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2015 Titan NAM

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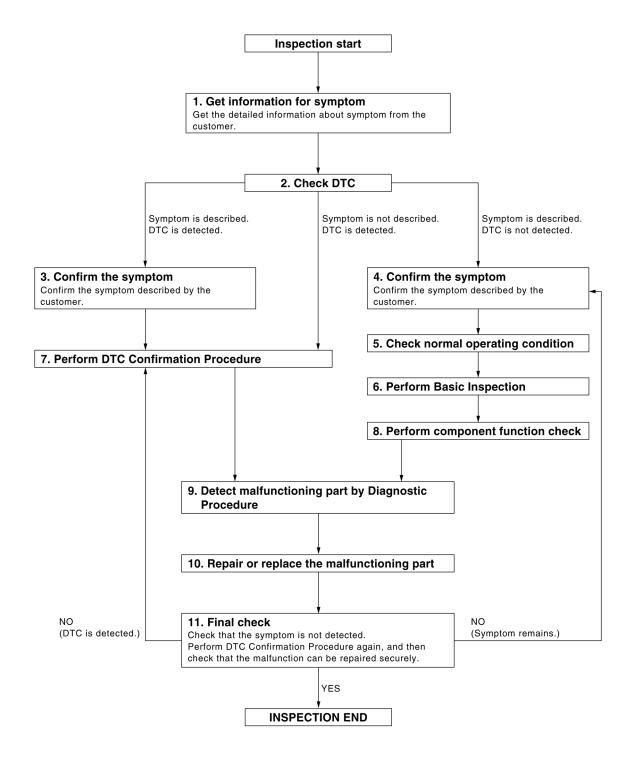
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BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

WORK FLOW



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DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

1. GET INFORMATION FOR SYMPTOM Α Get the detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurred). В >> 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? D 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 Е 3. CONFIRM THE SYMPTOM Try to confirm the symptom described by the customer. F >> GO TO 7 4. CONFIRM THE SYMPTOM Try to confirm the symptom described by the customer. >> GO TO 5 Н 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 ADP **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 M NO >> Check intermittent incident. Refer to GI-44, "Intermittent Incident". 8. PERFORM COMPONENT FUNCTION CHECK Perform the component function check for the isolated malfunctioning point. >> GO TO 9 $oldsymbol{9}$. DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE Isolate the malfunctioning point by performing the diagnosis procedure relevant to the symptom during the component diagnosis.

>> GO TO 10 10. REPAIR OR REPLACE

Repair or replace the malfunctioning part.

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

>> GO TO 11

11. FINAL CHECK

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

Are all malfunctions corrected?

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

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION > INSPECTION AND ADJUSTMENT Α **Preliminary Check** INFOID:0000000011560515 1. FOREIGN OBJECTS В Check the following: objects on or behind the seats that could cause binding · objects under the seats that may be interfering with the seat's moving parts objects under pedals that may interfere with movement Are there any foreign objects that could be causing interference? YES >> Remove objects. D NO >> GO TO 2 2. WIRING CONNECTIONS Е Disconnect harness connectors. Check terminals for damage or loose connections. Reconnect harness connectors. 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". Н Is the inspection result normal? YES >> Refer to ADP-112, "DTC Index". NO >> Repair or replace as necessary. Special Repair Requirement INFOID:0000000011560516 ADP Refer to Owner's Manual for Automatic Drive Positioner system operating instructions.

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PRE-INSPECTION FOR DIAGNOSTIC

< BASIC INSPECTION >

PRE-INSPECTION FOR DIAGNOSTIC

Basic Inspection

1. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and ground circuit as shown below.

- Driver seat control unit: Refer to ADP-47, "DRIVER SEAT CONTROL UNIT: Diagnosis Procedure".
- Automatic drive positioner control unit: Refer to <u>ADP-48</u>, "<u>AUTOMATIC DRIVE POSITIONER CONTROL UNIT</u>: <u>Diagnosis Procedure</u>".

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace the malfunctioning part.

2. CHECK MANUAL FUNCTION

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

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

Do all manual functions operate normally?

YES >> GO TO 3

NO (Seat, pedal, door mirror)>>Go to SYMPTOM 1, refer to <u>ADP-142, "Symptom Table"</u>. And, GO TO 4 if the result of SYMPTOM 1 is OK.

$3.\,$ CHECK MEMORY FUNCTION 1

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

Are the operations normal?

YES >> Check each malfunction according to the instruction of the SYMPTOM 4, refer to <u>ADP-142</u>, "Symptom Table".

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

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

4. CHECK MEMORY FUNCTION 2

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

Are the operations normal?

YES >> Check intermittent incident. Refer to GI-44, "Intermittent Incident".

NO >> GO TO 7

5. CHECK SEAT MEMORY SWITCH/MEMORY INDICATOR

Check the seat memory switch/memory switch indicator of the SYMPTOM 5, refer to <u>ADP-142, "Symptom Table"</u>.

Is the inspection result normal?

YES >> GO TO 6

NO >> Repair or replace the malfunctioning part.

O. CHECK OPERATION CONDITION

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

Are all operation conditions fulfilled?

YES >> Go to SYMPTOM 6, refer to ADP-142, "Symptom Table".

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

7. CHECK MECHANISM

Check for the following.

Mechanism deformation or pinched foreign materials.

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PRE-INSPECTION FOR DIAGNOSTIC

< BASIC INSPECTION >

• Interference with other parts because of poor installation.

Is any malfunction present in the relevant parts?

YES >> Go to SYMPTOM 3, refer to ADP-142, "Symptom Table".

NO >> Repair or replace the malfunctioning part.

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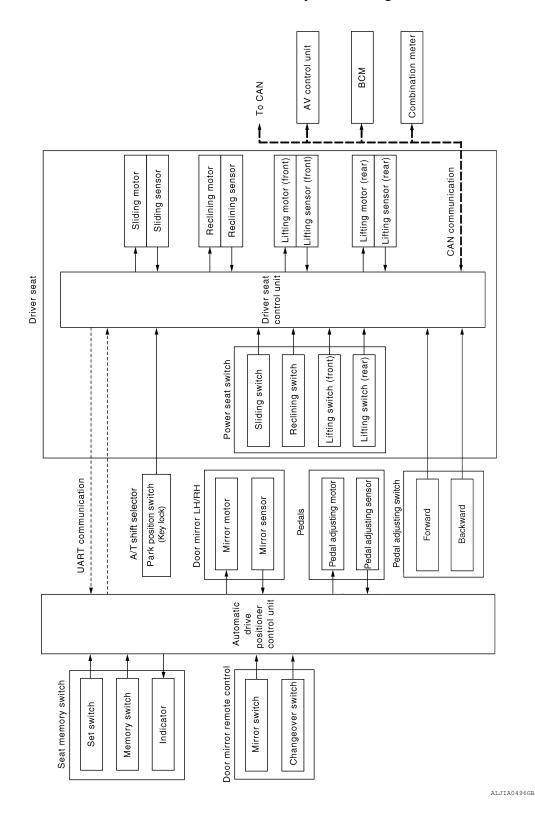
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SYSTEM DESCRIPTION

AUTOMATIC DRIVE POSITIONER SYSTEM AUTOMATIC DRIVE POSITIONER SYSTEM

AUTOMATIC DRIVE POSITIONER SYSTEM: System Diagram

INFOID:0000000011560518



< SYSTEM DESCRIPTION >

AUTOMATIC DRIVE POSITIONER SYSTEM: System Description

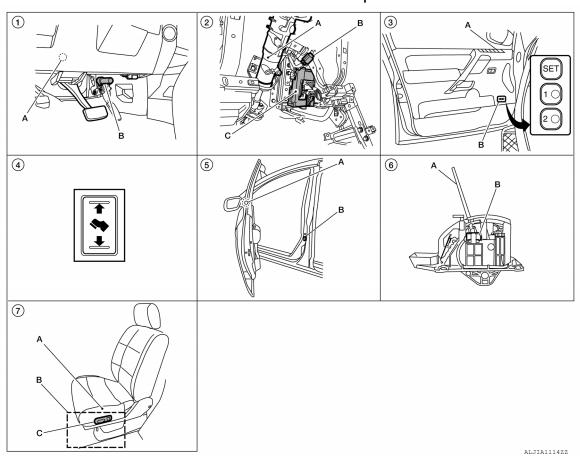
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OUTLINE

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

Function		Description		
Manual function		The driving position (seat, pedal assembly and door mirror position) can be adjusted by using the power seat switch, pedal adjusting switch or door mirror remote control switch.		
Memory function		The seat, pedal assembly and outside mirror move to the stored driving position by pressing seat memory switch (1 or 2).		
Entry/Exit assist function	Exit	On exit, the seat moves backward.		
Entry		On entry, the seat returns from exiting position to the previous driving position.		

AUTOMATIC DRIVE POSITIONER SYSTEM: Component Parts Location INFOID:000000011560520



- A. Automatic drive positioner control 2. unit M33, M34
 - B. Pedal adjusting motor assembly E109, E110
- A. Steering column
 B. Key switch and key lock solenoid
- C. BCM M18, M19, M20 (view with instrument panel removed)
- A. Door mirror remote control switch D10 (king cab), D20 (crew cab)
 - B. Seat memory switch D5

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< SYSTEM DESCRIPTION >

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

- A. Sliding motor LH B204 (driver seat view), reclining motor LH B205, lifting motor (front) B206, lifting motor (rear) B207
 - B. Driver seat control unit B202, B203
 - C. Power seat switch LH B208

AUTOMATIC DRIVE POSITIONER SYSTEM: Component Description

INFOID:0000000011560521

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. 	
ВСМ	Transmit the following status to the driver seat control unit via CAN communication. Front door LH: OPEN/CLOSE Ignition switch position: ACC/ON Door lock: UNLOCK (remote keyless entry request switch operation) Key ID Key switch: Insert/Pull out ignition key Starter: CRANKING/OTHER	
Combination meter	Transmit the vehicle speed signal to the driver seat control unit via CAN communication.	
AV control unit	The setting change of auto drive positioner system can be performed on the display.	
A/T shift selector (park position switch)	Transmit the shift position signal (P range) to the driver seat control unit.	

INPUT PARTS

Switches

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

< SYSTEM DESCRIPTION >

Item	Function	
Pedal adjusting switch	The following switch is installed. • Pedal forward • Pedal backward The specific parts can be operated with the operation of each switch.	
Door mirror remote control switch	The following switch is installed. • Mirror switch • Changeover switch The specific parts can be operated with the operation of each switch.	

Sensors

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

OUTPUT PARTS

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

MANUAL FUNCTION

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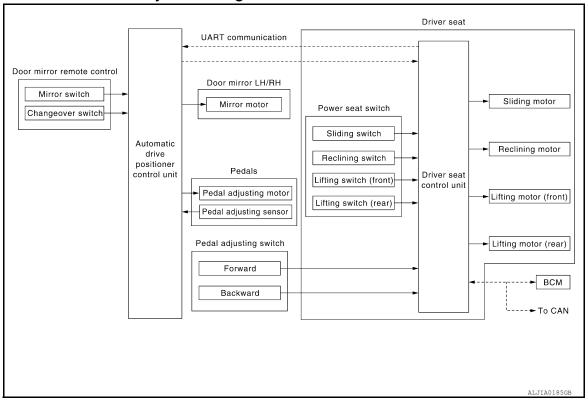
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< SYSTEM DESCRIPTION >

MANUAL FUNCTION: System Diagram

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MANUAL FUNCTION: System Description

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OUTLINE

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

OPERATION PROCEDURE

- Turn ignition switch ON.
- 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	1	The pedal adjusting switch signal is input to the automatic drive positioner control unit when the pedal adjusting switch is operated.

< SYSTEM DESCRIPTION >

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

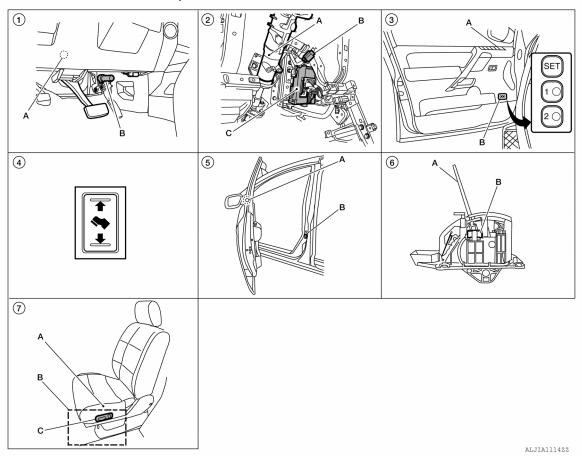
Door Mirror

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

NOTE:

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

MANUAL FUNCTION: Component Parts Location



- A. Automatic drive positioner control 2.
 unit M33, M34

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

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< SYSTEM DESCRIPTION >

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

- 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:0000000011560525

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.
ВСМ	Recognizes the following status and transmits it to the driver seat control unit via CAN communication. • Ignition position: ACC/ON

INPUT PARTS

Switches

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

Sensors

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

OUTPUT PARTS

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

< SYSTEM DESCRIPTION >

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

Driver seat

MEMORY FUNCTION

MEMORY FUNCTION: System Diagram



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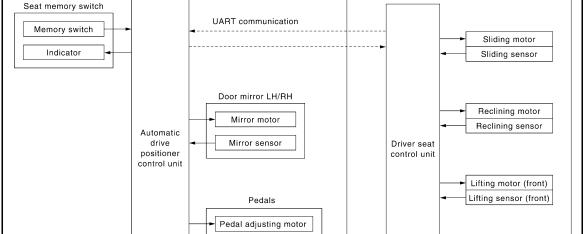
Lifting motor (rear)
Lifting sensor (rear)

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Pedal adjusting sensor

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MEMORY FUNCTION : System Description

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

- 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

Revision: November 2014 ADP-17 2015 Titan NAM

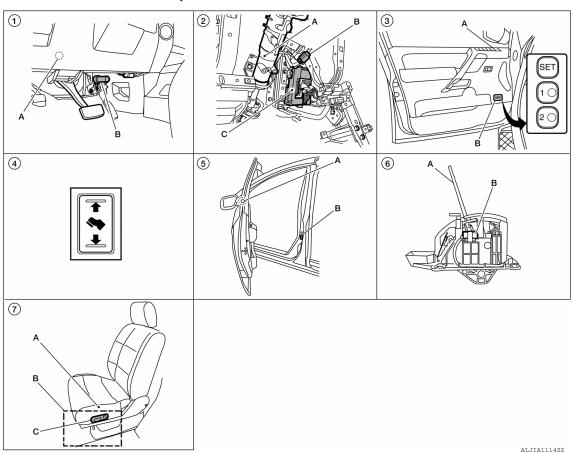
< SYSTEM DESCRIPTION >

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 adjust- ing, door mirror)	_	Driver seat control unit judges the operating seat position with each seat sensor input. The positions of the adjustable pedals and outside mirror are monitored with each sensor signal that is input from auto drive positioner control unit via UART communication. Driver seat control unit stops the operation of each motor when each part reaches the recorded address.
4	_	Memory switch Indicator	Driver seat control unit requests the illumination of memory indicator to auto drive positioner control unit via UART communication after all motors stop. The auto driving positioner control unit illuminates the memory indicator for 5 seconds.

MEMORY FUNCTION : Component Parts Location

INFOID:0000000011560528



< SYSTEM DESCRIPTION >

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

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

B. Driver seat control unit B202,

C. Power seat switch LH B208

- Pedal adjusting switch M96
- A. Steering column B. Key switch and key lock solenoid M27
 - C. BCM M18, M19, M20 (view with instrument panel removed)
- A. Door mirror LH D4, RH D107 B. Front door switch LH B8
- A. Door mirror remote control switch D10 (king cab), D20 (crew cab) B. Seat memory switch D5
- A. A/T selector lever (floor shift)

B. A/T shift selector (park position switch) M203

MEMORY FUNCTION: Component Description

INFOID:0000000011560529

CONTROL UNITS

B203

(rear) B207

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

Revision: November 2014

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

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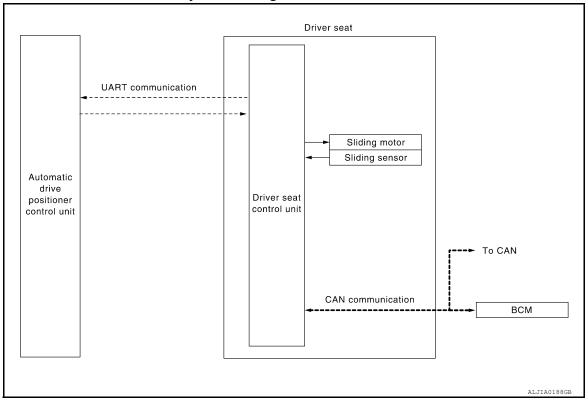
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EXIT ASSIST FUNCTION

EXIT ASSIST FUNCTION: System Diagram

INFOID:0000000011560530



EXIT ASSIST FUNCTION: System Description

INFOID:0000000011560531

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

< SYSTEM DESCRIPTION >

0	rder	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



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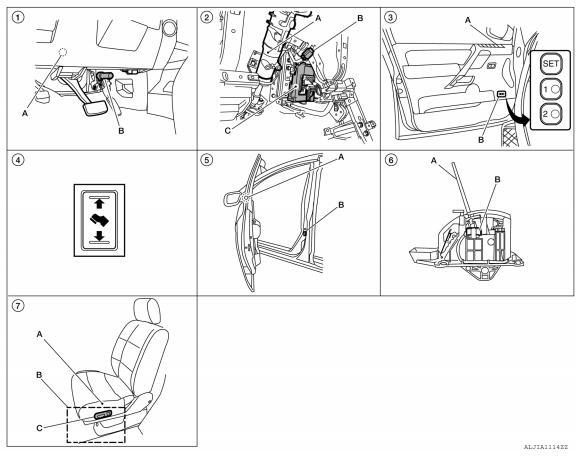
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- A. Automatic drive positioner control 2. unit M33, M34 B. Pedal adjusting motor assembly E109, E110
- Pedal adjusting switch M96
- A. Sliding motor LH B204 (driver seat view), reclining motor LH B205, lifting motor (front) B206, lifting motor (rear)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

- A. Steering column
 - B. Key switch and key lock solenoid
 - C. BCM M18, M19, M20 (view with instrument panel removed)
- A. Door mirror LH D4, RH D107
- B. Front door switch LH B8
- A. Door mirror remote control switch D10 (king cab), D20 (crew cab) B. Seat memory switch D5
- A. A/T selector lever (floor shift) B. A/T shift selector (park position switch) M203

EXIT ASSIST FUNCTION: Component Description

CONTROL UNITS

INFOID:0000000011560533

ADP-21 Revision: November 2014 2015 Titan NAM

< SYSTEM DESCRIPTION >

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

INPUT PARTS

Switches

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

Sensors

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

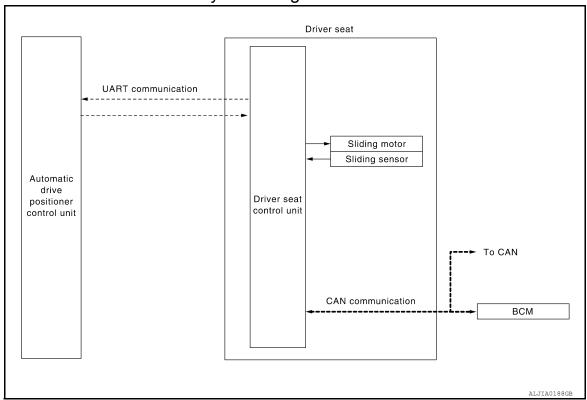
OUTPUT PARTS

Item	Function
Sliding motor	Slide the seat forward/backward.

ENTRY ASSIST FUNCTION

ENTRY ASSIST FUNCTION: System Diagram

INFOID:0000000011560534



ENTRY ASSIST FUNCTION : System Description

INFOID:0000000011560535

OUTLINE

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

NOTE:

Revision: November 2014 ADP-22 2015 Titan NAM

< SYSTEM DESCRIPTION >

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

OPERATION PROCEDURE

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

OPERATION CONDITION

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

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

DETAIL FLOW

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

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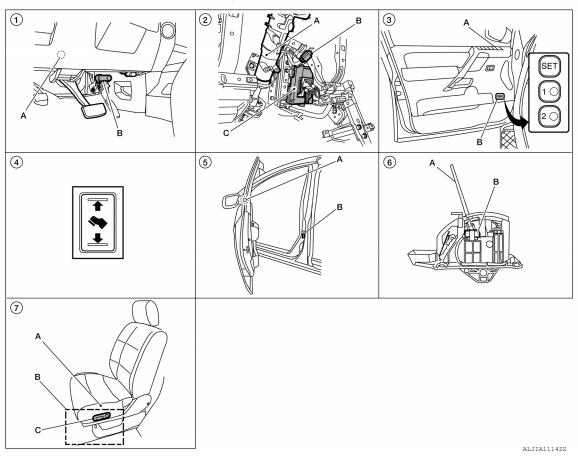
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ENTRY ASSIST FUNCTION: Component Parts Location

INFOID:0000000011560536



- A. Automatic drive positioner control 2. unit M33, M34
 B. Pedal adjusting motor assembly
- 4. Pedal adjusting switch M96

E109, E110

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

 B. Driver seat control unit B202,
 - B203
 - C. Power seat switch LH B208

- A. Steering column
 - B. Key switch and key lock solenoid M27
 - C. BCM M18, M19, M20 (view with instrument panel removed)
- 5. A. Door mirror LH D4, RH D107
 - B. Front door switch LH B8
- A. Door mirror remote control switch D10 (king cab), D20 (crew cab)
 - B. Seat memory switch D5
- A. A/T selector lever (floor shift)
 B. A/T shift selector (park position switch) M203

ENTRY ASSIST FUNCTION : Component Description

INFOID:0000000011560537

CONTROL UNITS

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

INPUT PARTS

< SYSTEM DESCRIPTION >

Switches

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

Sensors

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

OUTPUT PARTS

Item	Function
Sliding motor	Slide the seat forward/backward.

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DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

Diagnosis Description

INFOID:0000000011560538

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

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

CONSULT Function

INFOID:0000000011560539

SELF-DIAGNOSIS RESULTS Refer to <u>ADP-112</u>, "DTC Index".

DATA MONITOR

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

DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

< SYSTEM DESCRIPTION >

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

ACTIVE TEST

CAUTION:

When driving vehicle, do not perform active test.

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

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DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

< SYSTEM DESCRIPTION >

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

U1000 CAN COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description INFOID:0000000011560540 В

Refer to BCS-30, "Description".

DTC Logic INFOID:0000000011560541

DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition	Possible cause
U1000	CAN COMM CIR- CUIT	 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?

>> Perform diagnosis procedure. Refer to BCS-30, "Diagnosis Procedure". YES

NO >> Inspection End.

Special Repair Requirement

Refer to Owner's Manual.

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ADP-29 Revision: November 2014 2015 Titan NAM

B2112 SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

B2112 SLIDING MOTOR

Description INFOID:0000000011560543

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

DTC Logic

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1. STEP 1

Turn ignition switch ON.

>> GO TO 2

2. STEP 2

Check "Self diagnostic result" with CONSULT.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-30, "Diagnosis Procedure".

NO >> Inspection End.

NOTE:

First perform diagnosis for B2126 if B2126 is detected. Refer to ADP-42, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000011560545

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

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- Check "Self diagnostic result" with CONSULT.
- 3. Erase the DTC.
- Perform DTC confirmation procedure. Refer to <u>ADP-30, "DTC Logic"</u>.

Is the DTC displayed again?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to GI-44, "Intermittent Incident".

2.CHECK SLIDING MOTOR CIRCUIT (POWER SHORT)

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

B2112 SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

(+) Sliding motor		(-)	Voltage (V) (Approx.)
Connector	Terminals		(
B204	1	Crownd	0
D2U 4	5	Ground	U

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair circuit for short to voltage.

3. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

	(+) Driver seat control unit		Voltage (V) (Approx.)
Connector	Terminals		(· .pp. 3/4)
B203	35 42	Ground	0

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit. Refer to <u>ADP-147</u>, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

>> Inspection End.

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B2113 RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

B2113 RECLINING MOTOR

Description INFOID:0000000011560546

- · The seat reclining motor is installed to the seatback assembly.
- The seat reclining motor is activated with the driver seat control unit.
- Tilts the seatback frontward/rearward by changing the rotation direction of reclining motor.

DTC Logic

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 re- clining motor output terminal for 0.1 second or more even if the reclining switch is not input.	

DTC CONFIRMATION PROCEDURE

1. STEP 1

Turn ignition switch ON.

>> GO TO 2

2.STEP 2

Check "Self diagnostic result" with CONSULT.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-32, "Diagnosis Procedure".

NO >> Inspection End.

NOTE:

First perform diagnosis for B2126 if B2126 is detected. Refer to ADP-42, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000011560548

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

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Check "Self diagnostic result" with CONSULT.
- 3. Erase the DTC.
- 4. Perform DTC confirmation procedure. Refer to ADP-32, "DTC Logic".

Is the DTC displayed again?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to GI-44, "Intermittent Incident".

2.CHECK RECLINING MOTOR CIRCUIT (POWER SHORT)

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

B2113 RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

(+) Reclining motor		(-)	Voltage (V) (Approx.)
Connector	Terminals		(/ . pp. 5/)
B205	2	Ground	0
D2U0	3	- Ground	U

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair circuit for short to voltage.

3. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

(+) Driver seat control unit		(–)	Voltage (V) (Approx.)
Connector	Terminals		(.pp. 5/11)
B203	36 44	Ground	0

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit. Refer to <u>ADP-147</u>, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

>> Inspection End.

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B2114 SEAT LIFTER FR

< DTC/CIRCUIT DIAGNOSIS >

B2114 SEAT LIFTER FR

Description INFOID:0000000011560549

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

DTC Logic

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1. STEP 1

Turn ignition switch ON.

>> GO TO 2

2. STEP 2

Check "Self diagnostic result" with CONSULT.

Is the DTC detected?

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

NO >> Inspection End.

NOTE:

First perform diagnosis for B2126 if B2126 is detected. Refer to ADP-42, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000011560551

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

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- Check "Self diagnostic result" with CONSULT.
- Erase the DTC.
- Perform DTC confirmation procedure. Refer to <u>ADP-34, "DTC Logic"</u>.

Is the DTC displayed again?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to GI-44, "Intermittent Incident".

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

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

B2114 SEAT LIFTER FR

< DTC/CIRCUIT DIAGNOSIS >

(+) Lifting motor (front)		(-)	Voltage (V) (Approx.)
Connector	Terminals		(Approx.)
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		(PP)
B203	37	- Ground	0
	45		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit. Refer to <u>ADP-147</u>, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

>> Inspection End.

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B2115 SEAT LIFTER RR

< DTC/CIRCUIT DIAGNOSIS >

B2115 SEAT LIFTER RR

Description INFOID:000000011560552

- 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

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2115	SEAT LIFTER RR	The driver seat control unit detects the output of lifting motor (rear) output terminal for 0.1 second or more even if the lifting switch is not input.	Driver seat control unit

DTC CONFIRMATION PROCEDURE

1. STEP 1

Turn ignition switch ON.

>> GO TO 2

2. STEP 2

Check "Self diagnostic result" with CONSULT.

Is the DTC detected?

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

NO >> Inspection End.

NOTE:

First perform diagnosis for B2126 if B2126 is detected. Refer to ADP-42, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000011560554

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

1. PERFORM DTC CONFIRMATION PROCEDURE

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

Is the DTC displayed again?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to GI-44, "Intermittent Incident".

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

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

B2115 SEAT LIFTER RR

< DTC/CIRCUIT DIAGNOSIS >

(+) Lifting motor (rear)		(-)	Voltage (V) (Approx.)	
Connector	Terminals		(* 1,55. 57.1)	
B207	1	- Ground	0	
B20 <i>1</i>	5	- Ground	U	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair circuit for short to voltage.

3. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

(+)				
Driver seat control unit		(–)	Voltage (V) (Approx.)	
Connector	Terminals		(, , , , , , , , , , , , , , , , , , ,	
B203	38	Ground	0	
6203	39	Ground	U	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit. Refer to <u>ADP-147</u>, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

>> Inspection End.

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B2117 ADJ PEDAL MOTOR

< DTC/CIRCUIT DIAGNOSIS >

B2117 ADJ PEDAL MOTOR

Description

- 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

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1. STEP 1

Turn ignition switch ON.

>> GO TO 2

2. STEP 2

Check "Self diagnostic result" with CONSULT.

Is the DTC detected?

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

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000011560557

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

1. CHECK PEDAL ADJUSTING MECHANISM

Check the following.

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

Is the inspection result normal?

YES >> GO TO 2

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

2. CHECK FUNCTION

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

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

B2117 ADJ PEDAL MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> Pedal adjusting motor assembly circuit is OK.

NO >> GO TO 3

${f 3.}$ CHECK PEDAL ADJUSTING MOTOR ASSEMBLY CIRCUIT HARNESS CONTINUITY

Turn ignition switch OFF.

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

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

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

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

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

Is the inspection result normal?

YES >> GO TO 4

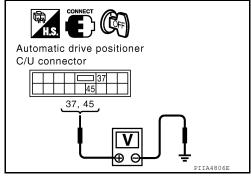
NO >> Repair or replace harness.

4. CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT OUTPUT SIGNAL

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

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

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

CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-148. "Removal and Installation"</u>.

NO >> Repair or replace the malfunctioning part.

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B2120 ADJ PEDAL SENSOR

< DTC/CIRCUIT DIAGNOSIS >

B2120 ADJ PEDAL SENSOR

Description

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

DTC Logic

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1. STEP 1

Turn ignition switch ON.

>> GO TO 2

2. STEP 2

Check "Self diagnostic result" with CONSULT.

Is the DTC is detected?

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

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000011560560

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

1. CHECK PEDAL ADJUSTING SENSOR SIGNAL

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

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

Is the value normal?

YES >> Pedal adjusting circuit is OK.

NO >> GO TO 2

2. CHECK PEDAL ADJUSTING MOTOR ASSEMBLY CIRCUIT HARNESS CONTINUITY

B2120 ADJ PEDAL SENSOR

< DTC/CIRCUIT DIAGNOSIS >

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

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

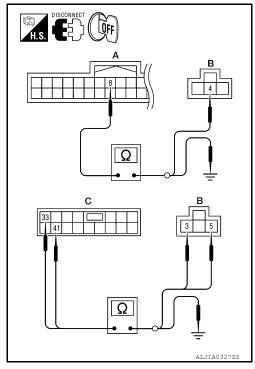
 Check continuity between automatic drive positioner control unit connector M33 (A) terminal 8, M34 (C) terminals 33 and 41 and ground.

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

Is the inspection result normal?

YES >> Replace pedal adjusting motor assembly. Refer to <u>ADP-151</u>, "Removal and Installation".

NO >> Repair or replace harness.



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B2126 DETENT SW

Description INFOID:0000000011560561

The park position switch is installed on A/T shift selector. It is turned OFF when the A/T shift selector is in P
position.

The driver seat control unit judges that the A/T shift selector is in P position if continuity does not exist in this
circuit.

DTC Logic

DTC DETECTION LOGIC

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

INFOID:0000000011560563

DTC CONFIRMATION PROCEDURE

1. STEP 1

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

>> GO TO 2

2. STEP 2

Check "Self diagnostic result" with CONSULT.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to <u>ADP-42</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

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.
- Select "DETENT SW" in "Data Monitor" mode with CONSULT.
- 3. Check park position switch signal under the following condition.

Monitor item	Condition		Status
DETENT SW	A/T shift selector	P position	OFF
	A 1 Still Selector	Other than above	ON

Is the status normal?

B2126 DETENT SW

< DTC/CIRCUIT DIAGNOSIS >

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

NO >> GO TO 3

 ${f 3.}$ CHECK A/T SHIFT SELECTOR (PARK POSITION SWITCH) HARNESS

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

6 - 21 : Continuity should exist.

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

6 - Ground : Continuity should not exist.

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

CHECK A/T SHIFT SELECTOR (PARK POSITION SWITCH)

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

Term	inals	Condition	Continuity
	5 6	P position	No
3		Other than P position	Yes

Is the inspection result normal?

YES >> GO TO 5

NO >> Replace A/T shift selector. Refer to TM-189, "A/T Shift Selector Removal and Installation".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-147, "Removal and Installation"</u>.

NO >> Repair or replace the malfunctioning part.

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B2128 UART COMMUNICATION LINE

< DTC/CIRCUIT DIAGNOSIS >

B2128 UART COMMUNICATION LINE

Description INFOID:0000000011560564

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

DTC Logic

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.

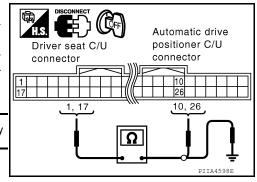
Diagnosis Procedure

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

1. CHECK UART COMMUNICATION LINE CONTINUITY

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

Driver seat control unit connector	ninal Automatic drive positioner control unit connector	Terminal	Continuity
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INFOID:0000000011560566

B2128 UART COMMUNICATION LINE

< DTC/CIRCUIT DIAGNOSIS >

P202	1	Maa	10	Vaa
B202	17	- IVI33	26	Yes

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

Driver seat control unit con- nector	Terminal	0	Continuity	
B202	1	Ground	No	
D202	17	1	INO	

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-44, "Intermittent Incident".

NO >> Repair or replace harness.

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POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM: Diagnosis Procedure

INFOID:0000000011868038

Regarding Wiring Diagram information, refer to BCS-47, "Wiring Diagram".

1. CHECK FUSES AND FUSIBLE LINK

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

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

Is the fuse blown?

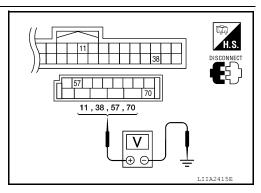
YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

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

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



Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3. CHECK GROUND CIRCUIT

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

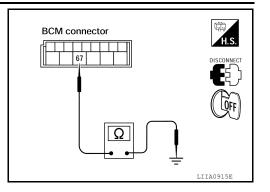
Check continuity between BCM harness connector and ground.

В	СМ		Continuity
Connector	Connector Terminal		Continuity
M20	67		Yes

Does continuity exist?

YES >> Inspection End.

NO >> Repair or replace harness.



DRIVER SEAT CONTROL UNIT

DRIVER SEAT CONTROL UNIT: Diagnosis Procedure

INFOID:0000000011560568

NOTE:

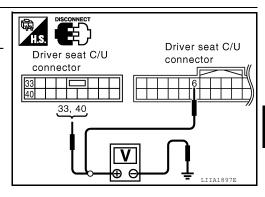
Do not disconnect the battery negative terminal and the driver seat control unit connector until DTC is confirmed with CONSULT.

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

1. CHECK POWER SUPPLY CIRCUIT

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

	Terminals						
(+)	(+)		(+)		Power		Voltage (V)
Driver seat control unit connector	Terminal	(–)	source	Condition	(Approx.)		
B202	6	Ground	START power sup- ply	Ignition switch START	Battery		
D000	33	Ciouna	Battery	Ignition	voltage		
B203	40		power sup- ply	switch OFF			



Is the inspection result normal?

YES >> GO TO 2

NO Check the following.

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

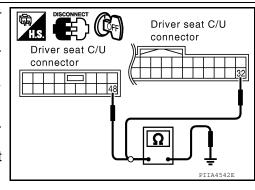
$2.\,$ CHECK GROUND CIRCUIT

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

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

Is the inspection result normal?

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



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POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace harness.

DRIVER SEAT CONTROL UNIT: Special Repair Requirement

INFOID:0000000011560569

1. PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

>> Refer to Owner's Manual.

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

AUTOMATIC DRIVE POSITIONER CONTROL UNIT : Diagnosis Procedure

INFOID:0000000011560570

NOTE:

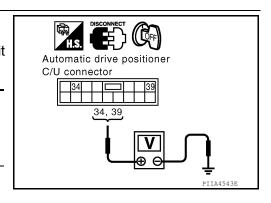
Do not disconnect the battery negative terminal and the driver seat control unit connector until DTC is confirmed with CONSULT.

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

1. CHECK POWER SUPPLY CIRCUIT

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

Te				
(+)		Voltage (V)		
Automatic drive positioner control unit connector Terminal		(-)	(Approx.)	
M34	34	Ground	Battery voltage	
IVIO4	39	Giodila	Dattery Voltage	



Is the inspection result normal?

YES >> GO TO 2

NO >> Check the following.

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

$oldsymbol{2}$. CHECK GROUND CIRCUIT

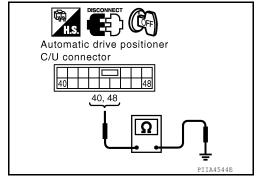
Check continuity between the automatic drive positioner control unit harness connector and ground.

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

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

1. PERFORM ADDITIONAL SERVICE

POWER SUPPLY AND GROUND CIRCUIT < DTC/CIRCUIT DIAGNOSIS > Perform additional service when removing battery negative terminal. Α >> Refer to Owner's Manual. В С D Е F Н ADP L M Ν 0

ADP-49 2015 Titan NAM Revision: November 2014

SLIDING SWITCH

Description INFOID:000000011560572

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

Component Function Check

INFOID:0000000011560573

1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-50, "Diagnosis Procedure"</u>.

Diagnosis Procedure

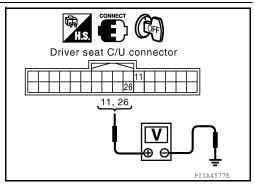
INFOID:0000000011560574

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

1. CHECK SLIDING SWITCH SIGNAL

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

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



Is the inspection result normal?

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

2. CHECK SLIDING SWITCH CIRCUIT

SLIDING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

- 1. Disconnect driver seat control unit and power seat switch LH.
- 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	D200 (B)	5	163

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

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Driver seat control unit connector	Terminal		Continuity
P202 (A)	11	Ground	No
B202 (A)	26		No

Is the inspection result normal?

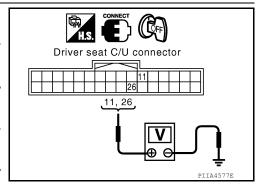
YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK DRIVER SEAT CONTROL UNIT OUTPUT

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

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



Is the inspection result normal?

YES >> GO TO 4

NO >> Replace driver seat control unit. Refer to <u>SE-34, "Removal and Installation - Front Seat Assembly".</u>

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 <u>SE-51, "Disassembly and Assembly"</u>.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-147, "Removal and Installation".

NO >> Repair or replace malfunctioning part.

Component Inspection

1. CHECK SLIDING SWITCH

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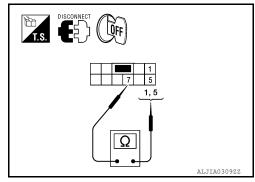
INFOID:0000000011560575

SLIDING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

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

Terminal		Condition		Continuity
Power seat switch LH				
	1	Sliding switch (backward)	Operate	Yes
7	'	Sliding Switch (backward)	Release	No
,	5 Sliding switch (forward)		Operate	Yes
	3	5 Siluling Switch (lorward)	Release	No



Is the inspection result normal?

YES >> Inspection End.

NO >> Replace power seat switch LH. Refer to <u>SE-51, "Disassembly and Assembly"</u>.

RECLINING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

RECLINING SWITCH

Description INFOID:0000000011560576

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

Component Function Check

INFOID:0000000011560577

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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
REGLIN SW-FR	Reclining Switch (lorward)	Release	OFF
RECLN SW-RR	Reclining switch (backward)	Operate	ON
RECLIN SW-RR	Recililing Switch (backward)	Release	OFF

Is the indication normal?

YES >> Inspection End.

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

Diagnosis Procedure

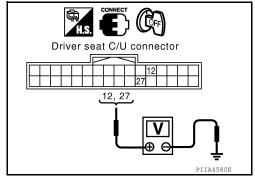
INFOID:0000000011560578

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	Terminals		0 111		Voltage (V)
control unit connector	(+)	(-)	Condition		(Approx.)
	12 Ground 27	Cround	Ground Reclining	Operate (backward)	0
B202				Release	Battery voltage
D202		switch	Operate (forward)	0	
				Release	Battery voltage



Is the inspection result normal?

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

2. CHECK RECLINING SWITCH CIRCUIT

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RECLINING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

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

Driver seat control unit connector	Terminal	Power seat switch LH connector	Terminal	Continuity	
B202 (A)	12	B208 (B)	3	Yes	
D202 (A)	27	D200 (B)	4	162	

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

H.S. DISCONNECT OFF	B
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12, 27	

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

Is the inspection result normal?

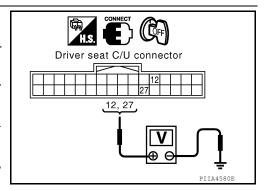
YES >> GO TO 3

NO >> Repair or replace harness.

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

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

Driver seat control	Termin	Voltage (V)	
unit connector	(+)	(–)	(Approx.)
B202	12	Ground	Battery voltage
D202	27	Ground	Dattery Voltage



Is the inspection result normal?

YES >> GO TO 4

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

4. CHECK RECLINING SWITCH

Refer to ADP-54, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5

NO >> Replace power seat switch LH. Refer to SE-51, "Disassembly and Assembly".

CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-147</u>, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

Component Inspection

INFOID:0000000011560579

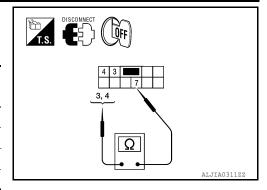
1. CHECK RECLINING SWITCH

RECLINING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

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

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



Is the inspection result normal?

YES >> Inspection End.

NO >> Replace power seat switch LH. Refer to <u>SE-51, "Disassembly and Assembly"</u>.

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LIFTING SWITCH (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SWITCH (FRONT)

Description INFOID:000000011560580

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

Component Function Check

INFOID:0000000011560581

1. CHECK FUNCTION

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

Monitor item	Condition		Status
LIFT FR SW-UP	Lifting switch front (upward)	Operate	ON
LII I I IX SW-OF	Litting Switch from (upward)	Release	OFF
LIFT FR SW-DN	Lifting switch front (downward)	Operate	ON
LIFT FR SW-DIN	Litting Switch from (downward)	Release	OFF

Is the indication normal?

YES >> Inspection End.

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

Diagnosis Procedure

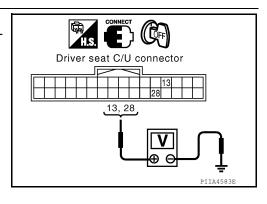
INFOID:0000000011560582

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

1. CHECK LIFTING SWITCH SIGNAL

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

Driver seat	Term	ninals	Condition		Voltage (V)		
control unit connector	(+)	(-)			(Approx.)		
	42	Ground			13	Operate (downward)	0V
B202	13		Lifting und switch (front)	Release	Battery voltage		
D202	28	Ground		Operate (up- ward)	0V		
	20			Release	Battery voltage		



Is the inspection result normal?

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

2. CHECK LIFTING SWITCH (FRONT) CIRCUIT

LIFTING SWITCH (FRONT)

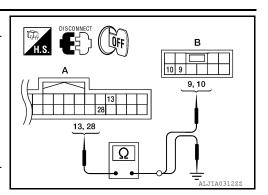
< DTC/CIRCUIT DIAGNOSIS >

- 1. Disconnect driver seat control unit and power seat switch LH.
- 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
B202 (A)	28	D200 (B)	10	162

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

Driver seat control unit connector	Terminal		Continuity	
B202 (A)	13	Ground	No	
D2U2 (A)	28			



YES >> GO TO 3

NO >> Repair or replace harness.

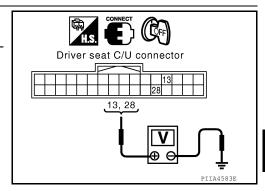
3. CHECK DRIVER SEAT CONTROL UNIT OUTPUT

- 1. Connect the driver seat control unit.
- 2. Turn ignition switch OFF.

Is the inspection result normal?

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

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



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 <u>SE-51</u>, "<u>Disassembly and Assembly</u>".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-147, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

Component Inspection

1. CHECK LIFTING SWITCH (FRONT)

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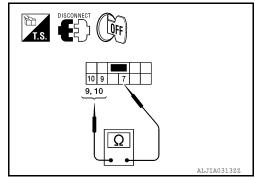
INFOID:0000000011560583

LIFTING SWITCH (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

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

Terminal		Condition		Continuity
Power seat switch LH				
	9	Lifting switch front (down-	Operate	Yes
7	9	ward)	Release	No
10	10	Lifting switch front (up-	Operate	Yes
	10	ward)	Release	No



Is the inspection result normal?

YES >> Inspection End.

NO >> Replace power seat switch LH. Refer to <u>SE-51, "Disassembly and Assembly"</u>.

LIFTING SWITCH (REAR)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SWITCH (REAR)

Description INFOID:0000000011560584

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

Component Function Check

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
LIFT RR SW-UP	Litting Switch real (upward)	Release	OFF
LIFT RR SW-DN	Lifting switch rear (downward)	Operate	ON
LIFT KK SW-DIN	Litting Switch rear (downward)	Release	OFF

Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-59</u>, "<u>Diagnosis Procedure</u>".

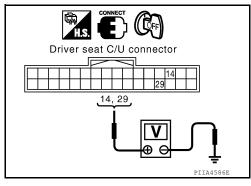
Diagnosis Procedure

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	Term	ninals	Condition		Voltage (V)
control unit connector	(+)	(-)			(Approx.)
	14	Lifting Ground switch		Operate (down- ward)	0
B202				Release	Battery voltage
B202	29 Ground Switch (rear)		Operate (up- ward)	0	
				Release	Battery voltage



Is the inspection result normal?

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

2. CHECK LIFTING SWITCH (REAR) CIRCUIT

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LIFTING SWITCH (REAR)

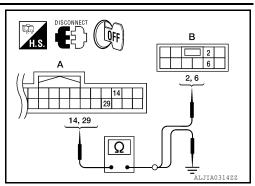
< DTC/CIRCUIT DIAGNOSIS >

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

Driver seat control unit connector	Terminal	Power seat switch LH connector	Terminal	Continuity
B202 (A)	14	B208 (B)	2	Yes
D202 (A)	29	B200 (B)	6	162

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

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



Is the inspection result normal?

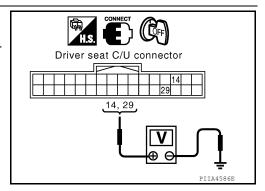
YES >> GO TO 3

NO >> Repair or replace harness.

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

- 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	Ter	minals	Voltage (V)	
connector	(+)	(-)	(Approx.)	
B202	14	Ground	Battery voltage	
D202	29	Glound	Dattery voltage	



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 <u>SE-51, "Disassembly and Assembly"</u>.

$oldsymbol{5}$. CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-147, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

Component Inspection

1. CHECK LIFTING SWITCH (REAR)

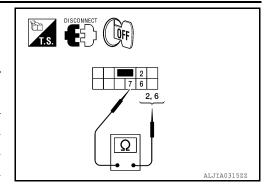
INFOID:0000000011560587

LIFTING SWITCH (REAR)

< DTC/CIRCUIT DIAGNOSIS >

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

Terminal		Condition		Continuity
Power seat switch LH				Continuity
		Lifting switch rear (down-	Operate	Yes
7		ward)	Release	No
6		Lifting switch rear (up-	Operate	Yes
0	0	ward)	Release	No



Is the inspection result normal?

YES >> Inspection End.

NO >> Replace power seat switch LH. Refer to <u>SE-51, "Disassembly and Assembly"</u>.

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PEDAL ADJUSTING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

PEDAL ADJUSTING SWITCH

Description INFOID:000000011560588

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

Component Function Check

INFOID:0000000011560589

1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to ADP-62, "Diagnosis Procedure".

Diagnosis Procedure

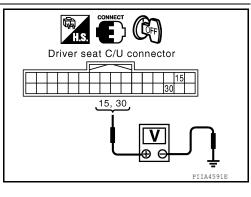
INFOID:0000000011560590

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

1. CHECK PEDAL ADJUSTING SWITCH SIGNAL

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

Driver seat	Term	ninals	0	d:t:	Voltage (V)					
control unit connector	(+)	(-)	Cond	dition	(Approx.)					
	15	Ground							Operate (forward)	0
B202	10		Pedal ad- justing	Release	Battery voltage					
D202		switch		Operate (backward)	0					
30			Release	Battery voltage						



Is the inspection result normal?

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

$oldsymbol{2}$. CHECK PEDAL ADJUSTING SWITCH CIRCUIT

PEDAL ADJUSTING SWITCH

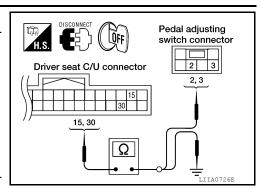
< DTC/CIRCUIT DIAGNOSIS >

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

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

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

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



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Is the inspection result normal?

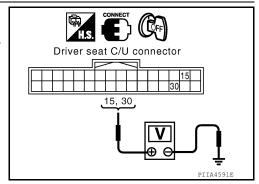
YES >> GO TO 3

NO >> Repair or replace harness.

$oldsymbol{3}$. CHECK DRIVER SEAT CONTROL UNIT OUTPUT

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

Driver seat control unit	Terminals		Voltage (V)	
connector	(+)	(-)	(Approx.)	
B202	15	Ground	Battery voltage	
D202	30	Giouna	Dattery Voltage	



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Is the inspection result normal?

YES >> GO TO 4

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

f 4 . CHECK PEDAL ADJUSTING SWITCH

Refer to ADP-64, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5

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

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

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

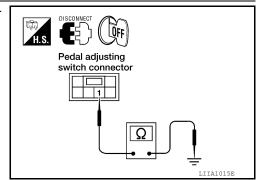
1 - Ground

: Continuity should exist.

Is the inspection result normal?

YES >> GO TO 6

NO >> Repair or replace harness.



6. CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

PEDAL ADJUSTING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-148, "Removal and Installation"</u>.

NO >> Repair or replace the malfunctioning part.

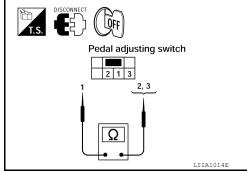
Component Inspection

INFOID:0000000011560591

1. CHECK PEDAL ADJUSTING SWITCH

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

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



Is the inspection result normal?

YES >> Inspection End.

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

SEAT MEMORY SWITCH

Description INFOID:0000000011560592

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

Component Function Check

INFOID:0000000011560593

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1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-65</u>, "Diagnosis Procedure".

Diagnosis Procedure

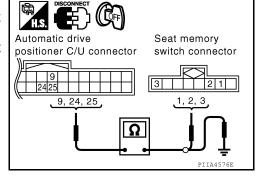
INFOID:0000000011560594

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

1. CHECK MEMORY SWITCH CIRCUIT

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

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



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

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

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace harness.

ADP-65 Revision: November 2014 2015 Titan NAM ADP

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SEAT MEMORY SWITCH

< DTC/CIRCUIT DIAGNOSIS >

$\overline{2}$. CHECK MEMORY SWITCH GROUND CIRCUIT

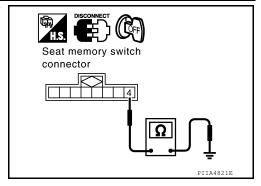
Check continuity between seat memory switch harness connector and ground.

Seat memory switch connector	Terminal	Ground	Continuity
D5	4		Yes

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.



3. CHECK SEAT MEMORY SWITCH

Refer to ADP-66, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4

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

4. CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-148, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

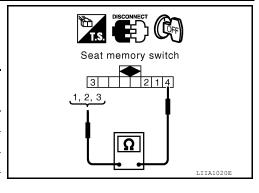
Component Inspection

INFOID:0000000011560595

1. CHECK SEAT MEMORY SWITCH

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

Term Seat mem		Condition		Continuity
	1	Memory switch 1	Push	Yes
		Welliory Switch 1	Release	No
4	2	Memory switch 2	Push	Yes
4	4 2	Wemory Switch 2	Release	No
3	2	Set switch	Push	Yes
	3		Release	No



Is the inspection result normal?

YES >> Inspection End.

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

< DTC/CIRCUIT DIAGNOSIS >

DOOR MIRROR REMOTE CONTROL SWITCH CHANGEOVER SWITCH

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CHANGEOVER SWITCH: Description

Changeover switch is integrated into door mirror remote control switch.

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

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

CHANGEOVER SWITCH: Component Function Check

INFOID:0000000011560597

INFOID:0000000011560596

1. CHECK CHANGEOVER SWITCH FUNCTION

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

Refer to ADP-26, "CONSULT Function".

Is the inspection result normal?

YES >> Changeover switch function is OK.

>> Refer to ADP-67, "CHANGEOVER SWITCH: Diagnosis Procedure". NO

CHANGEOVER SWITCH: Diagnosis Procedure

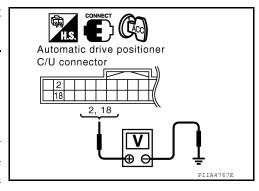
INFOID:0000000011560598

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

1. CHECK CHANGEOVER SWITCH SIGNAL

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

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



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Is the inspection result normal?

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

2. CHECK HARNESS CONTINUITY

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

Automatic drive positioner control unit connector	Terminal	Door mirror re- mote control switch connector	Terminal	Continuity
unit connector		SWITCH CONNECTOR		

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< DTC/CIRCUIT DIAGNOSIS >

M33	2	D10 (king cab)	3	Yes
	18	D10 (king cab)	2	
	2	D20 (crew cab)	11	162
	18	D20 (crew cab)	10	

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

Automatic drive positioner control unit connector	Terminal	Our set	Continuity
M33	2	Ground	No
WISS	18		INO

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		Continuity
D10 (king cab)	13	Ground	Yes
D20 (crew cab)	7		165

Is the inspection result normal?

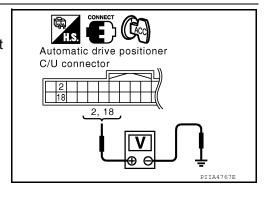
YES >> GO TO 4

NO >> Repair or replace harness.

4. CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT OUTPUT SIGNAL

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

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



Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace automatic drive positioner control unit. Refer to <u>ADP-148</u>, "Removal and Installation".

5. CHECK CHANGEOVER SWITCH

Check changeover switch.

Refer to ADP-69, "CHANGEOVER SWITCH: Component Inspection".

Is the inspection result normal?

YES >> Refer to GI-44, "Intermittent Incident".

NO >> Replace door mirror remote control switch. Refer to ADP-150, "Removal and Installation".

6. CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to GI-44, "Intermittent Incident".

Is the inspection result normal?

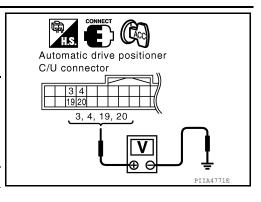
< DTC/CIRCUIT DIAGNOSIS > YES >> Replace automatic drive positioner control unit. Refer to ADP-148, "Removal and Installation". NO >> Repair or replace the malfunctioning parts. Α CHANGEOVER SWITCH: Component Inspection INFOID:0000000011560599 CHECK CHANGEOVER SWITCH В Check door mirror remote control switch. Crew cab Terminal Change over switch Continuity condition Door mirror remote control switch D **LEFT** Yes 10 Other than above No 7 **RIGHT** Yes Е 11 Other than above Nο King cab **Terminal** Change over switch Continuity condition Door mirror remote control switch **LEFT** Yes 3 No Other than above 13 **RIGHT** Yes 2 Н Other than above Nο Is the inspection result normal? YES >> Inspection End. >> Replace door mirror remote control switch. Refer to ADP-150, "Removal and Installation". MIRROR SWITCH ADP MIRROR SWITCH: Description INFOID:0000000011560600 It operates angle of the door mirror face. It transmits mirror face adjust operation to automatic drive positioner control unit. K MIRROR SWITCH: Component Function Check INFOID:000000001156060 $oldsymbol{1}$. 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. M Refer to ADP-26, "CONSULT Function". Is the inspection result normal? >> Mirror switch function is OK. N NO >> Refer to ADP-69, "MIRROR SWITCH: Diagnosis Procedure". MIRROR SWITCH: Diagnosis Procedure INFOID:0000000011560602 Regarding Wiring Diagram information, refer to ADP-127, "Wiring Diagram". Р

CHECK MIRROR SWITCH FUNCTION

< DTC/CIRCUIT DIAGNOSIS >

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

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



Is the inspection result normal?

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

2. CHECK HARNESS CONTINUITY

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

King cab

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

Crew cab

Automatic drive positioner control unit connector	Terminal	Door mirror remote control switch connector	Terminal	Continuity	
M33	3	D20	15		
	4		13	Yes	
	19		12	168	
	20		4		

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

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

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

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

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

Door mirror remote control switch connector	Terminal		Continuity
D10 (king cab)	13	Ground	Yes
D20 (crew cab)	7		165

Is the inspection result normal?

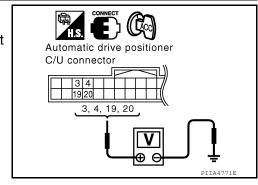
YES >> GO TO 4

NO >> Repair or replace harness.

f 4 . CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT OUTPUT SIGNAL

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

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



Is the inspection result normal?

>> GO TO 5 YES

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

${f 5}$. CHECK MIRROR SWITCH

Check mirror switch.

Refer to ADP-71, "MIRROR SWITCH: Component Inspection".

Is the inspection result normal?

YES >> Refer to GI-44, "Intermittent Incident".

NO >> Replace door mirror remote control switch. Refer to ADP-150, "Removal and Installation".

6. CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to GI-44, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-148, "Removal and Installation".

NO >> Repair or replace the malfunctioning parts.

MIRROR SWITCH: Component Inspection

1.CHECK MIRROR SWITCH

Check door mirror remote control switch.

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INFOID:0000000011560603

< DTC/CIRCUIT DIAGNOSIS >

King cab

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

Crew cab

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

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace door mirror remote control switch. Refer to ADP-150, "Removal and Installation".

POWER SEAT SWITCH GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

POWER SEAT SWITCH GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000011560604

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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.
- Check continuity between power seat switch LH connector and ground.

Power seat switch LH connector	Terminal	Ground	Continuity
B208	7		Yes

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Is the inspection result normal?

YES >> Check intermittent incident. Refer to <u>GI-44, "Intermittent Incident"</u>.

NO >> Repair or replace harness.

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PARK POSITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

PARK POSITION SWITCH

Description INFOID:000000011560605

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

Component Function Check

INFOID:0000000011560606

1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to ADP-74, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000011560607

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

1. CHECK DTC WITH "BCM"

Check "Self Diagnostic Result" for BCM with CONSULT.

Is any DTC detected?

YES >> Check the DTC.

NO >> GO TO 2

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

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

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

Is the inspection result normal?

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

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

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

PARK POSITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Connector	Terminal	Connector	Terminal	Continuity
B202	21	M203	6	Yes

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

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Connector	Terminal	Ground	Continuity
B202	21	Ground	No

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Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

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4. CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-147, "Removal and Installation".

NO

>> Repair or replace the malfunctioning part.

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FRONT DOOR SWITCH (DRIVER SIDE)

< DTC/CIRCUIT DIAGNOSIS >

FRONT DOOR SWITCH (DRIVER SIDE)

Description

Detects front door LH open/close condition.

Component Function Check

INFOID:0000000011560609

1. CHECK FUNCTION

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

Monitor item	Cor	Status	
DOOR SW-DR	Front door switch LH	Open	ON
DOOK SW-DK		Close	OFF

Is the inspection result normal?

YES >> Inspection End.

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

Diagnosis Procedure

INFOID:0000000011560610

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

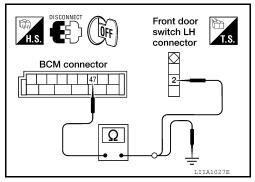
1. CHECK FRONT DOOR SWITCH LH CIRCUIT

- Disconnect BCM and front door switch LH.
- 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	Orodria	No



Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace harness.

$2.\,$ CHECK FRONT DOOR SWITCH LH

Refer to ADP-77, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 3

NO >> Replace front door switch LH.

$3.\,$ CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-56, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

FRONT DOOR SWITCH (DRIVER SIDE)

< DTC/CIRCUIT DIAGNOSIS >

Component Inspection

INFOID:0000000011560611

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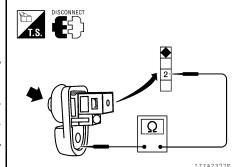
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1. CHECK FRONT DOOR SWITCH LH

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

Terminal		Condition		Continuity
Front o	loor switch LH	Containe	,,,,	Continuity
2	Ground part of	Front door switch	Pushed	No
	door switch	LH	Released	Yes



Is the inspection result normal?

YES >> Inspection End.

NO >> Replace front door switch LH.

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SLIDING SENSOR

Description INFOID:000000011560612

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

Component Function Check

INFOID:0000000011560613

1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> Inspection End.

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

Diagnosis Procedure

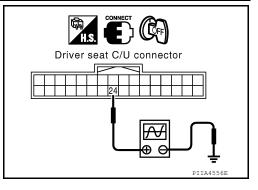
INFOID:0000000011560614

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

1. CHECK SLIDING SENSOR SIGNAL

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

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



Is the inspection result normal?

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

2. CHECK SLIDING SENSOR CIRCUITS

SLIDING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

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

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

2, 3, 4 16, 24, 31

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

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

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK SEAT OPERATION

- Connect driver seat control unit and sliding motor LH.
- 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 <u>SE-51, "Disassembly</u> and Assembly".
- NO >> Replace driver seat control unit. Refer to ADP-147, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-147, "Removal and Installation".

NO >> Repair or replace the malfunctioning part. ADP

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RECLINING SENSOR

Description INFOID:000000011560615

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

Component Function Check

INFOID:0000000011560616

1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> Inspection End.

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

Diagnosis Procedure

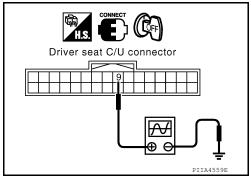
INFOID:0000000011560617

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

1. CHECK RECLINING SENSOR SIGNAL

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

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



Is the inspection result normal?

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

$oldsymbol{2}$. CHECK RECLINING SENSOR CIRCUIT

RECLINING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

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

Driver seat control unit connector	Terminal	Reclining motor connector	Terminal	Continuity	
B202 (A)	9	B205 (B)	1	Yes	
D202 (A)	31	B203 (B)	4	163	

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

B B
A 1, 4
9, 31 ———————————————————————————————————

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

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK SEAT OPERATION

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

Is the operation normal?

YES >> Replace reclining motor LH. (Built in power seat frame assembly). Refer to <u>SE-51, "Disassembly and Assembly"</u>.

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

4. CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-147, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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LIFTING SENSOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SENSOR (FRONT)

Description INFOID:000000011560618

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

Component Function Check

INFOID:0000000011560619

1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-82. "Diagnosis Procedure"</u>.

Diagnosis Procedure

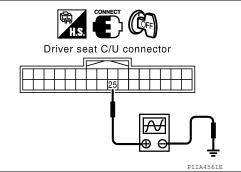
INFOID:0000000011560620

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

1. CHECK LIFTING SENSOR (FRONT) SIGNAL

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

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



Is the inspection result normal?

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

LIFTING SENSOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

2. CHECK LIFTING SENSOR (FRONT) CIRCUIT

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

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

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

H.S. DISCONNECT OFF
A 2, 3, 4 2, 3, 4
16, 25, 31
Ω = ALJIA03192Z

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

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK SEAT OPERATION

- Connect driver seat control unit and lifting motor (front) connector.
- 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 <u>SE-51, "Disassembly</u> and Assembly".

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

4. CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-147, "Removal and Installation".

NO >> Repair or replace the malfunctioning part. ADP

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LIFTING SENSOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SENSOR (REAR)

Description INFOID:000000011560621

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

Component Function Check

INFOID:0000000011560622

1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> Inspection End.

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

Diagnosis Procedure

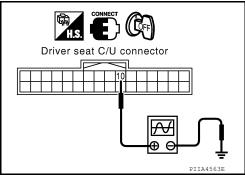
INFOID:0000000011560623

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

1. CHECK LIFTING SENSOR (REAR) SIGNAL

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

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



Is the inspection result normal?

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

LIFTING SENSOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

2. CHECK LIFTING SENSOR (REAR) CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

CHECK SEAT OPERATION

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

Is the operation normal?

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

4. CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

Is the inspection result normal?

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

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PEDAL ADJUSTING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

PEDAL ADJUSTING SENSOR

Description INFOID:000000011560624

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

Component Function Check

INFOID:0000000011560625

1. CHECK FUNCTION

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

Monitor item	Condition		Value
PEDAL SEN	Pedal position	Forward	0.5V
F LUAL SLIN	r cuai position	Backward	4.5V

Is the indication normal?

YES >> Inspection End.

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

Diagnosis Procedure

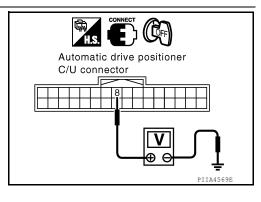
INFOID:0000000011560626

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

1. CHECK PEDAL ADJUSTING SENSOR SIGNAL

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

	Terminal		Condition			
(+)					Voltage (V) (Approx.)	
Automatic drive position- er control unit	Terminal	(-)				
1400	0	01	Pedal as-	Forward	0.5	
M33	8	Ground	sembly position	Backward	4.5	



Is the inspection result normal?

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

2. CHECK PEDAL ADJUSTING SENSOR CIRCUIT

Revision: November 2014 2015 Titan NAM

PEDAL ADJUSTING SENSOR

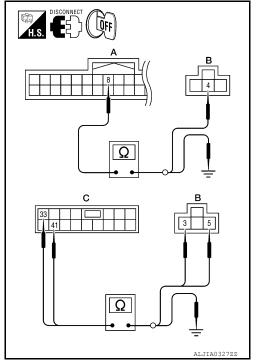
< DTC/CIRCUIT DIAGNOSIS >

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

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

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

Automatic drive positioner control unit connector	Terminal		Continuity
M33 (A)	8	Ground	
M34 (C)	33		No
W34 (C)	41		



Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK DOOR MIRROR OPERATION

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

Is the operation normal?

- YES >> Replace pedal adjusting motor assembly. Refer to <u>ADP-151, "Removal and Installation"</u>.
- NO >> Replace automatic drive positioner control unit. Refer to ADP-148, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

Is the inspection result normal?

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

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< DTC/CIRCUIT DIAGNOSIS >

MIRROR SENSOR DRIVER SIDE

DRIVER SIDE : Description

INFOID:0000000011560627

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

DRIVER SIDE: Component Function Check

INFOID:0000000011560628

1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-88, "DRIVER SIDE : Diagnosis Procedure"</u>.

DRIVER SIDE: Diagnosis Procedure

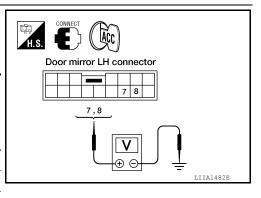
INFOID:0000000011560629

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

1. CHECK DOOR MIRROR LH SENSOR SIGNAL

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

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



Is the inspection result normal?

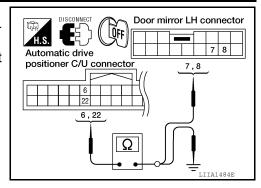
YES >> GO TO 5. NO >> GO TO 2.

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

< DTC/CIRCUIT DIAGNOSIS >

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

Automatic drive positioner control unit connector	Terminal	Door mirror LH connector	Terminal	Continuity	
M33	6	D4	7	Yes	
WIOO	22	7	8	163	



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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

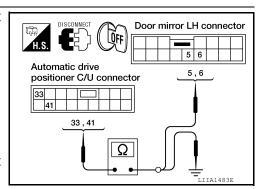
${f 3}.$ CHECK DOOR MIRROR LH SENSOR CIRCUIT 2

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

Automatic drive positioner control unit connector	Terminal	Door mirror LH connector	Terminal	Continuity	
M34	33	D4	5	Yes	
IVIO	41	D4	6	res	

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		INO



Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK PEDAL ADJUSTING OPERATION

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

Is the operation normal?

YES >> Replace door mirror actuator LH. Refer to MIR-21, "Mirror Actuator".

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

CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-148, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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< DTC/CIRCUIT DIAGNOSIS >

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000011560630

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

PASSENGER SIDE: Component Function Check

INFOID:0000000011560631

1. CHECK FUNCTION

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

Monitor item	Con	Value	
MIR/SEN RH U-D		Close to peak	
	- Door mirror RH	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 <u>ADP-90, "PASSENGER SIDE : Diagnosis Procedure"</u>.

PASSENGER SIDE: Diagnosis Procedure

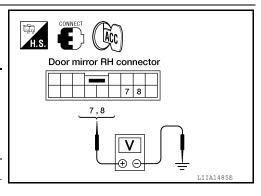
INFOID:0000000011560632

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

1. CHECK DOOR MIRROR RH SENSOR SIGNAL

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

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



Is the inspection result normal?

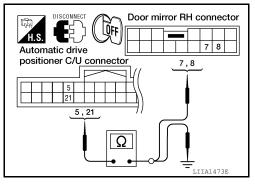
YES >> GO TO 5 NO >> GO TO 2

$oldsymbol{2}.$ CHECK DOOR MIRROR RH SENSOR HARNESS CONTINUITY

< DTC/CIRCUIT DIAGNOSIS >

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

Automatic drive posi- tioner control unit connector	Terminal	Door mirror RH connector	Terminal	Continuity
M33	5	D107	7	Yes
IVISS	21	D107	8	165



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

Automatic drive positioner control unit connector	Terminal	0	Continuity
M33	5	Ground	No
IVIOO	21		NO

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3.check door mirror RH sensor power supply circuit

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

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

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

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

Automatic drive positioner control unit connector	Terminal		Continuity
M34	33	Ground	No
IVI34	41		

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

4. CHECK PEDAL ADJUSTING OPERATION

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

Is the operation normal?

YES >> Replace door mirror actuator. Refer to MIR-21, "Mirror Actuator".

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

CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-148, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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SLIDING MOTOR

Description INFOID:0000000011560633

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

Component Function Check

INFOID:0000000011560634

1. CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> Inspection End.

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

Diagnosis Procedure

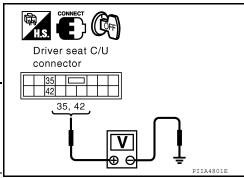
INFOID:0000000011560635

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

1. CHECK SLIDING MOTOR LH POWER SUPPLY

- 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				
(+)			_		Voltage (V)
Driver seat control unit connector	Terminal	(-)	Test Item (Approx.)		
			OFF	0	
	35		FR (forward)	Battery voltage	
B203		Ground	SEAT	RR (backward)	0
D203	B203 Ground	SLIDE	SLIDE	OFF	0
42		FR (forward)	0		
			RR (backward)	Battery voltage	



Is the inspection result normal?

YES >> Replace sliding motor LH. (Built in power seat frame assembly). Refer to <u>SE-51, "Disassembly and Assembly"</u>.

NO >> GO TO 2

2. CHECK SLIDING MOTOR LH CIRCUIT

SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

- 1. Disconnect driver seat control unit and sliding motor LH.
- 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
D203 (A)	42	D204 (D)	1	

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

H.S. DISCONNECT OFF
A B 1, 5
Ω = ALJIA03212Z

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

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-147, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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RECLINING MOTOR

Description INFOID:0000000011560636

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

Component Function Check

INFOID:0000000011560637

1. CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-94, "Diagnosis Procedure"</u>.

Diagnosis Procedure

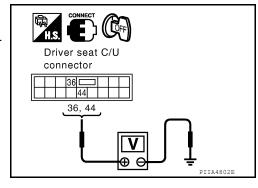
INFOID:0000000011560638

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

1. CHECK RECLINING MOTOR LH POWER SUPPLY

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

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



Is the inspection result normal?

YES >> Replace reclining motor LH. (Built in seatback assembly). Refer to <u>SE-51, "Disassembly and Assembly"</u>.

NO >> GO TO 2

2. CHECK RECLINING MOTOR LH CIRCUIT

RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

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

Driver seat control unit connector	Terminal	Reclining motor LH connector	Terminal	Continuity
B203 (A)	36	B205 (B)	2	Yes
B203 (A)	44	D203 (B)	3	165

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

r -	H.S. DISCONNECT OFF
_	A B 2 3
	36, 44 \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
-	ALJIA0322ZZ

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

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-147, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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LIFTING MOTOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING MOTOR (FRONT)

Description INFOID:0000000011560633

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

Component Function Check

INFOID:0000000011560640

1. CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-96, "Diagnosis Procedure"</u>.

Diagnosis Procedure

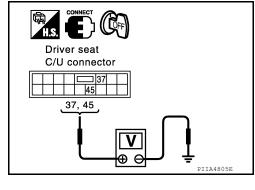
INFOID:0000000011560641

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

1. CHECK LIFTING MOTOR (FRONT) POWER SUPPLY

- 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.

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



Is the inspection result normal?

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

NO >> GO TO 2

2. CHECK LIFTING MOTOR (FRONT) CIRCUIT

LIFTING MOTOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

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

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

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

	H.S. DISCONNECT OFF
-	A B 1 5
	37, 45 Ω 1, 5
•	ALJIA0323ZZ

Driver seat control unit connector	Terminal		Continuity	
D202 (A)	37	Ground	No	
B203 (A)	45		INO	

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-147, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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LIFTING MOTOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING MOTOR (REAR)

Description INFOID:000000011560642

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

Component Function Check

INFOID:0000000011560643

1. CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-98, "Diagnosis Procedure"</u>.

Diagnosis Procedure

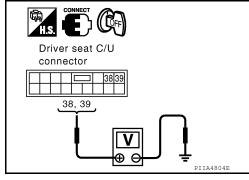
INFOID:0000000011560644

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

1. CHECK LIFTING MOTOR (REAR) POWER SUPPLY

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

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



Is the inspection result normal?

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

NO >> GO TO 2

2. CHECK LIFTING MOTOR (REAR) CIRCUIT

LIFTING MOTOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

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

Driver seat control unit connector	Terminal	Lifting motor (rear) connector	Terminal	Continuity
B203 (A)	38	B207 (B)	5	Yes
B200 (A)	39	D207 (D)	1	163

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

	H.S. DISCONNECT (OFF)
	A <u>B</u>
	38 39
٠	38, 39 1, 5
	Ω
	ALJIA0324ZZ

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

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-147, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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PEDAL ADJUSTING MOTOR

Description INFOID:0000000011560648

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

Component Function Check

INFOID:0000000011560646

1. CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-100, "Diagnosis Procedure"</u>.

Diagnosis Procedure

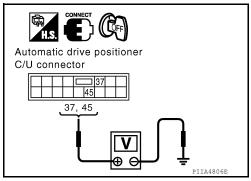
INFOID:0000000011560647

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

1. CHECK PEDAL ADJUSTING MOTOR POWER SUPPLY

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

	Terminal					
(+)						
Automatic drive posi- tioner con- trol unit connector	Terminal	(-)	Test Item		Voltage (V) (Approx.)	
				OFF	0	
	37			RR (backward)	0	
M34		Ground	PEDAL MO-	PEDAL MO-	Battery voltage	
10134		Giodila	TOR	OFF	0	
	45			RR (backward)	Battery voltage	
				FR (forward)	0	



Is the inspection result normal?

YES >> Replace pedal adjusting motor assembly. Refer to <u>ADP-151</u>, "Removal and Installation".

NO >> GO TO 2

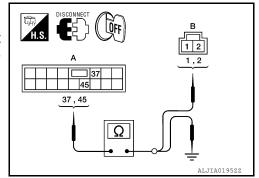
2. CHECK PEDAL ADJUSTING MOTOR CIRCUIT

PEDAL ADJUSTING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

- 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
WIO T (A)	45	E109 (B)	2	103



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

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

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-148</u>, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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DOOR MIRROR MOTOR

Description INFOID:000000011560648

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

Component Function Check

INFOID:0000000011560649

1. CHECK DOOR MIRROR MOTOR FUNCTION

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

Refer to ADP-26, "CONSULT Function".

Is the inspection result normal?

YES >> Door mirror motor function is OK.

NO >> Refer to <u>ADP-102, "Diagnosis Procedure"</u>.

Diagnosis Procedure

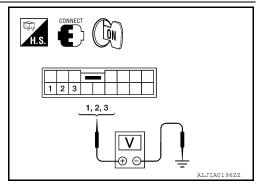
INFOID:0000000011560650

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

1. CHECK DOOR MIRROR MOTOR INPUT SIGNAL

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

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



Is the inspection result normal?

YES >> Refer to ADP-104, "Component Inspection".

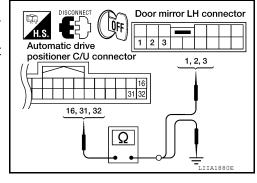
NO >> GO TO 2

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
	16		3	
M33	31	D4	1	Yes
	32		2	



DOOR MIRROR MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Door mirror RH

Automatic drive posi- tioner control unit con- nector	Terminal	Door mirror RH connector	Terminal	Continuity
	14		1	
M33	15	D107	2	Yes
	30		3	

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

Door mirror LH

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

Is the inspection result normal?

YES >> GO TO 3

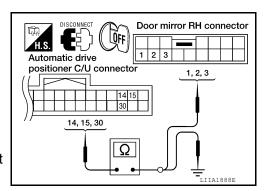
NO >> Repair or replace harness.

${f 3.}$ CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT OUTPUT SIGNAL

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

Door mirror LH

Terminals			Voltage (V)	
(+)		Mirror switch		
Terminal	(-)	condition	(Approx.)	
16		DOWN / RIGHT	Battery voltage	
	Ground	Other than above	0	
31		UP	Battery voltage	
		Other than above	0	
20		LEFT	Battery voltage	
32		Other than above	0	
	Terminal 16	Terminal (-) 16 31 Ground	Terminal (-) Mirror switch condition 16 DOWN / RIGHT Other than above UP Other than above LEFT	



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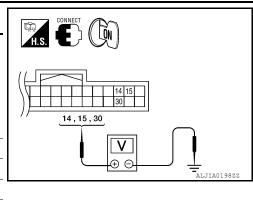
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DOOR MIRROR MOTOR

< DTC/CIRCUIT DIAGNOSIS >

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



Is the inspection result normal?

YES >> GO TO 4.

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

4. CHECK DOOR MIRROR MOTOR

Check door mirror motor.

Refer to ADP-104, "Component Inspection".

Is the inspection result normal?

YES >> Refer to GI-44, "Intermittent Incident".

NO >> Replace door mirror actuator. Refer to MIR-21, "Mirror Actuator".

Component Inspection

INFOID:0000000011560651

1. CHECK DOOR MIRROR MOTOR-I

Check that door mirror motor does not trap foreign objects and does not have any damage.

Refer to MIR-18, "Door Mirror Assembly".

Is the inspection result normal?

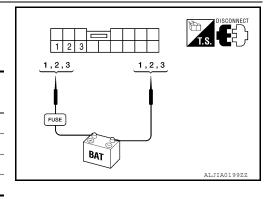
YES >> GO TO 2

NO >> Replace door mirror actuator. Refer to MIR-21, "Mirror Actuator".

2. CHECK DOOR MIRROR MOTOR-II

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

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



Is the inspection result normal?

YES >> Inspection End.

NO >> Replace door mirror actuator. Refer to MIR-21, "Mirror Actuator".

SEAT MEMORY INDICATOR LAMP

< DTC/CIRCUIT DIAGNOSIS >

SEAT MEMORY INDICATOR LAMP

Description INFOID:0000000011560652

- The seat memory switch is installed on the driver side door trim. The operation signal is inputted to the automatic drive positioner control unit when the memory switch is operated.
- The status of automatic drive positioner system can be checked according to the illuminating/flashing status.

Component Function Check

1. CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-105, "Diagnosis Procedure"</u>.

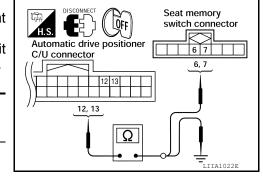
Diagnosis Procedure

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

1. CHECK SEAT MEMORY INDICATOR CIRCUIT

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

Automatic drive positioner control unit connector	Terminal	Seat memory switch connector	Terminal	Continuity
M33	12	D5	6	Yes
IVIOO	13	D3	7	163



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

Automatic drive position- er connector	Terminal		Continuity
M33	12	Ground	No
IVISS	13		INO

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace harness.

2. CHECK MEMORY INDICATOR POWER SUPPLY

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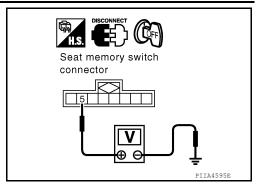
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SEAT MEMORY INDICATOR LAMP

< DTC/CIRCUIT DIAGNOSIS >

Check voltage between seat memory switch harness connector and ground.

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



Is the inspection result normal?

YES >> GO TO 3

NO >> Check the following.

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

3. CHECK MEMORY INDICATOR

Refer to ADP-106, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4

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

4. CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-148, "Removal and Installation"</u>.

NO >> Repair or replace the malfunctioning part.

Component Inspection

INFOID:0000000011560655

1. CHECK SEAT MEMORY INDICATOR

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

Terminal		
Seat men	Continuity	
(+)	(-)	
6		Yes
5	7	165

Is the inspection result normal?

YES >> Inspection End.

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

DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

ECU DIAGNOSIS INFORMATION

DRIVER SEAT CONTROL UNIT

Reference Value

VALUES ON THE DIAGNOSIS TOOL

CONSULT MONITOR ITEM

Monitor Item	Condition		Value/Status	
SET SW	Set switch	Push	ON	
SET SW	Set switch	Release	OFF	
MEMORY SW1	Maraan awitah 4	Push	ON	
WEWORT SWI	Memory switch 1	Release	OFF	
MEMORY SWA	Momony quitab 2	Push	ON	
MEMORY SW2	Memory switch 2	Release	OFF	
CLIDE OW ED	Cliding quitab (frant)	Operate	ON	
SLIDE SW-FR	Sliding switch (front)	Release	OFF	
SLIDE SW-RR	Cliding quitab (roor)	Operate	ON	
SLIDE SW-KK	Sliding switch (rear)	Release	OFF	
DECLN OW ED	Declining quitab (frant)	Operate	ON	
RECLN SW-FR	Reclining switch (front)	Release	OFF	
DECLN OW DD	Dealising as 10 to (co. 2)	Operate	ON	
RECLN SW-RR	Reclining switch (rear)	Release	OFF	
LIET ED OW LID		Operate	ON	
LIFT FR SW-UP Lift	Lifting switch front (up)	Release	OFF	
LIET ED OW DN	1.70° 20 - 1 - 1 1 (de es)	Operate	ON	
LIFT FR SW-DN	Lifting switch front (down)	Release	OFF	
LIET DD CW LID	lifting quitab area (va)	Operate	ON	
LIFT RR SW-UP	Lifting switch rear (up)	Release	OFF	
LIET DD OW DN	lifting outlibration (days)	Operate	ON	
LIFT RR SW-DN	Lifting switch rear (down)	Release	OFF	
MID CON CW LID	Missassital	Up	ON	
MIR CON SW-UP	Mirror switch	Other than above	OFF	
MID CON CW DN	Missassital	Down	ON	
MIR CON SW-DN	Mirror switch	Other than above	OFF	
MID CON SW DU	Mirror awitch	Right	ON	
MIR CON SW-RH	Mirror switch	Other than above	OFF	
MIR CON SW-LH	Mirror switch	Left	ON	
IVIIN CON SW-LH	IVIIITOI SWILCII	Other than above	OFF	
MID CHNC CW D	Changaayar awitch	Right	ON	
MIR CHNG SW-R	Changeover switch	Other than above	OFF	
MIR CHNG SW-L	Changeover switch	Left	ON	
WIIIX CHING SW-L	Changeover switch	Other than above	OFF	
PEDAL SW-FR	Podal adjusting switch	Forward	ON	
FLUAL SW-FK	Pedal adjusting switch	Other than above	OFF	
PEDAL SW-RR Pedal adjusting switch	Pedal adjusting switch	Backward	ON	
	redai adjusting switch	Other than above	OFF	

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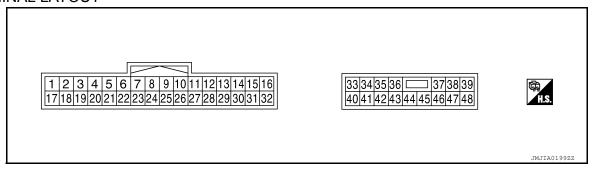
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DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

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

TERMINAL LAYOUT



PHYSICAL VALUES

< ECU DIAGNOSIS INFORMATION >

Tern	ninal No.	Wire	Description				Voltage (V)
+	-	color	Signal name	Input/ Output	Condition	1	(Approx)
1	Ground	L	UART LINE (RX)	Input	Ignition switch ON		(V) 6 4 2 0 1 ms
3	_	L	CAN-H	_	_		_
6	Ground	0	Ignition switch (START)	Input	Ignition switch	OFF START	0 Battery voltage
9	Ground	R/B	Reclining sensor sig- nal	Input	Seat reclining	Operate	(V) 6 4 2 0 •••50ms SIIA0692J
						Stop	0 or 5
10	Ground	B/R	Lifting sensor (rear) signal	Input	Seat lifting (rear)	Operate	(V) 6 4 2 0 *-50ms
						Stop	0 or 5
11	Ground	Y/R	Sliding switch back- ward signal	Input	Sliding switch	Operate (back- ward)	0
						Release	Battery voltage
12	Ground	L/W	Reclining switch back- ward signal	Input	Reclining switch	Operate (back- ward)	0
						Release	Battery voltage
13	Ground	٧	Lifting switch (front) downward signal	Input	Lifting switch (front)	Operate (down- ward)	0
						Release	Battery voltage
14	Ground	P/L	Lifting switch (rear) downward signal	Input	Lifting switch (rear)	Operate (down- ward)	0
						Release	Battery voltage
15	Ground	SB	Pedal switch backward signal	Input	Pedal switch	Operate (back- ward)	0
						Release	Battery voltage
16	Ground	R/W	Sensor power supply	Output	_		5

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Term	ninal No.	145	Description				V 16 00
+	-	Wire color	Signal name	Input/ Output	Condition	า	Voltage (V) (Approx)
17	Ground	W	UART LINE (TX)	Output	Ignition switch ON		(V) 6 4 2 0 2 ms
19	_	Р	CAN-L	_	_		_
21	Ground	L/R	A/T shift selector (park position switch)	Input	A/T selector lever	P position Except P position	0 Battery voltage
24	Ground	R/L	Sliding sensor signal	Input	Seat sliding	Operate	(V) 6 4 2 0 50 ms
						Stop	0 or 5
25	Ground	Y/G	Lifting sensor (front) signal	Input	Seat lifting (front)	Operate	(V) 6 4 2 0 **50ms
						Stop	0 or 5
26	Ground	L/R	Sliding switch forward signal	Input	Sliding switch	Operate (forward)	0
						Release	Battery voltage
27	Ground	V/W	Reclining switch for- ward 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) up- ward 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	В	Ground (signal)	_	-		0
33	Ground	L/B	Battery power source (C/B)	Input			Battery voltage

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< ECU DIAGNOSIS INFORMATION >

	Term	ninal No.	Wire	Description				Voltage (V)
	+	-	color	Signal name	Input/ Output	Condition	1	Voltage (V) (Approx)
	35	Ground	R/G	Sliding motor forward output signal	Output	Seat sliding	Operate (forward)	Battery voltage
				output signal			Release	0
	36	Ground	L	Reclining motor for- ward output signal	Output	Seat reclining	Operate (forward)	Battery voltage
				ward output signal			Release	0
	37	Ground	В	Lifting motor (front) downward output sig- nal	Output	Seat lifting (front)	Operate (down- ward)	Battery voltage
				IIdi			Stop	0
	38	Ground	GR	Lifting motor (rear) up- ward output signal	Output	Seat lifting (rear)	Operate (upward)	Battery voltage
				ward output signal			Stop	0
	39	Ground	R	Lifting motor (rear) downward output sig-	Output	Seat lifting (rear)	Operate (down- ward)	Battery voltage
				nal			Stop	0
	40	Ground	Y/R	Power source (Fuse)	Input	_		Battery voltage
	42	Ground	R/Y	Sliding motor back- ward output signal	Output	Seat sliding	Operate (back- ward)	Battery voltage
							Stop	0
_	44	Ground	G/B	Reclining motor back- ward output signal	Output	Seat reclining	Operate (back- ward)	Battery voltage
							Stop	0
	45	Ground	G/Y	Lifting motor (front) up- ward output signal	Output	Seat lifting (front)	Operate (upward)	Battery voltage
				wara output signal			Stop	0
	48	Ground	B/W	Ground (power)	_	_		0

Fail Safe

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

FAIL-SAFE MODE

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

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.

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< ECU DIAGNOSIS INFORMATION >

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

^{*:} In conjunction with sliding the seat, the door mirrors are positioned.

CANCEL OF FAIL-SAFE MODE

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

DTC Index

CONSULT	Tim	ing ^{*1}		
display	Current mal- function	Previous mal- function	Item	Reference page
CAN COMM CIRCUIT [U1000]	0	1-39	CAN communication	ADP-29
SEAT SLIDE [B2112]	0	1-39	Seat slide motor output	ADP-30
SEAT RECLINING [B2113]	0	1-39	Seat reclining motor output	ADP-32
SEAT LIFTER FRONT [B2114]	0	1-39	Seat lifting motor front output	<u>ADP-34</u>
SEAT LIFTER REAR [B2115]	0	1-39	Seat lifting motor rear output	ADP-36
ADJ PEDAL MOTOR [B2117]	0	1-39	Pedal adjusting motor output	ADP-38
ADJ PEDAL SENSOR [B2120]	0	1-39	Pedal adjusting sensor input	ADP-40
DETENT SW [B2126]	0	1-39	T. R. switch condition	ADP-42
UART COMM [B2128]	0	1-39	UART communication	ADP-44

^{*1.}

^{• 0:} Current malfunction is present

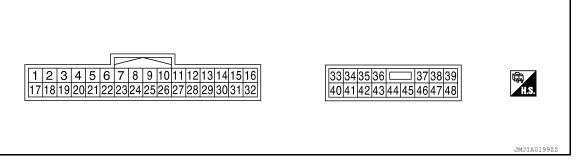
^{• 1-39:} Displayed if any previous malfunction is present when current condition is normal. The numeral value increases by one at each IGN ON to OFF cycle from 1 to 39. The counter remains at 39 even if the number of cycles exceeds it. However, the counter is reset to 1 if any malfunction is detected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

< ECU DIAGNOSIS INFORMATION >

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Reference Value

TERMINAL LAYOUT



PHYSICAL VALUES

Terr	minal No.		Description				
+	-	Wire color	Signal name	Input/ Out- put	Condition	on	Voltage (V) (Approx.)
			Changeover switch RH		Changeover	RH	0
2	Ground	LG	signal	Input	switch position	Neutral or LH	5
3	Ground	Y/B	Mirror switch up signal	loout	Mirror switch	Operated (up)	0
3	Giouna	1/0	Militor switch up signal	Input	Militor Switch	Other than above	5
4	Ground	V/W	Mirror switch left signal	Input	Mirror switch	Operated (left)	0
7	Giodila	V/VV	Will of Switch left Signal	iliput	WIIITOI SWILCIT	Other than above	5
5	Cround	R/B	Door mirror sensor (RH)	Innut	Input Door Illinor Kir	Peak	3.4
5	Ground	R/D	up/down signal	прис		Valley	0.6
6	Ground	L/Y	Door mirror sensor (LH)	Innut	Door mirror LH	Peak	3.4
O	Giodila	L/ ī	up/down signal	прис	Input position	Valley	0.6
8	Ground	BR/Y	Pedal sensor input sig-	Input	Pedal sensor	Forward	0.5
0	Giodila	DIV I	nal	Input	redai serisoi	Backward	4.5
						Push	0
9	Ground	LG/B	Memory switch 1 signal	Input	Memory switch 1	Other than above	5
10	Ground	L	UART LINE (TX)	Out- put	Ignition switch ON		(V) 6 4 2 0 1 ms
12	Ground	Р	Memory indictor 1 signal	Out- put	Memory indictor	Illuminate Other than above	0 Battery voltage

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Terminal No. Description							
+	-	Wire color	Signal name	Input/ Out- put	Condition	on	Voltage (V) (Approx.)
				Out-	Memory indictor	Illuminate	0
13	Ground	Y/G	Memory indictor 2 signal	put	2	Other than above	Battery voltage
14	Ground	GR/R	Door mirror motor (RH)	Out-	Door mirror RH	Operate (up)	1.5 - Battery voltage
14	Giodila	GR/R	up output signal	put	Door Hillfor KH	Other than above	0
15	Ground	V/R	Door mirror motor (RH)	Out-	Door mirror RH	Operate (left)	1.5 - Battery voltage
13	Ground	V/IX	left output signal	put	Door Hillion Kin	Other than above	0
			Door mirror motor (LH)			Operate (down)	1.5 - Battery voltage
16	Ground	0	down output signal	Out-	Door mirror (LH)	Other than above	0
10	Giodila	O	Door mirror motor (LH)	put Door mirror (LH)	Door Hillfor (EFI)	Operate (right)	1.5 - Battery voltage
			right output signal				0
			Changeover switch LH		. Changeover	LH	0
18	Ground	BR/W	signal	Input	switch position	Neutral or RH	5
19	Ground	SB	Mirror switch down sig-	Input	Mirror switch	Operate (down)	0
19	Giodila	SB	nal	iriput	WIIITOI SWILCII	Other than above	5
20	Ground	GR	Mirror switch right signal	Input	Mirror switch	Operate (right)	0
20	Giodila	GIX	Will Of Switch right Signal	прис	WIIITOI SWILCII	Other than above	5
21	Ground	L/W	Door mirror sensor (RH)	Input	Door mirror RH	Left edge	3.4
	Oround	L/ V V	left/right signal	прис	position	Right edge	0.6
22	Ground	G	Door mirror sensor (LH)	Input	Door mirror LH	Left edge	0.6
			left/right signal		position	Right edge	3.4
24	Ground	G/O	Set switch signal	Input	Set switch	Push Other than	0
						above	5
25	Ground	P/L	Memory switch 2 signal	Input	Memory switch 2	Push	0
	O. Garia	.,,_	memory emicri z eighan	mput	momery emicin 2	Other than above	5
26	Ground	W	UART LINE (RX)	Input	Ignition switch ON	I	(V) 6 4 2 0 2 ms

< ECU DIAGNOSIS INFORMATION >

Terr	minal No.		Description				
+	-	Wire color	Signal name	Input/ Out- put	Condition	on	Voltage (V) (Approx.)
			Door mirror motor (RH)			Operate (down)	1.5 - Battery voltage
30	Ground	Y	down output signal	Out-	Door mirror (RH)	Other than above	0
30	Ground	'	Door mirror motor (RH)	put	Door Hillion (IXII)	Operate (right)	1.5 - Battery voltage
			right output signal			Other than above	0
31	Ground	R	Door mirror motor (LH)	Out-	Door mirror (LH)	Operate (up)	1.5 - Battery voltage
	Ground	IX	up output signal	put	Door Hillion (ELT)	Other than above	0
32	Ground	BR	Door mirror motor (LH)	Out-	Door mirror (LH)	Operate (left)	1.5 - Battery voltage
32	Ground	DIX	left output signal	put	Door Hillion (EIT)	Other than above	0
33	Ground	W/L	Sensor power supply	Input	_	<u> </u>	5
34	Ground	Y/R	Battery power source	Input	_		Battery voltage
37	Ground	G	Pedal adjusting motor	Out-	Pedal adjusting	Operate (forward)	Battery voltage
37	Ground	G	forward output signal	put	motor	Other than above	0
39	Ground	L/B	Battery power source		_	<u> </u>	Battery voltage
40	Ground	B/W	Ground	_	_		0
41	Ground	W/G	Sensor ground	_	_		0
45	Ground	R	Pedal adjusting motor backward output signal	Out-	Pedal adjusting motor	Operate (back- ward)	Battery voltage
			backwaru output signal	pui	motor	Other than above	0
48	Ground	В	Ground	_	_		0

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< ECU DIAGNOSIS INFORMATION >

BCM (BODY CONTROL MODULE)

Reference Value

NOTE:

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

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

VALUES ON THE DIAGNOSIS TOOL

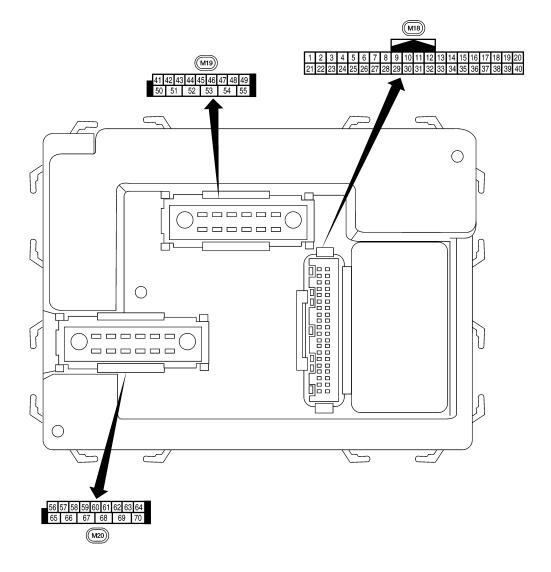
Monitor Item	Condition	Value/Status
ACC ON SW	Ignition switch OFF or ON	Off
ACC ON SW	Ignition switch ACC	On
AIR COND SW	A/C switch OFF	Off
AIR COIND SW	A/C switch ON	On
AIR PRESS FL	Front left tire air pressure value	kPa, kg/cm ² , psi
AIR PRESS FR	Front right tire air pressure value	kPa, kg/cm ² , psi
AIR PRESS RL	Rear left tire air pressure value	kPa, kg/cm², psi
AIR PRESS RR	Rear right tire air pressure value	kPa, kg/cm², psi
ALITO LICHT CW	Lighting switch OFF	Off
AUTO LIGHT SW	Lighting switch AUTO	On
BRAKE SW	Brake pedal released	Off
DRAKE SW	Brake pedal applied	On
BUCKLE SW	Seat belt buckle unfastened	Off
BUCKLE SW	Seat belt buckle fastened	On
BUZZER	Buzzer in combination meter OFF	Off
BUZZER	Buzzer in combination meter ON	On
CARGO LAMP SW	Cargo lamp switch OFF	Off
CARGO LAIVIP SVV	Cargo lamp switch ON	On
CDL LOCK SW	Door lock/unlock switch does not operate	Off
CDL LOCK SW	Press door lock/unlock switch to the LOCK side	On
CDL TINII OCK 6/M	Door lock/unlock switch does not operate	Off
CDL UNLOCK SW	Press door lock/unlock switch to the UNLOCK side	On
DOOR SW-AS	Front door RH closed	Off
DOOR SW-AS	Front door RH opened	On
DOOR SW-DR	Front door LH closed	Off
DOOR SW-DR	Front door LH opened	On
DOOD SW DI	Rear door LH closed	Off
DOOR SW-RL	Rear door LH opened	On
DOOD SW DD	Rear door RH closed	Off
DOOR SW-RR	Rear door RH opened	On
EAN ON SIC	Blower motor fan switch OFF	Off
FAN ON SIG	Blower motor fan switch ON	On

Monitor Item	Condition	Value/Status	
FR FOG SW	Front fog lamp switch OFF	Off	
-R FOG SW	Front fog lamp switch ON	On	
FR WASHER SW	Front washer switch OFF	Off	
R WASHER SW	Front washer switch ON	On	
	Front wiper switch OFF	Off	
R WIPER LOW	Front wiper switch LO	On	
	Front wiper switch OFF	Off	
R WIPER HI	Front wiper switch HI	On	
ED WIDED INT	Front wiper switch OFF	Off	
R WIPER INT	Front wiper switch INT	On	
	Any position other than front wiper stop position	Off	
R WIPER STOP	Front wiper stop position	On	
14.74.DD 0\4/	When hazard switch is not pressed	Off	
HAZARD SW	When hazard switch is pressed	On	
JEAD LAMB OWA	Headlamp switch OFF	Off	
HEAD LAMP SW1	Headlamp switch 1st	On	
IEAD LAND CIAIO	Headlamp switch OFF	Off	
HEAD LAMP SW2	Headlamp switch 1st	On	
U DE 444 OV44	High beam switch OFF	Off	
HI BEAM SW	High beam switch HI	On	
D DECOT 51.4	ID registration of front left tire incomplete	YET	
ID REGST FL1	ID registration of front left tire complete	DONE	
D DECOT ED4	ID registration of front right tire incomplete	YET	
D REGST FR1	ID registration of front right tire complete	DONE	_
D DECOT DI 4	ID registration of rear left tire incomplete	YET	
D REGST RL1	ID registration of rear left tire complete	DONE	
D DECCT DD4	ID registration of rear right tire incomplete	YET	
D REGST RR1	ID registration of rear right tire complete	DONE	
CNI ONI CIAI	Ignition switch OFF or ACC	Off	
GN ON SW	Ignition switch ON	On	
CNI CIMI CANI	Ignition switch OFF or ACC	Off	
GN SW CAN	Ignition switch ON	On	
NT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	1 - 7	
VEV 0VI 117 0147	Door key cylinder LOCK position	Off	
KEY CYL LK-SW	Door key cylinder other than LOCK position	On	
VEV OVI TIN OW	Door key cylinder UNLOCK position	Off	
(EY CYL UN-SW	Door key cylinder other than UNLOCK position	On	
(E)(ON OW)	Mechanical key is removed from key cylinder	Off	
KEY ON SW	Mechanical key is inserted to key cylinder	On	
47.4.70 6.1.751	LOCK button of key fob is not pressed	Off	
KEYLESS LOCK	LOCK button of key fob is pressed	On	
	PANIC button of key fob is not pressed	Off	
KEYLESS PANIC	PANIC button of key fob is pressed	On	

Monitor Item	Condition	Value/Status
KEALESS TIMEOSK	UNLOCK button of key fob is not pressed	Off
KEYLESS UNLOCK	UNLOCK button of key fob is pressed	On
LIGHT SW 1ST	Lighting switch OFF	Off
LIGHT SW 151	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
OF HOAL SENSOR	Dark outside of the vehicle	Close to 0V
PASSING SW	Other than lighting switch PASS	Off
FASSING SW	Lighting switch PASS	On
REAR DEF SW	Rear window defogger switch OFF	Off
REAR DEF SW	Rear window defogger switch ON	On
TURN SIGNAL L	Turn signal switch OFF	Off
TURN SIGNAL L	Turn signal switch LH	On
TURN SIGNAL R	Turn signal switch OFF	Off
TURN SIGNAL R	Turn signal switch RH	On
VEHICLE SPEED	While driving	Equivalent to speedometer reading
MADNING LAMD	Low tire pressure warning lamp in combination meter OFF	Off
WARNING LAMP	Low tire pressure warning lamp in combination meter ON	On

< ECU DIAGNOSIS INFORMATION >

Terminal Layout



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Physical Values

			Signal		Measuring condition	
Terminal	Wire color	Signal name	input/ output	Ignition switch	Operation or condition	Reference value or waveform (Approx.)
1	BR/W	Key ring output	Output	OFF	ON (driver door open)	0V
	DIV/VV	Key Iling Output	Output	OFF	OFF (driver door closed)	Battery voltage
2	SB	Combination switch input 5	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0
3	G/Y	Combination switch input 4	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 +-5ms skia5292E
4	Y	Combination switch input 3	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 **5ms SKIA5291E
5	G/B V	Combination switch input 2 Combination switch input 1	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 *-5ms SKIA5292E
9	R/G	Brake switch	Input	ON	Brake pedal depressed	Battery voltage
	N/G	DIAKE SWITCH	Input	ON	Brake pedal released	0V
11	0	Ignition switch (ACC or ON)	Input	ACC or ON	Ignition switch ACC or ON	Battery voltage
12	R/L	Front door switch RH (All) Rear door switch lower	Input	OFF	ON (open)	0V
14	IVL	RH (King Cab) Rear door switch up-	πραι	OH	OFF (closed)	Battery voltage
		per RH (King Cab)			ON (open)	0V
13	GR	Rear door switch RH (Crew Cab)	Input	OFF	OFF (closed)	Battery voltage
15	L/W	Tire pressure warning check connector	Input	OFF		5V
18	Р	Remote keyless entry receiver and optical sensor (ground)	Output	OFF	_	0V

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

	Wire		Signal		Measuring condition	Reference value or waveform	
Terminal	color	Signal name	input/ output	Ignition switch	Operation or condition	(Approx.)	
32	R/G	Combination switch output 5	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 **-5ms	
33	R/Y	Combination switch output 4	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 5ms SKIA5292E	
34	L	Combination switch output 3	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 *-5ms SKIA5291E	
35	O/B	Combination switch output 2				0.0	
36	R/W	Combination switch output 1	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 **-5ms	
		Key switch and key			Key inserted	Battery voltage	
37	B/R	lock solenoid	Input	OFF	Key removed	0V	
38	W/L	Ignition switch (ON)	Input	ON	_	Battery voltage	
39	L	CAN-H	_	_	_	_	
40	Р	CAN-L	_	_	_	_	
41	Y/B	Rear defogger switch	Input	ON	Rear defogger switch ON Rear defogger switch OFF	0V 5V	
		Front door switch LH (All)			ON (oron)	07	
47	SB	Rear door switch lower LH (King Cab)	Input	OFF	ON (open)	0V	
		Rear door switch upper LH (King Cab)			OFF (closed)	Battery voltage	
48	R/Y	Rear door switch LH	Input	OFF	ON (open)	0V	
		(Crew Cab)	•		OFF (closed)	Battery voltage	
50	R/Y	Cargo bed lamp con-	Output	OFF	Cargo lamp switch (ON)	0V	
		trol	<u> </u>		Cargo lamp switch (OFF)	Battery voltage	

	Wire		Signal		Measuring condition	Reference value or waveform
Terminal	color	Signal name	input/ output	Ignition switch	Operation or condition	(Approx.)
51	Y/B	Trailer turn signal (right)	Output	ON	Turn right ON	(V) 15 10 50 500 ms
52	G/B	Trailer turn signal (left)	Output	ON	Turn left ON	(V) 15 10 500 ms
56	R/G	Battery saver output	Output	OFF	15 minutes after ignition switch is turned OFF	0V
				ON	_	Battery voltage
57	Y/R	Battery power supply	Input	OFF	_	Battery voltage
58	W/R	Optical sensor	Input	ON	When optical sensor is illuminated When optical sensor is not illu-	3.1V or more
				minated		0.6V or less
50	0	Front door lock as-	0	OFF	OFF (neutral)	0V
59	G	sembly LH actuator (unlock)	Output	OFF	ON (unlock)	Battery voltage
60	G/B	Turn signal (left)	Output	ON	Turn left ON	(V) 15 10 5 5 500 ms
61	G/Y	Turn signal (right)	Output	ON	Turn right ON	(V) 15 10 500 ms
63	L	Interior room/map lamp	Output	OFF	Any door switch ON (open) OFF (closed)	0V Battery voltage
65	V	All door lock actuators (lock)	Output	OFF	OFF (neutral) ON (lock)	0V Battery voltage
		Front door lock actua- tor RH and rear door			OFF (neutral)	0V
66	G/Y	lock actuators LH/RH (unlock)	Output	OFF	ON (unlock)	Battery voltage

< ECU DIAGNOSIS INFORMATION >

	Wire		Signal	Measuring condition		Reference value or waveform
Ierminal		color Signal name		Ignition switch	Operation or condition	(Approx.)
					Ignition switch ON	Battery voltage
		W/L Power window power supply (RAP)		Output —	Within 45 seconds after ignition switch OFF	Battery voltage
68	W/L		Output		More than 45 seconds after ignition switch OFF	0V
69	W/R	Power window power supply	Output	_	_	Battery voltage
70	W/B	Battery power supply	Input	OFF	_	Battery voltage

Fail Safe

Fail-safe index

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

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

DTC Inspection Priority Chart

INFOID:0000000011868055

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

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

< ECU DIAGNOSIS INFORMATION >

Priority		DTC	^
3	C1729: VHCL SPEED SIG ERR C1735: IGNITION SIGNAL		А
	C1704: LOW PRESSURE FL C1705: LOW PRESSURE FR C1706: LOW PRESSURE RR C1707: LOW PRESSURE RL		В
	C1708: [NO DATA] FLC1709: [NO DATA] FRC1710: [NO DATA] RR		С
	 C1711: [NO DATA] RL C1712: [CHECKSUM ERR] FL C1713: [CHECKSUM ERR] FR C1714: [CHECKSUM ERR] RR 		D
4	 C1715: [CHECKSUM ERR] RL C1716: [PRESSDATA ERR] FL C1717: [PRESSDATA ERR] FR C1718: [PRESSDATA ERR] RR 		Е
	 C1719: [PRESSDATA ERR] RL C1720: [CODE ERR] FL C1721: [CODE ERR] FR C1722: [CODE ERR] RR 		F
	 C1723: [CODE ERR] RL C1724: [BATT VOLT LOW] FL C1725: [BATT VOLT LOW] FR C1726: [BATT VOLT LOW] RR 		G
	C1727: [BATT VOLT LOW] RL		Н

DTC Index

NOTE:

Details of time display

CRNT: Displays when there is a malfunction now or after returning to the normal condition until turning ignition switch OFF → ON again.

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

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

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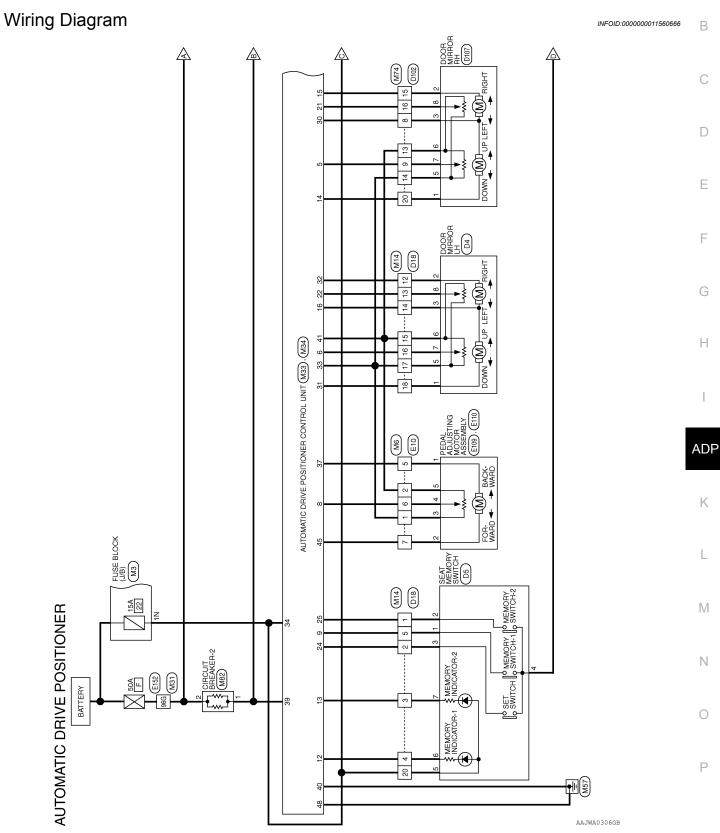
0

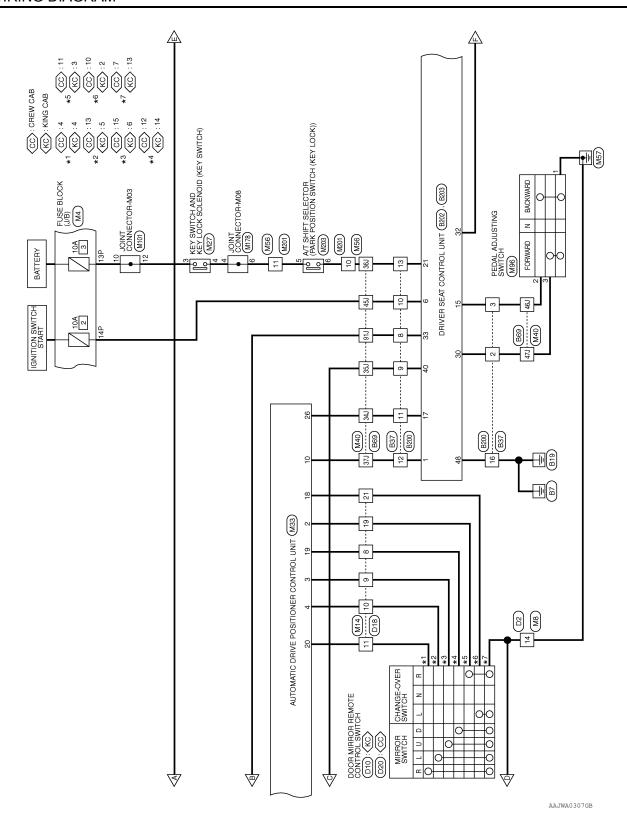
CONSULT display	Fail-safe	Tire pressure monitor warning lamp ON	Reference page
C1716: [PRESSDATA ERR] FL	_	_	<u>WT-19</u>
C1717: [PRESSDATA ERR] FR	_	_	<u>WT-19</u>
C1718: [PRESSDATA ERR] RR	_	_	<u>WT-19</u>
C1719: [PRESSDATA ERR] RL	_	_	<u>WT-19</u>
C1720: [CODE ERR] FL	_	_	<u>WT-17</u>
C1721: [CODE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

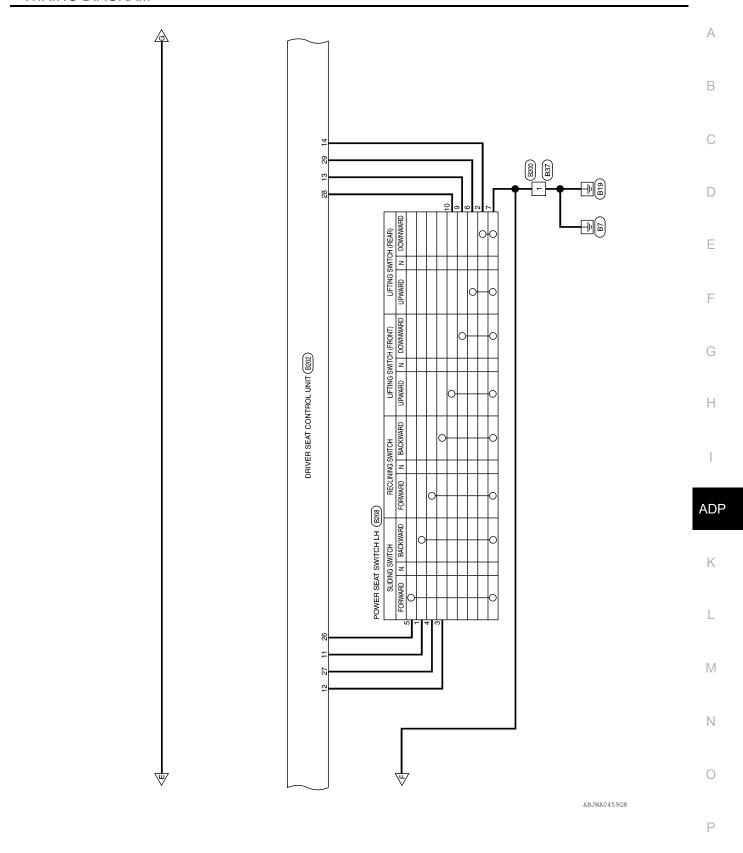
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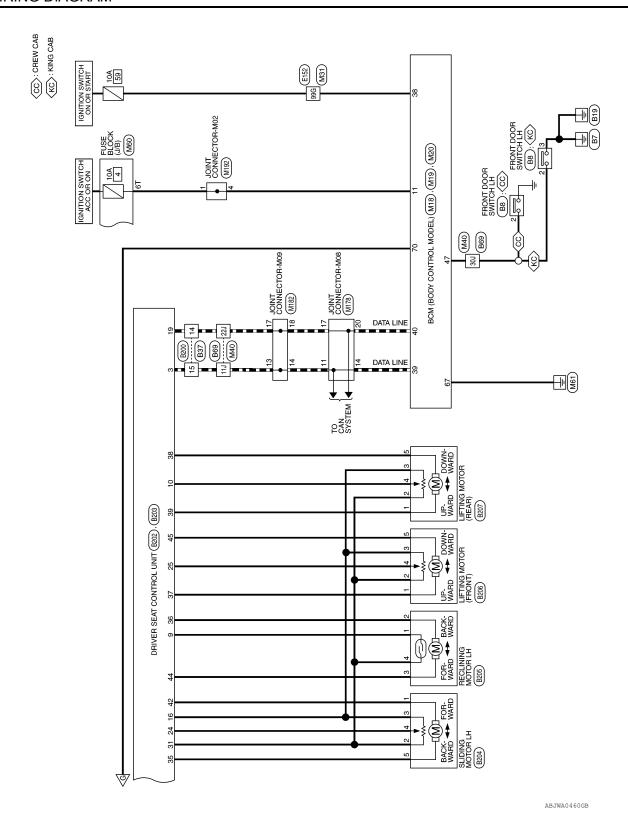
WIRING DIAGRAM

AUTOMATIC DRIVE POSITIONER









Connector Name | WIRE TO WIRE

Connector No.

Connector Color WHITE

AUTOMATIC DRIVE POSITIONER CONNECTORS

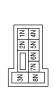
Connector No.	M3
Connector Name	Connector Name FUSE BLOCK (J/B)
Connector Color WHITE	WHITE

Connector Name | FUSE BLOCK (J/B)

Connector No.

Connector Color WHITE

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





Color of Wire Signal Nam	1N Y/R –	
Termina	Z	

Signal Name	-	_	- (WITH AUTOMATIC DRIVE POSITIONER)	-	- (WITH AUTOMATIC DRIVE POSITIONER)
Color of Wire	M/L	W/G	В	BR/Y	В
Terminal No.	-	2	5	9	7

Signal Name	1	-	
Color of Wire	Ь	0	
Terminal No.	13P	14P	

Signal Name	ı	ı	ı	I	ı	ı	1	ı	ı	1	I	I	ı	1
Color of Wire	SB	Y/B	W/A	GR	BR	5	0	W/G	₹	M/L	В	ГG	Y/R	BR/W
Terminal No.	8	6	10	Ξ	12	13	14	15	16	17	18	19	20	21

Connector No.	or No.		M14	4											
Connector Name WIRE TO WIRE	or Nar	e	<	≝	ш	[2	∣≥		ш						
Connector Color WHITE	or Col	٦	<	₹	₩										
						\	I\	I 17	17						
AT T					ī										
Ų.	16 15 14 13 12 11 10 9 8	14	13	12	11	10	6	8	7	9	5 4		3	2	-
Ċ V	32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17	93	59	78	27	56	52	24	23	22	21	8	9	8	1
													1	1	1

€	2	_	Terminal No.	-	2	ဇ	4	2
2	32		Š.					
0 0 1 0 0 0 1 1 2 0 4 0 0	32 31 30 29 28 27 26 25 24 23 22 21 20 19							_
ţ	30		Color of Wire	P/L	G/0	Y/G	Д.	LG/B
2	59		re C		0	G		9
7	28		-					
=	27							
2	26							
,	25		Sić					
0	24		Signal Name					
,	23		=	1		ı	1	1
>	22		au					
,	21		l el					
t	20							
,	19							

Connector No.	M8
Connector Name WIRE TO WIRE	WIRE TO WIRE
Connector Color WHITE	WHITE
(1) 16 H.S.	7 6 5 4

Signal Name	ı	
Color of Wire	В	
Terminal No.	14	

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Connector No. M20 Connector Name BCM (BODY CONTROL MODULE) Connector Color BLACK	(所)	Terminal No. Wire 67 B GND (POWER) 70 W/B BAT (F/L)	Terminal No. Color of Signal Name 96G W/B – 99G W/L –
Connector No. M19 Connector Name BCM (BODY CONTROL MODULE) Connector Color WHITE	(4) (4) (4) (4) (4) (4) (4) (4) (4) (4)	Terminal No. Color of Signal Name 47 SB DOOR SW (DR)	Connector No. M31 Connector Name WIRE TO WIRE Connector Color WHITE
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 77 18 19 20	Signal Name	Connector No. M27 Connector Name KEY SWITCH AND KEY Connector Color MHITE Connector Color of Signal Name 3 P - 4 B/R - AB/R

Revision: November 2014 ADP-132 2015 Titan NAM

Signal Name	ı	SET SW	MEMORY2 SW	RX	-	I	l	RH MTR (COM)	LH MTR (UP-DWN)	LH MTR (LT)
Color of Wire	ı	0/9	T/A	Μ	_	_	-	٨	ш	BR
Terminal No.	23	24	25	26	27	28	59	30	31	32

Signal Name	PEDAL POTENTION	MEMORY1 SW	XT	_	MEMORY1 IND	MEMORY2 IND	RH MTR (UP-DN)	RH MTR (LT)	LH MTR (COM)	1	MIR SELECT SW LH	MIR MANU SW DN	MIR MANU SW RH	HORIZONTAL SENS	HORIZONTAL SENS
Color of Wire	BR/Y	LG/B	7	1	Д	Y/G	GR/R	N/R	0	ı	BR/W	SB	GR	Γ/M	В
Terminal No.	8	6	10	11	12	13	14	15	16	17	18	19	20	21	22

	AUTOMATIC DRIVE POSITIONER CONTROL UNIT		12 13 14 15 16 28 29 30 31 32	Signal Name	1	MIR SELECT SW RH	MIR MANU SW UP	MIR MANU SW LH	VERTICAL SENS RH	VERTICAL SENS LH	ı
M33	AUTOMATIC POSITIONE UNIT	WHITE	7 8 9 10 11 1	Color of Wire	1	-G MIRS	Y/B MIR	V/W MIR	R/B VERT	L/Y VERT	_
Connector No.	Connector Name	Connector Color	H.S. 1 2 3 4 5 6 6 177 18 19 20 21 22 2	Terminal No. W	-	2 L	3	4 V	5 H	9 9	7

Signal Name	FORWARD	-	BAT (PTC)	GND (SIG)	MEMORY (POT-RET)	1	_	1	PEDAL RR OUT	ı	1	GND (POWER)
Color of Wire	9	1	L/B	B/W	M/G	ı	ı	1	æ	1	ı	В
Terminal No.	37	38	39	40	41	42	43	44	45	46	47	48

M34	AUTOMATIC DRIVE POSITIONER CONTROL UNIT	WHITE	33 34 35 38 58 59 38 38 38 38 39 38 39 39 39 39 39 39 39 39 39 39 39 39 39
Connector No.	Connector Name	Connector Color WHITE	(中)

唇	H.S.

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

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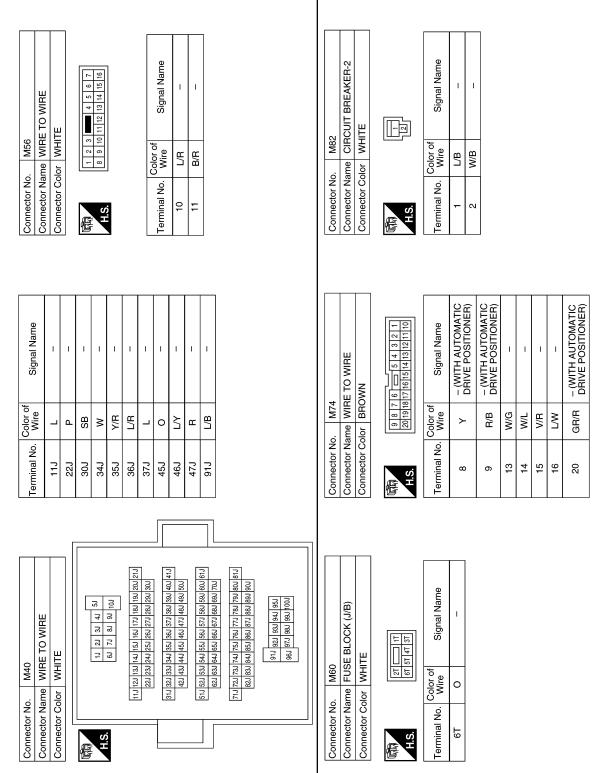
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		А
M178 JOINT CONNECTOR-M08 WHITE Prof	WIRE 11 10 9 8	В
78 ITE Sign:	1 0	С
No. M178 Name JOINT C Color of WHITE B/R B/R Color of Color o	COO	D
Connector No. Connector Name Connector Color H.S. H.S. H.S. 1	Connector No. Connector Name Connector Color Terminal No. WW 10 L 11 B	Е
		F
TOR-M03	Name Name	G
CONNEC. Signal I	M192 JOINT CONNECTOR-M02 GREEN 8 7 6 5 4 3 2 1 1 1 1 1 1 1 1 1	Н
0 o o o o o o o o o o o o o o o o o o o	O O O O O O O O O O O O O O O O O O O	I
Connector No. Connector Color H.S. H.S. Terminal No. Will 12 P	Connector No. Connector Name Connector Color H.S. 1 4 4	AD
		K
M96 SWITCH (WITH AUTOMATIC DRIVE POSITIONER) BROWN STOOL Signal Name TOOL Signal Name A	170R-M09	L
AL ADJUSTING TCH (WITH AUTON E POSITIONER) WN Signal Name	M182 JOINT CONNECTOR GREEN r of Signal Nam	M
		N
Connector No. Connector Name Connector Color Terminal No. W 2 L 2 L 3 F	Connector No. Connector Name Connector Color H.S. 13 17 17 18 18	0
	ABJIA0695GB	

Revision: November 2014 ADP-135 2015 Titan NAM

Connector Name PEDAL ADJUSTING MOTOR ASSEMBLY	Connector Color GRAY	H.S.	Terminal No. Wire Signal Name	2	2 B					Color of Comment Name		96G W/B –	- M/I 966										
00	0										-												
E TO WIRE		7 8 9 10	Signal Name	ı	ı	ı	ı	ı		5	WIRE TO WIRE	<u></u>		56 46 36 26 16 100 96 86 76 66	216 206 196 186 176 166 156 146 136 126 116	30G 29G 28G 27G 26G 25G 24G 23G 22G	416 406 396 386 376 366 356 346 336 326 316	50G 49G 48G 47G 46G 45G 44G 43G 42G	61G 60G 59G 58G 57G 56G 55G 54G 53G 52G 51G	020000000000000000000000000000000000000	81 G 80 G 88 G 87 G 86 G 85 G 84 G 83 G 82 G	956 946 936 926 916	100G 99G 98G 97G 96G
ame WIRI		2 9	Color of Wire	M/L	M/G	g	BR/Y	æ		o. E152	1	olor WHITE	-		21G20G19	30G29	41G 40G 39	50G 49	61G60G59		81 G 80 G 89		
Connector No. E10 Connector Name WIRE TO WIRE Connector Color WHITE		H.S.	Terminal No.	-	2	2	9	7		Connector No.	Connector Name	Connector Color		H.S.									
]					TOR				Γ								
M203 AT SHIFT SELECTOR (FLOOR SHIFT)	Ш	3 8 9 10 11 12	Signal Name	1	1						PEDAL ADJUSTING MOTOR	:MBL Y	>	4 8		Signal Name	1	1	1				
	olor WHITE	1 2 3	Color of Wire	B/B	L/R					o. E110		ASS	olor GRAY		-	Color of Wire	M/L	BR/Y	M/G				
Connector No.	Connector Color	是 H.S.	Terminal No.	5	9					Connector No.	Connector Name		Connector Color	原列 H.S.		Terminal No.	က	4	2				
									1													ABJIA0	696GB

Revision: November 2014 ADP-136 2015 Titan NAM

Signal Name	1	1	ı	1	1	ı	ı	ı					0	E TO WIRE	TE		3 4 5 6 7	11 12 13 14		Signal Name	ı	1	ı	1	1	1	1	ı	ı	ı	ı	ı	
Wire	Y/R	0	8	٦	L/R	۵	_	B/W					b. B200	ame WIR	olor WHITE		1 2	ω - ω	Jordon	Wire	В	æ	5	L/B	Y/R	0	Μ	_	L/R	۵	7	B/W	
Terminal No.	6	10	=	12	13	41	15	16					Connector No.	Connector Name WIRE TO WIRE	Connector Color			S I		Terminal No.	-	2	ဇ	8	6	10	11	12	13	41	15	16	
								_										I	I			I		I									
C C			3 2 1	1_			Signal Name		1	1	1	1	O Compiler	Signal Name	1	Ī	ı	ı	ı	I	1	ı	1	ı	ı								
B3/	re will re	2	7 6 5 4	16 15 14 13 12 11 10 9			Color of	WIFE	В	æ	≿	L/B	Color of	Wire	_	۵	SB	*	Y/R	Z,	_	0	۲	۳	L/B								
Connector No. B3/	Connector Color WHITE			ď			Terminal No		-	2	ဧ	8		NO.	117	227	301	34)	35J	36J	37.1	45J	46J	47.1	91J								
																	F															\neg	
Connector No. B8							Signal Namo	olgilal Naille	1	1) WIRE				31 21 41	3 2		21, 20 19 18 17 16 15 14 13 12 11	7.1 26.1 25.1 24.1 23.1 22.1	41.1 40.1 39.1 38.1 37.1 36.1 35.1 34.1 33.1 32.1 31.1	7.1 46.1 45.1 44.1 43.1 42.1	61.1 60.1 59.1 58.1 57.1 56.1 55.1 54.1 53.1 52.1 51.1	70J 69J 68J 67J 66J 65J 64J 63J 62J	81.1 80.1 79.1 78.1 77.1 78.1 75.1 74.1 73.1 72.1 71.1	90.1 89.1 88.1 87.1 86.1 85.1 84.1 83.1 82.1		95, 94, 93, 92, 91,	98/ 97/ 96/		
B8	Connector Color WHITE	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		-	2 6	n	Color of Color of		SB	В			Connector No. B69	Connector Name WIRE TO WIRE	Connector Color WHITE	-		L?			21, 20, 19, 18, 1	300 290 280 2	411 401 391 381 3	50J 49J 48J 4	61J 60J 59J 58J 5	707 693 683 6	7 182 193 193 180	903 893 883 8		95.0 94.	1001 99.		
Connector No.	<u>ک</u> ا ک	<i>-</i>													1 .	- 1	1.1																

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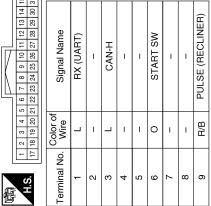
 Terminal No. 21	Color of Wire L/R	Signal Name P RANGE SW
	_	ı
	_	1
	R/L	PULSE (SLIDE)
	Y/G	PULSE (FRONT LIFTER)
	L/R	SLIDE SW (FORWARD)
	V/W	RECLINER SW (FORWARD)
	BR/Y	FRONT LIFTER SW (UPWARD)
	G/R	REAR LIFTER SW (UPWARD)
	L/Y	PEDAL SW (FORWARD)
	GR/R	GND (SENSOR GND)
	В	GND (SIGNAL)

Signal Name	BAT (FUSE)	ı	SLIDE MOTOR (BACKWARD)	I	RECLINER MOTOR (BACKWARD)	FRONT LIFTER MOTOR (UPWARD)	I	I	GND (POWER)
Color of Wire	Y/R	1	R/Y	1	G/B	G/Y	-	1	B/W
Terminal No.	40	41	42	43	44	45	46	47	48

Signal Name	PULSE (REAR LIFTER)	SLIDE SW (BACKWARD)	RECLINER SW (BACKWARD)	FRONT LIFTER SW (DOWNWARD)	REAR LIFTER SW (DOWNWARD)	PEDAL SW (BACKWARD)	POWER SUPPLY (ENCODER)	TX (UART)	_	CAN-L	_
Color of Wire	B/R	Y/R	L/W	۸	P/L	SB	R/W	Μ	-	Ь	1
Terminal No.	10	11	12	13	14	15	16	17	18	19	20

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Terminal No.	Wire	Signal Name
33	L/B	BAT (PTC)
34	-	ı
35	B/B	SLIDE MOTOR (FORWARD)
36	٦	RECLINER MOTOR (FORWARD)
37	В	FRONT LIFTER MOTOR (DOWNWARD)
38	В	REAR LIFTER MOTOR (UPWARD)
39	В	REAR LIFTER MOTOR (DOWNWARD)

Connector No.	r No.	B202	Ŋ												
Connector Name DRIVER SEAT CONTROL UNIT	r Name	DRIV	-	<u> cc</u>	SE	⊠	Ľ	lÖ.	닏	<u> </u>	اح ا				
Connector Color WHITE	r Color	W	쁘												
				L	\	[<u>[</u>	ΙW	1 17	_				ı		
AT 1				7	١l			П	╛					h	_
Š	1 2 3	4	'n	9	_	æ	თ	9	Ξ	12	13	10 11 12 13 14 15		9	
Ġ.	17 18 19 20 21 22 23 24 25 26 27 28	3 20 2	12	23	23	24	25	56	27	28	53	30	31 32	32	
_															_
	(-											_		







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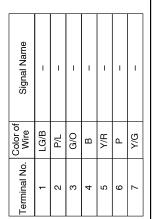
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B206 LIFTING MOTOR (FRONT) (WITH AUTOMATIC DRIVE POSITIONER) WHITE	1 2 3 4 5	Signal Name	ı	ļ	ı	1	1		Omol longing	ואלומוים	1												В
or ne		No. Wire	Я	GR/R	R/W	В	GR		Color of		BR/Y												D
Connector No. Connector Nar Connector Col	南 H.S.	Terminal No.	-	2	က	4	2		Torimize ON logima	6	10												Е
	1				T							1											F
B205 RECLINING MOTOR LH (WITH AUTOMATIC DRIVE POSITIONER) WHITE	4	Signal Name	1	-	ı	1				POWER SEAT SWITCH LH (WITH AUTOMATIC DRIVE	IONER)		10 9 8 7 6 5 1	Signal Name	1	I	ı	1	I	1	1		G
	- 5	Color of Wire	B/B	Г	G/B	GR/R			B208		_		4 01	Color of Wire	Y/R	P/L	N	N/N	R N	G/R	B/W		
Connector No. Connector Name Connector Color	H.S.	Terminal No.	-	2	က	4			Connector No.	Connector Name	Connector Color		H.S.	Terminal No.	-	2	3	4	ည	9	7		AD
																							K
B204 SLIDING MOTOR LH (WITH AUTOMATIC DRIVE POSITIONER) GRAY	112345	Signal Name	ı	1	ı	ı	1			(WITH AUTOMATIC DRIVE	ONEK)		4 5	Signal Name	1	1	1	ı	ı				L
		Color of Wire	R/Y	GR/R	R/W	R/L	R/G		B207		_		1 2 3	Color of Wire	В	GR/R	R/W	J//G	G/Y				
Connector No. Connector Name Connector Color		Terminal No.		2 G	3	4	5 F		Connector No.	Connector Name	Connector Color												Ν
Conne	明.S.	Termin	_	.,		7			Conne	Conne	Conne		H.S.	Terminal No.	_	2	က	4	5				0
								•												AB	JIA1098GB		

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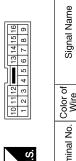
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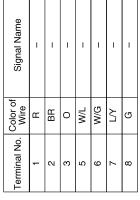




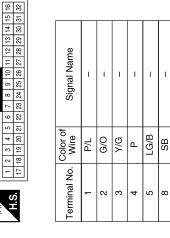
Signal Name	1	ı	I	1	1	1	ı	1	1	ı	1	1	-
Color of Wire	Y/B	W/W	GR	BR	g	0	W/G	$\Gamma \mathcal{N}$	M/L	В	LG	Y/R	BR/W
Terminal No.	6	10	11	12	13	14	15	16	17	18	19	20	21



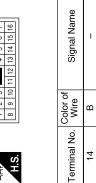




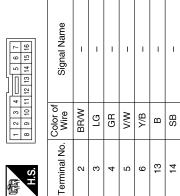
Connector No. D18	Connector Name WIRE TO WIRE	Connector Color WHITE	
Connec	Connec	Connec	·



8 9 10 11 12 13 14 15 16	4 5 6 7		Connector Color WHITE	Connector Name WIRE TO WIRE	Connector No. D2		7 9	11 9 5	R 2 4	¥ €		[[[] [] [] [] [] [] [] [] [] [] [] [] [e 2 − ∞	onnector No.
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D10	Connector Name CAB WITH AUTOMATIC CAB WITH AUTOMATIC DRIVE POSITIONER)	BROWN	
Connector No.	Connector Name	Connector Color BROWN	



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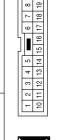
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Connector No.	D107
Connector Name	DOOR MIRROR RH (WITH AUTOMATIC DRIVE POSITIONER)
Connector Color WHITE	WHITE
原 H.S.	1 2 3 4 5 6 7 8 9

2 3 4 5 6 7 8 9	Signal Name	
1011	Color of Wire	
ν <u>į</u>	minal No.	

Signal Name	ı	ı	ı	-	_	_	ı
Color of Wire	GR/R	N/R	Y	N/L	M/G	B/B	M/l
Terminal No. Wire	-	2	ဇ	5	9	7	8

02	RE TO WIRE	OWN	4 5 6 7 8 9	10 11 12 13 14 15 16 17 18 19 20
Connector No. D102	Connector Name WIRE TO WIRE	Connector Color BROWN	1 2 3	H.S.



Signal Name	- (WITH AUTOMATIC DRIVE POSITIONER)	- (WITH AUTOMATIC DRIVE POSITIONER)	ı	-	_	1	- (WITH AUTOMATIC DRIVE POSITIONER)
Color of Wire	\	B/B	W/G	W/L	V/R	L/W	GR/R
Terminal No.	8	6	13	14	15	16	20

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





Signal Name	I	1	ı	I	-	ı	ı
Color of Wire	GR	В	BR/W	LG	SB	W/A	Y/B
Terminal No.	4	7	10	11	12	13	15

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SYMPTOM DIAGNOSIS

ADP SYSTEM SYMPTOMS

Symptom Table

NOTE:

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

SYMPTOM 1

Symptom		Diagnosis procedure	Reference page
	Sliding operation	Check sliding switch.	<u>ADP-50</u>
	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
Manual functions (for specific part) do	Pedal operation	Check pedal adjusting switch.	ADP-62
not operate		2. Check pedal adjusting sensor.	ADP-86
	Door mirror operation	1. Changeover switch.	ADP-67
	Door mirror operation	2. Mirror switch	ADP-69
	All parts of seat	Check power seat switch ground circuit.	ADP-73

SYMPTOM 2

Symptom		Diagnosis procedure	Reference page
	Sliding operation	Check sliding sensor.	ADP-78
	Reclining operation	Check reclining sensor.	ADP-80
Memory functions (for specific part) do not operate	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
	Sliding operation	Check sliding motor.	ADP-92
	Reclining operation	Check reclining motor.	ADP-94
Memory functions and manual functions (for specific part) do not operate	Lifting operation (front)	Check lifting motor (front).	ADP-96
	Lifting operation (rear)	Check lifting motor (rear).	ADP-98
	Pedal operation	Check pedal adjusting motor.	ADP-100
	Door mirror operation	Check door mirror motor.	ADP-102

SYMPTOM 4

ADP SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

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

SYMPTOM 5

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

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NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

NORMAL OPERATING CONDITION

Description INFOID:0000000011560668

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

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

PRECAUTION

PRECAUTIONS

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

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

WARNING:

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

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

WARNING:

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

Precaution for Work

- 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
- 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.

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PREPARATION

< PREPARATION >

PREPARATION

PREPARATION

Special Service Tool

INFOID:0000000011560671

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

Tool number (TechMate No.) Tool name		Description	
— (J-46534) Trim Tool Set	AWJIA0483ZZ	Removing trim components	

Commercial Service Tools

INFOID:0000000011560672

Tool name		Description
Power tool		Loosening nuts, screws and bolts
	PIIB1407E	

< UNIT REMOVAL AND INSTALLATION >

UNIT REMOVAL AND INSTALLATION

DRIVER SEAT CONTROL UNIT

Removal and Installation

INFOID:0000000011560673

REMOVAL

NOTE:

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

- 1. Remove the driver seat. Refer to <u>SE-34, "Removal and Installation Front Seat Assembly"</u>.
- 2. Disconnect the harness connector from the driver seat control unit.
- 3. Remove driver seat control unit from driver seat.

INSTALLATION

Installation is in the reverse order of removal.

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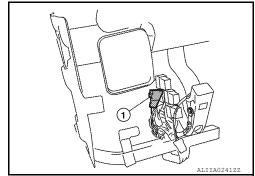
AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Removal and Installation

INFOID:0000000011560674

REMOVAL

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



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

Clamp the harness in position.

SEAT MEMORY SWITCH

< UNIT REMOVAL AND INSTALLATION >

SEAT MEMORY SWITCH

Removal and Installation

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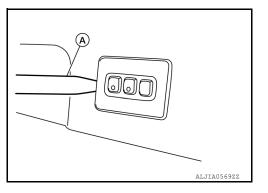
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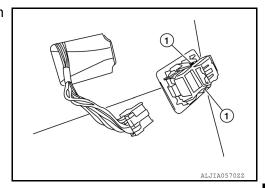
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REMOVAL

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



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



INSTALLATION

Installation is in the reverse order of removal.

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DOOR MIRROR REMOTE CONTROL SWITCH

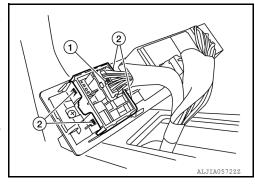
< UNIT REMOVAL AND INSTALLATION >

DOOR MIRROR REMOTE CONTROL SWITCH

Removal and Installation

REMOVAL

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



INFOID:0000000011560676

INSTALLATION

Installation is in the reverse order of removal.

PEDAL ADJUSTING MOTOR

< UNIT REMOVAL AND INSTALLATION >

PEDAL ADJUSTING MOTOR

Removal and Installation

INFOID:0000000011560677

The pedal adjusting motor is serviced as a part of the accelerator pedal. Refer to <u>ACC-3</u>, "<u>Removal and Installation</u>" for accelerator pedal and <u>BR-20</u>, "<u>Removal and Installation</u>" for brake pedal when removing pedal adjusting motors.

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