SECTION ADP
AUTOMATIC DRIVE POSITIONER

CONTENTS

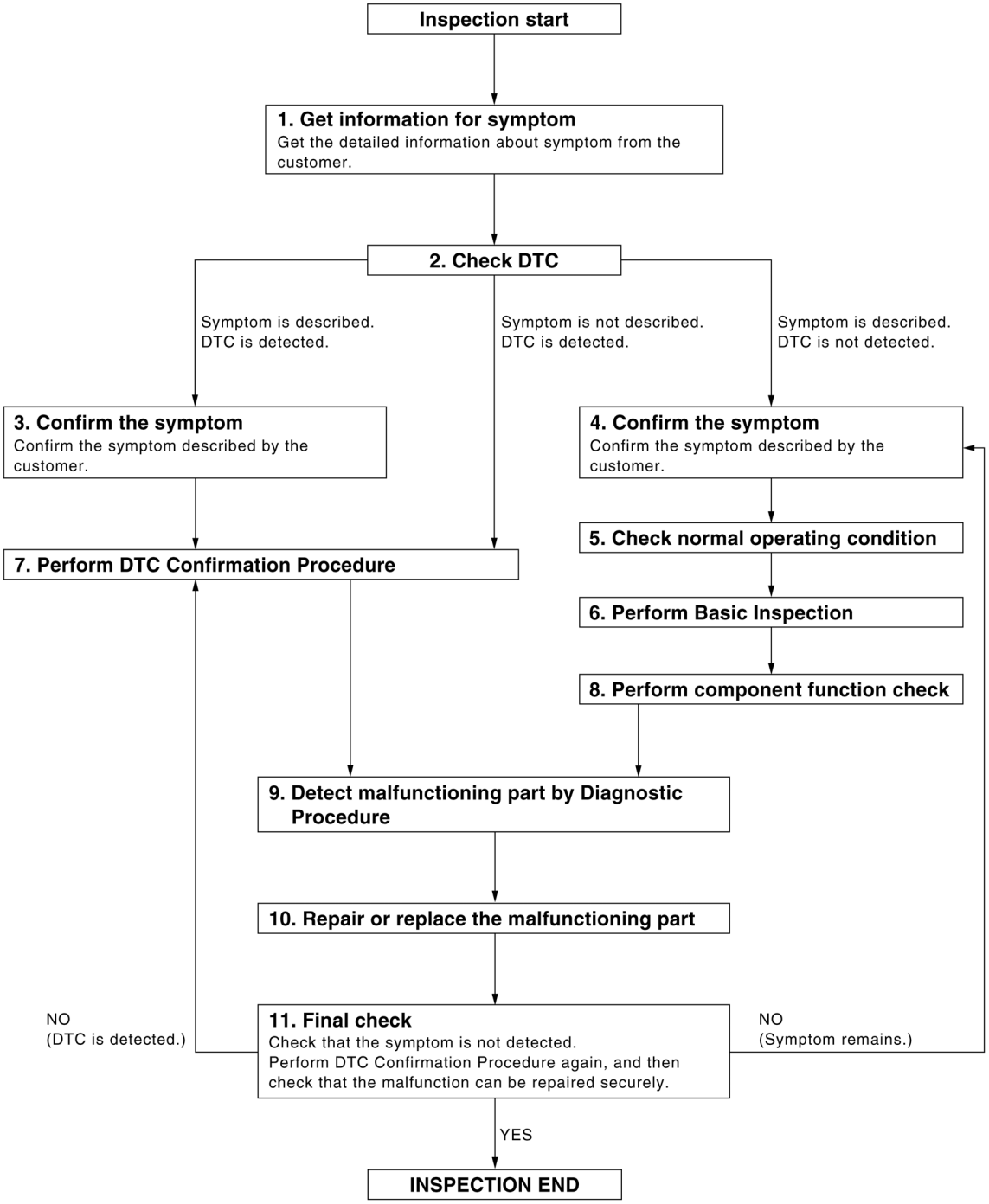
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:0000000011289434

WORK FLOW



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DETAILED FLOW

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-43, "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.

>> 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

Preliminary Check

INFOID:0000000011289435

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

INFOID:0000000011289436

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

PRE-INSPECTION FOR DIAGNOSTIC

Basic Inspection

INFOID:0000000011289437

1. CHECK POWER SUPPLY AND DROUND 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-43, "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.

• 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.

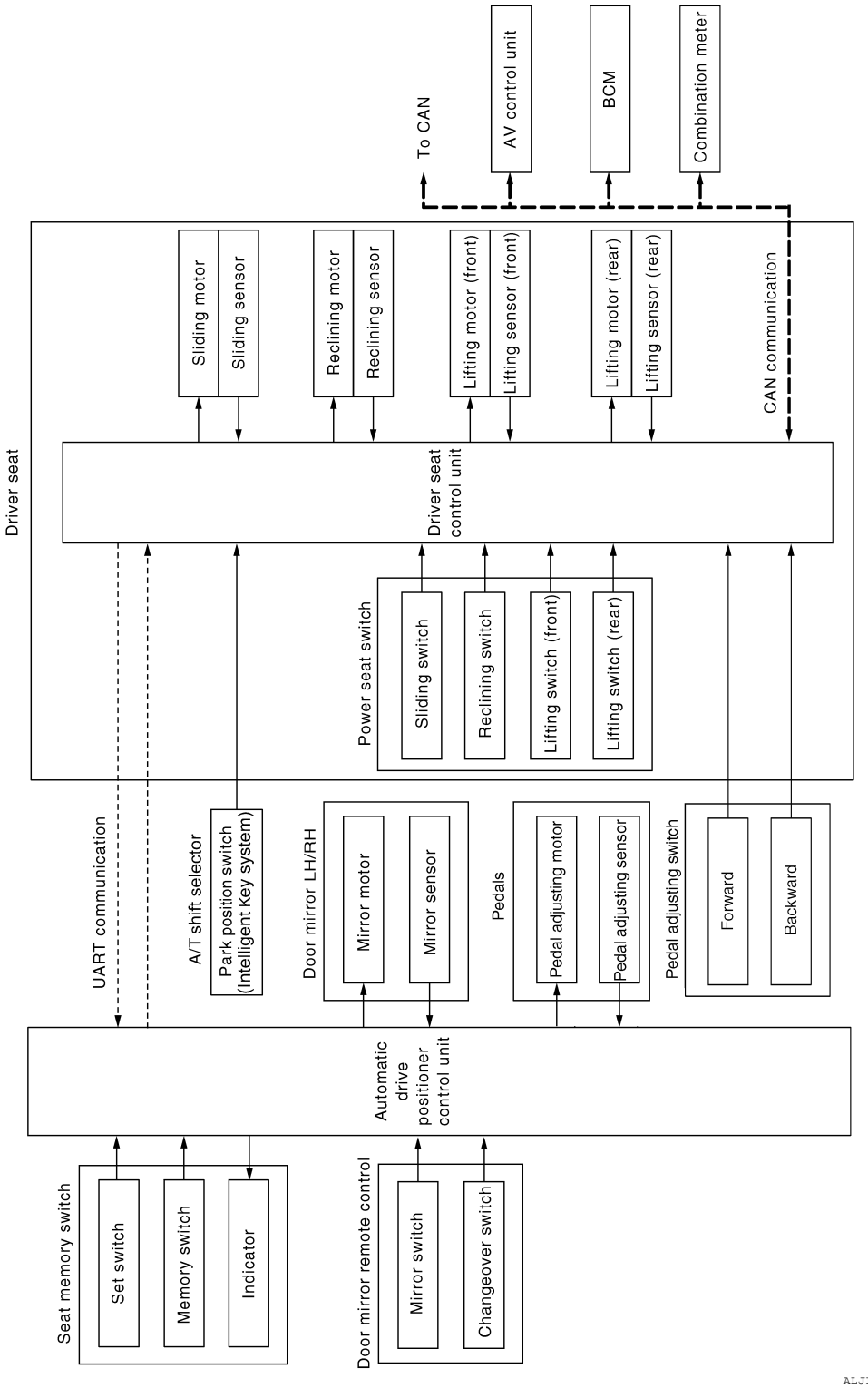
SYSTEM DESCRIPTION

AUTOMATIC DRIVE POSITIONER SYSTEM

AUTOMATIC DRIVE POSITIONER SYSTEM

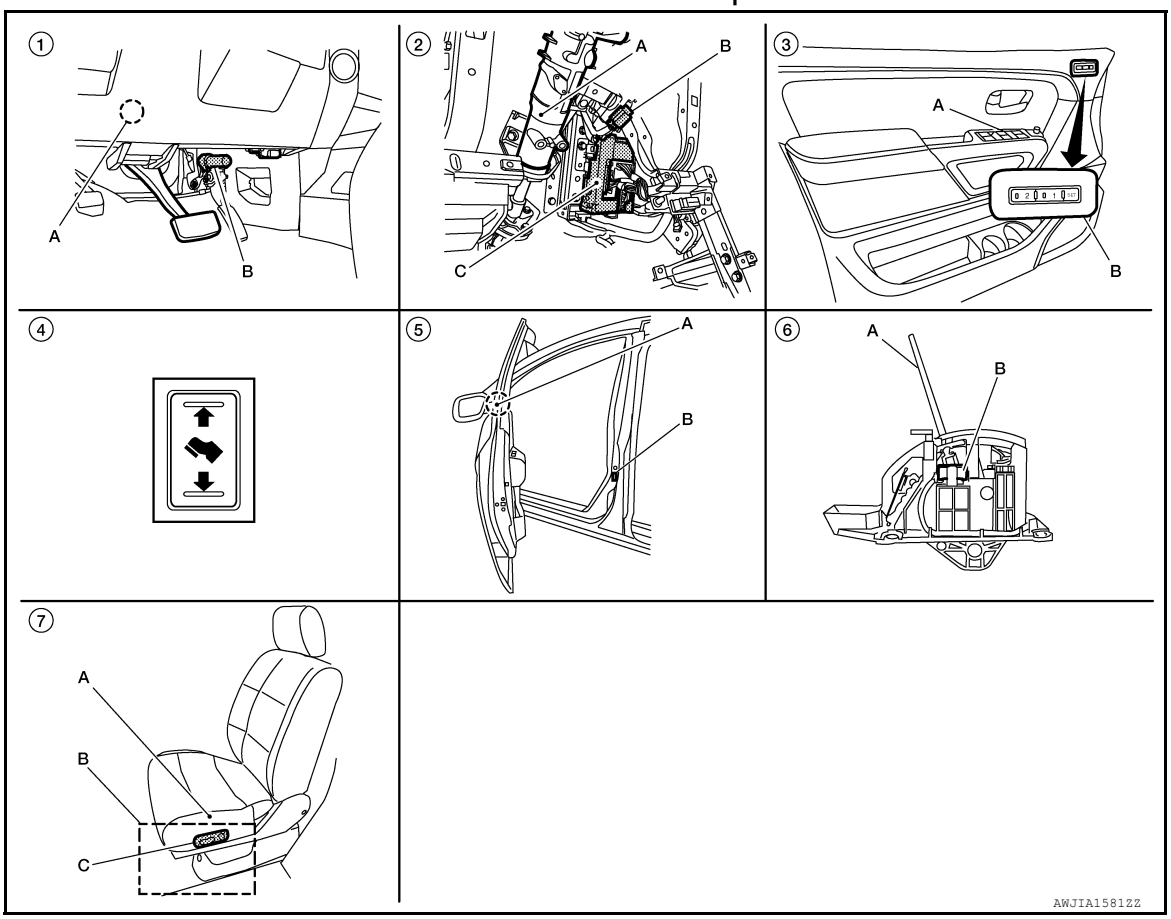
AUTOMATIC DRIVE POSITIONER SYSTEM : System Diagram

INFOID:0000000011289438



AUTOMATIC DRIVE POSITIONER SYSTEM : Component Parts Location

INFOID:0000000011289439



1. A. Automatic drive positioner control unit M33, M34
   B. Pedal adjusting motor assembly E109, E110
2. A. Steering column
   B. Key switch and ignition knob switch M12
   C. BCM M18, M19, M20 (view with instrument panel removed)
3. A. Door mirror remote control switch D10
   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
   B. A/T shift selector [park position switch (Intelligent Key system)] 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 : System Description

INFOID:0000000011289440

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.
Intelligent Key interlock function		Perform memory operation, exiting operation and entry operation by Intelligent Key unlock operation or driver side door request switch unlock operation.

AUTOMATIC DRIVE POSITIONER SYSTEM : Component Description

INFOID:0000000011289441

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 (with Intelligent Key or remote keyless entry request switch operation) • Key ID • Key switch: Insert/Pull out Intelligent Key or 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 (Intelligent Key system))	Transmit the shift position signal (P range) to the driver seat control unit.

INPUT PARTS

Switches

Item	Function
Key switch and ignition knob switch	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 (Intelligent Key system))	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.

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 up/down position of seat lifting (front).
Lifting sensor (rear)	Detect the up/down position of seat lifting (rear).
Reclining sensor	Detect the tilt of seatback.
Sliding sensor	Detect the front/rear position of seat.

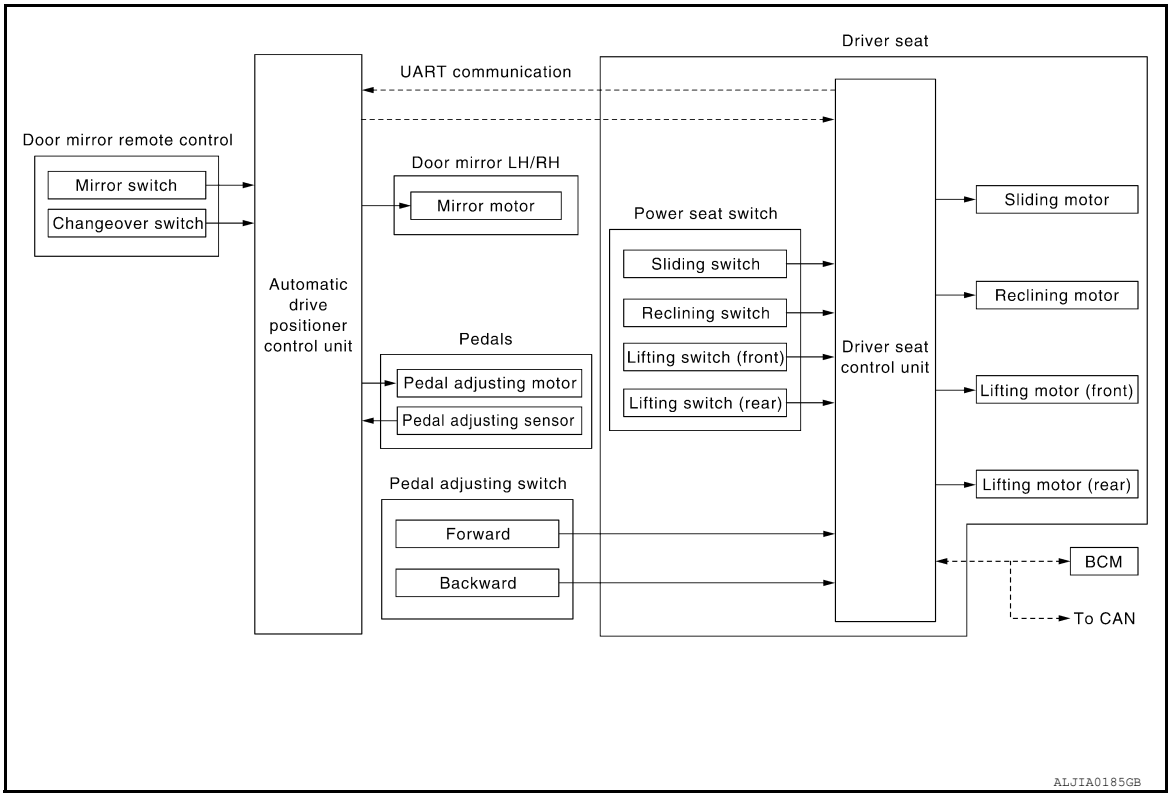
OUTPUT PARTS

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

MANUAL FUNCTION

MANUAL FUNCTION : System Diagram

INFOID:0000000011289442



MANUAL FUNCTION : System Description

INFOID:0000000011289443

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.

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.

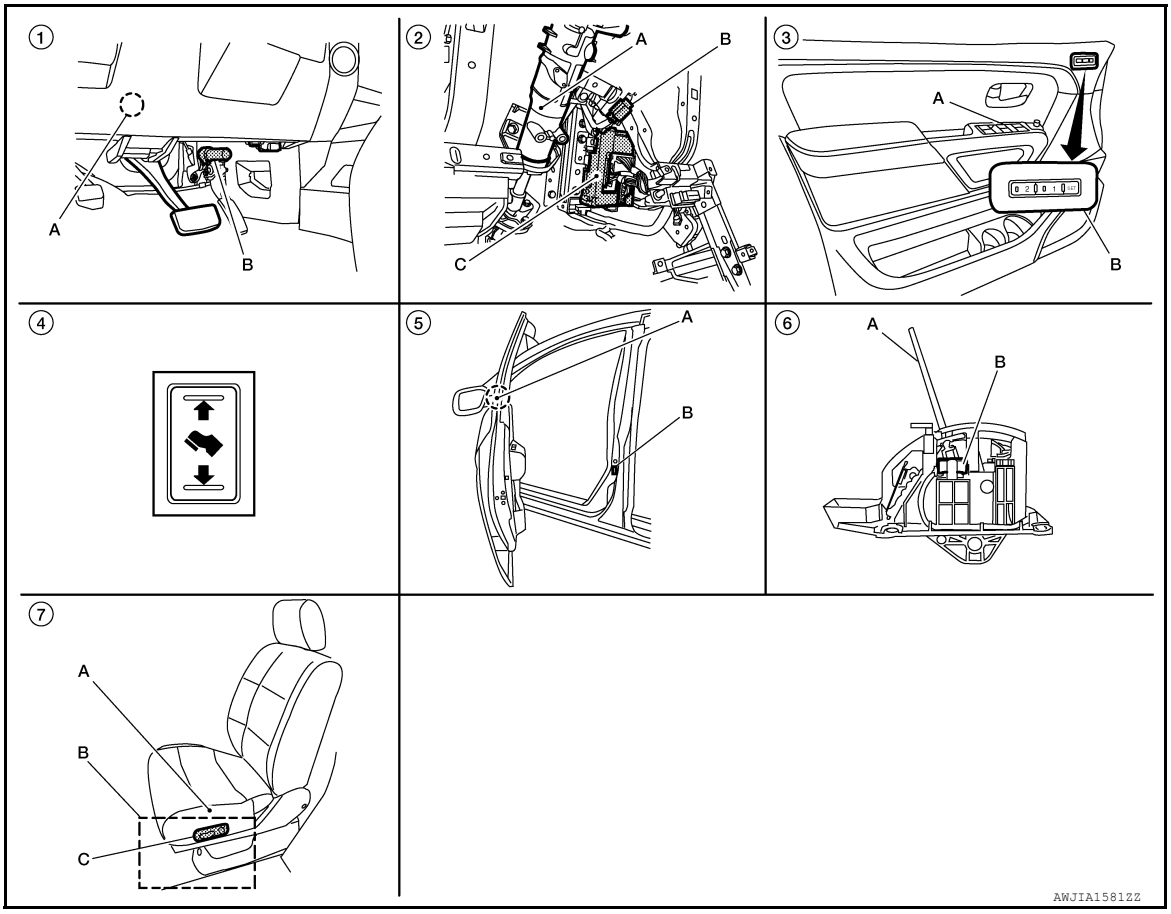
Door Mirror

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

INFOID:0000000011289444



1. A. Automatic drive positioner control unit M33, M34
   B. Pedal adjusting motor assembly E109, E110
2. A. Steering column
   B. Key switch and ignition knob switch M12
   C. BCM M18, M19, M20 (view with instrument panel removed)
3. A. Door mirror remote control switch D10
   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
   B. A/T shift selector [park position switch (Intelligent Key system)] 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

INFOID:0000000011289445

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.

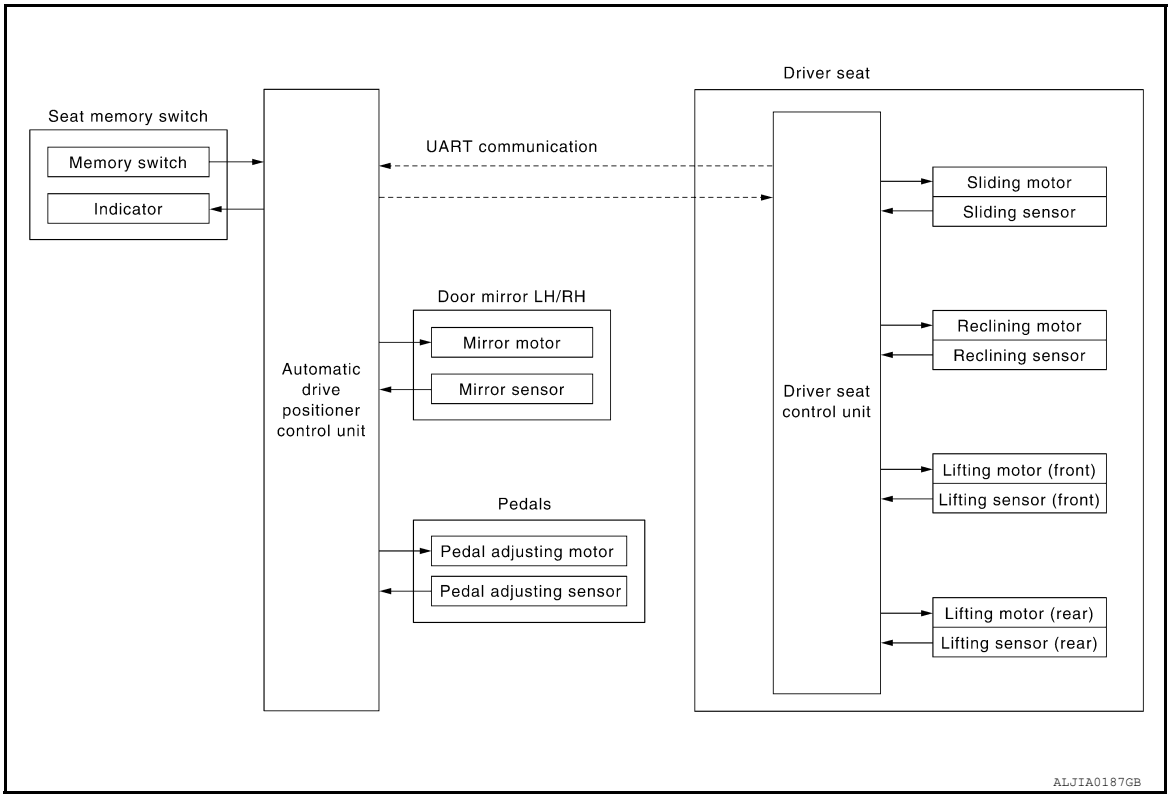
OUTPUT PARTS

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

MEMORY FUNCTION

MEMORY FUNCTION : System Diagram

INFOID:0000000011289446



MEMORY FUNCTION : System Description

INFOID:0000000011289447

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.

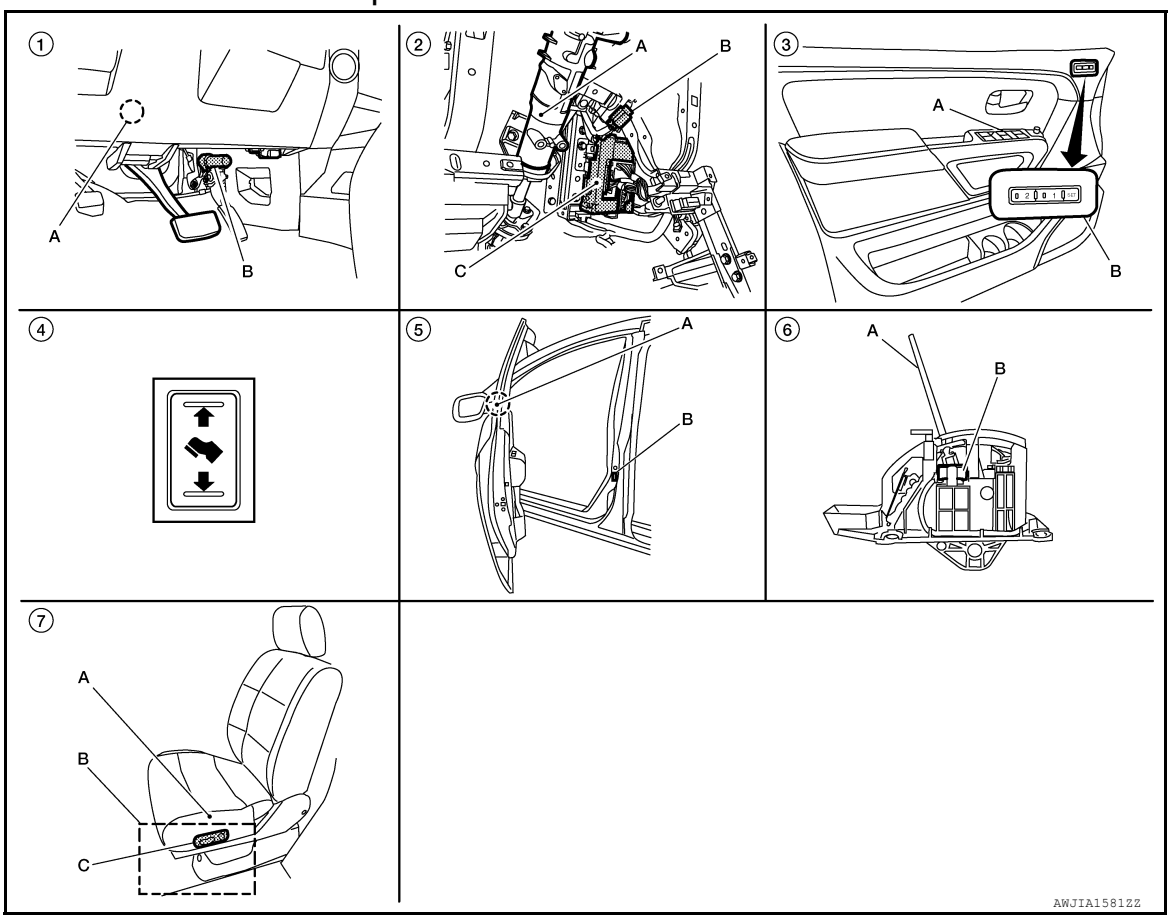
Item	Request status
Ignition position	ON
Switch inputs • Power seat switch • Pedal adjusting switch • Door mirror control switch • Set switch • Seat memory switch	OFF (Not operated)
A/T selector lever	P position

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

INFOID:0000000011289448



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2. A. Steering column
   B. Key switch and ignition knob switch M12
   C. BCM M18, M19, M20 (view with instrument panel removed)
3. A. Door mirror remote control switch D10
   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
   B. A/T shift selector [park position switch (Intelligent Key system)] 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:0000000011289449

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.

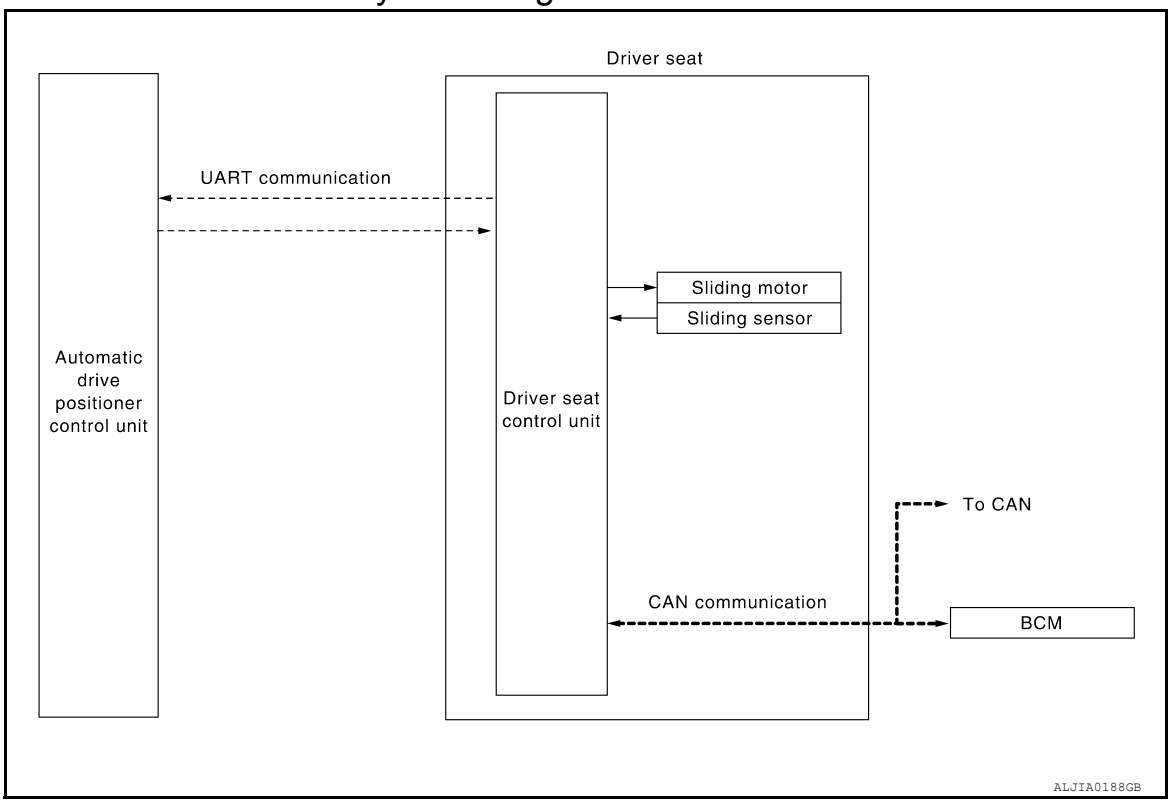
OUTPUT PARTS

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.

EXIT ASSIST FUNCTION

EXIT ASSIST FUNCTION : System Diagram

INFOID:0000000011289450



EXIT ASSIST FUNCTION : System Description

INFOID:0000000011289451

OUTLINE

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

NOTE:

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

OPERATION PROCEDURE

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

OPERATION CONDITION

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

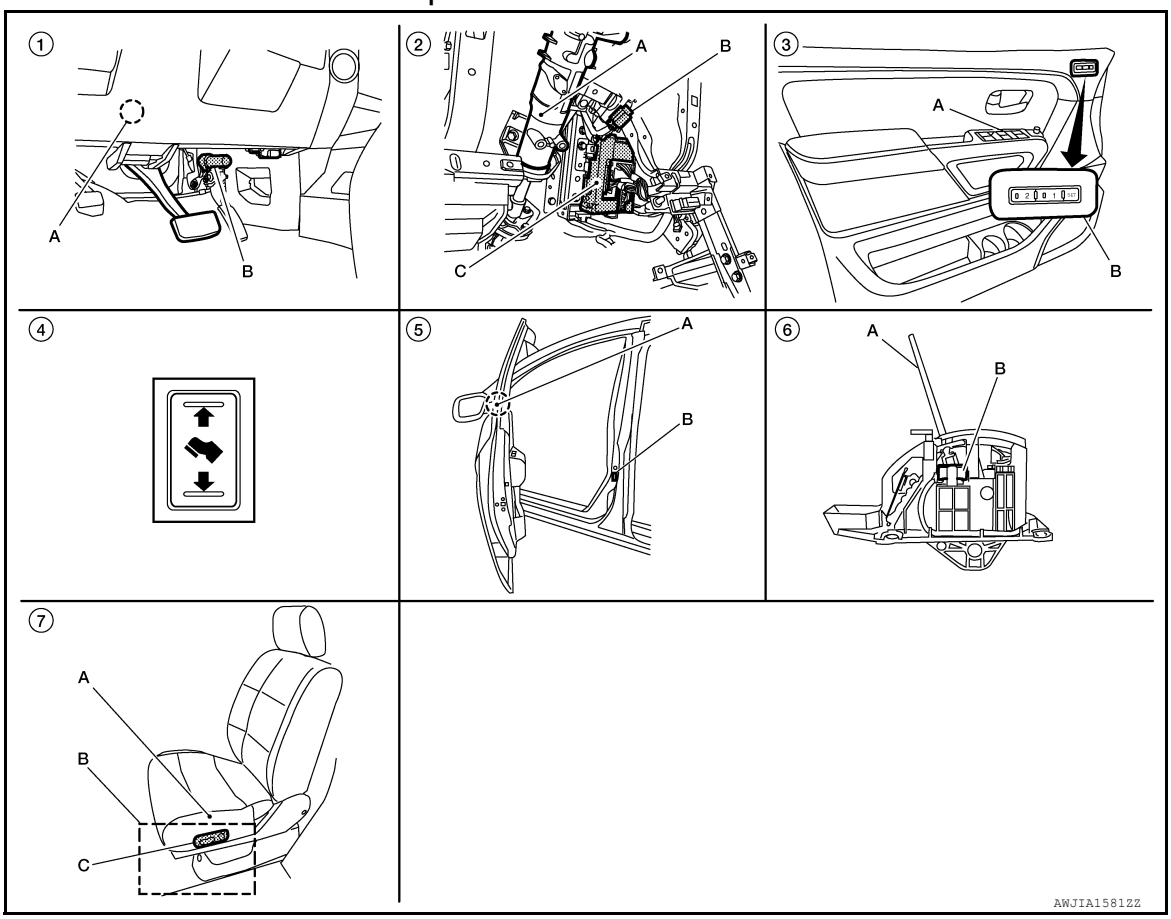
Item	Request status
Ignition switch	OFF
System setting [Entry/exit assist function]	ON
Initialization	Done
Switch inputs • Power seat switch • Pedal adjusting switch • Door mirror remote control switch • Set switch • Seat memory switch	OFF (Not operated)
A/T selector lever	P position

DETAIL FLOW

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:0000000011289452



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   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
   B. A/T shift selector [park position switch (Intelligent Key system)] 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:0000000011289453

CONTROL UNITS

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.

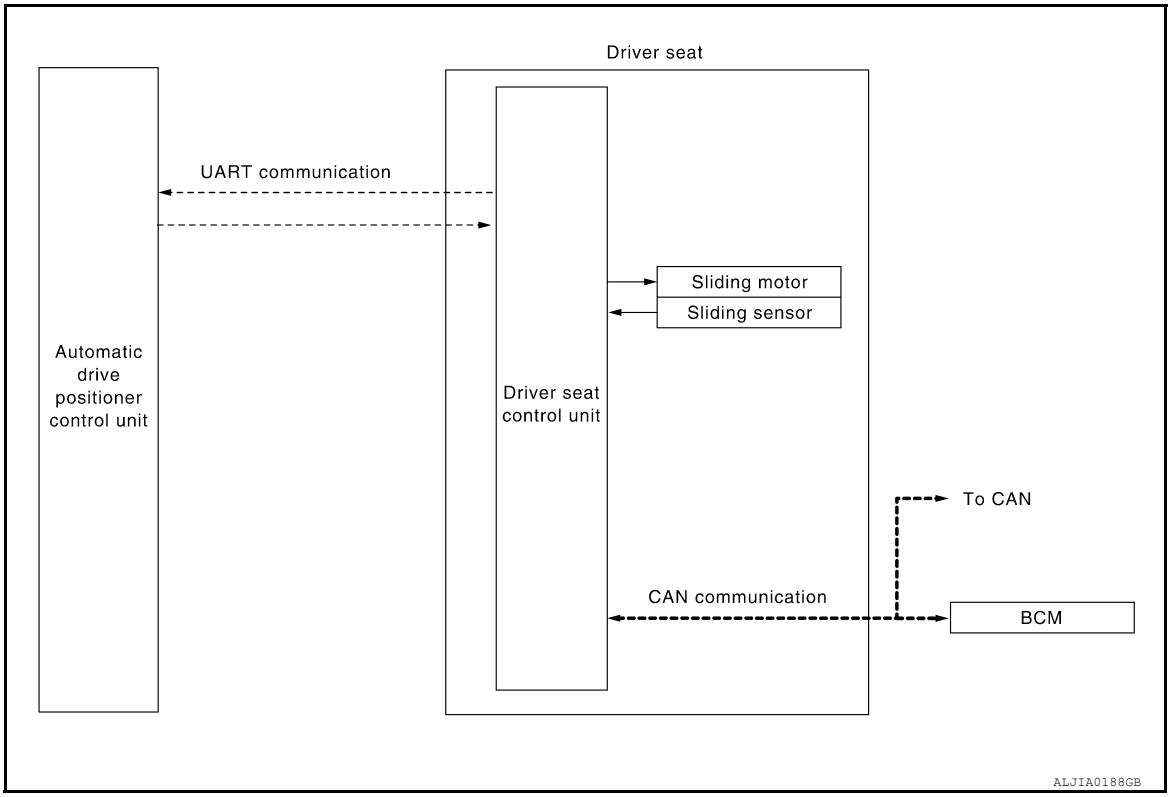
OUTPUT PARTS

Item	Function
Sliding motor	Slide the seat forward/backward.

ENTRY ASSIST FUNCTION

ENTRY ASSIST FUNCTION : System Diagram

INFOID:0000000011289454



ENTRY ASSIST FUNCTION : System Description

INFOID:0000000011289455

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:

- 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.

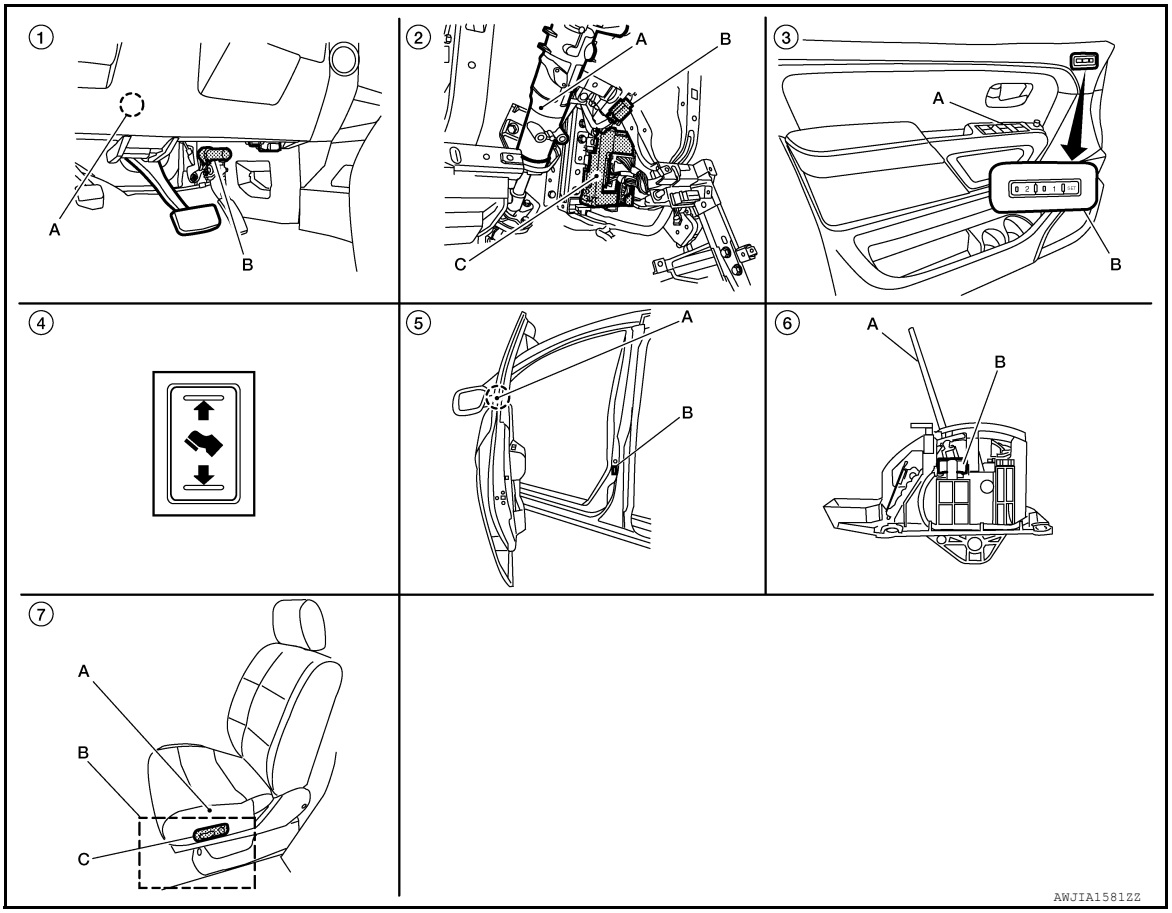
Item	Request status
Seat	The vehicle is not moved after performing the exit assist function.
Switch inputs • Power seat switch • Pedal adjusting switch • Door mirror control switch • Set switch • Memory switch	OFF (Not operated)
A/T selector lever	P position

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.

ENTRY ASSIST FUNCTION : Component Parts Location

INFOID:0000000011289456



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   B. Pedal adjusting motor assembly E109, E110
2. A. Steering column
   B. Key switch and ignition knob switch M12
   C. BCM M18, M19, M20 (view with instrument panel removed)
3. A. Door mirror remote control switch D10
   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
   B. A/T shift selector [park position switch (Intelligent Key system)] 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:0000000011289457

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

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.

DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

Diagnosis Description

INFOID:0000000011289458

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:0000000011289459

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.

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

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

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description

INFOID:0000000011289460

Refer to LAN-4, "System Description".

DTC Logic

INFOID:0000000011289461

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 LAN-14, "Trouble Diagnosis Procedure".
NO >> Inspection End.

Special Repair Requirement

INFOID:0000000011289462

Refer to Owner’s Manual.

B2112 SLIDING MOTOR

Description

INFOID:0000000011289463

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

DTC Logic

INFOID:0000000011289464

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:0000000011289465

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-43, "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.

(+)		(–)	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-43, "Intermittent Incident".

>> Inspection End.

B2113 RECLINING MOTOR

Description

INFOID:0000000011289466

- 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 forward/backward by changing the rotation direction of reclining motor.

DTC Logic

INFOID:0000000011289467

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:0000000011289468

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-43, "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.

(+)		(–)	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-43, "Intermittent Incident".

>> Inspection End.

B2114 SEAT LIFTER FR

Description

INFOID:0000000011289469

- 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:0000000011289470

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:0000000011289471

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-43, "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.

(+)		(–)	Voltage (V) (Approx.)
Lifting motor (front)			
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.

(+)		(–)	Voltage (V) (Approx.)
Driver seat control unit			
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-43, "Intermittent Incident".

>> Inspection End.

B2115 SEAT LIFTER RR

Description

INFOID:0000000011289472

- 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:0000000011289473

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:0000000011289474

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-43, "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.

(+)		(–)	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-43, "Intermittent Incident".

>> Inspection End.

B2117 ADJ PEDAL MOTOR

Description

INFOID:0000000011289475

- 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:0000000011289476

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:0000000011289477

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.

Is the inspection result normal?

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

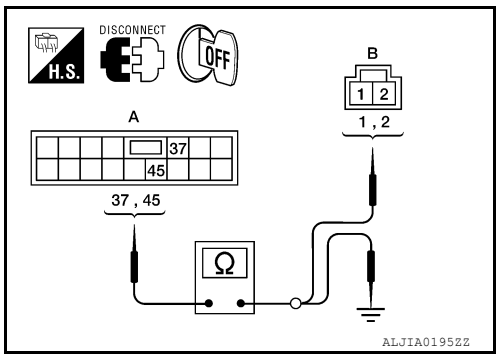
3. CHECK PEDAL ADJUSTING MOTOR ASSEMBLY CIRCUIT HARNESS CONTINUITY

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

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

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

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



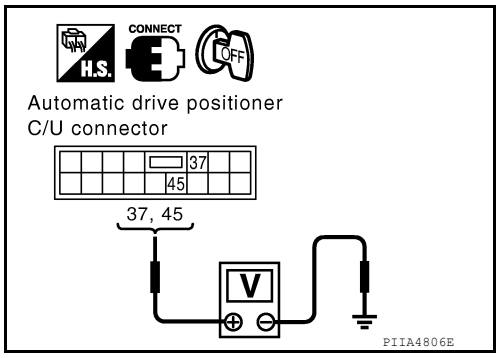
Is the inspection result normal?

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

4. CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT OUTPUT SIGNAL

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

Connector	Terminals (+)	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-43, "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

Description

INFOID:0000000011289478

- 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:0000000011289479

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:0000000011289480

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

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.**

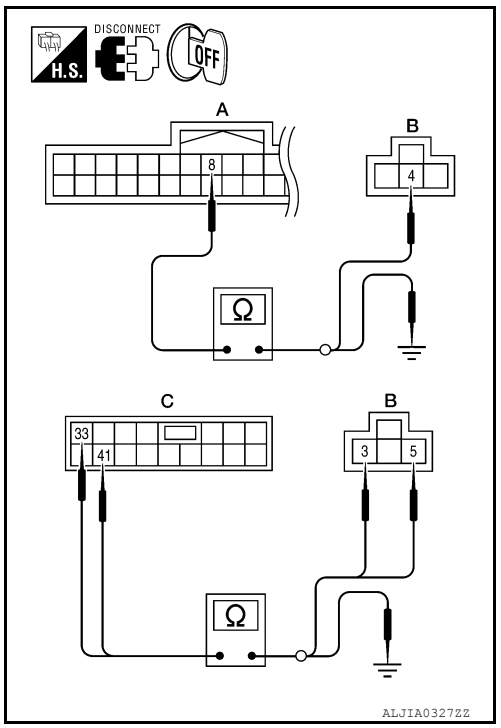
3. Check continuity between automatic drive positioner control unit connector M33 (A) terminal 8, M34 (C) terminals 33 and 41 and ground.

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

Description

INFOID:0000000011289481

- Park position switch is installed on 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 selector lever is in P position if continuity does not exist in this circuit.

DTC Logic

INFOID:0000000011289482

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1. STEP 1

Drive the vehicle at 7±4km/h or more.

>> GO TO 2

2. STEP 2

Check “Self diagnostic result” with CONSULT.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-42, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000011289483

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 detention switch signal under the following condition.

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

Is the status normal?

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

NO >> GO TO 3

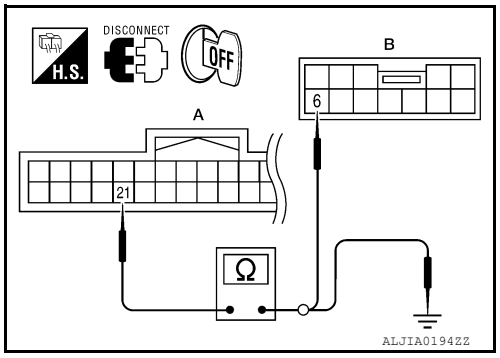
3. CHECK A/T SHIFT SELECTOR (PARK POSITION SWITCH) HARNESS

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

6 - 21 : Continuity should exist.

4. Check continuity between driver seat control unit connector B202 (A) terminal 21 and ground.

21 - Ground : Continuity should not exist.



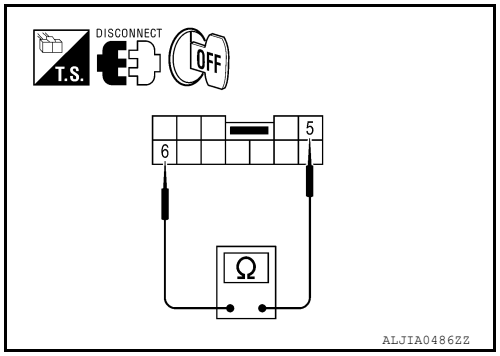
Is the inspection result normal?

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

4. CHECK PARK POSITION SWITCH

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

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



Is the inspection result normal?

YES >> GO TO 5
NO >> Replace A/T shift selector. Refer to TM-175, "A/T Shift Selector Removal and Installation".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "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

Description

INFOID:0000000011289484

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:0000000011289485

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.

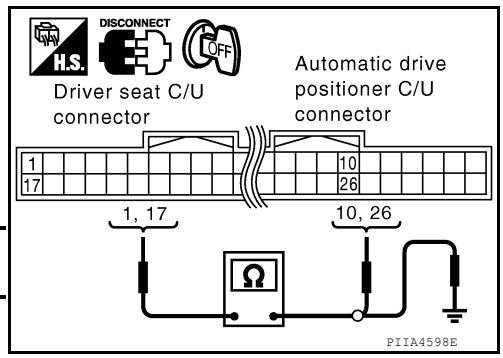
Diagnosis Procedure

INFOID:0000000011289486

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

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-43, "Intermittent Incident".
NO >> Repair or replace harness.

POWER SUPPLY AND GROUND CIRCUIT
BCM
BCM : Diagnosis Procedure

INFOID:0000000011513708

Regarding Wiring Diagram information, refer to BCS-46, "Wiring Diagram".

1. CHECK FUSES AND FUSIBLE LINK

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

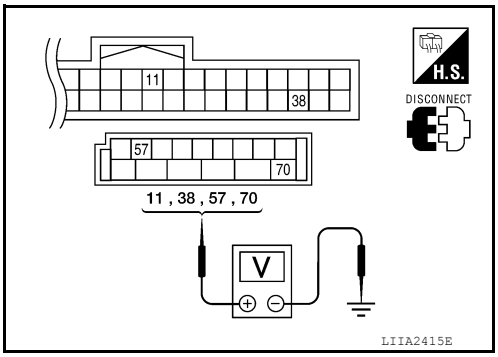
Terminal No.	Signal name	Fuses and fusible link No.
57	Battery power supply	22 (15A)
70		F (50A)
11	Ignition ACC or ON	4 (10A)
38	Ignition ON or START	59 (10A)

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 (+)	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

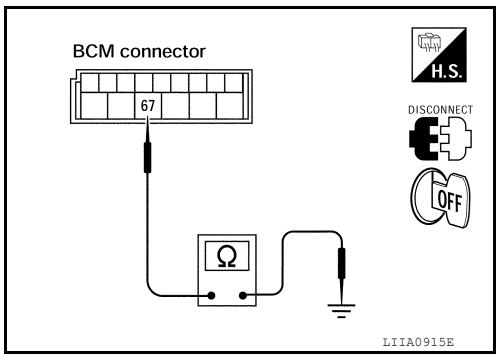
Is the measurement value normal?

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

3. CHECK GROUND CIRCUIT

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

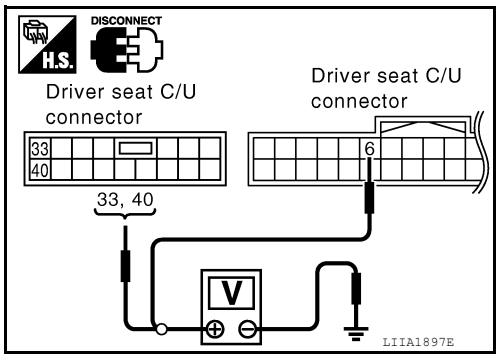
INFOID:0000000011289488

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 ADP-127, "Wiring Diagram".

1. CHECK POWER SUPPLY CIRCUIT

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



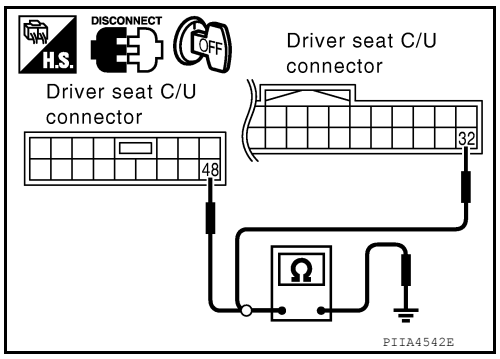
Terminals			Power source	Condition	Voltage (V) (Approx.)
(+)		(–)			
Driver seat control unit connector	Terminal				
B202	6	Ground	START power supply	Ignition switch START	Battery voltage
B203	33		Battery power supply	Ignition switch OFF	
	40				

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		Yes
B203	48		

Is the inspection result normal?

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

NO >> Repair or replace harness.

DRIVER SEAT CONTROL UNIT : Special Repair Requirement

INFOID:0000000011289489

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

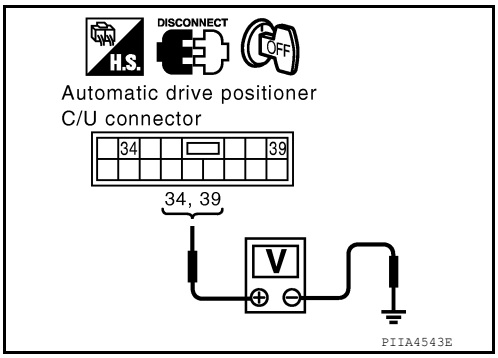
INFOID:0000000011289490

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.



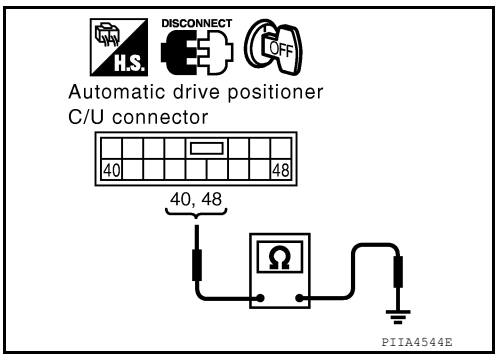
Terminals			Voltage (V) (Approx.)
(+)		(–)	
Automatic drive positioner control unit connector	Terminal		
M34	34	Ground	Battery voltage
	39		

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		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:0000000011289491

1. PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

>> Refer to Owner's Manual.

SLIDING SWITCH

Description

INFOID:0000000011289492

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:0000000011289493

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".

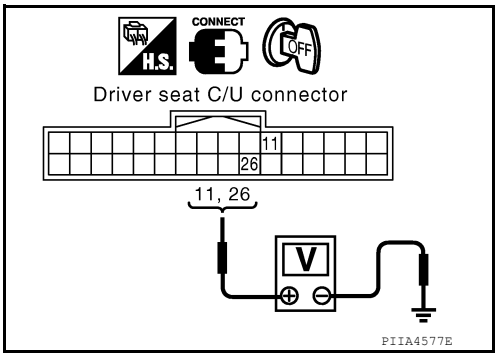
Diagnosis Procedure

INFOID:0000000011289494

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.



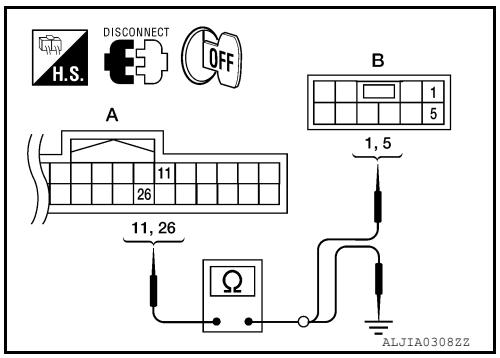
Driver seat control unit connector	Terminals (+)	Terminals (–)	Condition		Voltage (V) (Approx.)
B202	11	Ground	Sliding switch	Operate (backward)	0
				Release	Battery voltage
	26			Operate (forward)	0
				Release	Battery voltage

Is the inspection result normal?

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

2. CHECK SLIDING SWITCH CIRCUIT

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.

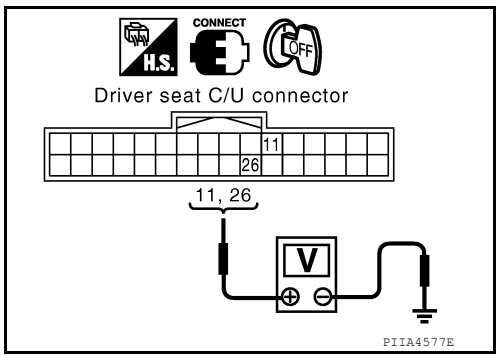
Driver seat control unit connector	Terminal	Ground	Continuity
B202 (A)	11		No
	26		

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 ADP-147, "Removal and Installation".

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-93, "Disassembly and Assembly".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

Is the inspection result normal?

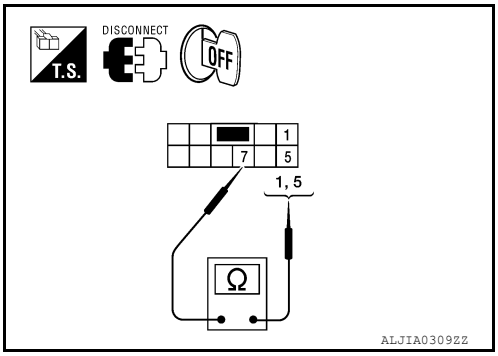
YES >> Replace driver seat control unit. Refer to ADP-147, "Removal and Installation".
NO >> Repair or replace malfunctioning part.

Component Inspection

INFOID:0000000011289495

1. CHECK SLIDING SWITCH

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-93, "Disassembly and Assembly".

RECLINING SWITCH

Description

INFOID:0000000011289496

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:0000000011289497

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".

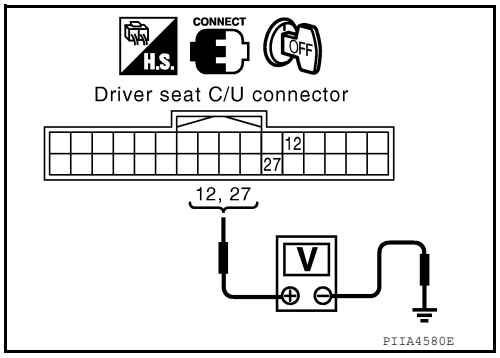
Diagnosis Procedure

INFOID:0000000011289498

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.



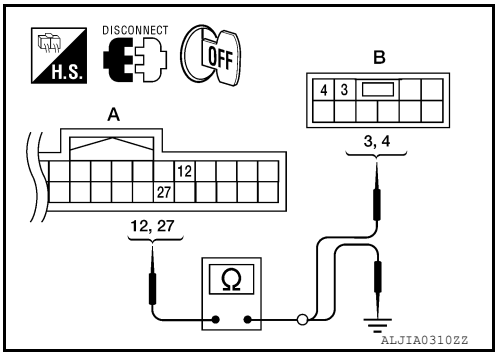
Driver seat control unit connector	Terminals (+)	Terminals (–)	Condition		Voltage (V) (Approx.)
B202	12	Ground	Reclining switch	Operate (backward)	0
				Release	Battery voltage
	27			Operate (forward)	0
				Release	Battery voltage

Is the inspection result normal?

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

2. CHECK RECLINING SWITCH CIRCUIT

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.

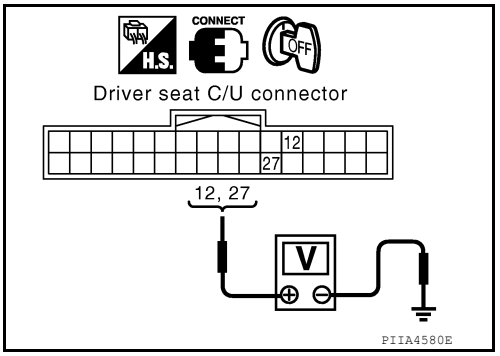
Driver seat control unit connector	Terminal	Ground	Continuity
B202 (A)	12		No
	27		

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-93, "Disassembly and Assembly".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

Is the inspection result normal?

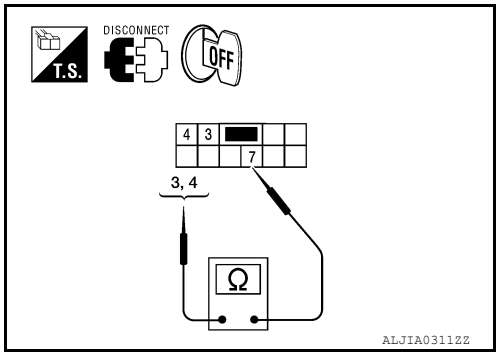
YES >> Replace driver seat control unit. Refer to ADP-147, "Removal and Installation".
NO >> Repair or replace the malfunctioning part.

Component Inspection

INFOID:0000000011289499

1. CHECK RECLINING SWITCH

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-93, "Disassembly and Assembly".

LIFTING SWITCH (FRONT)

Description

INFOID:0000000011289500

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:0000000011289501

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".

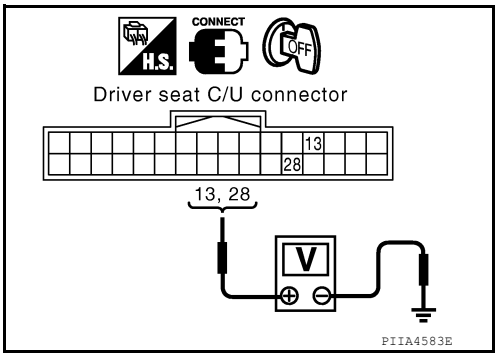
Diagnosis Procedure

INFOID:0000000011289502

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.



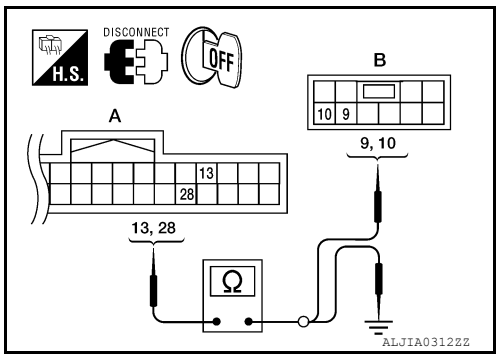
Driver seat control unit connector	Terminals (+)	Terminals (–)	Condition		Voltage (V) (Approx.)
B202	13	Ground	Lifting switch (front)	Operate (downward)	0V
				Release	Battery voltage
	28			Operate (upward)	0V
				Release	Battery voltage

Is the inspection result normal?

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

2. CHECK LIFTING SWITCH (FRONT) CIRCUIT

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.

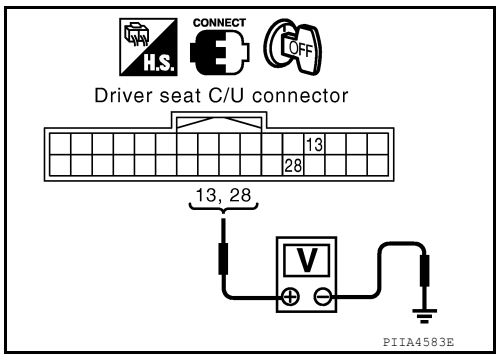
Driver seat control unit connector	Terminal	Ground	Continuity
B202 (A)	13		No
	28		

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-93, "Disassembly and Assembly".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

Is the inspection result normal?

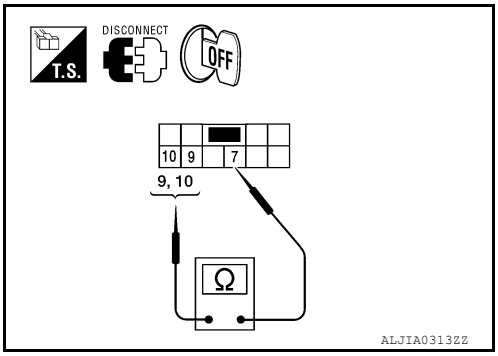
YES >> Replace driver seat control unit. Refer to ADP-147, "Removal and Installation".
NO >> Repair or replace the malfunctioning part.

Component Inspection

INFOID:0000000011289503

1. CHECK LIFTING SWITCH (FRONT)

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-93, "Disassembly and Assembly".

LIFTING SWITCH (REAR)

Description

INFOID:0000000011289504

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:0000000011289505

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".

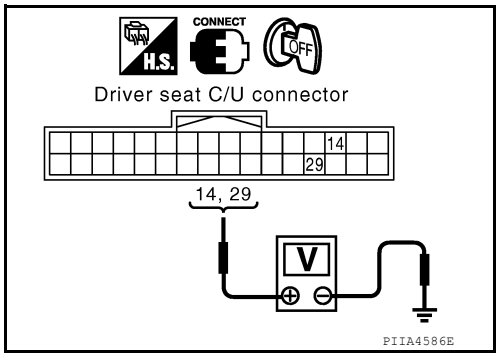
Diagnosis Procedure

INFOID:0000000011289506

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.



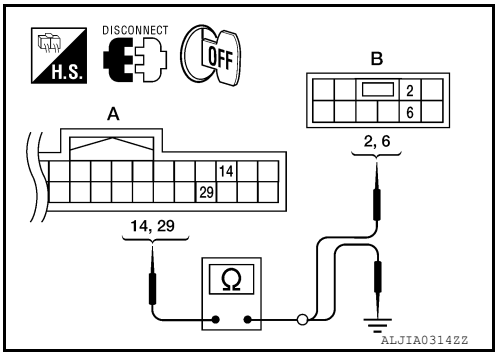
Driver seat control unit connector	Terminals (+)	Terminals (–)	Condition		Voltage (V) (Approx.)
B202	14	Ground	Lifting switch (rear)	Operate (downward)	0
				Release	Battery voltage
	29			Operate (upward)	0
				Release	Battery voltage

Is the inspection result normal?

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

2. CHECK LIFTING SWITCH (REAR) CIRCUIT

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 sear 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.

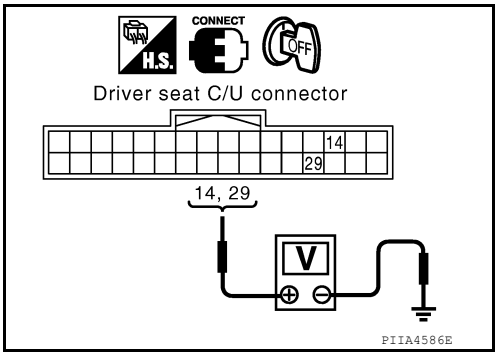
Driver seat control unit connector	Terminal	Ground	Continuity
B202 (A)	14		No
	29		

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-93, "Disassembly and Assembly".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

Is the inspection result normal?

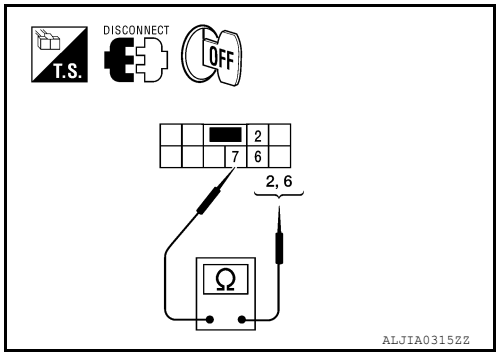
YES >> Replace driver seat control unit. Refer to ADP-147, "Removal and Installation".
NO >> Repair or replace the malfunctioning part.

Component Inspection

INFOID:0000000011289507

1. CHECK LIFTING SWITCH (REAR)

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-93, "Disassembly and Assembly".

PEDAL ADJUSTING SWITCH

Description

INFOID:0000000011289508

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:0000000011289509

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".

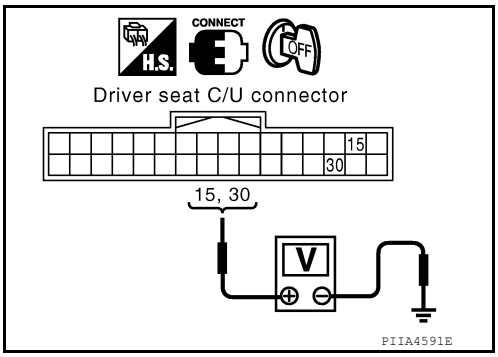
Diagnosis Procedure

INFOID:0000000011289510

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.



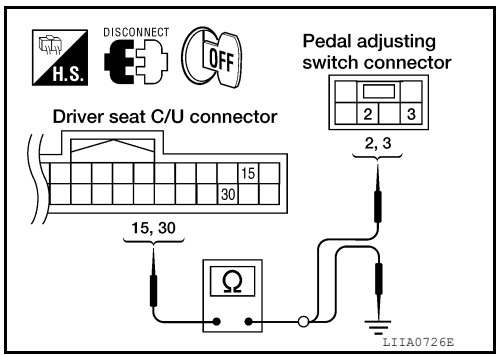
Driver seat control unit connector	Terminals (+)	Terminals (–)	Condition		Voltage (V) (Approx.)
B202	15	Ground	Pedal adjusting switch	Operate (backward)	0
				Release	Battery voltage
	30			Operate (forward)	0
				Release	Battery voltage

Is the inspection result normal?

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

2. CHECK PEDAL ADJUSTING SWITCH CIRCUIT

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.

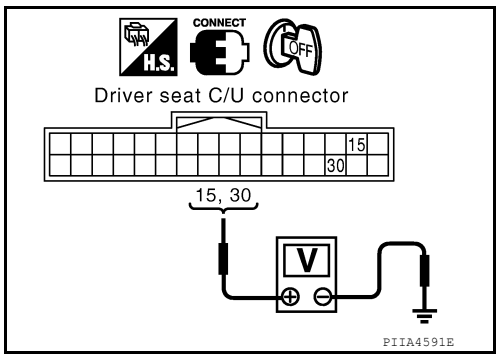
Driver seat control unit connector	Terminal	Ground	Continuity
B202	15		No
	30		

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".

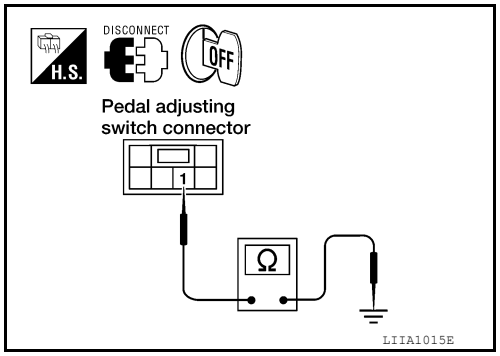
Is the inspection result normal?

YES >> GO TO 5
NO >> Replace pedal adjusting switch. Refer to IP-11, "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-43, "Intermittent Incident".

Is the inspection result normal?

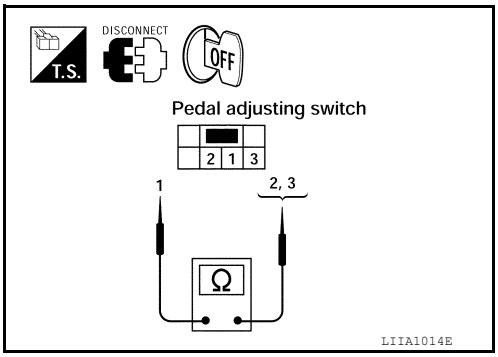
YES >> Replace driver seat control unit. Refer to ADP-147, "Removal and Installation".
NO >> Repair or replace the malfunctioning part.

Component Inspection

INFOID:0000000011289511

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-11, "Exploded View".

SEAT MEMORY SWITCH

Description

INFOID:0000000011289512

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:0000000011289513

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:0000000011289514

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	10	Yes
	24		2	
	25		16	

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

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

Is the inspection result normal?

YES >> GO TO 2
NO >> Repair or replace harness.

2. CHECK MEMORY SWITCH GROUND CIRCUIT

Check continuity between seat memory switch harness connector and ground.

Seat memory switch connector	Terminal	Ground	Continuity
D5	9		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-43, "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:0000000011289515

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				
9	10	Memory switch 1	Push	Yes
			Release	No
	16	Memory switch 2	Push	Yes
			Release	No
	2	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
CHANGEOVER SWITCH

CHANGEOVER SWITCH : Description

INFOID:0000000011289516

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:0000000011289517

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".

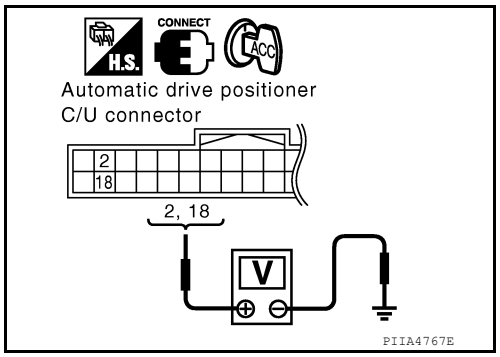
CHANGEOVER SWITCH : Diagnosis Procedure

INFOID:0000000011289518

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.



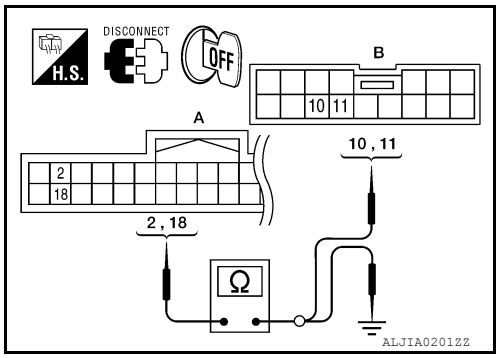
Terminals			Change over switch condition	Voltage (V) (Approx.)
(+)		(-)		
Automatic drive positioner control unit connector	Terminal			
M33	2	Ground	RIGHT	0
			Other than above	5
	18		LEFT	0
			Other than above	5

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
M33 (A)	2	D10 (B)	11	Yes
	18		10	

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

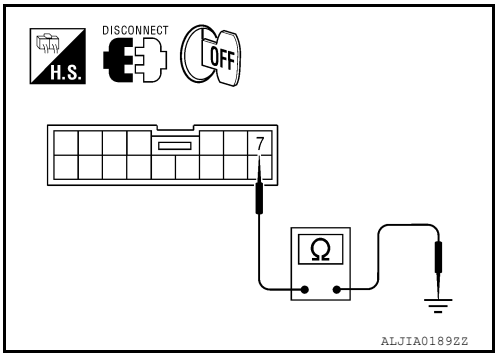
Automatic drive positioner control unit connector	Terminal	Ground	Continuity
M33 (A)	2		No
	18		

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.



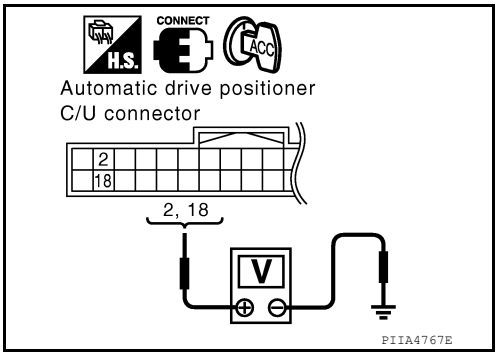
Door mirror remote control switch connector	Terminal	Ground	Continuity
D10	7		Yes

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.)
(+)		(-)	
Automatic drive positioner control unit connector	Terminal		
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-43, "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-43, "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.

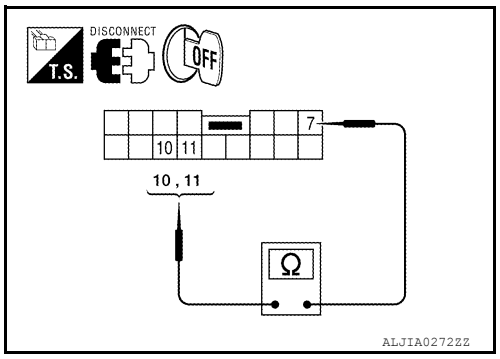
CHANGEOVER SWITCH : Component Inspection

INFOID:0000000011289519

1. CHECK CHANGEOVER SWITCH

Check door mirror remote control switch.

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



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:0000000011289520

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:0000000011289521

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".

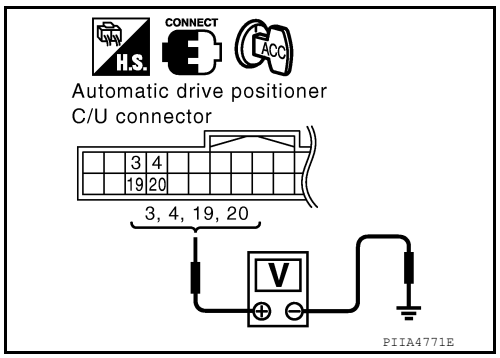
MIRROR SWITCH : Diagnosis Procedure

INFOID:0000000011289522

Regarding Wiring Diagram information, refer to ADP-127, "Wiring Diagram".

1. CHECK MIRROR SWITCH FUNCTION

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



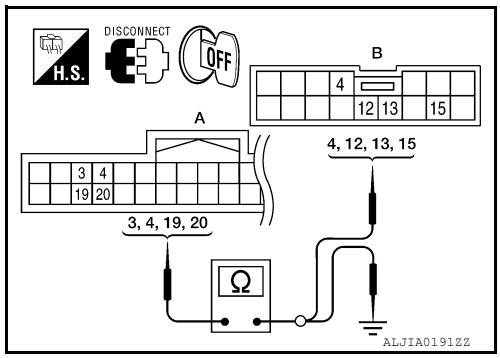
Terminals			Mirror switch Condition	Voltage (V) (Approx.)
(+)		(–)		
Automatic drive positioner control unit connector	Terminal			
M33	3	Ground	UP	0
			Other than above	5
	4		LEFT	0
			Other than above	5
	19		DOWN	0
			Other than above	5
	20		RIGHT	0
			Other than above	5

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.



Automatic drive positioner control unit connector	Terminal	Door mirror remote control switch connector	Terminal	Continuity
M33 (A)	3	D10 (B)	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		Continuity
M33 (A)	3	Ground	No
	4		
	19		
	20		

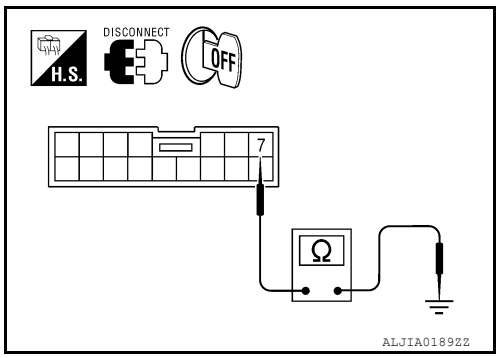
Is the inspection result normal?

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

3. CHECK DOOR MIRROR REMOTE CONTROL SWITCH GROUND CIRCUIT

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

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

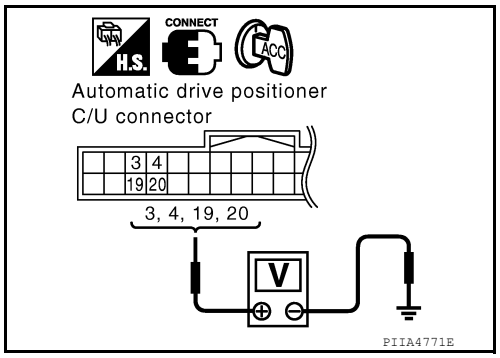


Is the inspection result normal?

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.)
(+)		(-)	
Automatic drive positioner control unit connector	Terminal		
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-43, "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-43, "Intermittent Incident".

Is the inspection result normal?

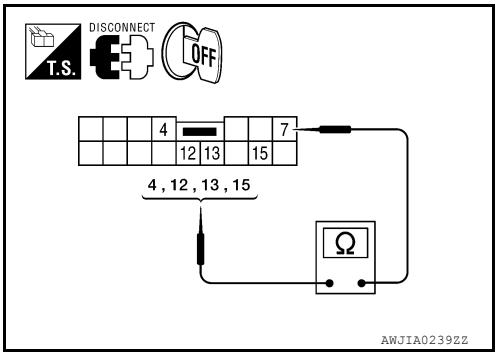
YES >> Replace automatic drive positioner control unit. Refer to ADP-148, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

MIRROR SWITCH : Component Inspection

INFOID:0000000011289523

1. CHECK MIRROR SWITCH

Check door mirror remote control switch.



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

Diagnosis Procedure

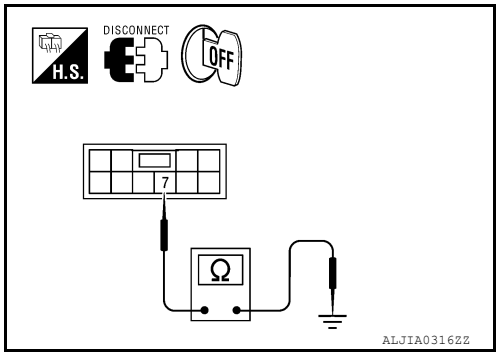
INFOID:0000000011289524

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-43, "Intermittent Incident".

NO >> Repair or replace harness.

DETENTION SWITCH

Description

INFOID:0000000011289525

Park position switch is installed on 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 selector lever is in P position if continuity does not exist in this circuit.

Component Function Check

INFOID:0000000011289526

1. CHECK FUNCTION

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

Monitor item	Condition		Status
DETENT SW	A/T selector lever	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:0000000011289527

Regarding Wiring Diagram information, refer to ADP-127, "Wiring Diagram".

1. CHECK DTC WITH “BCM”

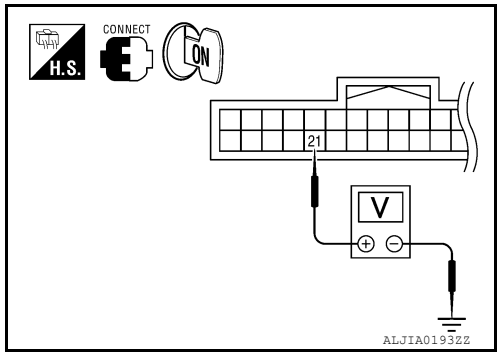
Check “Self Diagnostic Result” for BCM with CONSULT.

Is any other DTC detected?

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

2. CHECK PARK POSITION SWITCH INPUT SIGNAL

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



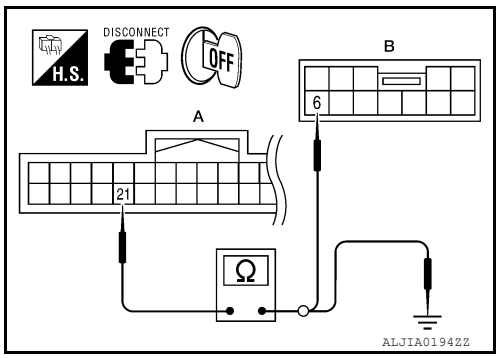
Driver seat control unit connector	Terminal		Condition		Voltage (V) (Approx.)
	(+)	(-)			
B202	21	Ground	A/T selector lever	P position	Battery voltage
				Other than above	0V

Is the inspection result normal?

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

3. CHECK PARK POSITION SWITCH 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 (A) and A/T shift selector harness connector (B).



A		B		Continuity
Connector	Terminal	Connector	Terminal	
B202	21	M203	6	Yes

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

A		Ground	Continuity
Connector	Terminal		
B202	21		No

Is the inspection result normal?

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

4. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "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.

FRONT DOOR SWITCH (DRIVER SIDE)

Description

INFOID:0000000011289528

Detects front door LH open/close condition.

Component Function Check

INFOID:0000000011289529

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".

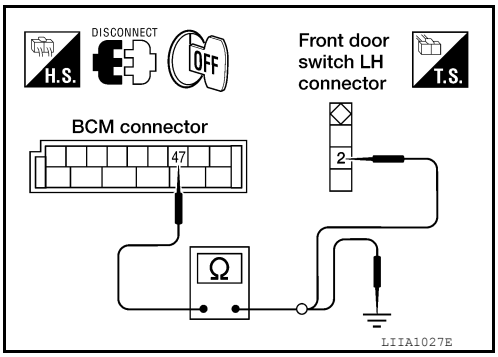
Diagnosis Procedure

INFOID:0000000011289530

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-43, "Intermittent Incident".

Is the inspection result normal?

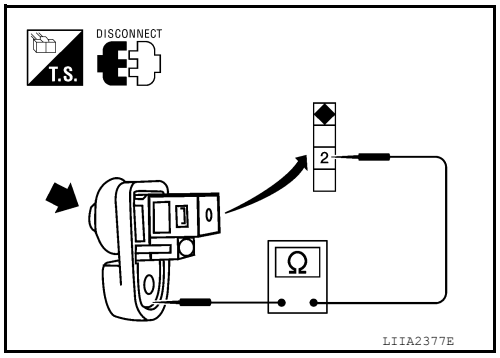
YES >> Replace BCM. Refer to BCS-54, "Removal and Installation".
NO >> Repair or replace the malfunctioning part.

Component Inspection

INFOID:0000000011289531

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

Description

INFOID:0000000011289532

- 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:0000000011289533

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".

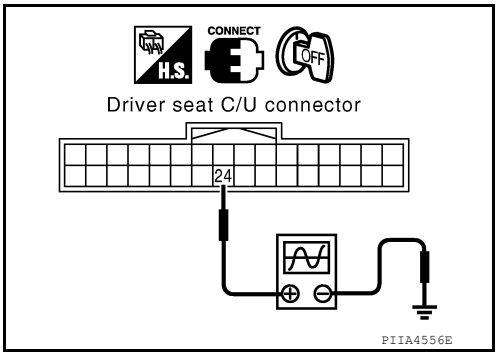
Diagnosis Procedure

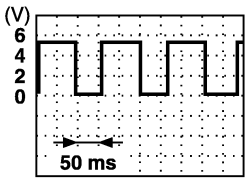
INFOID:0000000011289534

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.



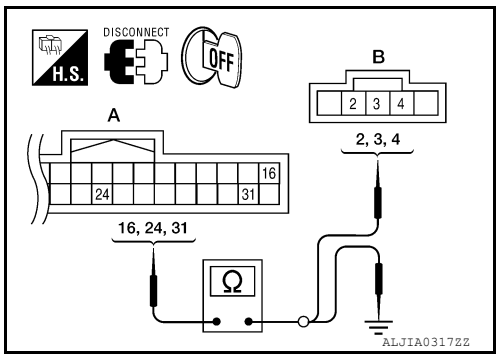
Terminals			Condition		Voltage signal
(+)		(–)			
Driver’s seat control unit	Terminal				
B202	24	Ground	Seat sliding	Operate	
				Other than above	0 or 5

Is the inspection result normal?

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

2. CHECK SLIDING SENSOR CIRCUITS

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-93, "Disassembly and Assembly".
NO >> Replace driver seat control unit. Refer to ADP-147, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "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

Description

INFOID:0000000011289535

- 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:0000000011289536

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".

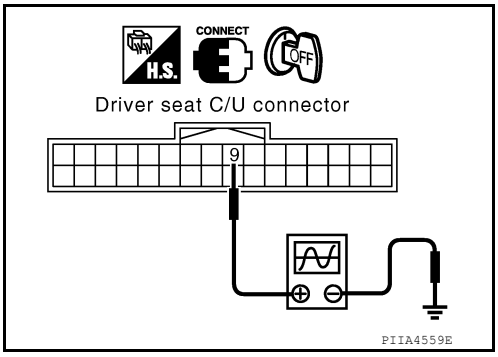
Diagnosis Procedure

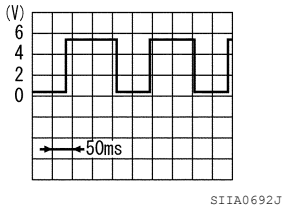
INFOID:0000000011289537

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.



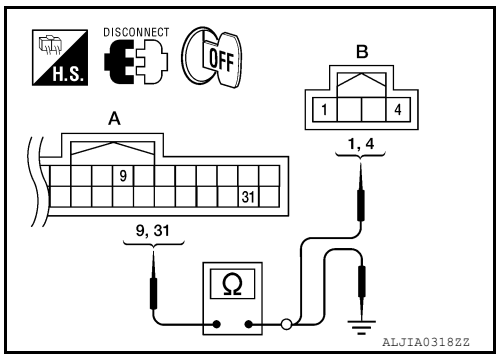
Terminals			Condition		Voltage signal
(+)		(–)			
Driver seat control unit	Terminal				
B202	9	Ground	Seat reclining	Operate	
				Other than above	0 or 5

Is the inspection result normal?

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

2. CHECK RECLINING SENSOR CIRCUIT

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		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-93, "Disassembly and Assembly".
NO >> Replace driver seat control unit. Refer to ADP-147, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "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)

Description

INFOID:0000000011289538

- 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:0000000011289539

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".

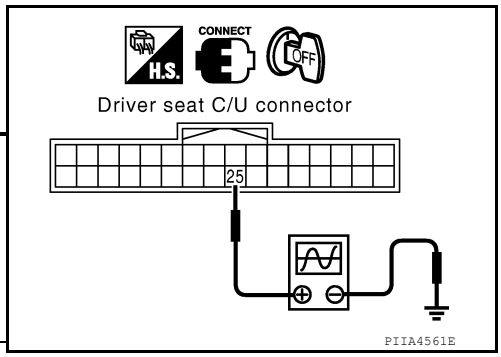
Diagnosis Procedure

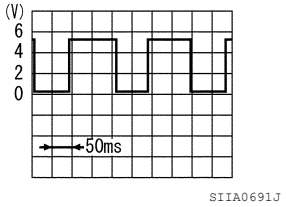
INFOID:0000000011289540

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.



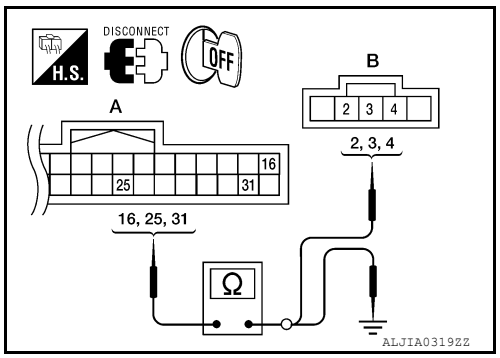
Terminals (+) Driver seat control unit connector	Terminals (+) Terminal	Terminals (−)	Condition		Voltage signal
B202	25	Ground	Seat lifting (front)	Operate	
				Other than above	0 or 5

Is the inspection result normal?

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

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-93, "Disassembly and Assembly".
NO >> Replace driver seat control unit. Refer to ADP-147, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "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)

Description

INFOID:0000000011289541

- 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:0000000011289542

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".

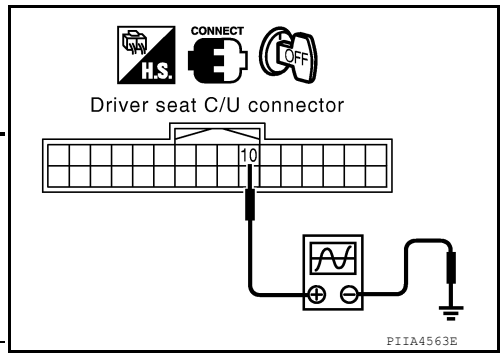
Diagnosis Procedure

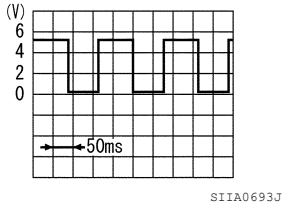
INFOID:0000000011289543

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.



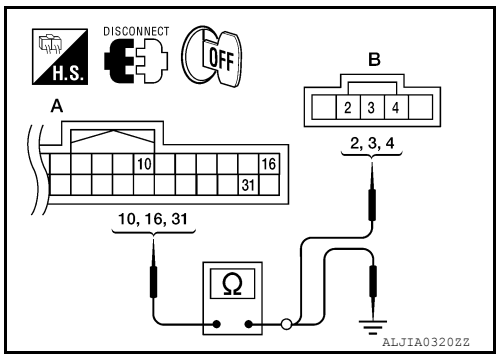
Terminals (+)		Terminals (–)	Condition		Voltage signal
Driver seat control unit connector	Terminal				
B202	10	Ground	Seat lifting (rear)	Operate	
				Other than above	0 or 5

Is the inspection result normal?

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

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-93, "Disassembly and Assembly".
NO >> Replace driver seat control unit. Refer to ADP-147, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "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

Description

INFOID:0000000011289544

- 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:0000000011289545

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".

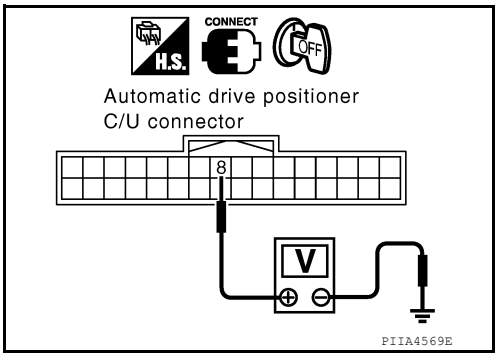
Diagnosis Procedure

INFOID:0000000011289546

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 positioner control unit	Terminal				
M33	8	Ground	Pedal assembly position	Forward	0.5
				Backward	4.5

Is the inspection result normal?

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

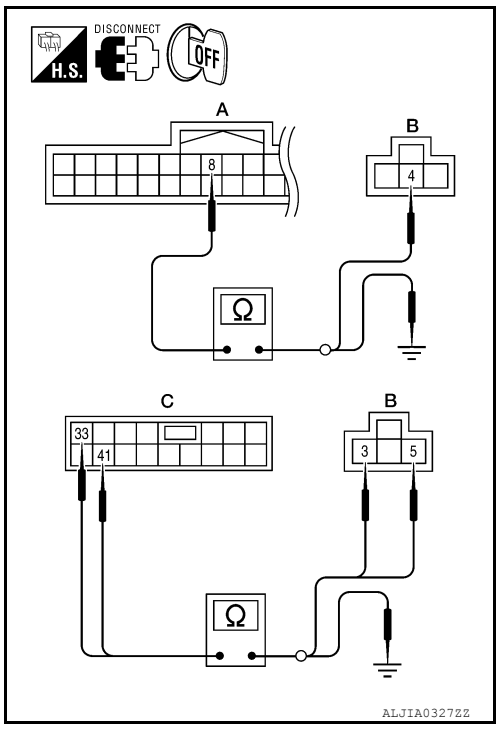
2. CHECK PEDAL ADJUSTING SENSOR CIRCUIT

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-43, "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
DRIVER SIDE

DRIVER SIDE : Description

INFOID:0000000011289547

- 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:0000000011289548

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".

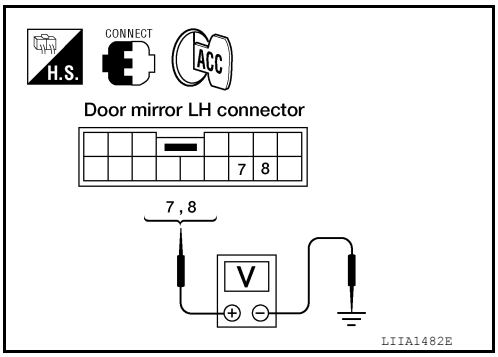
DRIVER SIDE : Diagnosis Procedure

INFOID:0000000011289549

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.



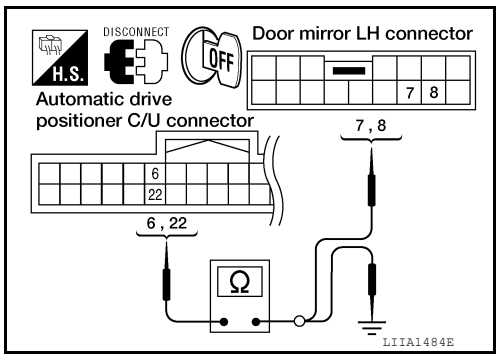
Terminals			Condition		Voltage (V) (Approx.)
(+)		(–)			
Door mirror LH connector	Terminal				
D4	7	Ground	Door mirror LH	Close to peak	3.4
				Close to valley	0.6
	8			Close to right edge	3.4
				Close to left edge	0.6

Is the inspection result normal?

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

2. CHECK DOOR MIRROR LH SENSOR CIRCUIT 1

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.

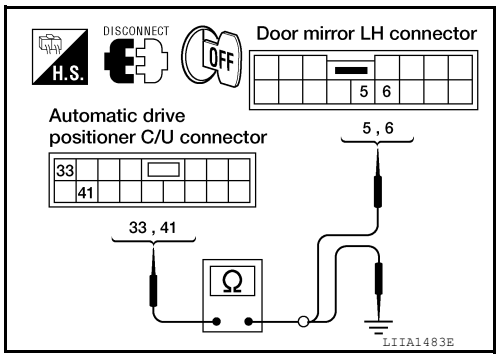
Automatic drive positioner control unit connector	Terminal	Ground	Continuity
M33	6		No
	22		

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		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-23, "Mirror Actuator".
NO >> Replace automatic drive positioner control unit. Refer to ADP-148, "Removal and Installation".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "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.

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000011289550

- 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:0000000011289551

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".

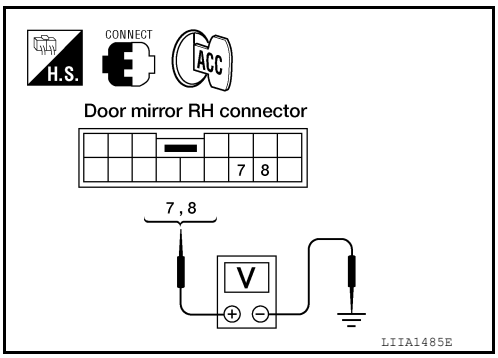
PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000011289552

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.



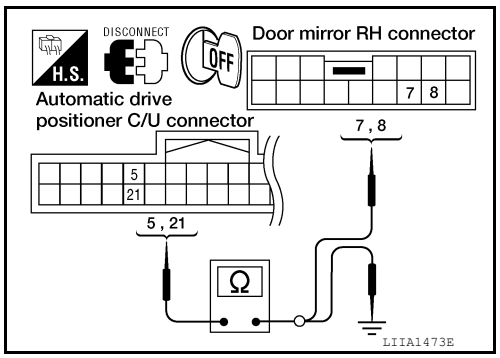
Terminals			Condition		Voltage (V) (Approx.)
(+)		(–)			
Door mirror RH connector	Terminal				
D107	7	Ground	Door mirror RH	Close to peak	3.4
				Close to valley	0.6
	8			Close to right edge	3.4
				Close to left edge	0.6

Is the inspection result normal?

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

2. CHECK DOOR MIRROR RH SENSOR HARNESS CONTINUITY

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.

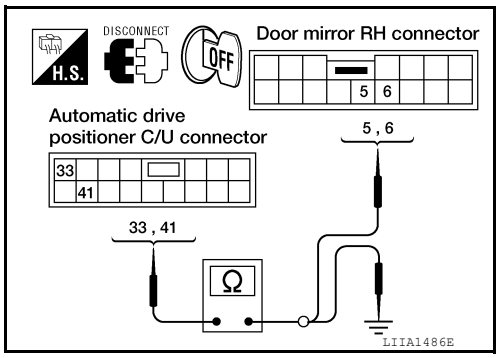
Automatic drive positioner control unit connector	Terminal	Ground	Continuity
M33	5		No
	21		

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		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 RH. Refer to MIR-23, "Mirror Actuator".
NO >> Replace automatic drive positioner control unit. Refer to ADP-148, "Removal and Installation".

5.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "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

Description

INFOID:0000000011289553

- The sliding motor LH is installed to the power seat frame assembly.
- The sliding motor LH is activated 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:0000000011289554

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".

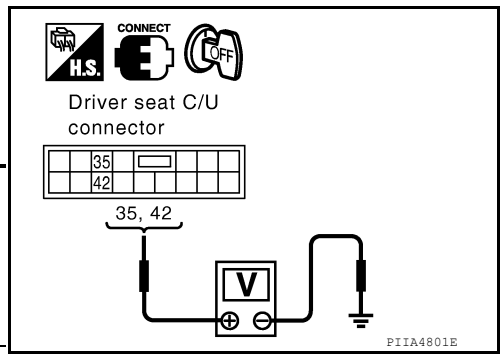
Diagnosis Procedure

INFOID:0000000011289555

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.



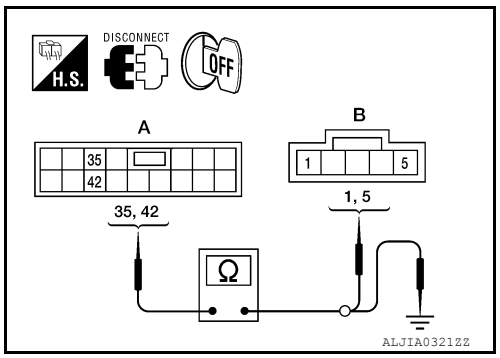
Terminal			Test Item		Voltage (V) (Approx.)
(+)		(-)			
Driver seat control unit connector	Terminal				
B203	35	Ground	SEAT SLIDE	OFF	0
				FR (forward)	Battery voltage
				RR (backward)	0
	42			OFF	0
				FR (forward)	0
				RR (backward)	Battery voltage

Is the inspection result normal?

YES >> Replace sliding motor LH. (Built in power seat frame assembly). Refer to SE-93, "Disassembly and Assembly".
NO >> GO TO 2

2. CHECK SLIDING MOTOR LH CIRCUIT

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-43, "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

Description

INFOID:0000000011289556

- 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:0000000011289557

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".

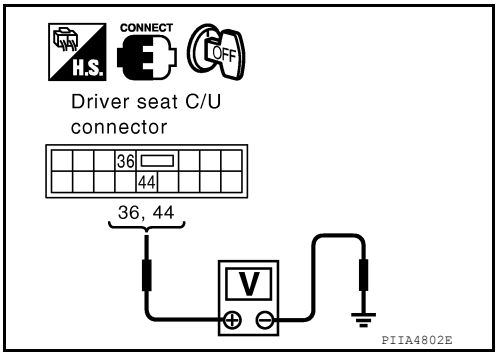
Diagnosis Procedure

INFOID:0000000011289558

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.



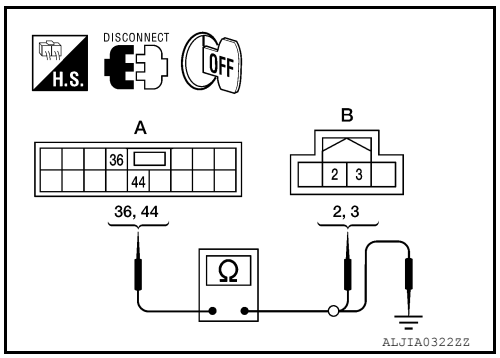
Terminal			Test Item		Voltage (V) (Approx.)
(+)		(-)			
Driver seat control unit connector	Terminal				
B203	36	Ground	SEAT RECLINING	OFF	0
				FR (forward)	Battery voltage
				RR (backward)	0
	44			OFF	0
				FR (forward)	0
				RR (backward)	Battery voltage

Is the inspection result normal?

YES >> Replace reclining motor LH. (Built in seatback assembly). Refer to SE-93, "Disassembly and Assembly".
NO >> GO TO 2

2. CHECK RECLINING MOTOR LH CIRCUIT

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-43, "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)

Description

INFOID:0000000011289559

- 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:0000000011289560

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".

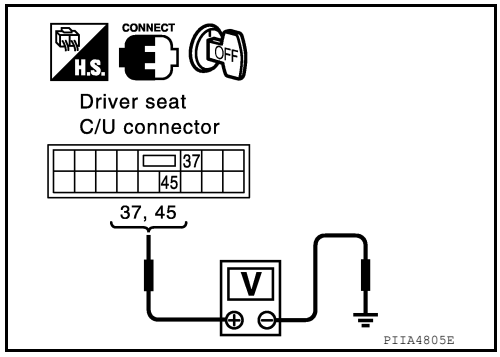
Diagnosis Procedure

INFOID:0000000011289561

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.



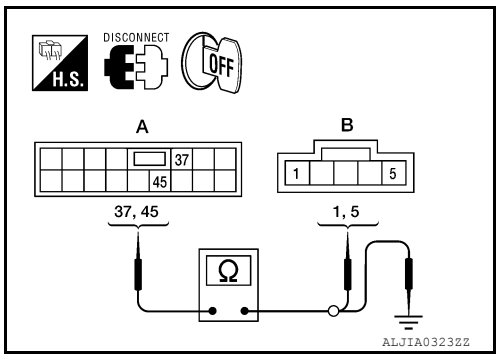
Terminal (+)		Terminal (-)	Test Item		Voltage (V) (Approx.)
Driver seat control unit connector	Terminal				
B203	37	Ground	SEAT LIFTER FR	OFF	0
				UP	0
				DWN (downward)	Battery voltage
	45			OFF	0
				UP	Battery voltage
				DWN (downward)	0

Is the inspection result normal?

YES >> Replace lifting motor (front). (Built in power seat frame assembly). Refer to SE-93, "Disassembly and Assembly".
NO >> GO TO 2

2. CHECK LIFTING MOTOR (FRONT) CIRCUIT

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-43, "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)

Description

INFOID:0000000011289562

- 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:0000000011289563

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".

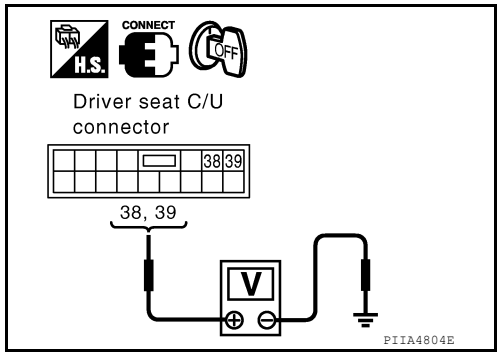
Diagnosis Procedure

INFOID:0000000011289564

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.



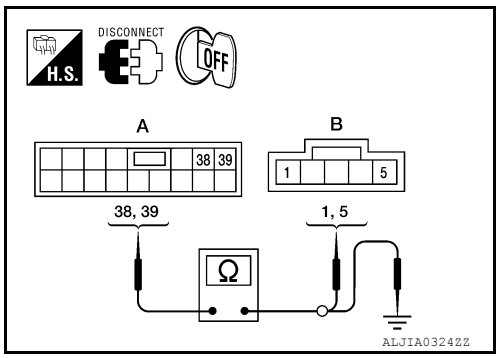
Terminal (+)		Terminal (-)	Test Item		Voltage (V) (Approx.)
Driver seat control unit connector	Terminal				
B203	38	Ground	SEAT LIFTER RR	OFF	0
				UP	Battery voltage
				DWN (downward)	0
	39			OFF	0
				UP	0
				DWN (downward)	Battery voltage

Is the inspection result normal?

YES >> Replace lifting motor (rear). (Built in power seat frame assembly). Refer to SE-93, "Disassembly and Assembly".
NO >> GO TO 2

2. CHECK LIFTING MOTOR (REAR) CIRCUIT

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-43, "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 MOTOR

Description

INFOID:0000000011289565

- 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:0000000011289566

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".

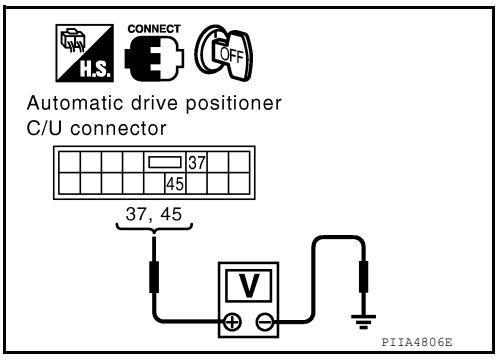
Diagnosis Procedure

INFOID:0000000011289567

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.



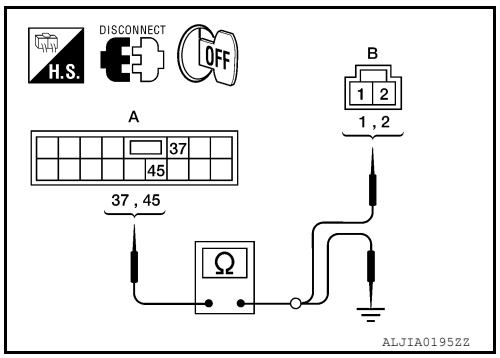
Terminal			Test Item		Voltage (V) (Approx.)
(+)		(-)			
Automatic drive positioner control unit connector	Terminal				
M34	37	Ground	PEDAL MOTOR	OFF	0
				RR (backward)	0
				FR (forward)	Battery voltage
	45			OFF	0
				RR (backward)	Battery voltage
				FR (forward)	0

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

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		No
	45		

Is the inspection result normal?

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

3. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "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.

DOOR MIRROR MOTOR

Description

INFOID:0000000011289568

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:0000000011289569

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".

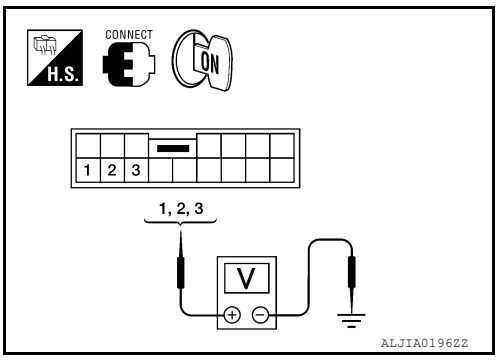
Diagnosis Procedure

INFOID:0000000011289570

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	Ground	UP	Battery voltage
			Other than above	0
	2		LEFT	Battery voltage
			Other than above	0
	3		DOWN / RIGHT	Battery voltage
			Other than above	0

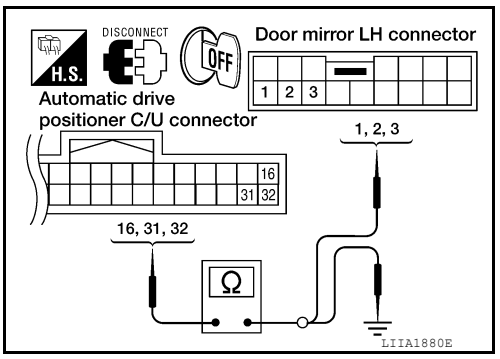
Is the inspection result normal?

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.

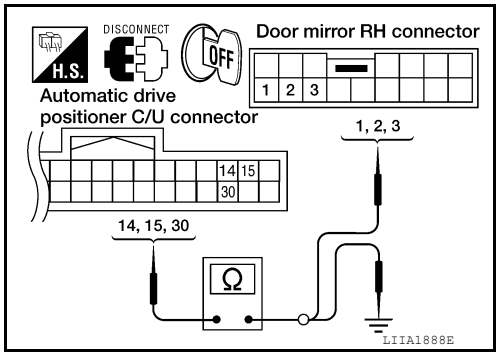
Door mirror LH



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

Door mirror 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	Ground	Continuity
M33	16		No
	31		
	32		

Door mirror RH

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

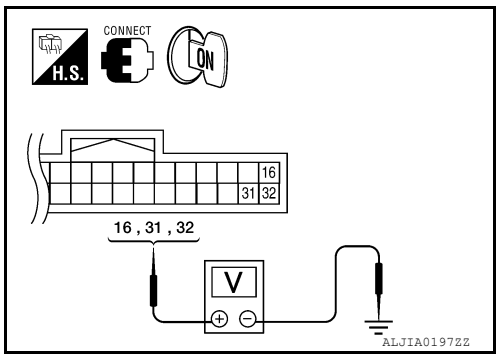
Is the inspection result normal?

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.

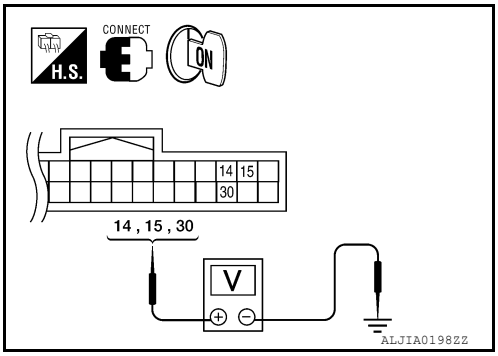
Door mirror LH



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 RH

Terminals			Mirror switch condition	Voltage (V) (Approx.)
(+)		(-)		
Automatic drive positioner control unit connector	Terminal			
M33	14	Ground	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-43, "Intermittent Incident".
NO >> Replace door mirror actuator. Refer to MIR-23, "Mirror Actuator".

Component Inspection

INFOID:0000000011289571

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-23, "Mirror Actuator".

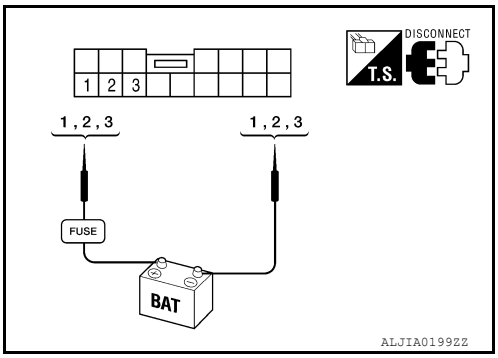
Is the inspection result normal?

YES >> GO TO 2
NO >> Replace door mirror actuator. Refer to MIR-23, "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-23, "Mirror Actuator".

SEAT MEMORY INDICATOR LAMP

Description

INFOID:0000000011289572

- 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:0000000011289573

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

INFOID:0000000011289574

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	14	Yes
	13		13	

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

Check voltage between seat memory switch harness connector and ground.

Seat memory switch connector	Terminals		Voltage (V) (Approx.)
	(+)	(–)	
D5	15	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 3
NO >> Check the following.
- 15A fuse no. 22
- 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-43, "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:0000000011289575

1. CHECK SEAT MEMORY INDICATOR

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

Terminal		Continuity
Seat memory switch		
(+)	(-)	
15	14	Yes
	13	

Is the inspection result normal?

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

ECU DIAGNOSIS INFORMATION

DRIVER SEAT CONTROL UNIT

Reference Value

INFOID:0000000011289576

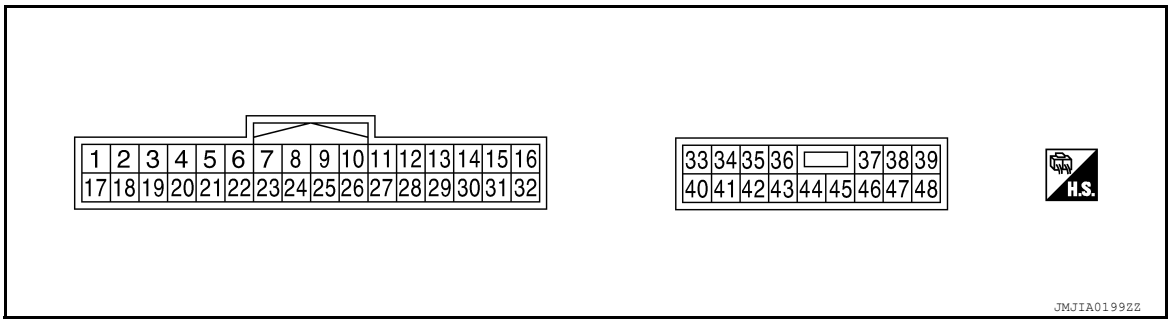
VALUES ON THE DIAGNOSIS TOOL

CONSULT MONITOR ITEM

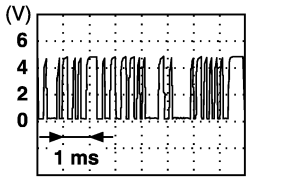
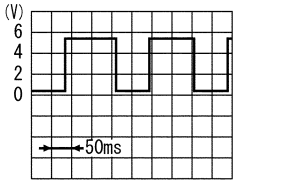
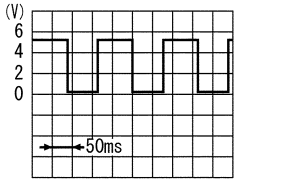
Monitor Item	Condition		Value/Status
SET SW	Set switch	Push	ON
		Release	OFF
MEMORY SW1	Memory switch 1	Push	ON
		Release	OFF
MEMORY SW2	Memory switch 2	Push	ON
		Release	OFF
SLIDE SW–FR	Sliding switch (front)	Operate	ON
		Release	OFF
SLIDE SW–RR	Sliding switch (rear)	Operate	ON
		Release	OFF
RECLN SW–FR	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

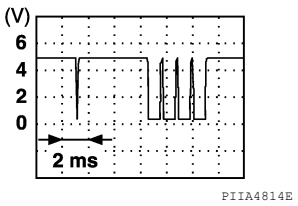
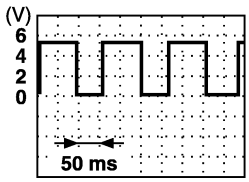
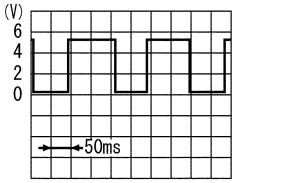
Monitor Item	Condition		Value/Status
DETENT SW	A/T selector lever	P position	OFF
		Other than above	ON
STARTER SW	Ignition position	Cranking	ON
		Other than above	OFF
SLIDE PULSE	Seat sliding	Forward	The numeral value decreases
		Backward	The numeral value increases
		Other than above	No change to numeral 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)	Up	The numeral value decreases
		Down	The numeral value increases
		Other than above	No change to numeral value
LIFT RR PULSE	Seat lifter (rear)	Up	The numeral value decreases
		Down	The numeral value increases
		Other than above	No change to numeral value
MIR/SEN RH U–D	Door mirror (passenger side)	Close to peak	3.4
		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

Terminal No.		Wire color	Description		Condition		Voltage (V) (Approx.)
+	-		Signal name	Input/ Output			
1	Ground	W	UART LINE (RX)	Input	Ignition switch ON		 PIIA4813E
3	—	L/B	CAN-H	—	—		—
6	Ground	R	Ignition switch (START)	Input	Ignition switch	OFF	0
						START	Battery voltage
9	Ground	R/B	Reclining sensor signal	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 backward signal	Input	Sliding switch	Operate (backward)	0
						Release	Battery voltage
12	Ground	L/W	Reclining switch backward signal	Input	Reclining switch	Operate (backward)	0
						Release	Battery voltage
13	Ground	V	Lifting switch (front) downward signal	Input	Lifting switch (front)	Operate (downward)	0
						Release	Battery voltage
14	Ground	P/L	Lifting switch (rear) downward signal	Input	Lifting switch (rear)	Operate (downward)	0
						Release	Battery voltage
15	Ground	SB	Pedal switch backward signal	Input	Pedal switch	Operate (backward)	0
						Release	Battery voltage
16	Ground	R/W	Sensor power supply	Output	—		5

Terminal No.		Wire color	Description		Condition		Voltage (V) (Approx.)
+	-		Signal name	Input/ Output			
17	Ground	Y/R	UART LINE (TX)	Output	Ignition switch ON		 PIIA4814E
19	—	G	CAN-L	—	—		—
21	Ground	L	A/T shift selector (park position switch (Intelligent Key system))	Input	A/T selector lever	P position	Battery voltage
						Except P position	0
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	G/W	Ground (signal)	—	—		0
33	Ground	W/B	Battery power source (C/B)	Input	—		Battery voltage

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	G	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	Ground (power)	—	—		0

Fail Safe

INFOID:0000000011289577

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.

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:0000000011289578

CONSULT display	Timing*1		Item	Reference page
	Current malfunction	Previous malfunction		
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	Park position switch condition	ADP-42
UART COMM [B2128]	0	1-39	UART communication	ADP-44

*1:

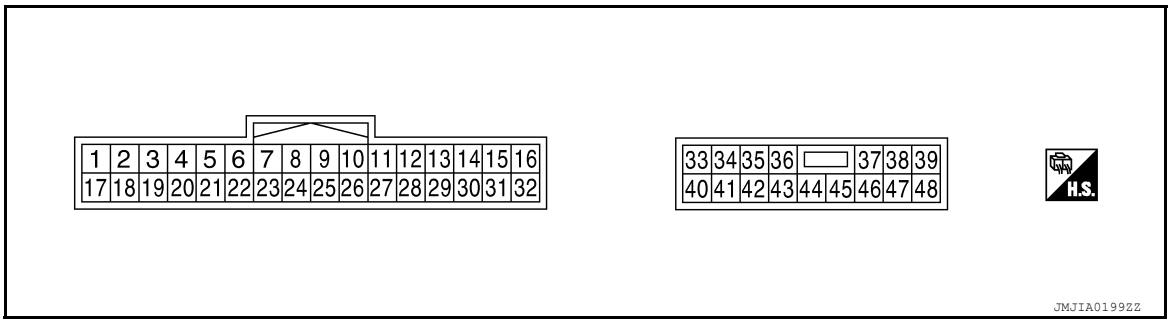
- 0: Current malfunction is present
- 1-39: Displayed if any previous malfunction is present when current condition is normal. The numeral value increases by one at each IGN ON to OFF cycle from 1 to 39. The counter remains at 39 even if the number of cycles exceeds it. However, the counter is reset 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

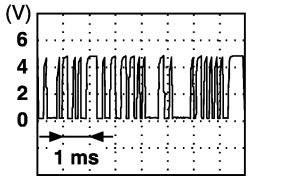
Reference Value

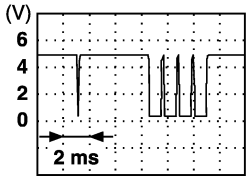
INFOID:0000000011289579

TERMINAL LAYOUT



PHYSICAL VALUES

Terminal No.		Wire color	Description		Condition		Voltage (V) (Approx.)
+	-		Signal name	Input/ Output			
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)	Output	Ignition switch ON		 PIIA4813E
12	Ground	P	Memory indicator 1 signal	Output	Memory indictor 1	Illuminate	0
						Other than above	Battery voltage

Terminal No.		Wire color	Description		Condition		Voltage (V) (Approx.)
+	-		Signal name	Input/ Output			
13	Ground	Y/G	Memory indicator 2 signal	Output	Memory indictor 2	Illuminate	0
						Other than above	Battery voltage
14	Ground	GR/R	Door mirror motor (RH) up output signal	Output	Door mirror RH	Operate (up)	1.5 - Battery voltage
						Other than above	0
15	Ground	V/R	Door mirror motor (RH) left output signal	Output	Door mirror RH	Operate (left)	1.5 - Battery voltage
						Other than above	0
16	Ground	O	Door mirror motor (LH) down output signal	Output	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 signal	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		 PIIA4814E

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

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:0000000011513721

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
- Check Intelligent Key relative signal strength
- Confirm vehicle Intelligent Key antenna signal strength
- 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
BACK DOOR SW	Back door closed	Off
	Back door opened	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

Monitor Item	Condition	Value/Status
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
FR FOG SW	Front fog lamp switch OFF	Off
	Front fog lamp switch ON	On
FR WASHER SW	Front washer switch OFF	Off
	Front washer switch ON	On
FR WIPER LOW	Front wiper switch OFF	Off
	Front wiper switch LO	On
FR WIPER HI	Front wiper switch OFF	Off
	Front wiper switch HI	On
FR WIPER INT	Front wiper switch OFF	Off
	Front wiper switch INT	On
FR WIPER STOP	Any position other than front wiper stop position	Off
	Front wiper stop position	On
HAZARD SW	When hazard switch is not pressed	Off
	When hazard switch is pressed	On
HEAD LAMP SW1	Headlamp switch OFF	Off
	Headlamp switch 1st	On
HEAD LAMP SW2	Headlamp switch OFF	Off
	Headlamp switch 1st	On
HI BEAM SW	High beam switch OFF	Off
	High beam switch HI	On
ID REGST FL1	ID registration of front left tire incomplete	YET
	ID registration of front left tire complete	DONE
ID REGST FR1	ID registration of front right tire incomplete	YET
	ID registration of front right tire complete	DONE
ID REGST RL1	ID registration of rear left tire incomplete	YET
	ID registration of rear left tire complete	DONE
ID REGST RR1	ID registration of rear right tire incomplete	YET
	ID registration of rear right tire complete	DONE
IGN ON SW	Ignition switch OFF or ACC	Off
	Ignition switch ON	On
IGN SW CAN	Ignition switch OFF or ACC	Off
	Ignition switch ON	On
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	1 - 7
I-KEY LOCK[1]	LOCK button of Intelligent Key is not pressed	Off
	LOCK button of Intelligent Key is pressed	On
I-KEY PANIC[1]	PANIC button of Intelligent Key is not pressed	Off
	PANIC button of Intelligent Key is pressed	On
I-KEY PW DWN[1]	UNLOCK button of Intelligent Key is not pressed	Off
	UNLOCK button of Intelligent Key is pressed for greater than 3 seconds and driver's window operating in DOWN direction	On

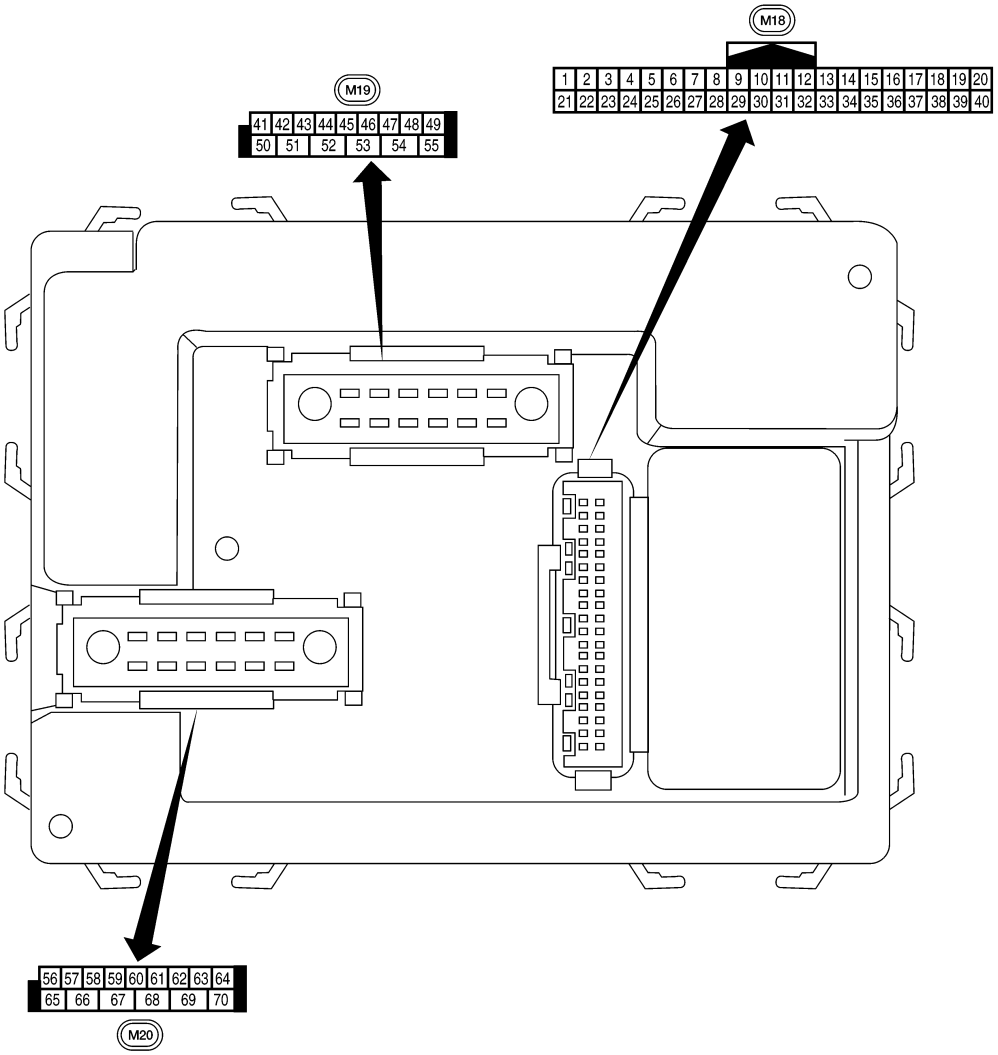
Monitor Item	Condition	Value/Status
I-KEY UNLOCK[1]	UNLOCK button of Intelligent Key is not pressed	Off
	UNLOCK button of Intelligent Key is pressed	On
KEY CYL LK-SW	Door key cylinder LOCK position	On
	Door key cylinder other than LOCK position	Off
KEY CYL UN-SW	Door key cylinder UNLOCK position	On
	Door key cylinder other than UNLOCK position	Off
KEY ON SW	Mechanical key is removed from key cylinder	Off
	Mechanical key is inserted to key cylinder	On
KEYLESS LOCK[2]	LOCK button of key fob is not pressed	Off
	LOCK button of key fob is pressed	On
KEYLESS PANIC[2]	PANIC button of key fob is not pressed	Off
	PANIC button of key fob is pressed	On
KEYLESS UNLOCK[2]	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
PUSH SW[1]	Return to ignition switch to LOCK position	Off
	Press ignition switch	On
REAR DEF SW	Rear window defogger switch OFF	Off
	Rear window defogger switch ON	On
RR WASHER SW	Rear washer switch OFF	Off
	Rear washer switch ON	On
RR WIPER INT	Rear wiper switch OFF	Off
	Rear wiper switch INT	On
RR WIPER ON	Rear wiper switch OFF	Off
	Rear wiper switch ON	On
RR WIPER STOP	Rear wiper stop position	Off
	Other than rear wiper stop position	On
RR WIPER STP2	Rear wiper stop position	Off
	Other than rear wiper stop position	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

1: With Intelligent Key

2: With remote keyless entry system

Terminal Layout

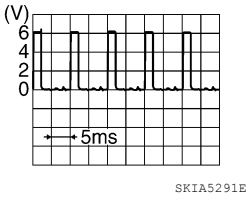
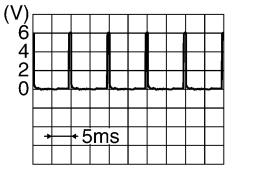
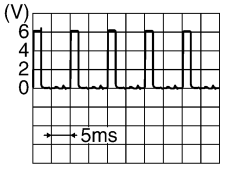
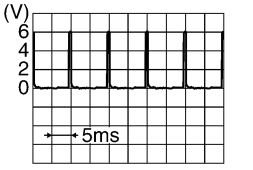
INFOID:0000000011513722

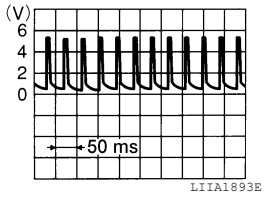
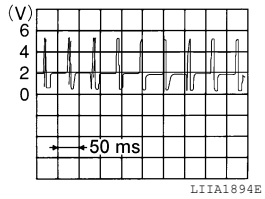
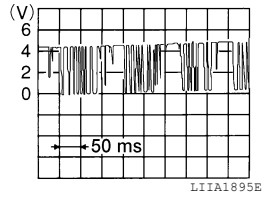
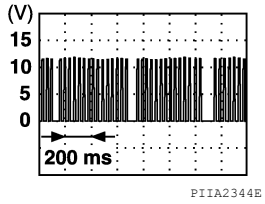


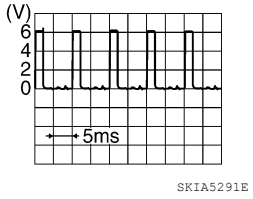
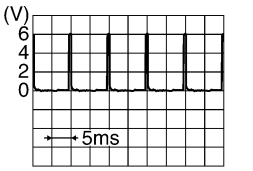
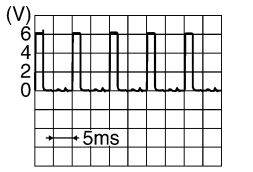
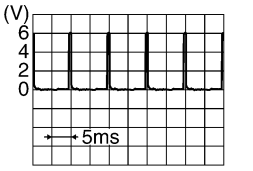
AWMIA1542ZZ

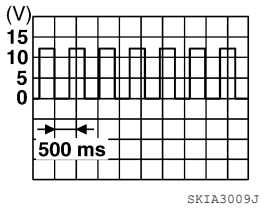
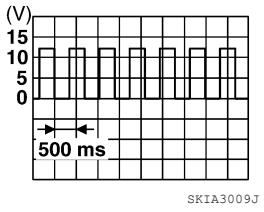
Physical Values

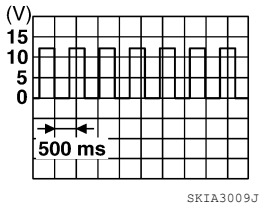
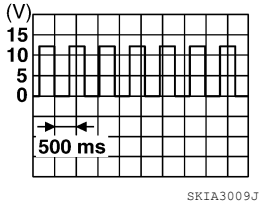
INFOID:0000000011513723

Terminal	Wire color	Signal name	Signal input/ output	Measuring condition		Reference value or waveform (Approx.)
				Ignition switch	Operation or condition	
1	BR/W	Ignition keyhole illumination	Output	OFF	Door is locked (SW OFF)	Battery voltage
					Door is unlocked (SW ON)	0V
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	Stop lamp switch	Input	OFF	Brake pedal depressed	Battery voltage
					Brake pedal released	0V
10	G	Hazard lamp flash	Input	OFF	ON (opening or closing)	0V
					OFF (other than above)	Battery voltage
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	Input	OFF	ON (open)	0V
					OFF (closed)	Battery voltage
13	GR	Rear door switch RH	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

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	
20	G/W	Remote keyless entry receiver (signal)	Input	OFF	Stand-by (keyfob buttons released)	
					When remote keyless entry receiver receives signal from keyfob (keyfob buttons pressed)	
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	
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.
26	Y/L	Rear wiper auto stop switch 2	Input	ON	Rise up position (rear wiper arm on stopper)	0V
					A Position (full clockwise stop position)	0V
					Forward sweep (counterclockwise direction)	Fluctuating
					B Position (full counterclockwise stop position)	Battery voltage
					Reverse sweep (clockwise direction)	Fluctuating
27	W/R	Compressor ON signal	Input	ON	A/C switch OFF	5V
					A/C switch ON	0V

Terminal	Wire color	Signal name	Signal input/ output	Measuring condition		Reference value or waveform (Approx.)
				Ignition switch	Operation or condition	
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
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[1]	B/R	Key switch and ignition knob switch	Input	OFF	Intelligent Key inserted	Battery voltage
					Intelligent Key removed	0V
37[2]	B/R	Key switch and key lock solenoid	Input	OFF	Key inserted	Battery voltage
					Key removed	0V
38	W/L	Ignition switch (ON)	Input	ON	—	Battery voltage
39	L	CAN-H	—	—	—	—
40	P	CAN-L	—	—	—	—
41	GR/R	Rear window defogger switch	Input	ON	Rear window defogger switch ON	0V
					Rear window defogger switch OFF	5V
42	GR	Glass hatch ajar switch	Input	ON	Glass hatch open	0
					Glass hatch closed	Battery

Terminal	Wire color	Signal name	Signal input/ output	Measuring condition		Reference value or waveform (Approx.)
				Ignition switch	Operation or condition	
43	R/B	Back door switch (without power back door) or back door latch (door ajar switch) (with power back door)	Input	OFF	ON (open)	0V
					OFF (closed)	Battery voltage
44	O	Rear wiper auto stop switch 1	Input	ON	Rise up position (rear wiper arm on stopper)	0V
					A Position (full clockwise stop position)	Battery voltage
					Forward sweep (counterclockwise direction)	Fluctuating
					B Position (full counterclockwise stop position)	0V
					Reverse sweep (clockwise direction)	Fluctuating
47	SB	Front door switch LH	Input	OFF	ON (open)	0V
					OFF (closed)	Battery voltage
48	R/Y	Rear door switch LH	Input	OFF	ON (open)	0V
					OFF (closed)	Battery voltage
49	R	Cargo lamp	Output	OFF	Any door open (ON)	0V
					All doors closed (OFF)	Battery voltage
51	Y/B	Trailer turn signal (right)	Output	ON	Turn right ON	
52	G/B	Trailer turn signal (left)	Output	ON	Turn left ON	
54	Y	Rear wiper output circuit 2	Input	ON	Rise up position (rear wiper arm on stopper)	0V
					A Position (full clockwise stop position)	0V
					Forward sweep (counterclockwise direction)	0V
					B Position (full counterclockwise stop position)	Battery voltage
					Reverse sweep (clockwise direction)	Battery voltage
55	SB	Rear wiper output circuit 1	Output	ON	OFF	0
					ON	Battery voltage

Terminal	Wire color	Signal name	Signal input/ output	Measuring condition		Reference value or waveform (Approx.)
				Ignition switch	Operation or condition	
56	R/G	Battery saver output	Output	OFF	10 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	
61	G/Y	Turn signal (right)	Output	ON	Turn right ON	
62	R/W	Foot lamp LH and RH	Output	OFF	ON (any door open)	0V
					OFF (all doors closed)	Battery voltage
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, rear door lock actuators LH/RH and back door lock actuator (unlock)	Output	OFF	OFF (neutral)	0V
					ON (unlock)	Battery voltage
67	B	Ground	Input	ON	—	0V
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

1: With Intelligent Key system

2: With remote keyless entry system

Fail Safe

INFOID:0000000011513724

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:0000000011513725

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 • B2013: STRG COMM 1 • B2552: INTELLIGENT KEY • B2590: NATS MALFUNCTION
3	• C1729: VHCL SPEED SIG ERR • C1735: IGNITION SIGNAL
4	• 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:0000000011513726

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.

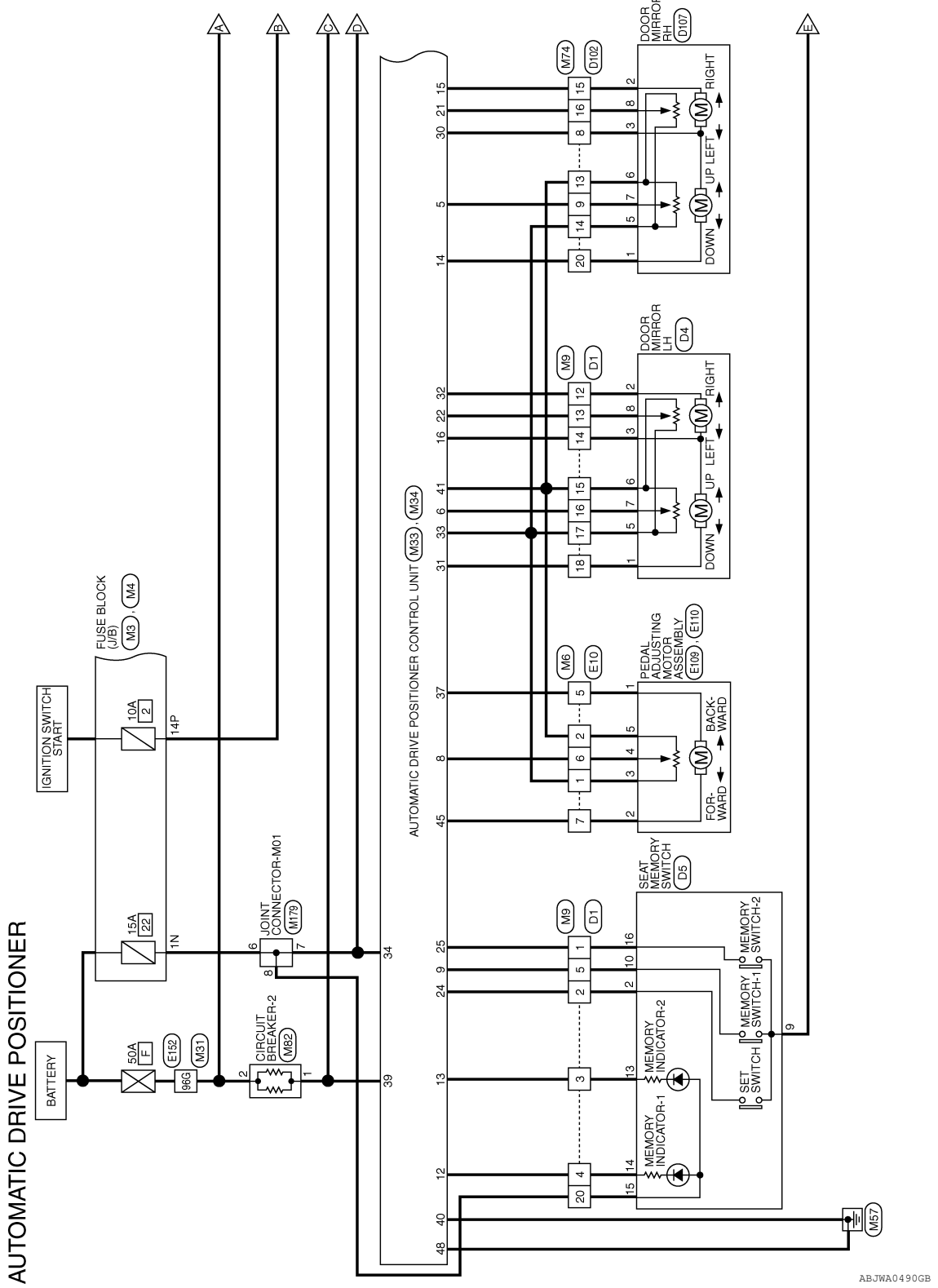
CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
No DTC is detected. further testing may be required.	—	—	—	—
U1000: CAN COMM CIRCUIT	—	—	—	BCS-29
B2013: STRG COMM 1	—	—	—	SEC-30
B2190: NATS ANTENNA AMP	—	—	—	SEC-33 (with I-Key), SEC-143 (without I-Key)
B2191: DIFFERENCE OF KEY	—	—	—	SEC-36 (with I-Key), SEC-146 (without I-Key)
B2192: ID DISCORD BCM-ECM	—	—	—	SEC-37 (with I-Key), SEC-147 (without I-Key)
B2193: CHAIN OF BCM-ECM	—	—	—	SEC-39 (with I-Key), SEC-149 (without I-Key)
B2552: INTELLIGENT KEY	—	—	—	SEC-41
B2590: NATS MALFUNCTION	—	—	—	SEC-42
C1708: [NO DATA] FL	—	—	—	WT-15
C1709: [NO DATA] FR	—	—	—	WT-17
C1710: [NO DATA] RR	—	—	—	WT-17
C1711: [NO DATA] RL	—	—	—	WT-17
C1712: [CHECKSUM ERR] FL	—	—	—	WT-17
C1713: [CHECKSUM ERR] FR	—	—	—	WT-17
C1714: [CHECKSUM ERR] RR	—	—	—	WT-17
C1715: [CHECKSUM ERR] RL	—	—	—	WT-17
C1716: [PRESSDATA ERR] FL	—	—	—	WT-19
C1717: [PRESSDATA ERR] FR	—	—	—	WT-17
C1718: [PRESSDATA ERR] RR	—	—	—	WT-17
C1719: [PRESSDATA ERR] RL	—	—	—	WT-17
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: IGN_CIRCUIT_OPEN	—	—	—	WT-22

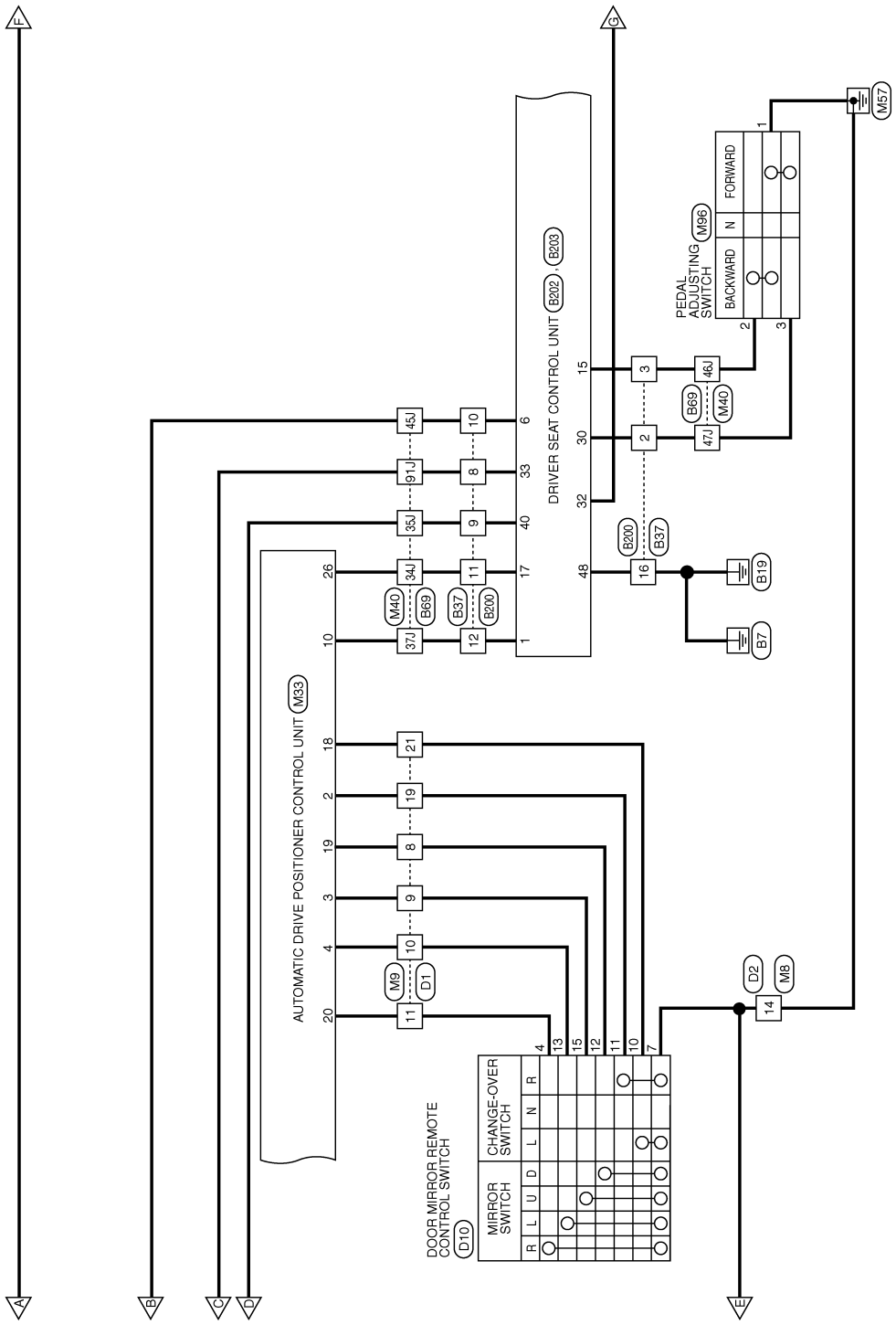
WIRING DIAGRAM

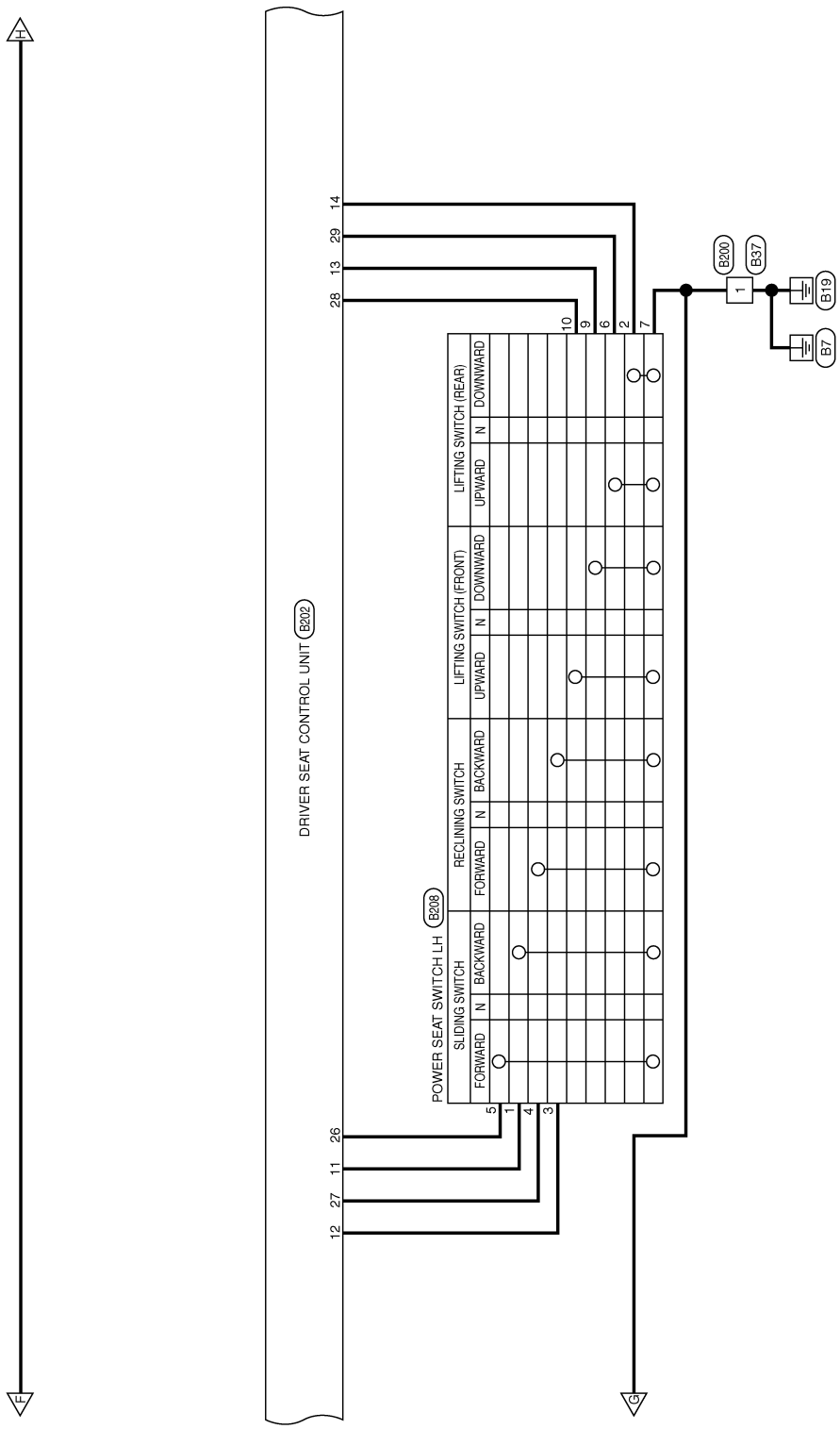
AUTOMATIC DRIVE POSITIONER

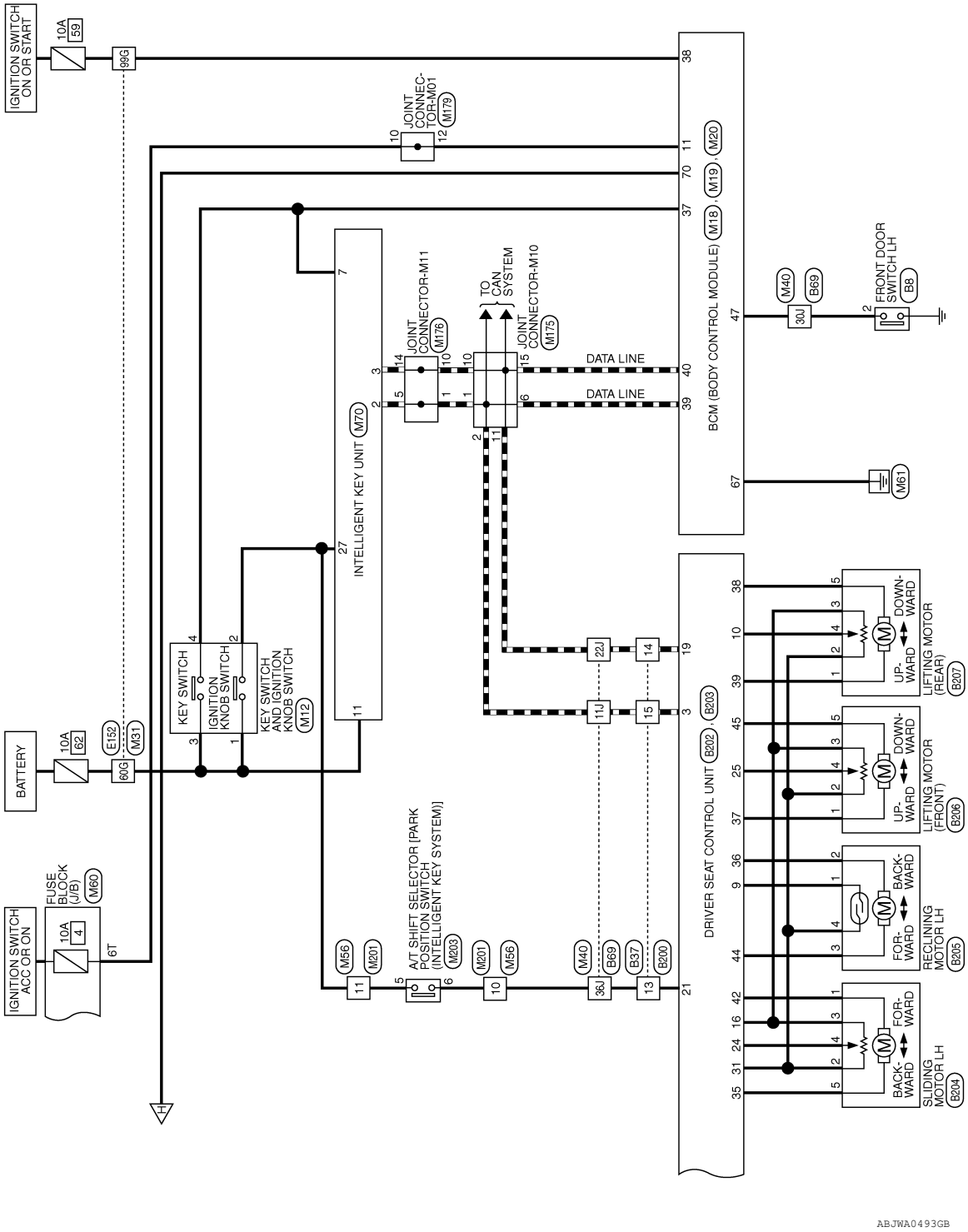
Wiring Diagram

INFOID:0000000011289586




E
G
A
B
C
D
F
M57
PEDAL ADJUSTING SWITCH
M96
BACKWARD
N
FORWARD
DRIVER SEAT CONTROL UNIT
B202
B203
AUTOMATIC DRIVE POSITIONER CONTROL UNIT
M33
DOOR MIRROR REMOTE CONTROL SWITCH
D10
MIRROR SWITCH
CHANGE-OVER SWITCH
B19
B7
M9
D1
D2
M8
ABJWA0451GB

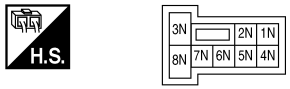

H
F
G
DRIVER SEAT CONTROL UNIT B202
14
29
13
28
26
11
27
12
10
9
6
2
7
B200
1
B37
B19
B7
POWER SEAT SWITCH LH B208
SLIDING SWITCH
FORWARD
N
BACKWARD
RECLINING SWITCH
FORWARD
N
BACKWARD
LIFTING SWITCH (FRONT)
UPWARD
N
DOWNWARD
LIFTING SWITCH (REAR)
UPWARD
N
DOWNWARD
5
1
4
3
ABJWA0491GB



ABJWA0493GB

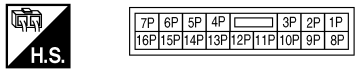
AUTOMATIC DRIVE POSITIONER CONNECTORS

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



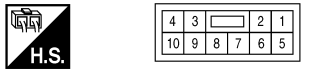
Terminal No.	Color of Wire	Signal Name
1N	Y/R	–

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



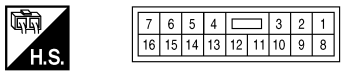
Terminal No.	Color of Wire	Signal Name
14P	O	–

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



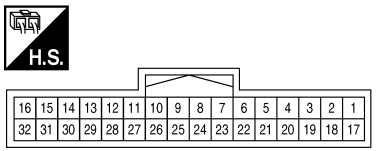
Terminal No.	Color of Wire	Signal Name
1	W/L	–
2	W/G	–
5	G	– (WITH AUTOMATIC DRIVE POSITIONER)
6	BR/Y	–
7	R	– (WITH AUTOMATIC DRIVE POSITIONER)

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



Terminal No.	Color of Wire	Signal Name
14	B	–

Connector No.	M9
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	–

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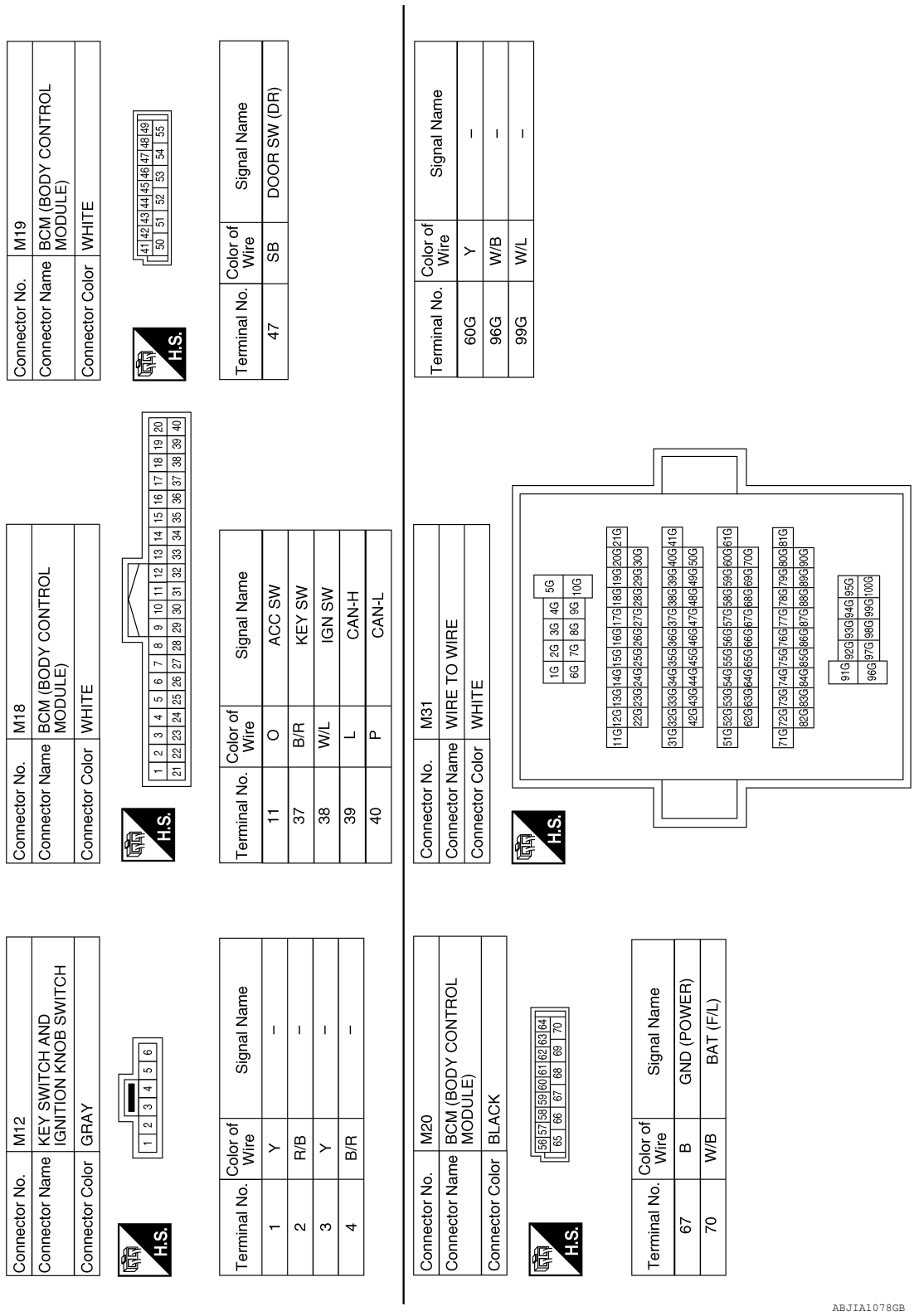
Connector No. M12
Connector Name KEY SWITCH AND IGNITION KNOB SWITCH
Connector Color GRAY
H.S.
1 2 3 4 5 6
Terminal No. Color of Wire Signal Name
1 Y –
2 R/B –
3 Y –
4 B/R –
Connector No. M18
Connector Name BCM (BODY CONTROL MODULE)
Connector Color WHITE
H.S.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 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
37 B/R KEY SW
38 W/L IGN SW
39 L CAN-H
40 P CAN-L
Connector No. M19
Connector Name BCM (BODY CONTROL MODULE)
Connector Color WHITE
H.S.
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
H.S.
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
H.S.
1G 2G 3G 4G 5G
6G 7G 8G 9G 10G
11G 12G 13G 14G 15G 16G 17G 18G 19G 20G 21G
22G 23G 24G 25G 26G 27G 28G 29G 30G
31G 32G 33G 34G 35G 36G 37G 38G 39G 40G 41G
42G 43G 44G 45G 46G 47G 48G 49G 50G
51G 52G 53G 54G 55G 56G 57G 58G 59G 60G 61G
62G 63G 64G 65G 66G 67G 68G 69G 70G
71G 72G 73G 74G 75G 76G 77G 78G 79G 80G 81G
82G 83G 84G 85G 86G 87G 88G 89G 90G
91G 92G 93G 94G 95G
96G 97G 98G 99G 100G
Terminal No. Color of Wire Signal Name
60G Y –
96G W/B –
99G W/L –
ABJIA1078GB

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

H.S.

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	–	–
8	BR/Y	PEDAL POTENTION
9	LG/B	PEDAL POTENTION
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
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)

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

H.S.

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	–	–
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)

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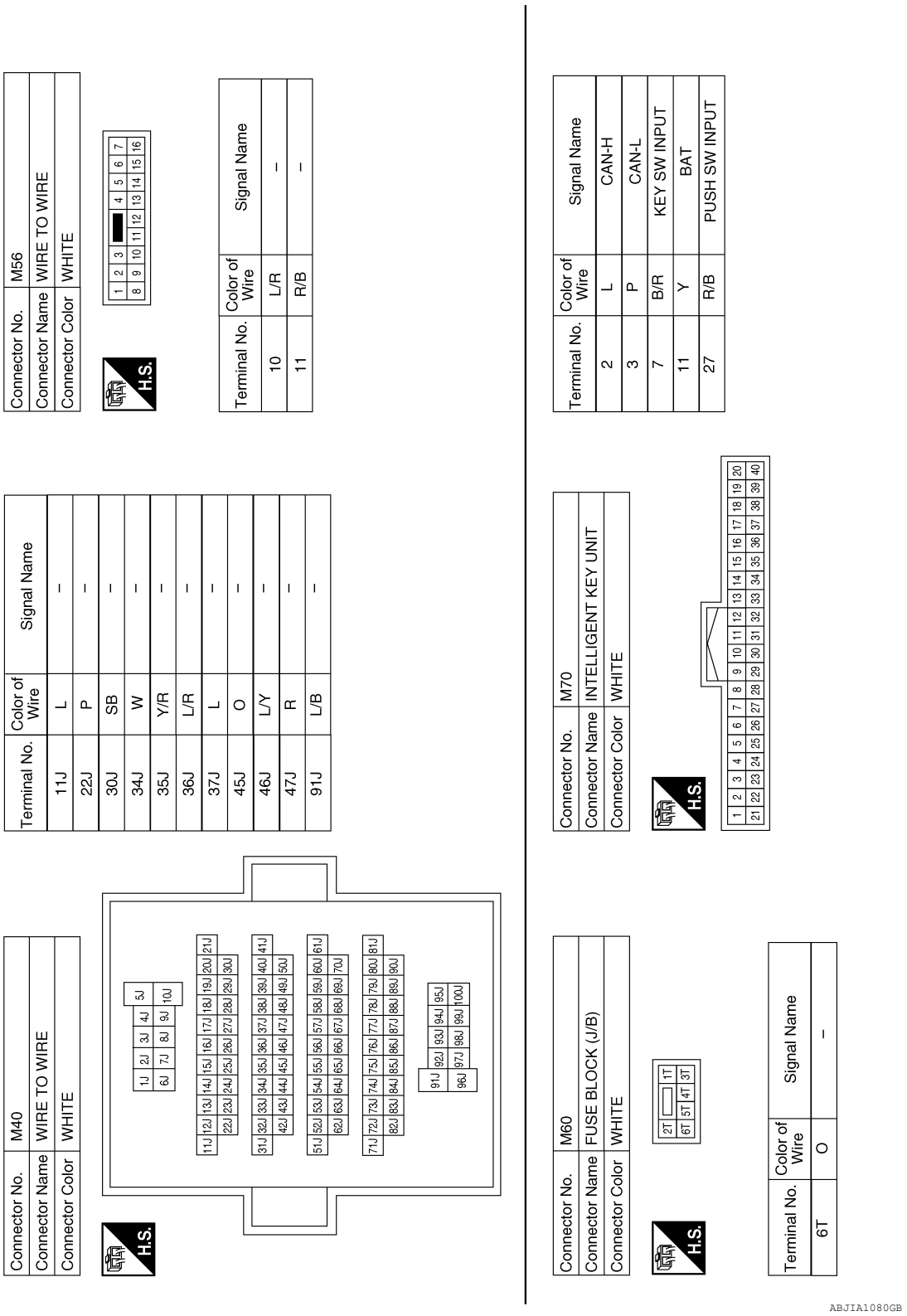
Connector No. M40
Connector Name WIRE TO WIRE
Connector Color WHITE
H.S.
1J 2J 3J 4J 5J
6J 7J 8J 9J 10J
11J 12J 13J 14J 15J 16J 17J 18J 19J 20J 21J
22J 23J 24J 25J 26J 27J 28J 29J 30J
31J 32J 33J 34J 35J 36J 37J 38J 39J 40J 41J
42J 43J 44J 45J 46J 47J 48J 49J 50J
51J 52J 53J 54J 55J 56J 57J 58J 59J 60J 61J
62J 63J 64J 65J 66J 67J 68J 69J 70J
71J 72J 73J 74J 75J 76J 77J 78J 79J 80J 81J
82J 83J 84J 85J 86J 87J 88J 89J 90J
91J 92J 93J 94J 95J
96J 97J 98J 99J 100J
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. M56
Connector Name WIRE TO WIRE
Connector Color WHITE
H.S.
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 R/B –
Connector No. M70
Connector Name INTELLIGENT KEY UNIT
Connector Color WHITE
H.S.
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
2 L CAN-H
3 P CAN-L
7 B/R KEY SW INPUT
11 Y BAT
27 R/B PUSH SW INPUT
Connector No. M60
Connector Name FUSE BLOCK (J/B)
Connector Color WHITE
H.S.
2T 1T
6T 5T 4T 3T
Terminal No. Color of Wire Signal Name
6T O –
ABJIA1080GB

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

H.S.

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.	M82
Connector Name	CIRCUIT BREAKER-2
Connector Color	WHITE

H.S.

1
2

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

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

H.S.

5		6
4	2	1	3

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

Connector No.	M175
Connector Name	JOINT CONNECTOR-M10
Connector Color	BLUE

H.S.

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	L	–
2	L	–
6	L	–
10	P	–
11	P	–
15	P	–

Connector No.	M176
Connector Name	JOINT CONNECTOR-M11
Connector Color	BLUE

H.S.

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	L	–
5	L	–
10	P	–
14	P	–

Connector No.	M179
Connector Name	JOINT CONNECTOR-M01
Connector Color	GREEN

H.S.

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
6	Y/R	–
7	Y/R	–
8	Y/R	–
10	O	–
12	O	–

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

H.S.

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	R/B	–

Connector No.	M203
Connector Name	A/T SHIFT SELECTOR (WITH INTELLIGENT KEY SYSTEM)
Connector Color	WHITE

H.S.

1	2	3		4	5
6	7	8	9	10	11	12

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

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

H.S.

1	2		3	4
5	6	7	8	9	10

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

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

H.S.

1	2

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

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

H.S.

3	4	5

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

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

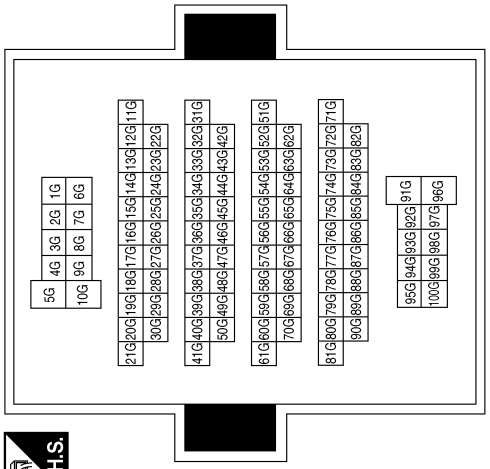
H.S.

Terminal No.	Color of Wire	Signal Name
2	SB	–

Terminal No.	Color of Wire	Signal Name
60G	Y	–
96G	W/B	–
99G	L/W	–

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

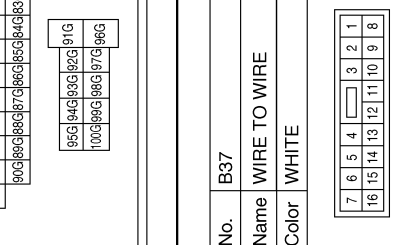
H.S.



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	–

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

H.S.



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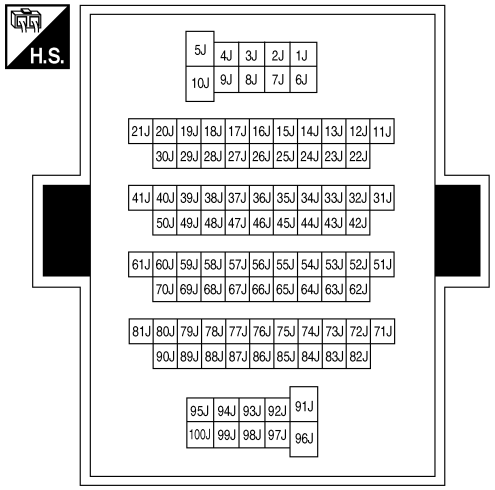
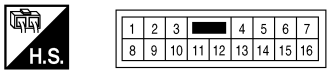
Connector No.	B69
Connector Name	WIRE TO WIRE
Connector Color	WHITE



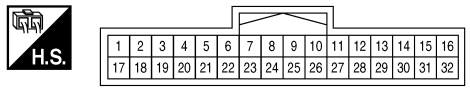
Terminal No.	Color of Wire	Signal Name
11J	L	–
22J	P	–
30J	SB	–
34J	W	–
35J	Y/R	–
36J	L/R	–
37J	L	–
45J	O	–
46J	L/Y	–
47J	R	–
91J	L/B	–

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



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

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



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

Terminal No.	Color of Wire	Signal Name
8	–	–
9	R/B	PULSE (RECLINER)
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	Y/R	TX (UART)
18	–	–
19	G	CAN-L

Terminal No.	Color of Wire	Signal Name
20	–	–
21	L	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	G/W	GND (SIGNAL)

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

Terminal No.	Color of Wire	Signal Name
33	W/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)

Terminal No.	Color of Wire	Signal Name
39	R	REAR LIFTER MOTOR (DOWNWARD)
40	G	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	GND (POWER)

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	–

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.	B206
Connector Name	LIFTING MOTOR (FRONT) (WITH AUTOMATIC DRIVE POSITIONER)
Connector Color	GRAY

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

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

H.S.

4	3		2	1
10	9	8	7	6	5

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	–
9	V	–
10	BR/Y	–

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

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	P/L	–
2	G/O	–
3	Y/G	–
4	P	–
5	LG/B	–
8	SB	–
9	Y/B	–
10	V/W	–
11	GR	– (WITH AUTOMATIC DRIVE POSITIONER)
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	–

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

H.S.

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

Terminal No.	Color of Wire	Signal Name
14	B	–

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

H.S.

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

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

H.S.

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

Terminal No.	Color of Wire	Signal Name
2	G/O	–
9	B	–
10	LG/B	–
13	Y/G	–
14	P	–
15	Y/R	–
16	P/L	–

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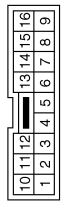
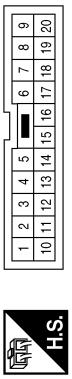
Connector No.	D107
Connector Name	DOOR MIRROR RH (WITH AUTOMATIC DRIVE POSITIONER)
Connector Color	WHITE



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.	D10
Connector Name	DOOR MIRROR REMOTE CONTROL SWITCH (WITH AUTOMATIC DRIVE POSITIONER)
Connector Color	BROWN

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

ABJIA1087GB

SYMPTOM DIAGNOSIS

ADP SYSTEM SYMPTOMS

Symptom Table

INFOID:0000000011289587

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

Symptom	Diagnosis procedure	Reference page
Entry/Exit assist function does not operate.	1. Check system setting.	ADP-21
	2. Perform initialization.	Refer to Owner's Manual.
	3. Check front door switch (driver side).	ADP-76
Intelligent Key interlock function does not operate. (Other automatic operations and Intelligent Key system are normal)	1. Check door lock function.	DLK-23
	2. Perform memory storing.	ADP-11

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

NORMAL OPERATING CONDITION

Description

INFOID:0000000011289588

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-23
Entry assist function does not operate.	Manual operation with power seat switch was performed after exit assist function execution.	Perform the memory function.	ADP-23
Memory function, entry/exit assist function or Intelligent Key interlock function does not operate.	The operating conditions are not fulfilled.	Fulfill the operation conditions.	Memory function: ADP-17
			Exit assist function: ADP-21
			Entry assist function: ADP-23
			Intelligent Key interlock function: ADP-11

PRECAUTION

PRECAUTIONS

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

INFOID:0000000011289589

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 Necessary for Steering Wheel Rotation After Battery Disconnect

INFOID:0000000011289590

NOTE:

- This Procedure is applied only to models with Intelligent Key system and NATS (NISSAN ANTI-THEFT SYSTEM).
- Remove and install all control units after disconnecting both battery cables with the ignition knob in the ″LOCK″ position.
- Always use CONSULT to perform self-diagnosis as a part of each function inspection after finishing work. If DTC is detected, perform trouble diagnosis according to self-diagnostic results.

For models equipped with the Intelligent Key system and NATS, an electrically controlled steering lock mechanism is adopted on the key cylinder.
For this reason, if the battery is disconnected or if the battery is discharged, the steering wheel will lock and steering wheel rotation will become impossible.
If steering wheel rotation is required when battery power is interrupted, follow the procedure below before starting the repair operation.

OPERATION PROCEDURE

1. Connect both battery cables.
   NOTE:
   Supply power using jumper cables if battery is discharged.
2. Use the Intelligent Key or mechanical key to turn the ignition switch to the ″ACC″ position. At this time, the steering lock will be released.
3. Disconnect both battery cables. The steering lock will remain released and the steering wheel can be rotated.
4. Perform the necessary repair operation.

5. When the repair work is completed, return the ignition switch to the ″LOCK″ position before connecting the battery cables. (At this time, the steering lock mechanism will engage.)
6. Perform a self-diagnosis check of all control units using CONSULT.

Precaution for Work

INFOID:0000000011289591

- 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.

UNIT REMOVAL AND INSTALLATION

DRIVER SEAT CONTROL UNIT

Removal and Installation

INFOID:0000000011289592

REMOVAL

NOTE:

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

1. Remove the driver seat. Refer to SE-62, "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.

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Removal and Installation

INFOID:0000000011289593

REMOVAL

CAUTION:

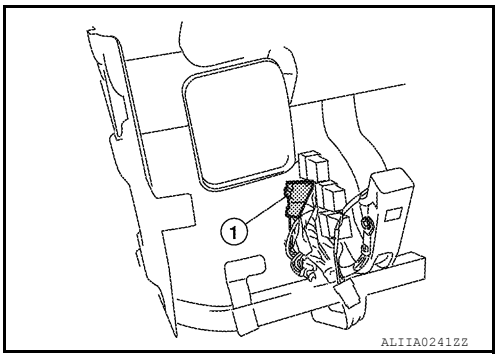
When removing and installing, use shop cloths to protect parts from damage.

1. Disconnect the battery negative terminal. Refer to PG-72, "How to Handle Battery".
2. Remove the instrument lower panel LH. Refer to IP-12, "Removal and Installation".
3. Remove the automatic drive positioner control unit.

a. Remove the automatic drive positioner control unit screw (1).

b. Separate the automatic drive positioner control unit from the bracket.

c. Disconnect the harness connectors and remove automatic drive positioner control unit.



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

Clamp the harness in position.

NOTE:

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

SEAT MEMORY SWITCH

Removal and Installation

INFOID:0000000011289594

Refer to INT-15, "Removal and Installation" for removal and installation of seat memory switch.

DOOR MIRROR REMOTE CONTROL SWITCH

Removal and Installation

INFOID:0000000011289595

The door mirror remote control switch is part of the power window switch assembly. Refer to INT-15, "Removal and Installation" for removal and installation of door mirror remote control switch.

PEDAL ADJUSTING MOTOR

Removal and Installation

INFOID:0000000011289596

Refer to ACC-4, "Removal and Installation" for accelerator pedal and BR-19, "Removal and Installation" for brake pedal when removing pedal adjusting motors.