

ADP

SECTION

AUTOMATIC DRIVE POSITIONER

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DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

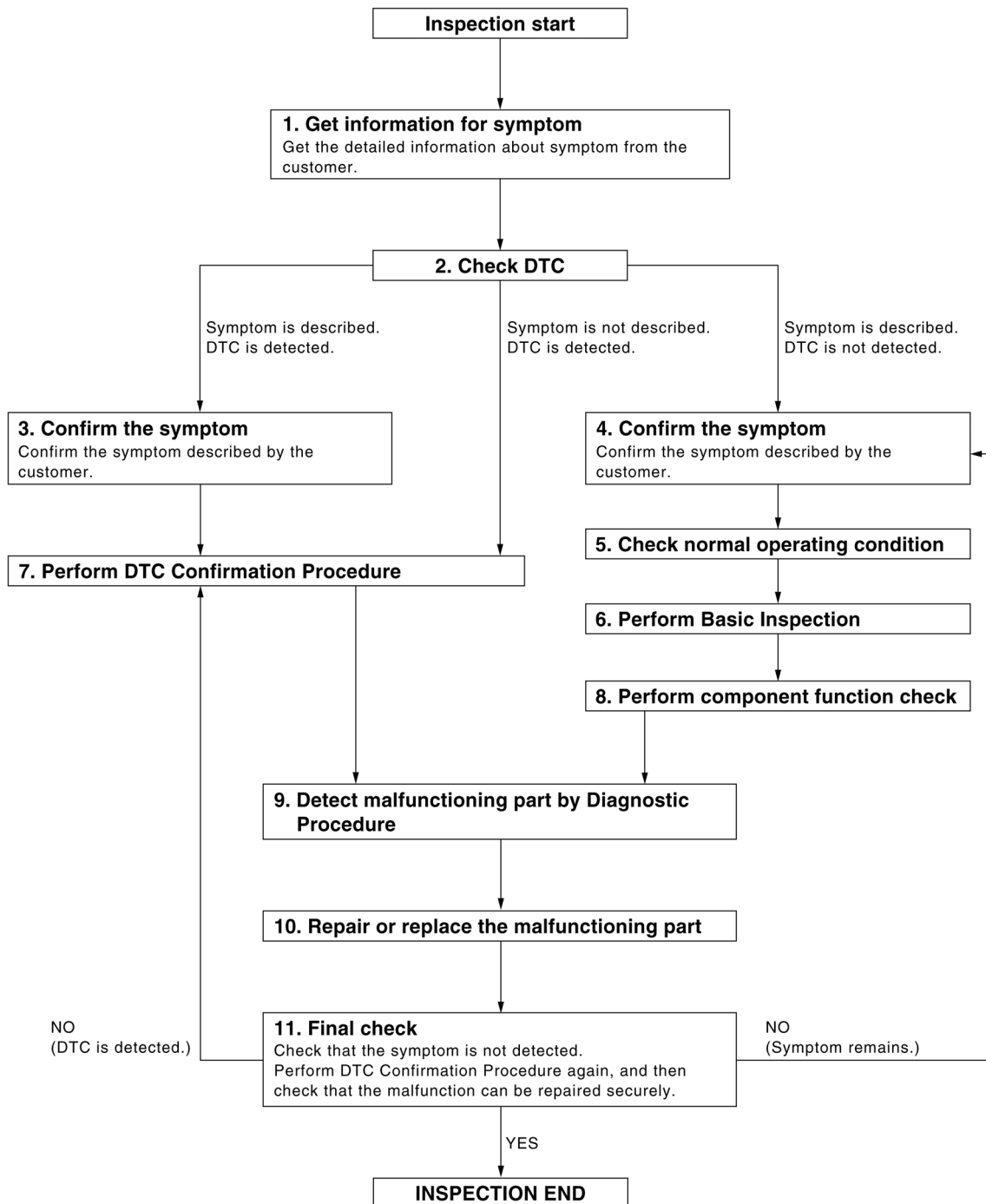
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

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WORK FLOW



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DETAILED FLOW

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

1. GET INFORMATION FOR SYMPTOM

Get the detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurred).

>> GO TO 2

2. CHECK DTC WITH AUTOMATIC DRIVE POSITIONER SYSTEM

Check "Self Diagnostic Result" with CONSULT.

Refer to [ADP-112, "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

4. 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-144, "Description"](#).

Is the incident normal operation?

YES >> Inspection End.

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-44, "Intermittent Incident"](#).

8. PERFORM COMPONENT FUNCTION CHECK

Perform the component function check for the isolated malfunctioning point.

>> GO TO 9

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.

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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

Preliminary Check

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1. FOREIGN OBJECTS

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.

NO >> GO TO 2

2. WIRING CONNECTIONS

1. Disconnect harness connectors.
2. Check terminals for damage or loose connections.
3. Reconnect harness connectors.

Are any connectors damaged or loose?

YES >> Repair or replace damaged parts.

NO >> GO TO 3

3. POWER AND GROUND

Check power supply and ground circuits for control unit. Refer to [ADP-47. "DRIVER SEAT CONTROL UNIT : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> Refer to [ADP-112. "DTC Index"](#).

NO >> Repair or replace as necessary.

Special Repair Requirement

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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

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1. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and ground circuit as shown below.

- Driver seat control unit: Refer to [ADP-47, "DRIVER SEAT CONTROL UNIT : Diagnosis Procedure"](#).
- Automatic drive positioner control unit: Refer to [ADP-48, "AUTOMATIC DRIVE POSITIONER CONTROL 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 [ADP-142, "Symptom Table"](#). 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 [ADP-142, "Symptom Table"](#).

No (memory indicator operates normally)>> Go to SYMPTOM 2, refer to [ADP-142, "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-44, "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 [ADP-142, "Symptom Table"](#).

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 [ADP-11, "AUTOMATIC DRIVE POSITIONER SYSTEM : System Description"](#)).

Are all operation conditions fulfilled?

YES >> Go to SYMPTOM 6, refer to [ADP-142, "Symptom Table"](#).

NO >> Fulfill the operation conditions. Refer to [ADP-11, "AUTOMATIC DRIVE POSITIONER SYSTEM : 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?

YES >> Go to SYMPTOM 3, refer to [ADP-142. "Symptom Table"](#).
NO >> Repair or replace the malfunctioning part.

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AUTOMATIC DRIVE POSITIONER SYSTEM

< SYSTEM DESCRIPTION >

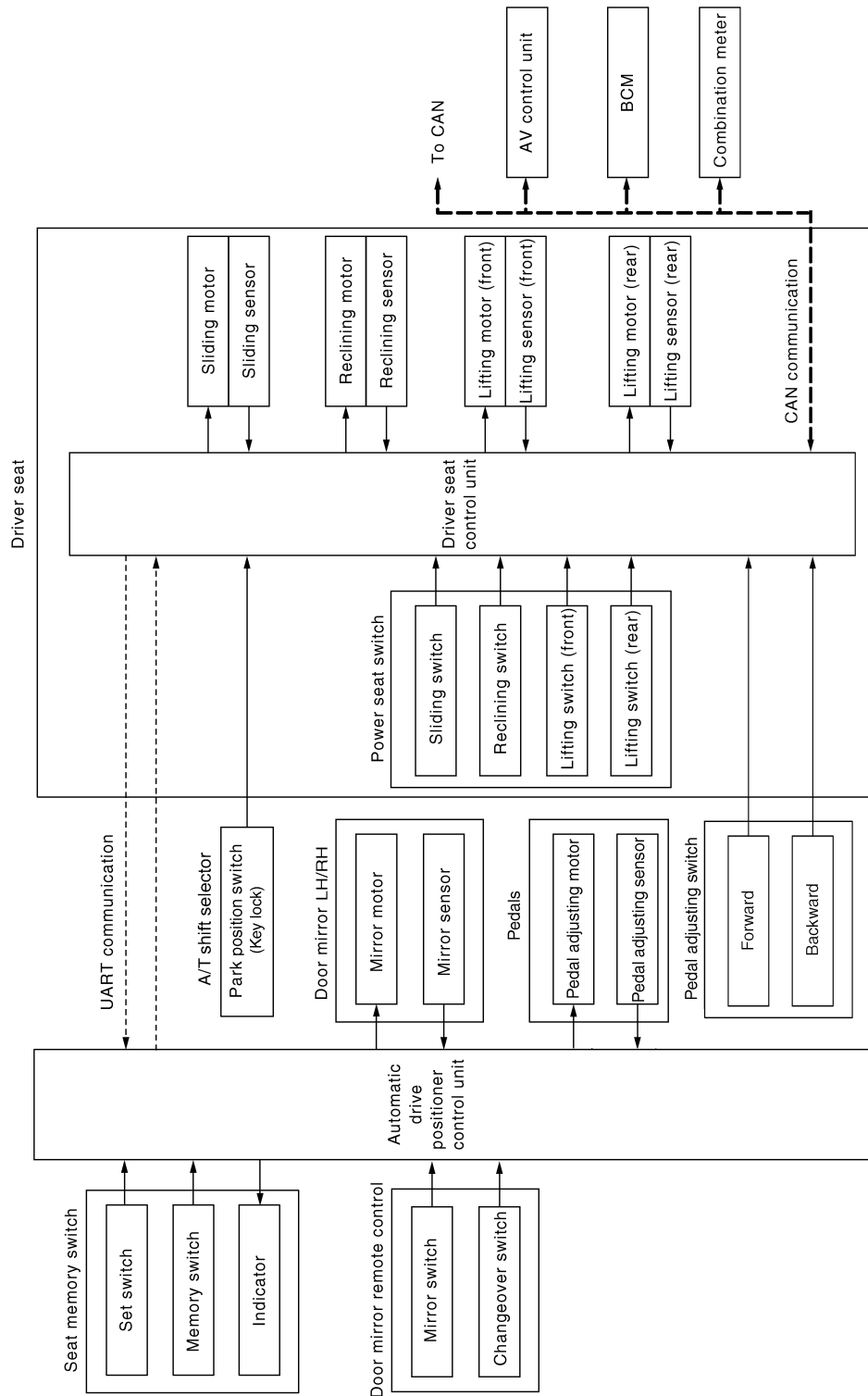
SYSTEM DESCRIPTION

AUTOMATIC DRIVE POSITIONER SYSTEM

AUTOMATIC DRIVE POSITIONER SYSTEM

AUTOMATIC DRIVE POSITIONER SYSTEM : System Diagram

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AUTOMATIC DRIVE POSITIONER SYSTEM

< SYSTEM DESCRIPTION >

AUTOMATIC DRIVE POSITIONER SYSTEM : System Description

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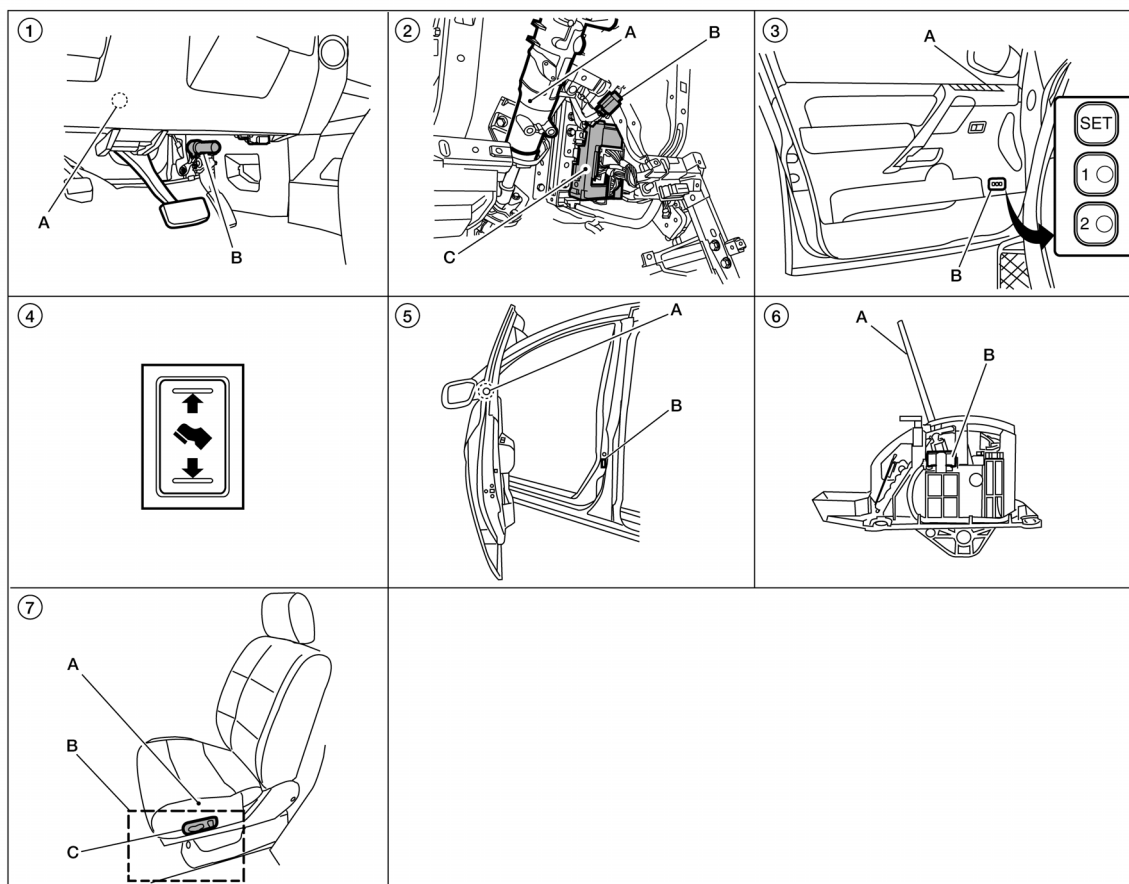
OUTLINE

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).
Entry/Exit assist function	Exit	On exit, the seat moves backward.
	Entry	On entry, the seat returns from exiting position to the previous driving position.

AUTOMATIC DRIVE POSITIONER SYSTEM : Component Parts Location

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- A. Automatic drive positioner control unit M33, M34
B. Pedal adjusting motor assembly E109, E110
- A. Steering column
B. Key switch and key lock solenoid M27
C. BCM M18, M19, M20 (view with instrument panel removed)
- A. Door mirror remote control switch D10 (king cab), D20 (crew cab)
B. Seat memory switch D5

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AUTOMATIC DRIVE POSITIONER SYSTEM

< SYSTEM DESCRIPTION >

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|--|--|---|
| 4. Pedal adjusting switch M96 | 5. A. Door mirror LH D4, RH D107
B. Front door switch LH B8 | 6. A. A/T selector lever (floor shift)
B. A/T shift selector (park position switch) M203 |
| 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 | | |

AUTOMATIC DRIVE POSITIONER SYSTEM : Component Description

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CONTROL UNITS

Item	Function
Driver seat control unit	• Main unit of automatic drive positioner system • It is connected to the CAN. • It communicates with the automatic drive positioner control unit via UART communication.
Automatic drive positioner control unit	• It communicates with the driver seat control unit via UART communication. • Perform various controls with the instructions of driver seat control unit. • Perform the controls of the pedal adjusting, door mirror and the seat memory switch.
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 shift selector (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 shift selector (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.

AUTOMATIC DRIVE POSITIONER SYSTEM

< SYSTEM DESCRIPTION >

Item	Function
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
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 upward/downward position of seat lifting (front).
Lifting sensor (rear)	Detect the upward/downward 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.

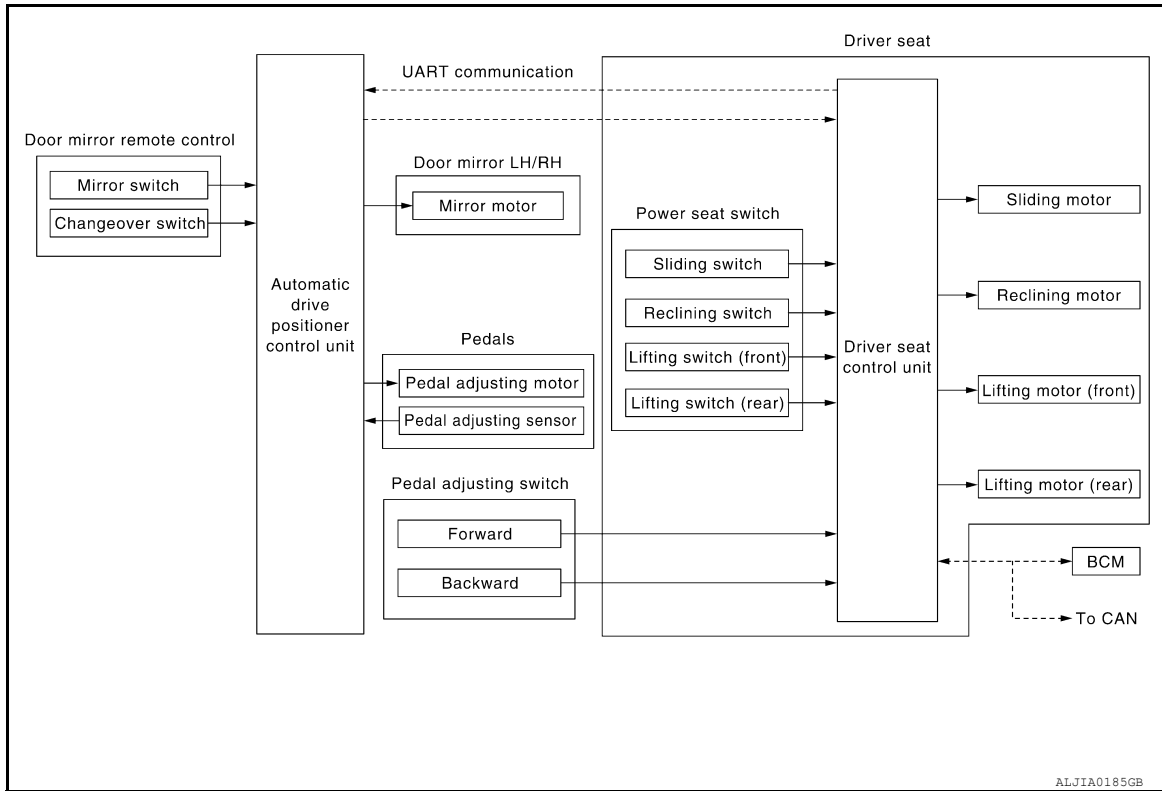
MANUAL FUNCTION

AUTOMATIC DRIVE POSITIONER SYSTEM

< SYSTEM DESCRIPTION >

MANUAL FUNCTION : System Diagram

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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

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.

AUTOMATIC DRIVE POSITIONER SYSTEM

< SYSTEM DESCRIPTION >

Order	Input	Output	Control unit condition
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

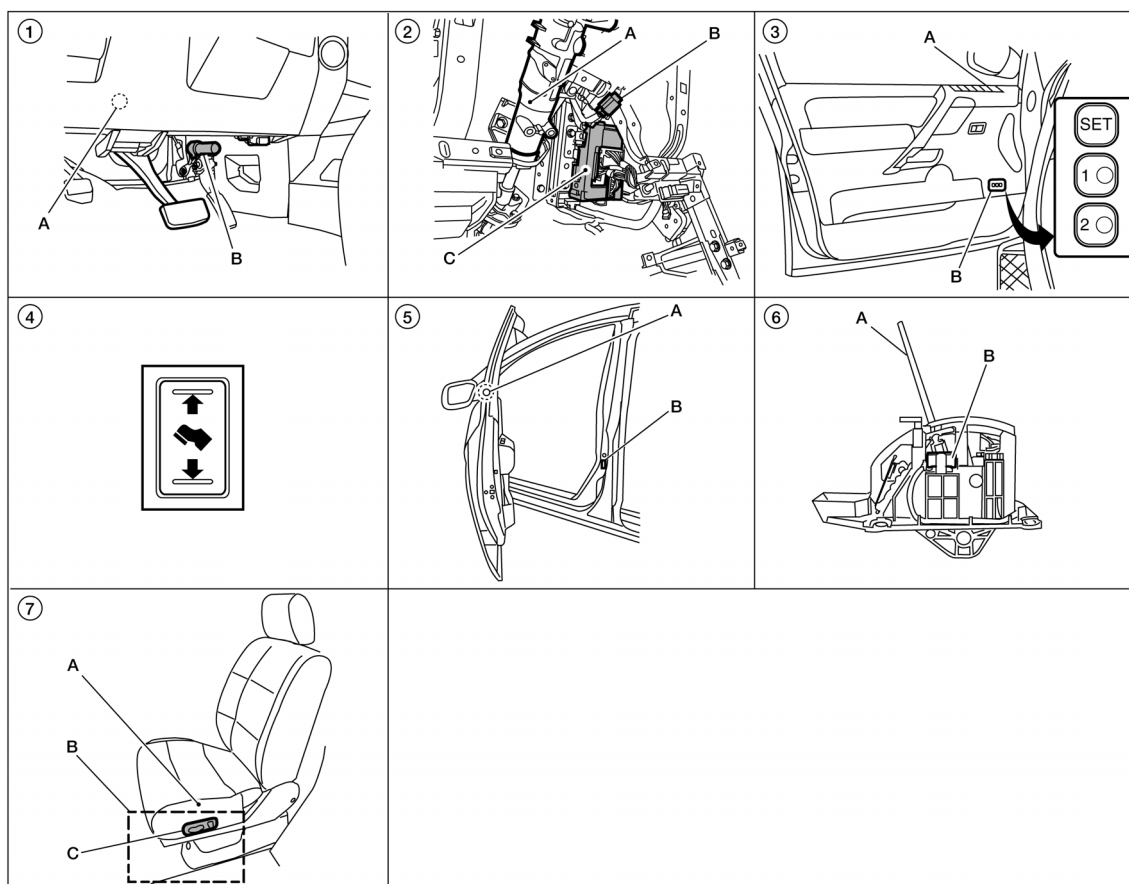
Order	Input	Output	Control unit condition
1	Door mirror remote control switch	—	The door mirror remote control switch signal is inputted to the automatic drive positioner control unit when the door mirror remote control switch is operated.
2	—	Motors (Door mirror motor)	The automatic drive positioner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

MANUAL FUNCTION : Component Parts Location

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- A. Automatic drive positioner control unit M33, M34
B. Pedal adjusting motor assembly E109, E110
- A. Steering column
B. Key switch and key lock solenoid M27
C. BCM M18, M19, M20 (view with instrument panel removed)
- A. Door mirror remote control switch D10 (king cab), D20 (crew cab)
B. Seat memory switch D5

AUTOMATIC DRIVE POSITIONER SYSTEM

< SYSTEM DESCRIPTION >

- | | | |
|--|--|---|
| 4. Pedal adjusting switch M96 | 5. A. Door mirror LH D4, RH D107
B. Front door switch LH B8 | 6. A. A/T selector lever (floor shift)
B. A/T shift selector (park position switch) M203 |
| 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 | | |

MANUAL FUNCTION : Component Description

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CONTROL UNITS

Item	Function
Driver seat control unit	- 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 automatic drive positioner control unit. - Transmits the pedal adjusting switch signal via UART communication to the automatic drive positioner control unit.
Automatic drive positioner control unit	Operates the specific motor with the signal from driver seat control unit or door mirror remote control switch.
BCM	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.

AUTOMATIC DRIVE POSITIONER SYSTEM

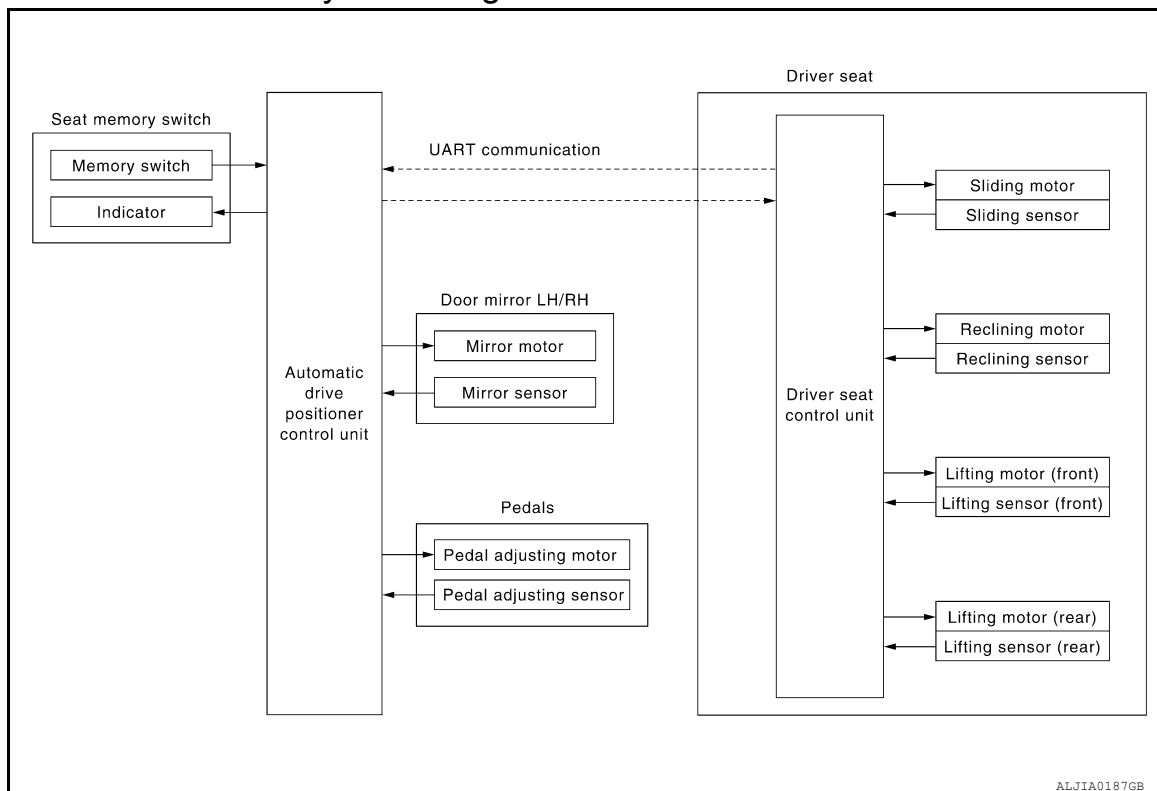
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Item	Function
Reclining motor	Tilt and raise up the seatback.
Sliding motor	Slide the seat forward/backward.

MEMORY FUNCTION

MEMORY FUNCTION : System Diagram

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MEMORY FUNCTION : System Description

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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.

NOTE:

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

OPERATION PROCEDURE

1. Turn ignition switch ON.
2. Press desired memory switch for more than 0.5 second.
3. 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 • Door mirror control switch • Set switch • Seat memory switch	OFF (Not operated)
A/T selector lever	P position

AUTOMATIC DRIVE POSITIONER SYSTEM

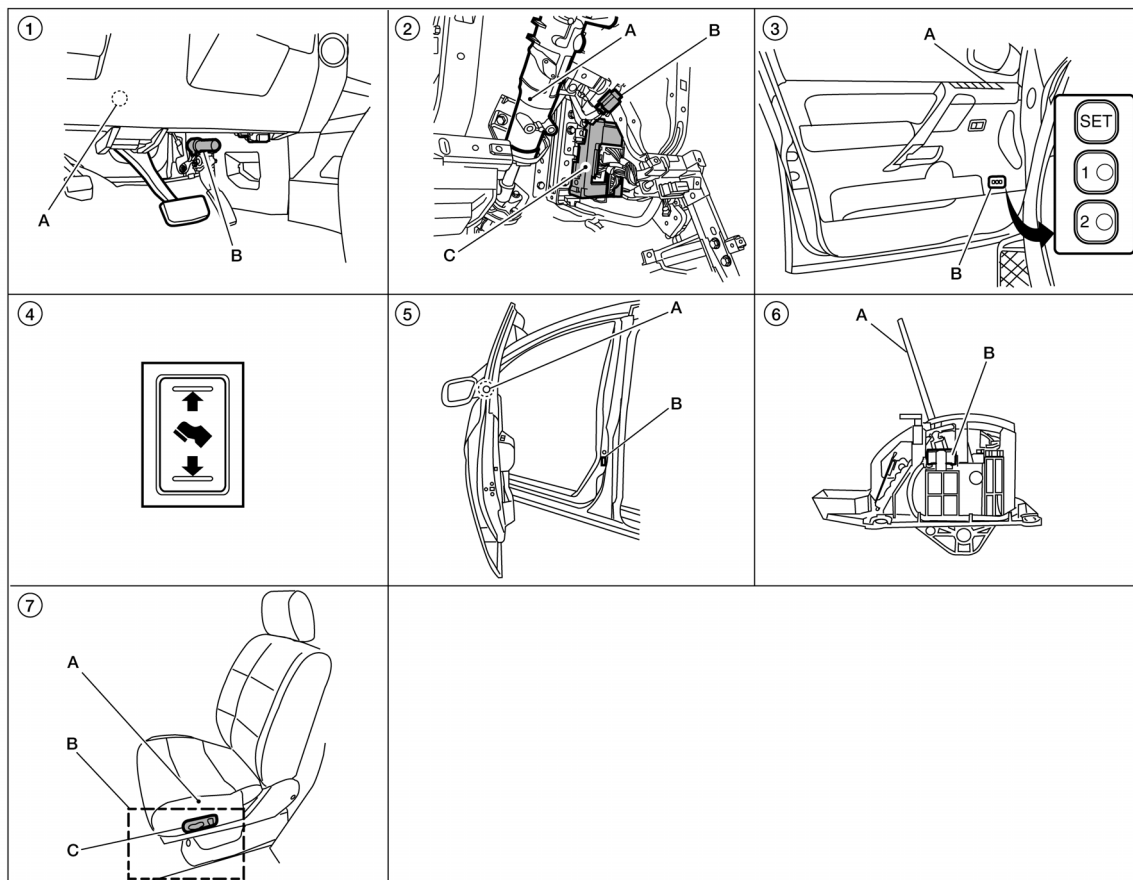
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DETAIL FLOW

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 adjusting, 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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AUTOMATIC DRIVE POSITIONER SYSTEM

< SYSTEM DESCRIPTION >

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|--|---|--|
| 1. A. Automatic drive positioner control unit M33, M34
B. Pedal adjusting motor assembly E109, E110 | 2. A. Steering column
B. Key switch and key lock solenoid M27
C. BCM M18, M19, M20 (view with instrument panel removed) | 3. A. Door mirror remote control switch D10 (king cab), D20 (crew cab)
B. Seat memory switch D5 |
| 4. Pedal adjusting switch M96 | 5. A. Door mirror LH D4, RH D107
B. Front door switch LH B8 | 6. A. A/T selector lever (floor shift)
B. A/T shift selector (park position switch) M203 |
| 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 | | |

MEMORY FUNCTION : Component Description

INFOID:0000000011560529

CONTROL UNITS

Item	Function
Driver seat control unit	- The address of each part is recorded. - Operates each motor of seat to the registered position. - Requests the operations of pedal assembly and door mirror to automatic drive positioner control unit.
Automatic drive positioner control unit	Operates the pedal adjusting motor and door mirror with the instructions from the 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 upward/downward position of seat lifting (front).
Lifting sensor (rear)	Detect the upward/downward 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.

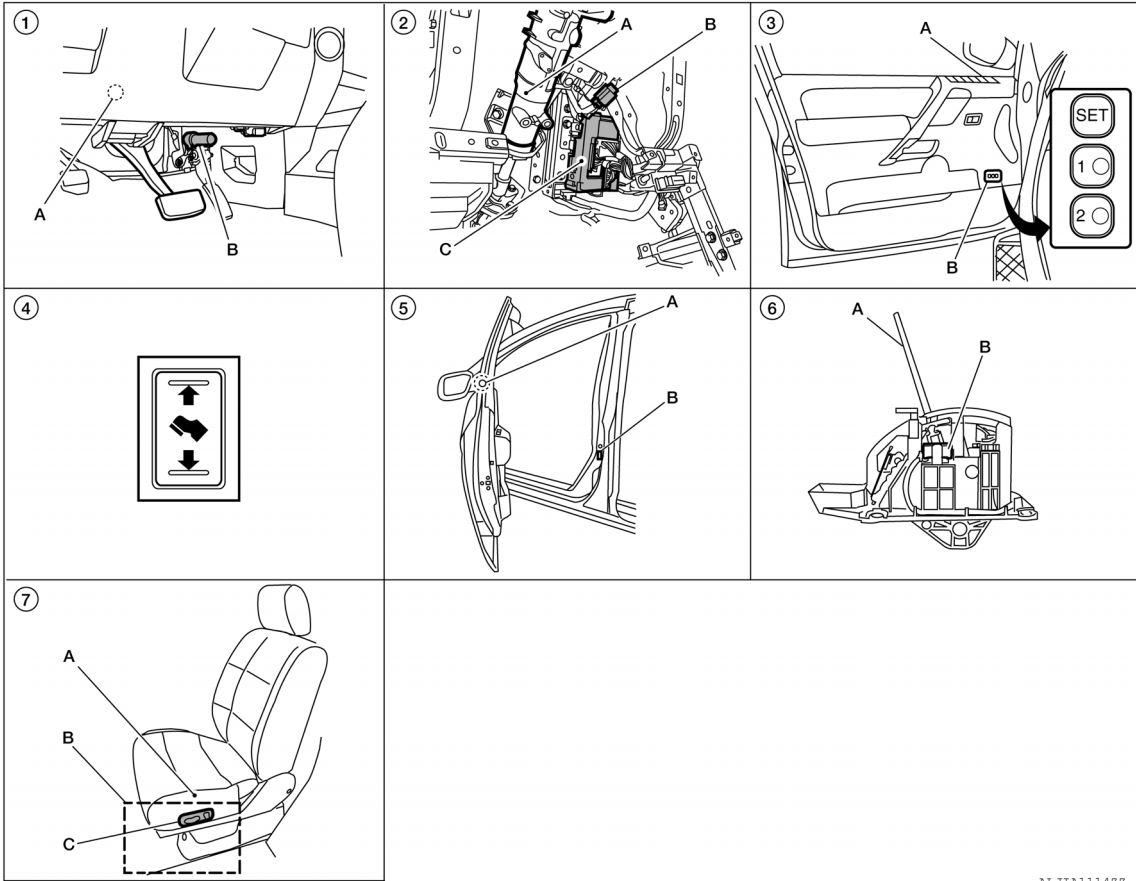
AUTOMATIC DRIVE POSITIONER SYSTEM

< SYSTEM DESCRIPTION >

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.

EXIT ASSIST FUNCTION : Component Parts Location

INFOID:0000000011560532



1.
A. Automatic drive positioner control unit M33, M34
B. Pedal adjusting motor assembly E109, E110
2.
A. Steering column
B. Key switch and key lock solenoid M27
C. BCM M18, M19, M20 (view with instrument panel removed)
3.
A. Door mirror remote control switch D10 (king cab), D20 (crew cab)
B. Seat memory switch D5
4.
Pedal adjusting switch M96
5.
A. Door mirror LH D4, RH D107
B. Front door switch LH B8
6.
A. A/T selector lever (floor shift)
B. A/T shift selector (park position switch) M203
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

EXIT ASSIST FUNCTION : Component Description

INFOID:0000000011560533

CONTROL UNITS

AUTOMATIC DRIVE POSITIONER SYSTEM

< SYSTEM DESCRIPTION >

Item	Function
Driver seat control unit	Operates the seat sliding motor for a constant amount.
BCM	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.

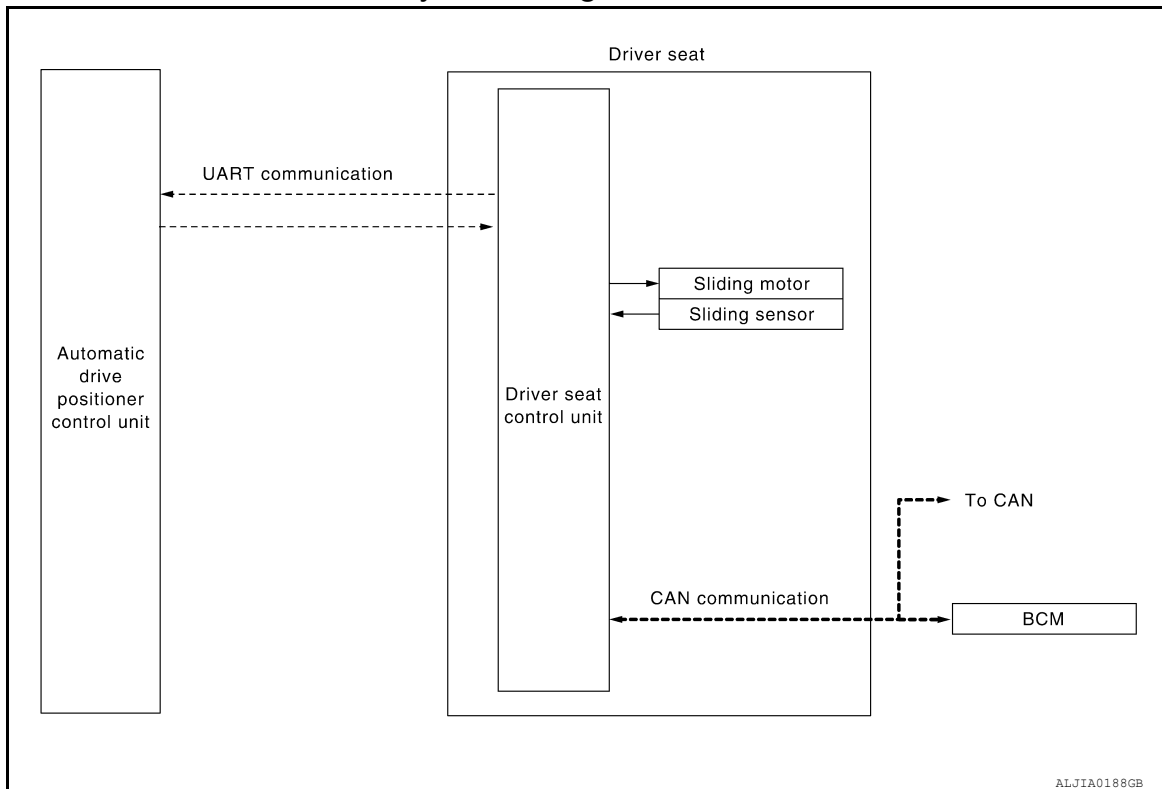
OUTPUT PARTS

Item	Function
Sliding motor	Slide the seat forward/backward.

ENTRY ASSIST FUNCTION

ENTRY ASSIST FUNCTION : System Diagram

INFOID:0000000011560534



ENTRY ASSIST FUNCTION : System Description

INFOID:0000000011560535

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:

AUTOMATIC DRIVE POSITIONER SYSTEM

< SYSTEM DESCRIPTION >

- 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

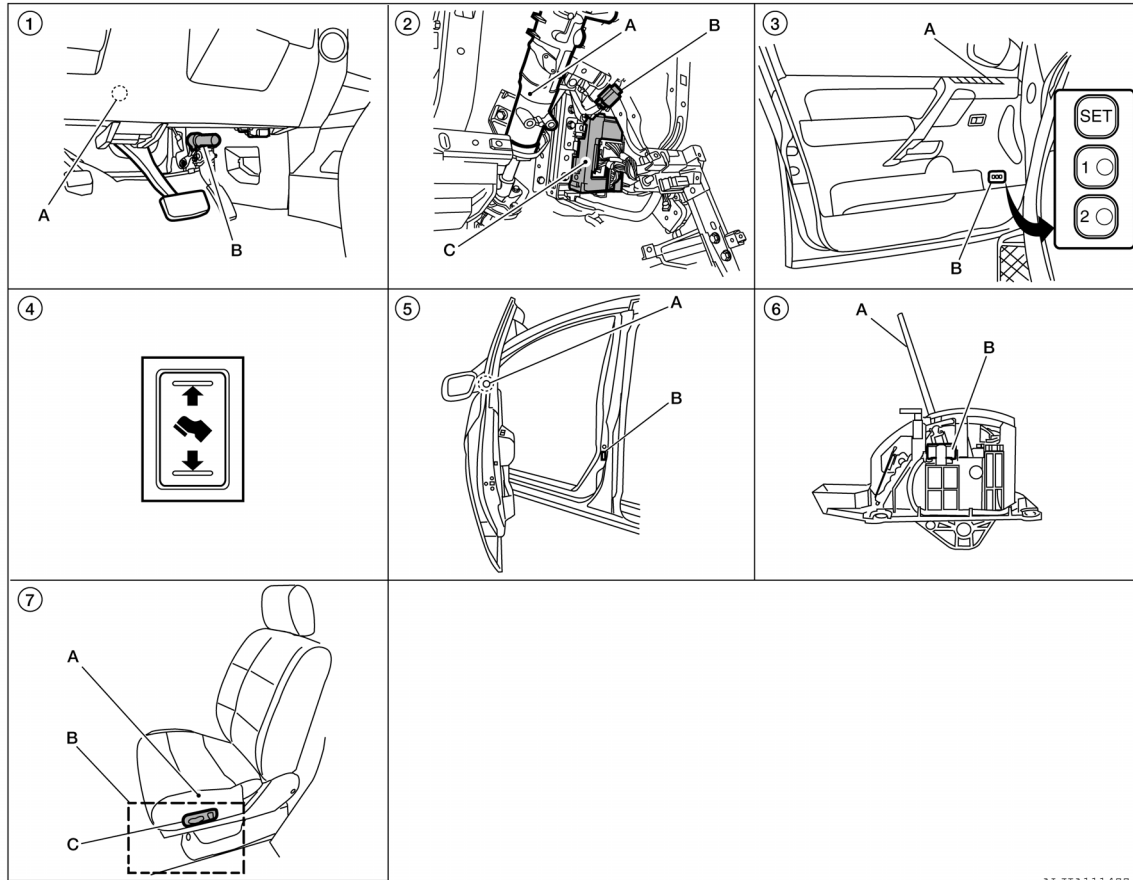
Order	Input	Output	Control unit condition
1	Door switch/Ignition switch	—	Driver seat control unit receives the signals of ignition switch signal and front door switch from BCM via CAN communication.
2	—	Motor (sliding)	Driver seat control unit operates the sliding motor when the operating conditions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

AUTOMATIC DRIVE POSITIONER SYSTEM

< SYSTEM DESCRIPTION >

ENTRY ASSIST FUNCTION : Component Parts Location

INFOID:000000011560536



ALJIA11142Z

1. A. Automatic drive positioner control unit M33, M34
B. Pedal adjusting motor assembly E109, E110
2. A. Steering column
B. Key switch and key lock solenoid M27
C. BCM M18, M19, M20 (view with instrument panel removed)
3. A. Door mirror remote control switch D10 (king cab), D20 (crew cab)
B. Seat memory switch D5
4. Pedal adjusting switch M96
5. A. Door mirror LH D4, RH D107
B. Front door switch LH B8
6. A. A/T selector lever (floor shift)
B. A/T shift selector (park position switch) M203
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

ENTRY ASSIST FUNCTION : Component Description

INFOID:000000011560537

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.
BCM	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

AUTOMATIC DRIVE POSITIONER SYSTEM

< SYSTEM DESCRIPTION >

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)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

Diagnosis Description

INFOID:0000000011560538

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

DIAGNOSTIC MODE

Diagnostic mode [AUTO DRIVE POS.]	Description
WORK SUPPORT	Changes the setting of each function.
SELF DIAGNOSTIC RESULT	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 IDENTIFICATION	Displays part numbers of driver seat control unit parts.

CONSULT Function

INFOID:0000000011560539

SELF-DIAGNOSIS RESULTS

Refer to [ADP-112. "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)

< SYSTEM DESCRIPTION >

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 park position 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 DOWNWARD, the value increases. If it moves UPWARD, the value decreases.
LIFT RR PULSE	—	—	×	Value (32768) when battery connections are standard. If it moves DOWNWARD, the value increases. If it moves UPWARD, 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	"V"	—	×	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).
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)

< SYSTEM DESCRIPTION >

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

U1000 CAN COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description

INFOID:0000000011560540

Refer to [BCS-30, "Description"](#).

DTC Logic

INFOID:0000000011560541

DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition	Possible cause
U1000	CAN COMM CIRCUIT	- Driver seat control unit cannot communicate to other control units. - Driver seat control unit cannot communicate for more than the specified time.	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.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to [BCS-30, "Diagnosis Procedure"](#).
NO >> Inspection End.

Special Repair Requirement

INFOID:0000000011560542

Refer to Owner's Manual.

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ADP

B2112 SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

B2112 SLIDING MOTOR

Description

INFOID:0000000011560543

- 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

INFOID:0000000011560544

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.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to [ADP-30, "Diagnosis Procedure"](#).

NO >> Inspection End.

NOTE:

First perform diagnosis for B2126 if B2126 is detected. Refer to [ADP-42, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000011560545

Regarding Wiring Diagram information, refer to [ADP-127, "Wiring Diagram"](#).

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT.
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-44, "Intermittent Incident"](#).

2. CHECK SLIDING MOTOR CIRCUIT (POWER SHORT)

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

B2112 SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

(+)		(-)	Voltage (V) (Approx.)
Sliding motor			
Connector	Terminals		
B204	1	Ground	0
	5		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair circuit for short to voltage.

3.CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

(+)		(-)	Voltage (V) (Approx.)
Driver seat control unit			
Connector	Terminals		
B203	35	Ground	0
	42		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit. Refer to [ADP-147, "Removal and Installation"](#).

4.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

>> Inspection End.

ADP

B2113 RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

B2113 RECLINING MOTOR

Description

INFOID:0000000011560546

- The seat reclining motor is installed to the seatback assembly.
- 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:0000000011560547

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2113	SEAT RECLINING	The driver seat control unit detects the output of reclining motor output terminal for 0.1 second or more even if the reclining 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.

Is the DTC detected?

- YES >> Perform diagnosis procedure. Refer to [ADP-32, "Diagnosis Procedure"](#).
NO >> Inspection End.

NOTE:

First perform diagnosis for B2126 if B2126 is detected. Refer to [ADP-42, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000011560548

Regarding Wiring Diagram information, refer to [ADP-127, "Wiring Diagram"](#).

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT.
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-44, "Intermittent Incident"](#).

2. CHECK RECLINING MOTOR CIRCUIT (POWER SHORT)

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

B2113 RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

(+)		(-)	Voltage (V) (Approx.)
Reclining motor			
Connector	Terminals		
B205	2	Ground	0
	3		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair circuit for short to voltage.

3.CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

(+)		(-)	Voltage (V) (Approx.)
Driver seat control unit			
Connector	Terminals		
B203	36	Ground	0
	44		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit. Refer to [ADP-147, "Removal and Installation"](#).

4.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

>> Inspection End.

ADP

B2114 SEAT LIFTER FR

< DTC/CIRCUIT DIAGNOSIS >

B2114 SEAT LIFTER FR

Description

INFOID:0000000011560549

- 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 upward/downward by changing the rotation direction of lifting motor (front).

DTC Logic

INFOID:0000000011560550

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.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to [ADP-34, "Diagnosis Procedure"](#).

NO >> Inspection End.

NOTE:

First perform diagnosis for B2126 if B2126 is detected. Refer to [ADP-42, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000011560551

Regarding Wiring Diagram information, refer to [ADP-127, "Wiring Diagram"](#).

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT.
3. Erase the DTC.
4. Perform DTC confirmation procedure. Refer to [ADP-34, "DTC Logic"](#).

Is the DTC displayed again?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

2. CHECK LIFTING MOTOR (FRONT) CIRCUIT (POWER SHORT)

1. Turn ignition switch OFF.
2. Disconnect driver seat control unit and lifting motor (front) connector.
3. Check voltage between lifting motor (front) harness connector and ground.

B2114 SEAT LIFTER FR

< DTC/CIRCUIT DIAGNOSIS >

(+) Lifting motor (front)		(-)	Voltage (V) (Approx.)
Connector	Terminals		
B206	1	Ground	0
	5		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair circuit for short to voltage.

3.CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

(+) Driver seat control unit		(-)	Voltage (V) (Approx.)
Connector	Terminals		
B203	37	Ground	0
	45		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit. Refer to [ADP-147, "Removal and Installation"](#).

4.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

>> Inspection End.

ADP

B2115 SEAT LIFTER RR

< DTC/CIRCUIT DIAGNOSIS >

B2115 SEAT LIFTER RR

Description

INFOID:0000000011560552

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

DTC Logic

INFOID:0000000011560553

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2115	SEAT LIFTER RR	The driver seat control unit detects the output of lifting motor (rear) 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.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to [ADP-36, "Diagnosis Procedure"](#).

NO >> Inspection End.

NOTE:

First perform diagnosis for B2126 if B2126 is detected. Refer to [ADP-42, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000011560554

Regarding Wiring Diagram information, refer to [ADP-127, "Wiring Diagram"](#).

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT.
3. Erase the DTC.
4. Perform DTC confirmation procedure. Refer to [ADP-36, "DTC Logic"](#).

Is the DTC displayed again?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

2. CHECK LIFTING MOTOR (REAR) CIRCUIT (POWER SHORT)

1. Turn ignition switch OFF.
2. Disconnect lifting motor (rear) and driver seat control unit connector.
3. Check voltage between lifting motor (rear) harness connector and ground.

B2115 SEAT LIFTER RR

< DTC/CIRCUIT DIAGNOSIS >

(+)		(-)	Voltage (V) (Approx.)
Lifting motor (rear)			
Connector	Terminals		
B207	1	Ground	0
	5		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair circuit for short to voltage.

3.CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

(+)		(-)	Voltage (V) (Approx.)
Driver seat control unit			
Connector	Terminals		
B203	38	Ground	0
	39		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit. Refer to [ADP-147, "Removal and Installation"](#).

4.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

>> Inspection End.

ADP

B2117 ADJ PEDAL MOTOR

< DTC/CIRCUIT DIAGNOSIS >

B2117 ADJ PEDAL MOTOR

Description

INFOID:0000000011560555

- 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:0000000011560556

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.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to [ADP-38, "Diagnosis Procedure"](#).

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000011560557

Regarding Wiring Diagram information, refer to [ADP-127, "Wiring Diagram"](#).

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

1. Turn ignition switch ON.
2. Check "PEDAL MOTOR" in "Active test" mode with CONSULT.

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

B2117 ADJ PEDAL MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

- YES >> Pedal adjusting motor assembly circuit is OK.
NO >> GO TO 3

3. CHECK PEDAL ADJUSTING MOTOR ASSEMBLY CIRCUIT HARNESS CONTINUITY

- Turn ignition switch OFF.
- Disconnect automatic drive positioner control unit and pedal adjusting motor assembly.
- 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.

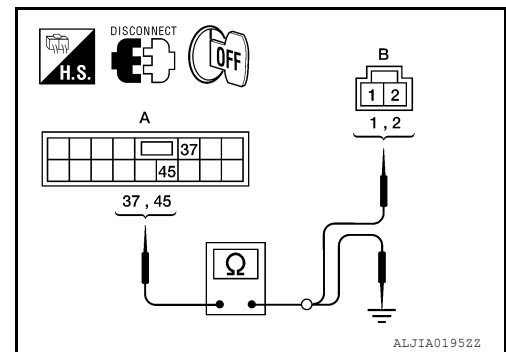
37 - 1 : Continuity should exist.

45 - 2 : Continuity should exist.

- 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.



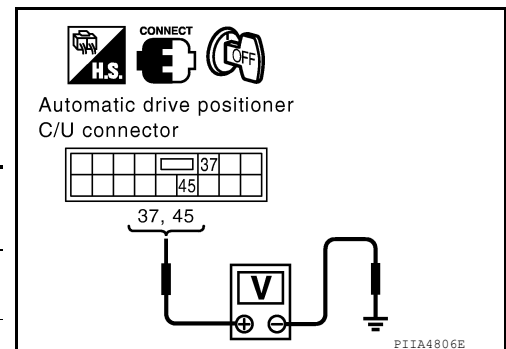
Is the inspection result normal?

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

4. CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT OUTPUT SIGNAL

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

Conne- ctor	Terminals		Condition	Voltage (V) (Approx.)
	(+)	(-)		
M34	37	Ground	Pedal adjusting switch ON (FORWARD operation)	Battery voltage
			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-151, "Removal and Installation"](#).
NO >> GO TO 5

5. CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

Is the inspection result normal?

- YES >> Replace automatic drive positioner control unit. Refer to [ADP-148, "Removal and Installation"](#).
NO >> Repair or replace the malfunctioning part.

B2120 ADJ PEDAL SENSOR

< DTC/CIRCUIT DIAGNOSIS >

B2120 ADJ PEDAL SENSOR

Description

INFOID:0000000011560558

- 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

INFOID:0000000011560559

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.

Is the DTC is detected?

YES >> Perform diagnosis procedure. Refer to [ADP-40, "Diagnosis Procedure"](#).

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000011560560

Regarding Wiring Diagram information, refer to [ADP-127, "Wiring Diagram"](#).

1. CHECK PEDAL ADJUSTING SENSOR SIGNAL

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

Monitor item	Condition		Value
PEDAL SEN	Pedal position	Forward	0.5V
		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

< DTC/CIRCUIT DIAGNOSIS >

1. Disconnect automatic drive positioner control unit and pedal adjusting motor assembly.
2. 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.

3. 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.

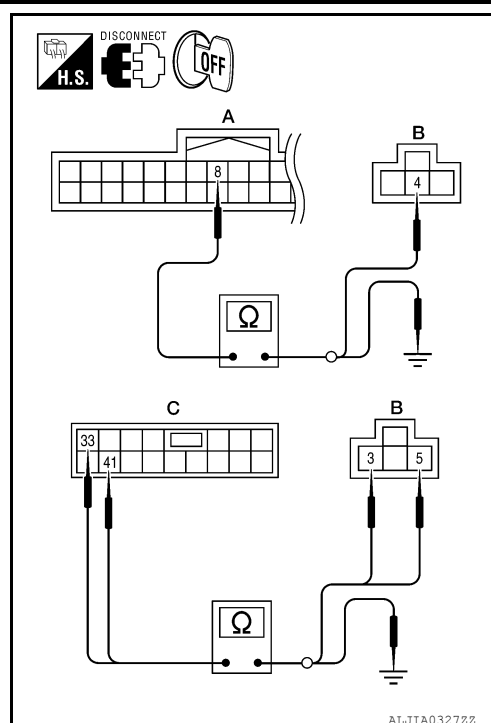
33 - Ground : Continuity should not exist.

41 - Ground : Continuity should not exist.

Is the inspection result normal?

YES >> Replace pedal adjusting motor assembly. Refer to [ADP-151, "Removal and Installation"](#).

NO >> Repair or replace harness.



B2126 DETENT SW

< DTC/CIRCUIT DIAGNOSIS >

B2126 DETENT SW

Description

INFOID:0000000011560561

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

DTC Logic

INFOID:0000000011560562

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2126	DETENT SW	A/T shift selector is in P position and the vehicle speed of 4±2 MPH (7±4 km/h) is detected.	• Harness and connectors (Park position switch circuit is opened/shorted.) • A/T shift selector (park position switch) • Combination meter (CAN communication)

DTC CONFIRMATION PROCEDURE

1. STEP 1

Drive the vehicle at 4±2 MPH (7±4 km/h) or more.

>> GO TO 2

2. STEP 2

Check "Self diagnostic result" with CONSULT.

Is the DTC detected?

- YES >> Perform diagnosis procedure. Refer to [ADP-42. "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000011560563

Regarding Wiring Diagram information, refer to [ADP-127. "Wiring Diagram"](#).

1. CHECK DTC

Check "Self diagnostic result" for BCM with CONSULT.

Are other DTCs detected?

- YES >> Check the DTC.
NO >> GO TO 2

2. CHECK PARK POSITION SWITCH SIGNAL

1. Turn ignition switch ON.
2. Select "DETENT SW" in "Data Monitor" mode with CONSULT.
3. Check park position switch signal under the following condition.

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

Is the status normal?

B2126 DETENT SW

< DTC/CIRCUIT DIAGNOSIS >

YES >> A/T shift selector (park position switch) circuit is OK.
NO >> GO TO 3

3. CHECK A/T SHIFT SELECTOR (PARK POSITION SWITCH) HARNESS

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

6 - 21 : Continuity should exist.

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

6 - Ground : Continuity should not exist.

Is the inspection result normal?

YES >> GO TO 4
NO >> Repair or replace harness.

4. CHECK A/T SHIFT SELECTOR (PARK POSITION SWITCH)

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

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

Is the inspection result normal?

YES >> GO TO 5
NO >> Replace A/T shift selector. Refer to [TM-189, "A/T Shift Selector Removal and Installation"](#).

5. CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-147, "Removal and Installation"](#).
NO >> Repair or replace the malfunctioning part.

B2128 UART COMMUNICATION LINE

< DTC/CIRCUIT DIAGNOSIS >

B2128 UART COMMUNICATION LINE

Description

INFOID:0000000011560564

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

INFOID:0000000011560565

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.	• UART communication line (UART communication line is open or shorted) • Driver seat control unit • Automatic drive positioner control unit

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.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to [ADP-44, "Diagnosis Procedure"](#).

NO >> Inspection End.

Diagnosis Procedure

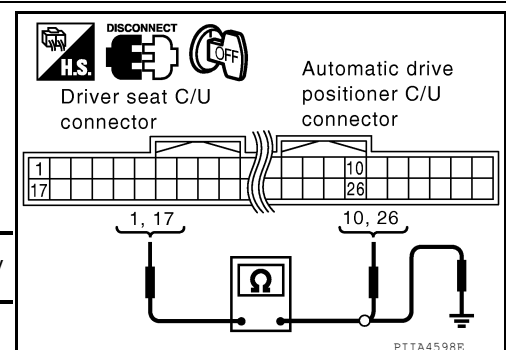
INFOID:0000000011560566

Regarding Wiring Diagram information, refer to [ADP-127, "Wiring Diagram"](#).

1. CHECK UART COMMUNICATION LINE CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect driver seat control unit and automatic drive positioner control unit.
3. 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
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B2128 UART COMMUNICATION LINE

< DTC/CIRCUIT DIAGNOSIS >

B202	1	M33	10	Yes
	17		26	

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

Driver seat control unit connector	Terminal	Ground	Continuity
B202	1		No
	17		

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).
NO >> Repair or replace harness.

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ADP

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM : Diagnosis Procedure

INFOID:000000011868038

Regarding Wiring Diagram information, refer to [BCS-47. "Wiring Diagram"](#).

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	Battery power supply	22 (15A)
70		F (50A)
11	Ignition ACC or ON	4 (10A)
38	Ignition ON or START	59 (10A)

Is the fuse blown?

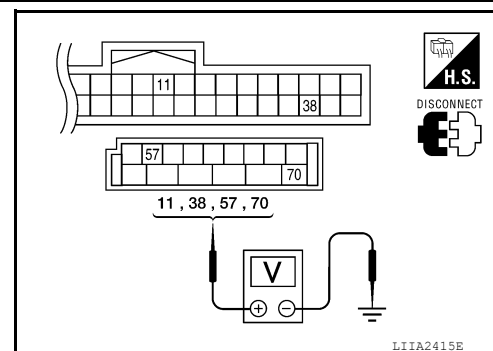
YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

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 source	Condition	Voltage (V) (Approx.)
	(+)	(-)			
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
	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

POWER SUPPLY AND GROUND CIRCUIT

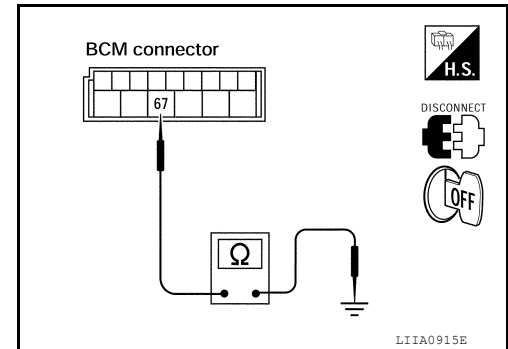
< DTC/CIRCUIT DIAGNOSIS >

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M20	67		Yes

Does continuity exist?

- YES >> Inspection End.
NO >> Repair or replace harness.



DRIVER SEAT CONTROL UNIT

DRIVER SEAT CONTROL UNIT : Diagnosis Procedure

INFOID:0000000011560568

NOTE:

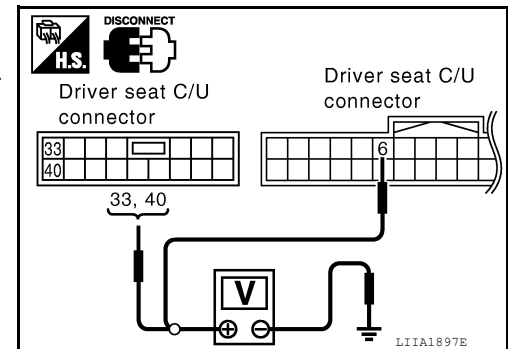
Do not disconnect the battery negative terminal and the driver seat control unit connector until DTC is confirmed with CONSULT.

Regarding Wiring Diagram information, refer to [ADP-127, "Wiring Diagram"](#).

1. CHECK POWER SUPPLY CIRCUIT

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

Terminals			Power source	Condition	Voltage (V) (Approx.)
(+)					
Driver seat control unit connector	Terminal				
B202	6	Ground	START power supply	Ignition switch START	Battery voltage
B203	33		Battery power supply	Ignition switch OFF	
	40				



Is the inspection result normal?

- YES >> GO TO 2
NO >> Check the following.
- Repair or replace harness.
 - Circuit breaker -2.

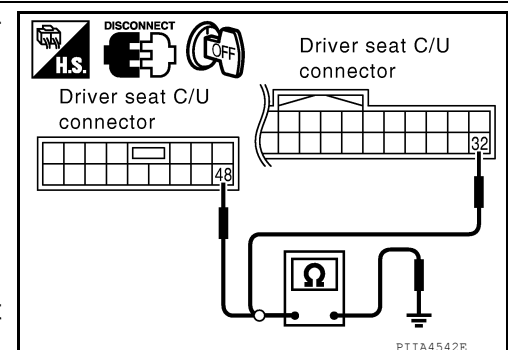
2. CHECK GROUND CIRCUIT

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

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

Is the inspection result normal?

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



POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace harness.

DRIVER SEAT CONTROL UNIT : Special Repair Requirement

INFOID:0000000011560569

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

INFOID:0000000011560570

NOTE:

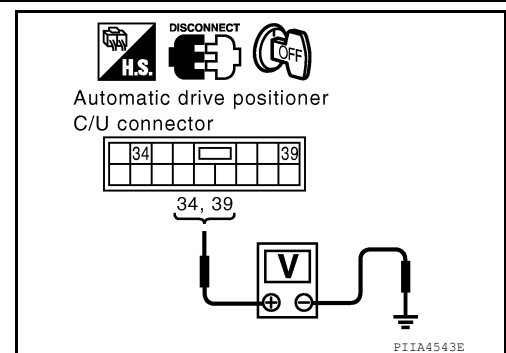
Do not disconnect the battery negative terminal and the driver seat control unit connector until DTC is confirmed with CONSULT.

Regarding Wiring Diagram information, refer to [ADP-127. "Wiring Diagram"](#).

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.

Terminals		Voltage (V) (Approx.)
(+)	(-)	
Automatic drive positioner control unit connector	Terminal	
M34	34	Ground
	39	



Is the inspection result normal?

YES >> GO TO 2

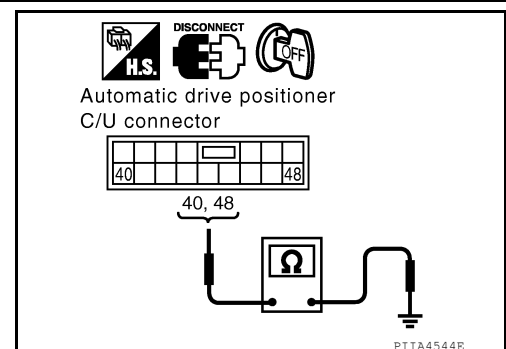
NO >> Check the following.

- Repair or replace harness.
- Circuit breaker -2.

2. CHECK GROUND CIRCUIT

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

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



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:0000000011560571

1. PERFORM ADDITIONAL SERVICE

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Perform additional service when removing battery negative terminal.

>> Refer to Owner’s Manual.

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ADP

SLIDING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

SLIDING SWITCH

Description

INFOID:0000000011560572

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

INFOID:0000000011560573

1. CHECK FUNCTION

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

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

Is the indication normal?

- YES >> Inspection End.
NO >> Perform diagnosis procedure. Refer to [ADP-50, "Diagnosis Procedure"](#).

Diagnosis Procedure

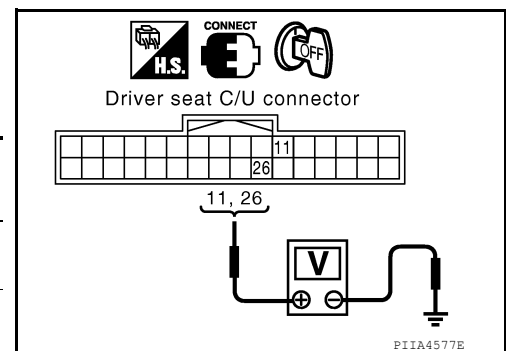
INFOID:0000000011560574

Regarding Wiring Diagram information, refer to [ADP-127, "Wiring Diagram"](#).

1. CHECK SLIDING SWITCH SIGNAL

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

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



Is the inspection result normal?

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

2. CHECK SLIDING SWITCH CIRCUIT

SLIDING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

1. Disconnect driver seat control unit and power seat switch LH.
2. 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)	11	B208 (B)	1	Yes
	26		5	

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

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

Is the inspection result normal?

- YES >> GO TO 3
NO >> Repair or replace harness.

3. CHECK DRIVER SEAT CONTROL UNIT OUTPUT

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

Driver seat control unit connector	Terminals		Voltage (V) (Approx.)
	(+)	(-)	
B202	11	Ground	Battery voltage
	26		

Is the inspection result normal?

- YES >> GO TO 4
NO >> Replace driver seat control unit. Refer to [SE-34, "Removal and Installation - Front Seat Assembly"](#).

4. CHECK SLIDING SWITCH

Refer to [ADP-51, "Component Inspection"](#).

Is the inspection result normal?

- YES >> GO TO 5
NO >> Replace power seat switch LH. Refer to [SE-51, "Disassembly and Assembly"](#).

5. CHECK INTERMITTENT INCIDENT

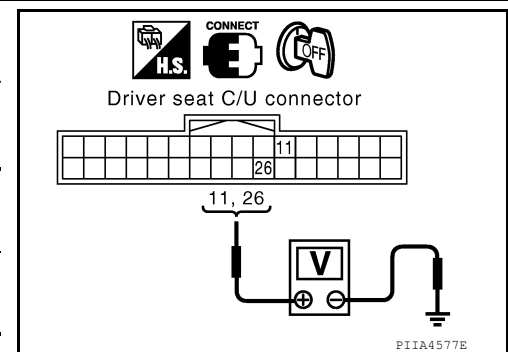
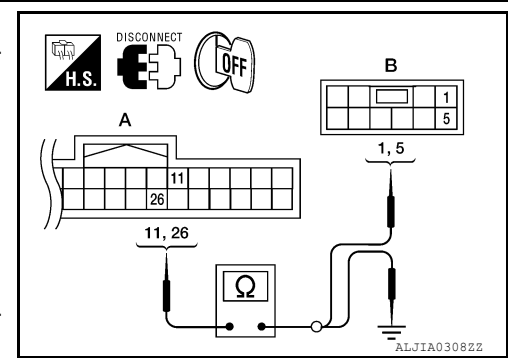
Refer to [GI-44, "Intermittent Incident"](#).

Is the inspection result normal?

- YES >> Replace driver seat control unit. Refer to [ADP-147, "Removal and Installation"](#).
NO >> Repair or replace malfunctioning part.

Component Inspection

1. CHECK SLIDING SWITCH

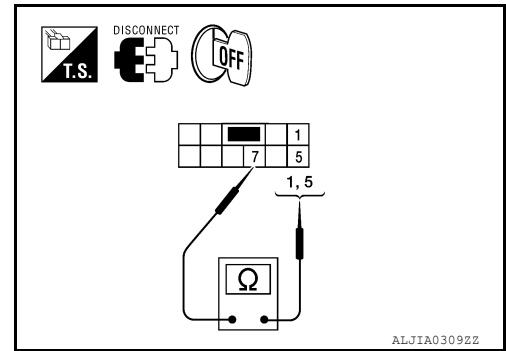


SLIDING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

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

Terminal		Condition		Continuity
Power seat switch LH				
7	1	Sliding switch (backward)	Operate	Yes
			Release	No
	5	Sliding switch (forward)	Operate	Yes
			Release	No



Is the inspection result normal?

- YES >> Inspection End.
- NO >> Replace power seat switch LH. Refer to [SE-51, "Disassembly and Assembly"](#).

RECLINING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

RECLINING SWITCH

Description

INFOID:0000000011560576

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

INFOID:0000000011560577

1. CHECK FUNCTION

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

Monitor item	Condition		Status
RECLN SW-FR	Reclining switch (forward)	Operate	ON
		Release	OFF
RECLN SW-RR	Reclining switch (backward)	Operate	ON
		Release	OFF

Is the indication normal?

- YES >> Inspection End.
NO >> Perform diagnosis procedure. Refer to [ADP-53, "Diagnosis Procedure"](#).

Diagnosis Procedure

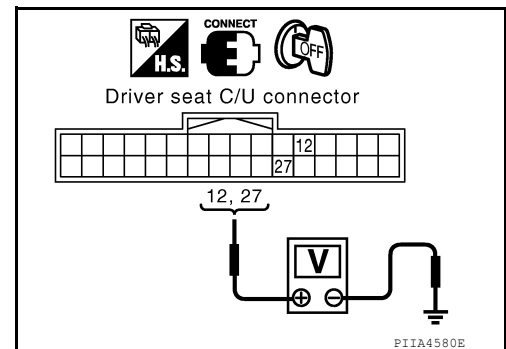
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Regarding Wiring Diagram information, refer to [ADP-127, "Wiring Diagram"](#).

1. CHECK RECLINING SWITCH SIGNAL

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

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



Is the inspection result normal?

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

2. CHECK RECLINING SWITCH CIRCUIT

RECLINING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

1. Disconnect driver seat control unit and power seat switch LH.
2. 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
	27		4	

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

Driver seat control unit connector	Terminal	Ground	Continuity
B202 (A)	12	Ground	No
	27		

Is the inspection result normal?

- YES >> GO TO 3
NO >> Repair or replace harness.

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 unit connector	Terminals		Voltage (V) (Approx.)
	(+)	(-)	
B202	12	Ground	Battery voltage
	27		

Is the inspection result normal?

- YES >> GO TO 4
NO >> Replace driver seat control unit. Refer to [ADP-147, "Removal and Installation"](#).

4. CHECK RECLINING SWITCH

Refer to [ADP-54, "Component Inspection"](#).

Is the inspection result normal?

- YES >> GO TO 5
NO >> Replace power seat switch LH. Refer to [SE-51, "Disassembly and Assembly"](#).

5. CHECK INTERMITTENT INCIDENT

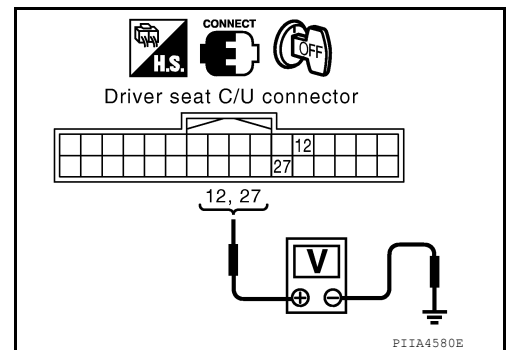
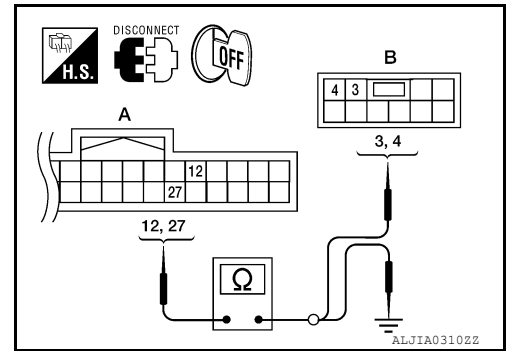
Refer to [GI-44, "Intermittent Incident"](#).

Is the inspection result normal?

- YES >> Replace driver seat control unit. Refer to [ADP-147, "Removal and Installation"](#).
NO >> Repair or replace the malfunctioning part.

Component Inspection

1. CHECK RECLINING SWITCH



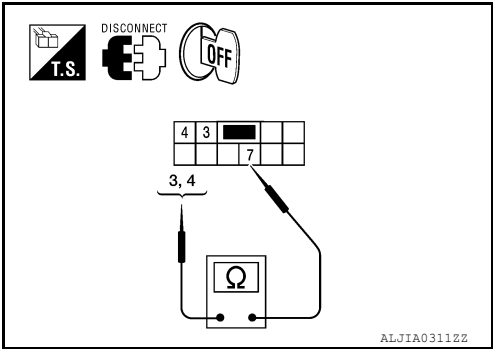
INFOID:000000011560579

RECLINING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

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

Terminals		Condition		Continuity
Power seat switch LH				
7	3	Reclining switch (backward)	Operate	Yes
			Release	No
	4	Reclining switch (forward)	Operate	Yes
			Release	No



Is the inspection result normal?

- YES >> Inspection End.
- NO >> Replace power seat switch LH. Refer to [SE-51, "Disassembly and Assembly"](#).

ADP

LIFTING SWITCH (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SWITCH (FRONT)

Description

INFOID:0000000011560580

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

INFOID:0000000011560581

1. CHECK FUNCTION

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

Monitor item	Condition		Status
LIFT FR SW-UP	Lifting switch front (upward)	Operate	ON
		Release	OFF
LIFT FR SW-DN	Lifting switch front (downward)	Operate	ON
		Release	OFF

Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-56, "Diagnosis Procedure"](#).

Diagnosis Procedure

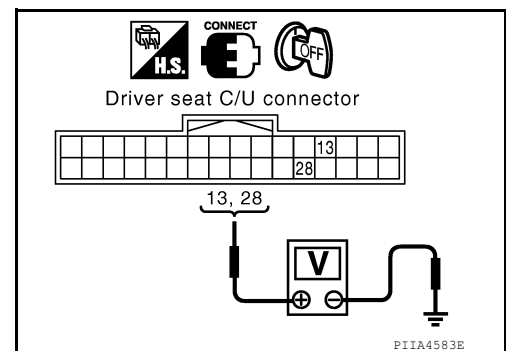
INFOID:0000000011560582

Regarding Wiring Diagram information, refer to [ADP-127, "Wiring Diagram"](#).

1. CHECK LIFTING SWITCH SIGNAL

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

Driver seat control unit connector	Terminals		Condition		Voltage (V) (Approx.)
	(+)	(-)			
B202	13	Ground	Lifting switch (front)	Operate (downward)	0V
				Release	Battery voltage
	28			Operate (upward)	0V
				Release	Battery voltage



Is the inspection result normal?

YES >> GO TO 5

NO >> GO TO 2

2. CHECK LIFTING SWITCH (FRONT) CIRCUIT

LIFTING SWITCH (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

1. Disconnect driver seat control unit and power seat switch LH.
2. 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
	28		10	

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

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

Is the inspection result normal?

- YES >> GO TO 3
NO >> Repair or replace harness.

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 unit connector	Terminals		Voltage (V) (Approx.)
	(+)	(-)	
B202	13	Ground	Battery voltage
	28		

Is the inspection result normal?

- YES >> GO TO 4
NO >> Replace driver seat control unit. Refer to [ADP-147, "Removal and Installation"](#).

4. CHECK LIFTING SWITCH (FRONT)

Refer to [ADP-57, "Component Inspection"](#).

Is the inspection result normal?

- YES >> GO TO 5
NO >> Replace power seat switch LH. Refer to [SE-51, "Disassembly and Assembly"](#).

5. CHECK INTERMITTENT INCIDENT

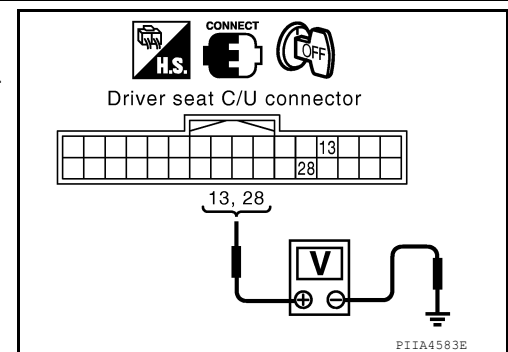
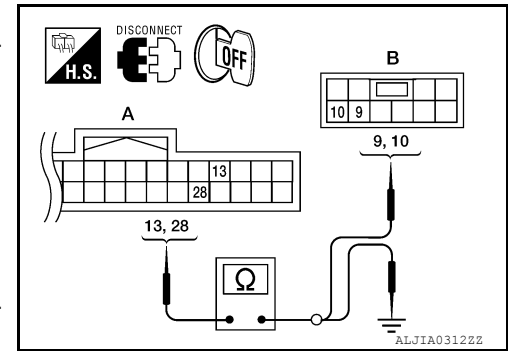
Refer to [GI-44, "Intermittent Incident"](#).

Is the inspection result normal?

- YES >> Replace driver seat control unit. Refer to [ADP-147, "Removal and Installation"](#).
NO >> Repair or replace the malfunctioning part.

Component Inspection

1. CHECK LIFTING SWITCH (FRONT)

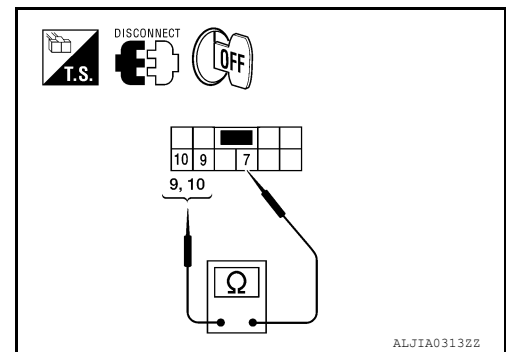


LIFTING SWITCH (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

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

Terminal		Condition		Continuity
Power seat switch LH				
7	9	Lifting switch front (downward)	Operate	Yes
			Release	No
	10	Lifting switch front (upward)	Operate	Yes
			Release	No



Is the inspection result normal?

- YES >> Inspection End.
- NO >> Replace power seat switch LH. Refer to [SE-51, "Disassembly and Assembly"](#).

LIFTING SWITCH (REAR)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SWITCH (REAR)

Description

INFOID:0000000011560584

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

INFOID:0000000011560585

1. CHECK FUNCTION

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

Monitor item	Condition		Status
LIFT RR SW-UP	Lifting switch rear (upward)	Operate	ON
		Release	OFF
LIFT RR SW-DN	Lifting switch rear (downward)	Operate	ON
		Release	OFF

Is the indication normal?

- YES >> Inspection End.
NO >> Perform diagnosis procedure. Refer to [ADP-59, "Diagnosis Procedure"](#).

Diagnosis Procedure

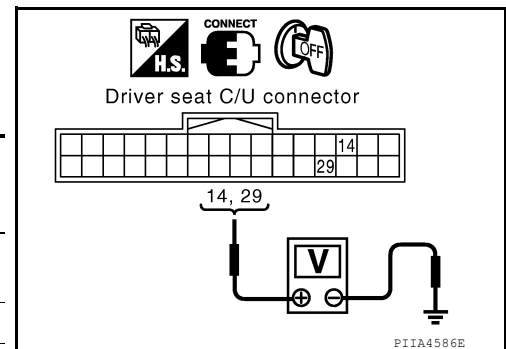
INFOID:0000000011560586

Regarding Wiring Diagram information, refer to [ADP-127, "Wiring Diagram"](#).

1. CHECK LIFTING SWITCH (REAR) SIGNAL

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

Driver seat control unit connector	Terminals		Condition		Voltage (V) (Approx.)
	(+)	(-)			
B202	14	Ground	Lifting switch (rear)	Operate (downward)	0
				Release	Battery voltage
	29			Operate (upward)	0
				Release	Battery voltage



Is the inspection result normal?

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

2. CHECK LIFTING SWITCH (REAR) CIRCUIT

LIFTING SWITCH (REAR)

< DTC/CIRCUIT DIAGNOSIS >

1. Disconnect driver seat control unit and power seat switch LH.
2. 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
	29		6	

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

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

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

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 unit connector	Terminals		Voltage (V) (Approx.)
	(+)	(-)	
B202	14	Ground	Battery voltage
	29		

Is the inspection result normal?

YES >> GO TO 4

NO >> Replace driver seat control unit. Refer to [ADP-147, "Removal and Installation"](#).

4. CHECK LIFTING SWITCH (REAR)

Refer to [ADP-60, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 5

NO >> Replace power seat switch LH. Refer to [SE-51, "Disassembly and Assembly"](#).

5. CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

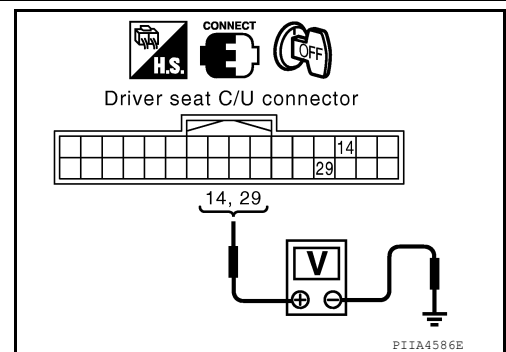
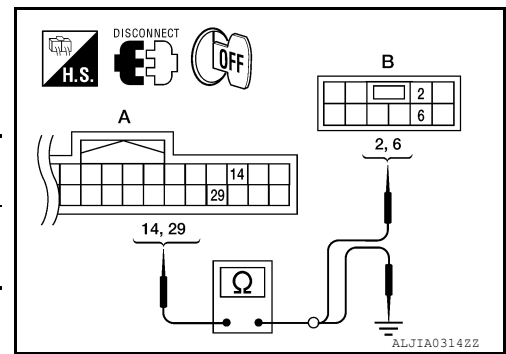
Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-147, "Removal and Installation"](#).

NO >> Repair or replace the malfunctioning part.

Component Inspection

1. CHECK LIFTING SWITCH (REAR)



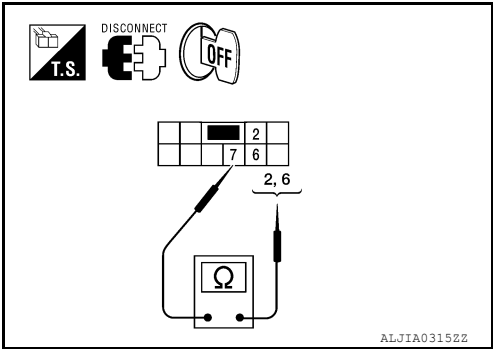
INFOID:0000000011560587

LIFTING SWITCH (REAR)

< DTC/CIRCUIT DIAGNOSIS >

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

Terminal		Condition		Continuity
Power seat switch LH				
7	2	Lifting switch rear (downward)	Operate	Yes
			Release	No
	6	Lifting switch rear (upward)	Operate	Yes
			Release	No



Is the inspection result normal?

- YES >> Inspection End.
- NO >> Replace power seat switch LH. Refer to [SE-51. "Disassembly and Assembly"](#).

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ADP

PEDAL ADJUSTING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

PEDAL ADJUSTING SWITCH

Description

INFOID:0000000011560588

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

INFOID:0000000011560589

1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-62. "Diagnosis Procedure"](#).

Diagnosis Procedure

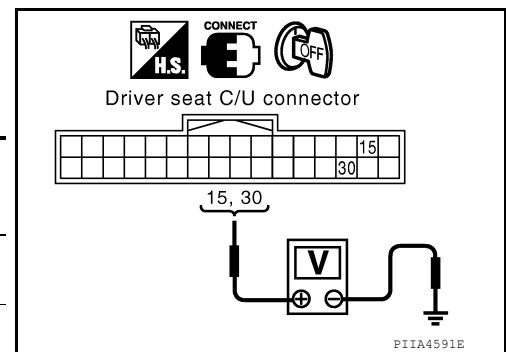
INFOID:0000000011560590

Regarding Wiring Diagram information, refer to [ADP-127. "Wiring Diagram"](#).

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 control unit connector	Terminals		Condition		Voltage (V) (Approx.)
	(+)	(−)			
B202	15	Ground	Pedal ad-justing switch	Operate (forward)	0
				Release	Battery voltage
	30			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

PEDAL ADJUSTING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

1. Disconnect driver seat control unit and pedal adjusting switch.
2. 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
	30		3	

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

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

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

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

Is the inspection result normal?

YES >> GO TO 4

NO >> Replace driver seat control unit. Refer to [ADP-147, "Removal and Installation"](#).

4. CHECK PEDAL ADJUSTING SWITCH

Refer to [ADP-64, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 5

NO >> Replace pedal adjusting switch. Refer to [IP-10, "Exploded View"](#).

5. CHECK PEDAL ADJUSTING SWITCH GROUND CIRCUIT

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

1 - Ground : Continuity should exist.

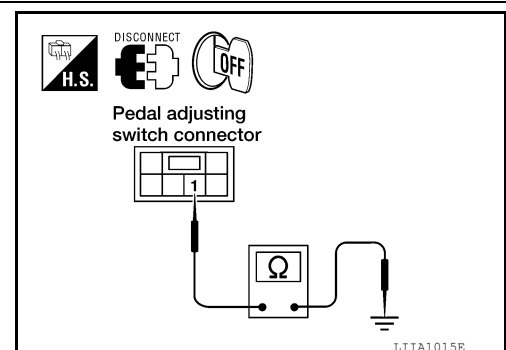
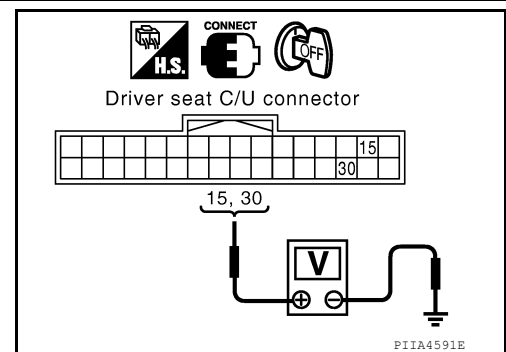
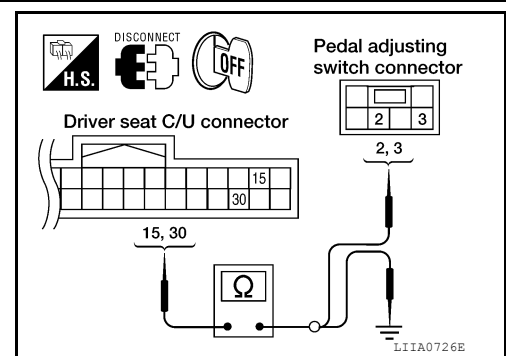
Is the inspection result normal?

YES >> GO TO 6

NO >> Repair or replace harness.

6. CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).



PEDAL ADJUSTING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

- YES >> Replace automatic drive positioner control unit. Refer to [ADP-148, "Removal and Installation"](#).
NO >> Repair or replace the malfunctioning part.

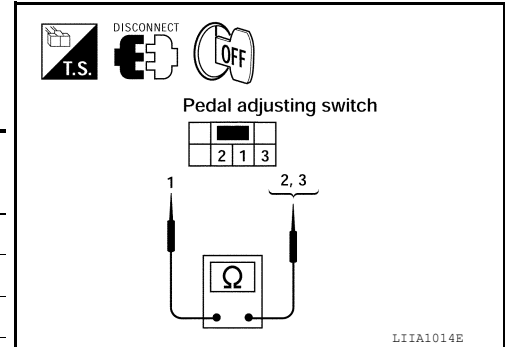
Component Inspection

INFOID:0000000011560591

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				
1	2	Pedal adjusting switch (backward)	Operate	Yes
			Release	No
	3	Pedal adjusting switch (forward)	Operate	Yes
			Release	No



Is the inspection result normal?

- YES >> Inspection End.
NO >> Replace pedal adjusting switch. Refer to [IP-10, "Exploded View"](#).

SEAT MEMORY SWITCH

< DTC/CIRCUIT DIAGNOSIS >

SEAT MEMORY SWITCH

Description

INFOID:0000000011560592

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:0000000011560593

1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-65, "Diagnosis Procedure"](#).

Diagnosis Procedure

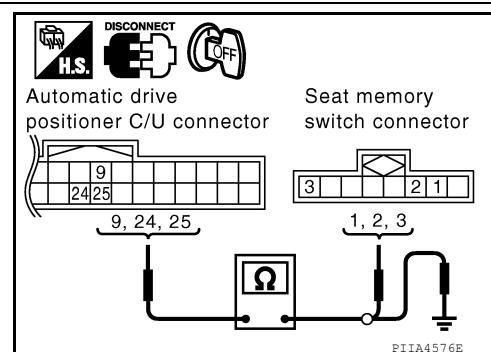
INFOID:0000000011560594

Regarding Wiring Diagram information, refer to [ADP-127, "Wiring Diagram"](#).

1. CHECK MEMORY SWITCH CIRCUIT

1. 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	9	D5	1	Yes
	24		3	
	25		2	



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

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

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace harness.

SEAT MEMORY SWITCH

< DTC/CIRCUIT DIAGNOSIS >

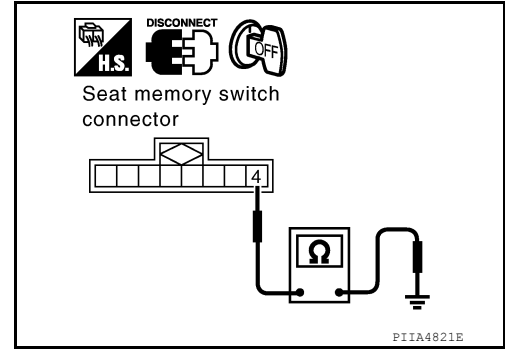
2. CHECK MEMORY SWITCH GROUND CIRCUIT

Check continuity between seat memory switch harness connector and ground.

Seat memory switch connector	Terminal	Ground	Continuity
D5	4		Yes

Is the inspection result normal?

YES >> GO TO 3
NO >> Repair or replace harness.



3. CHECK SEAT MEMORY SWITCH

Refer to [ADP-66, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 4
NO >> Replace seat memory switch. Refer to [ADP-149, "Removal and Installation"](#).

4. CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to [ADP-148, "Removal and Installation"](#).
NO >> Repair or replace the malfunctioning part.

Component Inspection

INFOID:0000000011560595

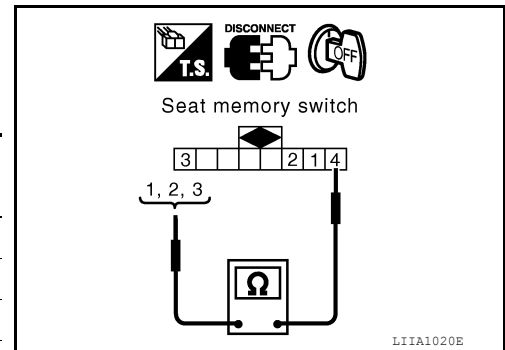
1. CHECK SEAT MEMORY SWITCH

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

Terminal		Condition		Continuity
Seat memory switch				
4	1	Memory switch 1	Push	Yes
			Release	No
	2	Memory switch 2	Push	Yes
			Release	No
	3	Set switch	Push	Yes
			Release	No

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace seat memory switch. Refer to [ADP-149, "Removal and Installation"](#).



DOOR MIRROR REMOTE CONTROL SWITCH

< DTC/CIRCUIT DIAGNOSIS >

DOOR MIRROR REMOTE CONTROL SWITCH CHANGEOVER SWITCH

CHANGEOVER SWITCH : Description

INFOID:0000000011560596

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:0000000011560597

1. CHECK CHANGEOVER SWITCH FUNCTION

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

Refer to [ADP-26, "CONSULT Function"](#).

Is the inspection result normal?

YES >> Changeover switch function is OK.

NO >> Refer to [ADP-67, "CHANGEOVER SWITCH : Diagnosis Procedure"](#).

CHANGEOVER SWITCH : Diagnosis Procedure

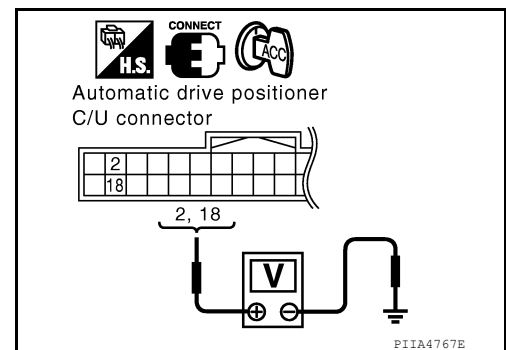
INFOID:0000000011560598

Regarding Wiring Diagram information, refer to [ADP-127, "Wiring Diagram"](#).

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 condition	Voltage (V) (Approx.)
(+)				
Automatic drive positioner control unit connector	Terminal			
M33	2	Ground	RIGHT	0
			Other than above	5
	18		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.
2. 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 remote control switch connector	Terminal	Continuity
---	----------	---	----------	------------

DOOR MIRROR REMOTE CONTROL SWITCH

< DTC/CIRCUIT DIAGNOSIS >

M33	2	D10 (king cab)	3	Yes
	18		2	
	2	D20 (crew cab)	11	
	18		10	

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

Automatic drive positioner control unit connector	Terminal	Ground	Continuity
M33	2		No
	18		

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 (king cab)	13		Yes
D20 (crew cab)	7		

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.

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

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace automatic drive positioner control unit. Refer to [ADP-148. "Removal and Installation"](#).

5. CHECK CHANGEOVER SWITCH

Check changeover switch.

Refer to [ADP-69. "CHANGEOVER SWITCH : Component Inspection"](#).

Is the inspection result normal?

YES >> Refer to [GI-44. "Intermittent Incident"](#).

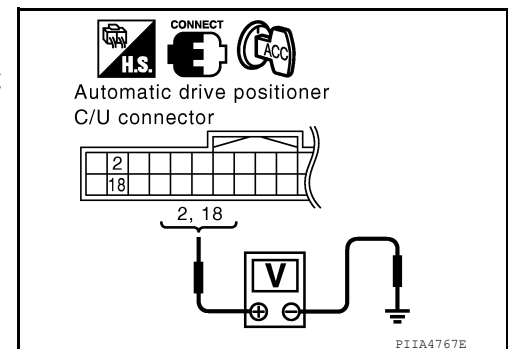
NO >> Replace door mirror remote control switch. Refer to [ADP-150. "Removal and Installation"](#).

6. CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to [GI-44. "Intermittent Incident"](#).

Is the inspection result normal?



DOOR MIRROR REMOTE CONTROL SWITCH

< DTC/CIRCUIT DIAGNOSIS >

- YES >> Replace automatic drive positioner control unit. Refer to [ADP-148. "Removal and Installation"](#).
NO >> Repair or replace the malfunctioning parts.

CHANGEOVER SWITCH : Component Inspection

INFOID:0000000011560599

1. CHECK CHANGEOVER SWITCH

Check door mirror remote control switch.

Crew cab

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

King cab

Terminal		Change over switch condition	Continuity
Door mirror remote control switch			
3	13	LEFT	Yes
		Other than above	No
2		RIGHT	Yes
		Other than above	No

Is the inspection result normal?

- YES >> Inspection End.
NO >> Replace door mirror remote control switch. Refer to [ADP-150. "Removal and Installation"](#).

MIRROR SWITCH

MIRROR SWITCH : Description

INFOID:0000000011560600

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

INFOID:0000000011560601

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.

Refer to [ADP-26. "CONSULT Function"](#).

Is the inspection result normal?

- YES >> Mirror switch function is OK.
NO >> Refer to [ADP-69. "MIRROR SWITCH : Diagnosis Procedure"](#).

MIRROR SWITCH : Diagnosis Procedure

INFOID:0000000011560602

Regarding Wiring Diagram information, refer to [ADP-127. "Wiring Diagram"](#).

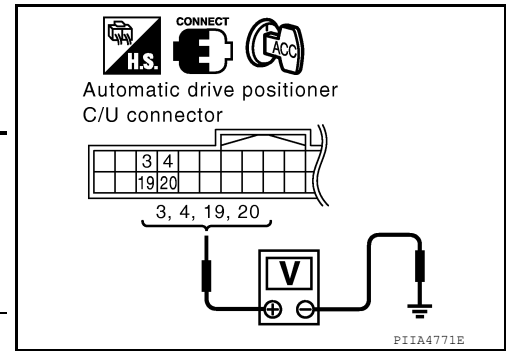
1. CHECK MIRROR SWITCH FUNCTION

DOOR MIRROR REMOTE CONTROL SWITCH

< DTC/CIRCUIT DIAGNOSIS >

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

Terminals		Mirror switch Condition	Voltage (V) (Approx.)
(+)	(-)		
Automatic drive positioner control unit connector	Terminal		
M33	3	UP	0
		Other than above	5
	4	LEFT	0
		Other than above	5
	19	DOWN	0
		Other than above	5
	20	RIGHT	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.
2. 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.

King cab

Automatic drive positioner control unit connector	Terminal	Door mirror remote control switch connector	Terminal	Continuity
M33	3	D10	6	Yes
	4		5	
	19		14	
	20		4	

Crew cab

Automatic drive positioner control unit connector	Terminal	Door mirror remote control switch connector	Terminal	Continuity
M33	3	D20	15	Yes
	4		13	
	19		12	
	20		4	

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

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

DOOR MIRROR REMOTE CONTROL SWITCH

< DTC/CIRCUIT DIAGNOSIS >

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 (king cab)	13		Yes
D20 (crew cab)	7		

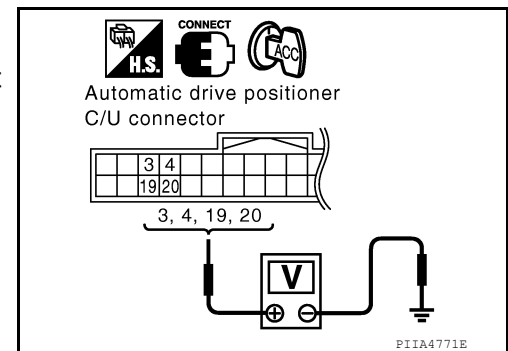
Is the inspection result normal?

- 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.

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



Is the inspection result normal?

- YES >> GO TO 5
NO >> Replace automatic drive positioner control unit. Refer to [ADP-148, "Removal and Installation"](#).

5. CHECK MIRROR SWITCH

Check mirror switch.

Refer to [ADP-71, "MIRROR SWITCH : Component Inspection"](#).

Is the inspection result normal?

- YES >> Refer to [GI-44, "Intermittent Incident"](#).
NO >> Replace door mirror remote control switch. Refer to [ADP-150, "Removal and Installation"](#).

6. CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to [GI-44, "Intermittent Incident"](#).

Is the inspection result normal?

- YES >> Replace automatic drive positioner control unit. Refer to [ADP-148, "Removal and Installation"](#).
NO >> Repair or replace the malfunctioning parts.

MIRROR SWITCH : Component Inspection

INFOID:0000000011560603

1. CHECK MIRROR SWITCH

Check door mirror remote control switch.

DOOR MIRROR REMOTE CONTROL SWITCH

< DTC/CIRCUIT DIAGNOSIS >

King cab

Terminal		Mirror switch condition	Continuity
Door mirror remote control switch			
4	13	RIGHT	Yes
		Other than above	No
5		LEFT	Yes
		Other than above	No
6		UP	Yes
		Other than above	No
14		DOWN	Yes
		Other than above	No

Crew cab

Terminal		Mirror switch condition	Continuity
Door mirror remote control switch			
4	7	RIGHT	Yes
		Other than above	No
13		LEFT	Yes
		Other than above	No
15		UP	Yes
		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 [ADP-150, "Removal and Installation"](#).

POWER SEAT SWITCH GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

POWER SEAT SWITCH GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000011560604

Regarding Wiring Diagram information, refer to [ADP-127, "Wiring Diagram"](#).

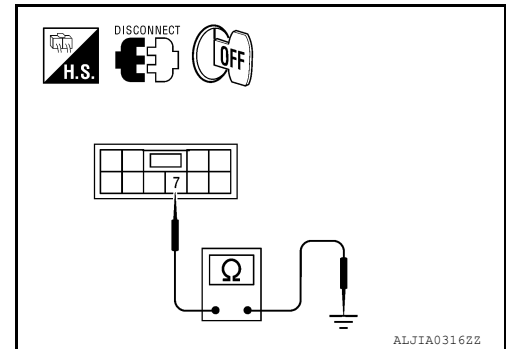
1. CHECK POWER SEAT SWITCH LH GROUND CIRCUIT

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 [GI-44, "Intermittent Incident"](#).
- NO >> Repair or replace harness.



PARK POSITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

PARK POSITION SWITCH

Description

INFOID:0000000011560605

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

Component Function Check

INFOID:0000000011560606

1. CHECK FUNCTION

1. Select "DETENT SW" signal in "Data monitor" mode with CONSULT.
2. Check park position switch (key lock) signal under the following conditions.

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

Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-74, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000011560607

Regarding Wiring Diagram information, refer to [ADP-127, "Wiring Diagram"](#).

1. CHECK DTC WITH "BCM"

Check "Self Diagnostic Result" for BCM with CONSULT.

Is any DTC detected?

YES >> Check the DTC.

NO >> GO TO 2

2. CHECK A/T SHIFT SELECTOR [PARK POSITION SWITCH (KEY LOCK)] INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect driver seat control unit.
3. Mechanical key must be inserted into the key switch and key lock solenoid.
4. Check voltage between driver seat control unit harness connector and ground.

Driver seat control unit connector	Terminal		Condition		Voltage (V) (Approx.)
	(+)	(-)			
B202	21	Ground	A/T shift selector	P position	0
				Other than above	Battery voltage

Is the inspection result normal?

YES >> GO TO 4

NO >> GO TO 3

3. CHECK A/T SHIFT SELECTOR [PARK POSITION SWITCH (KEY LOCK)] CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect driver seat control unit and A/T shift selector.
3. Check continuity between driver seat control unit harness connector and A/T shift selector harness connector.

PARK POSITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Connector	Terminal	Connector	Terminal	Continuity
B202	21	M203	6	Yes

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

Connector	Terminal	Ground	Continuity
B202	21		No

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-147, "Removal and Installation"](#).

NO >> Repair or replace the malfunctioning part.

A
B
C
D
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ADP

FRONT DOOR SWITCH (DRIVER SIDE)

< DTC/CIRCUIT DIAGNOSIS >

FRONT DOOR SWITCH (DRIVER SIDE)

Description

INFOID:0000000011560608

Detects front door LH open/close condition.

Component Function Check

INFOID:0000000011560609

1. CHECK FUNCTION

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

Monitor item	Condition		Status
DOOR SW-DR	Front door switch LH	Open	ON
		Close	OFF

Is the inspection result normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-76, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000011560610

Regarding Wiring Diagram information, refer to [ADP-127, "Wiring Diagram"](#).

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	Terminal	Ground	Continuity
M19	47		No

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace harness.

2. CHECK FRONT DOOR SWITCH LH

Refer to [ADP-77, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 3

NO >> Replace front door switch LH.

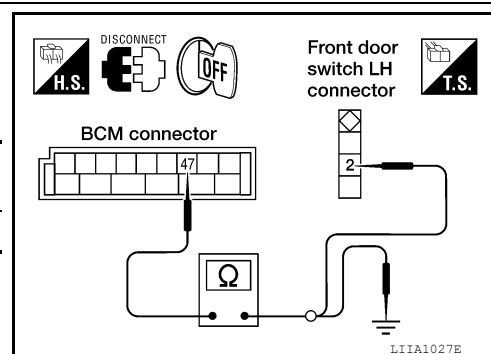
3. CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-56, "Removal and Installation"](#).

NO >> Repair or replace the malfunctioning part.



FRONT DOOR SWITCH (DRIVER SIDE)

< DTC/CIRCUIT DIAGNOSIS >

Component Inspection

INFOID:0000000011560611

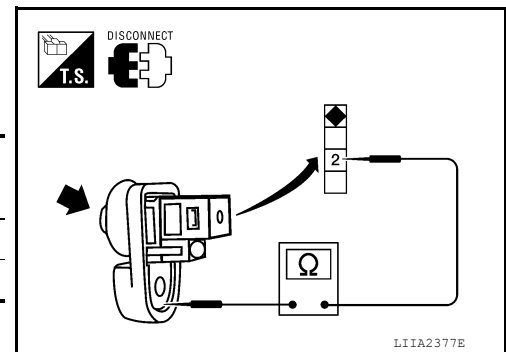
1. CHECK FRONT DOOR SWITCH LH

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

Is the inspection result normal?

- YES >> Inspection End.
NO >> Replace front door switch LH.



SLIDING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

SLIDING SENSOR

Description

INFOID:0000000011560612

- 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:0000000011560613

1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-78, "Diagnosis Procedure"](#).

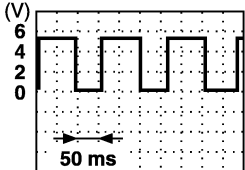
Diagnosis Procedure

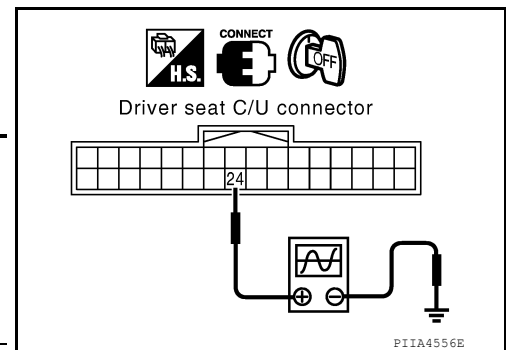
INFOID:0000000011560614

Regarding Wiring Diagram information, refer to [ADP-127, "Wiring Diagram"](#).

1. CHECK SLIDING SENSOR SIGNAL

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

Terminals			Condition		Voltage signal
(+)	Termi- nal	(-)			
Driver's seat control unit					
B202	24	Ground	Seat sliding	Operate	 PIIA3277E
				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

< DTC/CIRCUIT 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
B202 (A)	16	B204 (B)	3	Yes
	24		4	
	31		2	

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

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

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 sliding motor LH.
2. Check seat operation (except sliding operation) with memory function.

Is the inspection result normal?

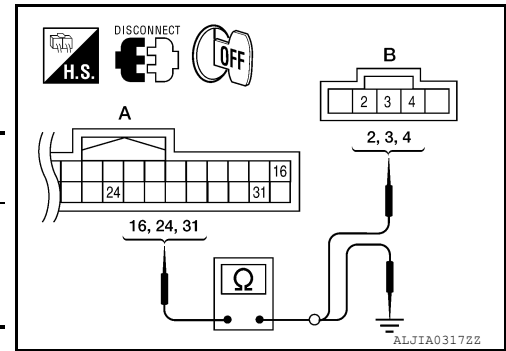
- YES >> Replace sliding motor LH. (Built in power seat frame assembly). Refer to [SE-51, "Disassembly and Assembly"](#).
 NO >> Replace driver seat control unit. Refer to [ADP-147, "Removal and Installation"](#).

4. CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

Is the inspection result normal?

- YES >> Replace driver seat control unit. Refer to [ADP-147, "Removal and Installation"](#).
 NO >> Repair or replace the malfunctioning part.



RECLINING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

RECLINING SENSOR

Description

INFOID:0000000011560615

- 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:0000000011560616

1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-80, "Diagnosis Procedure"](#).

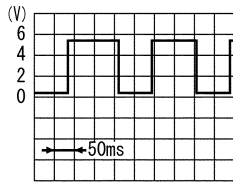
Diagnosis Procedure

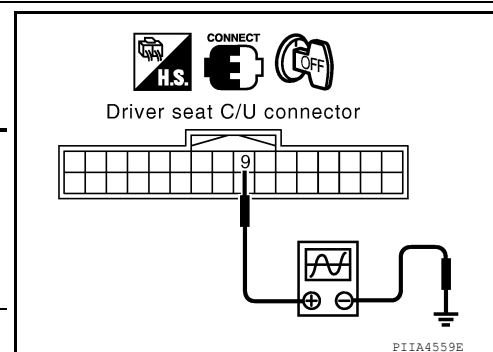
INFOID:0000000011560617

Regarding Wiring Diagram information, refer to [ADP-127, "Wiring Diagram"](#).

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.

Terminals			Condition	Voltage signal	
(+)		(-)			
Driver seat control unit	Terminal				
B202	9	Ground	Seat reclining	Operate	
				Other than above	0 or 5



Is the inspection result normal?

YES >> GO TO 4

NO >> GO TO 2

2. CHECK RECLINING SENSOR CIRCUIT

RECLINING SENSOR

< DTC/CIRCUIT 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
	31		4	

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

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

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?

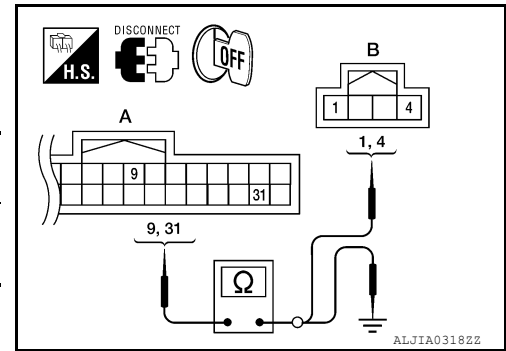
- YES >> Replace reclining motor LH. (Built in power seat frame assembly). Refer to [SE-51. "Disassembly and Assembly"](#).
 NO >> Replace driver seat control unit. Refer to [ADP-147. "Removal and Installation"](#).

4. CHECK INTERMITTENT INCIDENT

Refer to [GI-44. "Intermittent Incident"](#).

Is the inspection result normal?

- YES >> Replace driver seat control unit. Refer to [ADP-147. "Removal and Installation"](#).
 NO >> Repair or replace the malfunctioning part.



LIFTING SENSOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SENSOR (FRONT)

Description

INFOID:0000000011560618

- 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

INFOID:0000000011560619

1. CHECK FUNCTION

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

Monitor item	Condition		Value
LIFT FR PULSE	Seat lifting (front)	Operate (upward)	Change (increase)
		Operate (downward)	Change (decrease)
		Release	No change

Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-82. "Diagnosis Procedure"](#).

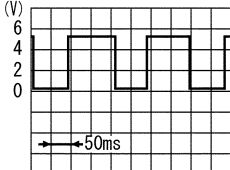
Diagnosis Procedure

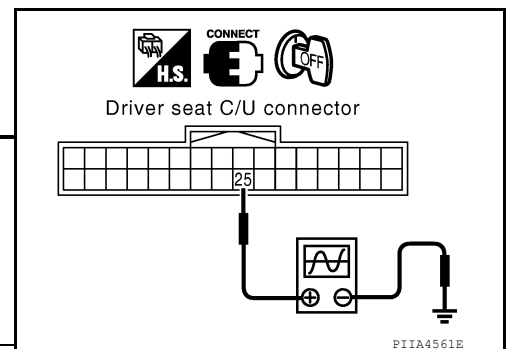
INFOID:0000000011560620

Regarding Wiring Diagram information, refer to [ADP-127. "Wiring Diagram"](#).

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.

Terminals		(-)	Condition		Voltage signal
(+)					
Driver seat control unit connector	Terminal				
B202	25	Ground	Seat lifting (front)	Operate	
				Other than above	0 or 5



Is the inspection result normal?

YES >> GO TO 4

NO >> GO TO 2

LIFTING SENSOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

2. CHECK LIFTING SENSOR (FRONT) CIRCUIT

1. Disconnect driver seat control unit and lifting motor (front).
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
B202 (A)	16	B206 (B)	3	Yes
	25		4	
	31		2	

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

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

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 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-51, "Disassembly and Assembly"](#).

NO >> Replace driver seat control unit. Refer to [ADP-147, "Removal and Installation"](#).

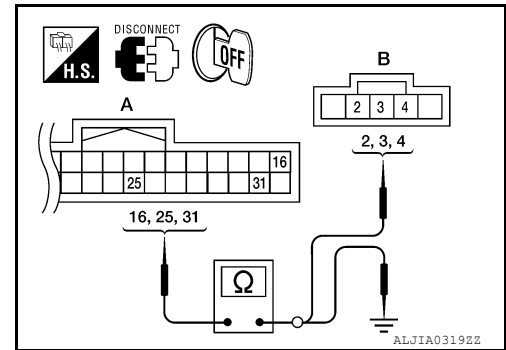
4. CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-147, "Removal and Installation"](#).

NO >> Repair or replace the malfunctioning part.



LIFTING SENSOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SENSOR (REAR)

Description

INFOID:0000000011560621

- 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

INFOID:0000000011560622

1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-84. "Diagnosis Procedure"](#).

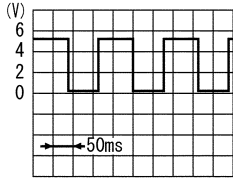
Diagnosis Procedure

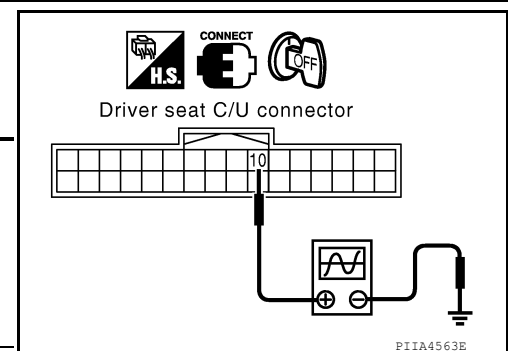
INFOID:0000000011560623

Regarding Wiring Diagram information, refer to [ADP-127. "Wiring Diagram"](#).

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.

Terminals					
(+)					
Driver seat control unit connector	Terminal	(-)	Condition		Voltage signal
B202	10	Ground	Seat lifting (rear)	Operate	
				Other than above	0 or 5



Is the inspection result normal?

YES >> GO TO 4

NO >> GO TO 2

LIFTING SENSOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

2. CHECK LIFTING SENSOR (REAR) CIRCUIT

1. Disconnect driver seat control unit and lifting motor (rear).
2. 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
B202 (A)	10	B207 (B)	4	Yes
	16		3	
	31		2	

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

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

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 lifting motor (rear) connector.
2. Check the seat operation [except lifting (rear) operation] with memory function.

Is the operation normal?

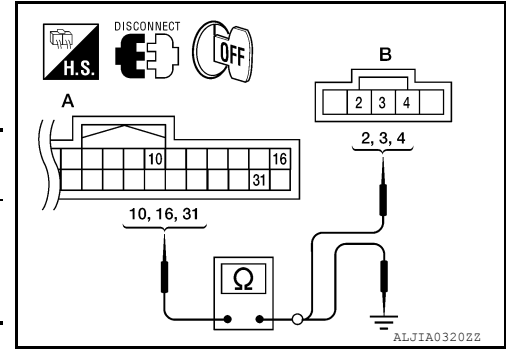
- YES >> Replace lifting motor (rear). (Built in power seat frame assembly). Refer to [SE-51, "Disassembly and Assembly"](#).
NO >> Replace driver seat control unit. Refer to [ADP-147, "Removal and Installation"](#).

4. CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

Is the inspection result normal?

- YES >> Replace driver seat control unit. Refer to [ADP-147, "Removal and Installation"](#).
NO >> Repair or replace the malfunctioning part.



PEDAL ADJUSTING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

PEDAL ADJUSTING SENSOR

Description

INFOID:0000000011560624

- 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:0000000011560625

1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-86, "Diagnosis Procedure"](#).

Diagnosis Procedure

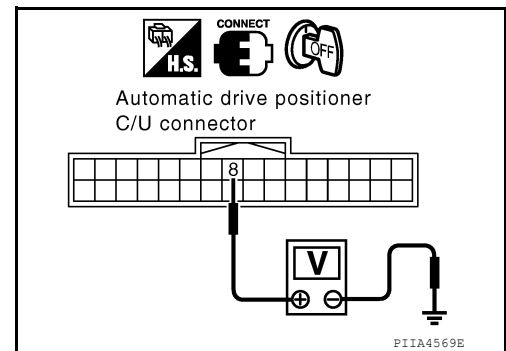
INFOID:0000000011560626

Regarding Wiring Diagram information, refer to [ADP-127, "Wiring Diagram"](#).

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			Condition		Voltage (V) (Approx.)
(+)		(-)			
Automatic drive position- er control unit	Terminal				
M33	8	Ground	Pedal as- sembly position	Forward	0.5
				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

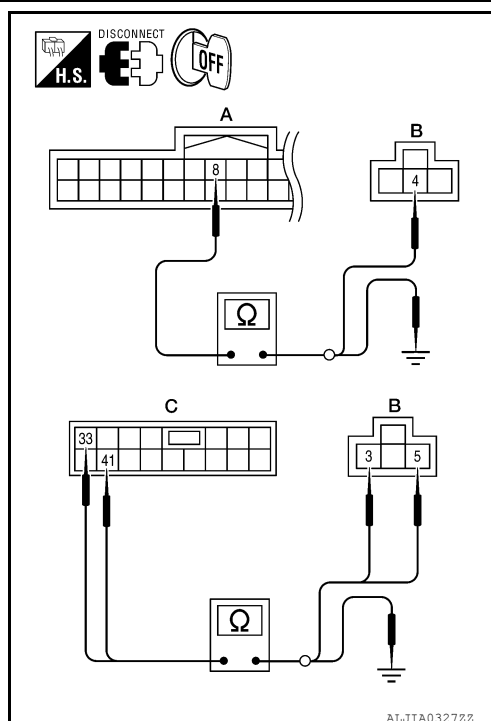
< DTC/CIRCUIT DIAGNOSIS >

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
M33 (A)	8	E110 (B)	4	Yes
M34 (C)	33		3	
	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	No
M34 (C)	33		
	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 [ADP-151, "Removal and Installation"](#).

NO >> Replace automatic drive positioner control unit. Refer to [ADP-148, "Removal and Installation"](#).

4. CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to [ADP-148, "Removal and Installation"](#).

NO >> Repair or replace the malfunctioning part.

MIRROR SENSOR

< DTC/CIRCUIT DIAGNOSIS >

MIRROR SENSOR DRIVER SIDE

DRIVER SIDE : Description

INFOID:0000000011560627

- 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:0000000011560628

1. CHECK FUNCTION

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

Monitor item	Condition		Value
MIR/SEN LH U-D	Door mirror LH	Close to peak	3.4V
		Close to valley	0.6V
MIR/SEN LH R-L		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 [ADP-88, "DRIVER SIDE : Diagnosis Procedure"](#).

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000011560629

Regarding Wiring Diagram information, refer to [ADP-127, "Wiring Diagram"](#).

1. CHECK DOOR MIRROR LH SENSOR SIGNAL

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

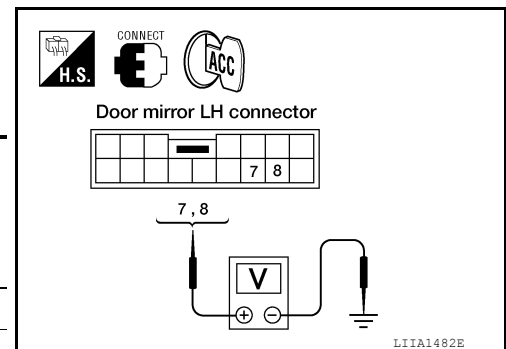
Terminals		Condition	Voltage (V) (Approx.)
(+)	(-)		
Door mirror LH connector	Terminal		
D4	7	Door mirror LH	Close to peak 3.4
			Close to valley 0.6
	8		Close to right edge 3.4
			Close to left edge 0.6

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 2.

2. CHECK DOOR MIRROR LH SENSOR CIRCUIT 1

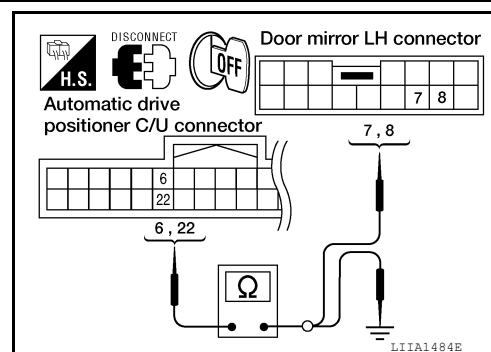


MIRROR SENSOR

< DTC/CIRCUIT DIAGNOSIS >

1. Turn ignition switch OFF.
2. Disconnect automatic drive positioner control unit and door mirror LH connector.
3. 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
	22		8	



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

Automatic drive positioner control unit connector	Terminal	Ground	Continuity
M33	6	Ground	No
	22		

Is the inspection result normal?

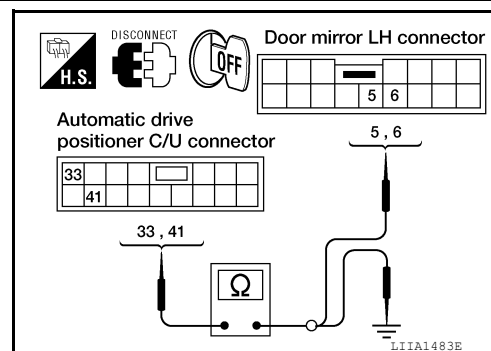
YES >> GO TO 3.

NO >> Repair or replace harness.

3. CHECK DOOR MIRROR LH SENSOR CIRCUIT 2

1. 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
	41		6	



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

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

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.
2. Turn ignition switch ON.
3. Check pedal adjusting operation with memory function.

Is the operation normal?

YES >> Replace door mirror actuator LH. Refer to [MIR-21, "Mirror Actuator"](#).

NO >> Replace automatic drive positioner control unit. Refer to [ADP-148, "Removal and Installation"](#).

5. CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to [ADP-148, "Removal and Installation"](#).

NO >> Repair or replace the malfunctioning part.

MIRROR SENSOR

< DTC/CIRCUIT DIAGNOSIS >

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000011560630

- 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:0000000011560631

1. CHECK FUNCTION

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

Monitor item	Condition		Value
MIR/SEN RH U-D	Door mirror RH	Close to peak	3.4V
		Close to valley	0.6V
MIR/SEN RH R-L		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 [ADP-90, "PASSENGER SIDE : Diagnosis Procedure"](#).

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000011560632

Regarding Wiring Diagram information, refer to [ADP-127, "Wiring Diagram"](#).

1. CHECK DOOR MIRROR RH SENSOR SIGNAL

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

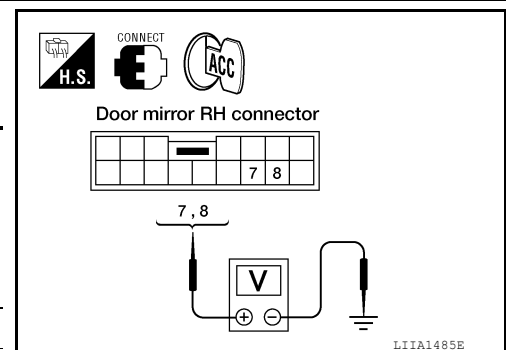
Terminals				Condition	Voltage (V) (Approx.)
(+)	(-)				
Doormirror RH con- nector	Terminal				
D107	7	Ground	Door mirror RH	Close to peak	3.4
				Close to valley	0.6
	8			Close to right edge	3.4
				Close to left edge	0.6

Is the inspection result normal?

YES >> GO TO 5

NO >> GO TO 2

2. CHECK DOOR MIRROR RH SENSOR HARNESS CONTINUITY

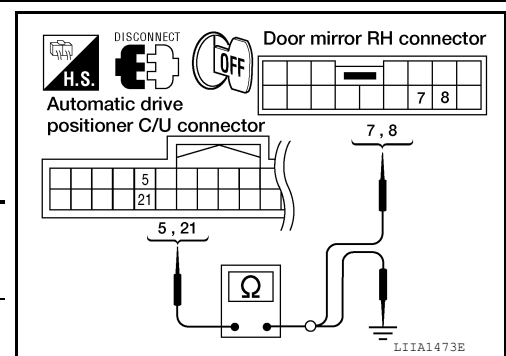


MIRROR SENSOR

< DTC/CIRCUIT DIAGNOSIS >

1. 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 positioner control unit connector	Terminal	Door mirror RH connector	Terminal	Continuity
M33	5	D107	7	Yes
	21		8	



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

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

Is the inspection result normal?

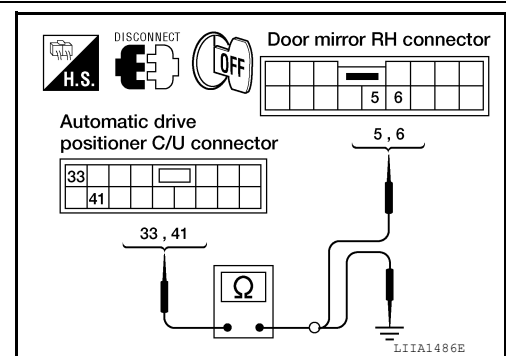
YES >> GO TO 3

NO >> Repair or replace harness.

3.CHECK DOOR MIRROR RH SENSOR POWER SUPPLY CIRCUIT

1. 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
	41		6	



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

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

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.
2. Turn ignition switch ON.
3. Check pedal adjusting operation with memory function.

Is the operation normal?

YES >> Replace door mirror actuator. Refer to [MIR-21, "Mirror Actuator"](#).

NO >> Replace automatic drive positioner control unit. Refer to [ADP-148, "Removal and Installation"](#).

5.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to [ADP-148, "Removal and Installation"](#).

NO >> Repair or replace the malfunctioning part.

SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

SLIDING MOTOR

Description

INFOID:0000000011560633

- 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:0000000011560634

1. CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-92, "Diagnosis Procedure"](#).

Diagnosis Procedure

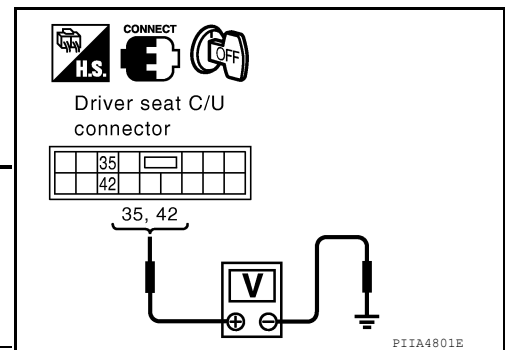
INFOID:0000000011560635

Regarding Wiring Diagram information, refer to [ADP-127, "Wiring Diagram"](#).

1. CHECK SLIDING MOTOR LH POWER SUPPLY

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

Terminal		Test Item	Voltage (V) (Approx.)
(+)	(-)		
Driver seat control unit connector	Terminal		
B203	35	SEAT SLIDE OFF	0
		FR (forward)	Battery voltage
		RR (backward)	0
	42	SEAT SLIDE OFF	0
		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 [SE-51, "Disassembly and Assembly"](#).

NO >> GO TO 2

2. CHECK SLIDING MOTOR LH CIRCUIT

SLIDING MOTOR

< DTC/CIRCUIT 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
	42		1	

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

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

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

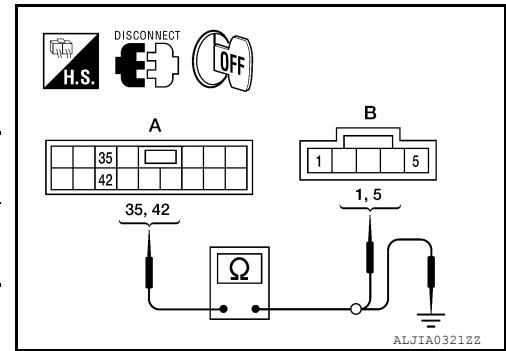
3. CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-147, "Removal and Installation"](#).

NO >> Repair or replace the malfunctioning part.



RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

RECLINING MOTOR

Description

INFOID:0000000011560636

- 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:0000000011560637

1. CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-94. "Diagnosis Procedure"](#).

Diagnosis Procedure

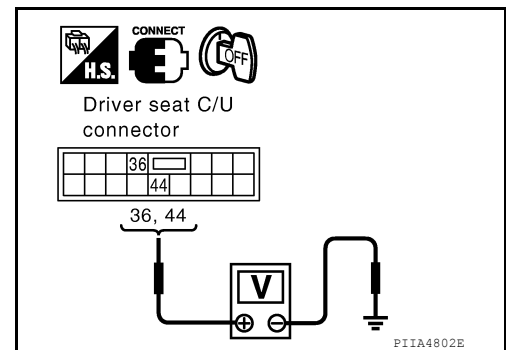
INFOID:0000000011560638

Regarding Wiring Diagram information, refer to [ADP-127. "Wiring Diagram"](#).

1. CHECK RECLINING MOTOR LH POWER SUPPLY

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

Terminal		(-)	Test Item		Voltage (V) (Approx.)
(+)					
Driver seat control unit connector	Terminal				
B203	36	Ground	SEAT RE-CLINING	OFF	0
				FR (forward)	Battery voltage
				RR (backward)	0
	44			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 [SE-51. "Disassembly and Assembly"](#).

NO >> GO TO 2

2. CHECK RECLINING MOTOR LH CIRCUIT

RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

1. Disconnect driver seat control unit connector and reclining motor LH.
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
	44		3	

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

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

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

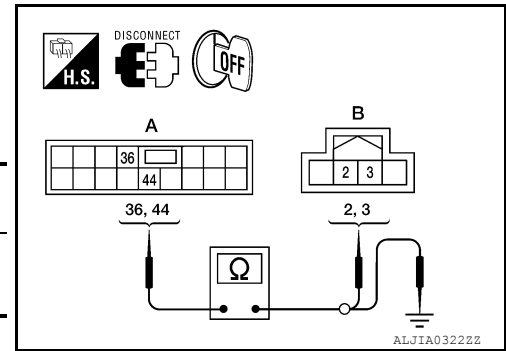
3. CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-147, "Removal and Installation"](#).

NO >> Repair or replace the malfunctioning part.



LIFTING MOTOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING MOTOR (FRONT)

Description

INFOID:0000000011560639

- 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:0000000011560640

1. CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-96, "Diagnosis Procedure"](#).

Diagnosis Procedure

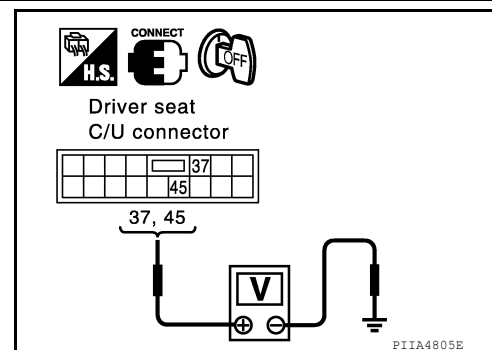
INFOID:0000000011560641

Regarding Wiring Diagram information, refer to [ADP-127, "Wiring Diagram"](#).

1. CHECK LIFTING MOTOR (FRONT) POWER SUPPLY

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

Terminal			Test Item		Voltage (V) (Approx.)
(+)		(-)			
Driver seat control unit connector	Terminal				
B203	37	Ground	SEAT LIFTER FR	OFF	0
				UP	0
				DWN (down- ward)	Battery voltage
	45			OFF	0
				UP	Battery voltage
				DWN (down- ward)	0



Is the inspection result normal?

YES >> Replace lifting motor (front). (Built in power seat frame assembly). Refer to [SE-51, "Disassembly and Assembly"](#).

NO >> GO TO 2

2. CHECK LIFTING MOTOR (FRONT) CIRCUIT

LIFTING MOTOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

1. 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
	45		5	

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

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

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

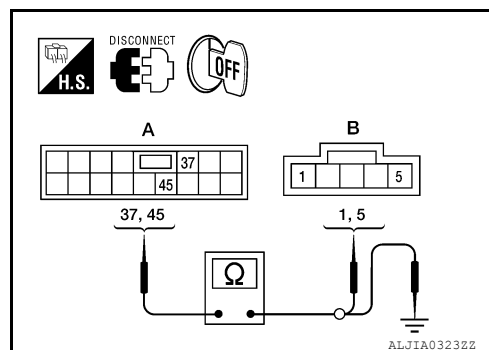
3. CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-147, "Removal and Installation"](#).

NO >> Repair or replace the malfunctioning part.



LIFTING MOTOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING MOTOR (REAR)

Description

INFOID:0000000011560642

- 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:0000000011560643

1. CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-98, "Diagnosis Procedure"](#).

Diagnosis Procedure

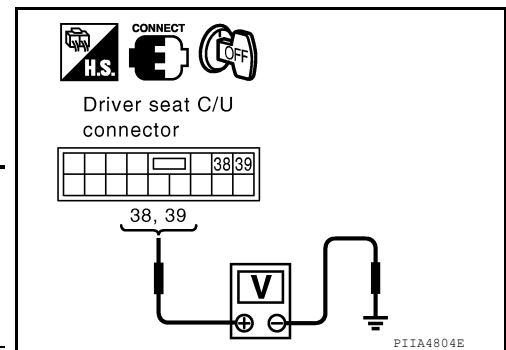
INFOID:0000000011560644

Regarding Wiring Diagram information, refer to [ADP-127, "Wiring Diagram"](#).

1. CHECK LIFTING MOTOR (REAR) POWER SUPPLY

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

Terminal			Test Item		Voltage (V) (Approx.)
(+)		(-)			
Driver seat control unit connector	Terminal				
B203	38	Ground	SEAT LIFTER RR	OFF	0
				UP	Battery voltage
				DWN (downward)	0
	39			OFF	0
				UP	0
				DWN (downward)	Battery voltage



Is the inspection result normal?

YES >> Replace lifting motor (rear). (Built in power seat frame assembly). Refer to [SE-51, "Disassembly and Assembly"](#).

NO >> GO TO 2

2. CHECK LIFTING MOTOR (REAR) CIRCUIT

LIFTING MOTOR (REAR)

< DTC/CIRCUIT 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
	39		1	

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

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

Is the inspection result normal?

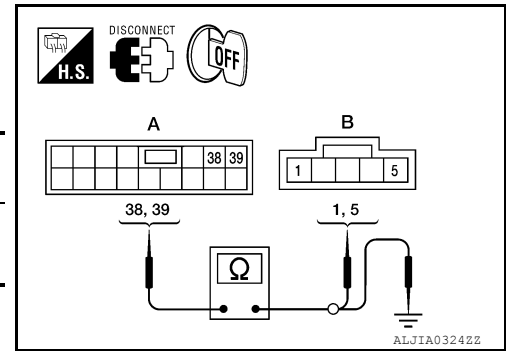
- YES >> GO TO 3
 NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

Is the inspection result normal?

- YES >> Replace driver seat control unit. Refer to [ADP-147, "Removal and Installation"](#).
 NO >> Repair or replace the malfunctioning part.



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PEDAL ADJUSTING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

PEDAL ADJUSTING MOTOR

Description

INFOID:0000000011560645

- 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:0000000011560646

1. CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-100, "Diagnosis Procedure"](#).

Diagnosis Procedure

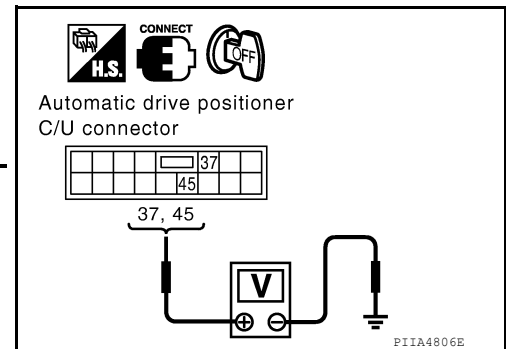
INFOID:0000000011560647

Regarding Wiring Diagram information, refer to [ADP-127, "Wiring Diagram"](#).

1. CHECK PEDAL ADJUSTING MOTOR POWER SUPPLY

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

Terminal		(-)	Test Item		Voltage (V) (Approx.)
(+)					
Automatic drive positioner control unit connector	Terminal				
M34	37	Ground	PEDAL MOTOR	OFF	0
				RR (backward)	0
				FR (forward)	Battery voltage
	45			OFF	0
				RR (backward)	Battery voltage
				FR (forward)	0



Is the inspection result normal?

YES >> Replace pedal adjusting motor assembly. Refer to [ADP-151, "Removal and Installation"](#).

NO >> GO TO 2

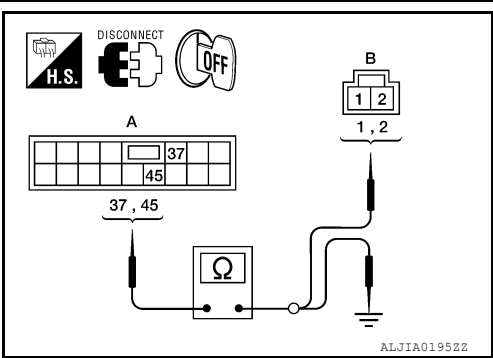
2. CHECK PEDAL ADJUSTING MOTOR CIRCUIT

PEDAL ADJUSTING MOTOR

< DTC/CIRCUIT 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
	45		2	



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

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

Is the inspection result normal?

- YES >> GO TO 3
NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

Is the inspection result normal?

- YES >> Replace automatic drive positioner control unit. Refer to [ADP-148, "Removal and Installation"](#).
NO >> Repair or replace the malfunctioning part.

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DOOR MIRROR MOTOR

< DTC/CIRCUIT DIAGNOSIS >

DOOR MIRROR MOTOR

Description

INFOID:0000000011560648

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:0000000011560649

1. CHECK DOOR MIRROR MOTOR FUNCTION

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

Refer to [ADP-26, "CONSULT Function"](#).

Is the inspection result normal?

YES >> Door mirror motor function is OK.

NO >> Refer to [ADP-102, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000011560650

Regarding Wiring Diagram information, refer to [ADP-127, "Wiring Diagram"](#).

1. CHECK DOOR MIRROR MOTOR INPUT SIGNAL

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

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

Is the inspection result normal?

YES >> Refer to [ADP-104, "Component Inspection"](#).

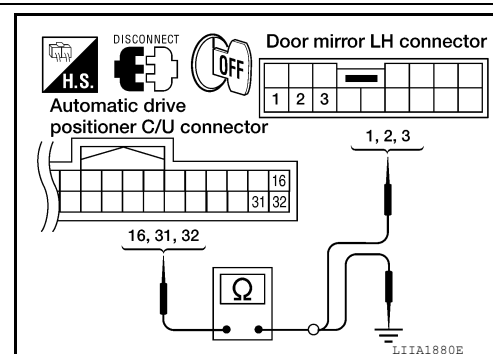
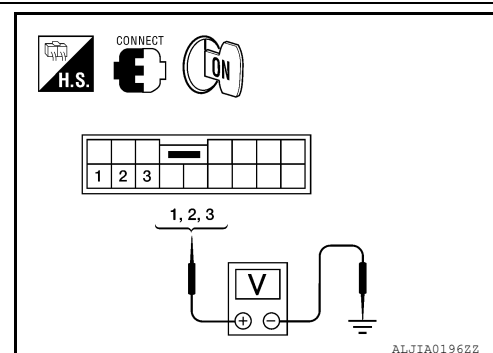
NO >> GO TO 2

2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. 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
M33	16	D4	3	Yes
	31		1	
	32		2	



DOOR MIRROR MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Door mirror RH

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

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

Door mirror LH

Automatic drive positioner control unit connector	Terminal		Continuity
M33	16	Ground	No
	31		
	32		

Door mirror RH

Automatic drive positioner control unit connector	Terminal		Continuity
M33	14	Ground	No
	15		
	30		

Is the inspection result normal?

YES >> GO TO 3

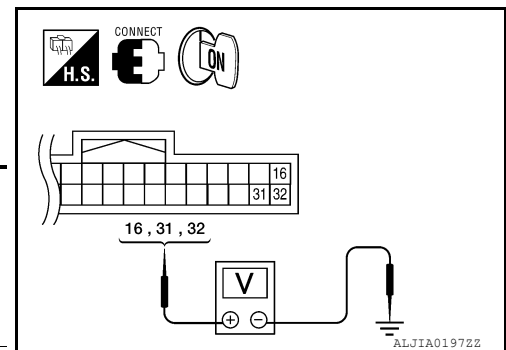
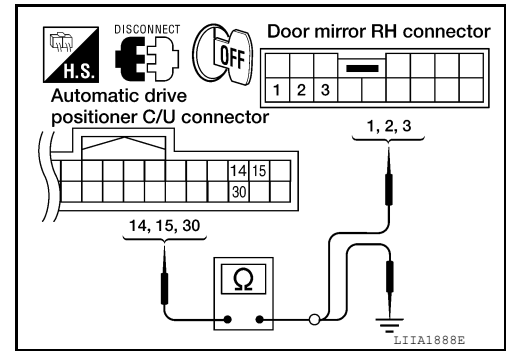
NO >> Repair or replace harness.

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

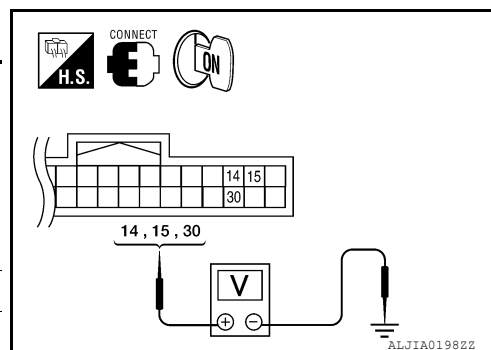


DOOR MIRROR MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Door mirror RH

Terminals		Mirror switch condition	Voltage (V) (Approx.)
(+)	(-)		
Automatic drive positioner control unit connector	Terminal		
M33	14	UP	Battery voltage
		Other than above	0
	15	LEFT	Battery voltage
		Other than above	0
	30	DOWN / RIGHT	Battery voltage
		Other than above	0



Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace automatic drive positioner control unit. Refer to [ADP-148, "Removal and Installation"](#).

4. CHECK DOOR MIRROR MOTOR

Check door mirror motor.

Refer to [ADP-104, "Component Inspection"](#).

Is the inspection result normal?

YES >> Refer to [GI-44, "Intermittent Incident"](#).

NO >> Replace door mirror actuator. Refer to [MIR-21, "Mirror Actuator"](#).

Component Inspection

INFOID:000000011560651

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-18, "Door Mirror Assembly"](#).

Is the inspection result normal?

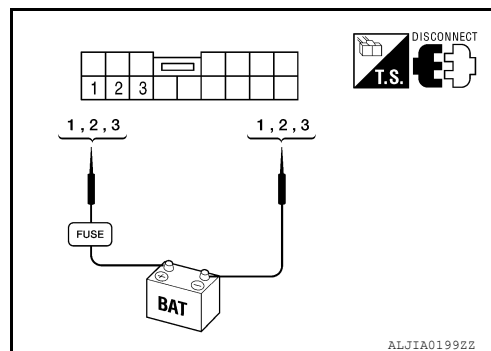
YES >> GO TO 2

NO >> Replace door mirror actuator. Refer to [MIR-21, "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
	(+)	(-)	
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-21, "Mirror Actuator"](#).

SEAT MEMORY INDICATOR LAMP

< DTC/CIRCUIT DIAGNOSIS >

SEAT MEMORY INDICATOR LAMP

Description

INFOID:0000000011560652

- 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

INFOID:0000000011560653

1. CHECK FUNCTION

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

Test item		Description	
MEMORY SW INDCTR	OFF	Memory switch indicator	OFF
	ON-1		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-105, "Diagnosis Procedure"](#).

Diagnosis Procedure

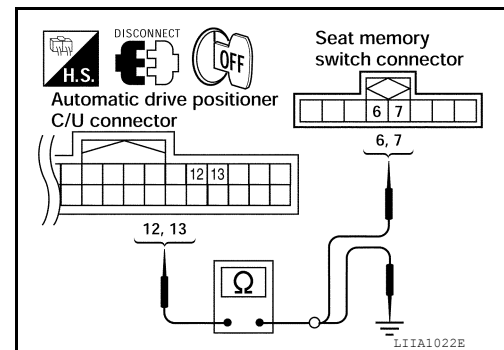
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Regarding Wiring Diagram information, refer to [ADP-127, "Wiring Diagram"](#).

1. CHECK SEAT MEMORY INDICATOR CIRCUIT

1. 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
	13		7	



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

Automatic drive positioner connector	Terminal	Ground	Continuity
M33	12		No
	13		

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace harness.

2. CHECK MEMORY INDICATOR POWER SUPPLY

SEAT MEMORY INDICATOR LAMP

< DTC/CIRCUIT DIAGNOSIS >

Check voltage between seat memory switch harness connector and ground.

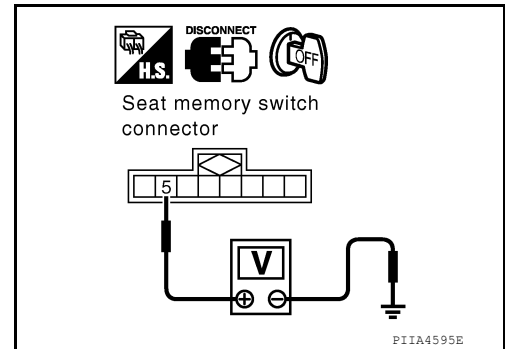
Seat memory switch connector	Terminals		Voltage (V) (Approx.)
	(+)	(-)	
D5	5	Ground	Battery voltage

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-106, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 4

NO >> Replace seat memory switch. Refer to [ADP-149, "Removal and Installation"](#).

4. CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to [ADP-148, "Removal and Installation"](#).

NO >> Repair or replace the malfunctioning part.

Component Inspection

INFOID:0000000011560655

1. CHECK SEAT MEMORY INDICATOR

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

Terminal		Continuity
Seat memory switch		
(+)	(-)	
5	6	Yes
	7	

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace seat memory switch. Refer to [ADP-149, "Removal and Installation"](#).

DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

ECU DIAGNOSIS INFORMATION

DRIVER SEAT CONTROL UNIT

Reference Value

INFOID:0000000011560656

VALUES ON THE DIAGNOSIS TOOL

CONSULT MONITOR ITEM

Monitor Item	Condition		Value/Status
SET SW	Set switch	Push	ON
		Release	OFF
MEMORY SW1	Memory switch 1	Push	ON
		Release	OFF
MEMORY SW2	Memory switch 2	Push	ON
		Release	OFF
SLIDE SW-FR	Sliding switch (front)	Operate	ON
		Release	OFF
SLIDE SW-RR	Sliding switch (rear)	Operate	ON
		Release	OFF
RECLN SW-FR	Reclining switch (front)	Operate	ON
		Release	OFF
RECLN SW-RR	Reclining switch (rear)	Operate	ON
		Release	OFF
LIFT FR SW-UP	Lifting switch front (up)	Operate	ON
		Release	OFF
LIFT FR SW-DN	Lifting switch front (down)	Operate	ON
		Release	OFF
LIFT RR SW-UP	Lifting switch rear (up)	Operate	ON
		Release	OFF
LIFT RR SW-DN	Lifting switch rear (down)	Operate	ON
		Release	OFF
MIR CON SW-UP	Mirror switch	Up	ON
		Other than above	OFF
MIR CON SW-DN	Mirror switch	Down	ON
		Other than above	OFF
MIR CON SW-RH	Mirror switch	Right	ON
		Other than above	OFF
MIR CON SW-LH	Mirror switch	Left	ON
		Other than above	OFF
MIR CHNG SW-R	Changeover switch	Right	ON
		Other than above	OFF
MIR CHNG SW-L	Changeover switch	Left	ON
		Other than above	OFF
PEDAL SW-FR	Pedal adjusting switch	Forward	ON
		Other than above	OFF
PEDAL SW-RR	Pedal adjusting switch	Backward	ON
		Other than above	OFF

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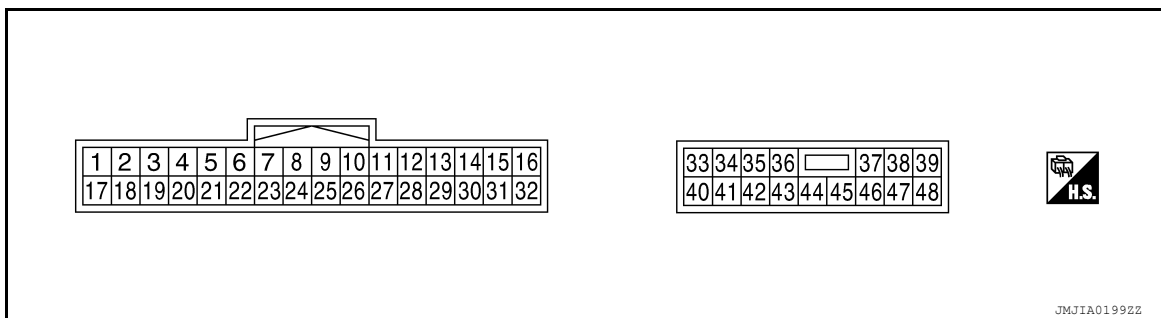
P

DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition		Value/Status
DETENT SW	AT selector lever	P position	OFF
		Other than above	ON
STARTER SW	Ignition position	Cranking	ON
		Other than above	OFF
SLIDE PULSE	Seat sliding	Forward	The numeral value decreases
		Backward	The numeral value increases
		Other than above	No change to numeral value
RECLN PULSE	Seat reclining	Forward	The numeral value decreases
		Backward	The numeral value increases
		Other than above	No change to numeral value
LIFT FR PULSE	Seat lifter (front)	Upward	The numeral value decreases
		Downward	The numeral value increases
		Other than above	No change to numeral value
LIFT RR PULSE	Seat lifter (rear)	Upward	The numeral value decreases
		Downward	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
		Close to valley	0.6
MIR/SEN RH R-L	Door mirror (passenger side)	Close to left edge	3.4
		Close to right edge	0.6
MIR/SEN LH U-D	Door mirror (driver side)	Close to peak	3.4
		Close to valley	0.6
MIR/SEN LH R-L	Door mirror (driver side)	Close to left edge	0.6
		Close to right edge	3.4
PEDAL SEN	pedal position	Forward	0.5
		Backward	4.5

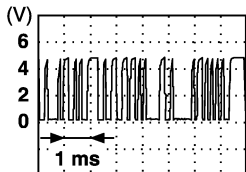
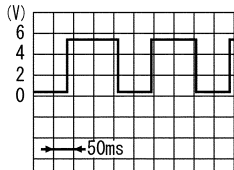
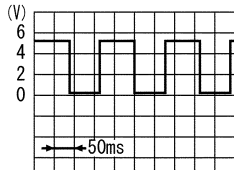
TERMINAL LAYOUT



PHYSICAL VALUES

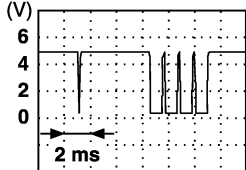
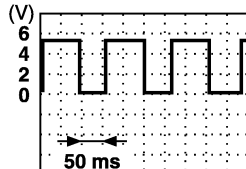
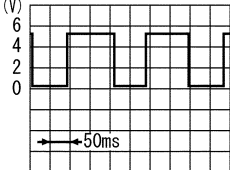
DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

Terminal No.		Wire color	Description		Condition		Voltage (V) (Approx)
+	-		Signal name	Input/ Output			
1	Ground	L	UART LINE (RX)	Input	Ignition switch ON		 PIIA4813E
3	—	L	CAN-H	—	—		—
6	Ground	O	Ignition switch (START)	Input	Ignition switch	OFF	0
						START	Battery voltage
9	Ground	R/B	Reclining sensor sig- nal	Input	Seat reclining	Operate	 SIIA0692J
						Stop	0 or 5
10	Ground	B/R	Lifting sensor (rear) signal	Input	Seat lifting (rear)	Operate	 SIIA0693J
						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) downward signal	Input	Lifting switch (front)	Operate (down- ward)	0
						Release	Battery voltage
14	Ground	P/L	Lifting switch (rear) downward signal	Input	Lifting switch (rear)	Operate (down- ward)	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

DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

Terminal No.		Wire color	Description		Condition	Voltage (V) (Approx)
+	-		Signal name	Input/ Output		
17	Ground	W	UART LINE (TX)	Output	Ignition switch ON	 PIIA4814E
19	—	P	CAN-L	—	—	—
21	Ground	L/R	A/T shift selector (park position switch)	Input	A/T selector lever	P position 0
					Except P position	Battery voltage
24	Ground	R/L	Sliding sensor signal	Input	Seat sliding	Operate  PIIA3277E
					Stop	0 or 5
25	Ground	Y/G	Lifting sensor (front) signal	Input	Seat lifting (front)	Operate  SIIA0691J
					Stop	0 or 5
26	Ground	L/R	Sliding switch forward signal	Input	Sliding switch	Operate (forward) 0
					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) upward signal	Input	Seat lifting switch (front)	Operate (upward) 0
					Release	Battery voltage
29	Ground	G/R	Lifting switch (rear) upward signal	Input	Seat lifting switch (rear)	Operate (upward) 0
					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	B	Ground (signal)	—	—	0
33	Ground	L/B	Battery power source (C/B)	Input	—	Battery voltage

DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

Terminal No.		Wire color	Description		Condition	Voltage (V) (Approx)
+	-		Signal name	Input/ Output		
35	Ground	R/G	Sliding motor forward output signal	Output	Seat sliding	Operate (forward) Battery voltage
					Release	0
36	Ground	L	Reclining motor forward output signal	Output	Seat reclining	Operate (forward) Battery voltage
					Release	0
37	Ground	B	Lifting motor (front) downward output signal	Output	Seat lifting (front)	Operate (downward) Battery voltage
					Stop	0
38	Ground	GR	Lifting motor (rear) upward output signal	Output	Seat lifting (rear)	Operate (upward) Battery voltage
					Stop	0
39	Ground	R	Lifting motor (rear) downward output signal	Output	Seat lifting (rear)	Operate (downward) Battery voltage
					Stop	0
40	Ground	Y/R	Power source (Fuse)	Input	—	Battery voltage
42	Ground	R/Y	Sliding motor backward output signal	Output	Seat sliding	Operate (backward) Battery voltage
					Stop	0
44	Ground	G/B	Reclining motor backward output signal	Output	Seat reclining	Operate (backward) Battery voltage
					Stop	0
45	Ground	G/Y	Lifting motor (front) upward output signal	Output	Seat lifting (front)	Operate (upward) Battery voltage
					Stop	0
48	Ground	B/W	Ground (power)	—	—	0

Fail Safe

INFOID:0000000011560657

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".

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.

DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

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

*: 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

INFOID:0000000011560658

CONSULT display	Timing*1		Item	Reference page
	Current mal-function	Previous mal-function		
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-32
SEAT LIFTER FRONT [B2114]	0	1-39	Seat lifting motor front output	ADP-34
SEAT LIFTER REAR [B2115]	0	1-39	Seat lifting motor rear output	ADP-36
ADJ PEDAL MOTOR [B2117]	0	1-39	Pedal adjusting motor output	ADP-38
ADJ PEDAL SENSOR [B2120]	0	1-39	Pedal adjusting sensor input	ADP-40
DETENT SW [B2126]	0	1-39	T. R. switch condition	ADP-42
UART COMM [B2128]	0	1-39	UART communication	ADP-44

*1:

- 0: Current malfunction is present
- 1-39: 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.

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

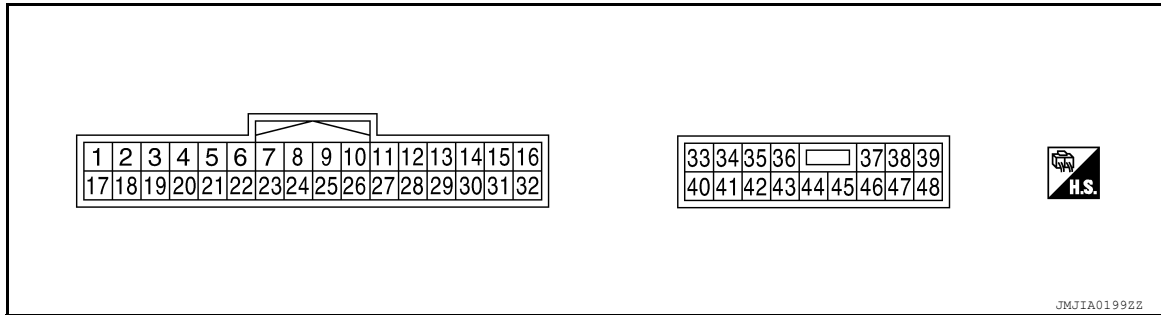
< ECU DIAGNOSIS INFORMATION >

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Reference Value

INFOID:0000000011560659

TERMINAL LAYOUT



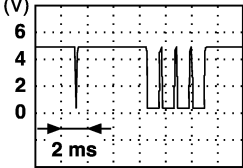
PHYSICAL VALUES

Terminal No.		Wire color	Description		Condition		Voltage (V) (Approx.)
+	-		Signal name	Input/ Out- put			
2	Ground	LG	Changeover switch RH signal	Input	Changeover switch position	RH	0
						Neutral or LH	5
3	Ground	Y/B	Mirror switch up signal	Input	Mirror switch	Operated (up)	0
						Other than above	5
4	Ground	V/W	Mirror switch left signal	Input	Mirror switch	Operated (left)	0
						Other than above	5
5	Ground	R/B	Door mirror sensor (RH) up/down signal	Input	Door mirror RH position	Peak	3.4
						Valley	0.6
6	Ground	L/Y	Door mirror sensor (LH) up/down signal	Input	Door mirror LH position	Peak	3.4
						Valley	0.6
8	Ground	BR/Y	Pedal sensor input signal	Input	Pedal sensor	Forward	0.5
						Backward	4.5
9	Ground	LG/B	Memory switch 1 signal	Input	Memory switch 1	Push	0
						Other than above	5
10	Ground	L	UART LINE (TX)	Out- put	Ignition switch ON		(V)

PIIA4813E

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

Terminal No.		Wire color	Description		Condition		Voltage (V) (Approx.)
+	-		Signal name	Input/ Out- put			
13	Ground	Y/G	Memory indictor 2 signal	Out- put	Memory indictor 2	Illuminate	0
						Other than above	Battery voltage
14	Ground	GR/R	Door mirror motor (RH) up output signal	Out- put	Door mirror RH	Operate (up)	1.5 - Battery voltage
						Other than above	0
15	Ground	V/R	Door mirror motor (RH) left output signal	Out- put	Door mirror RH	Operate (left)	1.5 - Battery voltage
						Other than above	0
16	Ground	O	Door mirror motor (LH) down output signal	Out- put	Door mirror (LH)	Operate (down)	1.5 - Battery voltage
						Other than above	0
			Door mirror motor (LH) right output signal			Operate (right)	1.5 - Battery voltage
						Other than above	0
18	Ground	BR/W	Changeover switch LH signal	Input	Changeover switch position	LH	0
						Neutral or RH	5
19	Ground	SB	Mirror switch down sig- nal	Input	Mirror switch	Operate (down)	0
						Other than above	5
20	Ground	GR	Mirror switch right signal	Input	Mirror switch	Operate (right)	0
						Other than above	5
21	Ground	L/W	Door mirror sensor (RH) left/right signal	Input	Door mirror RH position	Left edge	3.4
						Right edge	0.6
22	Ground	G	Door mirror sensor (LH) left/right signal	Input	Door mirror LH position	Left edge	0.6
						Right edge	3.4
24	Ground	G/O	Set switch signal	Input	Set switch	Push	0
						Other than above	5
25	Ground	P/L	Memory switch 2 signal	Input	Memory switch 2	Push	0
						Other than above	5
26	Ground	W	UART LINE (RX)	Input	Ignition switch ON		

PIIA4614E

PIIA4814E

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

Terminal No.		Wire color	Description		Condition		Voltage (V) (Approx.)
+	-		Signal name	Input/ Out- put			
30	Ground	Y	Door mirror motor (RH) down output signal	Out- put	Door mirror (RH)	Operate (down)	1.5 - Battery voltage
			Door mirror motor (RH) right output signal			Other than above	0
						Operate (right)	1.5 - Battery voltage
						Other than above	0
31	Ground	R	Door mirror motor (LH) up output signal	Out- put	Door mirror (LH)	Operate (up)	1.5 - Battery voltage
			Other than above			0	
32	Ground	BR	Door mirror motor (LH) left output signal	Out- put	Door mirror (LH)	Operate (left)	1.5 - Battery voltage
			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 forward output signal	Out- put	Pedal adjusting motor	Operate (forward)	Battery voltage
						Other than above	0
39	Ground	L/B	Battery power source		—		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- put	Pedal adjusting motor	Operate (back- ward)	Battery voltage
						Other than above	0
48	Ground	B	Ground	—	—		0

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:0000000011868051

NOTE:

The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information:

- Activate and display TPMS transmitter IDs
- Display tire pressure reported by the TPMS transmitter
- Read TPMS DTCs
- Register TPMS transmitter IDs
- Test remote keyless entry keyfob relative signal strength

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
ACC ON SW	Ignition switch OFF or ON	Off
	Ignition switch ACC	On
AIR COND SW	A/C switch OFF	Off
	A/C switch ON	On
AIR PRESS FL	Front left tire air pressure value	kPa, kg/cm ² , psi
AIR PRESS FR	Front right tire air pressure value	kPa, kg/cm ² , psi
AIR PRESS RL	Rear left tire air pressure value	kPa, kg/cm ² , psi
AIR PRESS RR	Rear right tire air pressure value	kPa, kg/cm ² , psi
AUTO LIGHT SW	Lighting switch OFF	Off
	Lighting switch AUTO	On
BRAKE SW	Brake pedal released	Off
	Brake pedal applied	On
BUCKLE SW	Seat belt buckle unfastened	Off
	Seat belt buckle fastened	On
BUZZER	Buzzer in combination meter OFF	Off
	Buzzer in combination meter ON	On
CARGO LAMP SW	Cargo lamp switch OFF	Off
	Cargo lamp switch ON	On
CDL LOCK SW	Door lock/unlock switch does not operate	Off
	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
	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 RH closed	Off
	Rear door RH opened	On
FAN ON SIG	Blower motor fan switch OFF	Off
	Blower motor fan switch ON	On

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status	
FR FOG SW	Front fog lamp switch OFF	Off	A
	Front fog lamp switch ON	On	
FR WASHER SW	Front washer switch OFF	Off	B
	Front washer switch ON	On	
FR WIPER LOW	Front wiper switch OFF	Off	C
	Front wiper switch LO	On	
FR WIPER HI	Front wiper switch OFF	Off	D
	Front wiper switch HI	On	
FR WIPER INT	Front wiper switch OFF	Off	E
	Front wiper switch INT	On	
FR WIPER STOP	Any position other than front wiper stop position	Off	F
	Front wiper stop position	On	
HAZARD SW	When hazard switch is not pressed	Off	G
	When hazard switch is pressed	On	
HEAD LAMP SW1	Headlamp switch OFF	Off	H
	Headlamp switch 1st	On	
HEAD LAMP SW2	Headlamp switch OFF	Off	I
	Headlamp switch 1st	On	
HI BEAM SW	High beam switch OFF	Off	ADP
	High beam switch HI	On	
ID REGST FL1	ID registration of front left tire incomplete	YET	K
	ID registration of front left tire complete	DONE	
ID REGST FR1	ID registration of front right tire incomplete	YET	L
	ID registration of front right tire complete	DONE	
ID REGST RL1	ID registration of rear left tire incomplete	YET	M
	ID registration of rear left tire complete	DONE	
ID REGST RR1	ID registration of rear right tire incomplete	YET	N
	ID registration of rear right tire complete	DONE	
IGN ON SW	Ignition switch OFF or ACC	Off	O
	Ignition switch ON	On	
IGN SW CAN	Ignition switch OFF or ACC	Off	P
	Ignition switch ON	On	
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	1 - 7	
KEY CYL LK-SW	Door key cylinder LOCK position	Off	
	Door key cylinder other than LOCK position	On	
KEY CYL UN-SW	Door key cylinder UNLOCK position	Off	
	Door key cylinder other than UNLOCK position	On	
KEY ON SW	Mechanical key is removed from key cylinder	Off	
	Mechanical key is inserted to key cylinder	On	
KEYLESS LOCK	LOCK button of key fob is not pressed	Off	
	LOCK button of key fob is pressed	On	
KEYLESS PANIC	PANIC button of key fob is not pressed	Off	
	PANIC button of key fob is pressed	On	

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

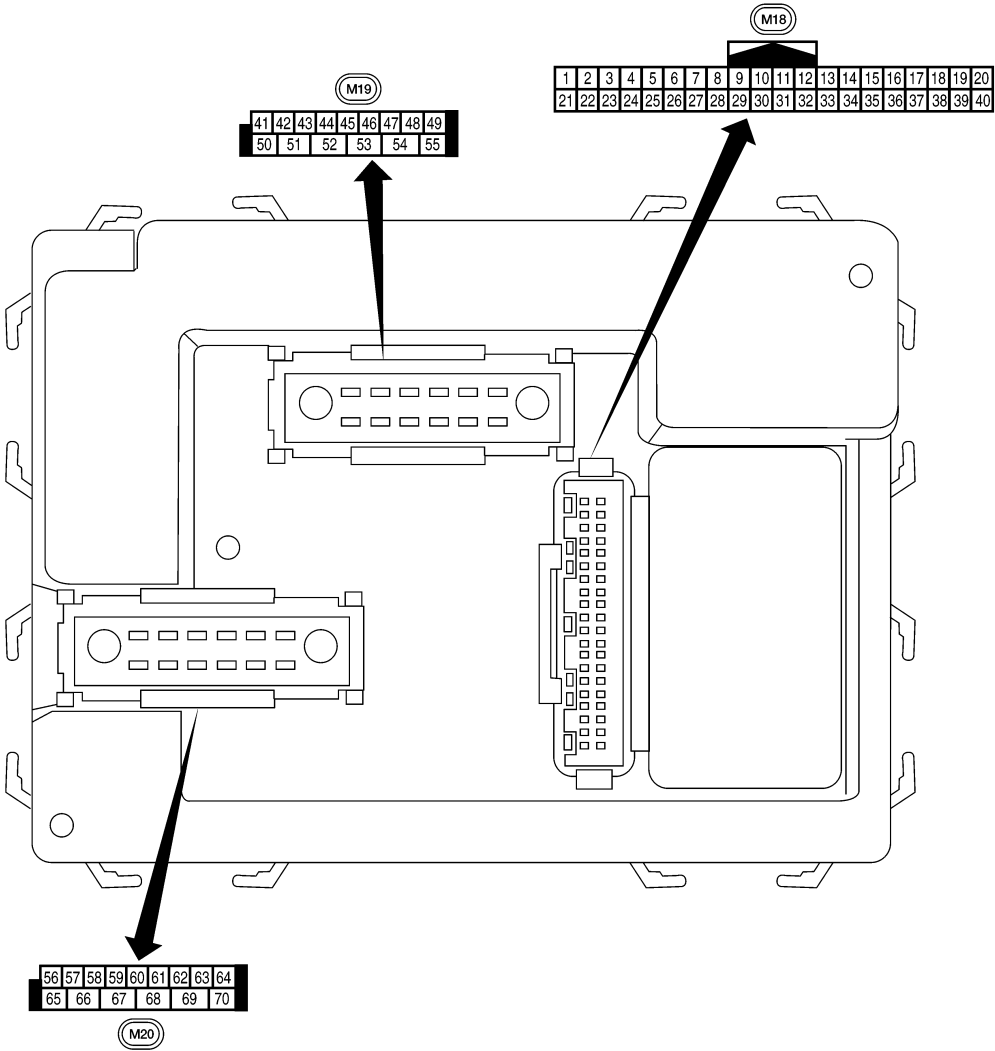
Monitor Item	Condition	Value/Status
KEYLESS UNLOCK	UNLOCK button of key fob is not pressed	Off
	UNLOCK button of key fob is pressed	On
LIGHT SW 1ST	Lighting switch OFF	Off
	Lighting switch 1st	On
OIL PRESS SW	- Ignition switch OFF or ACC - Engine running	Off
	Ignition switch ON	On
OPTICAL SENSOR	Bright outside of the vehicle	Close to 5V
	Dark outside of the vehicle	Close to 0V
PASSING SW	Other than lighting switch PASS	Off
	Lighting switch PASS	On
REAR DEF SW	Rear window defogger switch OFF	Off
	Rear window defogger switch ON	On
TURN SIGNAL L	Turn signal switch OFF	Off
	Turn signal switch LH	On
TURN SIGNAL R	Turn signal switch OFF	Off
	Turn signal switch RH	On
VEHICLE SPEED	While driving	Equivalent to speedometer reading
WARNING LAMP	Low tire pressure warning lamp in combination meter OFF	Off
	Low tire pressure warning lamp in combination meter ON	On

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal Layout

INFOID:0000000011868052



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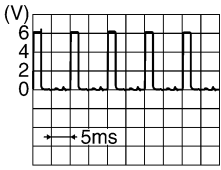
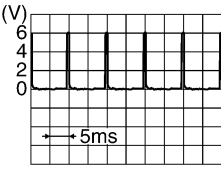
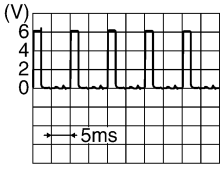
Physical Values

AWMIA15422Z

INFOID:0000000011868053

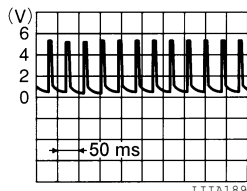
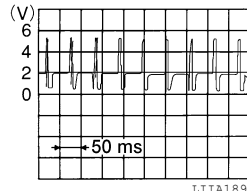
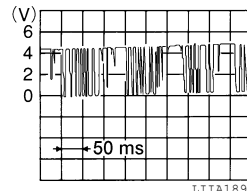
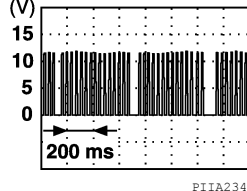
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal	Wire color	Signal name	Signal input/output	Measuring condition		Reference value or waveform (Approx.)
				Ignition switch	Operation or condition	
1	BR/W	Key ring output	Output	OFF	ON (driver door open)	0V
					OFF (driver door closed)	Battery voltage
2	SB	Combination switch input 5	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	 SKIA5291E
3	G/Y	Combination switch input 4	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	 SKIA5292E
4	Y	Combination switch input 3	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	 SKIA5291E
5	G/B	Combination switch input 2	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	 SKIA5292E
6	V	Combination switch input 1				
9	R/G	Brake switch	Input	ON	Brake pedal depressed	Battery voltage
					Brake pedal released	0V
11	O	Ignition switch (ACC or ON)	Input	ACC or ON	Ignition switch ACC or ON	Battery voltage
12	R/L	Front door switch RH (All)	Input	OFF	ON (open)	0V
		Rear door switch lower RH (King Cab)			OFF (closed)	Battery voltage
		Rear door switch upper RH (King Cab)				
13	GR	Rear door switch RH (Crew Cab)	Input	OFF	ON (open)	0V
					OFF (closed)	Battery voltage
15	L/W	Tire pressure warning check connector	Input	OFF	—	5V
18	P	Remote keyless entry receiver and optical sensor (ground)	Output	OFF	—	0V

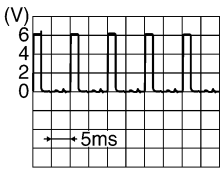
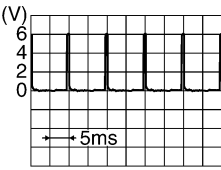
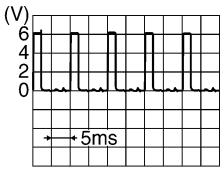
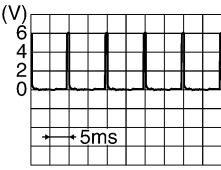
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal	Wire color	Signal name	Signal input/output	Measuring condition		Reference value or waveform (Approx.)
				Ignition switch	Operation or condition	
19	V/W	Remote keyless entry receiver (power supply)	Output	OFF	Ignition switch OFF	 LIT1A1893E
20	G/W	Remote keyless entry receiver (signal)	Input	OFF	Stand-by (keyfob buttons released)	 LIT1A1894E
					When remote keyless entry receiver receives signal from keyfob (keyfob buttons pressed)	 LIT1A1895E
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, then return to battery voltage.
22	G	BUS	—	—	Ignition switch ON or power window timer operates	 PIT1A2344E
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 → ON)	Just after turning ignition switch ON: Pointer of tester should move for approx. 1 second, then return to battery voltage.
27	W/R	Compressor ON signal	Input	ON	A/C switch OFF	5V
					A/C switch ON	0V
28	L/R	Front blower monitor	Input	ON	Front blower motor OFF	Battery voltage
					Front blower motor ON	0V
29	W/B	Hazard switch	Input	OFF	ON	0V
					OFF	5V
31	P/L	Cargo lamp switch	Input	OFF	Cargo lamp switch ON	0
					Cargo lamp switch OFF	Battery voltage

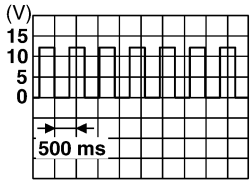
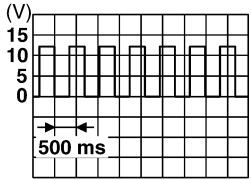
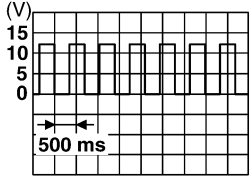
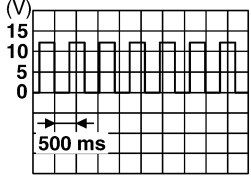
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal	Wire color	Signal name	Signal input/output	Measuring condition		Reference value or waveform (Approx.)
				Ignition switch	Operation or condition	
32	R/G	Combination switch output 5	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	 SKIA5291E
33	R/Y	Combination switch output 4	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	 SKIA5292E
34	L	Combination switch output 3	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	 SKIA5291E
35	O/B	Combination switch output 2	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	 SKIA5292E
36	R/W	Combination switch output 1				
37	B/R	Key switch and key lock solenoid	Input	OFF	Key inserted Key removed	Battery voltage 0V
38	W/L	Ignition switch (ON)	Input	ON	—	Battery voltage
39	L	CAN-H	—	—	—	—
40	P	CAN-L	—	—	—	—
41	Y/B	Rear defogger switch	Input	ON	Rear defogger switch ON Rear defogger switch OFF	0V 5V
47	SB	Front door switch LH (All)	Input	OFF	ON (open)	0V
		Rear door switch lower LH (King Cab)			OFF (closed)	Battery voltage
		Rear door switch upper LH (King Cab)				
48	R/Y	Rear door switch LH (Crew Cab)	Input	OFF	ON (open)	0V
					OFF (closed)	Battery voltage
50	R/Y	Cargo bed lamp control	Output	OFF	Cargo lamp switch (ON)	0V
					Cargo lamp switch (OFF)	Battery voltage

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal	Wire color	Signal name	Signal input/output	Measuring condition		Reference value or waveform (Approx.)
				Ignition switch	Operation or condition	
51	Y/B	Trailer turn signal (right)	Output	ON	Turn right ON	 SKIA3009J
52	G/B	Trailer turn signal (left)	Output	ON	Turn left ON	 SKIA3009J
56	R/G	Battery saver output	Output	OFF	15 minutes after ignition switch is turned OFF	0V
				ON	—	Battery voltage
57	Y/R	Battery power supply	Input	OFF	—	Battery voltage
58	W/R	Optical sensor	Input	ON	When optical sensor is illuminated	3.1V or more
					When optical sensor is not illuminated	0.6V or less
59	G	Front door lock assembly LH actuator (unlock)	Output	OFF	OFF (neutral)	0V
					ON (unlock)	Battery voltage
60	G/B	Turn signal (left)	Output	ON	Turn left ON	 SKIA3009J
61	G/Y	Turn signal (right)	Output	ON	Turn right ON	 SKIA3009J
63	L	Interior room/map lamp	Output	OFF	Any door switch ON (open)	0V
					Any door switch OFF (closed)	Battery voltage
65	V	All door lock actuators (lock)	Output	OFF	OFF (neutral)	0V
					ON (lock)	Battery voltage
66	G/Y	Front door lock actuator RH and rear door lock actuators LH/RH (unlock)	Output	OFF	OFF (neutral)	0V
					ON (unlock)	Battery voltage
67	B	Ground	Input	ON	—	0V

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal	Wire color	Signal name	Signal input/output	Measuring condition		Reference value or waveform (Approx.)
				Ignition switch	Operation or condition	
68	W/L	Power window power supply (RAP)	Output	—	Ignition switch ON	Battery voltage
					Within 45 seconds after ignition switch OFF	Battery voltage
					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

Fail Safe

INFOID:0000000011868054

Fail-safe index

BCM performs fail-safe control when any DTC listed below is detected.

Display contents of CONSULT	Fail-safe	Cancellation
U1000: CAN COMM CIRCUIT	Inhibit engine cranking	When the BCM re-establishes communication with the other modules.

DTC Inspection Priority Chart

INFOID:0000000011868055

If some DTCs are displayed at the same time, perform inspections one by one based on the following priority chart:

Priority	DTC
1	U1000: CAN COMM CIRCUIT
2	- B2190: NATS ANTENNA AMP - B2191: DIFFERENCE OF KEY - B2192: ID DISCORD BCM-ECM - B2193: CHAIN OF BCM-ECM

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Priority	DTC
3	• C1729: VHCL SPEED SIG ERR • C1735: IGNITION SIGNAL
4	• C1704: LOW PRESSURE FL • C1705: LOW PRESSURE FR • C1706: LOW PRESSURE RR • C1707: LOW PRESSURE RL • C1708: [NO DATA] FL • C1709: [NO DATA] FR • C1710: [NO DATA] RR • C1711: [NO DATA] RL • C1712: [CHECKSUM ERR] FL • C1713: [CHECKSUM ERR] FR • C1714: [CHECKSUM ERR] RR • C1715: [CHECKSUM ERR] RL • C1716: [PRESSDATA ERR] FL • C1717: [PRESSDATA ERR] FR • C1718: [PRESSDATA ERR] RR • C1719: [PRESSDATA ERR] RL • C1720: [CODE ERR] FL • C1721: [CODE ERR] FR • C1722: [CODE ERR] RR • C1723: [CODE ERR] RL • C1724: [BATT VOLT LOW] FL • C1725: [BATT VOLT LOW] FR • C1726: [BATT VOLT LOW] RR • C1727: [BATT VOLT LOW] RL

DTC Index

INFOID:0000000011868056

NOTE:

- Details of time display
- CRNT: Displays when there is a malfunction now or after returning to the normal condition until turning ignition switch OFF → ON again.
- 1 - 39: Displayed if any previous malfunction is present when current condition is normal. It increases like 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. The counter remains at 39 even if the number of cycles exceeds it. It is counted from 1 again when turning ignition switch OFF → ON after returning to the normal condition if the malfunction is detected again.

CONSULT display	Fail-safe	Tire pressure monitor warning lamp ON	Reference page
No DTC is detected. further testing may be required.	—	—	—
U1000: CAN COMM CIRCUIT	—	—	BCS-30
B2190: NATS ANTENA AMP	—	—	SEC-18
B2191: DIFFERENCE OF KEY	—	—	SEC-21
B2192: ID DISCORD BCM-ECM	—	—	SEC-22
B2193: CHAIN OF BCM-ECM	—	—	SEC-24
C1708: [NO DATA] FL	—	—	WT-15
C1709: [NO DATA] FR	—	—	WT-15
C1710: [NO DATA] RR	—	—	WT-15
C1711: [NO DATA] RL	—	—	WT-15
C1712: [CHECKSUM ERR] FL	—	—	WT-17
C1713: [CHECKSUM ERR] FR	—	—	WT-17
C1714: [CHECKSUM ERR] RR	—	—	WT-17
C1715: [CHECKSUM ERR] RL	—	—	WT-17

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

CONSULT display	Fail-safe	Tire pressure monitor warning lamp ON	Reference page
C1716: [PRESSDATA ERR] FL	—	—	WT-19
C1717: [PRESSDATA ERR] FR	—	—	WT-19
C1718: [PRESSDATA ERR] RR	—	—	WT-19
C1719: [PRESSDATA ERR] RL	—	—	WT-19
C1720: [CODE ERR] FL	—	—	WT-17
C1721: [CODE ERR] FR	—	—	WT-17
C1722: [CODE ERR] RR	—	—	WT-17
C1723: [CODE ERR] RL	—	—	WT-17
C1724: [BATT VOLT LOW] FL	—	—	WT-17
C1725: [BATT VOLT LOW] FR	—	—	WT-17
C1726: [BATT VOLT LOW] RR	—	—	WT-17
C1727: [BATT VOLT LOW] RL	—	—	WT-17
C1729: VHCL SPEED SIG ERR	—	—	WT-21
C1735: IGNITION SIGNAL	—	—	WT-23

AUTOMATIC DRIVE POSITIONER

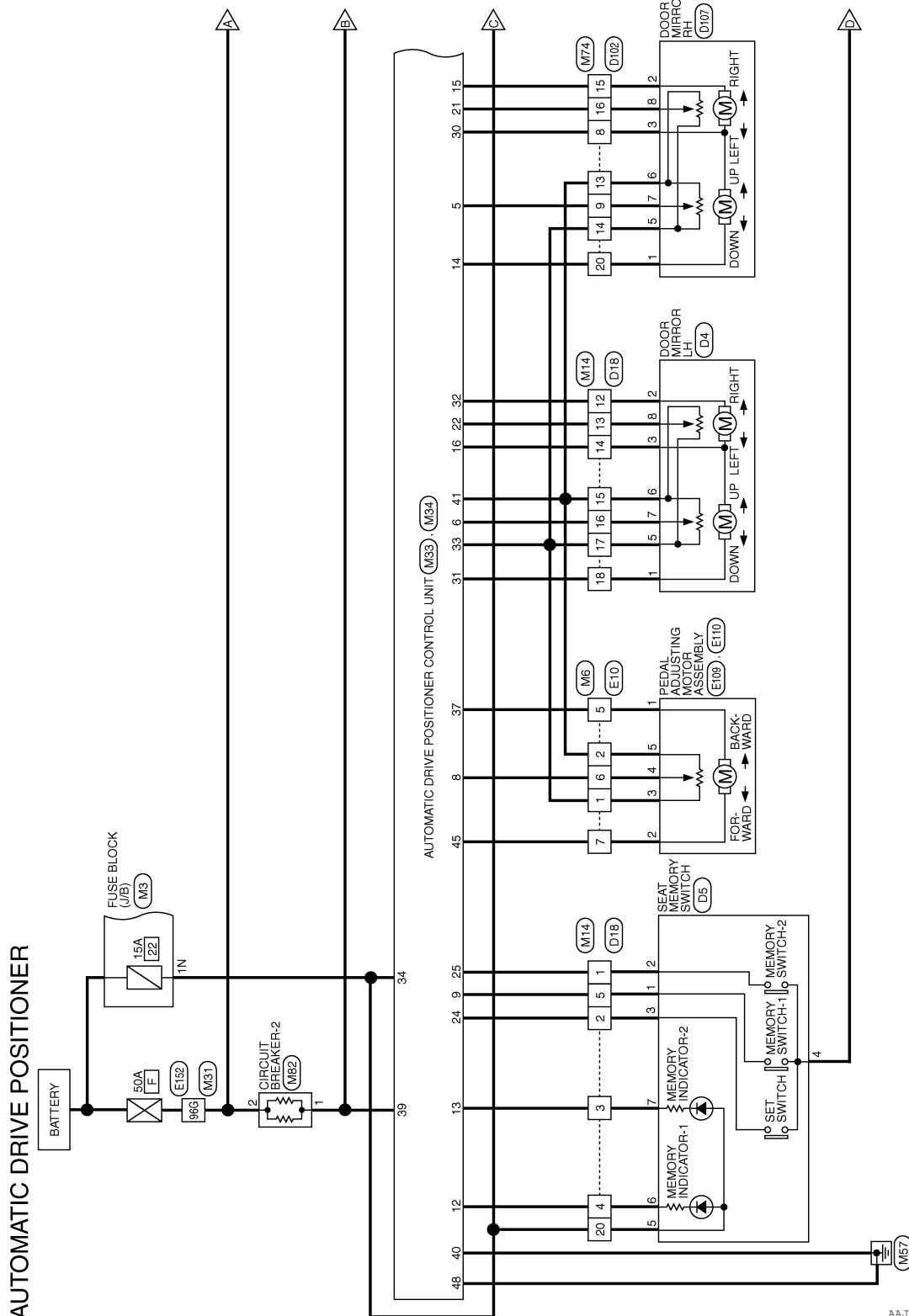
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WIRING DIAGRAM

AUTOMATIC DRIVE POSITIONER

Wiring Diagram

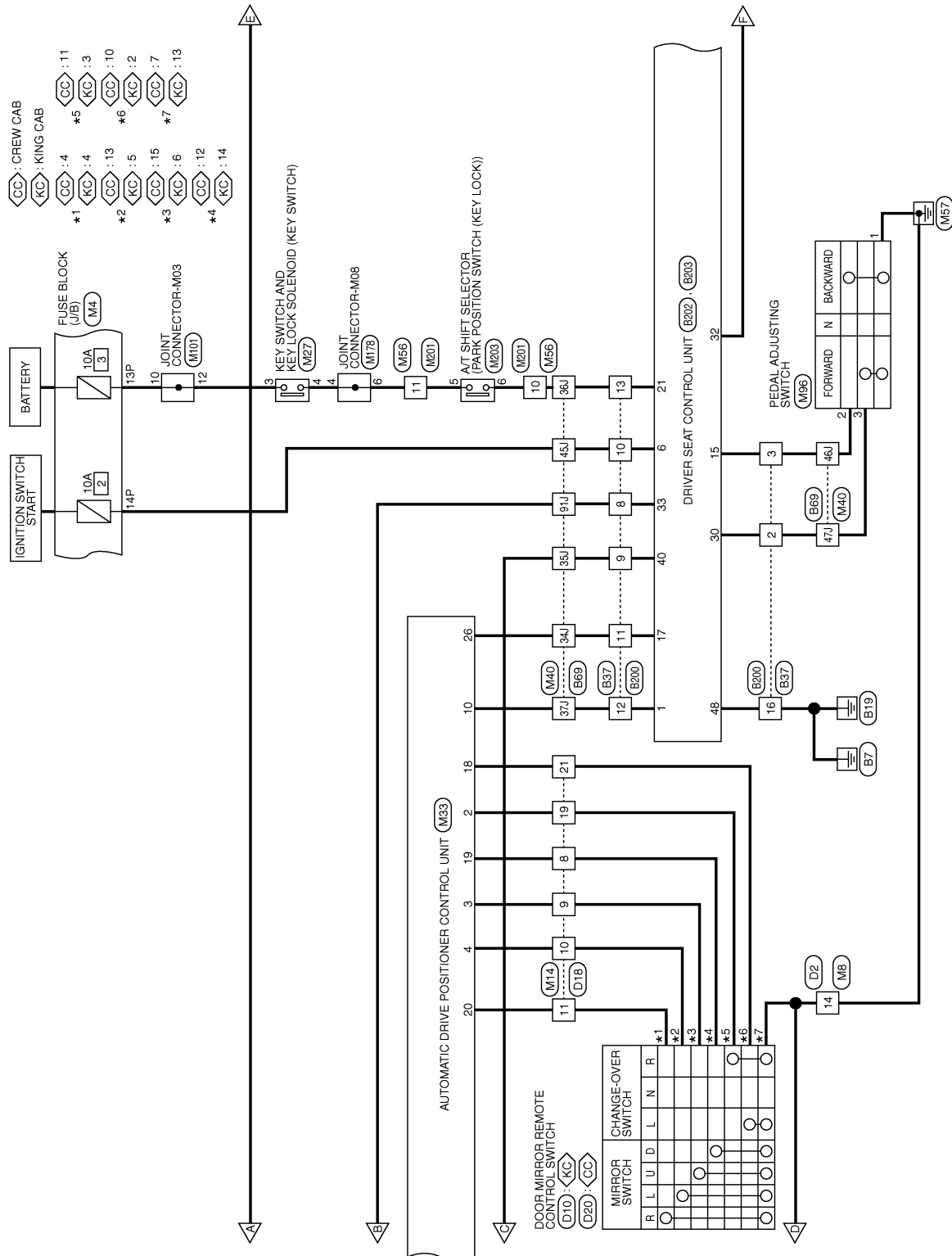
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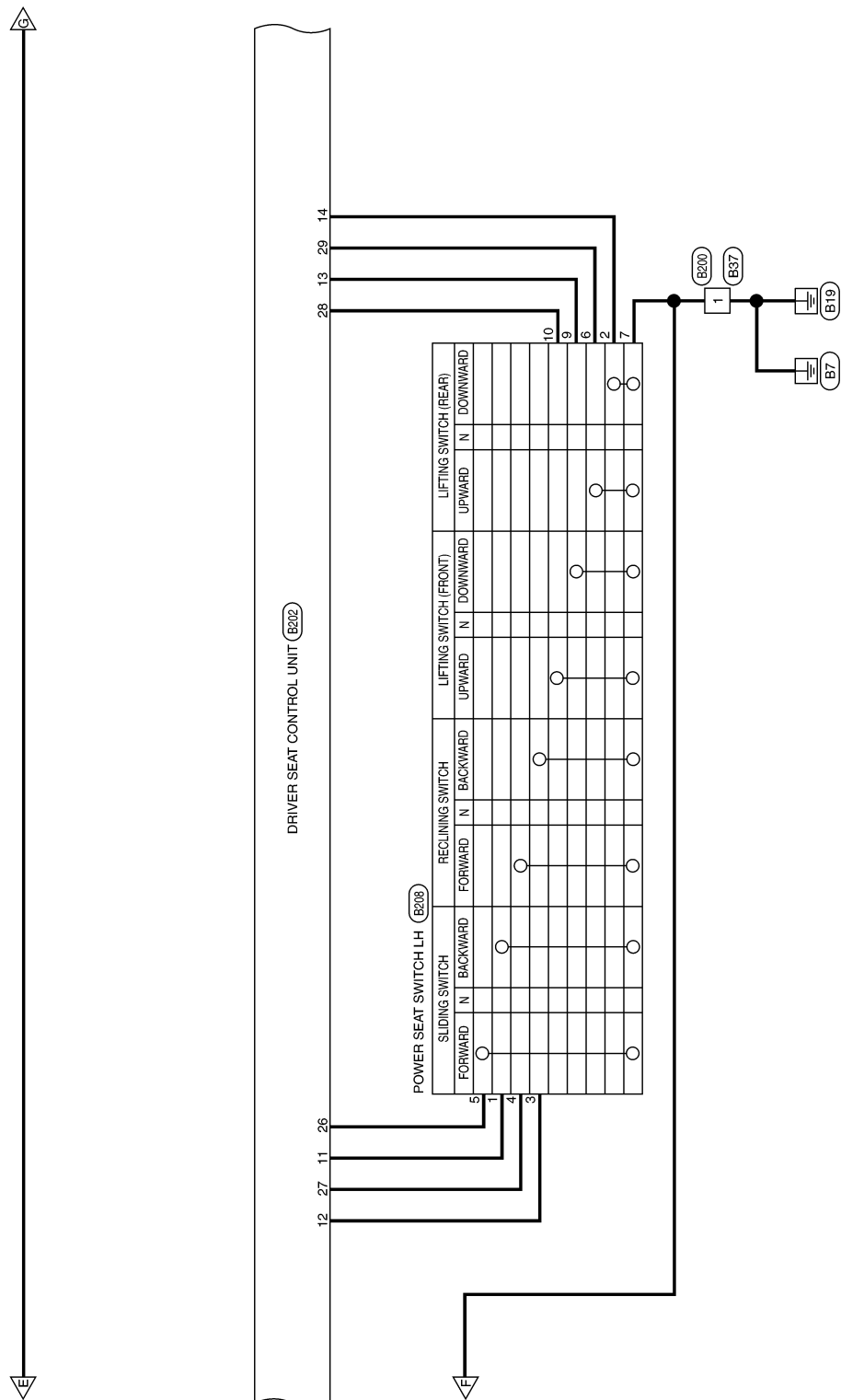
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AUTOMATIC DRIVE POSITIONER

< WIRING DIAGRAM >



ABJWA0459GB

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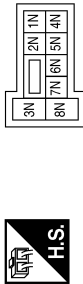


AUTOMATIC DRIVE POSITIONER

< WIRING DIAGRAM >

AUTOMATIC DRIVE POSITIONER CONNECTORS

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

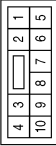


Connector No.	M4
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE

Terminal No.	Color of Wire	Signal Name
1N	Y/R	—

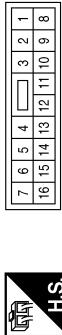
Terminal No.	Color of Wire	Signal Name
13P	P	—
14P	O	—

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Color	WHITE



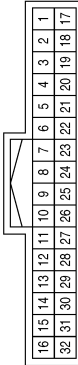
Terminal No.	Color of Wire	Signal Name
1	W/L	—
2	W/G	—
5	G	— (WITH AUTOMATIC DRIVE POSITIONER)
6	BR/Y	—
7	R	— (WITH AUTOMATIC DRIVE POSITIONER)

Connector No.	M8
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
14	B	—

Connector No.	M14
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	P/L	—
2	G/O	—
3	Y/G	—
4	P	—
5	LG/B	—

Terminal No.	Color of Wire	Signal Name
8	SB	—
9	Y/B	—
10	V/W	—
11	GR	—
12	BR	—
13	G	—
14	O	—
15	W/G	—
16	L/Y	—
17	W/L	—
18	R	—
19	LG	—
20	Y/R	—
21	BR/W	—

AUTOMATIC DRIVE POSITIONER

< WIRING DIAGRAM >

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
11	O	ACC SW
38	W/L	IGN SW
39	L	CAN-H
40	P	CAN-L



4	3	2	1
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Terminal No.	Color of Wire	Signal Name
3	P	-
4	B/R	-

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



41	42	43	44	45	46	47	48	49
50	51	52	53	54	55			

Terminal No.	Color of Wire	Signal Name
47	SB	DOOR SW (DR)

Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



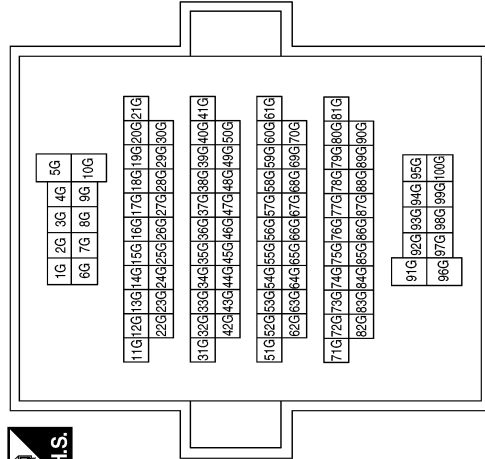
56	57	58	59	60	61	62	63	64
65	66	67	68	69	70			

Terminal No.	Color of Wire	Signal Name
67	B	GND (POWER)
70	W/B	BAT (F/L)

Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
96G	W/B	-
99G	W/L	-



ABJIA1094GB

AUTOMATIC DRIVE POSITIONER

< WIRING DIAGRAM >

Terminal No.	Color of Wire	Signal Name
23	—	—
24	G/O	SET SW
25	P/L	MEMORY2 SW
26	W	RX
27	—	—
28	—	—
29	—	—
30	Y	RH MTR (COM)
31	R	LH MTR (UP-DWN)
32	BR	LH MTR (LT)

Terminal No.	Color of Wire	Signal Name
8	BR/Y	PEDAL POTENTION
9	LG/B	MEMORY1 SW
10	L	TX
11	—	—
12	P	MEMORY1 IND
13	Y/G	MEMORY2 IND
14	GR/R	RH MTR (UP-DN)
15	V/R	RH MTR (LT)
16	O	LH MTR (COM)
17	—	—
18	BR/W	MIR SELECT SW LH
19	SB	MIR MANU SW DN
20	GR	MIR MANU SW RH
21	L/W	HORIZONTAL SENS
22	G	HORIZONTAL SENS

Connector No.	M33
Connector Name	AUTOMATIC DRIVE POSITIONER CONTROL UNIT
Connector Color	WHITE



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32

Terminal No.	Color of Wire	Signal Name
1	—	—
2	LG	MIR SELECT SW RH
3	Y/B	MIR MANU SW UP
4	V/W	MIR MANU SW LH
5	R/B	VERTICAL SENS RH
6	L/Y	VERTICAL SENS LH
7	—	—

33	34	35	36	37	38	39		
40	41	42	43	44	45	46	47	48



Terminal No.	Color of Wire	Signal Name
33	W/L	MEMORY (POT FEED)
34	Y/R	BAT (FUSE)
35	—	—
36	—	—

Terminal No.	Color of Wire	Signal Name
37	G	FORWARD
38	—	—
39	L/B	BAT (PTC)
40	B/W	GND (SIG)
41	W/G	MEMORY (POT-RET)
42	—	—
43	—	—
44	—	—
45	R	PEDAL RR OUT
46	—	—
47	—	—
48	B	GND (POWER)

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

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AUTOMATIC DRIVE POSITIONER

< WIRING DIAGRAM >

Connector No.	M56
Connector Name	WIRE TO WIRE
Connector Color	WHITE

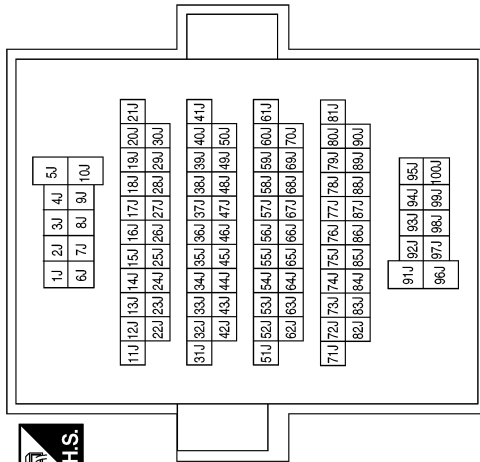


1	2	3	4		5	6	7	
8	9	10	11	12	13	14	15	16

Terminal No.	Color of Wire	Signal Name
10	L/R	—
11	B/R	—

Terminal No.	Color of Wire	Signal Name
11J	L	—
22J	P	—
30J	SB	—
34J	W	—
35J	Y/R	—
36J	L/R	—
37J	L	—
45J	O	—
46J	L/Y	—
47J	R	—
91J	L/B	—

Connector No.	M40
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	M82
Connector Name	CIRCUIT BREAKER-2
Connector Color	WHITE



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Terminal No.	Color of Wire	Signal Name
1	L/B	—
2	W/B	—

Connector No.	M74
Connector Name	WIRE TO WIRE
Connector Color	BROWN



9	8	7	6	5	4	3	2	1		
20	19	18	17	16	15	14	13	12	11	10

Terminal No.	Color of Wire	Signal Name
8	Y	— (WITH AUTOMATIC DRIVE POSITIONER)
9	R/B	— (WITH AUTOMATIC DRIVE POSITIONER)
13	W/G	—
14	W/L	—
15	V/R	—
16	L/W	—
20	GR/R	— (WITH AUTOMATIC DRIVE POSITIONER)

Connector No.	M60
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



2T		1T	
6T	5T	4T	3T

Terminal No.	Color of Wire	Signal Name
6T	O	—

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AUTOMATIC DRIVE POSITIONER

< WIRING DIAGRAM >

Connector No.	M96
Connector Name	PEDAL ADJUSTING SWITCH (WITH AUTOMATIC DRIVE POSITIONER)
Connector Color	BROWN

5	6
4	2
1	3



Terminal No.	Color of Wire	Signal Name
1	B	-
2	L/Y	-
3	R	-

Connector No.	M101
Connector Name	JOINT CONNECTOR-M03
Connector Color	BLUE

9	8	7	6	5	4	3	2	1
20	19	18	17	16	15	14	13	12
11	10							



Terminal No.	Color of Wire	Signal Name
10	P	-
12	P	-

Connector No.	M178
Connector Name	JOINT CONNECTOR-M08
Connector Color	WHITE

9	8	7	6	5	4	3	2	1
20	19	18	17	16	15	14	13	12
11	10							



Terminal No.	Color of Wire	Signal Name
4	B/R	-
6	B/R	-
11	L	-
14	L	-
17	P	-
20	P	-

Connector No.	M182
Connector Name	JOINT CONNECTOR-M09
Connector Color	GREEN

9	8	7	6	5	4	3	2	1
20	19	18	17	16	15	14	13	12
11	10							



Terminal No.	Color of Wire	Signal Name
13	L	-
14	L	-
17	P	-
18	P	-

Connector No.	M192
Connector Name	JOINT CONNECTOR-M02
Connector Color	GREEN

9	8	7	6	5	4	3	2	1
20	19	18	17	16	15	14	13	12
11	10							



Terminal No.	Color of Wire	Signal Name
1	O	-
4	O	-

Connector No.	M201
Connector Name	WIRE TO WIRE
Connector Color	WHITE

7	6	5	4	3	2	1
16	15	14	13	12	11	10
9	8					



Terminal No.	Color of Wire	Signal Name
10	L/R	-
11	B/R	-

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AUTOMATIC DRIVE POSITIONER

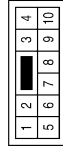
< WIRING DIAGRAM >

Connector No.	E109	PEDAL ADJUSTING MOTOR ASSEMBLY
Connector Name		
Connector Color	GRAY	



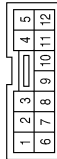
Terminal No.	Color of Wire	Signal Name
1	G	-
2	R	-

Connector No.	E10	WIRE TO WIRE
Connector Name		
Connector Color	WHITE	



Terminal No.	Color of Wire	Signal Name
1	W/L	-
2	W/G	-
5	G	-
6	BR/Y	-
7	R	-

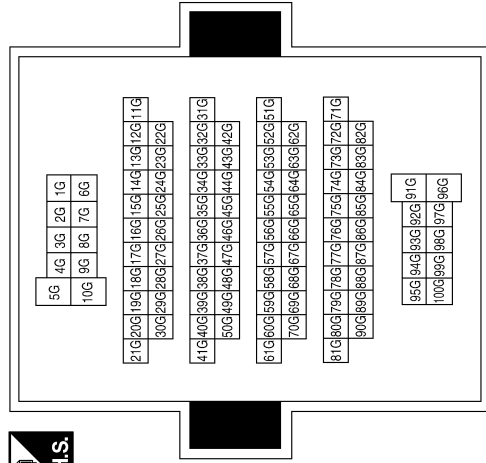
Connector No.	M203	AT SHIFT SELECTOR (FLOOR SHIFT)
Connector Name		
Connector Color	WHITE	



Terminal No.	Color of Wire	Signal Name
5	B/R	-
6	L/R	-

Terminal No.	96G	Signal Name
99G	L/W	-

Connector No.	E152	WIRE TO WIRE
Connector Name		
Connector Color	WHITE	



Connector No.	E110	PEDAL ADJUSTING MOTOR ASSEMBLY
Connector Name		
Connector Color	GRAY	



Terminal No.	Color of Wire	Signal Name
3	W/L	-
4	BR/Y	-
5	W/G	-

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AUTOMATIC DRIVE POSITIONER

< WIRING DIAGRAM >

Terminal No.	Color of Wire	Signal Name
9	Y/R	-
10	O	-
11	W	-
12	L	-
13	L/R	-
14	P	-
15	L	-
16	B/W	-

Connector No.	B37
Connector Name	WIRE TO WIRE
Connector Color	WHITE

7	6	5	4	3	2	1
16	15	14	13	12	11	10
9	8					



Terminal No.	Color of Wire	Signal Name
1	B	-
2	R	-
3	L/Y	-
8	L/B	-

Connector No.	B8
Connector Name	FRONT DOOR SWITCH LH
Connector Color	WHITE

1	2	3
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Terminal No.	Color of Wire	Signal Name
2	SB	-
3	B	-

Connector No.	B200
Connector Name	WIRE TO WIRE
Connector Color	WHITE

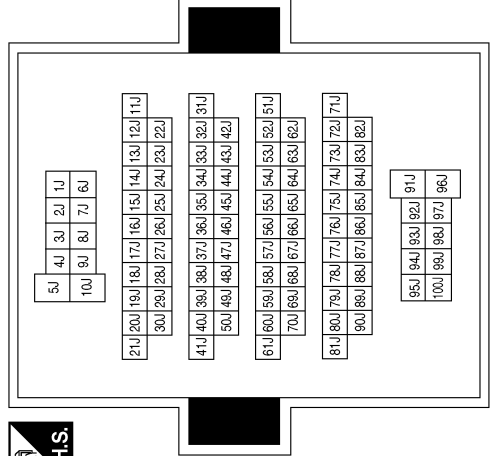


1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16					

Terminal No.	Color of Wire	Signal Name
1	B	-
2	R	-
3	L/Y	-
8	L/B	-
9	Y/R	-
10	O	-
11	W	-
12	L	-
13	L/R	-
14	P	-
15	L	-
16	B/W	-

Terminal No.	Color of Wire	Signal Name
11J	L	-
22J	P	-
30J	SB	-
34J	W	-
35J	Y/R	-
36J	L/R	-
37J	L	-
45J	O	-
46J	L/Y	-
47J	R	-
91J	L/B	-

Connector No.	B69
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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AUTOMATIC DRIVE POSITIONER

< WIRING DIAGRAM >

Connector No.	B202
Connector Name	DRIVER SEAT CONTROL UNIT
Connector Color	WHITE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32

Terminal No.	Color of Wire	Signal Name
1	L	RX (UART)
2	-	-
3	L	CAN-H
4	-	-
5	-	-
6	O	START SW
7	-	-
8	-	-
9	R/B	PULSE (RECLINER)

Terminal No.	Color of Wire	Signal Name
10	B/R	PULSE (REAR LIFTER)
11	Y/R	SLIDE SW (BACKWARD)
12	L/W	RECLINER SW (BACKWARD)
13	V	FRONT LIFTER SW (DOWNWARD)
14	P/L	REAR LIFTER SW (DOWNWARD)
15	SB	PEDAL SW (BACKWARD)
16	R/W	POWER SUPPLY (ENCODER)
17	W	TX (UART)
18	-	-
19	P	CAN-L
20	-	-

Terminal No.	Color of Wire	Signal Name
21	L/R	P RANGE SW
22	-	-
23	-	-
24	R/L	PULSE (SLIDE)
25	Y/G	PULSE (FRONT LIFTER)
26	L/R	SLIDE SW (FORWARD)
27	V/W	RECLINER SW (FORWARD)
28	BR/Y	FRONT LIFTER SW (UPWARD)
29	G/R	REAR LIFTER SW (UPWARD)
30	L/Y	PEDAL SW (FORWARD)
31	GR/R	GND (SENSOR GND)
32	B	GND (SIGNAL)

Connector No.	B203
Connector Name	DRIVER SEAT CONTROL UNIT
Connector Color	WHITE

33	34	35	36	37	38	39		
40	41	42	43	44	45	46	47	48

Terminal No.	Color of Wire	Signal Name
33	L/B	BAT (PTC)
34	-	-
35	R/G	SLIDE MOTOR (FORWARD)
36	L	RECLINER MOTOR (FORWARD)
37	B	FRONT LIFTER MOTOR (DOWNWARD)
38	GR	REAR LIFTER MOTOR (UPWARD)
39	R	REAR LIFTER MOTOR (DOWNWARD)

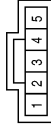
Terminal No.	Color of Wire	Signal Name
40	Y/R	BAT (FUSE)
41	-	-
42	R/Y	SLIDE MOTOR (BACKWARD)
43	-	-
44	G/B	RECLINER MOTOR (BACKWARD)
45	G/Y	FRONT LIFTER MOTOR (UPWARD)
46	-	-
47	-	-
48	B/W	GND (POWER)

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AUTOMATIC DRIVE POSITIONER

< WIRING DIAGRAM >

Connector No.	B206
Connector Name	LIFTING MOTOR (FRONT) (WITH AUTOMATIC DRIVE POSITIONER)
Connector Color	WHITE



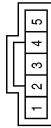
Terminal No.	Color of Wire	Signal Name
1	R	-
2	GR/R	-
3	R/W	-
4	B	-
5	GR	-

Connector No.	B205
Connector Name	RECLINING MOTOR LH (WITH AUTOMATIC DRIVE POSITIONER)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	R/B	-
2	L	-
3	G/B	-
4	GR/R	-

Connector No.	B204
Connector Name	SLIDING MOTOR LH (WITH AUTOMATIC DRIVE POSITIONER)
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	R/Y	-
2	GR/R	-
3	R/W	-
4	R/L	-
5	R/G	-

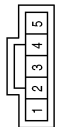
Terminal No.	Color of Wire	Signal Name
9	V	-
10	BR/Y	-

Connector No.	B208
Connector Name	POWER SEAT SWITCH LH (WITH AUTOMATIC DRIVE POSITIONER)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	Y/R	-
2	P/L	-
3	L/W	-
4	V/W	-
5	L/R	-
6	G/R	-
7	B/W	-

Connector No.	B207
Connector Name	LIFTING MOTOR (REAR) (WITH AUTOMATIC DRIVE POSITIONER)
Connector Color	GRAY



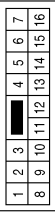
Terminal No.	Color of Wire	Signal Name
1	B	-
2	GR/R	-
3	R/W	-
4	Y/G	-
5	G/Y	-

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AUTOMATIC DRIVE POSITIONER

< WIRING DIAGRAM >

Connector No.	D2
Connector Name	WIRE TO WIRE
Connector Color	WHITE

Terminal No.	Color of Wire	Signal Name
14	B	-

Connector No.	D4
Connector Name	DOOR MIRROR LH (WITH AUTOMATIC DRIVE POSITIONER)
Connector Color	WHITE



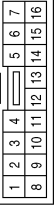

Terminal No.	Color of Wire	Signal Name
1	R	-
2	BR	-
3	O	-
5	W/L	-
6	W/G	-
7	L/Y	-
8	G	-

Connector No.	D5
Connector Name	SEAT MEMORY SWITCH
Connector Color	WHITE



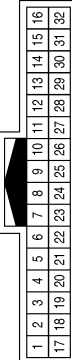

Terminal No.	Color of Wire	Signal Name
1	LG/B	-
2	P/L	-
3	G/O	-
4	B	-
5	Y/R	-
6	P	-
7	Y/G	-

Connector No.	D10
Connector Name	DOOR MIRROR REMOTE CONTROL SWITCH (KING CAB WITH AUTOMATIC DRIVE POSITIONER)
Connector Color	BROWN

Terminal No.	Color of Wire	Signal Name
2	BR/W	-
3	LG	-
4	GR	-
5	V/W	-
6	Y/B	-
13	B	-
14	SB	-

Connector No.	D18
Connector Name	WIRE TO WIRE
Connector Color	WHITE

Terminal No.	Color of Wire	Signal Name
1	P/L	-
2	G/O	-
3	Y/G	-
4	P	-
5	LG/B	-
8	SB	-

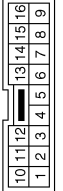
Terminal No.	Color of Wire	Signal Name
9	Y/B	-
10	V/W	-
11	GR	-
12	BR	-
13	G	-
14	O	-
15	W/G	-
16	L/Y	-
17	W/L	-
18	R	-
19	LG	-
20	Y/R	-
21	BR/W	-

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AUTOMATIC DRIVE POSITIONER

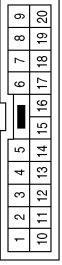
< WIRING DIAGRAM >

Connector No.	D107
Connector Name	DOOR MIRROR RH (WITH AUTOMATIC DRIVE POSITIONER)
Connector Color	WHITE



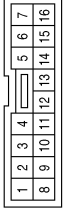
Terminal No.	Color of Wire	Signal Name
1	GR/R	-
2	V/R	-
3	Y	-
5	W/L	-
6	W/G	-
7	R/B	-
8	L/W	-

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
8	Y	-(WITH AUTOMATIC DRIVE POSITIONER)
9	R/B	-(WITH AUTOMATIC DRIVE POSITIONER)
13	W/G	-
14	W/L	-
15	V/R	-
16	L/W	-
20	GR/R	-(WITH AUTOMATIC DRIVE POSITIONER)

Connector No.	D20
Connector Name	DOOR MIRROR REMOTE CONTROL SWITCH (CREW CAB WITH AUTOMATIC DRIVE POSITIONER)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
4	GR	-
7	B	-
10	BR/W	-
11	LG	-
12	SB	-
13	V/W	-
15	Y/B	-

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ADP SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

ADP SYSTEM SYMPTOMS

Symptom Table

INFOID:0000000011560667

NOTE:

Always perform the "Basic Inspection" before performing diagnosis in the following table. Refer to [ADP-4](#), "Work Flow".

SYMPTOM 1

Symptom		Diagnosis procedure	Reference page
Manual functions (for specific part) do not operate	Sliding operation	Check sliding switch.	ADP-50
	Reclining operation	Check reclining switch.	ADP-53
	Lifting operation (front)	Check lifting switch (front).	ADP-56
	Lifting operation (rear)	Check lifting switch (rear).	ADP-59
	Pedal operation	1. Check pedal adjusting switch.	ADP-62
		2. Check pedal adjusting sensor.	ADP-86
	Door mirror operation	1. Changeover switch.	ADP-67
		2. Mirror switch	ADP-69
	All parts of seat	Check power seat switch ground circuit.	ADP-73

SYMPTOM 2

Symptom		Diagnosis procedure	Reference page
Memory functions (for specific part) do not operate	Sliding operation	Check sliding sensor.	ADP-78
	Reclining operation	Check reclining sensor.	ADP-80
	Lifting operation (front)	Check lifting sensor (front).	ADP-82
	Lifting operation (rear)	Check lifting sensor (rear).	ADP-84
	Pedal operation	Check pedal adjusting sensor.	ADP-86
	Door mirror operation	Check door mirror sensor.	Driver side: ADP-88 Passenger side: ADP-90

SYMPTOM 3

Symptom		Diagnosis procedure	Reference page
Memory functions and manual functions (for specific part) do not operate	Sliding operation	Check sliding motor.	ADP-92
	Reclining operation	Check reclining motor.	ADP-94
	Lifting operation (front)	Check lifting motor (front).	ADP-96
	Lifting operation (rear)	Check lifting motor (rear).	ADP-98
	Pedal operation	Check pedal adjusting motor.	ADP-100
	Door mirror operation	Check door mirror motor.	ADP-102

SYMPTOM 4

ADP SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

Symptom	Diagnosis procedure	Reference page
Entry/Exit assist function does not operate.	1. Check system setting.	ADP-11
	2. Perform initialization.	Refer to Owner's Manual.
	3. Check front door switch (driver side).	ADP-76

SYMPTOM 5

Symptom	Diagnosis procedure	Reference page
Memory indicators 1 and/or 2 do not illuminate.	1. Check seat memory switch.	ADP-65
	2. Check seat memory indicator.	ADP-105

SYMPTOM 6

Symptom	Diagnosis procedure	Reference page
Memory operation does not operate.	Check A/T shift selector (park position switch).	ADP-74

ADP

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

NORMAL OPERATING CONDITION

Description

INFOID:0000000011560668

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

Symptom	Cause	Action to take	Reference page
Entry/Exit assist function does not operate.	No initialization has been performed.	Perform initialization.	Refer to Owner's Manual.
	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 execution.	Perform the memory function.	ADP-22
Memory function, entry/exit assist function does not operate.	The operation conditions are not fulfilled.	Fulfill the operation conditions.	Memory function: ADP-17
			Exit assist function: ADP-20
			Entry assist function: ADP-22

PRECAUTIONS

< PRECAUTION >

PRECAUTION

PRECAUTIONS

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

INFOID:0000000011560669

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.

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

- When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery and wait at least three minutes before performing any service.

Precaution for Work

INFOID:0000000011560670

- 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 prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with a new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components:
 - Water soluble dirt:
 - Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area.
 - Then rub with a soft, dry cloth.
 - Oily dirt:
 - Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%) and wipe the dirty area.
 - Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off.
 - Then rub with a soft, 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

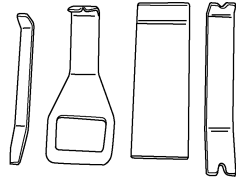
PREPARATION

Special Service Tool

INFOID:0000000011560671

The actual shape of the tools may differ from those illustrated here.

Tool number (TechMate No.) Tool name	Description
— (J-46534) Trim Tool Set	Removing trim components



AWJIA0483ZZ

Commercial Service Tools

INFOID:0000000011560672

Tool name	Description
Power tool	Loosening nuts, screws and bolts



PIIB1407E

DRIVER SEAT CONTROL UNIT

< UNIT REMOVAL AND INSTALLATION >

UNIT REMOVAL AND INSTALLATION

DRIVER SEAT CONTROL UNIT

Removal and Installation

INFOID:0000000011560673

REMOVAL

NOTE:

The driver seat control unit is part of the driver seat.

1. Remove the driver seat. Refer to [SE-34, "Removal and Installation - Front Seat Assembly"](#).
2. Disconnect the harness connector from the driver seat control unit.
3. Remove driver seat control unit from driver seat.

INSTALLATION

Installation is in the reverse order of removal.

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AUTOMATIC DRIVE POSITIONER CONTROL UNIT

< UNIT REMOVAL AND INSTALLATION >

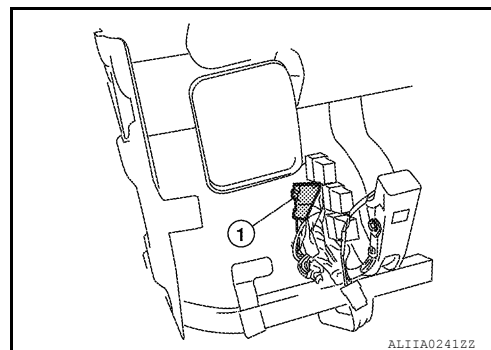
AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Removal and Installation

INFOID:000000011560674

REMOVAL

1. Remove the instrument lower panel LH. Refer to [IP-18. "Removal and Installation"](#).
2. Disconnect the harness connector from the sonar switch (if equipped).
3. Disconnect the harness connector from the adjustable pedal switch (if equipped).
4. Remove the lower knee protector.
5. Remove the screw from the automatic drive positioner control unit (1).
6. Disconnect the harness connectors from the automatic drive positioner control unit (1).
7. Remove automatic drive positioner control unit (1) from bracket.



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

Clamp the harness in position.

SEAT MEMORY SWITCH

< UNIT REMOVAL AND INSTALLATION >

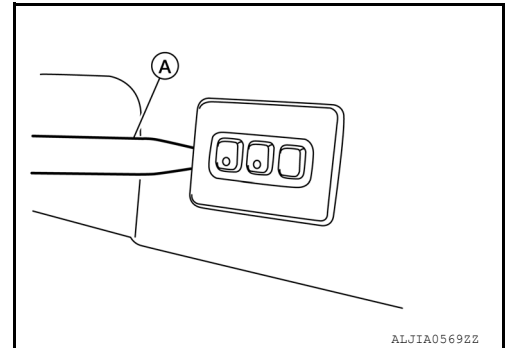
SEAT MEMORY SWITCH

Removal and Installation

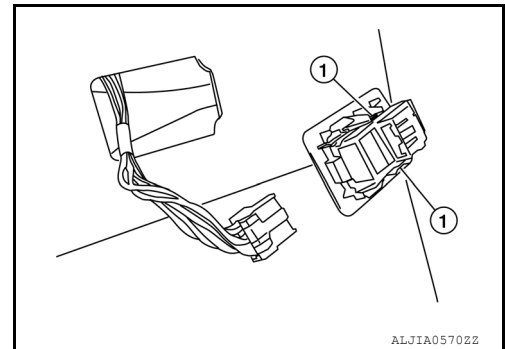
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REMOVAL

1. Remove the seat memory switch from the front door finisher by using a suitable tool (A).



2. Disconnect the seat memory switch harness connector.
3. Release the clips (1) and separate the seat memory switch from the finish panel using a suitable tool.



INSTALLATION

Installation is in the reverse order of removal.

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DOOR MIRROR REMOTE CONTROL SWITCH

< UNIT REMOVAL AND INSTALLATION >

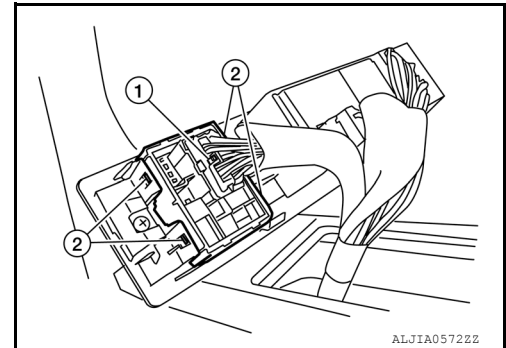
DOOR MIRROR REMOTE CONTROL SWITCH

Removal and Installation

INFOID:0000000011560676

REMOVAL

1. Remove the main power window, door lock/unlock and door mirror remote control switch finisher from the front door finisher (LH). Refer to [INT-10. "Removal and Installation"](#).
2. Remove the door mirror remote control switch.
 - a. Disconnect the harness connector (1) from the door mirror control switch.
 - b. Release the retaining tabs (2).
 - c. Separate the door mirror remote control switch from the finisher panel.



INSTALLATION

Installation is in the reverse order of removal.

PEDAL ADJUSTING MOTOR

< UNIT REMOVAL AND INSTALLATION >

PEDAL ADJUSTING MOTOR

Removal and Installation

INFOID:0000000011560677

The pedal adjusting motor is serviced as a part of the accelerator pedal. Refer to [ACC-3. "Removal and Installation"](#) for accelerator pedal and [BR-20. "Removal and Installation"](#) for brake pedal when removing pedal adjusting motors.

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