioner control unit connector	Terminal	(-)	(Approx.)
	3		
M33	4	Ground	5
IVIOO	19		
	20		



Is the inspection result normal?

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#### < COMPONENT DIAGNOSIS >

YES >> GO TO 5

NO >> Replace automatic drive positioner control unit. Refer to ADP-153, "Removal and Installation".

## 5. CHECK MIRROR SWITCH

Check mirror switch.

Refer to ADP-62, "MIRROR SWITCH: Component Inspection".

#### Is the inspection result normal?

YES >> Refer to GI-38, "Intermittent Incident".

NO >> Replace door mirror remote control switch. Refer to ADP-155, "Removal and Installation".

# 6. CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-153, "Removal and Installation".

NO >> Repair or replace the malfunctioning parts.

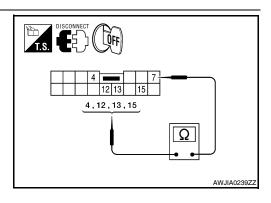
## MIRROR SWITCH: Component Inspection

INFOID:0000000004115574

# 1. CHECK MIRROR SWITCH

Check door mirror remote control switch.

Door mirror control sv	remote	Mirror switch condition	Continuity
4		RIGHT	Yes
		Other than above	No
13		LEFT	Yes
13	7	Other than above	No
15		UP	Yes
15		Other than above	No
12		DOWN	Yes
		Other than above	No



## Is the inspection result normal?

YES >> Inspection End.

NO >> Replace door mirror remote control switch. Refer to <u>ADP-155</u>, "Removal and Installation".

## POWER SEAT SWITCH GROUND CIRCUIT

## < COMPONENT DIAGNOSIS >

## POWER SEAT SWITCH GROUND CIRCUIT

## Diagnosis Procedure

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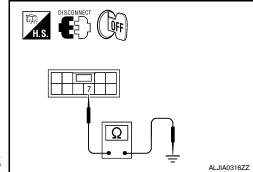
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- 1. CHECK POWER SEAT SWITCH LH GROUND CIRCUIT
- 1. Turn ignition switch OFF.
- 2. Disconnect power seat switch LH.
- 3. Check continuity between power seat switch LH connector and ground.

Power seat switch LH connector	Terminal	Ground	Continuity
B208	7		Yes



## Is the inspection result normal?

YES >> Check intermittent incident. Refer to <u>GI-38. "Intermittent Incident"</u>.

NO >> Repair or replace harness.

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## **DETENTION SWITCH**

Description INFOID:000000004115576

Park position switch is installed on A/T device. It is turned OFF when the A/T selector lever is in P position. The driver seat control unit judges that the A/T selector lever is in P position if continuity does not exist in this circuit.

## Component Function Check

INFOID:0000000004115577

## 1. CHECK FUNCTION

- 1. Select "DETENT SW" signal in "Data monitor" mode with CONSULT-III.
- 2. Check park position switch signal under the following conditions.

Monitor item	Condition		Status
		P position	OFF
DETENT SW	A/T selector lever	Other than above	ON

#### Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-64, "Diagnosis Procedure"</u>.

## Diagnosis Procedure

INFOID:0000000004115578

## 1. CHECK DTC WITH "BCM"

Check "Self Diagnostic Result" for BCM with CONSULT-III.

## Is any other DTC detected?

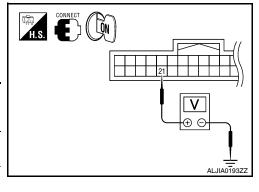
YES >> Check the DTC.

NO >> GO TO 2

# 2. CHECK PARK POSITION SWITCH INPUT SIGNAL

- 1. Turn ignition switch ON.
- 2. Mechanical key must be removed from the key switch.
- 3. Check voltage between driver seat control unit harness connector and ground.

Driver seat	Terr	Terminal		On a Rith a	
control unit connector	(+)	(-)	Condition		Voltage (V) (Approx.)
B202	B202 21 Ground A/T selector lever	Ground	A/T selec-	P position	Battery volt- age
B202		Ground	21 Ground	Other than above	0V



#### Is the inspection result normal?

YES >> GO TO 4 NO >> GO TO 3

# 3. CHECK PARK POSITION SWITCH CIRCUIT

## **DETENTION SWITCH**

## < COMPONENT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit and A/T device.
- 3. Check continuity between driver seat control unit harness connector (A) and A/T device harness connector (B).

А		В	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
B202	21	M203	6	Yes

4. Check continuity between driver seat control unit harness connector (A) and ground.

H.S. DISCONNECT OFF	1
A (6)	
Ω	

Α			Continuity
Connector	Terminal	Ground	Continuity
B202	202 21		No

#### Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

## Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-152, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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## FRONT DOOR SWITCH (DRIVER SIDE)

#### < COMPONENT DIAGNOSIS >

## FRONT DOOR SWITCH (DRIVER SIDE)

Description INFOID:0000000004115578

Detects front door LH open/close condition.

## Component Function Check

# 1. CHECK FUNCTION

- 1. Select "DOOR SW-DR" in "Data monitor" mode with CONSULT-III.
- 2. Check the front door switch LH signal under the following conditions.

Monitor item	Con	Status	
DOOR SW-DR	Front door switch LH	Open	ON
DOOK SW-DIK	FIGHT GOOL SWITCH FLE	Close	OFF

## Is the inspection result normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-66, "Diagnosis Procedure"</u>.

## Diagnosis Procedure

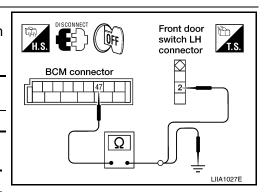
# 1. CHECK FRONT DOOR SWITCH LH CIRCUIT

- 1. Disconnect BCM and front door switch LH.
- 2. Check continuity between BCM connector and front door switch LH connector.

BCM connector	Terminal	Front door switch LH connector	Terminal	Continuity
M19	47	B8	2	Yes

3. Check continuity between BCM connector and ground.

BCM connector	connector Terminal		Continuity
M19	47	Ground	No



#### Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace harness.

## $2.\,$ CHECK FRONT DOOR SWITCH LH

Refer to ADP-66, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 3

NO >> Replace front door switch LH.

## 3. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-53, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

## Component Inspection

1. CHECK FRONT DOOR SWITCH LH

INFOID:0000000004115582

INFOID:0000000004115580

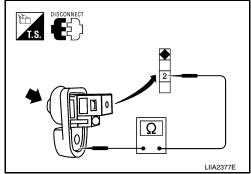
INFOID:0000000004115581

## FRONT DOOR SWITCH (DRIVER SIDE)

## < COMPONENT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- 2. Disconnect front door switch LH.
- 3. Check continuity between front door switch LH terminals.

Terminal		Condition		Continuity
Front door switch LH				Continuity
2	Ground part of	Front door switch	Pushed	No
2	door switch	LH	Released	Yes



#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace front door switch LH.

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## SLIDING SENSOR

Description

- The sliding sensor is installed to the power seat frame assembly.
- The pulse signal is input to the driver seat control unit when sliding is performed.
- The driver seat control unit counts the pulse and calculates the sliding amount of the seat.

## Component Function Check

INFOID:0000000004115584

# 1. CHECK FUNCTION

- 1. Select "SLIDE PULSE" in "Data monitor" mode with CONSULT-III.
- 2. Check sliding sensor signal under the following conditions.

Monitor item	Condition		Valve
	Seat sliding	Operate (forward)	Change (increase)
SLIDE PULSE		Operate (backward)	Change (decrease)
		Release	No change

## Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-68, "Diagnosis Procedure"</u>.

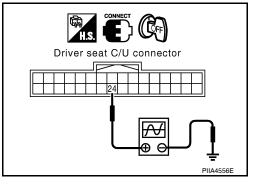
## Diagnosis Procedure

INFOID:0000000004115585

# 1. CHECK SLIDING SENSOR SIGNAL

- 1. Turn ignition switch OFF.
- 2. Read voltage signal between driver seat control unit harness connector and ground with osiloscope.

	Terminals				
(+)					
Driver's seat control unit	Termi- nal	(–)	Condition		Voltage signal
B202	24	Ground	Seat sliding	Operate	(V) 6 4 2 0 50 ms
				Other than above	0 or 5



#### Is the inspection result normal?

YES >> GO TO 4 NO >> GO TO 2

# 2. CHECK SLIDING SENSOR CIRCUITS

## **SLIDING SENSOR**

#### < COMPONENT DIAGNOSIS >

- Disconnect driver seat control unit and sliding motor LH.
- Check continuity between driver seat control unit harness connector and sliding motor LH harness connector.

Driver seat control unit connector	Terminal	Sliding motor LH connector	Terminal	Continuity	
	16		3		
B202 (A)	24	B204 (B)	4	Yes	
	31		2		

2, 3, 4 16, 24, 31

Check continuity between driver seat control unit harness connector and ground.

Driver seat control unit connector	Terminal		Continuity	
	16	Ground		
B202 (A)	24		No	
	31			

#### Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

## 3. CHECK SEAT OPERATION

- Connect driver seat control unit and sliding motor LH.
- 2. Check seat operation (except sliding operation) with memory function.

#### Is the inspection result normal?

- YES >> Replace sliding motor LH. (Built in power seat frame assembly). Refer to SE-43, "Disassembly and Assembly".
- NO >> Replace driver seat control unit. Refer to ADP-152, "Removal and Installation".

## 4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

## Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-152, "Removal and Installation".

NO >> Repair or replace the malfunctioning part. ADP

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## RECLINING SENSOR

Description

- The reclining motor is installed to the seatback assembly.
- The pulse signal is inputted to the driver seat control unit when the reclining is operated.
- The driver seat control unit counts the pulse and calculates the reclining amount of the seat.

## Component Function Check

INFOID:0000000004115587

# 1. CHECK FUNCTION

- 1. Select "RECLN PULSE" in "Data monitor" mode with CONSULT-III.
- 2. Check reclining sensor signal under the following conditions.

Monitor item	Condition		Value
RECLN PULSE Seat reclining		Operate (forward)	Change (increase)
	Seat reclining	Operate (backward)	Change (decrease)
		Release	No change

#### Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-70, "Diagnosis Procedure"</u>.

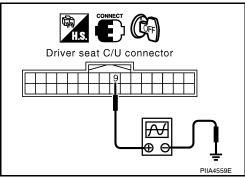
## Diagnosis Procedure

INFOID:0000000004115588

# 1. CHECK RECLINING SENSOR SIGNAL

- 1. Turn ignition switch OFF.
- 2. Read voltage signal between driver seat control unit harness connector and ground with oscilloscope.

٦	Terminals					
(+)			0 1111			
Driver seat con- trol unit	Termi- nal	(-)	Condition		Voltage signal	
B202	9	Ground	Seat reclin- ing	Operate	(V) 6 4 2 0 + 50ms SIIA0692J	
				Other than above	0 or 5	



#### Is the inspection result normal?

YES >> GO TO 4 NO >> GO TO 2

# $oldsymbol{2}$ . CHECK RECLINING SENSOR CIRCUIT

## **RECLINING SENSOR**

#### < COMPONENT DIAGNOSIS >

- 1. Disconnect driver seat control unit and reclining motor LH.
- 2. Check continuity between driver seat control unit harness connector and reclining motor LH harness connector.

Driver seat control unit connector	Terminal	Reclining motor connector	Terminal	Continuity	
B202 (A)	9	B205 (B)	1	Yes	
D202 (A)	31	B203 (B)	4		

Check continuity between driver seat control unit harness connector and ground.

H.S. DISCONNECT OFF
A 1,4
9, 31 Ω ALJIA0318ZZ

Driver seat control unit connector	Terminal		Continuity	
B202 (A)	9	Ground	No	
B202 (A)	31		NO	

#### Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

# 3. CHECK SEAT OPERATION

- 1. Connect driver seat control unit and reclining motor LH connector.
- 2. Check seat operation (except reclining operation) with memory function.

#### Is the operation normal?

YES >> Replace reclining motor LH. (Built in power seat frame assembly). Refer to <u>SE-43. "Disassembly and Assembly"</u>.

NO >> Replace driver seat control unit. Refer to ADP-152, "Removal and Installation".

## 4. CHECK INTERMITTENT INCIDENT

Refer to GI-38. "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-152, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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## **LIFTING SENSOR (FRONT)**

#### < COMPONENT DIAGNOSIS >

## LIFTING SENSOR (FRONT)

Description

- The lifting sensor (front) is installed to the power seat frame assembly.
- The pulse signal is input to the driver seat control unit when the lifting (front) is operated.
- The driver seat control unit counts the pulse and calculates the lifting (front) amount of the seat.

## Component Function Check

# 1. CHECK FUNCTION

- 1. Select "LIFT FR PULSE" in "Data monitor" mode with CONSULT-III.
- 2. Check the lifting sensor (front) signal under the following conditions.

Monitor item	Condition		Value	
LIFT FR PULSE Se		Operate (up)	Change (increase)	
	Seat lifting (front)	Operate (down)	Change (decrease)	
		Release	No change	

#### Is the indication normal?

YES >> Inspection End.

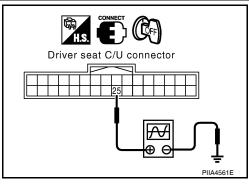
NO >> Perform diagnosis procedure. Refer to <a href="ADP-72">ADP-72</a>, "Diagnosis Procedure".

## Diagnosis Procedure

1. CHECK LIFTING SENSOR (FRONT) SIGNAL

- 1. Turn ignition switch OFF.
- 2. Read the voltage signal between driver seat control unit harness connector and ground with an oscilloscope.

			ı			
Terminals						
(+)						
Driver seat con- trol unit connector	Termi- nal	(–)	Condition		Voltage signal	
B202	25	Ground	Seat lifting (front)	Oper- ate	(V) 6 4 2 0 + 50ms SIIA0691J	
				Other than above	0 or 5	



INFOID:0000000004115590

INFOID:0000000004115591

#### Is the inspection result normal?

YES >> GO TO 4 NO >> GO TO 2

 $2.\,\mathsf{CHECK}\,\mathsf{LIFTING}\,\mathsf{SENSOR}\,(\mathsf{FRONT})\,\mathsf{CIRCUIT}$ 

# LIFTING SENSOR (FRONT)

#### < COMPONENT DIAGNOSIS >

- Disconnect driver seat control unit and lifting motor (front).
- Check continuity between driver seat control unit harness connector and lifting motor (front) harness connector.

Driver seat control unit connector	Terminal	Lifting motor (front) connector	Terminal	Continuity
	16		3	
B202 (A)	25	B206 (B)	4	Yes
	31		2	

Check continuity between driver seat control unit harness connector and ground.

H.S. DISCONNECT OFF	B
A   16   25   31	2,3,4
<u>16, 25, 31</u> Ω	
	ALJIA0319ZZ

Driver seat control unit connector	Terminal		Continuity
	16	Ground	
B202 (A)	25		No
	31		

#### Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

# 3. CHECK SEAT OPERATION

- Connect driver seat control unit and lifting motor (front) connector.
- 2. Check seat operation [except lifting (front) operation] with memory function.

#### Is the operation normal?

- YES >> Replace lifting motor (front). (Built in power seat frame assembly). Refer to SE-43, "Disassembly and Assembly".
- NO >> Replace driver seat control unit. Refer to ADP-152, "Removal and Installation".

# 4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

- YES >> Replace driver seat control unit. Refer to ADP-152, "Removal and Installation".
- NO >> Repair or replace the malfunctioning part.

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# LIFTING SENSOR (REAR)

Description INFOID:000000004115592

- The lifting sensor (rear) is installed to the power seat frame assembly.
- The pulse signal is input to the driver seat control unit when the lifting (rear) is operated.
- The driver seat control unit counts the pulse and calculates the lifting (rear) amount of the seat.

# Component Function Check

# 1. CHECK FUNCTION

- 1. Select "LIFT RR PULSE" in "Data monitor" mode with CONSULT-III.
- 2. Check lifting sensor (rear) signal under the following conditions.

Monitor item	Condition		Value
		Operate (up)	Change (increase)
LIFT RR PULSE	Seat lifting (rear)	Operate (down)	Change (decrease)
		Release	No change

#### Is the indication normal?

YES >> Inspection End.

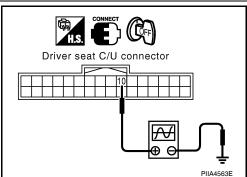
NO >> Perform diagnosis procedure. Refer to <a href="ADP-74">ADP-74</a>, "Diagnosis Procedure".

# Diagnosis Procedure

# 1. CHECK LIFTING SENSOR (REAR) SIGNAL

- 1. Turn ignition switch OFF.
- 2. Read voltage signal between driver seat control unit harness connector and ground with oscilloscope.

Т	erminals				
(+)	)				
Driver seat con- trol unit connector	Termi- nal	(–)	Condition		Voltage signal
B202	10	Ground	Seat lifting (rear)	Oper- ate	(V) 6 4 2 0 • • • 50ms
				Other than above	0 or 5



INFOID:0000000004115593

INFOID:0000000004115594

#### Is the inspection result normal?

YES >> GO TO 4 NO >> GO TO 2

 $2.\,\mathsf{CHECK}\,\mathsf{LIFTING}\,\mathsf{SENSOR}\,(\mathsf{REAR})\,\mathsf{CIRCUIT}$ 

# LIFTING SENSOR (REAR)

#### < COMPONENT DIAGNOSIS >

- Disconnect driver seat control unit and lifting motor (rear).
- Check the continuity between driver seat control unit harness connector and lifting motor (rear) harness connector.

Driver seat control unit connector	Terminal	Lifting motor (rear) connector	Terminal	Continuity
	10		4	
B202 (A)	16	B207 (B)	3	Yes
	31		2	

2, 3, 4 10, 16, 31 Ω

Check the continuity between driver seat control unit harness connector and ground.

Driver seat control unit connector	Terminal		Continuity
	10	Ground	
B202 (A)	16		No
	31		

#### Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

# 3. CHECK SEAT OPERATION

- Connect driver seat control unit and lifting motor (rear) connector.
- Check the seat operation [except lifting (rear) operation] with memory function.

#### Is the operation normal?

- YES >> Replace lifting motor (rear). (Built in power seat frame assembly). Refer to <u>SE-43, "Disassembly</u> and Assembly".
- NO >> Replace driver seat control unit. Refer to ADP-152, "Removal and Installation".

#### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-152, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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#### PEDAL ADJUSTING SENSOR

< COMPONENT DIAGNOSIS >

#### PEDAL ADJUSTING SENSOR

Description INFOID:000000004115595

- The pedal adjusting sensor is installed to the pedal adjusting motor assembly.
- The resistance of pedal adjusting sensor is changed according to the forward/backward position of pedal assembly.
- The terminal voltage of automatic drive positioner control unit will be changed according to a change of pedal adjusting sensor resistance. Automatic drive positioner control unit calculates the pedal assembly position from the voltage.

# Component Function Check

INFOID:0000000004115596

- 1. CHECK FUNCTION
- 1. Select "PEDAL SEN" in "Data monitor" mode with CONSULT-III.
- 2. Check the pedal sensor signal under the following condition.

Monitor item	Condition		Value
PEDAL SEN	Pedal position	Forward	0.5V
	Pedai position	Backward	4.5V

#### Is the indication normal?

YES >> Inspection End.

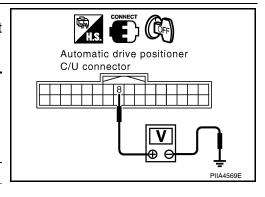
NO >> Perform diagnosis procedure. Refer to <u>ADP-76, "Diagnosis Procedure"</u>.

# Diagnosis Procedure

INFOID:0000000004115597

- 1. CHECK PEDAL ADJUSTING SENSOR SIGNAL
- 1. Turn ignition switch OFF.
- 2. Check voltage between automatic drive positioner control unit harness connector and ground.

Terminal						
(+)			0			
Automatic drive position- er control unit	Terminal	(-)	Con	dition	Voltage (V) (Approx.)	
1400	0	0	Pedal as-	Forward	0.5	
M33	8	Ground	sembly position	Backward	4.5	



#### Is the inspection result normal?

YES >> GO TO 4 NO >> GO TO 2

2. CHECK PEDAL ADJUSTING SENSOR CIRCUIT

#### PEDAL ADJUSTING SENSOR

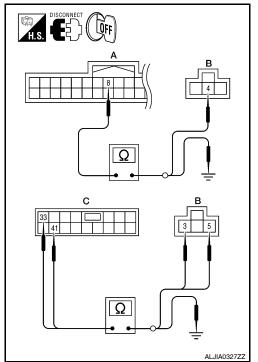
#### < COMPONENT DIAGNOSIS >

- 1. Disconnect automatic drive positioner control unit and pedal adjusting motor assembly.
- Check continuity between automatic drive positioner control unit harness connector and pedal adjusting motor assembly harness connector.

Automatic drive positioner control unit connector	Terminal	Pedal adjusting motor assembly connector	Terminal	Continuity
M33 (A)	8		4	
M24 (C)	33	E110 (B)	3	Yes
M34 (C)	41		5	

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

Automatic drive positioner control unit connector	Terminal		Continuity
M33 (A)	8	Ground	
M34 (C)	33		No
M34 (C)	41		



#### Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

# 3. CHECK DOOR MIRROR OPERATION

- 1. Connect automatic drive positioner control unit and pedal adjusting motor assembly.
- 2. Turn ignition switch ON.
- 3. Check door mirror operation with memory function.

#### Is the operation normal?

- YES >> Replace pedal adjusting motor assembly. Refer to <u>ADP-156, "Removal and Installation"</u>.
- NO >> Replace automatic drive positioner control unit. Refer to ADP-153, "Removal and Installation".

#### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

- YES >> Replace automatic drive positioner control unit. Refer to ADP-153, "Removal and Installation".
- NO >> Repair or replace the malfunctioning part.

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#### < COMPONENT DIAGNOSIS >

# MIRROR SENSOR DRIVER SIDE

# DRIVER SIDE : Description

INFOID:0000000004115598

- The mirror sensor LH is installed to the door mirror LH.
- The resistance of 2 sensors (horizontal and vertical) is changed when the door mirror LH is operated.
- Automatic drive positioner control unit calculates the door mirror position according to the change of the voltage of 2 sensor input terminals.

# DRIVER SIDE: Component Function Check

INFOID:0000000004115599

# 1. CHECK FUNCTION

- 1. Select "MIR/SEN LH U-D", "MIR/SEN LH R-L" in "Data monitor" with CONSULT-III.
- 2. Check mirror sensor (driver side) signal under the following condition.

Monitor item	Condition		Value
MIR/SEN LH U-D		Close to peak	3.4V
	Dana miman I I I	Close to valley	0.6V
MIR/SEN LH R-L	Door mirror LH	Close to right edge	3.4V
MIR/SEN LH R-L		Close to left edge	0.6V

#### Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-78</u>, "DRIVER SIDE: Diagnosis Procedure".

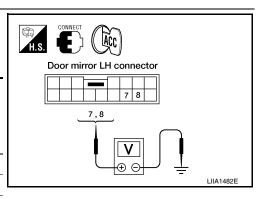
#### DRIVER SIDE: Diagnosis Procedure

INFOID:0000000004115600

# 1. CHECK DOOR MIRROR LH SENSOR SIGNAL

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

Terminals					
(+)				Condition	Voltage (V) (Approx.)
Door mirror LH connector	Terminal	(–)			
	7	- Ground		Close to peak	3.4
D4			Door mirror	Close to valley	0.6
	0			LH	Close to right edge
8			Close to left edge	0.6	



#### Is the inspection result normal?

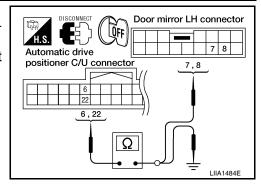
YES >> GO TO 5. NO >> GO TO 2.

# ${f 2}.$ CHECK DOOR MIRROR LH SENSOR CIRCUIT 1

#### < COMPONENT DIAGNOSIS >

- Turn ignition switch OFF.
- Disconnect automatic drive positioner control unit and door mirror LH connector.
- Check continuity between automatic drive positioner control unit harness connector and door mirror LH harness connector.

Automatic drive positioner control unit connector	Terminal	Door mirror LH connector	Terminal	Continuity
M33	6	D4	7	Yes
IVIOO	22	7	8	103



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

Automatic drive positioner control unit connector	ector		Continuity
M33	6	Ground	No
WOO	22	INO	INO

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

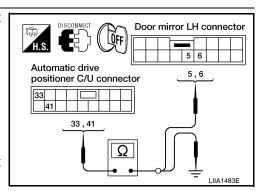
# ${f 3}.$ CHECK DOOR MIRROR LH SENSOR CIRCUIT 2

Check continuity between automatic drive positioner control unit harness connector and door mirror LH harness connector.

Automatic drive positioner control unit connector	Terminal	Door mirror LH connector	Terminal	Continuity
M34	33	D4	5	Yes
IVI34	41	<b>υ</b> 4	6	Yes

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

Automatic drive positioner control unit connector	Terminal		Continuity
M34	33	Ground	No
	41		INO



#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

#### 4. CHECK PEDAL ADJUSTING OPERATION

- 1. Connect driver seat control unit connector and door mirror LH connector.
- Turn ignition switch ON.
- Check pedal adjusting operation with memory function.

#### Is the operation normal?

YES >> Replace door mirror actuator LH. Refer to MIR-17, "Mirror Actuator".

>> Replace automatic drive positioner control unit. Refer to ADP-153, "Removal and Installation". NO

#### CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-153, "Removal and Installation".

>> Repair or replace the malfunctioning part. NO

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#### < COMPONENT DIAGNOSIS >

# PASSENGER SIDE

# PASSENGER SIDE: Description

INFOID:0000000004115601

- The mirror sensor RH is installed to the door mirror RH.
- The resistance of 2 sensors (horizontal and vertical) is changed when the door mirror RH is operated.
- Automatic drive positioner control unit calculates the door mirror position according to the change of the voltage of 2 sensor input terminals.

# PASSENGER SIDE: Component Function Check

INFOID:0000000004115602

# 1. CHECK FUNCTION

- 1. Select "MIR/SEN RH U-D", "MIR/SEN RH R-L" in "Data monitor" with CONSULT-III.
- 2. Check the mirror sensor RH signal under the following conditions.

Monitor item	Condition		Value
MIR/SEN RH U-D		Close to peak	3.4V
	Door mirror RH	Close to valley	0.6V
MIR/SEN RH R-L	DOOLIIIIIOI KH	Close to right edge	3.4V
		Close to left edge	0.6V

#### Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-80, "PASSENGER SIDE : Diagnosis Procedure"</u>.

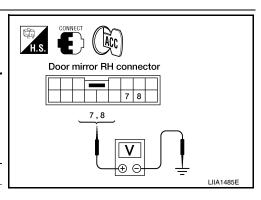
# PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000004115603

# 1. CHECK DOOR MIRROR RH SENSOR SIGNAL

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

	Terminals				
(+)		<b>-</b>		Voltage (V)	
Doormirror RH con- nector	Terminal	(–)	Condition		(Approx.)
	7			Close to peak	3.4
D107	,	Ground	Door mirror	Close to valley	0.6
D107	8	Ground	RH	Close to right edge	3.4
	8			Close to left edge	0.6



#### Is the inspection result normal?

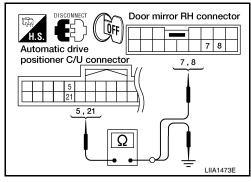
YES >> GO TO 5 NO >> GO TO 2

# 2. CHECK DOOR MIRROR RH SENSOR HARNESS CONTINUITY

#### < COMPONENT DIAGNOSIS >

- Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit and door mirror RH.
- 3. Check continuity between automatic drive positioner control unit harness connector and door mirror RH harness connector.

Automatic drive posi- tioner control unit connector	Terminal	Door mirror RH connector	Terminal	Continuity
M33	5	D107	7	Yes
IVIOS	21	D107	8	163



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

Automatic drive positioner control unit connector	Terminal	0	Continuity
M33	5	Ground	No
IVIOS	21		INO

#### Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

# 3.check door mirror RH sensor power supply circuit

Check continuity between automatic drive positioner control unit harness connector and door mirror RH harness connector.

Automatic drive positioner control unit connector	Terminal	Door mirror RH connector	Terminal	Continuity
M34	33	D107	5	Yes
IVI34	41	D107	6	res

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

Door mirror RH connector  H.S. Disconnector
Automatic drive positioner C/U connector 5,6
33 41 1
33 , 41 \(\overline{\Omega}\)

Automatic drive positioner control unit connector	Terminal		Continuity
M34	33	Ground	No
10134	41		NO

#### Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

#### 4. CHECK PEDAL ADJUSTING OPERATION

- 1. Connect driver seat control unit connector and door mirror RH connector.
- Turn ignition switch ON.
- Check pedal adjusting operation with memory function.

#### Is the operation normal?

YES >> Replace door mirror actuator. Refer to MIR-17, "Mirror Actuator".

NO >> Replace automatic drive positioner control unit. Refer to ADP-153, "Removal and Installation".

#### CHECK INTERMITTENT INCIDENT

#### Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-153, "Removal and Installation".

>> Repair or replace the malfunctioning part. NO

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#### **SLIDING MOTOR**

Description INFOID:000000004115604

- The sliding motor LH is installed to the power seat frame assembly.
- The sliding motor LH is installed with the driver seat control unit.
- The seat is slid forward/backward by changing the rotation direction of sliding motor LH.

# Component Function Check

INFOID:0000000004115605

# 1. CHECK FUNCTION

- 1. Select "SEAT SLIDE" in "Active test" mode with CONSULT-III.
- 2. Check the sliding motor LH operation.

Test Item		Description	
	OFF		Stop
SEAT SLIDE	FR	Seat sliding	Forward
	RR		Backward

#### Is the operation of relevant parts normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <a href="ADP-82">ADP-82</a>, "Diagnosis Procedure".

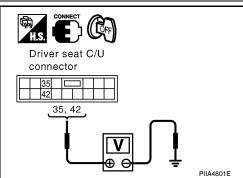
# Diagnosis Procedure

INFOID:0000000004115606

# 1. CHECK SLIDING MOTOR LH POWER SUPPLY

- 1. Turn the ignition switch OFF.
- 2. Perform "Active test" ("SEAT SLIDE") with CONSULT-III
- 3. Check voltage between driver seat control unit harness connector and ground.

	Terminal				
(+)			T Vol		Voltage (V)
Driver seat control unit connector	Terminal	(-)	Test Item		(Approx.)
		35 Ground	SEAT SLIDE	OFF	0
	35			FR (forward)	Battery voltage
B203				RR (backward)	0
B203		Giodila		OFF	0
	42			FR (forward)	0
				RR (backward)	Battery voltage



#### Is the inspection result normal?

YES >> Replace sliding motor LH. (Built in power seat frame assembly). Refer to <u>SE-43, "Disassembly and Assembly"</u>.

NO >> GO TO 2

# 2. CHECK SLIDING MOTOR LH CIRCUIT

#### **SLIDING MOTOR**

#### < COMPONENT DIAGNOSIS >

- 1. Disconnect driver seat control unit and sliding motor LH.
- 2. Check continuity between driver seat control unit harness connector and sliding motor LH harness connector.

Driver seat control unit connector	Terminal	Sliding motor LH connector	Terminal	Continuity	
B203 (A)	35	B204 (B)	5	Yes	
Б203 (A)	42	D204 (B)	1	165	

Check continuity between driver seat control unit harness connector and ground.

H.S. DISCONNECT OFF
A B 1, 5
Ω

Driver seat control unit connector	Terminal		Continuity	
B203 (A)	35	Ground	No	
B203 (A)	42		NO	

#### Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

# 3. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-152, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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#### **RECLINING MOTOR**

Description INFOID:000000004115607

- The reclining motor LH is installed to the seatback assembly.
- The reclining motor LH is activated with the driver seat control unit.
- The seatback is reclined forward/backward by changing the rotation direction of reclining motor LH.

# Component Function Check

INFOID:0000000004115608

# 1. CHECK FUNCTION

- Select "SEAT RECLINING" in "Active test" mode with CONSULT-III.
- 2. Check the reclining motor LH operation.

Test Item		Description		
	OFF		Stop	
SEAT RECLINING	FR	Seat reclining	Forward	
	RR		Backward	

#### Is the operation of relevant parts normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-84, "Diagnosis Procedure"</u>.

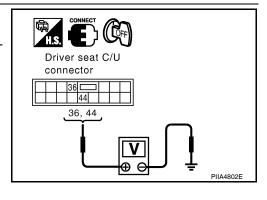
# Diagnosis Procedure

INFOID:0000000004115609

# 1. CHECK RECLINING MOTOR LH POWER SUPPLY

- 1. Turn the ignition switch OFF.
- 2. Perform "Active test" ("SEAT RECLINING") with CONSULT-III
- 3. Check voltage between driver seat control unit harness connector and ground.

	Terminal				
(+	·)				
Driver seat con- trol unit connector	Terminal	(-)	Test Item		Voltage (V) (Approx.)
				OFF	0
	36	Ground	SEAT RE- CLINING	FR (forward)	Battery voltage
B203				RR (backward)	0
6203				OFF	0
				FR (forward)	0
				RR (backward)	Battery voltage



#### Is the inspection result normal?

YES >> Replace reclining motor LH. (Built in seatback assembly). Refer to <u>SE-43, "Disassembly and Assembly"</u>.

NO >> GO TO 2

# 2. CHECK RECLINING MOTOR LH CIRCUIT

#### **RECLINING MOTOR**

#### < COMPONENT DIAGNOSIS >

- Disconnect driver seat control unit connector and reclining motor
   I H
- 2. Check continuity between driver seat control unit harness connector and reclining motor harness connector.

Driver seat control unit connector	Terminal	Reclining motor LH connector	Terminal	Continuity
B203 (A)	36	B205 (B)	2	Yes
6203 (A)	44	B205 (B)	3	res

3. Check continuity between driver seat control unit harness connector and ground.

H.S. DISCONNECT OFF	
A 36 44 44	B 2 3
36, 44 \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	2, 3 ————————————————————————————————————

Driver seat control unit connector	Terminal		Continuity
D202 (A)	36	Ground	No
B203 (A)	44	-	No

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-152, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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# LIFTING MOTOR (FRONT)

Description INFOID:000000004115610

- The lifting motor (front) is installed to the power seat frame assembly.
- The lifting motor (front) is activated with the driver seat control unit.
- The lifter (front) is moved upward/downward by changing the rotation direction of lifting motor (front).

# Component Function Check

INFOID:0000000004115611

# 1. CHECK FUNCTION

- Select "SEAT LIFTER FR" in "Active test" mode with CONSULT-III.
- 2. Check the lifting motor (front) operation.

Test Item		Description	
	OFF		Stop
SEAT LIFTER FR	UP	Seat lifting (front)	Upward
	DWN		Downward

#### Is the operation of relevant parts normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-86, "Diagnosis Procedure"</u>.

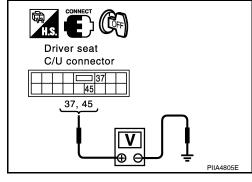
# Diagnosis Procedure

INFOID:0000000004115612

# 1. CHECK LIFTING MOTOR (FRONT) POWER SUPPLY

- 1. Turn the ignition switch OFF.
- 2. Perform "Active test" ("SEAT LIFTER FR") with CONSULT-III.
- 3. Check voltage between driver seat control unit harness connector and ground.

Terminal					
(+)					Voltage (V)
Driver seat control unit connector	Terminal	(-)	Test Item		(Approx.)
			SEAT ound LIFTER FR	OFF	0
	37 45	Ground		UP	0
B203				DWN (down)	Battery voltage
D203				OFF	0
				UP	Battery voltage
				DWN (down)	0
la tha inana	diam manul	1 10 0 1100 0 10			•



#### Is the inspection result normal?

YES >> Replace lifting motor (front). (Built in power seat frame assembly). Refer to <u>SE-43, "Disassembly and Assembly"</u>.

NO >> GO TO 2

# 2. CHECK LIFTING MOTOR (FRONT) CIRCUIT

# LIFTING MOTOR (FRONT)

#### < COMPONENT DIAGNOSIS >

- Disconnect driver seat control unit and lifting motor (front) connectors.
- 2. Check continuity between driver seat control unit harness connector and lifting motor (front) harness connector.

Driver seat control unit connector	Terminal	Lifting motor (front) connector	Terminal	Continuity
B203 (A)	37	B206 (B)	1	Yes
B203 (A)	45	B200 (B)	5	163

Check continuity between driver seat control unit harness connector and ground.

	H.S. CE
-	A B B 1 1 5
-	37, 45 1, 5
-	ĀLJIA0323ZZ

Driver seat control unit connector	Terminal		Continuity
B203 (A)	37	Ground	No
D2U3 (A)	45		INO

#### Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

# 3. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-152, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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# LIFTING MOTOR (REAR)

Description INFOID:000000004115613

- The lifting motor (rear) is installed to the power seat frame assembly.
- The lifting motor (rear) is activated with the driver seat control unit.
- The seat lifter (rear) is moved upward/downward by changing the rotation direction of lifting motor (rear).

# Component Function Check

INFOID:0000000004115614

# 1. CHECK FUNCTION

- 1. Select "SEAT LIFTER RR" in "Active test" mode with CONSULT-III.
- 2. Check the lifting motor (rear) operation.

Test Item		Description	
	OFF		Stop
SEAT LIFTER RR	UP	Seat lifting (rear)	Upward
	DWN		Downward

#### Is the operation of relevant parts normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <a href="ADP-88">ADP-88</a>, "Diagnosis Procedure".

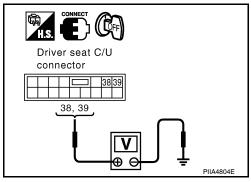
# Diagnosis Procedure

INFOID:0000000004115615

# 1. CHECK LIFTING MOTOR (REAR) POWER SUPPLY

- 1. Turn the ignition switch OFF.
- 2. Perform "Active test" ("SEAT LIFTER RR") with CONSULT-III
- 3. Check voltage between driver seat control unit harness connector and ground.

Terminal					
(+)			<del>-</del>		Voltage (V)
Driver seat control unit connector	Terminal	(-)	Test Item		(Approx.)
	38 ————————————————————————————————————	Ground	SEAT LIFTER RR	OFF	0
				UP	Battery voltage
B203				DWN (down)	0
D203		Giodila		OFF	0
39				UP	0
		DWN (down)	Battery voltage		



#### Is the inspection result normal?

YES >> Replace lifting motor (rear). (Built in power seat frame assembly). Refer to <u>SE-43, "Disassembly and Assembly"</u>.

NO >> GO TO 2

# 2. CHECK LIFTING MOTOR (REAR) CIRCUIT

# **LIFTING MOTOR (REAR)**

#### < COMPONENT DIAGNOSIS >

- 1. Disconnect driver seat control unit and lifting motor (rear).
- 2. Check continuity between driver seat control unit harness connector and lifting motor (rear) harness connector.

Driver seat control unit connector	Terminal	Lifting motor (rear) connector	Terminal	Continuity
B203 (A)	38	B207 (B)	5	Yes
B203 (A)	39	D207 (D)	1	163

Check continuity between driver seat control unit harness connector and ground.

H.S. DISCONNECT OFF
A B 1 1 5
38, 39 <u>1, 5</u>
ALJIA0324ZZ

Driver seat control unit connector	Terminal		Continuity
B203 (A)	38	Ground	No
B203 (A)	39		NO

#### Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

# 3. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-152, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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#### PEDAL ADJUSTING MOTOR

< COMPONENT DIAGNOSIS >

#### PEDAL ADJUSTING MOTOR

Description INFOID:000000004115616

- The pedal adjusting motor is installed to the pedal adjusting motor assembly.
- The pedal adjusting motor is activated with the automatic drive positioner control unit.
- The pedal assembly is adjusted forward/backward by changing the rotation direction of pedal adjusting motor.

#### Component Function Check

INFOID:0000000004115617

# 1. CHECK FUNCTION

- 1. Select "ADJ PEDAL MOTOR" in "Active test" mode with CONSULT-III.
- 2. Check the pedal adjusting motor operation.

Test item		Description	
	OFF		Stop
ADJ PEDAL MOTOR	FR	Pedal adjusting motor	Forward
	RR		Backward

#### Is the operation of relevant parts normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-90, "Diagnosis Procedure"</u>.

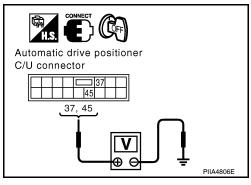
# Diagnosis Procedure

INFOID:0000000004115618

# 1. CHECK PEDAL ADJUSTING MOTOR POWER SUPPLY

- 1. Turn the ignition switch OFF.
- 2. Perform "Active test" ("ADJ PEDAL MOTOR") with CONSULT-III.
- 3. Check voltage between automatic drive positioner control unit harness connector and ground.

Terminal						
(+)					Mallana	
Automatic drive posi- tioner con- trol unit connector	Terminal	(-)	Test Item		Voltage (V) (Approx.)	
		OFF	0			
	37	Ground	ADJ PED-	RR (backward)	0	
M34				FR (forward)	Battery voltage	
IVIO4		Giodila	AL MOTOR	OFF	0	
	45	45		RR (backward)	Battery voltage	
				FR (forward)	0	



#### Is the inspection result normal?

YES >> Replace pedal adjusting motor assembly. Refer to <u>ADP-156, "Removal and Installation"</u>.

NO >> GO TO 2

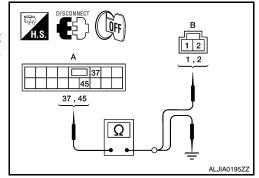
# $oldsymbol{2}$ . CHECK PEDAL ADJUSTING MOTOR CIRCUIT

#### PEDAL ADJUSTING MOTOR

#### < COMPONENT DIAGNOSIS >

- 1. Disconnect automatic drive positioner control unit and pedal adjusting motor assembly.
- 2. Check continuity between automatic drive positioner control unit harness connector and pedal adjusting motor assembly harness connector.

Automatic drive positioner control unit connector	Terminal	Pedal adjusting motor assembly connector	Terminal	Continuity
M34 (A)	37	E109 (B)	1	Yes
1VIO+ (A)	45	L109 (B)	2	163



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

Automatic drive positioner control unit connector	Terminal	0	Continuity
M34 (A)	37	Ground	No
1VIO4 (A)	45		NO

#### Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

# 3. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-153, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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# DOOR MIRROR MOTOR

Description INFOID:000000004115619

It makes mirror face operate from side to side and up and down with the electric power that automatic drive positioner control unit supplies.

# Component Function Check

INFOID:0000000004115620

# 1. CHECK DOOR MIRROR MOTOR FUNCTION

Check the operation with "MIRROR MOTOR RH" and "MIRROR MOTOR LH" in "ACTIVE TEST" mode with CONSULT-III

Refer to ADP-26, "CONSULT-III Function".

#### Is the inspection result normal?

YES >> Door mirror motor function is OK.

NO >> Refer to <u>ADP-92, "Diagnosis Procedure"</u>.

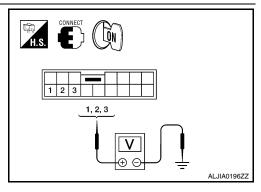
#### Diagnosis Procedure

INFOID:0000000004115621

# 1. CHECK DOOR MIRROR MOTOR INPUT SIGNAL

- 1. Turn ignition switch ON.
- Check voltage between door mirror connector and ground.

	Terminals				
(+)			Door mirror re- mote control	Voltage (V) (Approx.)	
Door mirror connector	Terminal	(–)	switch condition		
	1		UP	Battery voltage	
	'		Other than above	0	
D4 (LH)	2	Ground	LEFT	Battery voltage	
D107 (RH)	2	Oround	Other than above	0	
	3		DOWN / RIGHT	Battery voltage	
	3		Other than above	0	



#### Is the inspection result normal?

YES >> Refer to ADP-94, "Component Inspection".

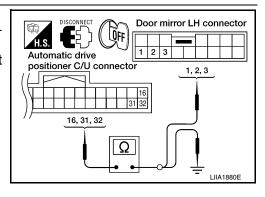
NO >> GO TO 2

# 2. CHECK HARNESS CONTINUITY

- Turn ignition switch OFF.
- Disconnect automatic drive positioner control unit and door mirror.
- 3. Check continuity between automatic drive positioner control unit connector and door mirror connector.

Door mirror LH

Automatic drive positioner control unit connector	Terminal	Door mirror LH connector	Terminal	Continuity
	16		3	
M33	31	D4	1	Yes
	32		2	



#### **DOOR MIRROR MOTOR**

#### < COMPONENT DIAGNOSIS >

Door mirror RH				
Automatic drive positioner control unit connector	Terminal	Door mirror RH connector	Terminal	Continuity
	14		1	
M33	15	D107	2	Yes
	30		3	

4. Check continuity between automatic drive positioner control unit connector and ground.

Door mirror LH

Automatic drive position- er control unit connector	Terminal		Continuity
	16	Ground	
M33	31		No
	32		
Door mirror RH			
Automatic drive position- er control unit connector	Terminal		Continuity
	14	Ground	
M33	15		No
	30		

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Automatic drive positioner C/U connector

Door mirror RH connector

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Is the inspection result normal?

YES >> GO TO 3

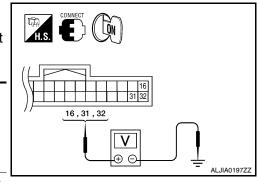
NO >> Repair or replace harness.

3. CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT OUTPUT SIGNAL

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

Door mirror LH

Terminals					
(+)			Mirror switch	Voltage (V)	
Automatic drive positioner control unit connector	Terminal	(-)	condition	(Approx.)	
	16		DOWN / RIGHT	Battery voltage	
	10		Other than above	0	
M33	31	Ground	UP	Battery voltage	
IVISS	31	Giodila	Other than above	0	
	32		LEFT	Battery voltage	
	32		Other than above	0	



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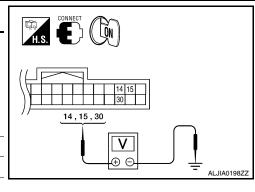
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#### **DOOR MIRROR MOTOR**

#### < COMPONENT DIAGNOSIS >

Н			
Terminals			
Terminal	(-)	Mirror switch con- dition	Voltage (V) (Approx.)
1/		UP	Battery voltage
14		Other than above	0
15	Cround	LEFT	Battery voltage
13	Ground	Other than above	0
30		DOWN / RIGHT	Battery voltage
		Other than above	0
	Terminals  Terminal  14  15	Terminals  (-)  14  15 Ground	Terminals  (-)  Mirror switch condition  14  15  Ground  Ground  Ground  DOWN / RIGHT



#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace automatic drive positioner control unit. Refer to ADP-153, "Removal and Installation".

# 4. CHECK DOOR MIRROR MOTOR

Check door mirror motor.

Refer to ADP-94, "Component Inspection".

#### Is the inspection result normal?

YES >> Refer to GI-38, "Intermittent Incident".

NO >> Replace door mirror actuator. Refer to MIR-17, "Mirror Actuator".

# Component Inspection

INFOID:0000000004115622

# 1. CHECK DOOR MIRROR MOTOR-I

Check that door mirror motor does not trap foreign objects and does not have any damage. Refer to MIR-14, "Door Mirror Assembly".

#### Is the inspection result normal?

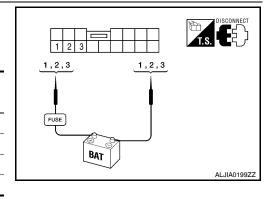
YES >> GO TO 2

NO >> Replace door mirror actuator. Refer to MIR-17, "Mirror Actuator".

# 2. CHECK DOOR MIRROR MOTOR-II

- 1. Turn ignition switch OFF.
- 2. Disconnect door mirror.
- 3. Apply 12V to each power supply terminal of door mirror motor.

Door mirror connector	Terminal		Operational direction	
Door militor connector	(+)	(-)	Operational direction	
D4 (LH) D107 (RH)	3	2	RIGHT	
	2	3	LEFT	
	1	3	UP	
	3	1	DOWN	



#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace door mirror actuator. Refer to MIR-17, "Mirror Actuator".

#### SEAT MEMORY INDICATOR LAMP

#### < COMPONENT DIAGNOSIS >

#### SEAT MEMORY INDICATOR LAMP

Description INFOID:0000000004115623

 The seat memory switch is installed on the driver side door trim. The operation signal is inputted to the automatic drive positioner control unit when the memory switch is operated.

• The status of automatic drive positioner system can be checked according to the illuminating/flashing status.

# Component Function Check

# 1. CHECK FUNCTION

- Select "MEMORY SW INDCTR" in "Active test" mode with CONSULT-III.
- 2. Check the memory indicator operation.

Test item		Description	
	OFF		OFF
MEMORY SW INDCTR	ON-1	Memory switch indicator	Indicator 1: ON
	ON-2		Indicator 2: ON

#### Is the operation of relevant parts normal?

YES >> Inspection End.

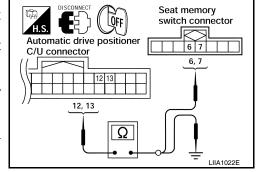
NO >> Perform diagnosis procedure. Refer to ADP-95, "Diagnosis Procedure".

# Diagnosis Procedure

# 1. CHECK SEAT MEMORY INDICATOR CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit and seat memory switch.
- 3. Check continuity between automatic drive positioner control unit harness connector and seat memory switch harness connector.

Automatic drive positioner control unit connector	Terminal	Seat memory switch connector	Terminal	Continuity
M33	12	D5	6	Yes
WISS	13	D5	7	162



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

Automatic drive position- er connector	Terminal		Continuity
Maa	12	Ground	No
M33	13		NO

#### Is the inspection result normal?

>> GO TO 2 YES

NO >> Repair or replace harness.

2. CHECK MEMORY INDICATOR POWER SUPPLY

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#### **SEAT MEMORY INDICATOR LAMP**

#### < COMPONENT DIAGNOSIS >

Check voltage between seat memory switch harness connector and ground.

Seat memory switch	Termin	Voltage (V) (Approx.)	
connector	(+) (-)		
D5	5	Ground	Battery voltage

# Seat memory switch connector

#### Is the inspection result normal?

YES >> GO TO 3

NO >> Check the following.

- Fuse
- · Harness for open or short between memory indicator and fuse.

# 3. CHECK MEMORY INDICATOR

Refer to ADP-96, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 4

NO >> Replace seat memory switch. Refer to ADP-154, "Removal and Installation".

#### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-153, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

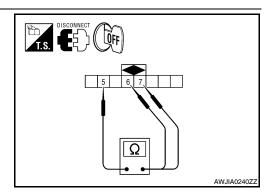
# Component Inspection

INFOID:0000000004115626

# 1. CHECK SEAT MEMORY INDICATOR

- 1. Disconnect seat memory switch.
- 2. Check continuity between seat memory switch terminals.

Terr		
Seat men	Continuity	
(+)	(-)	
6	5	Yes
7	3	163



#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace seat memory switch. Refer to ADP-154, "Removal and Installation".

#### < ECU DIAGNOSIS >

# **ECU DIAGNOSIS**

# DRIVER SEAT CONTROL UNIT

Reference Value

#### VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

Monitor Item	Cond	lition	Value/Status
SET SW	Set switch	Push	ON
JET 3W	Set Switch	Release	OFF
MEMORY SW1	Mamary quitab 1	Push	ON
WEWORT SWI	Memory switch 1	Release	OFF
MEMORY SW2	Memory switch 2	Push	ON
WEWORT SW2	Memory Switch 2	Release	OFF
SLIDE SW-FR	Sliding switch (front)	Operate	ON
SLIDE SW-FR	Silding Switch (Horit)	Release	OFF
SLIDE SW-RR	Cliding awitch (roor)	Operate	ON
DLIDE SW-RR	Sliding switch (rear)	Release	OFF
DECLN CW ED	Declining quitab (front)	Operate	ON
RECLN SW-FR	Reclining switch (front)	Release	OFF
DECLN CW DD	Doolining quitab ()	Operate	ON
RECLN SW-RR	Reclining switch (rear)	Release	OFF
JIFT FR SW-UP	Lifting out to be from t (con)	Operate	ON
IFT FR SW-UP	Lifting switch front (up)	Release	OFF
JET ED OW DN	-DN Lifting switch front (down)	Operate	ON
IFT FR SW-DN		Release	OFF
IET DD CW LID	Lifting quitab room (up)	Operate	ON
IFT RR SW-UP	Lifting switch rear (up)	Release	OFF
IET DD OW DN	Lifting outline and (down)	Operate	ON
IFT RR SW-DN	Lifting switch rear (down)	Release	OFF
AID CON CW LID	Missor ovitab	Up	ON
MIR CON SW-UP	Mirror switch	Other than above	OFF
AID CON OW DN	Naissa a suitala	Down	ON
MIR CON SW-DN	Mirror switch	Other than above	OFF
AID CON CW DII	Mirror quitab	Right	ON
MIR CON SW-RH	Mirror switch	Other than above	OFF
MIR CON SW-LH	Mirror quitab	Left	ON
WIR CON SW-LH	Mirror switch	Other than above	OFF
AID CHNO OW D	Change such a suit - la	Right	ON
MIR CHNG SW-R	Changeover switch	Other than above	OFF
MIR CHNG SW-L	Changeover switch	Left	ON
WIIN CHING SVV-L	Changeover switch	Other than above	OFF
DEDAL SWIFD	Dodal adjusting accitab	Forward	ON
PEDAL SW-FR	Pedal adjusting switch	Other than above	OFF
PEDAL SW-RR	Pedal adjusting switch	Backward	ON
EDAL SW-KK	Pedal adjusting switch	Other than above	OFF

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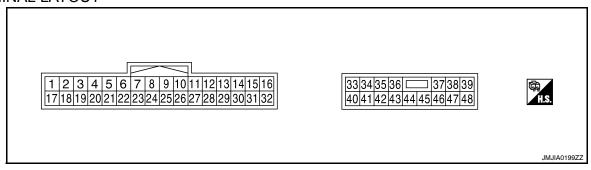
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#### < ECU DIAGNOSIS >

Monitor Item	Conditi	ion	Value/Status
DETENT SW	AT selector lever	P position	OFF
DETENT SW	Al selector level	Other than above	ON
STARTER SW	Ignition position	Cranking	ON
STARTER SW	Ignition position	Other than above	OFF
		Forward	The numeral value decreases
SLIDE PULSE	Seat sliding	Backward	The numeral value increases
		Other than above	No change to numeral value
		Forward	The numeral value decreases
RECLN PULSE	Seat reclining	Backward	The numeral value increases
		Other than above	No change to numeral value
		Up	The numeral value decreases
LIFT FR PULSE	Seat lifter (front)	Down	The numeral value increases
		Other than above	No change to numeral value
		Up	The numeral value decreases
LIFT RR PULSE	Seat lifter (rear)	Down	The numeral value increases
		Other than above	No change to numeral value
MIR/SEN RH U-D	Door mirror (passenger side)	Close to peak	3.4
WIROEN RH U-D	Door militor (passenger side)	Close to valley	0.6
MIR/SEN RH R-L	Door mirror (nagonnaer eide)	Close to left edge	3.4
WIR/SEN KH K-L	Door mirror (passenger side)	Close to right edge	0.6
MIR/SEN LH U-D	Door mirror (driver side)	Close to peak	3.4
WIR/SEN LA U-D	Door militor (univer side)	Close to valley	0.6
MIR/SEN LH R-L	Door mirror (driver side)	Close to left edge	0.6
IVIIT/OEN LA K-L	Door mirror (driver side)	Close to right edge	3.4
PEDAL SEN	nodal position	Forward	0.5
PEDAL SEN	pedal position	Backward	4.5

# TERMINAL LAYOUT



PHYSICAL VALUES

# < ECU DIAGNOSIS >

Tern	ninal No.	Wire	Description				Voltage (V)
+	-	color	Signal name	Input/ Output	Condition	1	Voltage (V) (Approx)
1	Ground	W	UART LINE (RX)	Input	Ignition switch ON		(V) 6 4 2 0 1 ms
3	_	L/B	CAN-H	_	_		_
6	Ground	R	Ignition switch (START)I	Input	Ignition switch	OFF START	0 Battery voltage
9	Ground	R/B	Reclining sensor signal	Input	Seat reclining	Operate	(V) 6 4 2 0 ••50ms
					Stop		0 or 5
10	Ground	B/R	Lifting sensor (rear) signal	Input	Seat lifting (rear)	Operate	(V) 6 4 2 0 ••50ms
						Stop	0 or 5
11	Ground	Y/R	Sliding switch back- ward signal	Input	Sliding switch	Operate (back- ward)	0
						Release	Battery voltage
12	Ground	L/W	Reclining switch back- ward signal	Input	Reclining switch	Operate (back- ward)	0
						Release	Battery voltage
13	Ground	V	Lifting switch (front) down signal	Input	Lifting switch (front)	Operate (down)	0
			3 -:-		· · · · · · ·	Release	Battery voltage
14	Ground	P/L	Lifting switch (rear) down signal	Input	Lifting switch (rear)	Operate (down)	0
						Release	Battery voltage
15	Ground	SB	Pedal switch backward signal	Input	Pedal switch	Operate (back- ward)	0
						Release	Battery voltage
16	Ground	R/W	Sensor power supply	Output	_		5

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< ECO DIAGNOSIS >							
Term	ninal No.	\ <i>\\i</i> :=0	Description				\\altaga (\)\
+	-	Wire color	Signal name	Input/ Output	Condition	1	Voltage (V) (Approx)
17	Ground	Y/R	UART LINE (TX)	Output	Ignition switch ON		(V) 6 4 2 0 2 ms
19	_	G	CAN-L		_		<del></del>
21	Ground	L	A/T device (park position switch)	Input	A/T selector lever	P position  Except P position	0 Battery voltage
24	Ground	R/L	Sliding sensor signal	Input	Seat sliding	Operate	(V) 6 4 2 0 50 ms
						Stop	0 or 5
25	Ground	Y/G	Lifting sensor (front) signal	Input	Seat lifting (front)	Operate	(V) 6 4 2 0 ****50ms
						Stop	0 or 5
26	Ground	L/R	Sliding switch forward signal	Input	Sliding switch	Operate (forward)	0
			g			Release	Battery voltage
27	Ground	V/W	Reclining switch forward signal	Input	Reclining switch	Operate (forward)	0
						Release	Battery voltage
28	Ground	BR/Y	Lifting switch (front) up signal	Input	Seat lifting switch (front)	Operate (up)	0
						Release	Battery voltage
29	Ground	G/R	Lifting switch (rear) up signal	Input	Seat lifting switch (rear)	Operate (up)	0
			-	(Icai)		Release	Battery voltage
30	Ground	L/Y	Pedal switch forward signal	Input	Pedal switch	Operate (forward)	0
						Release	Battery voltage
31	Ground	GR/R	Sensor ground	_	_		0
32	Ground	G/W	Ground (signal)	_	_		0
33	Ground	W/B	Battery power source (C/B)	Input	_		Battery voltage

# < ECU DIAGNOSIS >

Terminal No.		Wire	Description				Valtage (V)
+	-	color	Signal name	Input/ CONDITION		Voltage (V) (Approx)	
35	Ground	R/G	Sliding motor forward output signal	Output	Seat sliding	Operate (forward)	Battery voltage
			output signal			Release	0
36	Ground	L	Reclining motor for- ward output signal	Output	Seat reclining	Operate (forward)	Battery voltage
			ward output signal			Release	0
37	Ground	В	Lifting motor (front) down output signal	Output	Seat lifting (front)	Operate (down)	Battery voltage
			down output signal			Stop	0
38	Ground	GR	Lifting motor (rear) up output signal	Output	Seat lifting (rear)	Operate (up)	Battery voltage
			output signal			Stop	0
39	Ground	R	Lifting motor (rear) down output signal	Output	Seat lifting (rear)	Operate (down)	Battery voltage
			down output signal			Stop	0
40	Ground	G	Power source (Fuse)	Input	_		Battery voltage
42	Ground	R/Y	Sliding motor back- ward output signal	Output	Seat sliding	Operate (back- ward)	Battery voltage
						Stop	0
44	Ground	G/B	Reclining motor back- ward output signal	Output	Seat reclining	Operate (back- ward)	Battery voltage
						Stop	0
45	Ground	G/Y	Lifting motor (front) up output signal	Output	Seat lifting (front)	Operate (up)	Battery voltage
			ostput signal			Stop	0
48	Ground	В	Ground (power)	_	_		0

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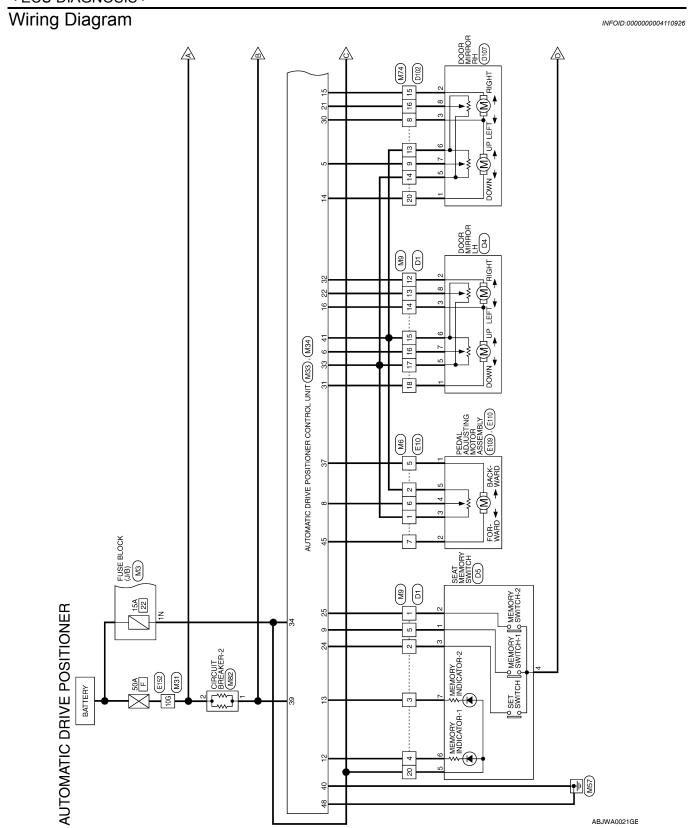
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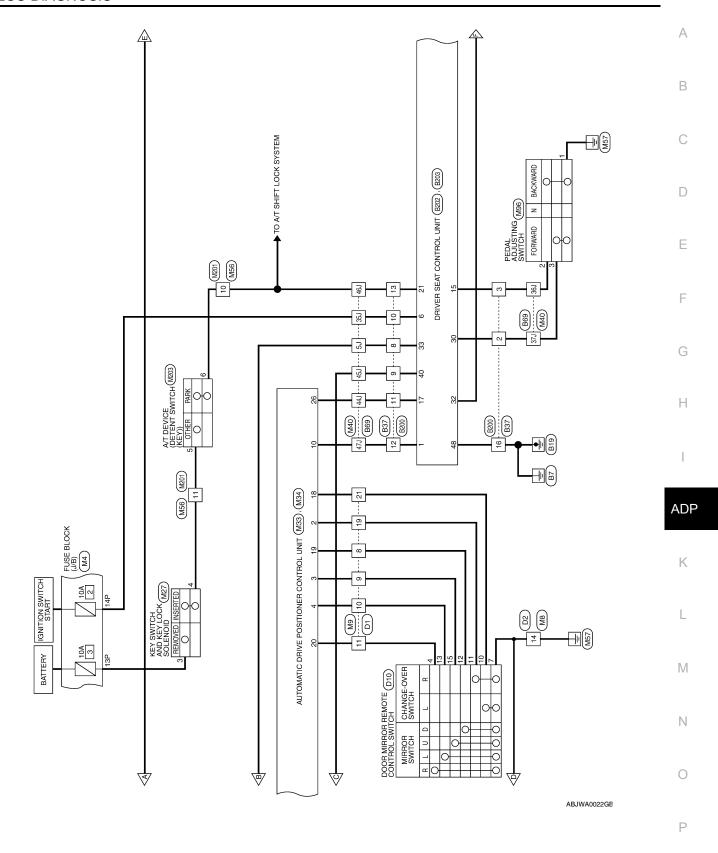
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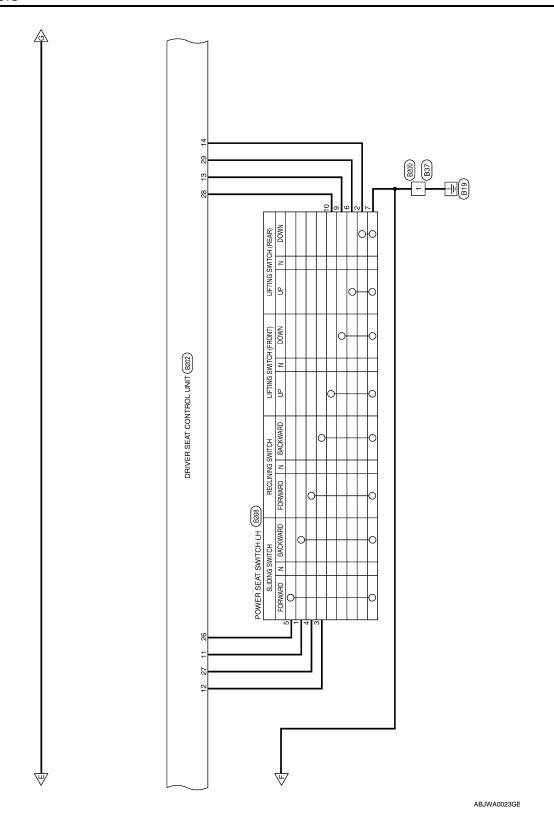
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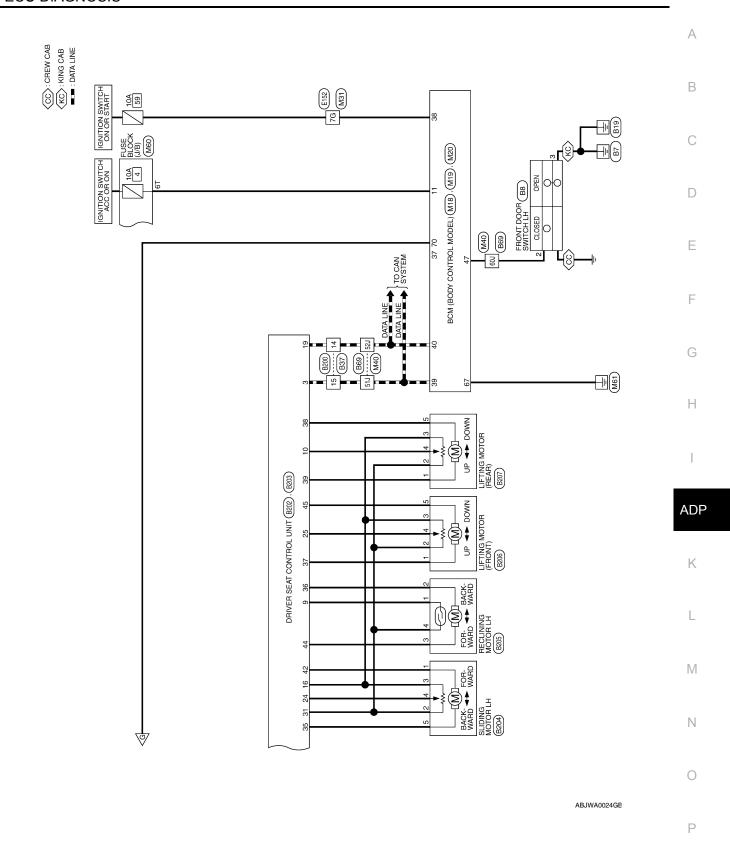
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Connector Name WIRE TO WIRE

Connector No. M6

Connector Color WHITE

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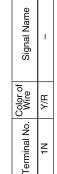
# AUTOMATIC DRIVE POSITIONER CONNECTORS

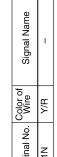
M3	Connector Name   FUSE BLOCK (J/B)	WHITE
Connector No.	Connector Name	Connector Color WHITE

Connector No. M4
Connector Name FUSE BLOCK (J/B)
Connector Color WHITE

CK (J/B)		2N 1N 5N 4N
FUSE BLOCK (J/B)	WHITE	3N 2N 1N 8N 7N 6N 5N 4N
r Name	r Color	







Signal Name

Color of Wire

Terminal No.

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Sign					
Color of Wire	T/M	9/M	9	BR/Y	В
Terminal No.	ŀ	7	9	9	2

of Signal Name	ı	ı	1	ı	ı	ı	ı	1	1	1	ı	1	1	1
Color of Wire	SB	Y/B	W/\	GR	BB	σ	0	W/G	≥	M/L	۳	ГG	Y/R	BR/W
Terminal No.	8	6	10	11	12	13	14	15	16	11	18	19	20	21

Signal Name

Color of Wire

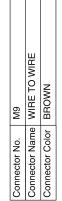
0/9 Y/G

N က 4 2

P/

LG/B

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**M**8

Connector No.



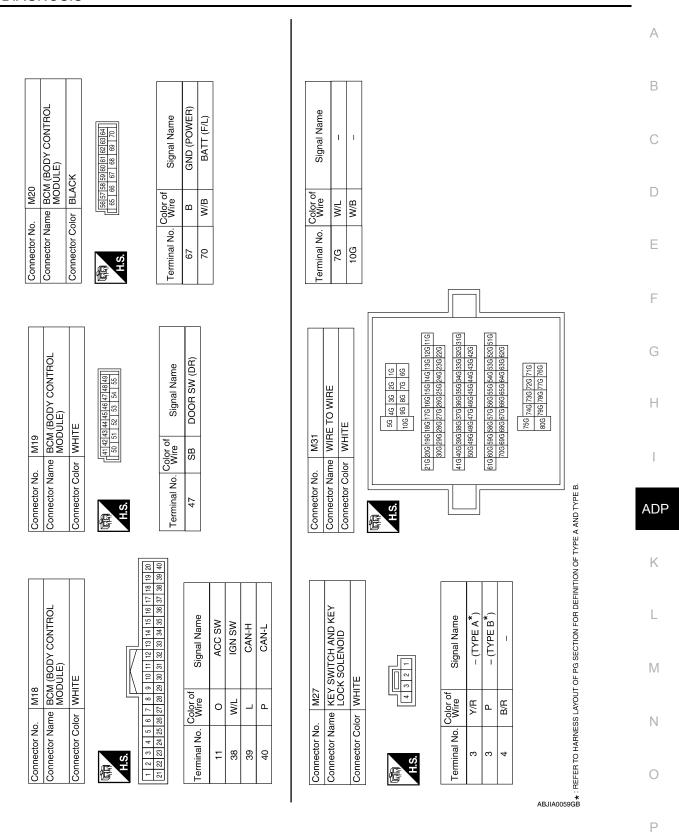


Terminal No.	1	(
Signal Name	ı	
4-	ı	

Signal Name	-	
Color of Wire	В	
Terminal No.	14	

Connector Name WIRE TO WIRE	ıme WIF	RE TO WIRE
Connector Color WHITE	lor WH	IITE
H.S.	7 6 5 14 16 15 14	7 6 5 4
Terminal No.	Color of Wire	Signal Name
14	В	ı

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Signal Name	ı	SET_SW	MEMORY2_SW	X	-	1	1	RH_MTR_(COM)	LH_MTR_(UP-DWN)	LH_MTR_(LT)
Color of Wire	1	G/O	P/L	8	1	ı	Ι	>	æ	BR
Terminal No.	23	24	25	26	27	28	59	30	31	32

Signal Name	PEDAL POTENTION	MEMORY1_SW	¥	1	MEMORY1_IND	MEMORY2_IND	RH_MTR_(UP-DN)	RH_MTR (LT)	LH_MTR (COM)	1	MIR_SELECT_SW_LH	MIR_MANU_SW_DN	MIR_MANU_SW_RH	HORIZONTAL_SENS	HORIZONTAL_SENS
Color of Wire	BR/Y	LG/B	٦	1	Ь	Y/G	GR/R	N/R	0	ı	BR/W	SB	GR	N/¬	G
Terminal No.	8	6	10	11	12	13	14	15	16	17	18	19	20	21	22

<b></b>	AUTOMATIC DRIVE POSITIONER CONTROL UNIT	ТЕ	<u> </u>	9 10 11 12 13 14 15 16 25 26 27 28 29 30 31 32	Signal Name	-	MIR_SELECT_SW_RH	MIR_MANU_SW_UP	MIR_MANU_SW_LH	VERTICAL_SENS_RH	VERTICAL_SENS_LH	ı	
. M33		lor WHITE		22 23 24 3	Color of Wire	ı	ГG	Y/B	M/N	R/B	$\Gamma$	ı	
Connector No.	Connector Name	Connector Color	H.S.	1 2 3 4 5 17 18 19 20 21	Terminal No.	1	2	3	4	5	9	7	

Signal Name	FORWARD	I	BAT(PTC)	GND(SIG)	MEMORY(POT-RET)	I	ı	I	PEDAL_RR_OUT	I	1	GND(POWER)
Color of Wire	5	_	L/B	B/W	M/G	ı	ı	ı	Œ	1	1	В
Terminal No.	37	38	39	40	41	42	43	44	45	46	47	48

M34	Connector Name AUTOMATIC DRIVE POSITIONER CONTROL UNIT	WHITE	
Connector No.	onnector Name	Connector Color WHITE	



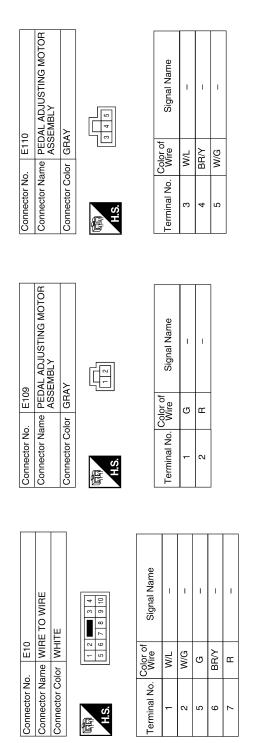


Signal Name	MEMORY(POT_FEED)	BAT_(FUSE)	1	ı
Color of Wire	M/L	Y/R	-	ı
Terminal No.	33	34	32	36

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Connector No.   M40   Connector No.   M40   Connector No.   M40   Connector No.   M60   Connector No.   M60   Connector No.   M74   Connector No.   M60   Connector No.   M74   Connector No.   M74	Connector No. M56 Connector Name WIRE TO WIRE		_		ω Ø				Terminal No. Wire Signal Name	10 L/R -				Connector No. M82	-	Connector Color   WHITE	H.S.	Color of Signal Name	2 (		2 W/B –							A B C C D
Connector No.   W40	Color of Wire		0	۲	Œ	W	Y/R	L/R			۵	SB			lector Name WIRE TO WIRE ector Color BROWN			Color of Wire	)	>-	R/B	W/G	M/L	N/R	N/I	GR/R		G H
Connector No.   M40	Termi	<u> </u>				4	120 113	227	32.131.1	420	20151	623		Conn	Conn		<b>唇</b>	Termi										K
	Connector No. M40	Connector Color WHITE	_		5, 4, 3, 2,	100 90 80 70	21, 20, 19, 18, 17, 16, 15, 14, 13	301 291 281 271 261 251 241 23	41. 40. 138. 138.138.138.138.134.133	500 49J 48J 47J 46J 45J 44J 43J	81   80   52   52   58   57	70. 68. 68. 67. 66. 66. 64. 63.	754 744 733 724 773 774 775 774 775 775 803 775 775 775 803 775 775 775 775 775 775 775 775 775 77		Connector Name FUSE BLOCK (J/B) Connector Color WHITE		1.S.	- (	Color of Wire									M
		<i>,</i> 10	<u>'</u>	ق		3								U	<u>10 10</u>			L						AI	BJIA0	0610	ЭВ	

Connector No. M203	Connector Name A/T DEVICE	Connector Color WHITE		1 2 3 4 5 6 7 8 9 10 11 12		Torminal No Williams		5 B/R PETENT KEY SW	·	
Connector No. M201	Connector Name WIRE TO WIRE	Connector Color WHITE		7 6 5 4 5 1 1 1 1 0 9 8 H.S.	30,000	Terminal No.   Wire   Signal Name	10 1/8 -	1	- H/8 - LL	
M96	PEDAL ADJUSTING SWITCH	Connector Name (WITH AUTOMATIC DRIVE   POSITIONER)	BROWN	5 1 3		re Signal Name	ı			
Connector No.		Connector Name (	Connector Color BROWN	品.	Color of	Terminal No. Wi	- B	>		



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H1H (8)		В
FRONT DOOR SWITCH LH WHITE  Or of Signal Name  B		С
		D
Connector No. Connector Name Connector Color H.S.  2 2 8 3 1		Е
		F
Name	a a a a a a a a a a a a a a a a a a a	G
Signal Name	Signal Name	Н
Color of Wile of W/W	O. Oolor of L/B L/B L/B N/Wite B/W	1
Terminal No. 7G 10G	Terminal No. 12 13 14 15 16	ADI
		K
E152   WHITE   WHITE   16 26 36 46 56   66 76 86 96 106   226 236 246 256 266 776 286 296 306   226 236 246 256 266 776 286 296 306   226 236 246 256 286 276 286 296 306   226 236 246 256 286 276 286 296 306   226 236 246 256 286 276 286 296 306   226 236 246 256 286 276 286 296 306   226 236 246 256 286 276 286 296 306   226 236 246 256 286 276 286 296 306 616   226 236 246 256 286 276 286 296 306 616   226 236 246 256 286 276 286 296 306 616   226 236 246 256 286 276 286 296 306 616   226 236 246 256 286 276 286 296 306 616   226 236 246 256 286 276 286 296 306 616   226 236 246 256 286 276 286 296 306 616   226 236 246 256 286 276 286 296 306 616   226 236 246 256 286 276 286 296 306 616   226 236 246 256 286 276 286 286 286 286 286 286 286 286 286 28	NWIRE(WITH NTIC DRIVE NER)    11   10   9   8	L
Connector No. E152  Connector Name WIRE TO WIRE  Connector Color WHITE  TIG 2G 3G 4G 5G 10G 10G 10G 10G 10G 10G 10G 10G 10G 10		M
or Name   V   Or Color   V   Or Color   V   Or Color   Or Color		N
Connector No. Connector Color H.S.	Connector No. Connector Nam Connector Cole Terminal No.  2 2 3 8 8 9 10 10 11	0
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(WITH AUTO	ÒSITIONER)		2 9	15 16			Signal Name	I Name	I Name	ul Name	l Name	Il Name	I Name	l Name	I Name	I Name	I Name	l Name	l Name	I.Name	I Name	I Name	I Name	I Name  Name  IGE SW	Signal Name	Name  Name  SELIDE	Signal Name	Signal Name	Signal Name	Signal Name	Signal Name	Signal Name	Signal Name
WIRE TO WIRE	MATIC DRIVE PÒSITIONER)	WHILE	2 3 4 5	8 9 10 11 12 13 14																													
r Name		_	L-	8	2		Vo. Wire																										
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## **DRIVER SEAT CONTROL UNIT**

Connector No.	B204	4
Connector Name		SLIDING MOTOR LH (WITH AUTOMATIC DRIVE POSITIONER)
Connector Color	olor GRAY	λt
哥 H.S.		2 3 4 5
Terminal No.	Color of Wire	Signal Name
1	Α/A	-
2	GR/R	_
3	R/W	-
4	B/L	_
5	R/G	I

Signal Name	RR LIFTER UP MTR	RR LIFTER DN MTR	BATE (FUSE)	ı	SLIDE BACKWD MTR	1	RECLINE MTR BACKW	FR LIFTER UP MTR	ı	1	1
Color of Wire	GR	В	9	1	R/Υ	_	G/B	G/Y	-	_	В
Terminal No.	38	39	40	41	42	43	44	45	46	47	48

Connector No.		B203
Connector Name		DRIVER SEAT CONTROL UNIT
Connector Color	-	WHITE
语 H.S.	33 34 40 41	35     36     36     37     38     39       42     43     44     45     46     47     48
Terminal No.	Color of Wire	of Signal Name
33	M/B	BAT(PTC)
34	_	ı
35	R/G	SLIDE FWD MTR
36	٦	RECLINE FWD MTR
37	В	FR LIFTER DN MTR

7(	Connector Name (WITH AUTOMATIC DRIVE POSITIONER)	AY	2 3 4 5	Signal Name	-	_	1	ı	_
). B207	me PW LF	lor GRAY		Color of Wire	В	GR/R	R/W	Y/G	G/Y
Connector No.	Connector Na	Connector Color	H.S.	Terminal No.	-	2	က	4	5

Connector No.		B206
Connector Name		(WITH AUTOMATIC DRIVE POSITIONER
Connector Color	lor W	WHITE
明 H.S.		1 2 3 4 5
Terminal No.	Color of Wire	f Signal Name
-	œ	ı
2	GR/R	ı
က	B/W	ı
4	В	-
2	GR	I

Connector Name (WITH POSITI	WHI WHI	Connector Name (WITH AUTOMATIC DRIVE POSITIONER)  Connector Color WHITE
Connector Color	HM -	
		1 K 1 1 1 1 1 1
H.S.	J	
Terminal No. Wi	Color of Wire	Signal Name
1 R,	R/B	ı
7 7	_	I
3	G/B	ı
4 GF	GR/R	1

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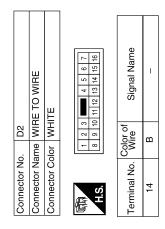
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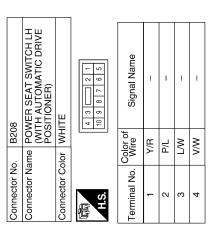
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Signal Name	ı	1	I	I	I	-	
Color of Wire	L/R	G/R	B/W	ı	>	BR/Y	
Terminal No.	2	9	7	8	6	10	

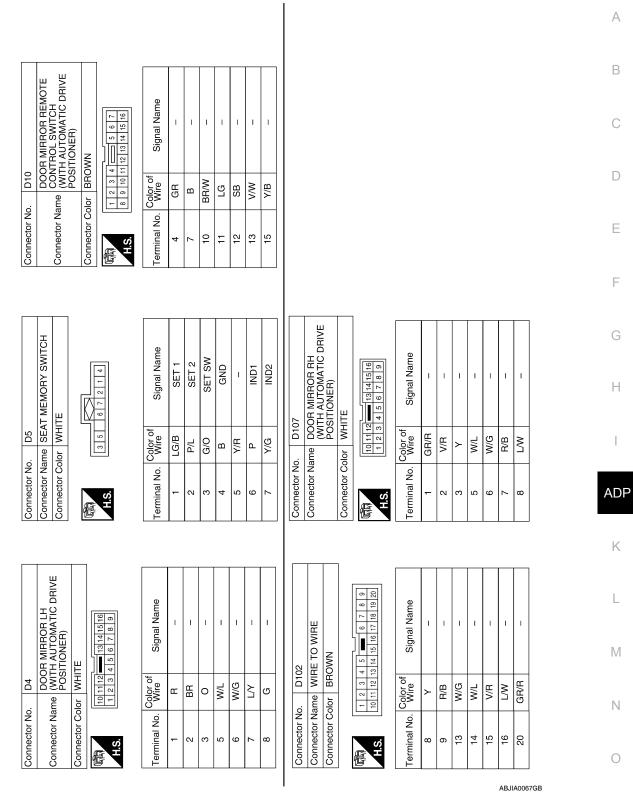


Signal Name	I	I	I	I	I	I	ı	ı	I	ı	ı	I	I
Color of Wire	Y/B	W/N	GR	BR	ŋ	0	M/G	ζ	M/L	В	ГG	Y/R	BR/W
Terminal No.	6	10	÷.	12	13	14	15	16	17	18	19	20	21

Connector No.	Ž	ا ا		2	_									
Connector Name WIRE TO WIRE	ž	ag	О	≥	<u> </u>	-	0	⋝	뿚	١				
Connector Color BROWN	õ	응	_	B	တြ	Ĭ	_							
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SH	12	13	4	12 13 14 15 16 17 18 19 20 21 22 23 24	9	17	8	6	20	21	22	23	24	
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16 17 18 19 20 21 22 23 24	Signal Name	ı	I	ı	I	1	I	
12 13 14 15 1		P/L	0/9	J//G	Ь	TG/B	SB	
H.S.	Terminal No.	-	2	က	4	2	8	

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Fail Safe

The fail-safe mode may be activated if the following symptoms are observed.

#### **FAIL-SAFE MODE**

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

#### **DRIVER SEAT CONTROL UNIT**

#### < ECU DIAGNOSIS >

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

#### NOTE:

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

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

<sup>\*:</sup> In conjunction with sliding the seat, the door mirrors are positioned.

#### CANCEL OF FAIL-SAFE MODE

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

DTC Index

CONSULT-III	Tim	ing <sup>*1</sup>		
display	Current mal- function	Previous mal- function	Item	Reference page
CAN COMM CIRCUIT [U1000]	0	1-39	CAN communication	ADP-29
SEAT SLIDE [B2112]	0	1-39	Seat slide motor output	ADP-30
SEAT RECLINING [B2113]	0	1-39	Seat reclining motor output	ADP-31
SEAT LIFTER FRONT [B2114]	0	1-39	Seat lifting motor front output	ADP-32
SEAT LIFTER REAR [B2115]	0	1-39	Seat lifting motor rear output	ADP-33
ADJ PEDAL MOTOR [B2117]	0	1-39	Pedal adjusting motor output	ADP-34
ADJ PEDAL SENSOR [B2120]	0	1-39	Pedal adjusting sensor input	ADP-36
DETENT SW [B2126]	0	1-39	Park position switch condition	ADP-38
UART COMM [B2128]	0	1-39	UART communication	ADP-40

<sup>\*1:</sup> 

<sup>• 0:</sup> Current malfunction is present

<sup>• 1-39:</sup> Displayed if any previous malfunction is present when current condition is normal. The numeral value increases by one at each IGN ON to OFF cycle from 1 to 39. The counter remains at 39 even if the number of cycles exceeds it. However, the counter is reset to 1 if any malfunction is detected again, the normal operation is resumed and the ignition switch is turned from OFF to ON.

< ECU DIAGNOSIS >

## **AUTOMATIC DRIVE POSITIONER CONTROL UNIT**

Reference Value INFOID:0000000004110929

#### **TERMINAL LAYOUT**

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 33|34|35|36| - 37|38|39 40 41 42 43 44 45 46 47 48 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |

#### PHYSICAL VALUES

Terr	ninal No.		Description				
+	-	Wire color	Signal name	Input/ Out- put	Condition	on	Voltage (V) (Approx.)
			Changeover switch RH		Changeover	RH	0
2	Ground	LG	signal	Input	switch position	Neutral or LH	5
3	Ground	Y/B	Mirror switch up signal	Input	Mirror switch	Operated (up)	0
5	Ground	170	will of switch up signal	iliput	WIIITOI SWITCH	Other than above	5
4	Ground	V/W	Mirror switch left signal	Input	Mirror switch	Operated (left)	0
7	Ground	V/VV	Will of Switch left Signal	iliput	WIIITOI SWITCH	Other than above	5
5	Ground	R/B	Door mirror sensor (RH)	Input	Door mirror RH	Peak	3.4
5	Ground	IVD	up/down signal	IIIput	position	Valley	0.6
6	Ground	L/Y	Door mirror sensor (LH)	Input	Door mirror LH	Peak	3.4
O	Ground	L/ I	up/down signal	iliput	position	Valley	0.6
8	Ground	BR/Y	Pedal sensor input sig-	Input	Pedal sensor	Forward	0.5
O	Ground	DIVI	nal	iliput	i edal serisoi	Backward	4.5
						Push	0
9	Ground	LG/B	Memory switch 1 signal	Input	Memory switch 1	Other than above	5
10	Ground	L	UART LINE (TX)	Out- put	Ignition switch ON	I	(V) 6 4 2 0 1 ms
				0 1	NA	Illuminate	0
12	Ground	Р	Memory indictor 1 signal	Out- put	Memory indictor 1	Other than above	Battery voltage

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**ADP-117** 

	minal No.	10313	Description				
+	-	Wire color	Signal name	Input/ Out- put	Condition	on	Voltage (V) (Approx.)
				Out	Maman, indiator	Illuminate	0
13	Ground	Y/G	Memory indictor 2 signal	Out- put	Memory indictor 2	Other than above	Battery voltage
14	Ground	GR/R	Door mirror motor (RH)	Out-	Door mirror RH	Operate (up)	1.5 - Battery voltage
	0.00		up output signal	put		Other than above	0
15	Ground	V/R	Door mirror motor (RH)	Out-	Door mirror RH	Operate (left)	1.5 - Battery voltage
			left output signal	put		Other than above	0
			Door mirror motor (LH)			Operate (down)	1.5 - Battery voltage
16	Ground	0	down output signal	Out-	Door mirror (LH)	Other than above	0
		-	Door mirror motor (LH)	put		Operate (right)	1.5 - Battery voltage
			right output signal			Other than above	0
			Changeover switch LH		Changeover	LH	0
18	Ground	BR/W	signal	Input	switch position	Neutral or RH	5
19	Ground	SB	Mirror switch down sig-	Input	Mirror switch	Operate (down)	0
13	Oround	OD	nal	трис	WIIITOI SWILCII	Other than above	5
20	Ground	GR	Mirror switch right signal	Input	Mirror switch	Operate (right)	0
20	Ground	Oit	Will of Switch Hight Signal	трис	WIIITOI SWILCII	Other than above	5
21	Ground	L/W	Door mirror sensor (RH)	Input	Door mirror RH	Left edge	3.4
	Ground	L/ V V	left/right signal	iiiput	position	Right edge	0.6
22	Ground	G	Door mirror sensor (LH)	Input	Door mirror LH	Left edge	0.6
			left/right signal		position	Right edge	3.4
24	Ground	G/O	Set switch signal	Input	Set switch	Push Other than	0
						above Push	5 0
25	Ground	P/L	Memory switch 2 signal	Input	Memory switch 2	Other than above	5
26	Ground	W	UART LINE (RX)	Input	Ignition switch ON	I	(V) 6 4 2 0 2 ms

#### < ECU DIAGNOSIS >

Terr	minal No.		Description				
+	ı	Wire color	Signal name	Input/ Out- put	Condition	on	Voltage (V) (Approx.)
			Door mirror motor (RH)			Operate (down)	1.5 - Battery voltage
30	Ground	Y	down output signal	Out-	Door mirror (RH)	Other than above	0
30	Giouna	T	Door mirror motor (RH)	put	Door Hillfor (RH)	Operate (right)	1.5 - Battery voltage
			right output signal			Other than above	0
31	Ground	R	Door mirror motor (LH)	Out-	Door mirror (LH)	Operate (up)	1.5 - Battery voltage
31	Giouna	K	up output signal	put	Door Hillfor (LH)	Other than above	0
32	Ground	BR	Door mirror motor (LH)	Out-	Door mirror (LH)	Operate (left)	1.5 - Battery voltage
32	Giodila	ых	left output signal	put	Door Hillion (ETT)	Other than above	0
33	Ground	W/L	Sensor power supply	Input	_	-	5
34	Ground	Y/R	Battery power source	Input	_		Battery voltage
37	Ground	G	Pedal adjusting motor	Out-	Pedal adjusting	Operate (forward)	Battery voltage
31	Oround	O	forward output signal	put	motor	Other than above	0
39	Ground	L/B	Battery power source		_	I	Battery voltage
40	Ground	B/W	Ground	_	_		0
41	Ground	W/G	Sensor ground	_	_		0
45	Ground	R	Pedal adjusting motor backward output signal	Out-	Pedal adjusting	Operate (back- ward)	Battery voltage
			backwaru output signal	put	motor	Other than above	0
48	Ground	В	Ground	_	_		0

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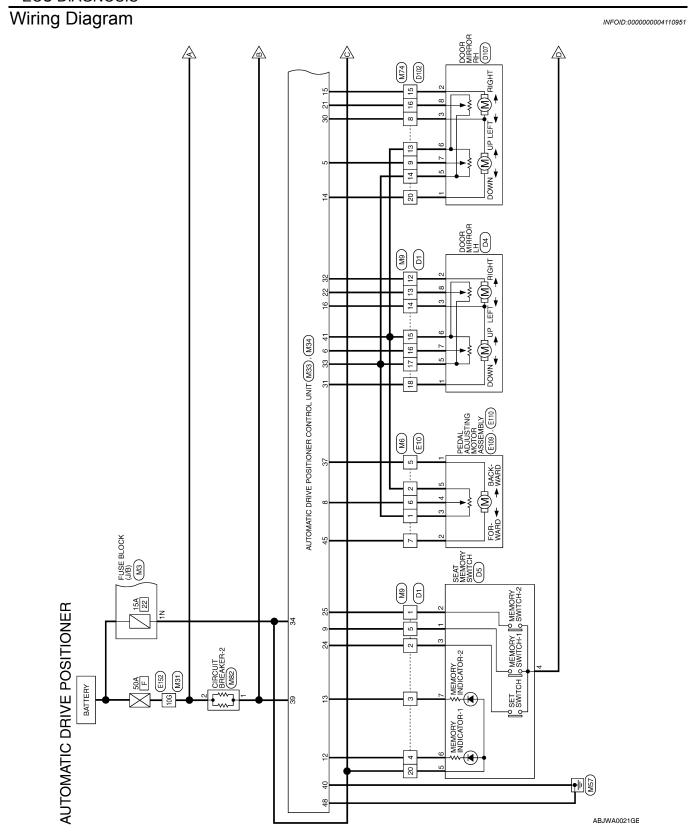
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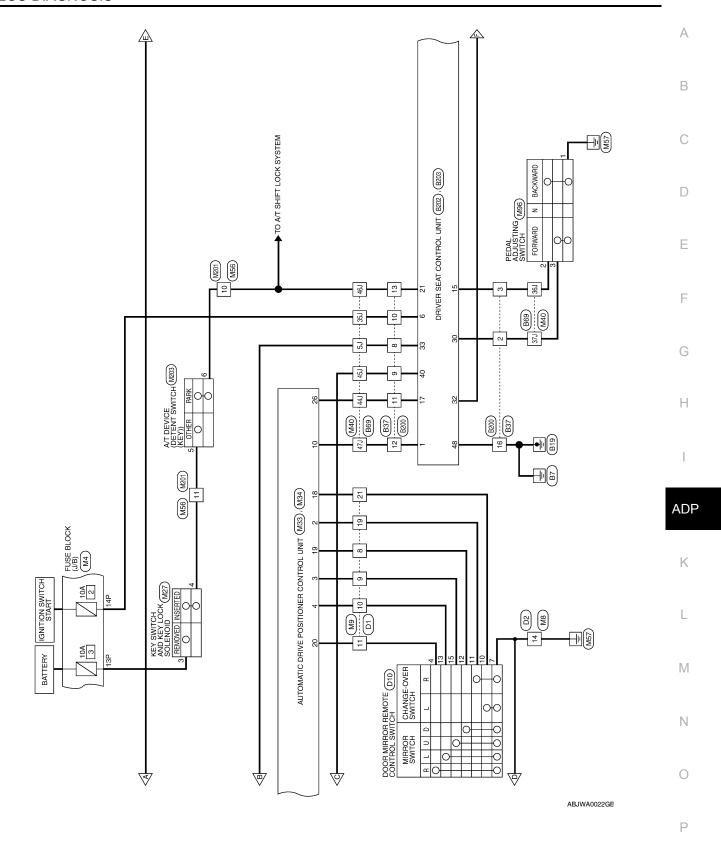
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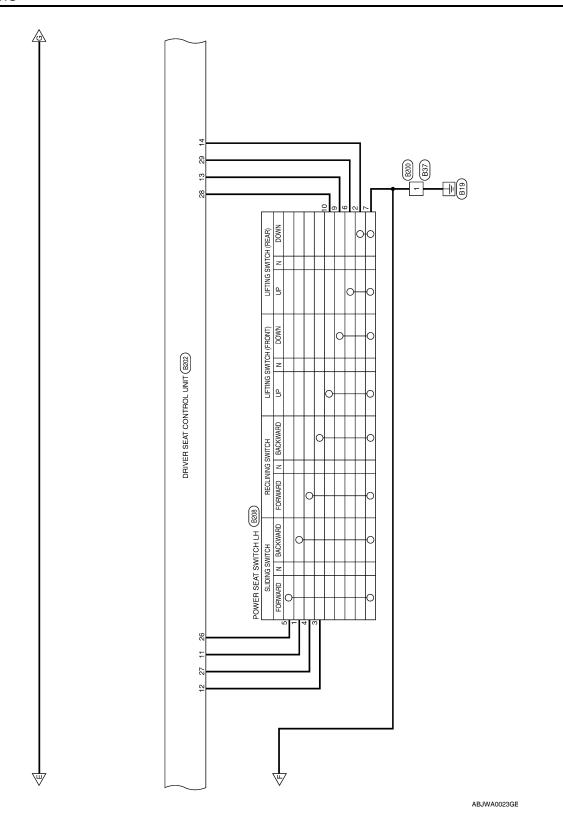
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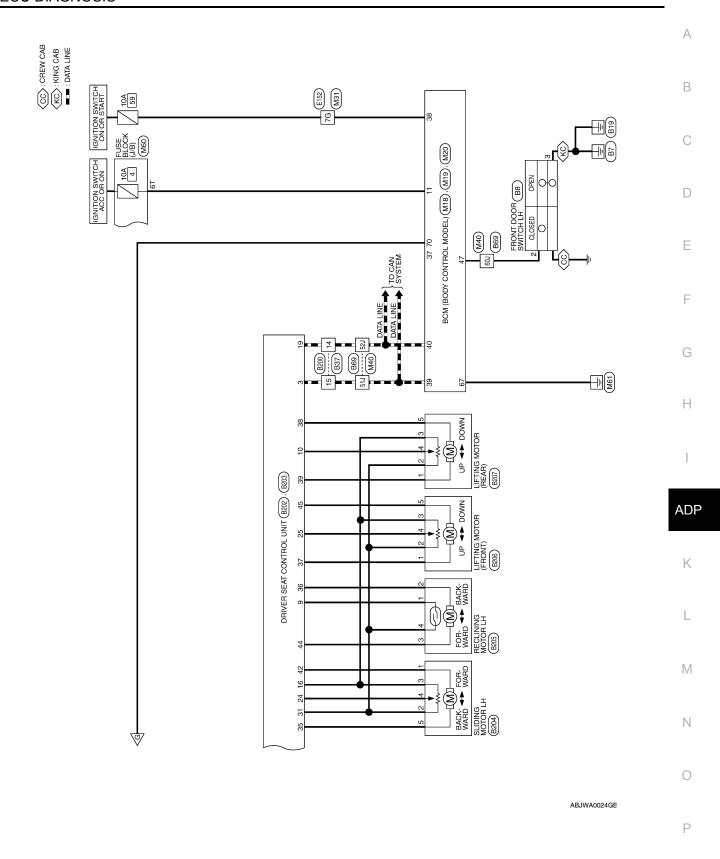
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Connector No. M6
Connector Name WIRE TO WIRE

Connector Color WHITE

# AUTOMATIC DRIVE POSITIONER CONNECTORS

Connector No.	M3
Connector Name	Connector Name FUSE BLOCK (J/B)
Connector Color WHITE	WHITE

Connector No. M4
Connector Name FUSE BLOCK (J/B)
Connector Color WHITE

	(J/B)		
M3	tor Name FUSE BLOCK (J/B)	WHITE	3N 2N 1N 8N 7N 6N 5N 4N
tor No.	tor Name	tor Color	



Signal Name	1	1	Ţ	I	I
Color of Wire	M/L	9/M	9	BR/Y	œ
Terminal No. Wire	-	2	2	9	7

Signal Name

Color of Wire

Terminal No.

0 4

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I	_	ı	I	
	Э	BR/Y	В	
N	2	9	7	
	1			

Signal Name	ı	ı	ı	ı	ı	ı	ı	1	1	1	ı	1	1	1
Color of Wire	SB	Y/B	W/N	GR	BR	g	0	W/G	₹	M/L	ж	LG	Y/R	BR/W
Terminal No.	8	6	10	Ξ	12	13	14	15	16	17	18	19	20	21
				•	•				•	•				

	WIRE TO WIRE	BROWN		6 5 4 3 2	20 19 18 17 16 15 14 13 12	Signal Name	I	1
M9		_		10 9 8	24 23 22 21	Color of Wire	P/L	0/5
Connector No.	Connector Name	Connector Color	[     		H.S.	Terminal No.	-	2
			•					

	or Name WIRE TO WIRE	ТЕ	7     6     5     4     3     2     1       16     15     14     13     12     11     10     9     8	Signal Name	ı
<u>o</u>	e WIF	r Color WHITE	7 6 5 16 15 14	Color of Wire	В
20.	r Nam	r Colo		o o o	

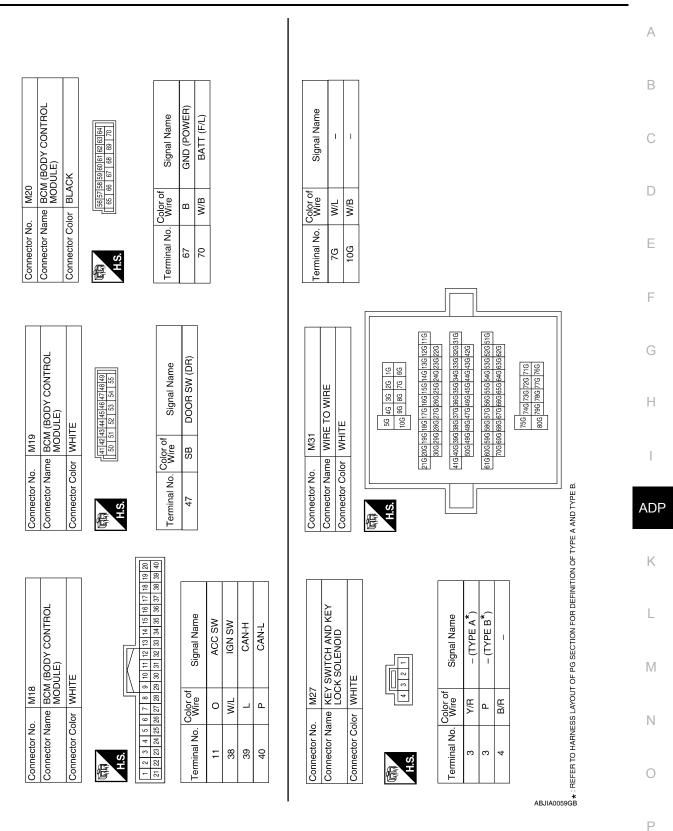
	WIRE TO WIRE	WHITE	5 4 3 2 1	16 15 14 13 12 11 10 9 8			Signal Nai	I
Ω —			7 6	16 15 1		Color of	Wire	В
Connector No.	Connector Name	Connector Color	管	) I	H.O.	-	i erminai No.	14

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Signal Name	I	SET_SW	MEMORY2_SW	ЯХ	-	_	1	RH_MTR_(COM)	LH_MTR_(UP-DWN)	LH_MTR_(LT)
Color of Wire	1	G/O	P/L	8	ı	ı	Ι	>	æ	BR
Terminal No.	23	24	25	26	27	28	59	30	31	32

Signal Name	PEDAL POTENTION	MEMORY1_SW	¥	1	MEMORY1_IND	MEMORY2_IND	RH_MTR_(UP-DN)	RH_MTR (LT)	LH_MTR (COM)	1	MIR_SELECT_SW_LH	MIR_MANU_SW_DN	MIR_MANU_SW_RH	HORIZONTAL_SENS	HORIZONTAL_SENS
Color of Wire	BR/Y	LG/B	٦	-	Ъ	Y/G	GR/R	N/R	0	ı	BR/W	SB	GR	MΠ	В
Terminal No.	8	6	10	11	12	13	14	15	16	17	18	19	20	12	22

	Т		ı									
	AUTOMATIC DRIVE POSITIONER CONTROL UNIT	ТЕ		9 10 11 12 13 14 15 16 25 26 27 28 29 30 31 32	Signal Name	_	MIR_SELECT_SW_RH	MIR_MANU_SW_UP	MIR_MANU_SW_LH	VERTICAL_SENS_RH	VERTICAL_SENS_LH	-
. M33		lor WHITE		6 7 8 9 10 22 23 24 25 26	Color of Wire	1	P	Y/B	M/N	B/B	∖	ı
Connector No.	Connector Name	Connector Color	南 H.S.	1 2 3 4 5 6 17 18 19 20 21 22	Terminal No.	٠	2	3	4	5	9	7

Signal Name	FORWARD	ı	BAT(PTC)	GND(SIG)	MEMORY(POT-RET)	I	1	I	PEDAL_RR_OUT	ı	I	GND(POWER)
Color of Wire	5	1	I/B	B/W	M/G	-	1	1	Œ	ı	ı	В
Terminal No.	37	38	39	40	41	42	43	44	45	46	47	48

M34	Connector Name AUTOMATIC DRIVE POSITIONER CONTROL UNIT	or WHITE	
Connector No.	onnector Nam	Connector Color WHITE	





Signal Name	MEMORY(POT_FEED)	BAT_(FUSE)	I	I
Color of Wire	M/L	Y/R	_	_
Terminal No.	33	34	35	36

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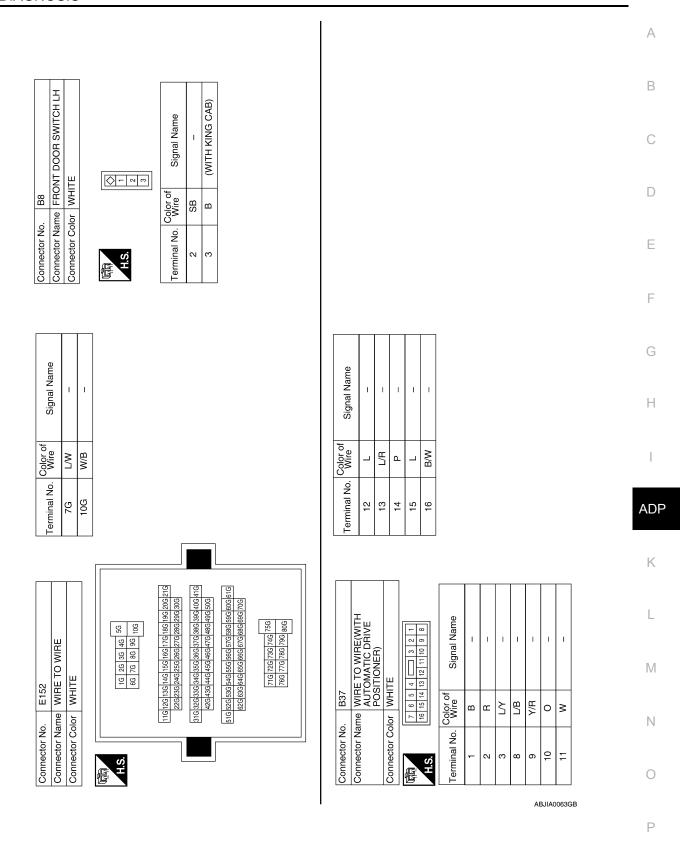
		А
Vame	BREAKER-2 WWER SEATS) Signal Name	В
O WIRE 12 13 14 5 1 1 14 1 14 1 14 1 14 1 14 1 14		С
2. M56 ame WIRE blor WHIT   8 9 10   WIRE WIRE WIRE WIRE WIRE WIRE WIRE WIRE	1 <del>                                     </del>	D
Connector No.   M56 Connector Name   WIRE T Connector Color   WHITE   1 2 3   1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Connector No.  Connector Name Connector Color  LS.  LS.  LS.  LAS.  LAS.  LAS.  LAS.	Е
		F
аше	3 e 11 12 12 12 12 12 12 12 12 12 12 12 12	G
Signal Name	M74	Н
Color of Wire		I
Terminal No. 5J 35J 35J 36J 44J 45J 47J 51J 52J 60J	M74   M74   Connector Name   WIRE TO WIRE   Connector Color   BROWN   Example   Exam	ADP
		K
3E    24   14   13   12   11     15   14   13   12   11     15   14   13   12   11     15   14   13   12   11     15   14   13   12   11     15   14   13   12   11     15   14   13   12   11     15   14   13   12   11     15   14   13   12   11     15   14   13   12   11     15   17   17     17   17     17   17     17   17	OCK (J/B)	L
M40   M1RE TO WIRE   M1   M2   M2   M2   M2   M3   M3   M3   M3	M60 FUSE BLOCK WHITE  Tright of Signs  Signs	M
	ctor No.	N
Conne	ABJIA0061GB	0
	ADJOUDALGE	Р

			_							
)3	Connector Name A/T DEVICE	TENT SWITCH (KEY))	<u>-</u>	8 9 10 11 12			Olyliai Ivallie	MS AJX INJIJA		PETENT KEY SW
). M20	me A/T	(DE	0	6 7		Color of	wire	B/B	5	<u>R</u>
Connector No. M203	Connector Na	30,000				Color of	ellilla No.	7.	>	9
							1			
01	Connector Name WIRE TO WIRE	ITE		7 6 5 4 6 7 12 11 10 9 8		Signal Name			I	
). M201	ame WIF	olor WHITE		7 6 1		Color of Wire	<u> </u>	:	B/R	
Connector No.	Connector Na	Connector Color		H.S.		Terminal No. Wire	10	2	Ξ	
				1				_		
	AL ADJUSTING SWITCH	Connector Name (WITH AUTOMATIC DRIVE   POSITIONER)	NMC	5 1 3 6		Signal Name	-		ı	ı
). M96	PED,	ame (WIT POS	olor BR0	2 4	, c	Wire	В		<u>`</u>	œ
Connector No.   M96		Connector No	Connector Color BROWN	H.S.		Terminal No. Wire	-		N	က

0 0

	Œ							1	7
0	Connector Name PEDAL ADJUSTING MOTOR ASSEMBLY	٨٨	3 4 5		Signal Name	-	1	1	
E110	ne PEI AS	or GR.			Solor of Wire	M/L	BR/Y	M/G	
Connector No.	Connector Nar	Connector Color GRAY	H.S.		Terminal No. Wire	က	4	5	
	OR					1		1	
6(	Connector Name PEDAL ADJUSTING MOTOR ASSEMBLY	ΑY			Signal Name	1	ı		
. E109	me PEI ASS	lor GR,			Color of Wire	g	æ		
Connector No.	Connector Na	Connector Color GRAY	H.S.		Terminal No. Wire	-	2		
	E TO WIRE	!	7 7 8 8 9 10 10 H	Signal Name		1	ı	1	
o. E10	ame WIRE		1 2 9	Color of Wire	M/L	M/G	В	BR/Y	æ
Connector No.	Connector Name WIRE TO WIRE		用.S.	Terminal No.	-	2	5	9	7

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D E TO WIRE (WITH AUTO	MATIC DRIVE POSITIONER)	里   	3 4 5 6 7	11 12 13 14 15		Signal Name	ı	ı	ı	ı	ı	ı	ı	ı	ı	1	1	1	Signal Name	1	P RANGE SW	ı	I	PULSE SLIDE		PULSE FR LIFTER	SLIDE FWD SW	RECLINE FWD SW	RR LIFTER UP SW	RR LIFTER UP SW	PEDAL FORWARD	SENSOR GND	GND (SIGNAL)
		lor   WHITE	1	6	Color of	Wire	G/W	$\sim$	SB	M/B	5	ш	Y/R	8	_	ŋ	L/B	В	Color of Wire	1	٦	ı	ı	R/L		Y/G	L/R	V/W	BR/Y	G/R	$\sim$	GR/R	G/W
Connector No.		Connector Color		S		Terminal No.	-	2	က	8	6	10	11	12	13	14	15	16	Terminal No.	20	21	22	23	24		25	26	27	28	59	30	31	32
	l i				-	•														•	•				_								
Signal Name	ı	ı	1	1	ı	1	1	1	1	1	ı								Signal Name	1	1	PULSE RECLING	PULSE RR LIFTER	SLDIE BACK WD SW	RECLINE BACK WD SW	FRONT LIFT DN SW	FRONT LIFT DN SW	PEDAI BACK		PEDAL SUPPLY	ΧL	I	CAN-L
Color of Wire	L/B	0	5	æ	8	Y/R	5	_	_	۵	SB								Color of Wire	1	1	B/B	B/B		<u>w</u>	>	P/L	SB		Y/R	Y/R	<u> </u>	ŋ
Terminal No.	5.1	35J	36J	37J	44)	45J	46J	47.1	51J	52J	607								Terminal No.	7	8	6	10	11	12	13	14	15		16	17	18	19
Connector No. B69 Connector Name WIRE TO WIRE	Connoctor Color WHITE	_			10 20 31 40 32 FI 71 81 91	3	11.1   12.1   13.1   14.	22J 23J 24J 25J 26J 27J 28J 29J 30J	31.132.133.134.135.136.137.138.140.141.1	42.0 43.0 44.0 45.0 48.0 48.0 50.0	100   001   001   001   001	62.1 62.1 62.1 62.1 62.1 62.1 62.1 62.1		713 722 733 743 753	76J 77J 78J 78J 80J				Connector No. B202	Connector Name   DRIVER SEAT CONTROL   UNIT	Connector Color WHITE		A	18 19 20 21 22 23 24 25 26 27 28 29 30 31	30,000	Terminal No.   Wire   Signal Name	W RX	2	3 L/B CAN-H	- 4	2	8T SW	

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Connector No.	. B204	4
Connector Name		SLIDING MOTOR LH (WITH AUTOMATIC DRIVE POSITIONER)
Connector Color	lor GRAY	٨٢
南 H.S.		2345
Terminal No.	Color of Wire	Signal Name
1	R/Υ	_
2	GR/R	-
3	R/W	_
4	B/L	_
5	R/G	_

Signal Name	RR LIFTER UP MTR	RR LIFTER DN MTR	BATE (FUSE)	1	SLIDE BACKWD MTR	-	RECLINE MTR BACKW	FR LIFTER UP MTR	_	_	-
Color of Wire	GR	Œ	g	ı	₽/A	I	G/B	G/Y	1	I	В
Terminal No.	38	39	40	41	42	43	44	45	46	47	48

Connector No.		B203
Connector Name		DRIVER SEAT CONTROL UNIT
Connector Color	-	WHITE
语 H.S.	33 34 40 41	35     36     36     37     38     39       42     43     44     45     46     47     48
Terminal No.	Color of Wire	of Signal Name
33	M/B	BAT(PTC)
34	_	ı
35	R/G	SLIDE FWD MTR
36	٦	RECLINE FWD MTR
37	В	FR LIFTER DN MTR

7(	Connector Name (WITH AUTOMATIC DRIVE POSITIONER)	AY	2 3 4 5	Signal Name	-	_	1	ı	_
). B207	me PW LF	lor GRAY		Color of Wire	В	GR/R	R/W	Y/G	G/Y
Connector No.	Connector Na	Connector Color	H.S.	Terminal No.	-	2	က	4	5

- [				1						
	90	LIFTING MOTOR (FRONT) (WITH AUTOMATIC DRIVE POSITIONER	WHITE	1 2 3 4 5	Signal Name	1	ı	ı	ı	1
					Color of Wire	<u>~</u>	GR/R	W/W	<u>m</u>	GR
	Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	-	2	က	4	2

Connector No.		B205	
Connector Na	ame (	NT WT	RECLINING MOTOR LH Connector Name (WITH AUTOMATIC DRIVE POSITIONER)
Connector Color WHITE	Nor V	¥	巴
用.S.			1 2 3 4
Terminal No.	Color of Wire	e of	Signal Name
-	R/B	m	ı
2	_		ı
3	G/B	m	ı
4	B/AD	'n.	I

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Connector No. D2 Connector Name WIRET Connector Color WHITE  T 2 3 6 9 10 11	e ∞	Connector No. D2  Connector Name WIRE TO WIRE  Connector Color WHITE  To a man 4 5 6 7  H.S.
Color of Wire 14 B	Color of Wire B	Signal Name

Signal Name	_	-	-	ı	_	_
Color of Wire	L/R	G/R	B/W	ı	^	BR/Y
Terminal No.	2	9	7	80	6	10

81	POWER SEAT SWITCH LH (WITH AUTOMATIC DRIVE POSITIONER)	ІТЕ	10 9 8 7 6 5	Signal Name	ĺ	ı	ı	1
B208		lor WHITE		Color of Wire	Y/R	P/L	MΠ	N/W
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	ļ	2	ε	4

Signal Name	ı	ı	ı	ı	ı	I	I	I	_	-	1	1	1
Color of Wire	Y/B	W/W	GR	BR	G	0	W/G	$\sim$	M/L	В	ГG	Y/R	BR/W
Terminal No.	6	10	11	12	13	14	15	16	17	18	19	20	21

Connector No.	D1	
Connector Name		WIRE TO WIRE
Connector Color		BROWN
TE SH	1 2 3 4 12 13 14 15	5 6 <b></b> 7 8 9 10 11 16 17 18 19 20 21 22 23 24
Terminal No.	Color of Wire	Signal Name
-	P/L	ı
2	0/9	ı
3	Y/G	ı
4	d	I
2	g/97	ı
8	as	ı

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IOTE DRIVE																								
DOOR MIRROR REMOTE CONTROL SWITCH (WITH AUTOMATIC DRIVE	NN NN	2 3 4 6 7 9 10 11 12 13 14 15 16	Signal Name	1	1	ı	1	1	ı	1														
me CONT		1 2 3 4 8 9 10 11	Color of Wire	GR	В	BR/W	P	SB	M/N	A//B														
Connector Name	Connector Color	师 H.S.	Terminal No.	4	7	10	11	12	13	15														
SEAT MEMORY SWITCH WHITE		6 7 2 1 4	Signal Name	SET 1	SET 2	SET SW	GND	1	IND1	IND2		3 MIRROR RH	(WITH AUTOMATIC DRIVE POSITIONER)	Ш	13 14 15 16 4 5 6 7 8 9	Signal Name	ı	ı	ı	1	ı	ı	ı	
	뚝	3 2	Color of Wire	LG/B	P/L	0/5	В	Y/R	۵	Y/G	lŀ	e	(WITH POSI	lor WHITE	101112	Color of Wire	GR/R	N/R	>	M/L	M/G	R/B	N/	
Connector Name Connector Color	E	H.S.	Terminal No.	-	2	3	4	2	9	7		Connector No.		Connector Color	F.S.	Terminal No.	1	2	က	2	9		8	
														7										
DOOR MIRROR LH (WITH AUTOMATIC DRIVE POSITIONER)	ų.	10 11 12 3 4 5 6 7 8 9	Signal Name	1	ı	1	_	ı	ı	I		D102 WIRE TO WIRE	NM		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Signal Name	1	1	ı	ı	ı	ı	1	
	lor WHITE	1 2 3 4	Color of Wire	ч	BB	0	T/M	9/M	5	ŋ		ع		_	1 2 3 4 10 11 12 13	Color of Wire	>	B/B	W/G	M/L	N/R	N/	GR/R	
Connector Name	Connector Color	(A)	Terminal No.	-	2	က	5	9	7	8		Connector No.	Connector Color		H.S.	Terminal No.	8	6	13	14	15	16	20	
																						ABJI	IA006	7GB

#### < ECU DIAGNOSIS >

# BCM (BODY CONTROL MODULE)

Reference Value

#### VALUES ON THE DIAGNOSIS TOOL

AIR COND SW         A/C switch OFF         OFF           ACT LIGHT SYS         Outside of the room is dark         OFF           OUtside of the room is bright         ON           AUTO LIGHT SW         Lighting switch OFF         OFF           Lighting switch AUTO         ON           CDL LOCK SW         Door lock/unlock switch does not operate         OFF           CDL UNLOCK SW         Press door lock/unlock switch does not operate         OFF           CDL UNLOCK SW         Press door lock/unlock switch to the LOCK side         ON           DOOR SW-AS         Front door RH closed         OFF           Press door lock/unlock switch to the UNLOCK side         ON           DOOR SW-AS         Front door RH opened         ON           Front door RH opened         ON           DOOR SW-BR         Front door LH opened         ON           DOOR SW-RL         Rear door LH opened         ON           DOOR SW-RR         Rear door RH closed         OFF           Rear door RH closed         OFF           PRESS door RH opened         ON           Engine stopped         OFF           Engine stopped         OFF           Engine stopped         OFF           Front fog lamp switch OFF         OFF	Monitor Item	Condition	Value/Status		
AC switch ON ON OFF  AUT LIGHT SYS Outside of the room is dark OFF  Outside of the room is bright ON ON  AUTO LIGHT SW Lighting switch OFF OFF  Lighting switch OFF OFF  CDL LOCK SW Door lock/unlock switch does not operate OFF  Press door lock/unlock switch to the LOCK side ON ON  CDL UNLOCK SW Press door lock/unlock switch to the UNLOCK side ON OFF  Press door lock/unlock switch does not operate OFF  Press door lock/unlock switch does not operate OFF  Press door lock/unlock switch to the UNLOCK side ON OFF  DOOR SW-AS Front door RH closed OFF  Front door RH closed OFF  Front door LH closed OFF  Prent door LH closed OFF  Prent door LH closed OFF  Rear door LH closed OFF  Rear door LH closed OFF  Rear door RH closed OFF  Front tog lamp switch OFF  Front of g lamp switch OFF  Front washer switch OFF  Front washer switch OFF  Front wiper switch OFF  OFF  Front wiper s	AID COND CW	A/C switch OFF	OFF		
AUTO LIGHT SYS         Outside of the room is bright         ON           AUTO LIGHT SW         Lighting switch OFF         OFF           Lighting switch OFF         OFF           Lighting switch AUTO         ON           CDL LOCK SW         Door lock/unlock switch does not operate         OFF           Press door lock/unlock switch to the LOCK side         ON           DOOR SW-AS         Front door RH closed         OFF           Front door RH closed         OFF           DOOR SW-DR         Front door LH closed         OFF           Front door LH closed         OFF           DOOR SW-RL         Rear door LH closed         OFF           BOOR SW-RR         Rear door LH closed         OFF           Rear door LH opened         ON         ON           BOOR SW-RR         Rear door RH closed         OFF           Rear door RH opened         ON         ON           Engine stopped         OFF           Engine stopped         OFF           Engine stopped         OFF           Engine stopped         OFF           Eront tog lamp switch OFF         OFF           Front tog lamp switch OFF         OFF           Front washer switch OFF         OFF           Fro	AIR COND SW	A/C switch ON	ON		
Outside of the room is bright	AUT LIGHT SYS	Outside of the room is dark	OFF		
AUTO LIGHT SW	AUT LIGHT 515	Outside of the room is bright	ON		
Lighting switch AUTO	ALITO LIGHT SW	Lighting switch OFF	OFF		
CDL LOCK SW         Press door lock/unlock switch to the LOCK side         ON           CDL UNLOCK SW         Door lock/unlock switch does not operate         OFF           Press door lock/unlock switch to the UNLOCK side         ON           DOOR SW-AS         Front door RH closed         OFF           DOOR SW-DR         Front door LH closed         OFF           Front door LH opened         ON         ON           DOOR SW-RL         Rear door LH closed         OFF           Rear door LH opened         ON         ON           Bear door RH opened         ON         ON           ENGINE RUN         Engine stopped         OFF           Engine running         ON         ON           FR FOG SW         Front fog lamp switch OFF         OFF           Front fog lamp switch OFF         OFF           Front washer switch OFF         OFF           Front washer switch OFF         OFF           Front wiper switch OFF <td>AUTO LIGITI SW</td> <td>Lighting switch AUTO</td> <td>ON</td>	AUTO LIGITI SW	Lighting switch AUTO	ON		
CDL UNLOCK SW         Press door lock/unlock switch does not operate         OFF           DOOR SW-AS         Front door RH closed         OFF           DOOR SW-AS         Front door RH closed         OFF           Front door LH closed         OFF           Front door LH opened         ON           DOOR SW-DR         Front door LH closed         OFF           DOOR SW-RL         Rear door LH opened         ON           DOOR SW-RR         Rear door LH opened         ON           Rear door RH closed         OFF           Rear door RH closed         OFF           Rear door RH opened         ON           Engline stopped         OFF           Engine supped         OFF           Engine supped         OFF           Engine sunning         ON           Front fog lamp switch OFF         OFF           Front fog lamp switch OFF         OFF           Front washer switch OFF         OFF           Front washer switch OFF         OFF           Front wiper switch OFF         OFF           Front wiper switch OFF         OFF           Front wiper switch HI         ON           Front wiper switch OFF         OFF           Front wiper switch OFF         OFF<	CDL LOCK SW	Door lock/unlock switch does not operate	OFF		
CDL UNLOCK SW         Press door lock/unlock switch to the UNLOCK side         ON           DOOR SW-AS         Front door RH closed         OFF           Front door LH opened         ON           DOOR SW-DR         Front door LH closed         OFF           DOOR SW-RL         Rear door LH closed         OFF           Rear door LH opened         ON         ON           DOOR SW-RR         Rear door RH closed         OFF           Rear door RH opened         ON         ON           ENGINE RUN         Engine stopped         OFF           Engine stopped         OFF         OFF           FROG SW         Front fog lamp switch OFF         OFF           Front fog lamp switch OFF         OFF           Front washer switch OFF         OFF           Front washer switch OFF         OFF           Front wiper switch OFF         OFF           Front wiper switch LO         ON           FR WIPER HI         Front wiper switch OFF         OFF           Front wiper switch OFF         OFF           Front wiper switch OFF         OFF           Front wiper switch INT         ON           FR WIPER STOP         Any position other than front wiper stop position         OFF           Front	CDL LOCK SW	Press door lock/unlock switch to the LOCK side	ON		
DOOR SW-AS         Front door RH closed         OFF           Front door RH opened         ON           DOOR SW-DR         Front door LH closed         OFF           Front door LH opened         ON           DOOR SW-RL         Rear door LH closed         OFF           Rear door LH opened         ON           DOOR SW-RR         Rear door LH closed         OFF           Rear door RH opened         ON           ENGINE RUN         Engine stopped         OFF           Engine stopped         OFF           Front fog lamp switch OFF         OFF           Front fog lamp switch OFF         OFF           Front washer switch OFF         OFF           Front washer switch OFF         OFF           Front wiper switch OFF         OFF	CDL TIMI OCK SW	Door lock/unlock switch does not operate	OFF		
DOOR SW-AS         Front door RH opened         ON           DOOR SW-DR         Front door LH closed         OFF           DOOR SW-RL         Rear door LH closed         OFF           DOOR SW-RL         Rear door LH opened         ON           DOOR SW-RR         Rear door RH closed         OFF           Rear door RH opened         ON         OFF           ENGINE RUN         Engine stopped         OFF           Engine running         ON         OFF           Front fog lamp switch OFF         OFF           Front fog lamp switch OFF         OFF           Front washer switch OFF         OFF           Front washer switch OFF         OFF           Front wiper switch OFF         OFF           F	CDL UNLOCK SW	Press door lock/unlock switch to the UNLOCK side	ON		
Front door RH opened	DOOD OW AC	Front door RH closed	OFF		
DOOR SW-RL         Front door LH opened         ON           DOOR SW-RL         Rear door LH closed         OFF           Rear door LH opened         ON           DOOR SW-RR         Rear door RH closed         OFF           Rear door RH opened         ON           ENGINE RUN         Engine stopped         OFF           Engine running         ON           FR FOG SW         Front fog lamp switch OFF         OFF           Front fog lamp switch OFF         OFF           Front washer switch OFF         OFF           Front washer switch OFF         OFF           Front wiper switch INT         ON           Any position other than front wiper stop position         OFF           Front wiper stop position         ON           HAZARD SW         When hazard switch is not pressed         OFF           Uighting switch OFF         OFF           Lighting switch OFF         OFF           Lighting	DOOK SW-AS	Front door RH opened	ON		
Front door LH opened	DOOD OW DD	Front door LH closed	OFF		
DOOR SW-RL         Rear door LH opened         ON           DOOR SW-RR         Rear door RH closed         OFF           Rear door RH opened         ON           ENGINE RUN         Engine stopped         OFF           Engine running         ON           FR FOG SW         Front fog lamp switch OFF         OFF           Front fog lamp switch ON         ON           FR WASHER SW         Front washer switch OFF         OFF           Front washer switch ON         ON         ON           FR WIPER LOW         Front wiper switch OFF         OFF           Front wiper switch OFF         OFF         OFF           Front wiper switch INT         ON         ON           FR WIPER STOP         Any position other than front wiper stop position         OFF           HAZARD SW         When hazard switch is not pressed         OFF           Uighting switch OFF         OFF           Lighting switch OFF         OFF           Lighting switch OFF         OFF           HEADLAMP SW1         Headlamp switch OFF  <	DOOK SW-DK	Front door LH opened	ON		
Rear door LH opened	DOOD OW DI	Rear door LH closed	OFF		
DOOR SW-RR         Rear door RH opened         ON           ENGINE RUN         Engine stopped         OFF           Engine running         ON           FR FOG SW         Front fog lamp switch OFF         OFF           Front fog lamp switch ON         ON           FR WASHER SW         Front washer switch OFF         OFF           Front washer switch OFF         OFF           Front wiper switch INT         ON           Any position other than front wiper stop position         OFF           Front wiper stop position         OFF           HAZARD SW         When hazard switch is not pressed         OFF           Uighting switch OFF         OFF           Lighting switch OFF         OFF           Lighting switch OFF         OFF           HEADLAMP SW1         Headlamp switch OFF         OFF	DOOR SW-RL	Rear door LH opened	ON		
Rear door RH opened	DOOD OW DD	Rear door RH closed	OFF		
Engine running	DOOR SW-RR	Rear door RH opened	ON		
Engine running	ENCINE DUN	Engine stopped	OFF		
FR FOG SW         Front fog lamp switch ON         ON           FR WASHER SW         Front washer switch OFF         OFF           Front washer switch ON         ON           FR WIPER LOW         Front wiper switch OFF         OFF           FR WIPER HI         Front wiper switch OFF         OFF           Front wiper switch HI         ON         OFF           FR WIPER INT         Front wiper switch INT         ON           FR WIPER STOP         Any position other than front wiper stop position         OFF           Front wiper stop position         ON           HAZARD SW         When hazard switch is not pressed         OFF           Lighting switch OFF         OFF           Lighting switch 1st         ON           HEADLAMP SW1         Headlamp switch OFF         OFF	ENGINE RUN	Engine running	ON		
Front fog lamp switch ON	ED EOC SW	Front fog lamp switch OFF	OFF		
FR WASHER SW Front washer switch ON  FR WIPER LOW Front wiper switch OFF Front wiper switch LO ON  FR WIPER HI Front wiper switch OFF Front wiper switch OFF Front wiper switch HI ON  FR WIPER INT Front wiper switch OFF Front wiper switch OFF Front wiper switch INT ON  Any position other than front wiper stop position Front wiper stop position ON  HAZARD SW When hazard switch is not pressed When hazard switch is pressed ON  LIGHT SW 1ST Lighting switch OFF Lighting switch OFF  Headlamp switch OFF OFF  Headlamp switch OFF OFF	FR FOG SW	Front fog lamp switch ON	ON		
Front washer switch ON	ED WASHED SW	Front washer switch OFF	OFF		
FR WIPER LOW Front wiper switch LO  FR WIPER HI Front wiper switch OFF Front wiper switch HI ON  FR WIPER INT Front wiper switch OFF Front wiper switch INT ON  Any position other than front wiper stop position Front wiper stop position ON  HAZARD SW When hazard switch is not pressed When hazard switch is pressed ON  LIGHT SW 1ST Lighting switch OFF Lighting switch OFF  Headlamp switch OFF OFF OFF	FR WASHER SW	Front washer switch ON	ON		
Front wiper switch LO  FR WIPER HI  Front wiper switch OFF Front wiper switch HI  ON  FR WIPER INT Front wiper switch OFF Front wiper switch INT ON  Any position other than front wiper stop position Front wiper stop position ON  HAZARD SW When hazard switch is not pressed When hazard switch is pressed ON  LIGHT SW 1ST Lighting switch 1st HEADLAMP SW1  Front wiper switch OFF OFF OFF OFF OFF OFF OFF	ED WIDED LOW	Front wiper switch OFF	OFF		
FR WIPER HI Front wiper switch HI ON FR WIPER INT Front wiper switch OFF Front wiper switch INT ON Any position other than front wiper stop position FR WIPER STOP Any position other than front wiper stop position Front wiper stop position ON When hazard switch is not pressed When hazard switch is pressed ON LIGHT SW 1ST Lighting switch OFF Lighting switch 1st ON Headlamp switch OFF OFF	FR WIPER LOW	Front wiper switch LO	ON		
Front wiper switch HI ON  FR WIPER INT  Front wiper switch OFF Front wiper switch INT ON  Any position other than front wiper stop position  FR WIPER STOP  Any position other than front wiper stop position ON  When hazard switch is not pressed OFF When hazard switch is pressed ON  LIGHT SW 1ST  Lighting switch OFF Lighting switch OFF  Headlamp switch OFF OFF	ED WIDED HI	Front wiper switch OFF	OFF		
FR WIPER INT Front wiper switch INT ON  Any position other than front wiper stop position Front wiper stop position ON  HAZARD SW When hazard switch is not pressed When hazard switch is pressed ON  Lighting switch OFF Lighting switch 1st ON  Headlamp switch OFF OFF	FR WIFER HI	Front wiper switch HI	ON		
Front wiper switch INT ON  Any position other than front wiper stop position Front wiper stop position ON  HAZARD SW When hazard switch is not pressed When hazard switch is pressed ON  Lighting switch OFF Lighting switch 1st ON  Headlamp switch OFF OFF	ED WIDED INT	Front wiper switch OFF	OFF		
Front wiper stop position  HAZARD SW  When hazard switch is not pressed  When hazard switch is pressed  ON  Lighting switch OFF  Lighting switch 1st  HEADLAMP SW1  Front wiper stop position  ON  OFF  OFF  OFF  OFF	FR WIPER IN	Front wiper switch INT	ON		
Front wiper stop position ON  When hazard switch is not pressed OFF  When hazard switch is pressed ON  Lighting switch OFF  Lighting switch 1st ON  Headlamp switch OFF  OFF	ED WIDED STOD	Any position other than front wiper stop position	OFF		
HAZARD SW  When hazard switch is pressed  ON  Lighting switch OFF  Lighting switch 1st  HEADLAMP SW1  When hazard switch is pressed  ON  OFF  OFF  OFF	FR WIPER STOP	Front wiper stop position	ON		
When hazard switch is pressed ON  Lighting switch OFF OFF  Lighting switch 1st ON  Headlamp switch OFF OFF	HAZADD CW	When hazard switch is not pressed	OFF		
LIGHT SW 1ST  Lighting switch 1st  ON  Headlamp switch OFF  OFF	HAZARU 3VV	When hazard switch is pressed	ON		
Lighting switch 1st ON  Headlamp switch OFF OFF	LICHT OW ACT	Lighting switch OFF	OFF		
HEADLAMP SW1	LIGHT SW 151	Lighting switch 1st	ON		
Headlamp switch 1st ON	HEADI AMD SWA	Headlamp switch OFF	OFF		
	HEADLAIVIE 2001	Headlamp switch 1st	ON		

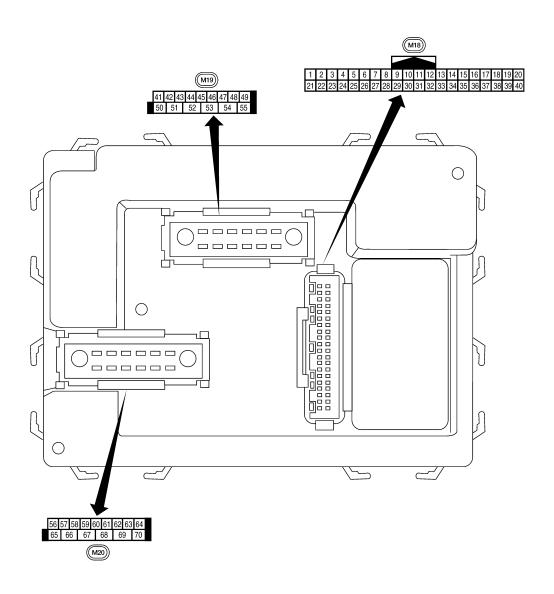
#### < ECU DIAGNOSIS >

Monitor Item	Condition	Value/Status				
LIEADI AMB CIMO	Headlamp switch OFF	OFF				
HEADLAMP SW2	Headlamp switch 1st	ON				
LILDEAM CVA	High beam switch OFF	OFF				
HI BEAM SW	High beam switch HI	ON				
H/L WASH SW	NOTE: The item is indicated, but not monitored	OFF				
IONI ONI OW	Ignition switch OFF or ACC	OFF				
IGN ON SW	Ignition switch ON	ON				
1011 011/ 0111	Ignition switch OFF or ACC	OFF				
IGN SW CAN	Ignition switch ON	ON				
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	1 - 7				
KEN ON OW	Key is removed from key cylinder	OFF				
KEY ON SW	Key is inserted to key cylinder	ON				
KEVI FOO I OOK	LOCK button of key fob is not pressed	OFF				
KEYLESS LOCK	LOCK button of key fob is pressed	ON				
KEVI EOO LINII OOK	UNLOCK button of key fob is not pressed	OFF				
KEYLESS UNLOCK	UNLOCK button of key fob is pressed	ON				
OIL PRESS SW	Ignition switch OFF or ACC     Engine running	OFF				
	Ignition switch ON	ON				
DACCING CW	Other than lighting switch PASS	OFF				
PASSING SW	Lighting switch PASS	ON				
	Rear window defogger switch OFF	OFF				
REAR DEF SW	Rear window defogger switch ON	ON				
RKE LOCK AND UN-	NOTE:	OFF				
LOCK	The item is indicated, but not monitored	ON				
TAIL LAND CW	Lighting switch OFF	OFF				
TAIL LAMP SW	Lighting switch 1ST	ON				
TUDNI CIONIAL I	Turn signal switch OFF	OFF				
TURN SIGNAL L	Turn signal switch LH	ON				
TUDN GIONI: T	Turn signal switch OFF	OFF				
TURN SIGNAL R	Turn signal switch RH	ON				
VEHICLE SPEED	While driving	Equivalent to speedometer reading				

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Terminal Layout



LIIA2443E

Physical Values

	\A/:	-	Signal		Measuring condition	Deference value or west-ferr
Terminal	Wire color	Signal name	input/ output	Ignition switch	Operation or condition	Reference value or waveform (Approx.)
1	DDAM	Ignition keyhole illumi-	Output	OFF	Door is locked (SW OFF)	Battery voltage
1	BR/W	nation	Output	OFF	Door is unlocked (SW OFF)	0V
2	SB	Combination switch input 5	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 + + 5ms SKIA5291E
3	G/Y	Combination switch input 4	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 + + 5ms SKIA5292E
4	Y	Combination switch input 3	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 + + 5ms SKIA5291E
5	G/B	Combination switch input 2				(V)
6	<b>V</b>	Combination switch input 1	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	*** 5ms SKIA5292E
		Rear window defogger			Rear window defogger switch ON	0V
9	Y/B	switch (Crew Cab)	Input	ON	Rear window defogger switch OFF	5V
11	0	Ignition switch (ACC or ON)	Input	ACC or ON	Ignition switch ACC or ON	Battery voltage
12	R/L	Front door switch RH (All)  Rear door switch lower RH (King Cab)	Input	OFF	ON (open)	0V
		Rear door switch upper RH (King Cab)			OFF (closed)	Battery voltage
13	GR	Rear door switch RH (Crew Cab)	Input	OFF	ON (open) OFF (closed)	0V Battery voltage
15	L/W	Tire pressure warning check connector	Input	OFF	— —	5V

	Wire		Signal		Measuring condition	Reference value or waveform
Terminal	color	Signal name	input/ output	Ignition switch	Operation or condition	(Approx.)
18	Р	Remote keyless entry receiver and optical sensor (ground)	Output	OFF	_	0V
19	V/W	Remote keyless entry receiver (power sup- ply)	Output	OFF	Ignition switch OFF	(V) 6 4 2 0 ***-50 ms
20	G/W	Remote keyless entry	Input	OFF	Stand-by (keyfob buttons released)	(V) 6 4 2 0 +-50 ms LIIA1894E
20	3,11	receiver (signal)	put	911	When remote keyless entry receiver receives signal from keyfob (keyfob buttons pressed)	(V) 6 4 2 0 ***50 ms
21	G	NATS antenna amp.	Input	OFF → ON	Ignition switch (OFF → ON)	Just after turning ignition switch ON: Pointer of tester should move for approx. 1 second, the return to battery voltage.
22	G	BUS	_	_	Ignition switch ON or power window timer operates	(V) 15 10 5 0 200 ms
23	G/O	Security indicator lamp	Output	OFF	Goes OFF → illuminates (Every 2.4 seconds)	Battery voltage → 0V
25	BR	NATS antenna amp.	Input	OFF → ON	Ignition switch (OFF $\rightarrow$ ON)	Just after turning ignition switch ON: Pointer of tester should move for approx. 1 second, the return to battery voltage.
27	W/R	Compressor ON signal	Input	ON	A/C switch OFF  A/C switch ON	5V 0V
28	L/R	Front blower monitor	Input	ON	Front blower motor OFF Front blower motor ON	Battery voltage 0V
29	W/B	Hazard switch	Input	OFF	ON OFF	0V 5V
31	P/L	Cargo lamp switch	Input	OFF	Cargo lamp switch ON Cargo lamp switch OFF	0  Battery voltage

	Wire		Signal		Measuring condition	Reference value or waveform
Terminal	color	Signal name	input/ output	Ignition switch	Operation or condition	(Approx.)
32	R/G	Combination switch output 5	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 **-5ms SKIA5291E
33	R/Y	Combination switch output 4	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 ****5ms
34	L	Combination switch output 3	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 **-5ms SKIA5291E
35	O/B	Combination switch output 2				0.0
36	R/W	Combination switch output 1	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 
37	B/R	Key switch and key	Input	OFF	Key inserted	Battery voltage
J1	ווע	lock solenoid	input	011	Key inserted	0V
38	W/L	Ignition switch (ON)	Input	ON	_	Battery voltage
39	L	CAN-H	_	_	_	_
40	Р	CAN-L	_	_	_	_
47	SB	Front door switch LH (All)  Rear door switch lower LH (King Cab)	Input	OFF	ON (open)	OV
		Rear door switch up- per LH (King Cab)			OFF (closed)	Battery voltage
40	D^/	Rear door switch LH	1	055	ON (open)	0V
48	R/Y	(Crew Cab)	Input	OFF	OFF (closed)	Battery voltage
50	R/Y	Cargo bed lamp con-	Output	OFF	Cargo lamp switch (ON)	0V
00		trol	Catput		Cargo lamp switch (OFF)	Battery voltage

	Wire		Signal		Measuring condition	Reference value or waveform
Terminal	color	Signal name	input/ output	Ignition switch	Operation or condition	(Approx.)
51	G/Y	Trailer turn signal (right)	Output	ON	Turn right ON	(V) 15 10 500 ms SKIA3009J
52	G/B	Trailer turn signal (left)	Output	ON	Turn left ON	(V) 15 10 5 0 500 ms
56	R/G	Battery saver output	Output	OFF	30 minutes after ignition switch is turned OFF	0V
30	100	battery saver output	Output	ON	_	Battery voltage
57	Y/R	Battery power supply	Input	OFF	_	Battery voltage
F0	W/D	Ontical concer	laavit	ON	When optical sensor is illuminated	3.1V or more
58	W/R	Optical sensor	Input	ON	When optical sensor is not illuminated	0.6V or less
	•	Front door lock as-			OFF (neutral)	0V
59	G	sembly LH actuator (unlock)	Output	OFF	ON (unlock)	Battery voltage
60	G/B	Turn signal (left)	Output	ON	Turn left ON	(V) 15 10 5 0 500 ms
61	G/Y	Turn signal (right)	Output	ON	Turn right ON	(V) 15 10 50 500 ms SKIA3009J
62	R/W	Step lamp LH and RH	Output	OFF	ON (any door open)	0V
		Stop tamp Errana (4)	Juipui	J. 1	OFF (all doors closed)	Battery voltage
63	L	Interior room/map lamp	Output	OFF	Any door switch ON (open) OFF (closed)	0V Battery voltage
65	٧	All door lock actuators (lock)	Output	OFF	OFF (neutral) ON (lock)	0V Battery voltage
66	G/Y	Front door lock actuator RH and rear door lock actuators LH/RH (unlock)	Output	OFF	OFF (neutral) ON (unlock)	0V  Battery voltage

## < ECU DIAGNOSIS >

Wire				Signal		Measuring condition	Reference value or waveform
Terminal	color	Signal name	input/ output	Ignition switch	Operation or condition	(Approx.)	
67	В	Ground	Input	ON	_	0V	
					Ignition switch ON	Battery voltage	
					Within 45 seconds after ignition switch OFF	Battery voltage	
68 W	W/L	Power window power supply (RAP)	Output	_	More than 45 seconds after ignition switch OFF	0V	
					When front door LH or RH is open or power window timer operates	0V	
69	W/R	Power window power supply	Output	_	_	Battery voltage	
70	W/B	Battery power supply	Input	OFF	_	Battery voltage	

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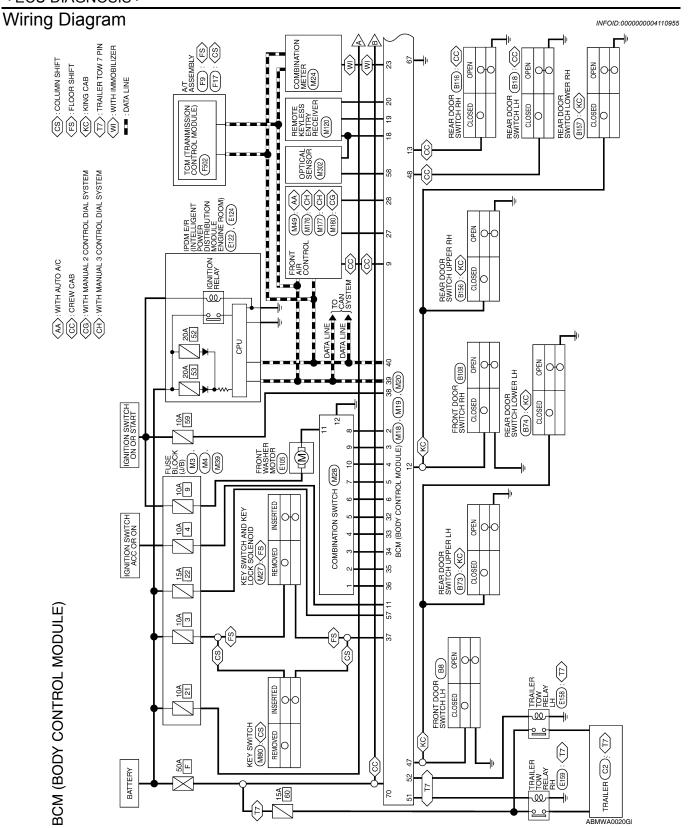
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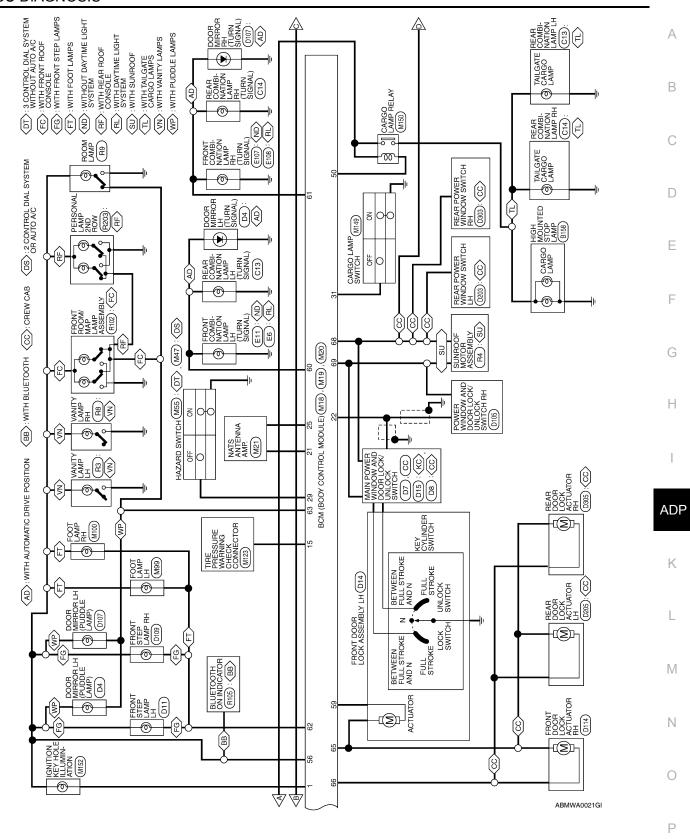
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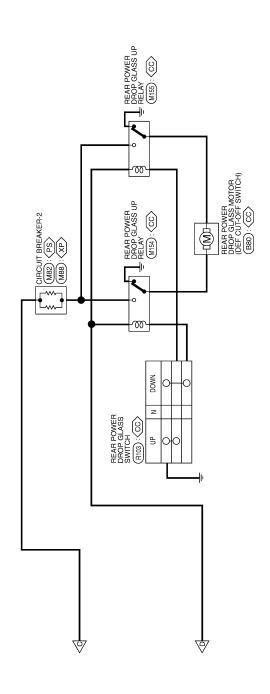
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# Connector No. M19 Connector Name BCM (BODY CONTROL MODULE) Connector Color WHITE

Signal Name	-	-	_	-	-	I	DOOR SW (DR)	DOOR SW (RL)	1	CARGO LAMP OUTPUT	TRAILER FLASHER OUTPUT (RIGHT)	TRAILER FLASHER OUTPUT (LEFT)	_	_	1
Color of Wire	1	ı	1	ı	ı	ı	SB	R/Υ	ı	R/Υ	G/Y	G/B	T	I	ı
erminal No.	41	42	43	44	45	46	47	48	49	20	51	52	53	54	55

Terminal No.	Color of Wire	Signal Name
16	-	_
17	-	-
18	Ь	KEYLESS AND AUTO LIGHT SENSOR GND
19	V/W	KEYLESS TUNER POWER SUPPLY OUTPUT
20	G/W	KEYLESS TUNER SIGNAL
21	9	IMMOBILIZER ANTENNA SIGNAL (CLOCK)
22	9	ANTI-PINCH SERIAL LINK (RX,TX)
23	0/9	SECURITY INDICATOR OUTPUT
24	ı	I
25	BR	IMMOBILIZER ANTENNA SIGNAL (RX, TX)
26	_	_
27	W/R	AIRCON SW
28	L/R	<b>BLOWER FAN SW</b>
29	W/B	HAZARD SW
30	_	_
31	P/L	CARGO LAMP SW
32	R/G	OUTPUT 5
33	В/Υ	OUTPUT 4
34	L	OUTPUT 3
35	O/B	OUTPUT 2
36	B/W	OUTPUT 1
37	B/R	KEY SW
38	W/L	IGN SW
39	L	CAN-H
40	Д	CAN-L

Connector No.	M18							
Connector Name BCM (BODY CONTROL MODULE)	BCM (BOD MODULE)	30DY -E)	CON	TRO	_			
Connector Color WHITE	WHITE							
H.S.								
	\ 							ſ
1 2 3 4 5 6 7	7 8 9 10	9 10 11 12 13 14 15 16 17 18 19	13 14	15 1	17	18	62	20
21 22 23 24 25 26 27 28 29 30 31 32 33 34 35	7 28 29 30	31 32	33	35	36 37 38 39	88	စ္က	40
							ı	1

BCM (BODY CONTROL MODULE) CONNECTORS

Signal Name	KEY RING OUTPUT	INPUT 5	INPUT 4	INPUT 3	INPUT 2	INPUT 1	1	1	REAR DEFOGGER SW	ı	ACC SW	DOOR SW (AS)	DOOR SW (RR)	1	TPMS MODE TRIGGER SW
Color of Wire	BR/W	SB	G/Y	<b>\</b>	G/B	۸	ı	1	Y/B	ı	0	B/L	GR	1	L/W
Terminal No.	-	2	ε	4	9	9	2	8	6	10	11	12	13	14	15

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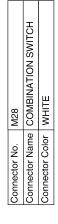
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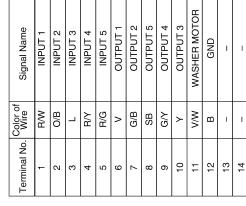
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-	Il No. Color of Signal Name Wire	R/G BATTERY SAVER OUTPUT	Y/R BAT (FUSE)	W/R AUTO LIGHT SENSOR INPUT 2	G DOOR UNLOCK OUTPUT (DR)	G/B FLASHER OUTPUT (LEFT)	G/Y FLASHER OUTPUT (RIGHT)	R/W STEP LAMP OUTPUT	L ROOM LAMP	1	V DOOR LOCK OUTPUT (ALL)	G/Y DOOR UNLOCK OUTPUT (OTHER)	B GND (POWER)	W/L POWER WINDOW POWER SUPPLY (RAP)	W/R POWER WINDOW
	Terminal No.	26	22	28	29	09	61	62	63	64	92	99	29	89	69

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# SYMPTOM DIAGNOSIS

# ADP SYSTEM SYMPTOMS

Symptom Table

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### NOTE:

Always perform the "Basic Inspection" before performing diagnosis in the following table. Refer to <u>ADP-4</u>, "Work Flow".

### SYMPTOM 1

Symptom	1	Diagnosis procedure	Reference page
	Sliding operation	Check sliding switch.	ADP-45
	Reclining operation	Check reclining switch.	ADP-47
	Lifting operation (front)	Check lifting switch (front).	ADP-49
	Lifting operation (rear)	Check lifting switch (rear).	ADP-51
Manual functions (for specific part) do	Dodal anaration	Check pedal adjusting switch.	ADP-53
not operate	Pedal operation	2. Check pedal adjusting sensor.	ADP-76
	Door mirror operation	1. Changeover switch.	ADP-58
	Door mirror operation	2. Mirror switch	ADP-60
	All parts of seat	Check power seat switch ground circuit.	ADP-63

### SYMPTOM 2

Symptom	1	Diagnosis procedure	Reference page
	Sliding operation	Check sliding sensor.	ADP-68
	Reclining operation	Check reclining sensor.	ADP-70
	Lifting operation (front)	Check lifting sensor (front).	ADP-72
Mamanufunations (for anasific part) do	Lifting operation (rear)	Check lifting sensor (rear).	ADP-74
Memory functions (for specific part) do not operate	Pedal operation	Check pedal adjusting sensor.	ADP-76
	Door mirror operation	Check door mirror sensor.	Driver side: ADP-78 Passenger side: ADP-80

### SYMPTOM 3

Sympton	1	Diagnosis procedure	Reference page
	Sliding operation	Check sliding motor.	ADP-82
	Reclining operation	Check reclining motor.	ADP-84
Memory functions and manual func-	Lifting operation (front)	Check lifting motor (front).	ADP-86
tions (for specific part) do not operate	Lifting operation (rear)	Check lifting motor (rear).	ADP-88
	Pedal operation	Check pedal adjusting motor.	ADP-90
	Door mirror operation	Check door mirror motor.	ADP-92

### SYMPTOM 4

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# **ADP SYSTEM SYMPTOMS**

# < SYMPTOM DIAGNOSIS >

Symptom	Diagnosis procedure	Reference page
	Check system setting.	ADP-11
Entry/Exit assist function does not operate.	2. Perform initialization.	ADP-7
	3. Check front door switch (driver side).	ADP-66

### SYMPTOM 5

Symptom	Diagnosis procedure	Reference page
Memory indicators 1 and/or 2 do not illuminate.	Check seat memory switch.	ADP-56
memory indicators i and/or 2 do not indiminate.	2. Check seat memory indicator.	ADP-95

# SYMPTOM 6

Symptom	Diagnosis procedure	Reference page
Memory operation does not operate.	Check A/T device (park position switch).	<u>ADP-64</u>

# **NORMAL OPERATING CONDITION**

# < SYMPTOM DIAGNOSIS >

# NORMAL OPERATING CONDITION

Description

The following symptoms are normal operations, and they do not indicate a malfunction.

Symptom	Cause	Action to take	Reference page
	No initialization has been performed.	Perform initialization.	ADP-7
Entry/Exit assist function does not operate.	Entry/exit assist function is disabled.  NOTE: The entry/exit assist function is disabled before delivery (initial setting).	Change the settings.	ADP-22
Entry assist function does not operate.	Manual operation with power seat switch was performed after exit assist function excution.	Perform the memory function.	<u>ADP-22</u>
			Memory function: ADP-17
Memory function, entry/exit assist function does not operate.	The operating conditions are not fulfilled.	Fulfill the operation conditions.	Exit assist function: ADP-20
			Entry assist function: ADP-22

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# **PRECAUTION**

# **PRECAUTIONS**

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

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

Precaution for Work

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

# **PREPARATION**

# **PREPARATION**

# **PREPARATION**

Special Service Tool

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

Tool number (Kent-Moore No.) Tool name		Description	
— (J-39570) Chassis ear		Locating the noise	
			E
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		Repairing the cause of noise	
(J-43980) NISSAN Squeak and Rattle Kit		, , , , , , , , , , , , , , , , , , , ,	H
	SIIA0994E		I

# **Commercial Service Tool**

INFOID:0000000003788990

(Kent-Moore No.) Tool name		Description	
(J-39565) Engine ear		Locating the noise	
	SIIA0995E		

# **DRIVER SEAT CONTROL UNIT**

< REMOVAL AND INSTALLATION >

# **REMOVAL AND INSTALLATION**

# DRIVER SEAT CONTROL UNIT

# Removal and Installation

The driver seat control unit is part of the driver seat. Remove the driver seat, then the driver seat control unit. Refer to <u>SE-31, "Removal and Installation"</u>.

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### **AUTOMATIC DRIVE POSITIONER CONTROL UNIT**

< REMOVAL AND INSTALLATION >

# AUTOMATIC DRIVE POSITIONER CONTROL UNIT

### Removal and Installation

### INFOID:0000000003788992

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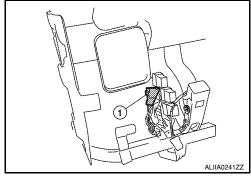
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### **CAUTION:**

When removing and installing, use shop cloths to protect parts from damage.

### REMOVAL

- 1. Disconnect the battery negative terminal.
- Remove the instrument driver lower panel. Refer to IP-16, "Removal and Installation".
- 3. Remove the screw from the automatic drive positioner control unit (1).
- 4. Remove automatic drive positioner control unit (1) from bracket and disconnect electrical connectors.



### **INSTALLATION**

Installation is in the reverse order of removal.

### **CAUTION:**

Clamp the harness in position.

### NOTE:

After installing the automatic drive positioner control unit, perform additional service when disconnecting battery negative terminal. Refer to <u>ADP-7</u>, "Special Repair Requirement".

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# **SEAT MEMORY SWITCH**

# < REMOVAL AND INSTALLATION >

# **SEAT MEMORY SWITCH**

# Removal and Installation

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Refer to INT-10. "Removal and Installation" for removal and installation of seat memory switch.

### DOOR MIRROR REMOTE CONTROL SWITCH

< REMOVAL AND INSTALLATION >

# DOOR MIRROR REMOTE CONTROL SWITCH

# Removal and Installation

INFOID:0000000003788994

The door mirror remote control switch is part of the power window switch assembly. Refer to MIR-14, "Door Mirror Assembly" for removal and installation of door mirror remote control switch.

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# **PEDAL ADJUSTING MOTOR**

# < REMOVAL AND INSTALLATION >

# PEDAL ADJUSTING MOTOR

# Removal and Installation

INFOID:0000000003788995

Refer to <u>ACC-3, "Removal and Installation"</u> for accelerator pedal and <u>BR-20, "Removal and Installation"</u> for brake pedal when removing pedal adjusting motors.