SECTION ADP AUTOMATIC DRIVE POSITIONER

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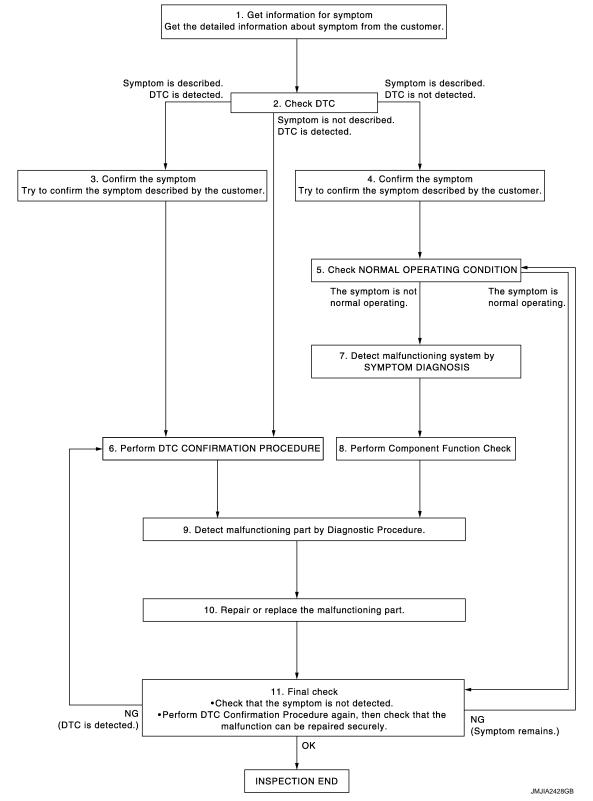
< BASIC INSPECTION >

BASIC INSPECTION DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:000000008290819

OVERALL SEQUENCE



DETAILED FLOW

Revision: 2012 August

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

Get the detailed information from the customer about the symptom (the condition and the environment when	
the incident/malfunction occurred).	
>> GO TO 2.	
2. CHECK DTC WITH AUTOMATIC DRIVE POSITIONER SYSTEM	
Check "Self Diagnostic Result" with CONSULT. Refer to ADP-144, "DTC Index"	•
Is any symptom described and any DTC is displayed?	
Symptom is described, DTC is displayed.>>GO TO 3. Symptom is not described, DTC is displayed.>>GO TO 6. Symptom is described, DTC is not displayed.>>GO TO 4.	
3.CONFIRM THE SYMPTOM	
Try to confirm the symptom described by the customer.	
>> GO TO 6.	
4.CONFIRM THE SYMPTOM	
Try to confirm the symptom described by the customer.	-
>> GO TO 5.	
5. CHECK NORMAL OPERATING CONDITION	
Check normal operating condition. Refer to <u>ADP-200, "Description"</u> .	
Is the incident normal operation?	
YES >> INSPECTION END NO >> GO TO 7.	
6. PERFORM DTC CONFIRMATION PROCEDURE	A
Perform the confirmation procedure for the detected DTC.	
Is the DTC displayed?	
YES >> GO TO 8.	
NO >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u> .	
7.PERFORM COMPONENT FUNCTION CHECK	•
Perform the component function check for the isolated malfunctioning point.	
>> GO TO 8.	
8. 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 9.	
9. REPARE OR REPLACE	
Repair or replace the malfunctioning part.	
>> GO TO 10.	
10.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?

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

YES >> INSPECTION END Symptom is detected.>> GO TO 5. DTC is detected.>> GO TO 6.

< BASIC INSPECTION >

INSPECTION AND ADJUSTMENT ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : De-

scription

Each function is reset to the following condition when the battery terminal is disconnected.

Function	Condition	Procedure
Memory (Seat, steering, mirror)	Erased	Perform storing
		Perform initialization
Entry/exit assist ^{*1}	ON	Set slide amount ^{*2}
Intelligent Key interlock	Erased	Perform storing
Seat synchronization	OFF	_
: This function only for AT model.		
² : Default value is 40mm. IOTE: Iotice that disconnecting the battery when c IDDITIONAL SERVICE WHEN RE ial Repair Requirement		•
SYSTEM INITIALIZATION		
Perform system initialization. Refer to ADP-	10, "SYSTEM INITIALI	ZATION : Description".
>> GO TO 2.		
2.SYSTEM SETTING		
Perform system setting. Refer to <u>ADP-12, "S</u>	<u>SYSTEM SETTING : D</u>	escription".
>> GO TO 3.		
3.MEMORY STORAGE		
		· Description"
Perform memory storage. Refer to <u>ADP-11,</u>	IVIEIVIUKT STUKING	
>> END		
ADDITIONAL SERVICE WHEN F	REPLACING CO	NTROL UNIT
		FROI LINIT : Description
ADDITIONAL SERVICE WHEN RI		
Each function is reset to the following condit	ion when the driver se	at control unit is replaced.
Each function is reset to the following condit	ion when the driver se	at control unit is replaced. Procedure

Condition	Procedure	0	
Erased	Perform storing		
ON	Perform initialization	Perform initialization	
	Set slide amount ^{*2}	P	
Erased	Perform storing		
OFF			
-	Erased ON Erased	Erased Perform storing ON Perform initialization Erased Perform storing	

^{*1}: This function only for AT model.

*2: Default value is 40mm.

NOTE:

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INFOID:000000008290820

< BASIC INSPECTION >

Notice that disconnecting the battery when detected DTC are present will erase the DTC memory. ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement

1.SYSTEM INITIALIZATION

Perform system initialization. Refer to <u>ADP-10, "SYSTEM INITIALIZATION : Description"</u>.

>> GO TO 2.

2.SYSTEM SETTING

Perform system setting. Refer to ADP-12, "SYSTEM SETTING : Description".

>> GO TO 3.

3.MEMORY STORAGE

Perform memory storage. Refer to ADP-11, "MEMORY STORING : Description".

>> END SYSTEM INITIALIZATION

SYSTEM INITIALIZATION : Description

Always perform the initialization when the battery terminal is disconnected or the driver seat control unit is replaced.

The entry/exit assist function will not operate normally if no initialization is performed.

SYSTEM INITIALIZATION : Special Repair Requirement

INITIALIZATION PROCEDURE

1. CHOOSE METHOD

There are two initialization methods. <u>Which method do you use?</u> With door switch>>GO TO 2. With vehicle speed>>GO TO 4.

2. STEP A-1

Turn ignition switch from ACC to OFF position.

>> GO TO 3.

3. STEP A-2

Driver door switch is ON (open) \rightarrow OFF (close) \rightarrow ON (open).

>> END

4. STEP B-1

Drive the vehicle at more than 25 km/h (16 MPH).

>> END MEMORY STORING INFOID:000000008290825

INFOID-000000008290824

< BASIC INSPECTION >

MEMORY STORING : Description INFOID:00000008290826 А Always perform the memory storage when the battery terminal is disconnected or the driver seat control unit is replaced. The memory function and Intelligent Key interlock function will not operate normally if no memory storage is performed. В MEMORY STORING : Special Repair Requirement INFOID-000000008290827 Memory Storage Procedure Two positions for the driver seat, steering column and outside mirror can be stored for memory operation by following procedure. **1**.STEP 1 D Shift AT selector lever to P position (AT model) or applied parking brake (MT model). >> GO TO 2. $2_{\cdot STEP\,2}$ Turn ignition switch ON. >> GO TO 3. 3.Step 3 Adjust driver seat, steering column and outside mirror position manually. Н >> GO TO 4. **4**.STEP 4 1. Push set switch. NOTE: Memory indicator for which driver seat position is already retained in memory is illuminated for 5 sec-ADP onds. Memory indicator for which driver seat position is not retained in memory is illuminated for 0.5 second. 2. Push the memory switch (1 or 2) for at least 1 second within 5 seconds after pushing the set switch. Κ NOTE: If memory is stored in the same memory switch, the previous memory will be deleted. Do you need linking of Intelligent Key? YES >> GO TO 6. NO >> GO TO 5. 5.STEP 5 M Confirm the operation of each part with memory operation. >> END Ν **6.**STEP 6 Turn ignition switch OFF (LOCK). >> GO TO 7. **7**.STEP 7 Ρ Press and release set switch. Memory switch indicator is illuminated for 5 seconds. During memory switch indicator is illuminated, press Intelligent Key unlock button while pressing memory switch 1 or 2. NOTE:

Memory switch indicator lamp blinks for 5 seconds when registration is complete.

>> GO TO 8.

< BASIC INSPECTION >

8.STEP 8

Confirm the operation of each part with memory operation and Intelligent Key interlock operation.

>> END SYSTEM SETTING

SYSTEM SETTING : Description

INFOID:000000008290828

The settings of the automatic driving positioner system can be changed, using CONSULT, and the set switch. Always check the settings before and after disconnecting the battery terminal or replacing driver seat control unit.

Setting Change (For AT models)

				\times : Applicable
Item	Content	CON- SULT	Set switch	Factory setting
Amount of seat sliding for entry/exit assist	The amount of seat sliding for entry/exit assist can be selected from 3 items. [40mm/80mm/150mm]	х	_	40mm
Entry/exit assist (seat)	Entry/exit assist (seat) can be selected: ON (operated) – OFF (not operated)	х	x	ON
Entry/exit assist (steering column)	Entry/exit assist (steering column) can be selected: ON (operated) – OFF (not operated)	х	~	ON
Seat synchronization	Seat synchronization can be selected: ON (operated) – OFF (not operated)	_	_	OFF
Reset custom settings	All settings can be set to default (factory setting).	_	—	_

Setting Change (For MT models)

			×: Applicable
Item	Content	Set switch	Factory setting
Seat synchronization	Seat synchronization can be selected: ON (operated) – OFF (not operated)	х	OFF

SYSTEM SETTING : Special Repair Requirement

1. CHECK TYPE OF TRANSMISSION

Check type of transmission for the vehicle.

Witch type of transmission is used for the vehicle?

Turn ignition switch OFF.

>> GO TO 3.

3. STEP 2 (FOR M/T MODELS)

Push setting button and hold for more than 10 seconds, then confirm blinking of the memory switch indicator.Seat synchronization function is ON: Memory switch indicator blink two times.

• Seat synchronization is OFF: Memory switch indicator blink once.

>> END

4. CHOOSE METHOD

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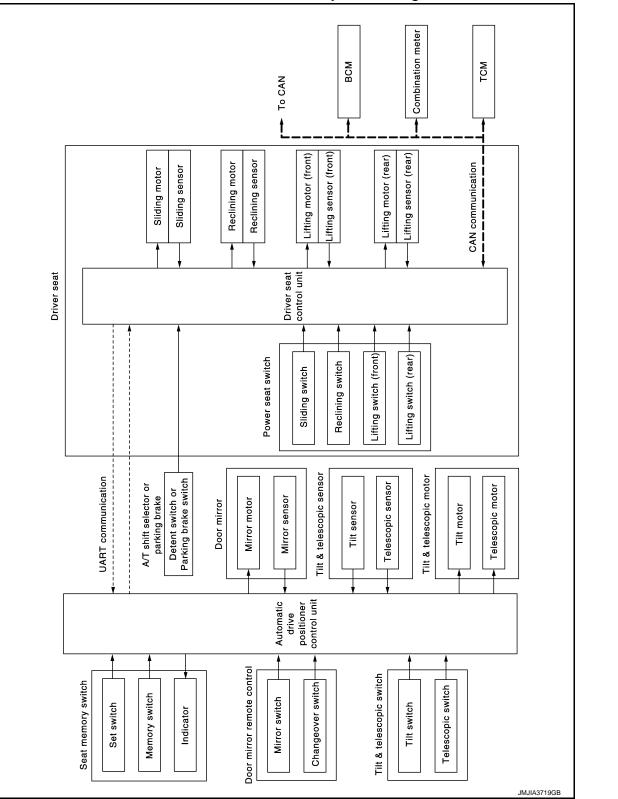
< BASIC INSPECTION >	
There are three way of setting method.	
Which method do you choose?	А
With set switch>>GO TO 5. With CONSULT>>GO TO 7.	
_	В
5. WITH SET SWITCH - STEP 1 (FOR A/T MODELS)	
 Turn ignition switch OFF. Push setting button and hold for more than 10 seconds, then confirm blinking of the memory switch indicator. 	С
 Entry/exit assist (seat/steering column) and seat are ON: Memory switch indicator blink two times. Entry/exit assist (seat/steering column) and seat are OFF: Memory switch indicator blink once. 	D
>> GO TO 6.	D
6. WITH SET SWITCH - STEP 2 (FOR A/T MODELS)	
	Е
 Turn ignition switch ACC. Push setting button and hold for more than 10 seconds, then confirm blinking of the memory switch indicator. 	_
 Seat synchronization are ON: Memory switch indicator blink two times. Seat synchronization are OFF: Memory switch indicator blink once. 	F
>> END	G
7. WITH CONSULT - STEP 1 (FOR A/T MODELS)	
Select "Work support".	Н
>> GO TO 8.	
8. WITH CONSULT - STEP 2 (FOR A/T MODELS)	I
 Select "EXIT SEAT SLIDE SETTING", "EXIT TILT SETTING" or "SEAT SLIDE VOLUME SET" then touch 	
	ADF
- EXIT SEAT SLIDE SETTING: Entry/exit assist (seat)	
 EXIT TILT SETTING: Entry/exit assist (steering column) Then touch "OK". 	
	Κ
>> END	
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< SYSTEM DESCRIPTION >

SYSTEM DESCRIPTION

AUTOMATIC DRIVE POSITIONER SYSTEM AUTOMATIC DRIVE POSITIONER SYSTEM

AUTOMATIC DRIVE POSITIONER SYSTEM : System Diagram



Revision: 2012 August

INFOID:000000008290830

< SYSTEM DESCRIPTION >

AUTOMATIC DRIVE POSITIONER SYSTEM : System Description

OUTLINE

The system automatically moves the driver seat, steering column 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, steering column and door mirror position) can be adjusted by using the power seat switch, tilt & telescopic switch or door mirror remote control switch.	
Seat synchronization function		The positions of the steering column and door mirror are adjusted to the proper posi- tion automatically while linking with manual operation [seat sliding, seat lifting (rear) or seat reclining].	
Memory function		The seat, steering column and outside mirror move to the stored driving position by pressing seat memory switch (1 or 2).	
Entry/Exit acciet function	Exit	On exit, the seat moves backward and the steering column moves upward and forward.	
Entry/Exit assist function	Entry	On entry, the seat and steering column returns from exiting position to the previous driving position.	
Intelligent Key interlock function		Perform memory operation, exiting operation and entry operation by Intelligent Key unlock operation or driver side door request switch unlock operation.	

NOTE:

The lumbar support system and the side support system are controlled independently with no link to the auto-

SLEEP MODE

 The seat control unit adopts the sleep mode to reduce the electric power consumption. 	
 The sleep mode is activated when all of the following condition are fulfilled. 	
1. Ignition switch turn OFF (Steering LOCK position)	
2. No load is applied to the seat control	AD
3. The seat control unit 45 seconds timer is not activated	
Set switch and memory switch (1 and 2) turn OFF	
WAKE-UP MODE	K

The sleep mode is cancelled when any status change is detected for the followings.

- 1. CAN communication
- 2. Power seat switch
- 3. Set switch and memory switch (1 and 2)
- 4. Steering column switch
- 5. Door mirror switch

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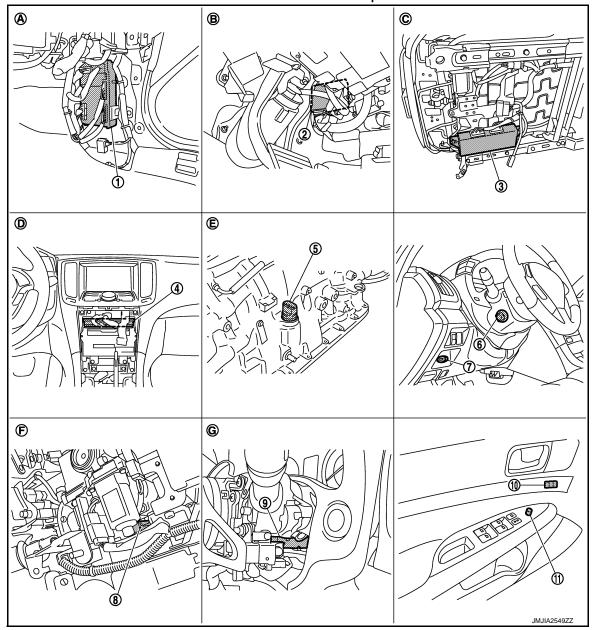
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А

< SYSTEM DESCRIPTION >

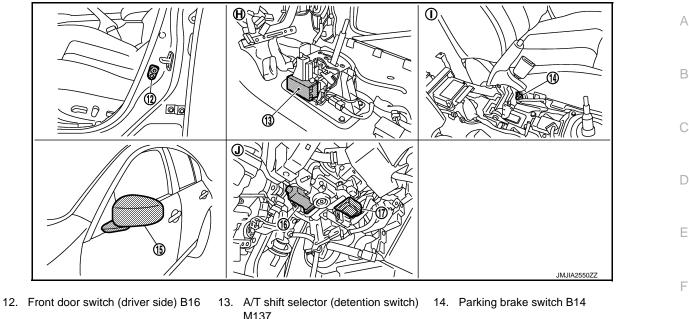


- 1. BCM M118, M119, M122, M123
- 4. Unified meter and A/C amp. M67
- 7. Key slot M22
- 10. Seat memory switch D5
- A. Dash side lower (passenger side)
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

- 2. Automatic drive positioner control unit 3. M51, M52
- 5. A/T assembly F51
- 8. Tilt sensor M48
- 11. Door mirror remote control switch D17
- B. View with instrument driver lower panel removed
- E. A/T assembly (TCM is built in A/T assembly)

- Driver seat control unit B451, B452
- 6. Tilt & telescopic switch M31
- 9. Telescopic sensor M48
- C. Backside of seat cushion (driver side)
- F. View with instrument driver lower panel removed

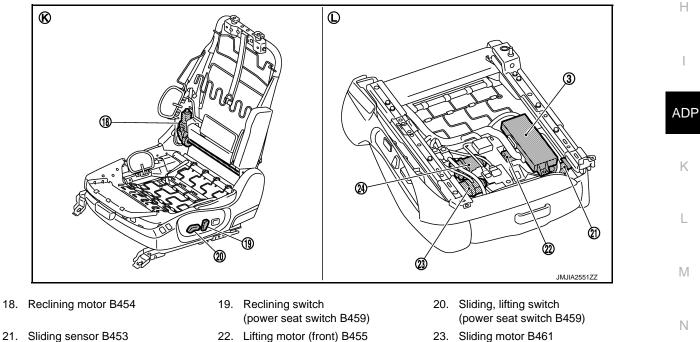
< SYSTEM DESCRIPTION >



- 15. Door mirror (driver side) D3
- View with center console assembly H. removed
- M137
- 16. Telescopic motor M49 View with center console assembly ١. removed
- 17. Tilt motor M49

J.

View with instrument driver lower panel removed



24. Lifting motor (rear) B463

K.

- 22. Lifting motor (front) B455
- View with seat cushion pad and seat- L. Backside of the seat cushion back pad removed

AUTOMATIC DRIVE POSITIONER SYSTEM : Component Description

Ρ

CONTROL UNITS

INFOID:000000008290833

< SYSTEM DESCRIPTION >

Item	Function	
Driver seat control unit	 Main units of automatic drive positioner system It is connected to the CAN. It communicates with the automatic drive positioner control 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 tilt & telescopic, door mirror and the seat memory switch. 	
ВСМ	 Transmit the following status to the driver seat control unit via CAN communication. Driver door: OPEN/CLOSE Ignition switch position: ACC/ON Door lock: UNLOCK (with Intelligent Key or driver side door request switch operation) Key ID Key switch: Insert/Pull out Intelligent Key Starter: CRANKING/OTHER 	
Unified meter and A/C amp.	Transmit the vehicle speed signal to the driver seat control unit via CAN communi- cation.	
ТСМ	Transmit the shift position signal (P range) to the driver seat control unit via CAN communication.	

INPUT PARTS

Switches

Item	Function	
Key slot	The key switch is installed to detect the key inserted/removed status.	
Front door switch (driver side)	Detect front door (driver side) open/close status.	
A/T shift selector (detention switch)	Detect the P range position of A/T selector lever. (only for A/T models)	
Parking break switch	Detect the parking brake status. (only for MT models)	
Set switch	The registration and system setting can be performed with its operation.	
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. 	
Tilt & telescopic switch	 The following switch is installed. Tilt switch Telescopic switch 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 (driverside/passenger side)	Detect the up/down and left/right position of outside mirror face.
Tilt and telescopic sensor	Detect the up/down and left/right position of steering column.
Lifting sensor (front)	Detect the up/down position of seat lifting (front).
Lifting sensor (rear)	Detect the up/down position of seat lifting (rear).

< SYSTEM DESCRIPTION >

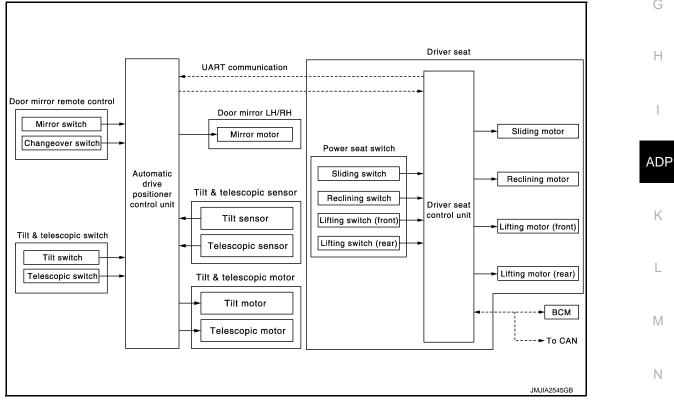
Item	Function	^
Reclining sensor	Detect the tilt of seatback.	A
Sliding sensor	Detect the front/rear position of seat.	

OUTPUT PARTS

Item	Function Move the outside mirror face upward/downward and leftward/rightward.	
Door mirror motor (driverside/passenger side)		
Tilt and telescopic motor	Move the steering column upward/downward and frontward/rearward.	
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 frontward/rearward.	
Memory indicator	Illuminates or flashes according to the registration/operation status.	

MANUAL FUNCTION

MANUAL FUNCTION : System Diagram



MANUAL FUNCTION : System Description

INFOID:000000008290835

INFOID:000000008290834

В

OUTLINE

The driving position (seat, steering column and door mirror position) can be adjusted manually with power seat P switch, tilt & telescopic switch and door mirror remote control switch.

OPERATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Operate power seat switch, tilt & telescopic switch or door mirror remote control switch.
- 3. The driver seat, steering column or door mirror operates according to the operation of each switch.

DETAIL FLOW

< SYSTEM DESCRIPTION >

Seat

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

Tilt & Telescopic

Order	Input	Output	Control unit condition
1	Tilt & telescopic switch	_	The tilt & telescopic switch signal is inputted to the automatic drive positioner control unit when the tilt & telescopic switch is operated.
2	_	Motors (Tilt, telescopic)	The automatic drive positioner control unit actuates each motor according to the operation of the tilt & telescopic switch.
3	Sensors (Tilt, telescopic)	_	The automatic drive positioner control unit recognizes any oper- ation limit of each actuator via each sensor and will not operate the actuator anymore at that time.*

*: Tilt does not operates upward when tilt sensor volume is less than 1.2 V, tilt does not operate downward when the sensor value is bigger than 3.4 V. Telescopic does not operates backward when telescopic sensor value is less than 0.8 V, telescopic does not operate forward when the sensor value is bigger than 3.4 V.

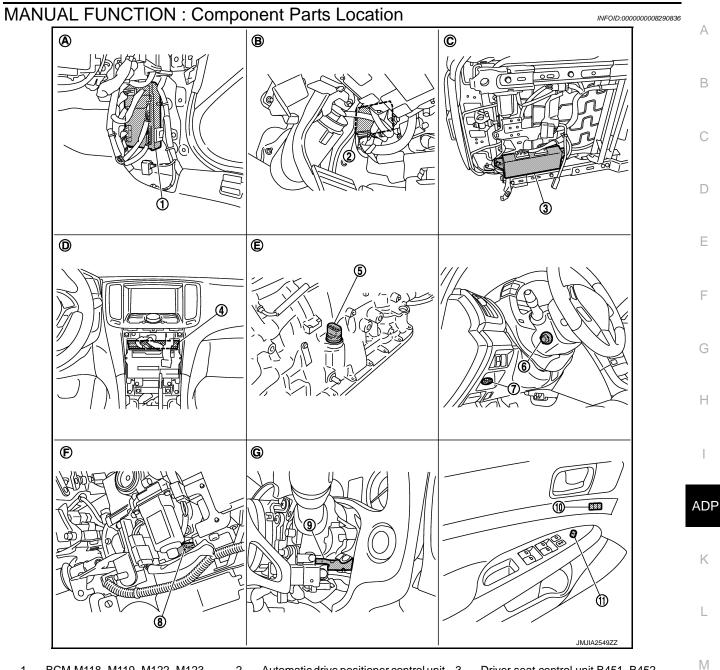
Door Mirror

Order	Input	Output	Control unit condition
1	Door mirror remote control switch	_	The door mirror remote control switch signal is inputted to the au- tomatic 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.

< SYSTEM DESCRIPTION >



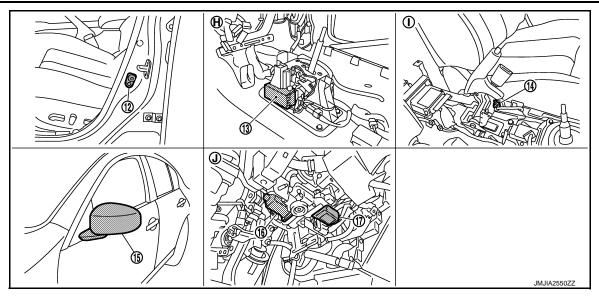
- 1. BCM M118, M119, M122, M123
- 4. Unified meter and A/C amp. M67
- 7. Key slot M22
- 10. Seat memory switch D5
- A. Dash side lower (passenger side)
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

- 2. Automatic drive positioner control unit 3. Driver seat control unit B451, B452 M51, M52
- 5. AT assembly F51
- 8. Tilt sensor M48
- 11. Door mirror remote control switch D17
- B. View with instrument driver lower panel removed
- E. AT assembly (TCM is built in AT assembly)
- 6. Tilt & telescopic switch M31
 9. Telescopic sensor M48
- C. Backside of seat cushion (driver side)
- F. View with instrument driver lower panel removed

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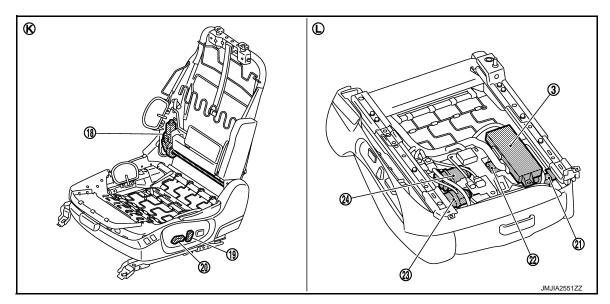
< SYSTEM DESCRIPTION >



- 12. Front door switch (driver side) B16
- 15. Door mirror (driver side) D3
- H. View with center console assembly removed
- 13. A/T shift selector (detention switch) M137
- 16. Telescopic motor M49 View with center console assembly removed

Ι.

- 14. Parking brake switch B14
- 17. Tilt motor M49
- J. View with instrument driver lower panel removed



- 18. Reclining motor B454
- 21. Sliding sensor B453
- 19. Reclining switch (power seat switch B459) 22. Lifting motor (front) B455
- 20. Sliding, lifting switch (power seat switch B459)
- 23. Sliding motor B461

- 24. Lifting motor (rear) B463
- K. View with seat cushion pad and seat- L. Backside of the seat cushion back pad removed
- MANUAL FUNCTION : Component Description

INFOID:000000008290837

CONTROL UNITS

< SYSTEM DESCRIPTION >

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. 	
Automatic drive positioner control unit	Operates the specific motor with the signal from tilt & telescopic switch or door mir- ror 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	E
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. 	F
Tilt & telescopic switch	 The following switch is installed. Tilt switch Telescopic switch The specific parts can be operated with the operation of each switch. 	— G
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	
Tilt and telescopic sensor	Detect the up/down and left/right position of steering column.	

OUTPUT PARTS

Item	Function	
Door mirror motor (driverside/passenger side)	Move the outside mirror face upward/downward and leftward/rightward.	
Tilt & telescopic motor	Move the steering column upward/downward and frontward/rearward.	
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 frontward/rearward.	

SEAT SYNCHRONIZATION FUNCTION

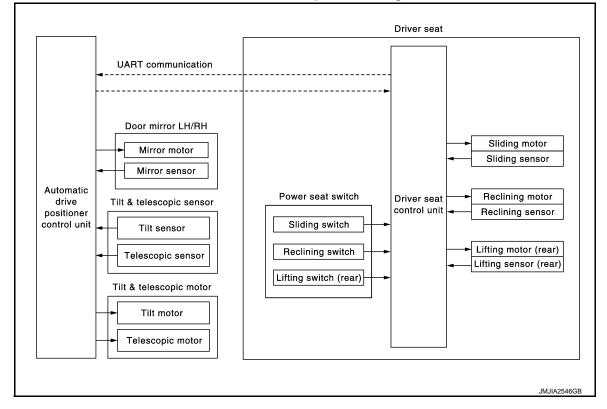
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< SYSTEM DESCRIPTION >

SEAT SYNCHRONIZATION FUNCTION : System Diagram





SEAT SYNCHRONIZATION FUNCTION : System Description

INFOID:000000008290839

OUTLINE

The steering column position and door mirror position is adjusted to the position automatically according to the direction and distance of seat movement when performing the manual operation of sliding, reclining or lifting (rear). This function saves adjusting the mirror and steering column when adjusting the seat.

This function is set to OFF before delivery (initial setting).

For the system setting procedure. Refer to ADP-12, "SYSTEM SETTING : Description".

OPERATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Adjust seat position [sliding, reclining, lifting (rear)].
- 3. The steering and outside mirror is adjusted automatically.

NOTE:

• The seat synchronization function will not operate if seat adjusting value is more than limit value.

Item	Limit value
Seat sliding	76 [mm]
Seat reclining	9.1 [degrees]
Seat lifter (rear)	20 [mm]

• The seat synchronization function will not operate if the steering column or door mirror moves to the operating end while this function is operating. Perform memory function or drive the vehicle at vehicle speed of 7 km/h or more once to activate this function again.

• If the seat position is uncomfortable after the adjustment, seat position can be adjusted easily by memory operation.

OPERATION CONDITION

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

< SYSTEM DESCRIPTION >

Item	Request status	-
Ignition position	ON	_
System setting	ON	_
Switch inputs Power seat switch Tilt & telescopic switch Door mirror remote control switch Set switch Memory switch 	OFF (Not operated)	(
A/T selector lever (only for A/T model)	P position	_
Parking break (only for M/T models)	Applied	_

DETAIL FLOW

Order	Input	Output	Control unit condition
1	—	_	Perform Manual operation [Sliding, reclining or lifting (rear)].
2	Sensors [Sliding, reclining, lifting (rear)]	_	The driver seat control unit judges the direction and distance of seat movement according to the signal input from each seat sensor during manual operation.
3	_	Motors (Tilt, telescopic, out- side mirror)	Driver seat control unit requests the operation to position accord- ing to the direction and distance of seat movement to the automat- ic drive positioner control unit via UART communication. The automatic drive positioner control unit operates each motor.
	Sensors (Tilt, telescopic, outside mirror)	_	Driver seat control unit stops the operation of each motor when the value of each sensor that is input to automatic drive positioner control unit via UART communication reaches the target address.

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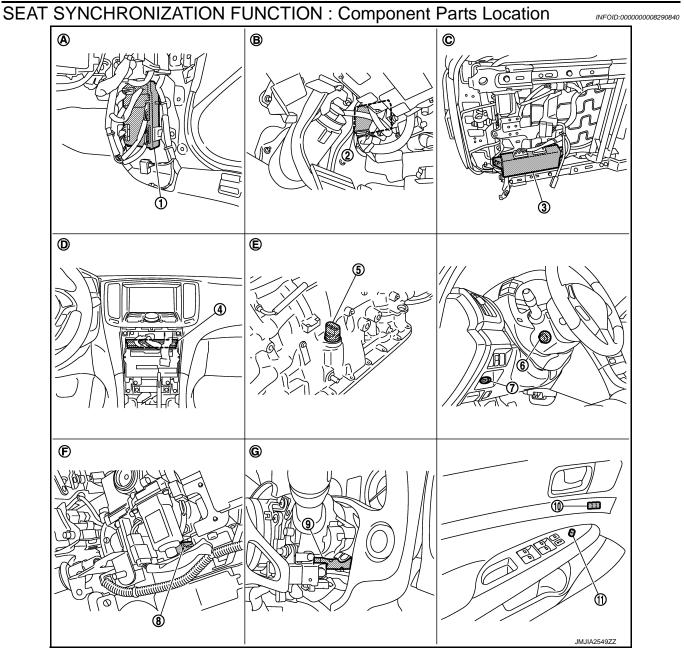
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< SYSTEM DESCRIPTION >

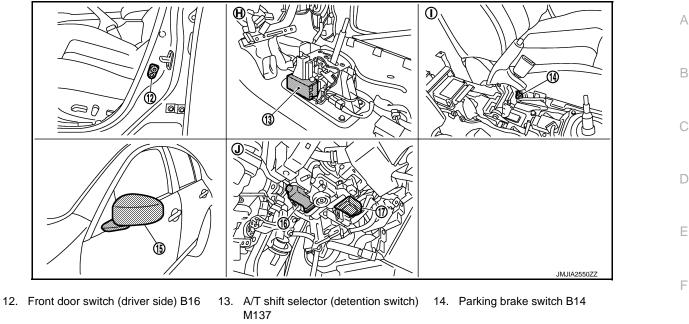


- 1. BCM M118, M119, M122, M123
- 4. Unified meter and A/C amp. M67
- 7. Key slot M22
- 10. Seat memory switch D5
- A. Dash side lower (passenger side)
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

- 2. Automatic drive positioner control unit 3. M51, M52
- 5. AT assembly F51
- 8. Tilt sensor M48
- 11. Door mirror remote control switch D17
- B. View with instrument driver lower panel removed
- E. AT assembly (TCM is built in AT assembly)

- Driver seat control unit B451, B452
- 6. Tilt & telescopic switch M31
- 9. Telescopic sensor M48
- C. Backside of seat cushion (driver side)
- F. View with instrument driver lower panel removed

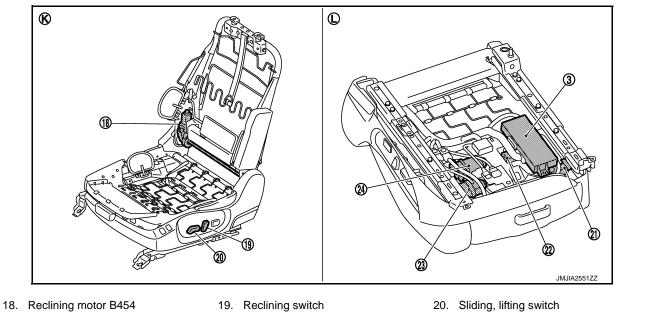
< SYSTEM DESCRIPTION >



- 15. Door mirror (driver side) D3
- H. View with center console assembly removed
- 16. Telescopic motor M49I. View with center console assembly removed
- 17. Tilt motor M49

J.

View with instrument driver lower panel removed



21. Sliding sensor B453

K.

24. Lifting motor (rear) B463

back pad removed

- (power seat switch B459)22. Lifting motor (front) B455
- Sliding, lifting switch (power seat switch B459)
 Sliding motor B461
- View with seat cushion pad and seat- L. Backside of the seat cushion
- SEAT SYNCHRONIZATION FUNCTION : Component Description

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Item	Function
Driver seat control unit	Operates the specific seat motor with the signal from the power seat switch.
Automatic drive positioner control unit	Operates the steering motor and door mirror with the instructions from the driver seat control unit.

CONTROL UNITS

< SYSTEM DESCRIPTION >

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.

Sensors

Item	Function
Door mirror sensor (driver side/passenger side)	Detect the up/down and left/right position of outside mirror face.
Tilt and telescopic sensor	Detect the up/down and left/right position of steering column.
Lifting sensor (rear)	Detect the up/down position of seat lifter (rear).
Reclining sensor	Detect the tilt of seatback.
Sliding sensor	Detect the front/rear position of seat.

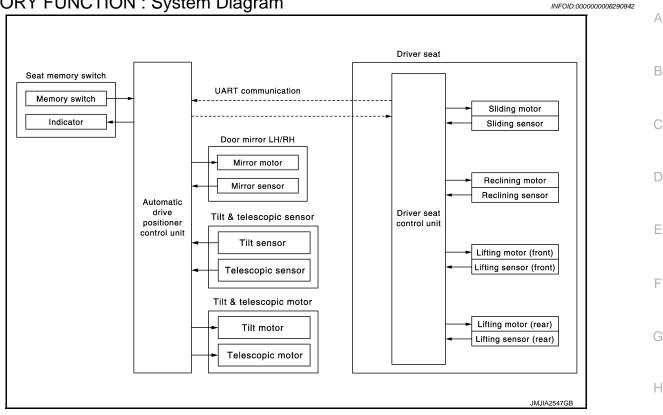
OUTPUT PARTS

Item	Function
Door mirror motor (driver side/passenger side)	Move the outside mirror face upward/downward and leftward/rightward.
Tilt & telescopic motor	Move the steering column upward/downward and frontward/rearward.
Lifting motor (rear)	Move the seat lifter (rear) upward/downward.
Reclining motor	Tilt and raise up the seatback.
Sliding motor	Slide the seat frontward/rearward.

MEMORY FUNCTION

< SYSTEM DESCRIPTION >

MEMORY FUNCTION : System Diagram



MEMORY FUNCTION : System Description

INFOID:000000008290843

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OUTLINE

The driver seat control unit can store the optimum driving positions (seat, steering column and door mirror ADP 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:

Κ Further information for the memory storage procedure. Refer to ADP-11, "MEMORY STORING : Description".

OPERATION PROCEDURE

- 1. Turn ignition switch ON
- 2. Press desired memory switch for more than 0.5 second.
- 3. Driver seat, steering 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.

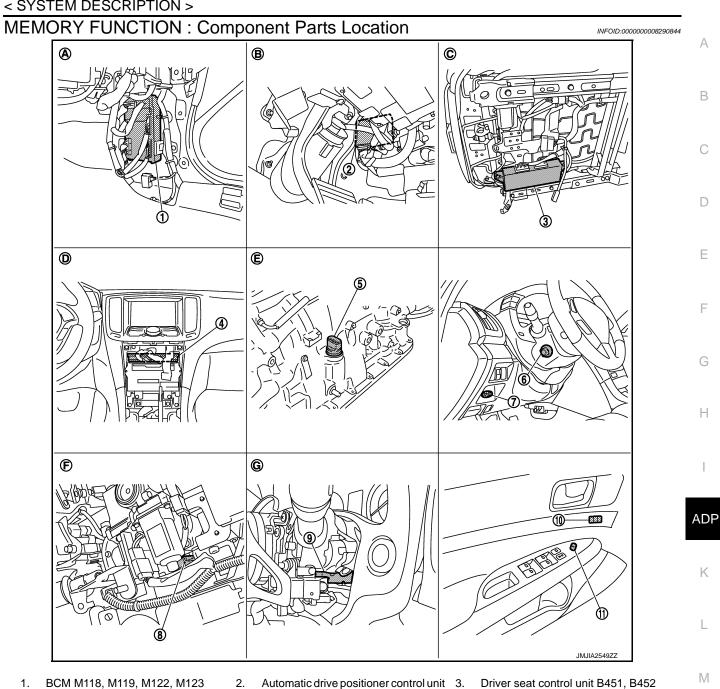
Item	Request status	
Ignition position	ON	
Switch inputs		
Power seat switch		
Tilt & telescopic switch	OFF	
Door mirror control switch	(Not operated)	
Set switch		
Memory switch		
A/T selector lever (only for A/T model)	P position	
Parking break (only for M/T models)	Applied	

DETAIL FLOW

< SYSTEM DESCRIPTION >

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, Steering, door mirror)	Driver seat control unit operates each motor of seat when it recogniz- es 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 op- erates each motor.
		Memory switch Indica- tor	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, steering col- umn, door mirror)	_	Driver seat control unit judges the operating seat position with each seat sensor input. The positions of the steering column 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 reach- es the recorded address.
4	_	Memory switch Indica- tor	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.

< SYSTEM DESCRIPTION >



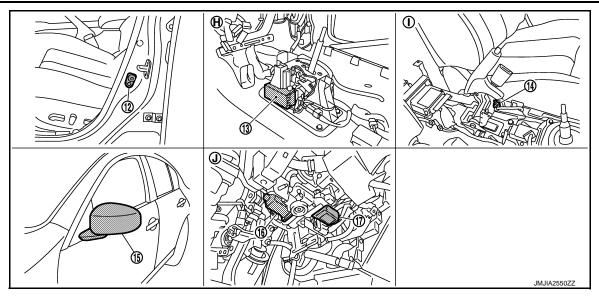
- BCM M118, M119, M122, M123 1.
- Unified meter and A/C amp. M67 4.
- Key slot M22 7.
- Seat memory switch D5 10.
- Dash side lower (passenger side) Α.
- D. Behind cluster lid C
- View with steering column cover low-G er and upper removed

- Automatic drive positioner control unit 3. 2. M51, M52
- AT assembly F51 5.
- Tilt sensor M48 8.
- 11. Door mirror remote control switch D17
- View with instrument driver lower Β. panel removed
- E. AT assembly (TCM is built in AT assembly)
- 6. Tilt & telescopic switch M31 9. Telescopic sensor M48
- C. Backside of seat cushion (driver side) 0
- F. View with instrument driver lower panel removed

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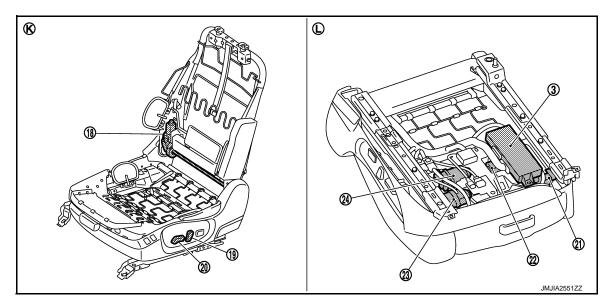
< SYSTEM DESCRIPTION >



- 12. Front door switch (driver side) B16
- 15. Door mirror (driver side) D3
- H. View with center console assembly removed
- 13. A/T shift selector (detention switch) M137
- 16. Telescopic motor M49 View with center console assembly removed

Ι.

- 14. Parking brake switch B14
- 17. Tilt motor M49
- J. View with instrument driver lower panel removed



- 18. Reclining motor B454
- 21. Sliding sensor B453
- 24. Lifting motor (rear) B463
- 19. Reclining switch (power seat switch B459) 22. Lifting motor (front) B455
- (power seat switch B459) 23. Sliding motor B461

20. Sliding, lifting switch

K. View with seat cushion pad and seat- L. Backside of the seat cushion back pad removed

MEMORY FUNCTION : Component Description

INFOID:000000008290845

CONTROL UNITS

Revision: 2012 August

ADP-32

< SYSTEM DESCRIPTION >

Item	Function	A
Driver seat control unit	 The address of each part is recorded. Operates each motor of seat to the registered position. Requests the operations of steering column and door mirror to automatic drive positioner control unit 	В
Automatic drive positioner control unit	Operates the steering column and door mirror with the instructions from the driver seat control.	0

INPUT PARTS

Switches

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

Sensors

Item	Function	F
Door mirror sensor (driver side/passenger side)	Detect the up/down and left/right position of outside mirror face.	
Tilt & telescopic sensor	Detect the up/down and left/right position of steering column.	G
Lifting sensor (front)	Detect the up/down position of seat lifting (front).	
Lifting sensor (rear)	Detect the up/down position of seat lifting (rear).	
Reclining sensor	Detect the tilt of seatback.	——
Sliding sensor	Detect the front/rear position of seat.	

OUTPUT PARTS

Item	Function
Door mirror motor (driver side/passenger side)	Move the outside mirror face upward/downward and leftward/rightward.
Tilt and telescopic motor	Move the steering column upward/downward and frontward/rearward.
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 frontward/rearward.
Memory indicator	Illuminates or blinks according to the registration/operation status.

EXIT ASSIST FUNCTION

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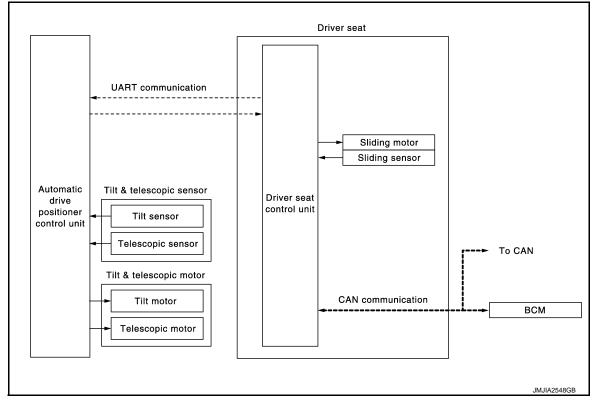
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< SYSTEM DESCRIPTION >

EXIT ASSIST FUNCTION : System Diagram



EXIT ASSIST FUNCTION : System Description

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OUTLINE

When exiting, the condition is satisfied, the seat is moved backward 40 mm (1.57 in) from normal sitting position and the steering is moved to the most upper position and front position.

The seat slide amount and the steering operation at entry/exit operation can be changed.

NOTE:

- This function is set to ON before delivery (initial setting).
- Further information for the system setting procedure. Refer to ADP-12, "SYSTEM SETTING : Description".

OPERATION PROCEDURE

- 1. Open the driver door with ignition switch in OFF position.
- 2. Driver seat and steering column 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 position	OFF
System setting	ON
Initialization	Done
Switch inputs Power seat switch Tilt & telescopic switch Door mirror remote control switch Set switch Memory switch 	OFF (Not operated)
A/T selector lever	P position

DETAIL FLOW

< SYSTEM DESCRIPTION >

Order	Input	Output	Control unit condition	А
1	Door switch (Driver side)	_	Driver seat control unit receives door switch signal (driver side/ open) from BCM via CAN communication.	
2	_	Motors (Seat sliding, tilt, telescopic)	Driver seat control unit operates the seat sliding motor, which recog- nizes that the driver side door is opened with ignition switch OFF. Driver seat control unit then requests the operations of tilt motor and telescopic motor to auto drive positioner control unit via UART com- munication. The automatic drive positioner control unit operates each motor for a constant amount.	B

EXIT ASSIST FUNCTION : Component Parts Location INFOID:000000008290848 D A C B Е 0 F ĺ Н E D **(4)** ADP Κ L G Ē Μ ത ſ Ν ì Ο JMJIA2549ZZ Ρ

- 1. BCM M118, M119, M122, M123
- 4. Unified meter and A/C amp. M67
- 7. Key slot M22
- 10. Seat memory switch D5
- 2. Automatic drive positioner control unit 3. M51, M52

AT assembly F51

Tilt sensor M48

D17

5.

8.

- 6. Tilt & telescopic switch M31
 - 9. Telescopic sensor M48

Driver seat control unit B451, B452

Revision: 2012 August

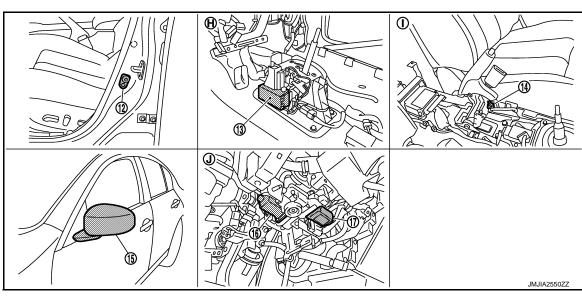
ADP-35

11. Door mirror remote control switch

< SYSTEM DESCRIPTION >

- A. Dash side lower (passenger side)
- D. Behind cluster lid C
- B. View with instrument driver lower panel removed
- E. AT assembly (TCM is built in AT assembly)
- C. Backside of seat cushion (driver side)
- F. View with instrument driver lower panel removed

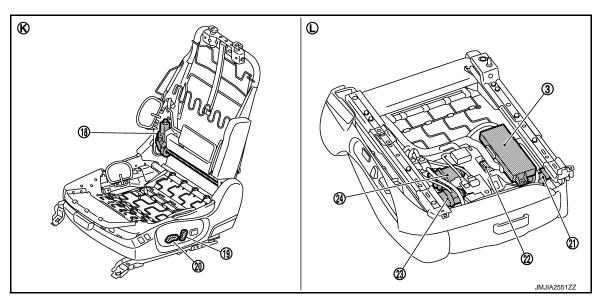
G View with steering column cover lower and upper removed



- 12. Front door switch (driver side) B16
- 15. Door mirror (driver side) D3
- H. View with center console assembly removed
- 13. A/T shift selector (detention switch) M137
- 16. Telescopic motor M49

Ι.

- View with center console assembly J. removed
- 14. Parking brake switch B14
- 17. Tilt motor M49
 - View with instrument driver lower panel removed



- 18. Reclining motor B454
- 21. Sliding sensor B453
- 24. Lifting motor (rear) B463
- K. View with seat cushion pad and seat- L. back pad removed
- (power seat switch B459)22. Lifting motor (front) B455

Reclining switch

19.

- Backside of the seat cushion
- Sliding, lifting switch (power seat switch B459)
 Sliding motor B461

< SYSTEM DESCRIPTION >

EXIT ASSIST FUNCTION : Component Description

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CONTROL UNITS

Item	Function
Driver seat control unit	 Operates the seat sliding motor for a constant amount. Requests the operations of tilt motor and telescopic motor to automatic drive positioner control unit.
Automatic drive positioner control unit	Operates the tilt motor and telescopic motor with the request from the driver seat control.
BCM	 Recognizes the following status and transmits it to the driver seat control unit via CAN communication. Driver door: OPEN/CLOSE

INPUT PARTS

Switches

Item	Function	F
Front door switch (driver side)	Detect front door (driver side) open/close status.	

Sensors

Item	Function	
Tilt and telescopic sensor	Detect the up/down and left/right position of steering column.	H
Sliding sensor	Detect the front/rear position of seat.	

OUTPUT PARTS

Function	
Move the steering column upward/downward and frontward/rearward.	ADF
Slide the seat frontward/rearward.	
	Move the steering column upward/downward and frontward/rearward.

ENTRY ASSIST FUNCTION

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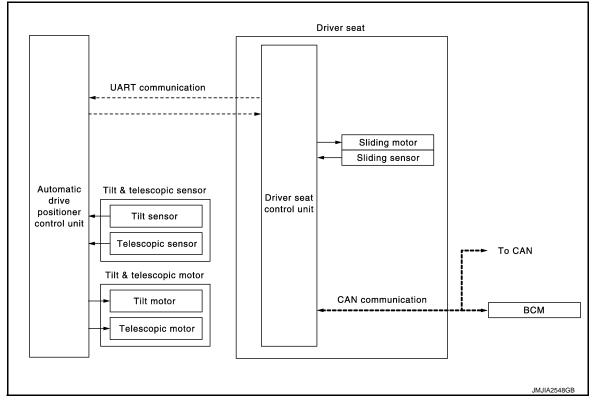
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< SYSTEM DESCRIPTION >

ENTRY ASSIST FUNCTION : System Diagram



ENTRY ASSIST FUNCTION : System Description

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OUTLINE

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

NOTE:

- This function is set to ON before delivery (initial setting).
- Further information for the system setting procedure. Refer to <u>ADP-12, "SYSTEM SETTING : Description"</u>.

OPERATION PROCEDURE

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

OPERATION CONDITION

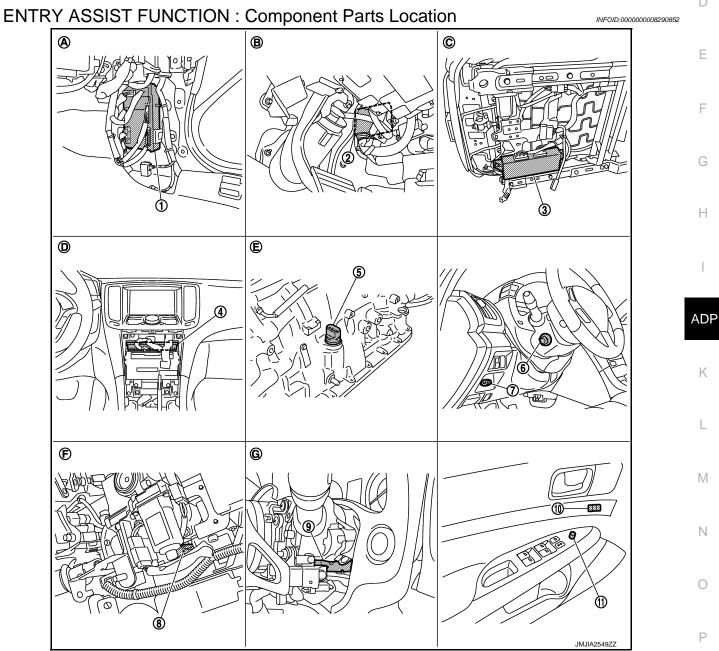
Satisfy all of the following items. The entry assist function is not performed if these items are not satisfied.

Item	Request status
Seat, steering column	The vehicle is not moved after performing the exit assist function.
Switch inputs Power seat switch Tilt & telescopic switch Door mirror control switch Set switch Memory switch 	OFF (Not operated)
A/T selector lever (only for A/T model)	P position
Parking break (only for M/T models)	Applied

DETAIL FLOW

< SYSTEM DESCRIPTION >

Order	Input	Output	Control unit condition
1	Door switch/Ignition switch	_	Driver seat control unit receives the signals of [ignition switch signal] and [driver side door switch] from BCM via CAN communication.
2	_	Motors (Sliding, tilt, tele- scopic)	Driver side control unit operates the sliding motor when the operating conditions are satisfied and requests the operations of tilt motor and telescopic motor to automatic drive positioner control unit via UART communication. The automatic drive positioner operates each motor.
-	Sensors (Sliding, tilt, telescop- ic)		Each sensor monitors the operating positions of seat and steering, and then stops the operation of each motor when each part reaches the recorded address.



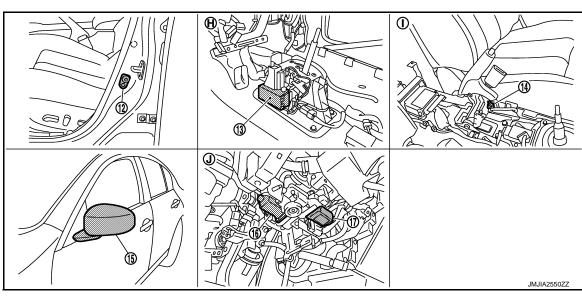
- 1. BCM M118, M119, M122, M123
- 4. Unified meter and A/C amp. M67
- 7. Key slot M22
- 10. Seat memory switch D5
- 2. Automatic drive positioner control unit 3. M51, M52
- 5. AT assembly F51
- 8. Tilt sensor M48
- 11. Door mirror remote control switch D17
- Driver seat control unit B451, B452
- 6. Tilt & telescopic switch M31
- 9. Telescopic sensor M48



< SYSTEM DESCRIPTION >

- A. Dash side lower (passenger side)
- D. Behind cluster lid C
- B. View with instrument driver lower panel removed
- E. AT assembly (TCM is built in AT assembly)
- C. Backside of seat cushion (driver side)
- F. View with instrument driver lower panel removed

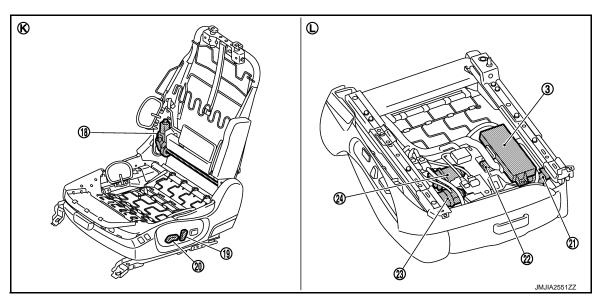
G View with steering column cover lower and upper removed



- 12. Front door switch (driver side) B16
- 15. Door mirror (driver side) D3
- H. View with center console assembly removed
- 13. A/T shift selector (detention switch) M137
- 16. Telescopic motor M49

Ι.

- View with center console assembly J. removed
- 14. Parking brake switch B14
- 17. Tilt motor M49
 - View with instrument driver lower panel removed



- 18. Reclining motor B454
- 21. Sliding sensor B453
- 24. Lifting motor (rear) B463
- K. View with seat cushion pad and seat- L. back pad removed
- (power seat switch B459)22. Lifting motor (front) B455

Reclining switch

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- Backside of the seat cushion
- Sliding, lifting switch (power seat switch B459)
 Sliding motor B461

< SYSTEM DESCRIPTION >

ENTRY ASSIST FUNCTION : Component Description

INFOID:000000008290853

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CONTROL UNITS

Item	Function
Driver seat control unit	 According to the ignition signal and door switch signal (driver side) from BCM, Operates the seat sliding motor for a constant amount. Requests the operations of tilt motor and telescopic motor to automatic drive positioner control unit.
Automatic drive positioner control unit	Operates the tilt motor and telescopic motor with the instructions from the driver seat control.
BCM	 Recognizes the following status and transmits it to the driver seat control unit via CAN communication. Driver door: OPEN/CLOSE Ignition switch psition: ACC/ON

INPUT PARTS

Switches

Item	Function	1
Front door switch (driver side)	Detect front door (driver side) open/close status.	G

Sensors

Item	Function	
Tilt & telescopic sensor	Detect the up/down and left/right position of steering column.	
Sliding sensor	Detect the front/rear position of seat.	

OUTPUT PARTS

		ADP
Item	Function	
Tilt & telescopic motor	Move the steering column upward/downward and frontward/rearward.	
Sliding motor	Slide the seat frontward/rearward.	K

INTELLIGENT KEY INTERLOCK FUNCTION

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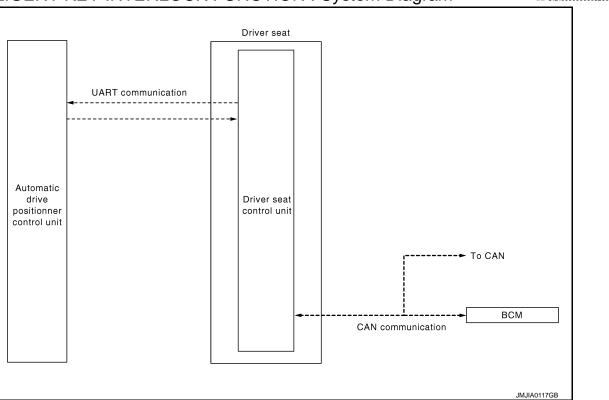
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< SYSTEM DESCRIPTION >

INTELLIGENT KEY INTERLOCK FUNCTION : System Diagram



INTELLIGENT KEY INTERLOCK FUNCTION : System Description

INFOID:000000008290855

INFOID:00000008290854

OUTLINE

When unlocking doors by using Intelligent Key or driver side door request switch, the system performs memory operation, exiting operation then entry operation.

OPERATION PROCEDURE

- 1. Unlock doors by using Intelligent Key or driver side door request switch.
- 2. The system performs memory operation, and then performs exit assist operation.

NOTE:

If the seat position is in memorized position before unlocking doors, memory operation does not perform. **NOTE:**

Further information for Intelligent Key interlock function. Refer to ADP-11, "MEMORY STORING : Description".

OPERATION CONDITION

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

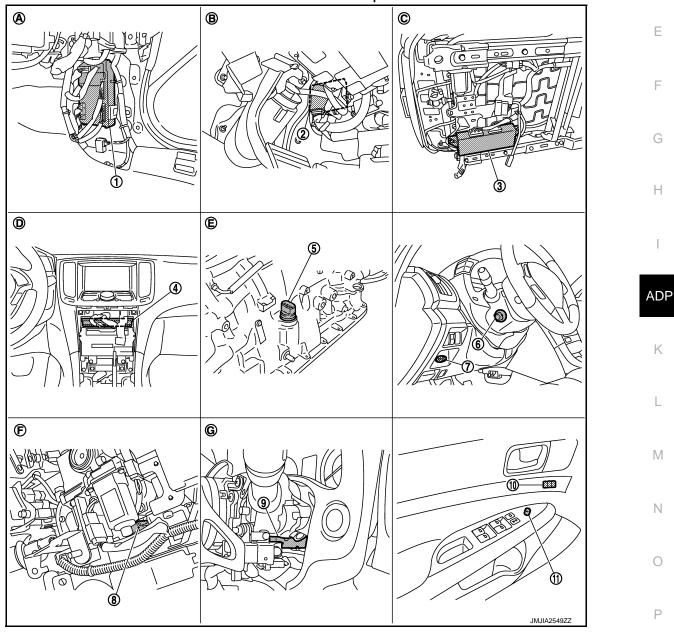
Item	Request status
Ignition position	OFF
System setting	ON
Key switch	OFF (Key is removed.)
Switch inputs Power seat switch Tilt & telescopic switch Door mirror control switch Set switch Memory switch 	OFF (Not operated)
A/T selector lever (only for A/T model)	P position
Parking break (only for M/T models)	Applied

< SYSTEM DESCRIPTION >

DETAIL FLOW

Order	Input	Output	Control unit condition
1	 Door unlock signal (CAN) Key ID signal (CAN) 	_	Driver seat control unit receives the door unlock signal and the key ID signal from BCM when unlocking the door with Intelligent Key or driver side door request switch.
2	—	_	Driver seat control unit performs the memory function.
3	—	_	Driver seat control unit performs the exit assist function after perform- ing the memory function.
4	—	_	Driver seat control unit performs the entry assist function.

INTELLIGENT KEY INTERLOCK FUNCTION : Component Parts Location INFOLD.00000002290866



- 1. BCM M118, M119, M122, M123
- 4. Unified meter and A/C amp. M67
- 7. Key slot M22
- 10. Seat memory switch D5
- M51, M52 5. AT assembly F51
- 8. Tilt sensor M48

2.

11. Door mirror remote control switch D17

Automatic drive positioner control unit 3.

- Driver seat control unit B451, B452
- 6. Tilt & telescopic switch M31
- 9. Telescopic sensor M48

Revision: 2012 August

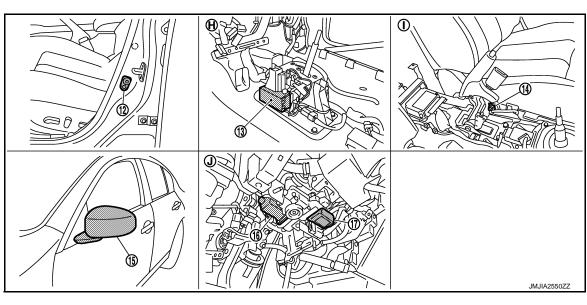
ADP-43

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< SYSTEM DESCRIPTION >

- A. Dash side lower (passenger side)
- D. Behind cluster lid C
- B. View with instrument driver lower panel removed
- E. AT assembly (TCM is built in AT assembly)
- C. Backside of seat cushion (driver side)
- F. View with instrument driver lower panel removed

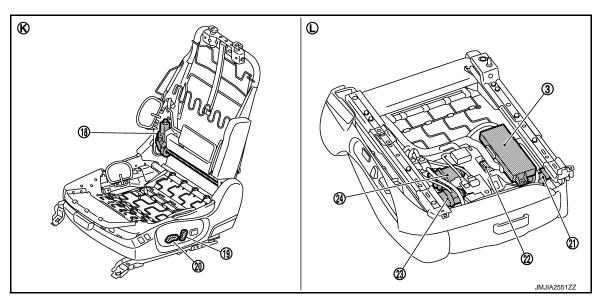
G View with steering column cover lower and upper removed



- 12. Front door switch (driver side) B16
- 15. Door mirror (driver side) D3
- H. View with center console assembly removed
- 13. A/T shift selector (detention switch) M137
- 16. Telescopic motor M49

Ι.

- View with center console assembly J. removed
- 14. Parking brake switch B14
- 17. Tilt motor M49
 - View with instrument driver lower panel removed



- 18. Reclining motor B454
- 21. Sliding sensor B453
- 24. Lifting motor (rear) B463
- K. View with seat cushion pad and seat- L. back pad removed
- (power seat switch B459)22. Lifting motor (front) B455

Reclining switch

19.

- Backside of the seat cushion
- Sliding, lifting switch (power seat switch B459)
 Sliding motor B461

< SYSTEM DESCRIPTION >

INTELLIGENT KEY INTERLOCK FUNCTION : Component Description

INFOID:000000008290857

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CONTROL UNITS

Item	Function
Driver seat control unit	It performs memory function and entry/exit assist function after receiving the door unlock signal from BCM.
Automatic drive positioner control unit	Operates the steering column and door mirror with the instructions from the driver seat control unit.
BCM	Recognizes the following status and transmits it to the driver seat control unit via CAN communication. Door lock: UNLOCK (with Intelligent Key or driver side door request switch)

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DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

Diagnosis Description

INFOID:000000008290858

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-DIAG RESULTS	Performs self-diagnosis for the auto drive positioner system and displays the results.
DATA MONITOR	Displays input signals transmitted from various switches and sensors to driver seat con- trol unit in real time.
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.
ACTIVE TEST	Drive each output device.
ECU PART NUMBER	Displays part numbers of driver seat control unit parts.

CONSULT Function

INFOID:000000008290859

SELF-DIAGNOSIS RESULTS Refer to <u>ADP-144, "DTC Index"</u>.

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor Item	Unit	Main Signals	Selection From Menu	Contents
SET SW	"ON/OFF"	×	×	ON/OFF status judged from the setting switch signal.
MEMORY SW 1	"ON/OFF"	×	×	ON/OFF status judged from the seat memory switch 1 signal.
MEMORY SW 2	"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.

DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

< SYSTEM DESCRIPTION >

Monitor Item	Unit	Main Signals	Selection From Menu	Contents
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.
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.
TILT SW-UP	"ON/OFF"	×	×	ON/OFF status judged from the tilt switch (up) signal.
TILT SW-DOWN	"ON/OFF"	×	×	ON/OFF status judged from the tilt switch (down) signal.
TELESCO SW-FR	"ON/OFF"	×	×	ON/OFF status judged from the telescoping switch (for- ward) signal.
TELESCO SW-RR	"ON/OFF"	×	×	ON/OFF status judged from the telescoping switch (back-ward) signal.
DETENT SW ^{*1}	"ON/OFF"	×	×	The selector lever position "OFF (P position) / ON (other than P position)" judged from the detention switch signal.
PARK BRAKE SW ^{*2}	"ON/OFF"	×	×	The parking brake condition "ON (applied) / OFF (release)" judged from the parking brake switch signal.
STARTER SW	"ON/OFF"	×	×	Ignition key switch ON (START, ON) /OFF (ACC, OFF) sta- tus judged from the ignition switch signal.
SLIDE PULSE	_	-	×	Value (32768) when battery connections are standard. If it moves backward, the value increases. If it moves forward, the value decreases.
RECLN PULSE	_	-	×	Value (32768) when battery connections are standard. If it moves backward, the value increases. If it moves forward, the value decreases.
LIFT FR PULSE	_	-	×	Value (32768) when battery connections are standard. If it moves DOWN, the value increases. If it moves UP, the value decreases.
LIFT RR PULSE	_	-	×	Value (32768) when battery connections are standard. If it moves DOWN, the value increases. If it moves UP, the value decreases.
MIR/SEN RH U-D	"V"	-	×	Voltage input from door mirror sensor (passenger side) up/ down is displayed.
MIR/SEN RH R-L	"V"	-	×	Voltage input from door mirror sensor (passenger side) left/ right is displayed.
MIR/SEN LH U-D	"∖"	-	×	Voltage input from door mirror sensor (driver side) up/down is displayed.
MIR/SEN LH R-L	"∨"	-	×	Voltage input from door mirror sensor (driver side) left/right is displayed.
TILT SEN	"V"	-	×	Voltage input from tilt sensor is displayed.
TELESCO SEN	"V"	-	×	Voltage input from telescopic sensor is displayed.

^{*1}:Only for AT models.

*2:Only for MT models.

ACTIVE TEST

CAUTION:

When driving vehicle, do not perform active test.

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DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

< SYSTEM DESCRIPTION >

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).
TILT MOTOR	Activates/deactivates the tilt motor.
TELESCO MOTOR	Activates/deactivates the telescopic motor.
MIRROR MOTOR RH	Activates/deactivates the mirror motor (passenger side).
MIRROR MOTOR LH	Activates/deactivates the mirror motor (driver side).
MEMORY SW INDCTR	Turns ON/OFF the memory indicator.

WORK SUPPORT NOTE:

This mode is only for AT model.

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 TILT SETTING	Entry/exit assist (steering column) can be selected:	ON
EXIT HELSETTING	ON (operated) – OFF (not operated)	OFF
EXIT SEAT SLIDE SETTING	Entry/exit assist (seat) can be selected:	ON
EXIT SEAT SLIDE SETTING	ON (operated) – OFF (not operated)	OFF

DTC/CIRCUIT DIAGNOSIS U1000 CAN COMM CIRCUIT

Description

CAN (Controller Area Network) is a serial communication line for real time applications. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Modern vehicle is equipped with many electronic control unit, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H-line, CAN L-line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

DTC Logic

DTC DETECTION LOGIC

-	DTC No.	Trouble diagno- sis name	DTC detecting condition	Possible cause	F
-	U1000	CAN COMM CIRCUIT	 Driver seat control unit cannot communicate to other control units. Driver seat control unit cannot communicate for more than the specified time. 	Harness or connectors (CAN communication line is open or shorted)	G
D	TC CONF	IRMATION P	ROCEDURE		
1	.STEP 1				Н
1. 2.	Check "	Self diagnostic	N and wait at least 3 seconds. result" using CONSULT.		I
Is the DTC detected? YES >> Perform diagnosis procedure. Refer to <u>ADP-49, "Diagnosis Procedure"</u> .					
NO >> INSPECTION END					ADP
Diagnosis Procedure					
Refer to LAN-16, "Trouble Diagnosis Flow Chart".					
Special Repair Requirement					
Refer to ADP-10, "SYSTEM INITIALIZATION : Description".					L
					M

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B2112 SLIDING MOTOR

Description

- The seat sliding motor is installed to the seat cushion frame.
- 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

NOTE:

First perform diagnosis for B2126 if B2126 is detected.

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

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

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

Is the DTC detected?

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

Diagnosis Procedure

INFOID:000000008290866

1. CHECK SLIDING MOTOR CIRCUIT (POWER SHORT)

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

(+) Sliding motor		(-)	Voltage (V) (Approx.)	
Connector	Terminal		())	
B461	35 42	Ground	0	

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

2.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	Connector Terminal		()])	
B452	35	Ground	0	
0432	42	Ground	U U	

Is the inspection result normal?

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B2112 SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >	
YES >> GO TO 3. NO >> Replace driver seat control unit. Refer to <u>ADP-203, "Removal and Installation"</u> 3. CHECK INTERMITTENT INCIDENT	A
Refer to <u>GI-43, "Intermittent Incident"</u> .	В
>> INSPECTION END	
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B2113 RECLINING MOTOR

Description

- The seat reclining motor is installed to the seatback frame.
- . 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

NOTE:

First perform diagnosis for B2126 if B2126 is detected.

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.	 Driver seat control unit Reclining motor harness is power shorted

DTC CONFIRMATION PROCEDURE

1.PEFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.

2. Check "Self diagnostic result" using CONSULT.

Is the DTC detected?

- YES >> Perform diagnosis procedure. Refer to <u>ADP-52, "Diagnosis Procedure"</u>.
- NO >> INSPECTION END

Diagnosis Procedure

1.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.

	(+) Reclining motor Connector		Voltage (V) (Approx.)	
Connector	Terminal		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
B454	36 44	Ground	0	

Is the inspection result normal?

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

2.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	Terminal		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
B452	36 44	Ground	0

Is the inspection result normal?

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INEOID-000000008290868

INFOID:000000008290869

B2113 RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >	
YES >> GO TO 3. NO >> Replace driver seat control unit. Refer to <u>ADP-203, "Removal and Installation"</u> . 3. CHECK INTERMITTENT INCIDENT	A
Refer to GI-43, "Intermittent Incident".	В
>> INSPECTION END	
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B2118 TILT SENSOR

Description

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- The tilt sensor is installed to the steering column assembly.
- The resistance of tilt sensor is changed according to the up/down position of steering column.
- The terminal voltage of automatic drive positioner control unit will be changed according to a change of tilt sensor resistance. Automatic drive positioner control unit calculates the tilt position from the voltage.

DTC Logic

INFOID:000000008290871

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2118	TILT SENSOR	The input voltage of tilt sensor is less then 0.1Vor more than 4.9V.	 Harness and connectors (Tilt sensor circuit is opened/ shorted, tilt sensor power supply circuit is opened/shorted.) Tilt sensor

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

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

Is the DTC detected?

- YES >> Perform diagnosis procedure. Refer to <u>ADP-54, "Diagnosis Procedure"</u>.
- NO >> INSPECTION END

Diagnosis Procedure

1.CHECK TILT SENSOR SIGNAL

- 1. Turn ignition switch ON.
- 2. Select "TILT SEN" in "Data monitor" mode using CONSULT.
- 3. Check tilt sensor signal under the following condition.

Monitor item	Condition	Value
TILT SEN	Tilt position	Change between 1.1 V (close to top) 3.9 V (close to bottom)

Is the value normal?

YES >> GO TO 6.

NO >> GO TO 2.

2.CHECK TILT SENSOR CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit and tilt & telescopic sensor connector.
- Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic sensor harness connector.

Automatic drive po	sitioner control unit	Tilt & telescopic sensor		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
M51	7	M48	3	Existed	

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

INFOID:000000008290872

B2118 TILT SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Automatic dr	ive positioner control unit				Continuity
Connector	Termina	al	Ground		Continuity
M51	7				Not existed
Connect automatic Turn ignition switch	eplace harness. DR POWER SUPPLY drive positioner contr	ol unit conr		around	
Check voltage betw	·			ground.	
Til+ 9	(+) telescopic sensor		()		Voltage (V)
Connector	Termina	al	()		(Approx.)
M48	1		Ground		5
S >> GO TO 5.					
CHECK TILT SENSC Turn ignition switch Disconnect automat	OFF. tic drive positioner co etween automatic driv	ontrol unit c		ess connec	ctor and tilt & teles
CHECK TILT SENSO Turn ignition switch Disconnect automat Check continuity be sensor harness con Automatic drive pos	OFF. tic drive positioner co etween automatic driv inector. sitioner control unit	ontrol unit co ve positione	Tilt & telescopic sensor		ctor and tilt & teles
HECK TILT SENSC Turn ignition switch Disconnect automat Check continuity be sensor harness con Automatic drive pos Connector	OFF. tic drive positioner co etween automatic driv inector. sitioner control unit Terminal	ontrol unit c ve positione Conne	Tilt & telescopic sensor	minal	- Continuity
CHECK TILT SENSO Turn ignition switch Disconnect automatic Check continuity be sensor harness con Automatic drive post Connector M52	OFF. tic drive positioner co etween automatic driv inector. sitioner control unit Terminal 33	ontrol unit co ve positione Conne M4	Tilt & telescopic sensor ector Ter 8	minal	- Continuity Existed
CHECK TILT SENSO Turn ignition switch Disconnect automatic Check continuity be sensor harness con Automatic drive post Connector M52	OFF. tic drive positioner co etween automatic driv inector. sitioner control unit Terminal	ontrol unit co ve positione Conne M4	Tilt & telescopic sensor ector Ter 8	minal	- Continuity Existed
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HECK TILT SENSO Turn ignition switch Disconnect automat Check continuity be sensor harness con Automatic drive pos Connector M52 Check continuity be Automatic dr Connector	OFF. tic drive positioner co etween automatic driv inector. sitioner control unit Terminal 33 etween automatic driv rive positioner control unit Termina	ontrol unit co ve positione Conne M4 re positione	Tilt & telescopic sensor ector Ter 8	minal	Continuity Existed or and ground. Continuity
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CHECK TILT SENSO Turn ignition switch Disconnect automat Check continuity be sensor harness con Automatic drive pos Connector M52 Check continuity be Automatic dr Connector M52 the inspection result r ES >> Replace aut O >> Repair or re CHECK TILT SENSO Turn ignition switch Disconnect automat	OFF. tic drive positioner co etween automatic driven sitioner control unit Terminal 33 etween automatic driven rive positioner control unit Terminal 33 etween automatic driven positioner control unit Terminal 33 Pormal? tomatic drive positioner place harness. DR GROUND CIRCU OFF. tic drive positioner control unit tomatic drive positioner control unit Terminal 33 Pormal? tomatic drive positioner control unit Terminal 33 Pormal? tomatic drive positioner control unit Terminal 33 Pormal? Terminal 33 Pormal? Terminal 33 Pormal? Terminal 33 Pormal? Terminal 33 Pormal? Terminal 33 Pormal? Terminal 33 Pormal? Terminal 33 Pormal? Terminal 33 Pormal? Terminal Terminal Terminal 33 Pormal? Terminal Terminal 33 Pormal? Terminal Termi	ontrol unit cove positione Conne M4 re positione al her control unit co	Tilt & telescopic sensor ector Ter 8 r control unit harnes Ground unit. Refer to <u>ADP-2</u>	minal 1 ss connect 04, "Remo	Continuity Existed or and ground. Continuity Not existed
CHECK TILT SENSO Turn ignition switch Disconnect automat Check continuity be sensor harness con Automatic drive pos Connector M52 Check continuity be Automatic dr Connector M52 he inspection result r ES >> Replace automat O >> Repair or re CHECK TILT SENSO Turn ignition switch Disconnect automat Check continuity be	OFF. tic drive positioner co etween automatic driven sitioner control unit Terminal 33 etween automatic drive rive positioner control unit Termina 33 normal? tomatic drive positioner eplace harness. DR GROUND CIRCU OFF. tic drive positioner co etween automatic driven onector.	ontrol unit cove positione Conne M4 re positione al her control unit co	Tilt & telescopic sensor ector Ter 8 r control unit harnes Ground unit. Refer to <u>ADP-2</u>	minal 1 ss connect 04, "Remo ess connect	Continuity Existed or and ground. Continuity Not existed val and Installation ctor and tilt & teles
CHECK TILT SENSO Turn ignition switch Disconnect automatic Check continuity be sensor harness con Automatic drive pos Connector M52 Check continuity be Automatic dr Connector M52 he inspection result r ES >> Replace automatic CHECK TILT SENSO Turn ignition switch Disconnect automatic Check continuity be sensor harness con	OFF. tic drive positioner co etween automatic driven sitioner control unit Terminal 33 etween automatic drive rive positioner control unit Termina 33 normal? tomatic drive positioner eplace harness. DR GROUND CIRCU OFF. tic drive positioner co etween automatic driven onector.	ontrol unit cove positione Conne M4 re positione al her control unit co	Tilt & telescopic sensor ector Ter 8 r control unit harnes Ground unit. Refer to <u>ADP-2</u> onnector. er control unit harnes	minal 1 ss connect 04, "Remo ess connect	Continuity Existed or and ground. Continuity Not existed

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

B2119 TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

B2119 TELESCOPIC SENSOR

Description

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

DTC Logic

INFOID:000000008290874

INFOID:000000008290873

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INFOID:000000008290875

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2119	TELESCOPIC SENSOR	The input voltage of telescopic sensor is less than 0.1V or more than 4.9V.	 Harness and connectors (Telescopic sensor circuit is opened/shorted, telescopic sen- sor power supply circuit is opened/shorted.) Telescopic sensor

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

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

Is the DTC is detected?

- YES >> Perform diagnosis procedure. Refer to <u>ADP-57, "Diagnosis Procedure"</u>.
- NO >> INSPECTION END

Diagnosis Procedure

1.CHECK TELESCOPIC SENSOR SIGNAL

- 1. Turn ignition switch ON.
- 2. Select "TELESCO SEN" in "Data monitor" mode using CONSULT.
- 3. Check the tilt sensor signal under the following condition.

Monitor item	Condition	Value	
TELESCO SEN	Telescopic position	Change between 0.5 V (close to top) 4.5 V (close to bottom)	

Is the valve normal?

2. CHECK TELESCOPIC SENSOR CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit and tilt & telescopic sensor connector.
- 3. Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic sensor harness connector.

Automatic drive po	ositioner control unit	Tilt & teleso	copic sensor	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M51	23	M48	2	Existed

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

ADP-57

B2119 TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive positioner control unit			Continuity
Connector	Terminal	Ground	Continuity
M51	23		Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK TELESCOPIC SENSOR POWER SUPPLY

1. Connect automatic drive positioner control unit connector.

2. Turn ignition switch ON.

3. Check voltage between tilt & telescopic sensor harness connector and ground.

((+) Tilt & telescopic sensor		Voltage (V) (Approx.)
Tilt & teleso			
Connector	Terminal		
M48	1	Ground	5

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK TELESCOPIC SENSOR POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector.
- 3. Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic sensor harness connector.

Automatic drive po	atic drive positioner control unit Tilt & telescopic sensor		Continuity	
Connector	Terminal	Connector	Terminal	Continuity
M52	33	M48	1	Existed

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

Automatic drive po	sitioner control unit		Continuity
Connector	Terminal	Ground	Continuity
M52	33		Not existed

Is the inspection result normal?

- YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-204, "Removal and Installation"</u>.
- NO >> Repair or replace harness.

5.CHECK TELESCOPIC SENSOR GROUND CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector.
- 3. Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic sensor harness connector.

Automatic drive po	sitioner control unit	Tilt & teleso	copic sensor	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M52	41	M48	4	Existed

Is the inspection result normal?

YES >> Replace tilt & telescopic sensor.

NO >> Repair or replace harness.

6. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

< DTC/CIRCUIT DIAGNOSIS	>
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>> INSPECTION END	А
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B2126 DETENT SW

Description

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

DTC Logic

INFOID:000000008290877

INFOID:00000008290876

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Drive the vehicle at 7±4 km/h or more.
- 2. Check "Self diagnostic result" using CONSULT.

Is the DTC detected?

- YES >> Perform diagnosis procedure. Refer to <u>ADP-60, "Diagnosis Procedure"</u>.
- NO >> INSPECTION END

Diagnosis Procedure

1.CHECK DTC WITH "BCM"

Check "Self diagnostic result" for BCM using CONSULT.

Is the either DTC B2601, B2602, B2603, B2604 or B2605 detected?

YES >> Check the DTC. Refer to <u>BCS-75, "DTC Index"</u>.

NO >> GO TO 2.

2. CHECK DTC WITH "METER/M&A"

Check "Self diagnostic result" for METER/M&A using CONSULT.

Is the DTC detected?

YES >> Check the DTC. Refer to <u>MWI-85, "DTC Index"</u>.

NO >> GO TO 3.

3.CHECK DETENTION SWITCH SIGNAL

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

Monitor item		Condition	Status
DETENT SW	Selector lever	P position	OFF
DETENT SW	Selector level	Other than above	ON

Is the status normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK DETENTION SWITCH CIRCUIT

INFOID:000000008290878

B2126 DETENT SW

< DTC/CIRCUIT DIAGNOSIS >

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

Driver seat	control unit	A/T shif	t selector	Continuity	
 Connector	Terminal	Connector	Terminal	Continuity	
 B451	21	M137	11	Existed	С

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

Driver sea	t control unit		Continuity	
Connector	Terminal	Ground	Continuity	
B451	21	-	Not existed	_
the inspection result norm YES >> Replace driver s	<u>al?</u> seat control unit. Refer to <u>A</u>	DP-203. "Removal and Ins	stallation".	
NO >> Repair or replace	e harness.			

>> INSPECTION END

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B2127 PARKING BRAKE SWITCH

Description

INFOID:000000008290879

- Parking brake switch is installed on parking brake lever. It is turned ON when the parking brake is applied.
- The driver seat control unit judges that the parking brake is engaged if continuity exists in this circuit.

DTC Logic

INFOID:000000008290880

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2127	PARKING BRAKE	Parking brake is engaged and the vehicle speed of 7 km/h (4MPH) or more is detected.	 Harness and connectors (Parking brake switch circuit is opened/shorted.) Parking brake switch Combination meter (CAN communication) Driver seat control unit

DTC CONFIRMATION PROCEDURE

1.STEP 1

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

>> GO TO 2.

2.STEP 2

Check "Self Diagnostic Result" using CONSULT.

Is the DTC detected?

- YES >> Perform diagnosis procedure. Refer to <u>ADP-62, "Diagnosis Procedure"</u>.
- NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000008290881

1. CHECK PARKING BRAKE SWITCH SIGNAL

- 1. Turn ignition switch ON.
- 2. Select "PARK BRAKE SW" in "Data Monitor" mode using CONSULT.
- 3. Check parking brake switch signal under the following condition.

Monitor item	Con	dition	Status
PARK BRAKE SW	Parking brake	Applied	ON
FAIL DIVARE SW	Faiking blake	Release	OFF

Is the status normal?

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

NO >> GO TO 2.

2.CHECK PARKING BRAKE SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.

2. Disconnect parking brake switch harness connector.

3. Turn ignition switch ON.

4. Check voltage between parking brake switch harness connector and ground.

B2127 PARKING BRAKE SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Connector B14	king brake switch		(-)	Voltage (V) (Approx.)
B1/	Termin	al		
	1		Ground	Battery voltage
the inspection result YES >> GO TO 4. NO >> GO TO 3.		RNESS CO	NTINUITY	
	eat control unit conn		arking brake switch cor harness connector and	nnector. I parking brake switch ha
Driver seat	control unit		Parking brake switch	Continuity
Connector	Terminal	Conr	ector Termin	al
B451	8	B	14 1	Existed
. Check continuity be	etween driver seat co	ontrol unit h	arness connector and g	round.
	er seat control unit	-1	Orevert	Continuity
Connector	Termin	a	Ground	Net evieted
B451 the inspection result	8			Not existed
	ponent Inspection". normal? eplace parking brake	switch.		
D. CHECK INTERMITT	ENT INCIDENT			
	ttent Incident".			
Refer to <u>GI-43, "Intermi</u>				
Refer to <u>GI-43. "Intermi</u> >> INSPECTIO Component Inspec	-			INF01D:000000
>> INSPECTIO	ction			INFOID:000000
>> INSPECTIC Component Inspec .CHECK PARKING B . Turn ignition switch . Disconnect parking	Ction BRAKE SWITCH OFF. brake switch connect		minal and ground part c	
>> INSPECTIO Component Inspec .CHECK PARKING B . Turn ignition switch . Disconnect parking . Check continuity be	Ction BRAKE SWITCH OFF. brake switch connect			of parking brake switch.
>> INSPECTIO Component Inspec .CHECK PARKING B . Turn ignition switch . Disconnect parking . Check continuity be	Ction RAKE SWITCH OFF. brake switch connect etween parking brake		minal and ground part c	

YES >> INSPECTION END

NO >> Adjust or replace parking brake switch.

B2128 UART COMMUNICATION LINE

Description

INFOID:000000008290883

INFOID-000000008290884

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 tilt & telescopic switch, door mirror remote control switch, set switch and memory switch and the position signals of tilt & telescopic 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 auto 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.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Operate tilt & telescopic switch for more than 2 seconds.
- 3. Check "Self diagnostic result" using CONSULT.

Is the DTC detected?

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

Diagnosis Procedure

INFOID:000000008290885

1. CHECK UART COMMUNICATION LINE CONTINUITY

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

Driver sea	Driver seat control unit		Automatic drive positioner control unit		
Connector	Terminal	Connector	Terminal	Continuity	
B451	1	M51	10	Existed	
D401	17		26	Existed	

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

Driver seat	control unit	Ground	Continuity
Connector	Terminal		Continuity
B451	1	Ground	Not existed
	17		INDI EXISIEU

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".

NO >> Repair or replace harness.

POV < DTC/CIRCUIT DIAGNOSIS		D GROUND CIRCU	ІТ
POWER SUPPLY AND BCM		CUIT	A
BCM : Diagnosis Proced	ure		INFOID:00000008290886
1.CHECK FUSE AND FUSIBL	E LINK		В
Check that the following fuse ar	d fusible link are not bl	own.	C
Signal na	ne	Fuse and fu	isible link No.
Battery power	supply		40A) D
-	IRCUIT s.		cuit if a fuse or fusible link is F
(+)			
BCM		(-)	Voltage H (Approx.)
M119	11	Ground	Battery voltage
Is the measurement value norm YES >> GO TO 3. NO >> Repair harness or of 3. CHECK GROUND CIRCUIT Check continuity between BCM	connector.	l ground.	AD
BCM			
Connector	Terminal	Ground	
M119 <u>Does continuity exist?</u> YES >> INSPECTION END NO >> Repair harness or of DRIVER SEAT CONTRON DRIVER SEAT CONTRON NOTE: Do not disconnect the battery of firmed using CONSULT. 1. CHECK POWER SUPPLY CO 1. Turn ignition switch OFF.	OL UNIT DL UNIT : Diagnos negative terminal and th		Existed M N INFOID:00000008290887 Connector until DTC is con- P
BCM BCM : Diagnosis Proced 1.CHECK FUSE AND FUSIBL Check that the following fuse and Signal na Battery power Is the fuse fusing? YES YES SGO TO 2. 2.CHECK POWER SUPPLY OF 1. Turn ignition switch OFF. 2. Disconnect BCM connector 1. Turn ignition switch OFF. 2. Disconnect BCM connector 3. Check voltage between BCM Connector M118 M119 Is the measurement value norm YES YES S GO TO 3. NO NO S GO TO 3. NO S GO TO 3. NO S GO TO 3. NO YES S GO TO 3. NO S GO TO 3. NO NO S Continuity between BCM Connector M119 Dees continuity exist? YES YES NO <td>ure E LINK d fusible link are not blome supply fuse or fusible link afte IRCUIT s. M harness connector and Terminal 1 11 al? connector. harness connector and Terminal 13 connector. DL UNIT DL UNIT : Diagnos hegative terminal and the IRCUIT</td> <td>own. Fuse and fu K (10 (10 (r repairing the affected cir (-) Ground 4 ground. Ground is Procedure he driver seat control unit</td> <td>Isible link No. 40A) (10A) cuit if a fuse or fusible link is Voltage (Approx.) Battery voltage Continuity Existed ////////////////////////////////////</td>	ure E LINK d fusible link are not blome supply fuse or fusible link afte IRCUIT s. M harness connector and Terminal 1 11 al? connector. harness connector and Terminal 13 connector. DL UNIT DL UNIT : Diagnos hegative terminal and the IRCUIT	own. Fuse and fu K (10 (10 (r repairing the affected cir (-) Ground 4 ground. Ground is Procedure he driver seat control unit	Isible link No. 40A) (10A) cuit if a fuse or fusible link is Voltage (Approx.) Battery voltage Continuity Existed ////////////////////////////////////

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

	(+) Driver seat control unit		Voltage (V) (Approx.)	
Connector	Terminal		(, , , , , , , , , , , , , , , , , , ,	
B452	33	Ground	Pottony voltago	
D432	40	- Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 2.

NO-1 >> Repair or replace harness between automatic drive positioner control unit and fuse block (J/B).

NO-2 >> Check circuit breaker.

2. CHECK GROUND CIRCUIT

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

Driver seat	control unit	Ground	Continuity
Connector	Terminal		Continuity
B451	32		Existed
B452	48		

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace harness.

DRIVER SEAT CONTROL UNIT : Special Repair Requirement

INFOID:000000008290888

1.PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

>> Refer to ADP-65, "DRIVER SEAT CONTROL UNIT : Diagnosis Procedure".

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

AUTOMATIC DRIVE POSITIONER CONTROL UNIT : Diagnosis Procedure

INFOID:000000008290889

NOTE:

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

1.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.

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

	(+) Automatic drive positioner control unit		Voltage (V) (Approx.)	
Connector	Terminal		()	
MED	34	Cround	Pottony voltage	
M52	39	- Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 2.

NO - 1 >> Repair or replace harness between automatic drive positioner control unit and fuse block (J/B).

NO - 2 >> Check circuit breaker.

2. CHECK GROUND CIRCUIT

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

ADP-66

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Connector Terminal Continuity M52 40 Existed Is the inspection result normal? YES >> INSPECTION END Existed NO >> Repair or replace harness. AUTOMATIC DRIVE POSITIONER CONTROL UNIT : Special Repair Requirement AUTOMATIC DRIVE POSITIONER CONTROL UNIT : Special Repair Requirement Information of the provide
M52 40 Existed Is the inspection result normal? YES >> INSPECTION END NO NO >> Repair or replace harness. AUTOMATIC DRIVE POSITIONER CONTROL UNIT : Special Repair Requirement Interform additional Service 1.PERFORM ADDITIONAL SERVICE Perform additional service when removing battery negative terminal. >> Refer to ADP-9, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description".
48 Is the inspection result normal? YES >> INSPECTION END NO >> Repair or replace harness. AUTOMATIC DRIVE POSITIONER CONTROL UNIT : Special Repair Requirement .veroconconcentre .veroconcentre .veroconcentre <
YES >> INSPECTION END NO >> Repair or replace harness. AUTOMATIC DRIVE POSITIONER CONTROL UNIT : Special Repair Requirement J.PERFORM ADDITIONAL SERVICE Perform additional service when removing battery negative terminal. >> Refer to ADP-9, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description".
Image: Description
Perform additional service when removing battery negative terminal. >> Refer to ADP-9, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description".
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SLIDING SWITCH

Description

Sliding switch is equipped to the power seat switch on the seat cushion side surface. The operation signal is inputted to the driver seat control unit when the sliding switch is operated.

Component Function Check

1.CHECK FUNCTION

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

Monitor item	Condition		Status
SLIDE SW-FR	Cliding owitch (forward)	Operate	ON
SLIDE SW-FR	Sliding switch (forward)	Release	OFF
SLIDE SW-RR	Sliding switch (backward)	Operate	ON
	Shang Switch (Dackwald)	Release	OFF

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:000000008290893

1.CHECK SLIDING SWITCH SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect power seat switch connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between power seat switch harness connector and ground.

(+) Power seat switch		()	Voltage (V) (Approx.)	
Connector	Terminal		(· + F · - · · ·)	
B459	11	Ground	Potton / voltage	
6439	26		Battery voltage	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK SLIDING SWITCH CIRCUIT

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

Driver seat control unit		Power seat switch		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
B451	11	B459	11	Existed	
D431	26	5435	26		

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

INFOID:000000008290891

INFOID-00000008290892

SLIDING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Dr	iver seat control unit			Quantinguita	
Connector		Terminal	Ground	Continuity	
B451		11	Ground	Not existed	
		26		NOT EXISTED	
s the inspection resu	lt normal?				
		I unit. Refer to ADP-203.	Removal and Ins	stallation".	
	replace harness.				
3. CHECK SLIDING					
Refer to <u>ADP-69, "Co</u>		<u>on"</u> .			
s the inspection result					
YES >> GO TO 4 NO >> Replace		n. Refer to <u>ADP-206, "Rer</u>	noval and Installa	ntion"	
			noval and motalic		
		1			
Refer to <u>GI-43, "Interr</u>	<u>nillent incident</u> .				
>> INSPECT	ION END				
Component Insp	-				
	ection			INFOID:00000008290894	
1. CHECK SLIDING	SWITCH				
1. Turn ignition swite	ch OFF.				
2. Disconnect powe					
3. Check continuity	between power s	eat switch terminals.			
Power s	eat switch	_			
Terr	minal	Cond	dition	Continuity	
			Operate	Existed	
20	11	Sliding switch (backward)	Release	Not existed	
32			Operate	Existed	
	26	Sliding switch (forward)	+		

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to <u>ADP-206, "Removal and Installation"</u>.

Sliding switch (forward)

Release

26

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Not existed

RECLINING SWITCH

Description

Reclining switch is equipped to the power seat switch on the seat cushion side surface. The operation signal is inputted to the driver seat control unit when the reclining switch is operated.

Component Function Check

1.CHECK FUNCTION

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

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

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:000000008290897

1. CHECK RECLINING SWITCH SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect power seat switch connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between power seat switch harness connector and ground.

(+) Power seat switch		()	Voltage (V) (Approx.)	
Connector	Terminal		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
B459	12	Ground	Battony voltago	
D439	27	- Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK RECLINING SWITCH CIRCUIT

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

Driver sea	t control unit	Power seat switch		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
B451	B451 12 B459		12	Existed	
D-131	27	D400	27	LAIsted	

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

INFOID:000000008290895

INFOID-000000008290896

RECLINING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

DIIV	er seat control unit			Continuity	
Connector		Terminal	Ground		
B451		12	Ground	Not existed	
D451		27			
s the inspection result	normal?				
YES >> Replace dr NO >> Repair or r	iver seat contro eplace harness	ol unit. Refer to <u>ADP-203</u>	<u>, "Removal and In</u>	stallation".	
\mathbf{B} . CHECK RECLINING	SWITCH				
Refer to <u>ADP-71, "Com</u>	ponent Inspect	ion".			
s the inspection result	<u>normal?</u>				
YES >> GO TO 4. NO >> Replace po				etiene II	
		h. Refer to <u>ADP-206, "R</u> -	emoval and install	<u>ation"</u> .	
		l			
Refer to <u>GI-43, "Intermi</u>	ttent Incident".				
>> INSPECTI	ON END				
Component Inspe	ction			INFOID:00000008290	
	SWITCH				
. Turn ignition switch					
Disconnect power					
Check continuity by	stween power s	eat switch terminals.			
B. Check continuity be	t switch			Continuity	
Check continuity be Power sea	e owneen	Cc	naition	Continuity	
		Cc	ndition		
Power sea	nal		Operate	Existed	
Power sea		Reclining switch (backwa	Operate		
Power sea	nal		rd) Operate Release Operate	Existed	

NO >> Replace power seat switch. Refer to <u>ADP-206, "Removal and Installation"</u>.

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LIFTING SWITCH (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SWITCH (FRONT)

Description

INFOID:000000008290899

Lifting switch (front) is equipped to the power seat switch on the seat cushion side surface. The operation signal is inputted to the driver seat control unit when the lifting switch (front) is operated.

Component Function Check

INFOID:000000008290900

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "LIFT FR SW-UP", "LIFT FR SW-DN" in "Data monitor" mode using CONSULT.
- 3. Check lifting switch (front) signal under the following conditions.

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

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:000000008290901

1.CHECK LIFTING SWITCH SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect power seat switch connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between power seat switch harness connector and ground.

(+) Power seat switch		()	Voltage (V) (Approx.)	
Connector	Terminal		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
B459	13	Ground	Pottony voltago	
D409	28	_ Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK LIFTING SWITCH (FRONT) CIRCUIT

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

Driver sea	t control unit	Power seat switch Connector Terminal		Continuity
Connector	Terminal			Continuity
B451	13	B459	13	Existed
D401	28	D435	28	LXISIEU

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

LIFTING SWITCH (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

Di	river seat control unit			Question: it :	
Connector		Terminal	Ground	Continuity	
		13	Ground	Not existed	
		28			
s the inspection resu	It normal?				
	driver seat contro replace harness	I unit. Refer to <u>ADP-203</u>	"Removal and Ins	stallation".	
• '	•				
3. CHECK LIFTING					
Refer to <u>ADP-73, "Co</u>		<u>ion"</u> .			
<u>s the inspection resu</u> YES >> GO TO 4					
		n. Refer to <u>ADP-206, "Re</u>	moval and Installa	ition".	
4.CHECK INTERMI	•				
Refer to <u>GI-43, "Interi</u>					
	<u>interretinoidente</u> i				
>> INSPECT	FION END				
Component Insp	ection			INFOID:00000008290902	
1.CHECK LIFTING	SWITCH (FRONT	Γ)			
1. Turn ignition swit					
 Disconnect powe Check continuity 		nector. eat switch terminals.			
	bottieen poner e				
Power se	eat switch	Con	dition	Continuity	
Tern	ninal				
	13	Lifting switch front (down)	Operate	Existed	
32	-		Release	Not existed	
-			Operate	Existed	

Operate

Release

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to <u>ADP-206, "Removal and Installation"</u>.

Lifting switch front (up)

28

Κ

L

Ν

0

Ρ

Existed

Not existed

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SWITCH (REAR)

Description

INFOID:000000008290903

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

Component Function Check

INFOID:000000008290904

1.CHECK FUNCTION

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

Monitor item	Condition		Status
LIFT RR SW-UP	Lifting quitch root (up)	Operate	ON
LIFT RR SW-UP	Lifting switch rear (up)	Release	OFF
LIFT RR SW-DN	Lifting switch rear (down)	Operate	ON
		Release	OFF

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:000000008290905

1.CHECK LIFTING SWITCH (REAR) SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect power seat switch connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between power seat switch harness connector and ground.

Powers	(+) Power seat switch Connector Terminal		Voltage (V) (Approx.)
Connector			(Approx.)
B459	14	Ground	Potton (voltage
D409	29	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK LIFTING SWITCH (REAR) CIRCUIT

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

Driver sea	t control unit	Power sear switch				Continuity
Connector	Terminal	Connector	Terminal	Continuity		
B451	14	B459	14	Existed		
D431	29	D435	29	LXISIEU		

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

LIFTING SWITCH (REAR)

< DTC/CIRCUIT DIAGNOSIS >

				Continuity	
Connector	Terr	minal	round	Continuity	
D 454		G	round	Not evicted	
B451		29		Not existed	
the inspection result	normal?				
ES >> Replace du	river seat control un eplace harness.	nit. Refer to <u>ADP-203, "Re</u>	emoval and Ins	stallation".	
.CHECK LIFTING S	WITCH (REAR)				
efer to <u>ADP-75, "Com</u>	ponent Inspection	<u>"</u>			
the inspection result	normal?				
YES >> GO TO 4.					
		Refer to <u>ADP-206, "Remo</u>	val and Installa	<u>ation"</u> .	
CHECK INTERMIT					
efer to <u>GI-43, "Interm</u>	ittent Incident".				
>> INSPECTI					
>> INSPECTI omponent Inspe				INFOID:000000	
omponent Inspe	ction			INFOID:000000	
OMPONENT INSPE	Ction WITCH (REAR)			INFOID:000000	
OMPONENT INSPE .CHECK LIFTING SV Turn ignition switch Disconnect power	Ction WITCH (REAR) OFF. seat switch connec			INFOID:0000000	
OMPONENT INSPE CHECK LIFTING SV Turn ignition switch	Ction WITCH (REAR) OFF. seat switch connec			INFOID:000000	
OMPONENT INSPE CHECK LIFTING S ¹ Turn ignition switch Disconnect power Check continuity b	Ction WITCH (REAR) OFF. seat switch connec	t switch terminals.			
OMPONENT INSPE .CHECK LIFTING S Turn ignition switcl Disconnect power Check continuity b Power s	ction WITCH (REAR) o OFF. seat switch connec etween power seat		tion	Continuity	
OMPONENT INSPE .CHECK LIFTING S Turn ignition switcl Disconnect power Check continuity b Power s	ction WITCH (REAR) n OFF. seat switch connect etween power seat eat switch minal	t switch terminals.	tion		
OMPONENT INSPE .CHECK LIFTING S ^N Turn ignition switcl Disconnect power Check continuity b Power s Ter	ction WITCH (REAR) n OFF. seat switch connec etween power seat eat switch	t switch terminals.		Continuity	
OMPONENT INSPE .CHECK LIFTING S Turn ignition switcl Disconnect power Check continuity b Power s	ction WITCH (REAR) n OFF. seat switch connect etween power seat eat switch minal	t switch terminals.	Operate	Continuity Existed	

0

Ρ

< DTC/CIRCUIT DIAGNOSIS >

TILT SWITCH

Description

Tilt switch is equipped to the steering column. The operation signal is inputted to the automatic drive positioner control unit when the tilt switch is operated.

Component Function Check

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "TILT SW-UP", "TILT SW-DN" in "Data monitor" mode using CONSULT.
- 3. Check tilt switch signal under the following conditions.

Monitor item	Cond	Condition	
	Tilt owitch (up)	Operate	ON
TILT SW-UP	Tilt switch (up)	Release	OFF
TILT SW-DN	Tilt owitch (down)	Operate	ON
	Tilt switch (down)	Release	OFF

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:000000008290909

1.CHECK TILT SWITCH SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect tilt & telescopic switch connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between tilt & telescopic switch harness connector and ground.

	(+) Tilt & telescopic switch		Voltage (V) (Approx.)	
Connector	Connector Terminal		(Αρριοχ.)	
M31	4	Ground	Battery voltage	
	5	Ground	Ballery vollage	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK TILT SWITCH CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector.
- 3. Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic switch harness connector.

Automatic drive po	ositioner control unit	Tilt & telescopic switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M51	1	M31	4	Existed
	17		5	

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

INFOID:000000008290907

INFOID-000000008290908

TILT SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Connector	Te	rminal		Continuity
		1	Ground	
M51		17		Not existed
the inspection result		17		
NO >> Repair or in CHECK TILT SWIT efer to <u>ADP-77, "Con</u> the inspection result YES >> GO TO 4.	replace harness. CH <u>nponent Inspection</u> <u>normal?</u> t & telescopic swit			Removal and Installation".
efer to GI-43, "Interm	ittent Incident".			
component Inspe	CION			INFOID:000000082905
.CHECK TILT SWIT . Turn ignition switc . Disconnect tilt & te . Check continuity b	n OFF. lescopic switch co	onnector. copic switch terminals	5.	
 Turn ignition switc Disconnect tilt & te Check continuity b 	n OFF. lescopic switch co	copic switch terminals		Continuity
Turn ignition switc Disconnect tilt & te Check continuity b	n OFF. elescopic switch co etween tilt & teles	copic switch terminals	S. Condition	Continuity
Turn ignition switc Disconnect tilt & te Check continuity b	n OFF. elescopic switch cc etween tilt & teles copic switch minal	copic switch terminals		Continuity Existed
Turn ignition switc Disconnect tilt & te Check continuity b	n OFF. elescopic switch co etween tilt & teles copic switch	copic switch terminals	Condition Operate Release	Existed Not existed
Turn ignition switc Disconnect tilt & te Check continuity b Tilt & teles	n OFF. elescopic switch cc etween tilt & teles copic switch minal	copic switch terminals	Condition Operate Release Operate	Existed Not existed Existed
Turn ignition switc Disconnect tilt & te Check continuity b Tilt & teles Ter 1	n OFF. elescopic switch co etween tilt & teles copic switch minal 4 5 normal?	Copic switch terminals	Condition Operate Release	Existed Not existed
Turn ignition switc Disconnect tilt & te Check continuity b Tilt & teles Ter 1 the inspection result YES >> INSPECTI	n OFF. elescopic switch co etween tilt & teles copic switch minal 4 5 <u>normal?</u> ON END	Copic switch terminals	Condition Operate Release Operate Release	Existed Not existed Existed Not existed

< DTC/CIRCUIT DIAGNOSIS >

TELESCOPIC SWITCH

Description

Telescopic switch is equipped to the steering column. The operation signal is inputted to the automatic drive positioner control unit when the telescopic switch is operated.

Component Function Check

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "TELESCO SW-FR", "TELESCO SW-RR" in "Data monitor" mode using CONSULT.
- 3. Check telescopic switch signal under the following conditions.

Monitor item	Condition	Condition	
	Talagaania awitah (farward)	Operate	ON
TELESCO SW-FR	Telescopic switch (forward)	Release	OFF
TELESCO SW-RR	Telescopic switch (backward)	Operate	ON
TELESCO SW-KK		Release	OFF

Is the indication normal?

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

Diagnosis Procedure

INFOID:000000008290913

1. CHECK TELESCOPIC SWITCH SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect tilt & telescopic switch connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between tilt & telescopic switch harness connector and ground.

	(+) Tilt & telescopic switch		Voltage (V) (Approx.)
Connector	Connector Terminal		(· + F · • · · ·)
M31	2	Ground	Pottony voltago
INIS I	3	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK TELESCOPIC SWITCH CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector.
- 3. Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic switch harness connector.

Automatic drive po	ositioner control unit	Tilt & telescopic switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M51	11	M31	2	Existed
IND I	27	IND I	3	LXISIEU

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

INFOID:000000008290911

INFOID-000000008290912

TELESCOPIC SWITCH

< DTC/CIRCUIT DIAGNOSIS >

	ic drive positioner cor			Continuity
Connector		Terminal	Ground	
M51		11		Not existed
		27		
the inspection resu				
	automatic drive r replace harnes	positioner control unit. Refe	er to <u>ADP-203, "F</u>	Removal and Installation".
CHECK TELESC	•	5.		
efer to <u>ADP-79, "Co</u>		<u>tion"</u> .		
<u>s the inspection resu</u> YES >> GO TO 4				
		switch. Refer to ADP-207, "	Removal and In	stallation".
efer to <u>GI-43, "Inter</u>				
	inition includint.			
>> INSPEC	TION END			
Component Insp				
omponent insp				INFOID:00000008290
.CHECK TELESC	OPIC SWITCH			
. Turn ignition swi . Disconnect tilt &	tch OFF. telescopic switch			
. Turn ignition swi . Disconnect tilt &	tch OFF. telescopic switch	n connector. lescopic switch terminals.		
 Turn ignition swi Disconnect tilt & Check continuity 	tch OFF. telescopic switch	lescopic switch terminals.		
. Turn ignition swi . Disconnect tilt & . Check continuity Tilt & teles	tch OFF. telescopic switch between tilt & te		ion	Continuity
. Turn ignition swi . Disconnect tilt & . Check continuity Tilt & teles	tch OFF. telescopic switch between tilt & te copic switch minal	elescopic switch terminals.	ion Operate	Continuity
. Turn ignition swi . Disconnect tilt & . Check continuity Tilt & teles	tch OFF. telescopic switch between tilt & te	lescopic switch terminals.		
. Turn ignition swi . Disconnect tilt & . Check continuity Tilt & teles	tch OFF. telescopic switch between tilt & te copic switch minal 2	Plescopic switch terminals.	Operate	Existed
. Turn ignition swi . Disconnect tilt & . Check continuity Tilt & teles	tch OFF. telescopic switch between tilt & te copic switch minal	elescopic switch terminals.	Operate Release	Existed Not existed
. Turn ignition swi . Disconnect tilt & . Check continuity Tilt & teles Terr	tch OFF. telescopic switch between tilt & te copic switch minal 2 3	Plescopic switch terminals.	Operate Release Operate	Existed Not existed Existed
. Turn ignition swi . Disconnect tilt & . Check continuity Tilt & teles Terr 1 s the inspection rest YES >> INSPEC	tch OFF. telescopic switch between tilt & te copic switch minal 2 3 <u>ult normal?</u> TION END	Lescopic switch terminals. Condit Telescopic switch (forward) Telescopic switch (backward)	Operate Release Operate Release	Existed Not existed Existed Not existed
. Turn ignition swi . Disconnect tilt & . Check continuity Tilt & teles Terr 1 s the inspection rest YES >> INSPEC	tch OFF. telescopic switch between tilt & te copic switch minal 2 3 <u>ult normal?</u> TION END	Plescopic switch terminals.	Operate Release Operate Release	Existed Not existed Existed Not existed
. Turn ignition swi . Disconnect tilt & . Check continuity Tilt & teles Terr 1 s the inspection rest YES >> INSPEC	tch OFF. telescopic switch between tilt & te copic switch minal 2 3 <u>ult normal?</u> TION END	Lescopic switch terminals. Condit Telescopic switch (forward) Telescopic switch (backward)	Operate Release Operate Release	Existed Not existed Existed Not existed
. Turn ignition swi . Disconnect tilt & . Check continuity Tilt & teles Terr 1 s the inspection rest YES >> INSPEC	tch OFF. telescopic switch between tilt & te copic switch minal 2 3 <u>ult normal?</u> TION END	Lescopic switch terminals. Condit Telescopic switch (forward) Telescopic switch (backward)	Operate Release Operate Release	Existed Not existed Existed Not existed
. Turn ignition swi . Disconnect tilt & . Check continuity Tilt & teles Terr 1 s the inspection rest YES >> INSPEC	tch OFF. telescopic switch between tilt & te copic switch minal 2 3 <u>ult normal?</u> TION END	Lescopic switch terminals. Condit Telescopic switch (forward) Telescopic switch (backward)	Operate Release Operate Release	Existed Not existed Existed Not existed
. Turn ignition swi . Disconnect tilt & . Check continuity Tilt & teles Terr 1 s the inspection rest YES >> INSPEC	tch OFF. telescopic switch between tilt & te copic switch minal 2 3 <u>ult normal?</u> TION END	Lescopic switch terminals. Condit Telescopic switch (forward) Telescopic switch (backward)	Operate Release Operate Release	Existed Not existed Existed Not existed
. Turn ignition swi . Disconnect tilt & . Check continuity Tilt & teles Terr 1 s the inspection rest YES >> INSPEC	tch OFF. telescopic switch between tilt & te copic switch minal 2 3 <u>ult normal?</u> TION END	elescopic switch terminals. Condit Telescopic switch (forward) Telescopic switch (backward)	Operate Release Operate Release	Existed Not existed Existed Not existed
. Turn ignition swi . Disconnect tilt & . Check continuity Tilt & teles Terr 1 s the inspection rest YES >> INSPEC	tch OFF. telescopic switch between tilt & te copic switch minal 2 3 <u>ult normal?</u> TION END	elescopic switch terminals. Condit Telescopic switch (forward) Telescopic switch (backward)	Operate Release Operate Release	Existed Not existed Existed Not existed
. Turn ignition swi . Disconnect tilt & . Check continuity Tilt & teles Terr 1 s the inspection rest YES >> INSPEC	tch OFF. telescopic switch between tilt & te copic switch minal 2 3 <u>ult normal?</u> TION END	elescopic switch terminals. Condit Telescopic switch (forward) Telescopic switch (backward)	Operate Release Operate Release	Existed Not existed Existed Not existed
. Turn ignition swi . Disconnect tilt & . Check continuity Tilt & teles Terr 1 s the inspection rest YES >> INSPEC	tch OFF. telescopic switch between tilt & te copic switch minal 2 3 <u>ult normal?</u> TION END	elescopic switch terminals. Condit Telescopic switch (forward) Telescopic switch (backward)	Operate Release Operate Release	Existed Not existed Existed Not existed

SEAT MEMORY SWITCH

Description

INFOID:000000008290915

INFOID:000000008290916

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

Component Function Check

1.CHECK FUNCTION

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

Monitor item	Condition		Status
SET SW	SET SW	Push	ON
SETSW	SETSW	Release	OFF
MEMORY SW 1	Memory switch 1	Push	ON
MEMORT SW 1		Release	OFF
MEMORY SW 2	Maria a tal o	Push	ON
WEWORT SW 2	Memory switch 2	Release	OFF

Is the indication normal?

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

Diagnosis Procedure

INFOID:000000008290917

1.CHECK SEAT MEMORY SWITCH SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect seat memory switch connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between seat memory switch harness connector and ground.

	(+) Seat memory switch		Voltage (V) (Approx.)
Connector	Terminal		(Approx.)
	1		
D5	2	Ground	5
	3		

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK MEMORY SWITCH CIRCUIT

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

SEAT MEMORY SWITCH

< DTC/CIRCUIT DIAGNOSIS >

		O a st man		
	ositioner control unit		Seat memory switch Connector Terminal	
Connector	Terminal 9	Connector	1 Ierminai	
M51	24	D5	3	 Existed
I CIVI	24	05	2	Existed
Charle continuity h		a positionar control		ator and ground
. Check continuity be	etween automatic driv	e positioner control	unit namess conne	ector and ground.
Automatic d	Irive positioner control unit			Continuity
Connector	Termin	al		Continuity
	9		Ground	
M51	24			Not existed
	25			
CHECK MEMORY S			ector and ground.	
Sea	at memory switch			Continuity
Connector	Termin	al	Ground	
D5	4			Existed
4.CHECK SEAT MEM Refer to <u>ADP-81. "Com</u> <u>s the inspection result</u> YES >> GO TO 5. NO >> Replace se 5. CHECK INTERMITT	n <u>ponent Inspection"</u> . normal? eat memory switch. R FENT INCIDENT	efer to <u>ADP-205, "Re</u>	moval and Installa	tion".
Refer to <u>GI-43, "Intermi</u>	ment incident.			
>> INSPECTION	ON END			
Component Inspe	ction			INFOID:00000008
1. CHECK SEAT MEM	ORY SWITCH			
	n OFF. emory switch connec etween seat memory			

SEAT MEMORY SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Seat memory switch			Condition	
Teri	ninal		- Condition Cont	
	2	Sot owitch	Push	Existed
	3 Set switch	Set Switch	Release	Not existed
4	1	Push	Push	Existed
4	I	Memory switch 1	Release	Not existed
	0	Mamany avvitab 2	Push	Existed
	2	Memory switch 2 Release	Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace seat memory switch.Refer to <u>ADP-205, "Removal and Installation"</u>.

< DTC/CIRCUIT DIAGNOSIS >

DOOR MIRROR REMOTE CONTROL SWITCH MIRROR SWITCH

MIRROR SWITCH : Description

It operates angle of the door mirror face. It transmits mirror face adjust operation to AUTOMATIC DRIVE POSITIONER CONTROL UNIT.

MIRROR SWITCH : Component Function Check

1.CHECK MIRROR SWITCH FUNCTION

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

Monitor item	Condition		
	When operating the mirror switch up or down side.	: ON	
MIR CON SW-UP/DN	Other than above.	: OFF	
	When operating the mirror switch right or left side.	: ON	
MIR CON SW-RH/LH	Other than above.	: OFF	
Is the inspection result nor	mal?		

- YES >> Mirror switch function is OK.
- NO >> Refer to <u>ADP-83</u>, "<u>MIRROR SWITCH : Diagnosis Procedure</u>".

MIRROR SWITCH : Diagnosis Procedure

1.CHECK MIRROR SWITCH INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect door mirror remote control switch connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between door mirror remote control switch harness connector and ground.

(+)		(-)	Voltage (V) (Approx.)	
Door mirror remote control switch				K
Connector	Terminal	_	(/ ())	
	4			L
D17	12	Ground	-	
	13	– Ground	5	
	15	_		N

Is the inspection result normal?

YES	>> GO TO 3.
NO	>> GO TO 2.

2. CHECK MIRROR SWITCH CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect automatic drive positioner control unit connector.

3. Check continuity between automatic drive positioner control unit harness connector and door mirror remote control switch harness connector.

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INFOID:000000008290919

INFOID:000000008290920

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive po	ositioner control unit	control unit Door mirror remote control switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
	3	D17	15	
M51	4		13	Existed
I CIVI	19		12	Existed
	20		4	-

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

Automatic drive po	Automatic drive positioner control unit		Continuity
Connector	Terminal		Continuity
	3	Ground	
M51	4	Crodina	Not existed
WO I	19		Not existed
	20		

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-204, "Removal and Installation"</u>.

NO >> Repair or replace harness.

3.check door mirror remote control switch ground circuit

- 1. Turn ignition switch OFF.
- 2. Check continuity between door mirror remote control switch harness connector and ground.

Door mirror rem	Door mirror remote control switch		Continuity
Connector	Terminal	Ground	Continuity
D17	7		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4.CHECK MIRROR SWITCH

Check door mirror remote control switch (mirror switch). Refer toADP-84, "MIRROR SWITCH : Component Inspection".

Is the inspection result normal?

- YES >> GO TO 5.
- NO >> Replace door mirror remote control switch (mirror switch). Refer to <u>MIR-18, "Removal and Instal-</u> lation".

5.CHECK INTERMITTENT INCIDENT

Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u>.

>> INSPECTION END

MIRROR SWITCH : Component Inspection

1.CHECK MIRROR SWITCH

1. Turn ignition switch OFF.

2. Disconnect door mirror remote control switch connector.

3. Check continuity between door mirror remote control switch terminals.

< DTC/CIRCUIT DIAGNOSIS >

Door mirror rem	ote control switch		Condition	Continuity	А
Ter	minal		Condition	Continuity	
			RIGHT	Existed	_
4			Other than above	Not existed	В
10	-		LEFT	Existed	
13	7		Other than above	Not existed	С
45	-	Mirror switch	UP	Existed	
15			Other than above	Not existed	
10	-		DOWN	Existed	D
12			Other than above	Not existed	
Is the inspection result	normal?				Е

YES >> INSPECTION END

>> Replace door mirror remote control switch. Refer to MIR-18, "Removal and Installation". NO CHANGEOVER SWITCH

CHANGEOVER SWITCH : Description

Changeover switch is integrated into door mirror remote control switch. Changeover switch has three positions (L, N and R). It changes operating door mirror motor by transmitting control signal to automatic drive positioner control unit.

CHANGEOVER SWITCH : Component Function Check

1. CHECK CHANGEOVER SWITCH FUNCTION

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

Monitor item		Condition	
	When operating the changeove	er toward the right or left side.	: ON
MIR CHNG SW-R/L	Other than above.		: OFF
s the inspection result no	rmal?		
	switch function is OK. -85, "CHANGEOVER SWITC	H : Diagnosis Procedure'	
CHANGEOVER SW	/ITCH : Diagnosis Proc	edure	INF0ID:00000008290925
_			
CHECK CHANGEOVE			
 Turn ignition switch C Disconnect door mirr Turn ignition switch C 	OFF. or remote control switch connection		r and ground.
 Turn ignition switch C Disconnect door mirr Turn ignition switch C 	DFF. or remote control switch conne DN.		
 Turn ignition switch C Disconnect door mirr Turn ignition switch C Check voltage betwe 	DFF. or remote control switch conne DN. en door mirror remote control		Voltage (V)
 Turn ignition switch C Disconnect door mirr Turn ignition switch C Check voltage betwe 	DFF. or remote control switch conne DN. en door mirror remote control (+)	switch harness connecto	
Turn ignition switch C Disconnect door mirr Turn ignition switch C Check voltage betwe	DFF. or remote control switch conner N. en door mirror remote control (+) remote control switch	switch harness connecto	Voltage (V)

NO >> GO TO 2.

2.CHECK CHANGEOVER SWITCH CIRCUIT

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INFOID:000000008290923

< DTC/CIRCUIT DIAGNOSIS >

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

Automatic drive po	sitioner control unit	Door mirror remo	ote control switch	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M51	2	D17	11	Existed
	18		10	LNSted

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

Automatic drive po	sitioner control unit		Continuity
Connector	Terminal	Ground	Continuity
M51	2	Ground	Not existed
I GIVI	18		NOT EXISTED

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-204, "Removal and Installation"</u>. NO >> Repair or replace harness.

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

1. Turn ignition switch OFF.

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

Door mirror reme	ote control switch		Continuity
Connector	Terminal	Ground	Continuity
D17	7	_	Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4.CHECK CHANGEOVER SWITCH

Check door mirror remote control switch (changeover switch). Refer to ADP-86, "CHANGEOVER SWITCH : Component Inspection".

Is the inspection result normal?

- YES >> GO TO 5.
- NO >> Replace door mirror remote control switch (changeover switch). Refer to <u>MIR-18</u>, "<u>Removal and</u> <u>Installation</u>".

5. CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

CHANGEOVER SWITCH : Component Inspection

INFOID:000000008290926

1.CHECK CHANGEOVER SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect door mirror remote control switch connector.
- 3. Check continuity between door mirror remote control switch terminals.

< DTC/CIRCUIT DIAGNOSIS >

Door mirror remo	ote control switch	Cor	dition	Continuity	А
Terr	ninal			Continuity	
10			LEFT	Existed	_
10	7	Changeover ewitch	Other than above	Not existed	В
11	Ĩ	Changeover switch	RIGHT	Existed	
			Other than above	Not existed	С

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace door mirror remote control switch. Refer to <u>MIR-18. "Removal and Installation"</u>.

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POWER SEAT SWITCH GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

POWER SEAT SWITCH GROUND CIRCUIT

Diagnosis Procedure

INFOID:000000008290927

1. CHECK POWER SEAT SWITCH GROUND CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect power seat switch connector.

3. Check continuity between power seat switch connector and ground.

Power se	eat switch		Continuity
Connector	Terminal	Ground	Continuity
B459	32		Existed

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

2.CHECK POWER SEAT SWITCH INTERNAL CIRCUIT

Check reclining switch.

Refer to ADP-71, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace power seat switch. Refer to <u>ADP-206</u>, "Removal and Installation".

3.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

TILT &T	ELESCOPIC SW	ITCH GROUND CIR	CUIT
< DTC/CIRCUIT DIAGNOSIS			
TILT &TELESCOPIC S	SWITCH GROUP	ND CIRCUIT	
Diagnosis Procedure			INFOID:00000008290928
1.CHECK POWER TILT & TEL	ESCOPIC SWITCH GF	ROUND CIRCUIT	
 Turn ignition switch OFF. Disconnect power tilt & tele Check continuity between p 			
Tilt & telescopi	c switch		Continuity
Connector M31	Terminal 1	Ground	Existed
Is the inspection result normal?	1		LAISteu
YES >> GO TO 2. NO >> Repair or replace h	arness.		
2.CHECK POWER TILT & TEL		TERNAL CIRCUIT	
Check tilt switch. Refer to <u>ADP-77</u> , "Component I	nspection"		
Is the inspection result normal?			
YES >> GO TO 3.	ania awitah Dafarta Al		
NO >> Replace tilt & teleso 3.CHECK INTERMITTENT INC		DP-207, "Removal and Ins	<u>stallation"</u> .
Refer to <u>GI-43</u> , "Intermittent Inc			
>> INSPECTION END			

Ρ

< DTC/CIRCUIT DIAGNOSIS >

DETENTION SWITCH

Description

INFOID:000000008290929

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

Component Function Check

INFOID:000000008290930

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "DETENT SW" signal in "Data monitor" mode using CONSULT.
- 3. Check detention switch signal under the following conditions.

Monitor item	Con	dition	Status
DETENT SW	Selector lever	P position	OFF
DETENT SW		Other than above	ON

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

1. CHECK DTC WITH "BCM"

Check "Self Diagnostic Result" for BCM using CONSULT.

Is the either DTC B2601, B2602, B2603, B2604 or B2605 detected?

YES >> Check the DTC. Refer to <u>BCS-75, "DTC Index"</u>.

NO >> GO TO 2.

2.CHECK DETENTION SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.

2. Disconnect A/T shift selector harness connector.

3. Turn ignition switch ON.

4. Check voltage between A/T shift selector harness connector and ground.

	+) selector	(-)	Voltage (V) (Approx.)
Connector	Terminal		
M137	11	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

3.CHECK DETENTION SWITCH CIRCUIT 1

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

Driver seat	control unit	A/T shift	selector	Continuity
Connector	Terminal	Connector	Terminal	Continuity
B451	21	M137	11	Existed

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

DETENTION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Drivei	· · · · · · · · · · · · · · · · · · ·			
Connector	r seat control unit Termin		Ground	Continuity
B451	21		Ground	Not existed
the inspection result n				NOT EXISTED
	ver seat control unit. place harness.	. Refer to <u>ADP-203</u>	3, "Removal and Ins	<u>tallation"</u> .
efer to ADP-91, "Comp	onent Inspection".			
the inspection result n				
YES >> GO TO 5.				
•			D : Exploded View".	
CHECK DETENTION		2		
Turn ignition switch Disconnect BCM co Check continuity be	nnector and A/T shi tween BCM harness	s connector and A	/T shift selector har	ness connector.
Connector	Terminal		shift selector	Continuity
M122	96	M137	Connector Terminal M137 10	
Check continuity be		_		Existed
Check continuity be			s connector and grot	inu.
	BCM			Continuity
Connector	Termin	al	Ground	Continuity
M122	96			Not existed
the inspection result n	ormal? M. Refer to <u>BCS-81</u> place harness.	, "Exploded View	"	
the inspection result n YES >> Replace BC NO >> Repair or re	ormal? M. Refer to <u>BCS-81</u> place harness. tion	, "Exploded View	<u>.</u> .	
the inspection result n YES >> Replace BC NO >> Repair or re omponent Inspec	ormal? M. Refer to <u>BCS-81</u> place harness. tion I SWITCH OFF. selector connector.		"	
the inspection result n YES >> Replace BC NO >> Repair or re omponent Inspec .CHECK DETENTION Turn ignition switch Disconnect A/T shift	ormal? M. Refer to <u>BCS-81</u> place harness. tion I SWITCH OFF. selector connector. ctor terminals.			INFOID:000000082
the inspection result n YES >> Replace BC NO >> Repair or re Omponent Inspec .CHECK DETENTION Turn ignition switch Disconnect A/T shift Check A/T shift sele	ormal? M. Refer to <u>BCS-81</u> place harness. tion I SWITCH OFF. selector connector. ctor terminals.		 Condition	Not existed
the inspection result n YES >> Replace BC NO >> Repair or re omponent Inspec .CHECK DETENTION Turn ignition switch Disconnect A/T shift Check A/T shift sele	ormal? M. Refer to <u>BCS-81</u> place harness. tion I SWITCH OFF. selector connector. ctor terminals.			INFOID:000000082

PARKING BRAKE SWITCH

< DTC/CIRCUIT DIAGNOSIS >

PARKING BRAKE SWITCH

Description

INFOID:000000008290933

Parking brake switch is installed on parking brake lever. It is turned ON when the parking brake is applied. The driver seat control unit judges that the parking brake is engaged if continuity exists in this circuit.

Component Function Check

INFOID:000000008290934

1. CHECK PARKING BRAKE SWITCH INPUT SIGNAL

- 1. Select "PARK BRAKE SW" in "Data Monitor" mode using CONSULT.
- 2. Check parking brake switch signal under the following conditions.

Monitor item	Conditio	Status	
PARK BRAKE SW	Parking brake	Applied	ON
		Release	OFF

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:000000008290935

1. CHECK PARKING BRAKE SWITCH INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect A/T shift selector harness connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between parking brake switch harness connector and ground.

	+) ake switch	(-)	Voltage (V) (Approx.)	
Connector	Terminal			
B14	1	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK PARKING BRAKE SWITCH CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect driver seat control unit connector.

Check continuity between driver seat control unit harness connector and parking brake switch harness connector.

Driver seat	Driver seat control unit		Parking brake switch			
Connector	Terminal	Connector	Terminal Conti			
B451	8	B14	1	Existed		

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

Driver seat	control unit		Continuity	
Connector	Terminal	Ground	Continuity	
B451	8		Not existed	

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-203</u>, "<u>Removal and Installation</u>".

NO >> Repair or replace harness.

PARKING BRAKE SWITCH

< DTC/C		310313 >			
3. снес	CK PARKING E	BRAKE SWITCH			
Refer to	ADP-93, "Com	ponent Inspection".			
	spection result	normal?			
	>> GO TO 4.	replace parking brak	a switch (nedal type) Refer toPR-6 "PE	DAL TYPE : Exploded
	<u>View"</u> .			-	-
	<u>View"</u>		e switch (lever type)). Refer to <u>PB-7, "LE\</u>	/ER TYPE : Exploded
4.CHEC		TENT INCIDENT			
Refer to	<u>GI-43, "Interm</u>	ittent Incident".			
	>> INSPECTI				
Jompo	onent Inspe	CTION			INFOID:00000008290936
1.снес	CK PARKING E	BRAKE SWITCH			
	ignition switch				
		g brake switch connec etween parking brake		around part of parking	n broko owitab
5. Che		etween parking brake	Switch terminal and	ground part of parking	J DIAKE SWILCH.
	Parkin	ng brake			Orationity
	T arkin	0	Con	dition	
		minal	Con	dition	Continuity
		minal Ground part of parking	Con Parking brake	Applied	Existed
	Teri 1	minal Ground part of parking brake switch			
	Terr 1 spection result	minal Ground part of parking brake switch normal?		Applied	Existed
YES	Terr 1 spection result >> INSPECTI	minal Ground part of parking brake switch normal? ON END	Parking brake	Applied Release	Existed Not existed
YES NO-1	1 spection result >> INSPECTI >> Adjust or i <u>View"</u> .	minal Ground part of parking brake switch <u>normal?</u> ON END replace parking brake	Parking brake	Applied Release). Refer to <u>PB-6, "PE</u>	Existed Not existed
YES NO-1	1 spection result >> INSPECTI >> Adjust or i <u>View"</u> . >> Adjust or i	minal Ground part of parking brake switch <u>normal?</u> ON END replace parking brake	Parking brake	Applied Release). Refer to <u>PB-6, "PE</u>	Existed Not existed
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YES NO-1	1 spection result >> INSPECTI >> Adjust or i <u>View"</u> . >> Adjust or i	minal Ground part of parking brake switch <u>normal?</u> ON END replace parking brake	Parking brake	Applied Release). Refer to <u>PB-6, "PE</u>	Existed Not existed
YES NO-1	1 spection result >> INSPECTI >> Adjust or i <u>View"</u> . >> Adjust or i	minal Ground part of parking brake switch <u>normal?</u> ON END replace parking brake	Parking brake	Applied Release). Refer to <u>PB-6, "PE</u>	Existed Not existed
YES NO-1	1 spection result >> INSPECTI >> Adjust or i <u>View"</u> . >> Adjust or i	minal Ground part of parking brake switch <u>normal?</u> ON END replace parking brake	Parking brake	Applied Release). Refer to <u>PB-6, "PE</u>	Existed Not existed
YES NO-1	1 spection result >> INSPECTI >> Adjust or i <u>View"</u> . >> Adjust or i	minal Ground part of parking brake switch <u>normal?</u> ON END replace parking brake	Parking brake	Applied Release). Refer to <u>PB-6, "PE</u>	Existed Not existed
YES NO-1	1 spection result >> INSPECTI >> Adjust or i <u>View"</u> . >> Adjust or i	minal Ground part of parking brake switch <u>normal?</u> ON END replace parking brake	Parking brake	Applied Release). Refer to <u>PB-6, "PE</u>	Existed Not existed
YES NO-1	1 spection result >> INSPECTI >> Adjust or i <u>View"</u> . >> Adjust or i	minal Ground part of parking brake switch <u>normal?</u> ON END replace parking brake	Parking brake	Applied Release). Refer to <u>PB-6, "PE</u>	Existed Not existed
YES NO-1	1 spection result >> INSPECTI >> Adjust or i <u>View"</u> . >> Adjust or i	minal Ground part of parking brake switch <u>normal?</u> ON END replace parking brake	Parking brake	Applied Release). Refer to <u>PB-6, "PE</u>	Existed Not existed
YES NO-1	1 spection result >> INSPECTI >> Adjust or i <u>View"</u> . >> Adjust or i	minal Ground part of parking brake switch <u>normal?</u> ON END replace parking brake	Parking brake	Applied Release). Refer to <u>PB-6, "PE</u>	Existed Not existed
YES NO-1	1 spection result >> INSPECTI >> Adjust or i <u>View"</u> . >> Adjust or i	minal Ground part of parking brake switch <u>normal?</u> ON END replace parking brake	Parking brake	Applied Release). Refer to <u>PB-6, "PE</u>	Existed Not existed
YES NO-1	1 spection result >> INSPECTI >> Adjust or i <u>View"</u> . >> Adjust or i	minal Ground part of parking brake switch <u>normal?</u> ON END replace parking brake	Parking brake	Applied Release). Refer to <u>PB-6, "PE</u>	Existed Not existed
YES NO-1	1 spection result >> INSPECTI >> Adjust or i <u>View"</u> . >> Adjust or i	minal Ground part of parking brake switch <u>normal?</u> ON END replace parking brake	Parking brake	Applied Release). Refer to <u>PB-6, "PE</u>	Existed Not existed

SLIDING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

SLIDING SENSOR

Description

- The sliding sensor is installed to the seat slide cushion frame.
- The pulse signal is inputted 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

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "SLIDE PULSE" in "Data monitor" mode using CONSULT.
- 3. Check sliding sensor signal under the following conditions.

Monitor item	Con	Valve	
		Operate (forward)	Change (increase) ^{*1}
SLIDE PULSE	Seat sliding	Operate (backward)	Change (decrease) ^{*1}
		Release	No change ^{*1}

^{*1}: The value at the seat position attained when the battery is connected is considered to be 32768.

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:000000008290939

1.CHECK SLIDING SENSOR SIGNAL

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

(+) Driver seat control unit		()	Condition		Voltage (V)	
Connector	Terminal				(Approx.)	
B451	24	Ground	Seat sliding	Operate Other than above	10mSec/div 10mSec/div 2V/div JMJIA011922 0 or 5	

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-203, "Removal and Installation"</u>.

2. CHECK SLIDING SENSOR CIRCUIT

1. Turn ignition switch OFF.

- 2. Disconnect driver seat control unit and sliding sensor connector.
- Check continuity between driver seat control unit harness connector and sliding sensor harness connector.

INFOID:000000008290937

INFOID-000000008290938

SLIDING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

O >> Repair or replace harness. CHECK SLIDING SENSOR POWER SUPPLY Connect driver seat control unit connector. Turn ignition switch ON. Check voltage between sliding sensor harness connector and ground. (-) Voltage (V) (Approx.) Connector Terminal B453 16 Ground Battery voltage the inspection result normal? ES SO TO 5. O >> GO TO 5. O >> GO TO 5. O >> GO TO 4. CHECK SLIDING SENSOR POWER SUPPLY CIRCUIT Turn ignition switch OFF. Disconnect driver seat control unit connector. Check continuity between driver seat control unit harness connector and sliding sensor harness co tor. Driver seat control unit Sliding sensor Continuity Connector Turn ignition switch OFF. Disconnect driver seat control unit Sliding sensor Continuity B451 16 Existed <	Driver sea	t control unit		Sliding	j sensor		.
Check continuity between driver seat control unit harness connector and ground. Continuity Driver seat control unit Ground Continuity B451 24 Not existed the inspection result normal? ES >S GO TO 3. Not existed Connector result normal? Continuity Continuity Continuity Connect driver seat control unit connector. Turn ignition switch ON. Check voltage between sliding sensor harness connector and ground. (+) Voltage (V) (Approx.) Connector Terminal B453 16 Ground Battery voltage B453 16 Ground Battery voltage ES > GO TO 5. O >> GO TO 5. O O >> GO TO 5. O >> GO TO 4. CHECK SLIDING SENSOR POWER SUPPLY CIRCUIT Turn ignition switch OFF. Disconnect driver seat control unit connector. Check continuity between driver seat control unit fornector. Continuity Connector Terminal Connector Terminal Continuity Connector Terminal Connector Continuity Connector Terminal Connector Cont	Connector	Terminal	Conn	ector	Terminal		Continuity
Driver seat control unit Ground Continuity B451 24 Not existed Connect driver seat control unit connector. Turn ignition switch ON. Check voltage between sliding sensor harness connector and ground. (+) Sliding sensor (-) Voltage (V) (Approx.) Connector Terminal Ground Battery voltage B453 16 Ground Battery voltage the inspection result normal? ES > GO TO 5. > C >> S GO TO 5. O > S G O TO 4. Check continuity between driver seat control unit connector. Check continuity between driver seat control unit harness connector and sliding sensor harness co tor. Driver seat control unit Sliding sensor Continuity Grounector Terminal Ground Continuity B451 16 B453 16 Existed	B451	24	B4	53	24		Existed
Connector Terminal Ground Continuity B451 24 Not existed Not existed the inspection result normal? ES >> 60 OT 03. Not existed Connect driver seat control unit connector. Turn ignition switch ON. Contend viver seat control unit connector and ground. (+) Silding sensor (-) Voltage (V) (Approx.) Connector Terminal Ground Battery voltage (+) Silding sensor (-) Voltage (V) (Approx.) Connector Terminal Ground Battery voltage B453 16 Ground Battery voltage the inspection result normal? ES >> 60 TO 5. O >> 60 TO 4. CHECK SLIDING SENSOR POWER SUPPLY CIRCUIT Turn ignition switch OFF. Disconnect driver seat control unit connector. Check continuity between driver seat control unit harness connector and sliding sensor harness co tor. Driver seat control unit Silding sensor Continuity Geneetor Terminal Ground Continuity Driver seat control unit B453 16 Existe	Check continuity b	etween driver seat co	ntrol unit h	arness co	nnector and grou	und.	
Connector Terminal Ground Image: Connector B451 24 Not existed the inspection result normal? ES >> GO TO 3. Not existed Connect or replace harness. CHECK SLIDING SENSOR POWER SUPPLY Connector Connector Connector Turn ignition switch ON. Check voltage between sliding sensor harness connector and ground. Voltage (V) (Approx.) Connector Terminal (-) Voltage (V) (Approx.) B453 16 Ground Battery voltage btb inspection result normal? ES >> GO TO 5. O >> GO TO 5. O >> GO TO 4. CHECK SLIDING SENSOR POWER SUPPLY CIRCUIT Turn ignition switch OFF. Disconnect driver seat control unit connector. Check continuity between driver seat control unit harness connector and sliding sensor harness co tor. Driver seat control unit Sliding sensor Continuity Connector Terminal Ground Existed Check continuity between driver seat control unit harness connector and ground. Existed Continuity Onrector Terminal Ground Continuity	Driv	er seat control unit					Continuity
the inspection result normal? ES >> GO TO 3. O >> Repair or replace harness. CHECK SLIDING SENSOR POWER SUPPLY Connect driver seat control unit connector. Turn ignition switch ON. Check voltage between sliding sensor harness connector and ground. (+) Connector Terminal B453 16 Ground Battery voltage the inspection result normal? ES >> GO TO 5. O >> GO TO 4. CHECK SLIDING SENSOR POWER SUPPLY CIRCUIT Turn ignition switch OFF. Disconnect driver seat control unit connector. Check continuity between driver seat control unit harness connector and sliding sensor harness co tor. Driver seat control unit Connector Terminal Connector Terminal Connector and sliding sensor harness co tor. Driver seat control unit Driver seat control unit Connector Terminal Ground Continuity Connector Terminal Ground Continuity ES >> Replace driver seat control unit. Refer to ADP-203, "Removal and Installation". O >> Repair or replace harness. CHECK SLIDING SENSOR GROUND CIRCUIT 1 Turn ignition switch OFF. Disconnect driver seat control unit. Refer to ADP-203, "Removal and Installation". O >> Replace driver seat control unit armess connector and sliding sensor harness co the inspection result normal? ES >> Replace driver seat control unit armess connector and ground. Driver seat control unit connector. Check SLIDING SENSOR GROUND CIRCUIT 1 Turn ignition switch OFF. Disconnect driver seat control unit connector. Check Cutinuity between driver seat control unit armess connector and sliding sensor harness co tor.	Connector	Termina	al		Ground		
ES >> GO TO 3. O >> Repair or replace harness. CHECK SLIDING SENSOR POWER SUPPLY Connect driver seat control unit connector. Turn ignition switch ON. Check voltage between sliding sensor harness connector and ground. (4) Stiding sensor (-) Voltage (V) (Approx.) Connector Terminal B453 16 Ground Battery voltage the inspection result normal? ES ES >> GO TO 5. O >>>>> GO TO 5. O >>> GO TO 5. O >>>>>>> GO TO 5. O >>>>>>>>>>> GO TO 5. Disconnect driver seat control unit connector. Check continuity between driver seat control unit harness connector and sliding sensor harness co tor. Driver seat control unit Sliding sensor Continuity Connector Terminal Ground Continuity Connector Terminal Ground Continuity Connector Terminal	-						Not existed
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Stiding sensor (-) Voltage (V) (Approx.) Connector Terminal (-) Voltage (V) (Approx.) B453 16 Ground Battery voltage the inspection result normal? ES >> GO TO 5. So TO 5. So TO 4. CHECK SLIDING SENSOR POWER SUPPLY CIRCUIT Turn ignition switch OFF. Disconnect driver seat control unit connector. Check continuity between driver seat control unit harness connector and sliding sensor Continuity Driver seat control unit Sliding sensor Continuity Connector Terminal Connector Continuity B451 16 B453 16 Existed Check continuity between driver seat control unit harness connector and ground. Continuity Continuity Driver seat control unit Ground Continuity Continuity B451 16 Not existed Not existed the inspection result normal? ES >> Replace driver seat control unit. Refer to ADP-203, "Removal and Installation". O >> Replace driver seat control unit connector. CHECK SLIDING SENSOR GROUND CIRCUIT 1 Turn ignition switch OFF. D	Check voltage bet	ween sliding sensor h	arness con	nector and	d ground.		
Connector Terminal (*) (Approx.) B453 16 Ground Battery voltage the inspection result normal? ES >> GO TO 5. SO >> GO TO 4. CHECK SLIDING SENSOR POWER SUPPLY CIRCUIT Turn ignition switch OFF. Disconnect driver seat control unit connector. Check continuity between driver seat control unit harness connector and sliding sensor harness co tor. Driver seat control unit Sliding sensor Continuity Connector Terminal Connector Terminal Driver seat control unit Sliding sensor Continuity Connector Terminal Connector Continuity B451 16 B453 16 Existed Check continuity between driver seat control unit harness connector and ground. Continuity Continuity Driver seat control unit Ground Continuity Continuity B451 16 Material Not existed the inspection result normal? ES >> Replace driver seat control unit. Refer to ADP-203, "Removal and Installation". O O >> Repair or replace harness. Check Conti							
B453 16 Ground Battery voltage the inspection result normal? ES >> GO TO 5. O >> GO TO 4. CHECK SLIDING SENSOR POWER SUPPLY CIRCUIT Turm ignition switch OFF. Disconnect driver seat control unit connector. Check continuity between driver seat control unit harness connector and sliding sensor harness co tor. Continuity Driver seat control unit Sliding sensor Continuity Connector Terminal Connector Continuity Connector Terminal Control unit harness connector and ground. Continuity Driver seat control unit B453 16 Existed Check continuity between driver seat control unit harness connector and ground. Continuity Driver seat control unit Ground Continuity Continuity Continuit Removal and Installation". O >> Repair or replace harness. CHECK SLIDING SENSOR GROUND CIRCUIT 1 Turn ignition switch OFF. Disconnect driver seat control unit connector. Check continuity between driver seat control unit harness connector and sliding sensor harness co tor. Check continuity between driver seat control unit harness connector and sliding sensor harness co tor.		_			()		
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B451

31

B453

31

Existed

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

 $6. {\sf CHECK \ SLIDING \ SENSOR \ GROUND \ CIRCUIT \ 2}$

1. Connect driver seat control unit connector.

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

	Driver seat	control unit		Continuity	
_	Connector	Terminal	Ground	Continuity	
_	B451	31		Existed	

Is the inspection result normal?

YES >> Replace sliding sensor (Built in seat slide cushion frame). Refer to <u>SE-60, "Exploded View"</u>.

NO >> Replace driver seat control unit. Refer to <u>ADP-203</u>, "Removal and Installation".

RECLINING SENSOR

<	DT	⁻ C/	CIF	RC	UIT	DIAG	NO	SIS >	

RECLINING SENSOR

А Description INFOID:00000008290940 • The reclining motor is installed to the seatback frame. В 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:000000008290941 **1.**CHECK FUNCTION 1. Turn ignition switch ON. D Select "RECLN PULSE" in "Data monitor" mode using CONSULT. 2. Check reclining sensor signal under the following conditions. 3. Condition Value Monitor item Operate (forward) Change (increase)*1 F **RECLN PULSE** Seat reclining Operate (backward) Change (decrease)*1 Release No change^{*1} ^{*1}: The value at the seat position attained when the battery is connected is considered to be 32768. Is the indication normal? YES >> INSPECTION END Н >> Perform diagnosis procedure. Refer to ADP-97, "Diagnosis Procedure". NO Diagnosis Procedure INFOID:00000008290942 1.CHECK RECLINING SENSOR SIGNAL Turn ignition switch ON. 1. Check voltage signal between driver seat control unit harness connector and ground using oscilloscope. 2. ADP

(+)						
Driver seat	control unit	(—)	Co	ondition	Voltage (V) (Approx.)	
Connector	Terminal				(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
B451	9	Ground	Seat reclining	Operate	10mSec/div	
				Other than above	0 or 5	

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-203, "Removal and Installation"</u>.

NO >> GO TO 2.

2. CHECK RECLINING SENSOR CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect driver seat control unit and reclining motor connector.

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

Ρ

RECLINING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Driver seat	control unit	Reclinir	ng motor	Continuity
Connector	Terminal	Connector	Terminal	Continuity
B451	9	B454	9	Existed

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

Driv	seat control unit		Continuity
Connector	Terminal	Ground	Continuity
B451	9		Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

$\mathbf{3}.$ CHECK RECLINING SENSOR POWER SUPPLY

- 1. Connect driver seat control unit connector.
- 2. Turn ignition switch ON.

3. Check voltage between reclining motor harness connector and ground.

Reclin	(+) Reclining motor Connector Terminal		Voltage (V) (Approx.)	
Connector				
B454	B454 16		Battery voltage	

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK RECLINING SENSOR POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.

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

Driver seat control unit		Reclining motor		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B451	16	B454	16	Existed

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

Driver seat	control unit		Continuity
Connector	Terminal	Ground	Continuity
B451	16		Not existed

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-203, "Removal and Installation"</u>.

NO >> Repair or replace harness.

5.CHECK RECLINING SENSOR GROUND CIRCUIT 1

1. Turn ignition switch OFF.

2. Disconnect driver seat control unit connector.

Check continuity between driver seat control unit harness connector and reclining motor harness connector.

Driver seat	Driver seat control unit		Reclining motor	
Connector	Terminal	Connector	Terminal	Continuity
B451	31	B454	31	Existed

RECLINING SENSOR

		OBLIGOR		
< DTC/CIRCUIT DIAGN	OSIS >			
Is the inspection result no	rmal?			
YES >> GO TO 6.				A
NO >> Repair or rep	lace harness.			
6.CHECK RECLINING S	ENSOR GROUND CIRCUIT	Г2		
1. Connect driver seat c				Β
	veen reclining sensor harnes	s connector and ground.		
, , , , , , , , , , , , , , , , , , , _ , , _ , , _ , , _ , , _ , , _ , , _ , , _ , , _ , , _ ,	3 • • • •			
Driver s	seat control unit		Continuity	С
Connector	Terminal	Ground	Continuity	
B451	31	_	Existed	D
Is the inspection result no	rmal?			
-	ning motor. Refer to <u>SE-60, '</u>	'Exploded View"		
NO >> Replace drive	er seat control unit. Refer to <u>a</u>	ADP-203, "Removal and Ir	nstallation".	E
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LIFTING SENSOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SENSOR (FRONT)

Description

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

Component Function Check

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "LIFT FR PULSE" in "Data monitor" mode using CONSULT.
- 3. Check the lifting sensor (front) signal under the following conditions.

Monitor item	Condition		Value
		Operate (Up)	Change (increase) ^{*1}
LIFT FR PULSE	Seat lifting (front)	Operate (Down)	Change (decrease) ^{*1}
		Release	No change ^{*1}

^{*1}:The value at the seat position attained when the battery is connected is considered to be 32768.

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:000000008290945

1.CHECK LIFTING SENSOR (FRONT) SIGNAL

- 1. Turn ignition switch ON.
- 2. Check the voltage signal driver seat control unit harness connector and ground using an oscilloscope.

(+) Driver seat control unit		(—)	C	ondition	Voltage (V) (Approx.)
Connector	Terminal				(дрргох.)
B451	25	Ground	Seat Lifting (front)	Operate Other than above	10mSec/div 10mSec/div 2V/div JMJIA0119ZZ

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-203</u>, "Removal and Installation".

NO >> GO TO 2.

2.CHECK LIFTING SENSOR (FRONT) CIRCUIT

1. Turn ignition switch OFF.

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

INFOID:000000008290943

INFOID-000000008290944

LIFTING SENSOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

	control unit	Lifting	motor (front)	Continuity
Connector	Terminal	Connector	Terminal	Continuity
B451	25	B455	25	Existed
Check continuity be	etween driver seat co	ntrol unit harness c	onnector and ground	3.
Drive	er seat control unit			Continuity
Connector	Termina	al	Ground	
B451	25			Not existed
CHECK LIFTING SE Connect driver sea Turn ignition switch	eplace harness. ENSOR (FRONT) PO t control unit connect	or.	tor and ground.	
	- ·			
I ;f4	(+) ting motor (front)		()	Voltage (V)
Connector	Termina	al	(-)	(Approx.)
B455	16		Ground	Battery voltage
he inspection result	_		orodina	Battory Voltage
Turn ignition switch		WER SUPPLY CIR	CUIT	
Turn ignition switch Disconnect driver s	OFF.	ector.		motor (front) harnes
Turn ignition switch Disconnect driver s Check continuity be nector.	OFF. seat control unit conne	ector. ntrol unit harness c		
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Turn ignition switch Disconnect driver s Check continuity be nector. Driver seat Connector B451 Check continuity be Connector B451 he inspection result S >> Replace dri D >> Repair or re CHECK LIFTING SE Turn ignition switch Disconnect driver s	o OFF. eat control unit connective of driver seat control unit control unit Terminal 16 etween driver seat control unit er seat control unit 16 normal? iver seat control unit. eplace harness. ENSOR (FRONT) GR	ector. ntrol unit harness c Lifting Connector B455 ntrol unit harness c al Refer to <u>ADP-203</u> , OUND CIRCUIT 1	connector and lifting in motor (front) Terminal 16 onnector and ground Ground	Continuity Existed d. Continuity Not existed Ilation".
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Revision:	2012	August
10011	2012	August

B451

31

B455

31

Existed

LIFTING SENSOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

 $6. {\sf CHECK\ LIFTING\ SENSOR\ (FRONT)\ GROUND\ CIRCUIT\ 2}$

1. Connect driver seat control unit connector.

2. Check continuity between lifting motor (front) harness connector and ground.

	Driver seat control unit			Continuity
Con	nector	ector Terminal Ground	Ground	Continuity
В	451	31		Existed

Is the inspection result normal?

YES >> Replace lifting motor (front). Refer to <u>SE-60, "Exploded View"</u>.

NO >> Replace driver seat control unit. Refer to <u>ADP-203. "Removal and Installation"</u>.

LIFTING SENSOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SENSOR (REAR)

А Description INFOID:00000008290946 The lifting sensor (rear) is installed to the seat slide cushion frame. В The pulse signal is inputted 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:000000008290947 **1.**CHECK FUNCTION 1. Turn ignition switch ON. D Select "LIFT RR PULSE" in "Data monitor" mode using CONSULT. 2. Check lifting sensor (rear) signal under the following conditions. 3. Condition Monitor item Value Operate (Up) Change (increase)*1 F LIFT RR PULSE Seat lifting (rear) Operate (Down) Change (decrease)*1 Release No change^{*1} ^{*1}: The value at the seat position attained when the battery is connected is considered to be 32768. Is the indication normal? YES >> INSPECTION END Н >> Perform diagnosis procedure. Refer to ADP-103, "Diagnosis Procedure". NO Diagnosis Procedure INFOID:00000008290948 1.CHECK LIFTING SENSOR (REAR) SIGNAL Turn ignition switch ON. 1. Check voltage signal between driver seat control unit harness connector and ground using oscilloscope. 2. ADP (+)Voltage (V) Driver seat control unit (-) Condition Κ (Approx)

Connector	Terminal				(дррох.)
B451	10	Ground	Seat Lifting (rear)	Operate	10mSec/div
				Other than above	2V/div JMJIA0119ZZ

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-203, "Removal and Installation".

NO >> GO TO 2.

2.CHECK LIFTING SENSOR (REAR) CIRCUIT

Turn ignition switch OFF. 1.

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

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LIFTING SENSOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

Driver seat	control unit	Lifting motor (rear)		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
B451	10	B463	10	Existed	

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B451	10		Not Existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3. CHECK LIFTING SENSOR (REAR) POWER SUPPLY

1. Connect driver seat control unit connector.

2. Turn ignition switch ON.

3. Check the voltage between lifting motor (rear) harness connector and ground.

(+) Lifting motor (rear)		()	Voltage (V) (Approx.)	
Connector	Terminal		(
B463	16	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4. CHECK LIFTING SENSOR (REAR) POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.

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

Driver seat control unit		Lifting motor (rear)		Continuity
Connector	Terminal	Connector Terminal		Continuity
B451	16	B463	16	Existed

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B451	16		Not existed

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-203, "Removal and Installation"</u>.

NO >> Repair or replace harness.

5.CHECK LIFTING SENSOR (REAR) GROUND CIRCUIT 1

1. Turn ignition switch OFF.

2. Disconnect driver seat control unit connector.

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

Driver seat	Driver seat control unit		Lifting motor (rear)	
Connector	Terminal	Connector Terminal		Continuity
B451	31	B463	31	Existed

LIFTING SENSOR (REAR)

< DTC/CIRCUIT DIAGNOS	IS >	ΥΥΥΥ Υ		
Is the inspection result norma	al?			
YES >> GO TO 6. NO >> Repair or replace	harnoss			A
6.CHECK LIFTING SENSO				
1. Connect driver seat cont		5011 2		B
		ess connector and ground.		
				- C
Connector	control unit Terminal	Ground	Continuity	0
B451	31	Ground	Existed	_
Is the inspection result norma			Existed	D
-	otor (rear). Refer to <u>SE-60</u>). "Exploded View".		
	eat control unit. Refer to A	DP-203, "Removal and In	stallation".	E
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TILT SENSOR

< DTC/CIRCUIT DIAGNOSIS >

TILT SENSOR

Description

INFOID:000000008290949

- The tilt sensor is installed to the steering column assembly.
- The resistance of tilt sensor changes according to the up/down position of steering column.
- The terminal voltage of automatic drive positioner control unit changes according to a change of tilt sensor resistance. Automatic drive positioner control unit calculates the tilt position from the voltage.

Component Function Check

INFOID:000000008290950

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "TILT SEN" in "Data monitor" mode using CONSULT.
- 3. Check the tilt sensor signal under the following condition.

Monitor item	Condition	Value
TILT SEN	Tilt position	Change between 1.1 V (Close to top) 3.9 V (Close to bottom)

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-106, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000008290951

1.CHECK TILT SENSOR SIGNAL

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

	(+) Automatic drive positioner control unit (-)		Condition	Voltage (V) (Approx.)
Connector	Terminal		(+ +)	
M51	7	Ground	Tilt position	Change between 1.1 V (Close to top) 3.9 V (Close to bottom)

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-204, "Removal and Installation"</u>. NO >> GO TO 2.

2. CHECK TILT SENSOR CIRCUIT

1. Turn ignition switch OFF.

- 2. Disconnect automatic drive positioner control unit and tilt & telescopic sensor connector.
- 3. Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic sensor harness connector.

Automatic drive positioner control unit		Tilt & telescopic sensor		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
M51	7	M48	3	Existed	

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

 Automatic drive positioner control unit			Continuity	
 Connector Terminal		Ground	Continuity	
M51	7		Not existed	

Is the inspection result normal?

TILT SENSOR

DTC/CIRCUIT DIAGNOS	SIS >				
′ES >> GO TO 3. VO >> Repair or replac	ce harness.				
CHECK TILT SENSOR F		(
Connect automatic driv			nector.		
Turn ignition switch ON					
Check voltage between	tilt & telescopic	sensor har	mess conn	ector and ground.	
	(+)				
Tilt & teles	copic sensor		-	()	Voltage (V) (Approx.)
Connector	Terminal				(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
M48				Ground	5
the inspection result norm	nal?				
YES >> GO TO 5. NO >> GO TO 4.					
CHECK TILT SENSOR F					
Turn ignition switch OF Disconnect automatic d		ontrol unit (connector		
 Check continuity between the second se	en automatic dri			unit harness conne	ctor and tilt & telescopic
sensor harness connec	tor.				
Automatic drive position	er control unit		Tilt & teleso	copic sensor	
Connector	Terminal	Coni	nnector Terminal		- Continuity
M52	33	M			Existed
Check continuity betwe	en automatic driv	ve position	er control u	unit harness connec	tor and ground.
Automatic drive p	ositioner control unit	:			
Connector	Termin	al	Ground		Continuity
M52	33		-		Not existed
the inspection result norm	nal?		I		
•		ner control	unit. Refei	r to <u>ADP-204, "Rem</u>	oval and Installation".
NO >> Repair or replace					
CHECK TILT SENSOR		ЛТ 1			
. Turn ignition switch OF		ontrol unit .			
 Disconnect automatic d Check continuity between 	en automatic dri	ive positior	ner control	unit harness conne	ctor and tilt & telescopic
sensor harness connec		•			
Automatic drive position	er control unit		Tilt & tolos	copic sensor	
Connector	Terminal	Con	nector	Terminal	Continuity
M52	41		148	4	Existed
s the inspection result norm		10		T	Existed
YES >> GO TO 6.					
NO >> Repair or replace	ce harness.				
CHECK TILT SENSOR		JIT 2			
. Connect automatic driv			nector		
Check continuity betwe				unit harness connec	tor and ground.
· · · · ·					
Automatic drive p	ositioner control unit		-	Ground	Continuity

M52

41

Existed

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

- YES >> Replace tilt & telescopic sensor (Built in steering column assembly). Refer to <u>ST-21, "WITH</u> <u>ELECTRIC MOTOR : Exploded View"</u>.
- NO >> Replace automatic drive positioner control unit. Refer to <u>ADP-204, "Removal and Installation"</u>.

TELESCOPIC SENSOR

_	TC/CIRCUIT DIAG					
TE	ELESCOPIC S	ENSOR				
De	escription					INFOID:00000008290952
• T • T	he resistance of teles he terminal voltage of	of automatic drive po	es according to the forsitioner control unit	orward/b changes	according t	ition of steering column. o a change of telescopic position from the voltage.
Сс	mponent Funct	ion Check				INFOID:00000008290953
1.	CHECK FUNCTION					
1. 2. 3.		ON. SEN" in "Data monito or signal under the fo		SULT.		
-	Monitor ite	m	Condition			Value
_	TELESCO SEN	Telesco	opic position		0.5	nange between [V] (close to top)] (close to bottom)
N Dia	agnosis Proced	agnosis procedure. R		iagnosis	Procedure"	• INFOID:00000008290954
1. 2.	Turn ignition switch			s connec	ctor and grou	und.
-	(-	+)				
_	Automatic drive po	sitioner control unit	()	(Condition	Voltage (V) (Approx.)
_	Connector	Terminal				
	M51	23	Ground	Telesco	pic position	Change between 0.5 [V] (close to top) 4.5 [V] (close to bottom)
YI N	0 >> GO TO 2.			er to <u>ADF</u>	2-204, "Rem	oval and Installation".
1. 2. 3.		tic drive positioner co etween automatic dri				nector. ctor and tilt & telescopic
-	Automatic drive po	sitioner control unit	Tilt & teles	scopic sens	sor	Continuity
_	Connector	Terminal	Connector		Terminal	
	M51	23	M48		2	Existed
4.	Check continuity be	etween automatic driv	ve positioner control	unit harr	ness connec	tor and ground.
_	Automatic di	rive positioner control unit				Continuity

Automatic drive po	Continuity		
Connector	Terminal	Ground	Continuity
M51	23		Not existed
	1.0		

Is the inspection result normal?

TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

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

3.CHECK TELESCOPIC SENSOR POWER SUPPLY

- 1. Connect automatic drive positioner control unit connector.
- Turn ignition switch ON. 2.

Check voltage between tilt & telescopic sensor harness connector and ground. 3.

· · · · · · · · · · · · · · · · · · ·	+) copic sensor	(-)	Voltage (V) (Approx.)	
Connector	Terminal		(*********	
M48	1	Ground	5	

Is the inspection result normal?

>> GO TO 5. YES

NO >> GO TO 4.

4. CHECK TELESCOPIC SENSOR POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector.
- 3. Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic sensor harness connector.

Automatic drive po	Automatic drive positioner control unit		Tilt & telescopic sensor		
Connector	Terminal	Connector	Terminal	Continuity	
M52	33	M48	1	Existed	

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

Automatic drive po	sitioner control unit	Ground	Continuity
Connector	Terminal		Continuity
M52	M52 33		Not existed

Is the inspection result normal?

- >> Replace automatic drive positioner control unit. Refer to ADP-204, "Removal and Installation". YES NO >> Repair or replace harness.

5.CHECK TELESCOPIC SENSOR GROUND CIRCUIT 1

- 1. Turn ignition switch OFF.
- Disconnect automatic drive positioner control unit connector. 2.
- 3. Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic sensor harness connector.

_	Automatic drive po	Automatic drive positioner control unit		Tilt & telescopic sensor		
_	Connector	Terminal	Connector	Terminal	Continuity	
_	M52	41	M48	4	Existed	

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

6.CHECK TELESCOPIC SENSOR GROUND CIRCUIT 2

Connect automatic drive positioner control unit connector. 1.

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

•	Automatic drive po	sitioner control unit		Continuity	
-	Connector	Terminal	Ground	Continuity	
-	M52	M52 41		Existed	

TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES	>> Replace tilt & telescopic sensor (Built in steering column assembly). Refer to ST-21, "WITH	A
	ELECTRIC MOTOR : Exploded View".	

NO >> Replace automatic drive positioner control unit. Refer to <u>ADP-204</u>, "<u>Removal and Installation</u>".

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< DTC/CIRCUIT DIAGNOSIS >

MIRROR SENSOR DRIVER SIDE

DRIVER SIDE : Description

INFOID:000000008290955

- The mirror sensor (driver side) is installed to the door mirror (driver side).
- The resistance of 2 sensors (horizontal and vertical) is changed when the door mirror (driver side) 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:000000008290956

1.CHECK FUNCTION

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

Monitor item	Condition	Value
MIR/SEN LH U-D		Change between 3.4 [V] (close to peak) 0.6 [V] (close to valley)
MIR/SEN LH R-L	- Door mirror (driver side)	Change between 0.6 [V] (close to left edge) 3.4 [V] (close to right edge)

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-112, "DRIVER SIDE : Diagnosis Procedure"</u>.

DRIVER SIDE : Diagnosis Procedure

INFOID:000000008290957

1.CHECK DOOR MIRROR SENSOR (DRIVER SIDE) SIGNAL

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

(+) Automatic drive positioner control unit		()	Condition	Voltage (V) (Approx.)	
Connector	Terminal			(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
M51	6	Ground	Door mirror (driver side)	Change between 3.4 [V] (close to peak) 0.6 [V] (close to valley)	
I CIVI	22	Ground	position	Change between 3.4 [V] (close to left edge) 0.6 [V] (close to right edge)	

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-204</u>, "<u>Removal and Installation</u>". NO >> GO TO 2.

2. CHECK DOOR MIRROR (DRIVER SIDE) SENSOR CIRCUIT

1. Turn ignition OFF.

- 2. Disconnect automatic drive positioner control unit connector and door mirror (drive side) connector.
- 3. Check continuity between automatic drive positioner control unit harness connector and door mirror (driver side) harness connector.

< DTC/CIRCUIT DIAGNOSIS >

	ositioner control unit			(driver side)	(Continuity
Connector	Terminal	Conne	ector	Terminal		
M51	6	D	3	9		Existed
	22			10		
Check continuity be	etween automatic driv	e positione	er control u	unit harness con	nector and g	round.
Automatic d	rive positioner control unit				Can	tion the
Connector	Termina	al		Ground	Con	tinuity
M51	6			Ground	Not existed	
MO I	22				NOL	EXISIEU
he inspection result	normal?					
ES >> GO TO 3.						
•	eplace harness.		_	_		
CHECK DOOR MIR	ROR (DRIVER SIDE)	SENSOR	POWER	SUPPLY		
	drive positioner conti	rol unit coni	nector.			
Turn ignition switch	n ON. veen door mirror (driv	or eido) ha	mass	nector and arou	nd	
CHECK VOILAGE DELV			111699 (011	nector and grou	nu.	
	(+)					
Door	mirror (driver side)			()		age (V) prox.)
Connector	Termina	al			(+	
D3	11			Ground		5
ES >> GO TO 5. O >> GO TO 4.						5
O >> GO TO 4. CHECK DOOR MIR Turn ignition switch Disconnect automa Check continuity b	ROR (DRIVER SIDE) OFF. atic drive positioner co between automatic d	ontrol unit c	POWER	SUPPLY CIRCU	IT	-
ES >> GO TO 5. O >> GO TO 4. CHECK DOOR MIR Turn ignition switch Disconnect automa Check continuity b (driver side) harnes	ROR (DRIVER SIDE) OFF. atic drive positioner co between automatic d ss connector.	ontrol unit c rive positio	POWER : onnector. oner contr	SUPPLY CIRCU	IT	-
ES >> GO TO 5. O >> GO TO 4. CHECK DOOR MIR Turn ignition switch Disconnect automa Check continuity b (driver side) harnes	ROR (DRIVER SIDE) OFF. atic drive positioner co between automatic d ss connector.	ontrol unit c rive positio	POWER : onnector. oner contr	SUPPLY CIRCU ol unit harness (driver side)	IT connector a	
ES >> GO TO 5. O >> GO TO 4. CHECK DOOR MIR Turn ignition switch Disconnect automa Check continuity b (driver side) harnes Automatic drive po Connector	ROR (DRIVER SIDE) o OFF. atic drive positioner co between automatic d ss connector. ositioner control unit Terminal	ontrol unit c rive positio	POWER Sonnector. oner contr Door mirror ector	SUPPLY CIRCU ol unit harness (driver side) Terminal	IT connector a	and door m Continuity
ES >> GO TO 5. O >> GO TO 4. CHECK DOOR MIR Turn ignition switch Disconnect automa Check continuity b (driver side) harnes Automatic drive po Connector M52	ROR (DRIVER SIDE) OFF. atic drive positioner co between automatic d ss connector. positioner control unit Terminal 33	ontrol unit c rive positio Conne D:	POWER S onnector. oner contr Door mirror ector 3	SUPPLY CIRCU ol unit harness (driver side) Terminal 11	IT connector a	and door m Continuity Existed
ES >> GO TO 5. O >> GO TO 4. CHECK DOOR MIR Turn ignition switch Disconnect automa Check continuity b (driver side) harnes Automatic drive po Connector M52	ROR (DRIVER SIDE) o OFF. atic drive positioner co between automatic d ss connector. ositioner control unit Terminal	ontrol unit c rive positio Conne D:	POWER S onnector. oner contr Door mirror ector 3	SUPPLY CIRCU ol unit harness (driver side) Terminal 11	IT connector a	and door m Continuity Existed
ES >> GO TO 5. O >> GO TO 4. CHECK DOOR MIR Turn ignition switch Disconnect automa Check continuity b (driver side) harnes Automatic drive po Connector M52 Check continuity be	ROR (DRIVER SIDE) OFF. atic drive positioner co between automatic d ss connector. positioner control unit Terminal 33	ontrol unit c rive positio Conne D:	POWER S onnector. oner contr Door mirror ector 3	SUPPLY CIRCU ol unit harness (driver side) Terminal 11	IT connector a	and door m Continuity Existed Iround.
ES >> GO TO 5. O >> GO TO 4. CHECK DOOR MIR Turn ignition switch Disconnect automa Check continuity b (driver side) harnes Automatic drive po Connector M52 Check continuity be	ROR (DRIVER SIDE) o OFF. atic drive positioner co between automatic d ss connector. ositioner control unit Terminal 33 etween automatic drive	ontrol unit c rive positio Conne D: ve positione	POWER : onnector. oner contr Door mirror ector 3 er control u	SUPPLY CIRCU ol unit harness (driver side) Terminal 11	IT connector a	and door m Continuity Existed
ES >> GO TO 5. O >> GO TO 4. CHECK DOOR MIR Turn ignition switch Disconnect automa Check continuity b (driver side) harnes Automatic drive po Connector M52 Check continuity be Automatic d	ROR (DRIVER SIDE) OFF. atic drive positioner co between automatic d ss connector. positioner control unit Terminal 33 etween automatic driver rive positioner control unit	ontrol unit c rive positio Conne D: ve positione	POWER : onnector. oner contr Door mirror ector 3 er control u	SUPPLY CIRCU ol unit harness (driver side) Terminal 11 unit harness con	IT connector a nector and g	and door m Continuity Existed Iround.
ES >> GO TO 5. O >> GO TO 4. CHECK DOOR MIR Turn ignition switch Disconnect automa Check continuity b (driver side) harnes Automatic drive po Connector M52 Check continuity be Automatic d Connector M52	ROR (DRIVER SIDE) OFF. atic drive positioner co between automatic d ss connector. positioner control unit Terminal 33 etween automatic drive rive positioner control unit Terminal 33 atic drive positioner control unit 33	ontrol unit c rive positio Conne D: ve positione	POWER : onnector. oner contr Door mirror ector 3 er control u	SUPPLY CIRCU ol unit harness (driver side) Terminal 11 unit harness con	IT connector a nector and g	and door m Continuity Existed Iround. tinuity
ES >> GO TO 5. O >> GO TO 4. CHECK DOOR MIR Turn ignition switch Disconnect automa Check continuity b (driver side) harnes Automatic drive po Connector M52 Check continuity be Automatic d Connector M52 Check continuity be Automatic d Connector M52 he inspection result ES >> Replace au	ROR (DRIVER SIDE) OFF. atic drive positioner co between automatic d ss connector. positioner control unit Terminal 33 etween automatic drive rive positioner control unit Terminal 33 atic drive positioner control unit 33	ontrol unit c rive positio	POWER Sonnector. Iner contronector Door mirror ector Control u	SUPPLY CIRCU ol unit harness (driver side) Terminal 11 unit harness con Ground	IT connector a nector and g Con Not e	and door m Continuity Existed round. tinuity existed
ES >> GO TO 5. O >> GO TO 4. CHECK DOOR MIR Turn ignition switch Disconnect automa Check continuity b (driver side) harnes Automatic drive po Connector M52 Check continuity be Automatic d Connector M52 Check continuity be Automatic d Connector M52 he inspection result ES >> Replace au O >> Repair or re	ROR (DRIVER SIDE) o OFF. atic drive positioner co between automatic d ss connector. positioner control unit Terminal 33 etween automatic drive rive positioner control unit Termina 33 normal? utomatic drive positior eplace harness.	ontrol unit c rive positio	POWER Sonnector. Oner contro Door mirror ector 3 er control u	SUPPLY CIRCU ol unit harness (driver side) Terminal 11 unit harness con Ground	IT connector a nector and g Con Not e	and door n Continuity Existed Iround. tinuity existed
ES >> GO TO 5. O >> GO TO 4. CHECK DOOR MIR Turn ignition switch Disconnect automa Check continuity b (driver side) harnes Automatic drive po Connector M52 Check continuity be Automatic d Connector M52 Check continuity be Automatic d Connector M52 he inspection result ES >> Replace au O >> Repair or re	ROR (DRIVER SIDE) o OFF. atic drive positioner co between automatic d ss connector. ositioner control unit Terminal 33 etween automatic drive rive positioner control unit Terminal 33 ative positioner control unit Terminal 33 normal? utomatic drive positior	ontrol unit c rive positio	POWER Sonnector. Oner contro Door mirror ector 3 er control u	SUPPLY CIRCU ol unit harness (driver side) Terminal 11 unit harness con Ground	IT connector a nector and g Con Not e	and door n Continuity Existed Iround. tinuity existed

3. Check continuity between automatic drive positioner control unit harness connector and door mirror (driver side) harness connector.

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive positioner control unit		Door mirror	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
M52	41	D3	12	Existed

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

${f 6}.$ CHECK DOOR MIRROR (DRIVER SIDE) SENSOR GROUND CIRCUIT 2

1. Connect automatic drive positioner control unit connector.

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

Automatic drive po	sitioner control unit		Continuity
Connector	Terminal	Ground	Continuity
M52	41		Existed

Is the inspection result normal?

- YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-204, "Removal and Installation"</u>.
- NO >> Replace door mirror sensor (Built in driver side door mirror). Refer to <u>MIR-15, "DOOR MIRROR</u> <u>ASSEMBLY : Removal and Installation"</u>.

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:000000008290958

INFOID:000000008290959

- The mirror sensor (passenger side) is installed to the door mirror (passenger side).
- The resistance of 2 sensors (horizontal and vertical) is changed when the door mirror (passenger side) 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

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "MIR/SEN RH U-D", "MIR/SEN RH R-L" in "Data monitor" using CONSULT.
- 3. Check the mirror sensor (passenger side) signal under the following conditions.

Monitor item	Condition	Value
MIR/SEN RH U-D	Deer mirror (nooconger side)	Change between 3.4 [V] (close to peak) 0.6 [V] (close to valley)
MIR/SEN RH R-L	 Door mirror (passenger side) 	Change between 3.4 [V] (close to left edge) 0.6 [V] (close to right edge)

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-114</u>, "PASSENGER SIDE : <u>Diagnosis Procedure</u>".

PASSENGER SIDE : Diagnosis Procedure

INFOID:000000008290960

1.CHECK DOOR MIRROR SENSOR (PASSENGER SIDE) SIGNAL

1. Turn ignition switch ON.

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

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive po	ositioner control unit	(—)	Condition	Voltage (V) (Approx.)
Connector	Terminal			
M51	5	Cround	Door mirror (passenger	Change between 3.4 [V] (close to peak) 0.6 [V] (close to valley)
M51	21	Ground	side) position	Change between 3.4 [V] (close to left edge) 0.6 [V] (close to right edge)

NO >> GO TO 2.

2.CHECK DOOR MIRROR (PASSENGER SIDE) SENSOR CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit connector and door mirror (passenger side) connector.
- 3. Check continuity between automatic drive positioner control unit harness connector and door mirror (passenger side) harness connector.

Automatic drive po	ositioner control unit	Door mirror (p	assenger side)	Continuity	G
Connector	Terminal	Connector	Terminal	Continuity	
M51	5	D33	9	Existed	Ц
I CIVI	21	033	10	Existed	П

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

Automatic drive po	sitioner control unit		Continuity	-
 Connector	Terminal	Ground	Continuity	
 M51	5	Ground	Not existed	ADP
	21		NOL EXISTED	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK DOOR MIRROR SENSOR (PASSENGER SIDE) POWER SUPPLY

1. Connect automatic drive positioner control unit connector.

2. Turn ignition switch ON.

3. Check voltage between door mirror (passenger side) harness connector and ground.

Door mirror (passenger side) (-) Voltage (V) (Approx.) Connector Terminal	(+	-)			
	Door mirror (pa	assenger side)	()	Voltage (V) (Approx.)	Ν
	Connector	Terminal		()	
D33 11 Ground 5	D33	11	Ground	5	

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

${f 4.}$ CHECK DOOR MIRROR (PASSENGER SIDE) SENSOR POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect automatic drive positioner control unit connector.

 Check continuity between automatic drive positioner control unit harness connector and door mirror (passenger side) harness connector. Ε

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< DTC/CIRCUIT DIAGNOSIS >

Automatic drive po	sitioner control unit	Door mirror (p	assenger side)	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M52	33	D33	11	Existed

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

Automatic drive po	sitioner control unit		Continuity
Connector	Terminal	Ground	Continuity
M52	33		Not existed

Is the inspection result normal?

YES >> Replace automatic driver positioner control unit. Refer to <u>ADP-204, "Removal and Installation"</u>. NO >> Repair or replace harness.

5.CHECK DOOR MIRROR (PASSENGER SIDE) SENSOR GROUND CIRCUIT 1

1. Turn ignition switch OFF.

2. Disconnect automatic drive positioner control unit connector.

3. Check continuity between automatic drive positioner control unit harness connector and door mirror (passenger side) connector.

Automatic drive po	sitioner control unit	Door mirror (p	assenger side)	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M52	41	D33	12	Existed

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

6.CHECK DOOR MIRROR (PASSENGER SIDE) SENSOR GROUND CIRCUIT 2

1. Connect automatic drive positioner control unit connector.

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

Automatic drive po	sitioner control unit		Continuity
Connector	Terminal	Ground	Continuity
M52	41		Existed

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-204, "Removal and Installation"</u>.

NO >> Replace door mirror sensor (Built in passenger side door mirror). Refer to <u>MIR-15. "DOOR MIR-ROR ASSEMBLY : Removal and Installation"</u>.

SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

escription					INFOID:00000008290961
The seat sliding mo The seat sliding mo The seat is slid fror	otor is activated w	ith the driver s	eat control unit.	n of sliding motor.	
omponent Fun	ction Check				INFOID:00000008290962
.CHECK FUNCTIC	N				
 Turn ignition swit Select "SEAT SL Check the sliding 	IDE" in "Active te		CONSULT.		
	Test item			Description	
	OFF			Stop	
SEAT SLIDE	FR		Seat sliding	Forward	
	RR			Backwa	ď
iagnosis Proce	TION END diagnosis proced edure MOTOR POWER	lure. Refer to <u>A</u>	DP-117, "Diagno:	sis Procedure".	INF01D:000000008290963
YES >> INSPEC NO >> Perform Piagnosis Proce	TION END diagnosis proced edure MOTOR POWER ch OFF. g motor connecto switch ON. est" ("SEAT SLIE	lure. Refer to <u>A</u> R SUPPLY or. DE") using CON	ISULT-III		INF01D:00000000829096:
YES >> INSPEC NO >> Perform iagnosis Proce .CHECK SLIDING Turn ignition swit Disconnect slidin Turn the ignition Perform "Active t	TION END diagnosis proced edure MOTOR POWER ch OFF. g motor connecto switch ON. est" ("SEAT SLIE etween sliding mo	lure. Refer to <u>A</u> R SUPPLY or. DE") using CON	ISULT-III		
YES >> INSPEC NO >> Perform Diagnosis Proce CHECK SLIDING Turn ignition swit Disconnect slidin Turn the ignition Perform "Active t Check voltage be	TION END diagnosis proced edure MOTOR POWER ch OFF. g motor connecto switch ON. est" ("SEAT SLIE etween sliding mo	lure. Refer to <u>A</u> R SUPPLY or. DE") using CON	ISULT-III Innector and grou		Voltage (V)
YES >> INSPEC NO >> Perform Diagnosis Proce CHECK SLIDING Turn ignition switt Disconnect slidin Turn the ignition Perform "Active t Check voltage be	TION END diagnosis proced edure MOTOR POWER ch OFF. g motor connecto switch ON. est" ("SEAT SLIE etween sliding mo	lure. Refer to <u>A</u> R SUPPLY or. DE") using CON otor harness co	ISULT-III Innector and grou	ınd.	INFOID:00000008290963 Voltage (V) (Approx.)
YES >> INSPEC NO >> Perform Diagnosis Proce CHECK SLIDING Turn ignition switt Disconnect slidin Turn the ignition Perform "Active to Check voltage be (+)	TION END diagnosis proced edure MOTOR POWER ch OFF. g motor connecto switch ON. est" ("SEAT SLIE etween sliding mo	lure. Refer to <u>A</u> R SUPPLY or. DE") using CON otor harness co	ISULT-III Innector and grou	ınd.	Voltage (V)
YES >> INSPEC NO >> Perform Diagnosis Proce CHECK SLIDING Turn ignition switt Disconnect slidin Turn the ignition Perform "Active to Check voltage be (+)	TION END diagnosis proced edure MOTOR POWER ch OFF. g motor connecto switch ON. est" ("SEAT SLIE etween sliding mo	lure. Refer to <u>A</u> R SUPPLY or. DE") using CON otor harness co	ISULT-III Innector and grou	Ind.	Voltage (V) (Approx.)
YES >> INSPEC NO >> Perform Diagnosis Proce CHECK SLIDING Turn ignition switt Disconnect slidin Turn the ignition Perform "Active t Check voltage be (+) Sliding	TION END diagnosis proced edure MOTOR POWER ch OFF. g motor connecto switch ON. est" ("SEAT SLIE etween sliding motor Terminal	lure. Refer to <u>A</u> R SUPPLY or. DE") using CON otor harness co	ISULT-III Innector and grou	ind. iondition	Voltage (V) (Approx.) 0
YES >> INSPEC NO >> Perform Diagnosis Proce CHECK SLIDING Turn ignition switt Disconnect slidin Turn the ignition Perform "Active to Check voltage be (+)	TION END diagnosis proced edure MOTOR POWER ch OFF. g motor connecto switch ON. est" ("SEAT SLIE etween sliding motor Terminal	lure. Refer to <u>A</u> R SUPPLY or. DE") using CON otor harness co	ISULT-III Innector and grou	ondition OFF FR (forward)	Voltage (V) (Approx.) 0 Battery voltage
YES >> INSPEC NO >> Perform Diagnosis Proce CHECK SLIDING Turn ignition switt Disconnect slidin Turn the ignition Perform "Active t Check voltage be (+) Sliding	TION END diagnosis proced edure MOTOR POWER ch OFF. g motor connecto switch ON. est" ("SEAT SLIE etween sliding motor Terminal	lure. Refer to <u>A</u> R SUPPLY or. DE") using CON otor harness co	ISULT-III Innector and grou	ondition OFF FR (forward) RR (backward)	Voltage (V) (Approx.) 0 Battery voltage 0

YES >> Replace sliding motor. (Built in seat slide cushion frame.) Refer to <u>SE-60. "Exploded View"</u>. NO >> GO TO 2.

2. CHECK SLIDING MOTOR CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect driver seat control unit connector.

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

Ο

SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Driver sea	Driver seat control unit		Sliding motor	
Connector	Terminal	Connector	Terminal	Continuity
B452	35	B461	35	Existed
D402	42	0401	42	LXISIEU

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

Driver seat	control unit		Continuity
Connector	Terminal	Ground	Continuity
B452	35	Ground	Not existed
D432	B452 42		NUL EXISIEU

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK SLIDING MOTOR

Refer to ADP-118, "Component Inspection".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-203, "Removal and Installation"</u>.

NO >> Replace sliding motor. (Built in seat slide cushion frame.) Refer to <u>SE-60. "Exploded View"</u>.

Component Inspection

INFOID:000000008290964

1.CHECK SLIDING MOTOR-1

Check visually the sliding motor to see if any foreign object is not disturbing the functioning or if the sliding motor is not broken.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace seat cushion frame (sliding motor).

2. CHECK SLIDING MOTOR-2

1. Turn ignition switch OFF.

- 2. Disconnect sliding motor connector.
- 3. Supply sliding motor terminals with battery voltage and check operation.

Tern	ninal	Operation
(+)	(-)	Operation
35	42	Forward
42	35	Backward

Is the inspection result normal?

YES >> Sliding motor is OK.

NO >> Replace sliding motor. (Built in seat slide cushion frame.) Refer to <u>SE-60, "Exploded View"</u>.

RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

escrip	otion					INFOID:00000000825
The se	at reclining	motor is installed motor is activated clined frontward/r	I with the driver	k frame. seat control unit. anging the rotation c	lirection of reclin	ing motor.
compc	onent Fur	nction Check				INFOID:00000000825
.CHEC		ON				
. Sele				using CONSULT.		
		Test item			Description	
		OFF			Stop	
SEAT	RECLINING	FR		Seat reclining	Forward	1
		RR			Backwa	rd
NO Diagno	osis Proce	diagnosis proced		<u>DP-119, "Diagnosis</u>	<u>Procedure"</u> .	INFOID:00000000825
YES NO Iagno CHEC . Turn . Disc . Turn . Perfe	>> Perform osis Proce CK RECLINI ignition swi connect reclin the ignition orm "Active	diagnosis proced edure NG MOTOR POV tch OFF. hing motor conne switch ON. test" ("SEAT REC	VER SUPPLY ctor. CLINING") using			INFOID:000000082
YES NO Iagno CHEC . Turn . Disc . Turn . Perfe	>> Perform osis Proce CK RECLINI ignition swi connect reclin the ignition orm "Active	diagnosis proced edure NG MOTOR POV tch OFF. ning motor conne switch ON. test" ("SEAT REC etween reclining	VER SUPPLY ctor. CLINING") using	g CONSULT.		
YES NO CHEC . Turn . Disc . Turn . Perfe	>> Perform osis Proce CK RECLINI in ignition switconnect reclin the ignition orm "Active ck voltage be	diagnosis proced edure NG MOTOR POV tch OFF. ning motor conne switch ON. test" ("SEAT REC etween reclining	VER SUPPLY ctor. CLINING") using	g CONSULT. connector and grou		Voltage (V) (Approx.)
/ES NO .CHEC Turn Disc Turn Perfe	>> Perform osis Proce CK RECLINI ignition switt connect reclin the ignition orm "Active ck voltage be	diagnosis proced edure NG MOTOR POV tch OFF. hing motor conne switch ON. test" ("SEAT REC etween reclining	VER SUPPLY ctor. CLINING") using motor harness	g CONSULT. connector and grou	nd. dition	Voltage (V) (Approx.)
/ES NO .CHEC Turn Disc Turn Perfe	>> Perform osis Proce CK RECLINI in ignition switconnect reclin the ignition orm "Active to ck voltage be (+ Reclining	diagnosis proced edure NG MOTOR POV tch OFF. hing motor conne switch ON. test" ("SEAT REC etween reclining) g motor Terminal	VER SUPPLY ctor. CLINING") using motor harness	g CONSULT. connector and grou	nd. dition OFF	Voltage (V) (Approx.) 0
/ES NO .CHEC Turn Disc Turn Perfe	>> Perform osis Proce CK RECLINI in ignition switconnect reclin the ignition orm "Active to ck voltage be (+ Reclining	diagnosis proced edure NG MOTOR POV tch OFF. ning motor conne switch ON. test" ("SEAT REC etween reclining	VER SUPPLY ctor. CLINING") using motor harness	g CONSULT. connector and grou	nd. dition OFF FR (forward)	Voltage (V) (Approx.) 0 Battery voltage
ES NO CHEC Turn Disc Turn Perfe Chee	>> Perform osis Proce CK RECLINI in ignition switconnect reclin the ignition orm "Active to ck voltage be (+ Reclining	diagnosis proced edure NG MOTOR POV tch OFF. hing motor conne switch ON. test" ("SEAT REC etween reclining) g motor Terminal	VER SUPPLY ctor. CLINING") using motor harness	g CONSULT. connector and grou	nd. dition OFF FR (forward) RR (backward)	Voltage (V) (Approx.) 0 Battery voltage 0
YES NO Iagno CHEC Turn Disc Turn Perfe	>> Perform osis Proce CK RECLINI in ignition switt connect reclin othe ignition orm "Active to ck voltage be (+ Reclining onnector	diagnosis proced edure NG MOTOR POV tch OFF. hing motor conne switch ON. test" ("SEAT REC etween reclining) g motor Terminal 36	VER SUPPLY ctor. CLINING") using motor harness (-)	g CONSULT. connector and grou Con	nd. dition OFF FR (forward) RR (backward) OFF	Voltage (V) (Approx.) 0 Battery voltage 0 0
YES NO Iagno CHEC Turn Disc Turn Perfe	>> Perform osis Proce CK RECLINI in ignition switt connect reclin othe ignition orm "Active to ck voltage be (+ Reclining onnector	diagnosis proced edure NG MOTOR POV tch OFF. hing motor conne switch ON. test" ("SEAT REC etween reclining) g motor Terminal	VER SUPPLY ctor. CLINING") using motor harness (-)	g CONSULT. connector and grou Con	nd. dition OFF FR (forward) RR (backward)	Voltage (V) (Approx.) 0 Battery voltage 0

2. CHECK RECLINING MOTOR CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect driver seat control unit connector.

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

RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Driver sea	Driver seat control unit		Reclining motor	
Connector	Terminal	Connector	Terminal	Continuity
B452	36	B454	36	Existed
D452	44	D404	44	EXISTED

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

	Driver seat	control unit		Continuity
Conne	ector	Terminal	Ground	Continuity
B45	: 1	36	Ground	Not existed
D4C)2	44		NUL EXISIEU

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK RECLINING MOTOR

Refer to ADP-120, "Component Inspection".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-203, "Removal and Installation".

NO >> Replace reclining motor. (Built in seat slide cushion frame.) Refer to <u>SE-60, "Exploded View"</u>.

Component Inspection

INFOID:000000008290968

1.CHECK RECLINING MOTOR-1

Check visually reclining motor to see if any foreign object is not disturbing the functioning or if the reclining motor is not broken.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace seatback frame (reclining motor).

2. CHECK RECLINING MOTOR-2

1. Turn ignition switch OFF.

- 2. Disconnect reclining motor connector.
- 3. Supply reclining motor terminals with battery voltage and check operation.

Terr	ninal	Operation
(+)	(-)	Operation
36	44	Forward
44	36	Backward

Is the inspection result normal?

YES >> Reclining motor is OK.

NO >> Replace reclining motor. (Built in seat slide cushion frame.) Refer to <u>SE-60, "Exploded View"</u>.

LIFTING MOTOR (FRONT)

IFTING MOT	OR (FROM				
escription					INFOID:000000082909
The lifting motor (f The lifting motor (f The lifter (front) is	ront) is activated	d with the driver		direction of lift	ing motor (front).
omponent Fu	nction Chec	k			INFOID:000000082909
.CHECK FUNCTI	ON				
 Turn ignition sw Select "SEAT LI Check the lifting 	FTER FR" in "A		e using CONSULT.		
	Test item			Description	
		OFF			Stop
SEAT LIFTER FR		UP	Seat lifting (front)		Upward
		DWN	WN		Downward
YES >> INSPEC	CTION END diagnosis proc		ADP-121, "Diagnosis	s Procedure".	INFOID:000000082909
NO >> Perform Diagnosis Proc .CHECK LIFTING . Turn ignition sw	CTION END diagnosis proc edure MOTOR (FRO itch OFF.	edure. Refer to	-	s Procedure".	
YES >> INSPEC NO >> Perform Diagnosis Proc .CHECK LIFTING . Turn ignition sw Disconnect liftin . Turn the ignition . Perform "Active . Check voltage b	CTION END diagnosis proce edure MOTOR (FRO itch OFF. g motor (front) co switch ON. test" ("SEAT LII petween lifting m	edure. Refer to NT) POWER SL connector. FTER FR") usin	JPPLY		
YES >> INSPEC NO >> Perform Diagnosis Proc .CHECK LIFTING . Turn ignition sw Disconnect liftin . Turn the ignition . Perform "Active . Check voltage b	CTION END diagnosis proc edure MOTOR (FRO itch OFF. g motor (front) c switch ON. test" ("SEAT LII between lifting m	edure. Refer to NT) POWER SU connector. TER FR") usin lotor (front) harr	JPPLY g CONSULT. ness connector and g	ground.	INFOID:000000082909
YES >> INSPEC NO >> Perform iagnosis Proc .CHECK LIFTING Turn ignition sw Disconnect liftin Turn the ignition Perform "Active Check voltage b (-	CTION END diagnosis proceedure MOTOR (FROM itch OFF. g motor (front) conswitch ON. test" ("SEAT LIP oetween lifting m	edure. Refer to NT) POWER SL connector. FTER FR") usin	JPPLY g CONSULT. ness connector and g		
YES >> INSPEC NO >> Perform iagnosis Proc .CHECK LIFTING Turn ignition sw Disconnect liftin Turn the ignition Perform "Active Check voltage b	CTION END diagnosis proc edure MOTOR (FRO itch OFF. g motor (front) c switch ON. test" ("SEAT LII between lifting m	edure. Refer to NT) POWER SU connector. TER FR") usin lotor (front) harr	JPPLY g CONSULT. ness connector and g	ground.	INFOID:000000082909 Voltage (V)
YES >> INSPEC NO >> Perform iagnosis Proc .CHECK LIFTING Turn ignition sw Disconnect liftin Turn the ignition Perform "Active Check voltage b (4)	CTION END diagnosis proceed edure MOTOR (FROM itch OFF. g motor (front) of switch ON. test" ("SEAT LII between lifting m +) tor (front) Terminal	edure. Refer to NT) POWER SU connector. TER FR") usin lotor (front) harr	JPPLY g CONSULT. ness connector and g	ground. ndition	Voltage (V) (Approx.)
(ES >> INSPEC NO >> Perform iagnosis Proc .CHECK LIFTING Turn ignition sw Disconnect liftin Turn the ignition Perform "Active Check voltage b	CTION END diagnosis proceedure MOTOR (FROM itch OFF. g motor (front) conswitch ON. test" ("SEAT LIP oetween lifting m	edure. Refer to some connector.	JPPLY g CONSULT. ness connector and g Cor	ground.	INFOID:000000082909 Voltage (V) (Approx.)
YES >> INSPEC NO >> Perform iagnosis Proc .CHECK LIFTING Turn ignition sw Disconnect liftin Turn the ignition Perform "Active Check voltage b (-	CTION END diagnosis proceed edure MOTOR (FROM itch OFF. g motor (front) of switch ON. test" ("SEAT LII between lifting m +) tor (front) Terminal	edure. Refer to NT) POWER SU connector. TER FR") usin lotor (front) harr	JPPLY g CONSULT. ness connector and g	ground. Indition	Voltage (V) (Approx.) 0
YES >> INSPEC NO >> Perform Piagnosis Proc CHECK LIFTING Turn ignition sw Disconnect liftin Turn the ignition Perform "Active Check voltage b (+ Lifting mo	CTION END diagnosis proceed edure MOTOR (FROM itch OFF. g motor (front) of switch ON. test" ("SEAT LII between lifting m +) tor (front) Terminal	edure. Refer to some connector.	JPPLY g CONSULT. ness connector and g Cor	oround. dition OFF UP DWN (down)	INFOID:000000082909 Voltage (V) (Approx.) 0 0 Battery voltage

>> GO TO 2. NO

2.check lifting motor (front) circuit

1. Turn ignition switch OFF.

- 2. Disconnect driver seat control unit connector.
- Check continuity between driver seat control unit harness connector and lifting motor (front) harness con-3. nector.

Ο

LIFTING MOTOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

Driver sea	t control unit	Lifting mo	otor (front)	Continuity
Connector	Terminal	Connector	Terminal	Continuity
B452	37	B455	37	Existed
D452	45	B400	45	Existed

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

	Driver seat control unit		Continuity
Connecto	Termir	nal Ground	Continuity
B452	37	Ground	Not existed
D402	45		Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK LIFTING MOTOR (FRONT)

Refer to ADP-122, "Component Inspection".

Is the inspection result normal?

- YES >> Replace driver seat control unit. Refer to <u>ADP-203</u>, "Removal and Installation".
- NO >> Replace lifting motor (front). (Built in seat slide cushion frame.) Refer to <u>SE-60. "Exploded View"</u>.

Component Inspection

INFOID:000000008290972

1.CHECK LIFTING MOTOR-1

Check visually the lifting motor (front) to see if any foreign object is not disturbing the functioning or if the lifting motor (front) is not broken.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace seat cushion frame (lifting motor).

2. CHECK LIFTING MOTOR-2

1. Turn ignition switch OFF.

- 2. Disconnect lifting motor connector.
- 3. Supply lifting motor terminals with battery voltage and check operation.

Item	Terr	ninal	Operation	
nem	(+)	()	Operation	
Lifting motor (front)	45	37	Up	
	37	45	Down	

Is the inspection result normal?

YES >> Lifting motor (front) is OK.

NO >> Replace lifting motor (front). (Built in seat slide cushion frame.) Refer to <u>SE-60, "Exploded View"</u>.

LIFTING MOTOR (REAR)

< D	DTC/CIRCUIT D	IAGNOSIS >				
	FTING MOT	OR (REAR)			
De	escription					INFOID:000000008290973
• T	he lifting motor (rear) is activated	o the seat slide c with the driver se ard/downward by	at control unit.	ion direction of	lifting motor (rear).
Сс	omponent Fu	nction Check	K			INFOID:00000008290974
1.	CHECK FUNCTI	ON				
			ctive test" mode u eration.	sing CONSULT.		
_		Test item			Description	
		-	OFF			Stop
	SEAT LIFTER RR	_	UP S	eat lifting (rear)	_	Upward Downward
YI N		CTION END diagnosis proce		0P-123, "Diagnosis	<u>Procedure"</u> .	INFO ID 202020202020
	-) POWER SUPP	LY		INFOID:000000008290975
1. 2. 3. 4. 5.	Disconnect liftir Turn the ignition Perform "Active	ng motor (rear) co n switch ON. e test" ("SEAT LIF	TER RR") using (CONSULT. s connector and g	round.	
_	(+)				Voltage ()/)
_		otor (rear)	()	Con	dition	Voltage (V) (Approx.)
_	Connector	Terminal				
		20			OFF	0
		38			UP DWN (DOWN)	Battery voltage
	B463		Ground	SEAT LIFTER RR	· · · ·	0
					OFF	0

Is the inspection result normal?

YES >> Replace lifting motor (rear). (Built in seat slide cushion frame.) Refer to <u>SE-60. "Exploded View"</u>. NO >> GO TO 2.

UP

DWN (DOWN)

2. CHECK LIFTING MOTOR (REAR) CIRCUIT

39

1. Turn ignition switch OFF.

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

0

Battery voltage

Ν

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LIFTING MOTOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

Driver sea	Driver seat control unit Lifting motor (rear)		Continuity		
Connector	Terminal	Connector	Terminal	Continuity	
B452	38	B463	38	Existed	
D4J2	39	0405	39	LXISIEU	

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

Driver sea	Driver seat control unit		Continuity
Connector	Terminal	Ground Continuity	Continuity
B452	38	Ground	Not existed
D402	39		NOT EXISTED

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK LIFTING MOTOR (REAR)

Refer to ADP-124, "Component Inspection".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-203</u>, "Removal and Installation".

NO >> Replace lifting motor (rear). (Built in seat slide cushion frame.) Refer to <u>SE-60, "Exploded View"</u>.

Component Inspection

INFOID:000000008290976

1.CHECK LIFTING MOTOR-1

Check visually the lifting motor (rear) to see if any foreign object is not disturbing the functioning or if the lifting motor (rear) is not broken.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace seat cushion frame (lifting motor).

2. CHECK LIFTING MOTOR-2

1. Turn ignition switch OFF.

- 2. Disconnect lifting motor connector.
- 3. Supply lifting motor terminals with battery voltage and check operation.

Item	Terminal		Operation
nem	(+)	()	Operation
Lifting motor (rear)	38	39	Up
	39	38	Down

Is the inspection result normal?

YES >> Lifting motor (rear) is OK.

NO >> Replace lifting motor (rear). (Built in seat slide cushion frame.) Refer to <u>SE-60, "Exploded View"</u>.

TILT MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Description Description The tilt motor is installed to the steering column assembly. The tilt motor is activated with the automatic drive positioner control unit. The steering column is tilted upward/downward by changing the rotation direction of tilt motor. Component Function Check verticesenerget CHECK FUNCTION verticesenerget CHECK FUNCTION verticesenerget CHECK the tilt motor operation. Step CHECK the tilt motor operation. OFF CHECK TILT MOTOR OFF TILT MOTOR OFF UP Steering tilt VESS >INSPECTION END NO >> Perform diagnosis procedure. Refer to <u>ADP-125</u> . "Diagnosis Procedure". Steeret tilt & telescopic motor connector. Turn ignition switch OK: Disconnector tilt & telescopic motor harness connector and ground. Check voltage betwee	FILT MOTOR						
The tilt motor is activated with the automatic drive positioner control unit. The steering column is tilted upward/downward by changing the rotation direction of tilt motor. Component Function Check .CHECK FUNCTION . Turn ignition switch ON. . Select "TILT MOTOR" in "Active test" mode using CONSULT. . Check the tilt motor operation. Test item Description TILT MOTOR OFF UP Steering tilt Downward bww been tilt by the steering tilt Downward s the operation of relevant parts normal? YES >> INSPECTION END NO >> Perform diagnosis procedure. Refer to <u>ADP-125, "Diagnosis Procedure"</u> . Diagnosis Procedure .CHECK TILT MOTOR POWER SUPPLY . Turn ignition switch OFF. Disconnect tilt & telescopic motor connector. . Turn ignition switch OFF. . Disconnect tilt & telescopic motor connector. . Turn ignition switch OFF. . Disconnect tilt & telescopic motor harness connector and ground. 	Description					INFOID:000000008290977	
.CHECK FUNCTION Turn ignition switch ON. Select "TILT MOTOR" in "Active test" mode using CONSULT. Check the tilt motor operation. Image: the operation of relevant parts normal? YES >> INSPECTION END NO >> Perform diagnosis procedure. Refer to ADP-125, "Diagnosis Procedure". Diagnosis Procedure	The tilt motor is a	ctivated with the	automatic drive	positioner control u		motor.	
Turn ignition switch ON. Select "TILT MOTOR" in "Active test" mode using CONSULT. Check the tilt motor operation. Test item Description TILT MOTOR OFF UP Steering tilt Upward DWN Downward sithe operation of relevant parts normal?. YES >> INSPECTION END NO >> Perform diagnosis procedure. Refer to <u>ADP-125, "Diagnosis Procedure"</u> . Diagnosis Procedure .CHECK TILT MOTOR POWER SUPPLY .Turn ignition switch OFF. Disconnect tilt & telescopic motor connector. .Disconnect tilt & telescopic motor connector. .Turn ignition switch ON. Perform "Active test" ("TILT MOTOR") using CONSULT. Condition Voltage (V) (Approx.) Check voltage between tilt & telescopic motor harness connector and ground.	Component Fu	nction Chec	k			INFOID:000000008290978	
Select [™] TILT MOTOR [™] in "Active test" mode using CONSULT. Check the tilt motor operation. TILT MOTOR OFF UP Steering tilt Upward DWN Downward is the operation of relevant parts normal? YES >> INSPECTION END NO >> Perform diagnosis procedure. Refer to <u>ADP-125, "Diagnosis Procedure"</u> . No Viagnosis Procedure wroncoccoccesses .CHECK TILT MOTOR POWER SUPPLY	.CHECK FUNCT	ION					
It It MOTOR OFF UP Steering tilt Stop Upward DWN DWN Downward the operation of relevant parts normal? YES >> INSPECTION END NO >> Perform diagnosis procedure. Refer to <u>ADP-125</u> . "Diagnosis Procedure". iagnosis Procedure	Select "TILT MO	OTOR" in "Active	e test" mode usir	ng CONSULT.			
TILT MOTOR UP Steering tilt Upward DWN DWN Downward the operation of relevant parts normal? Commward (ES >> INSPECTION END VO >> Perform diagnosis procedure. Refer to ADP-125, "Diagnosis Procedure". Image: Common com		Test item			Description		
DWN Downward the operation of relevant parts normal? Converted of the operation of relevant parts normal? (ES >> INSPECTION END NO >> Perform diagnosis procedure. Refer to <u>ADP-125</u> , "Diagnosis Procedure". Normal Statement of the operation of the operatic operatic operation of the operatic operation of the operation o			OFF			Stop	
the operation of relevant parts normal? TES >> INSPECTION END IO >> Perform diagnosis procedure. Refer to <u>ADP-125</u> , "Diagnosis Procedure". iagnosis Procedure ###0#.00000000000000000000000000000000	TILT MOTOR		UP	Steering tilt		Upward	
TES >> INSPECTION END IO >> Perform diagnosis procedure. Refer to <u>ADP-125, "Diagnosis Procedure"</u> . agnosis Procedure			DWN			Downward	
Tilt & telescopic motor (-) Condition Voltage (V) (Approx.) Connector Terminal	Disconnect tilt & Turn ignition sw Perform "Active	& telescopic mot vitch ON. e test" ("TILT MO	TOR") using CO		nd ground.		
$ \begin{array}{c c c c c c c } \hline Connector & \hline Terminal \\ \hline Connector & \hline Terminal \\ \hline \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $	(+)					
$ \begin{array}{c c c c c c c } \hline Connector & Terminal & & & & & & \\ \hline Connector & Terminal & & & & & & \\ \hline & & & & & & \\ \hline & & & &$	Tilt & teles	copic motor	()	Co	ndition		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Connector	Terminal				(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
M49 A Ground TILT MOTOR DWN (down) Battery voltage 4 OFF 0 UP Battery voltage DWN (down) 0 the inspection result normal? ES >> Replace tilt motor. (Built in steering column assembly.) Refer to ST-21. "WITH ELECTRIC MOTOR : Exploded View". O >> GO TO 2.					OFF	0	
M49 Ground TILT MOTOR 4 OFF 0 WP Battery voltage DWN (down) 0 the inspection result normal? ES >> Replace tilt motor. (Built in steering column assembly.) Refer to ST-21. "WITH ELECTRIC MOTOR : Exploded View". 0 >> GO TO 2.		3					
4 OFF 0 UP Battery voltage DWN (down) 0 TES >> Replace tilt motor. (Built in steering column assembly.) Refer to ST-21, "WITH ELECTRIC MOTOR : Exploded View".	M49		Ground	TILT MOTOR	DWN (down)	Battery voltage	
DWN (down) 0 the inspection result normal? (ES >> Replace tilt motor. (Built in steering column assembly.) Refer to ST-21. "WITH ELECTRIC MOTOR : Exploded View". IO >> GO TO 2.					-		
the inspection result normal? (ES >> Replace tilt motor. (Built in steering column assembly.) Refer to <u>ST-21. "WITH ELECTRIC</u> <u>MOTOR : Exploded View"</u> . IO >> GO TO 2.		4			-		
 YES >> Replace tilt motor. (Built in steering column assembly.) Refer to <u>ST-21. "WITH ELECTRIC</u> <u>MOTOR : Exploded View"</u>. NO >> GO TO 2. 					DWN (down)	0	
	YES >> Replace <u>MOTOF</u> NO >> GO TO	e tilt motor. (Bu <u>R : Exploded Vie</u> 2.		column assembly.)	Refer to <u>ST-21.</u>	WITH ELECTRIC	

1. Turn ignition switch OFF.

 Disconnect automatic drive positioner control unit connector.
 Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic motor harness connector.

TILT MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive positioner control unit		Tilt & telescopic motor		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
M52	35	M49	4	Existed	
IVIJ2	42	10149	3	EXISTED	

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

Automatic drive po	Automatic drive positioner control unit		Continuity
Connector	Terminal	Ground	Continuity
M52	35	Ground	Not existed
10132	42		NOI EXISIEU

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK TILT MOTOR

Refer to ADP-126, "Component Inspection".

Is the inspection result normal?

- YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-204</u>, "Removal and Installation".
- NO >> Replace tilt motor. (Built in steering column assembly.) Refer to <u>ST-21, "WITH ELECTRIC</u> <u>MOTOR : Exploded View"</u>.

Component Inspection

INFOID:000000008290980

1.CHECK SLIDING MOTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect tilt motor connector.
- 3. Supply tilt motor terminals with battery voltage and check operation.

Terminal		Operation	
(+)	()		
4	3	Up	
3	4	Down	

Is the inspection result normal?

YES >> Tilt motor is OK.

NO >> Replace tilt motor. (Built in steering column assembly.) Refer to <u>ST-21, "WITH ELECTRIC</u> <u>MOTOR : Exploded View"</u>.

TELESCOPIC MOTOR

< [DTC/CIRCUIT D	IAGNOSIS >					_
TE	ELESCOPIC	C MOTOR					_
De	escription					INFOID:00000000829098	A 1
• T	he telescopic m	otor is activated		lumn assembly. ic drive positioner cor rotation direction of te			В
Сс	omponent Fu	unction Chec	k			INFOID:000000008290982	2 C
1.	CHECK FUNCT	ION					
1. 2. 3.				le using CONSULT.			D
-		Test item			Description		E
-			OFF			Stop	
	TELESCO MOTOR	R	FR	Steering telescopic		Forward	F
_			RR			Backward	
Y N Di	ES >> INSPE O >> Perforr agnosis Prod	cedure		ADP-127, "Diagnosis Y	Procedure".	INFOID:000000008290983	G ₃ H
1. 2. 3. 4. 5.	Turn ignition so Perform "Active	& telescopic mot witch ON. e test" ("TELESC	CO MOTOR") usi	ng CONSULT. arness connector and	ground.		ADI
-	(-	+)					K
_	Tilt & teles	copic motor	()	Conditi	on	Voltage (V) (Approx.)	
_	Connector	Terminal			l		
		A			OFF	0	L
		1			FR (forward) RR (backward)	0 Battery voltage	
	M49		Ground	TELESCOPIC MOTOR	OFF	0	M
		2			FR (forward)	Battery voltage	

Is the inspection result normal?

YES	>> Replace telescopic motor. (Built in steering column assembly.) Refer to ST-21, "WITH ELECTRIC
	MOTOR : Exploded View"

RR (backward)

2. CHECK TELESCOPIC MOTOR CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect automatic drive positioner control unit connector.

3. Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic motor harness connector.

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TELESCOPIC MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive positioner control unit		Tilt & teles	Tilt & telescopic motor		
Connector	Terminal	Connector	Terminal	Continuity	
M52	36	M49	2	Existed	
IVIJZ	44	10149	1	Existed	

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

Automatic drive po	Automatic drive positioner control unit		Continuity
Connector	Terminal	Ground	Continuity
M52	36	Ground	Not existed
W32	44		NOI EXISIEU

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

 $\mathbf{3.}$ CHECK SLIDING MOTOR

Refer to ADP-128, "Component Inspection".

Is the inspection result normal?

- YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-204</u>, "Removal and Installation".
- NO >> Replace telescopic motor. (Built in steering column assembly.) Refer to <u>ST-21. "WITH ELECTRIC</u> <u>MOTOR : Exploded View"</u>.

Component Inspection

INFOID:000000008290984

1.CHECK SLIDING MOTOR-2

- 1. Turn ignition switch OFF.
- 2. Disconnect telescopic motor connector.
- 3. Supply telescopic motor terminals with battery voltage and check operation.

Tern	ninal	Operation
(+)	()	
2	1	Forward
1	2	Backward

Is the inspection result normal?

YES >> Telescopic motor is OK.

NO >> Replace telescopic motor. (Built in steering column assembly.) Refer to <u>ST-21. "WITH ELECTRIC</u> <u>MOTOR : Exploded View"</u>.

< DTC/CIRCUIT DIAGNOSIS >

DOOR MIRROR MOTOR

Description

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

1. CHECK DOOR MIRROR MOTOR FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "DOOR MIRROR MOTOR" in "Active test" mode using CONSULT.
- 3. Check the door mirror motor operation.

Test item		Descrip	otion	
	OFF		Stop	
	L		Outward	
OOR MIRROR MOTOR LH	R	Door mirror face	Inward	
	UP		Upward	
	DWN		Downward	

Test	titem	Desc	ription	
	OFF		Stop	Н
	L		Inward	
DOOR MIRROR MOTOR RH	R	Door mirror face	Outward	1
	UP		Upward	
	DWN		Downward	

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-129</u>, "Diagnosis Procedure".

Diagnosis Procedure

1.CHECK DOOR MIRROR MOTOR INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect door mirror connector.
- 3. Turn ignition switch ON.

4. Check voltage between door mirror connector and ground.

	+) mirror	()	Con	dition	Voltage (V) (Approx.)	Ν
Connector	Terminal				(• • • • • • • • • • • • • • • • • • •	
	5			UP	Battery voltage	\bigcirc
	5			Other than above	0	0
D3 (Driver side) D33 (Passenger	6	Ground	Door mirror remote	LEFT	Battery voltage	
side)	0	Ground	control switch	Other than above	0	Р
	7			DOWN / RIGHT	Battery voltage	
	Γ			Other than above	0	

Is the inspection result normal?

YES >> GO TO 3. NO >> GO TO 2. ADP

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DOOR MIRROR MOTOR

< DTC/CIRCUIT DIAGNOSIS >

2. CHECK HARNESS CONTINUITY

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

Automatic drive pos	sitioner control unit	Door mirror	(driver side)	Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
	16		7		
M51	31	D3	5	Existed	
	32		6		
oor mirror passenger si	de]				
Automatic drive pos	sitioner control unit	Door mirror (pa	assenger side)	Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
	14		5		
				1	
M51	15	D33	6	Existed	

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

[Door mirror driver side]			
Automatic drive p	Automatic drive positioner control unit		Continuity
Connector	Terminal	_	Continuity
	16	Ground	
M51	31		Not existed
	32		
[Door mirror passenger side]			
Automatic drive p	ositioner control unit		Continuity
Connector	Terminal		Continuity
	14	Ground	
M51	15		Not existed
	30	1	

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-204, "Removal and Installation"</u>. NO >> Repair or replace harness.

3.CHECK DOOR MIRROR MOTOR

Check door mirror motor.

Refer to ADP-130, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace door mirror. Refer to <u>MIR-15</u>, "DOOR MIRROR ASSEMBLY : Removal and Installation".

4.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1.CHECK DOOR MIRROR MOTOR-I

Check that door mirror motor does not trap foreign objects and does not have any damage. Refer to <u>MIR-15, "DOOR MIRROR ASSEMBLY : Exploded View"</u>.

ADP-130

INFOID:000000008290988

DOOR MIRROR MOTOR

< DTC/CIRCUIT DIAGNOSIS	>		
Is the inspection result normal?			
YES >> GO TO 2.			
-		OOR MIRROR ASSEMB	LY : Removal and Installation".
2. CHECK DOOR MIRROR MC	DTOR-II		
 Turn ignition switch OFF. Disconnect door mirror con Supply door mirror motor te 		oltage and check operati	on.
	Door mirror		
Connector	Te	erminal	Operational direction
Connector	(+)	(-)	
	7	6	RIGHT
D3 (Driver side)	6	7	LEFT
D33 (Passenger side)	5	7	UP

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace door mirror. Refer to MIR-15, "DOOR MIRROR ASSEMBLY : Removal and Installation".

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< DTC/CIRCUIT DIAGNOSIS >

SEAT MEMORY INDICATOR

Description

INFOID:000000008290989

INFOID:000000008290990

- Memory indicator is equipped on the seat memory switch installed to 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. Turn ignition switch ON.
- 2. Select "MEMORY SW INDCTR" in "Active test" mode using CONSULT.
- 3. Check the memory indicator operation.

Test item		Descript	ion
	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-132, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000008290991

1.CHECK MEMORY INDICATOR POWER SUPPLY

Check voltage between seat memory switch harness connector and ground.

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

Is the inspection result normal?

YES >> GO TO 2.

NO-1 >> 10 A fuse [No. 10 located in fuse block (J/B)].

NO-2 >> Harness for open or short between memory indicator and fuse.

2.CHECK MEMORY INDICATOR CIRCUIT

1. Turn ignition switch OFF.

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

Automatic drive p	ositioner control unit	Seat memory switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M51	12	D5	6	Existed
IVIO I	13		7	LAISIEU

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

Automatic drive p	Automatic drive positioner control unit		Continuity
Connector	Terminal	Ground Continuity	Continuity
M51	12	Ground	Not existed
I CIVI	13		NUL EXISIEU

T 845

	SEAT MEMORY INDICATOR	
< DTC/	/CIRCUIT DIAGNOSIS >	
Is the ir	nspection result normal?	
YES NO	>> Replace seat memory switch. Refer to <u>ADP-205, "Removal and Installation"</u> . >> Repair or replace harness.	А
		В
		С
		D
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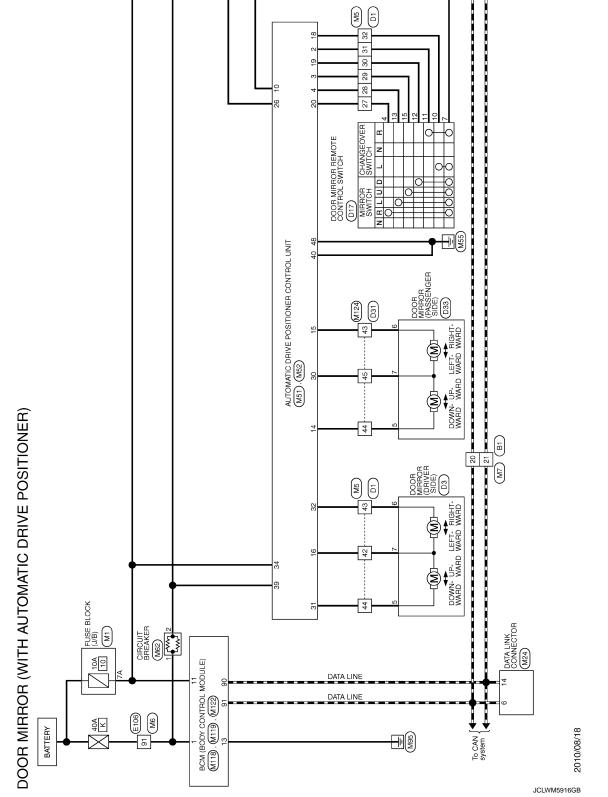
< DTC/CIRCUIT DIAGNOSIS >

DOOR MIRROR SYSTEM

Wiring Diagram - DOOR MIRROR (WITH AUTOMATIC DRIVE POSITIONER) -

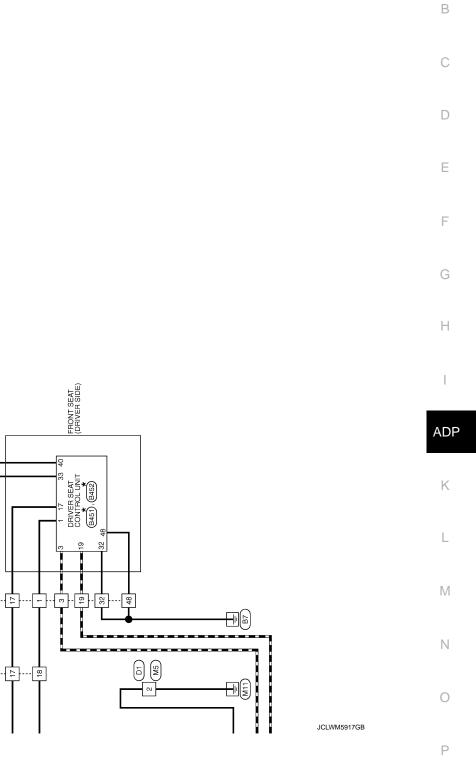
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For connector terminal arrangements, harness layouts, and alphabets in a \bigcirc (option abbreviation; if not described in wiring diagram), refer to <u>GI-12. "Connector Information"</u>.



DOOR MIRROR SYSTEM

< DTC/CIRCUIT DIAGNOSIS >



★ : This connector is not shown in "Harness Layout".

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ECU DIAGNOSIS INFORMATION DRIVER SEAT CONTROL UNIT

Reference Value

INFOID:000000008290993

VALUES ON THE DIAGNOSIS TOOL

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

CONSULT MONITOR ITEM

Monitor Item	Condit	ion	Value/Status
SET SW	Set switch	Push	ON
3ET 3W	Set Switch	Release	OFF
	Momory quitch 1	Push	ON
MEMORY SW1	Memory switch 1	Release	OFF
MEMORY SW2	Memory switch 2	Push	ON
WEWORT 3WZ	Memory Switch 2	Release	OFF
SLIDE SW-FR	Sliding switch (front)	Operate	ON
SLIDE SW-FR	Sliding switch (front)	Release	OFF
SLIDE SW-RR	Sliding switch (rear)	Operate	ON
SLIDE SW-RR	Silding Switch (rear)	Release	OFF
RECLN SW-FR	Reclining switch (front)	Operate	ON
RECLIN SW-FR	Reclining Switch (nont)	Release	OFF
RECLN SW-RR	Reclining switch (rear)	Operate	ON
RECLIN SW-RR	Reclining Switch (rear)	Release	OFF
	Lifting switch front (up)	Operate	ON
LIFT FR SW-UP	Enting switch none (up)	Release	OFF
IET ED SW/ DN	Operate	ON	
LIFT FR SW-DN	Lifting switch front (down)	Release	OFF
LIFT RR SW-UP		Operate	ON
LIFT KK SW-OF	Lifting switch rear (up)	Release	OFF
LIFT RR SW-DN	Lifting switch rear (down)	Operate	ON
LIFT KK SW-DN	Lining switch rear (down)	Release	OFF
MIR CON SW-UP	Mirror switch	Up	ON
	WINTOF SWICH	Other than above	OFF
MIR CON SW-DN	Mirror switch	Down	ON
	WINTOF SWICH	Other than above	OFF
MIR CON SW-RH	Mirror switch	Right	ON
	WINTOF SWICH	Other than above	OFF
MIR CON SW-LH	Mirror switch	Left	ON
		Other than above	OFF
MIR CHNG SW-R	Changeover switch	Right	ON
WIIN UTING SVV-K		Other than above	OFF
MIR CHNG SW-L	Changeover switch	Left	ON
WIT OF ING SW-L	Shangeover Switch	Other than above	OFF

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Con	dition	Value/Status
TILT SW-UP Tilt switch		Up	ON
11L1 3VV-UP		Other than above	OFF
TILT SW-DOWN	Tilt switch	Down	ON
		Other than above	OFF
TELESCO SW-FR	Telescopic switch	Forward	ON
TELESCO SW-I K	Telescopic Switch	Other than above	OFF
TELESCO SW-RR	Tilt switch	Backward	ON
TELESCO SW-RR	The Switch	Other than above	OFF
DETENT SW ^{*1}	AT selector lever	P position	OFF
DETENT SW		Other than above	ON
PARK BRAKE SW ^{*2}	Parking brake	Applied	ON
FARN DRAKE SVV -		Release	OFF
STARTER SW	Ignition position	Cranking	ON
		Other than above	OFF
	Seat sliding	Forward	The numeral value decreases *3
SLIDE PULSE		Backward	The numeral value increases *3
		Other than above	No change to numeral value ^{*3}
	Seat reclining	Forward	The numeral value decreases *3
RECLN PULSE		Backward	The numeral value increases *3
		Other than above	No change to numeral value ^{*3}
	Seat lifter (front)	Up	The numeral value decreases *3
LIFT FR PULSE		Down	The numeral value increases *3
		Other than above	No change to numeral value ^{*3}
		Up	The numeral value decreases *3
LIFT RR PULSE	Seat lifter (rear)	Down	The numeral value increases *3
		Other than above	No change to numeral value ^{*3}
MIR/SEN RH U-D	Door mirror (passenger s	side)	Change between 3.4 (close to peak) 0.6 (close to valley)
MIR/SEN RH R-L	Door mirror (passenger s	side)	Change between 3.4 (close to left edge) 0.6 (close to right edge)
MIR/SEN LH U-D	Door mirror (driver side)		Change between 3.4 (close to peak) 0.6 (close to valley)
MIR/SEN LH R-L	Door mirror (driver side)		Change between 0.6 (close to left edge) 3.4 (close to right edge)
TILT SEN	Tilt position		Change between 1.2 (close to top) 3.4 (close to bottom)
TELESCO SEN	Telescopic position		Change between 3.4 (close to top) 0.8 (close to bottom)

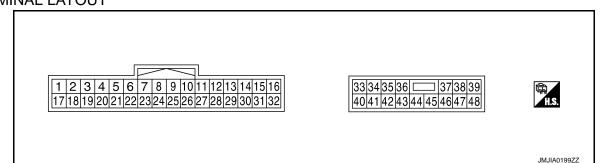
^{*1}: Only for A/T model

*2: Only for M/T model

*3: The value at the position attained when the battery is connected is regarded as 32768.

< ECU DIAGNOSIS INFORMATION >

TERMINAL LAYOUT



PHYSICAL VALUES

Terminal No.		Description				Voltage (V)	
+	-	Signal name	Input/ Output	Condition		(Approx)	
1 (L/W)	Ground	UART communication (RX)	Input	Ignition switch ON		2mSec/div	
3 (R/Y)	—	CAN-H	_	_		_	
8 ^{*1}	Ground	Parking brake switch	Input	Parking brake	Applied	0	
(LG)	Ground	signal	mput	T arking brake	Release	Battery voltage	
9 (W/G)	Ground	Reclining sensor signal	Input	Seat reclining	Operate	10mSec/div	
					Stop	0 or 5	
10 (P/B)	Ground	Lifting sensor (rear) sig- nal	Input	Seat lifting (rear)	Operate	10mSec/div	
					Stop	0 or 5	
11 (BR)	Ground	Sliding switch backward signal	Input	Sliding switch	Operate (back- ward)	0	
					Release	Battery voltage	
12 (SB)	Ground	Ground Reclining switch back- ward signal	Input	Reclining switch	Operate (back- ward)	0	
, - <i>,</i>					Release	Battery voltage	

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< ECU DIAGNOSIS INFORMATION >

Terminal No.		nal No.	Description				
	+	-	Signal name	Input/ Output	Condition		Voltage (V) (Approx)
(L	13 _G/R)	Ground	Lifting switch (front) down signal	Input	Lifting switch (front)	Operate (down)	0
(14 G/B)	Ground	Lifting switch (rear) down signal	Input	Lifting switch (rear)	Release Operate (down) Release	0 Battery voltage
	16 (O)	Ground	Sensor power supply	Output		Release	5
(17 Y/R)	Ground	UART communication (TX)	Output	Ignition switch ON		10mSec/div
	19 (V)	—	CAN-L	—	—		_
						P position	0
21*2 (L/Y)	Ground Detention st	Detention switch	Input	A/T selector lever	Except P position	20mSec/div	
	24 (R)	Ground	Sliding sensor signal	Input	Seat sliding	Operate	10mSec/div
						Stop	0 or 5
(25 (Y/B)	Ground	Lifting sensor (front) sig- nal	Input	Seat lifting (front)	Operate	10mSec/div 2V/div JMJIA0119ZZ
						Stop	0 or 5
	26 (Y)	Ground	Sliding switch forward signal	Input	Sliding switch	Operate (forward)	0 Botton/ voltago
-	27	Ground	Reclining switch forward	Input	Reclining switch	Release Operate (forward)	Battery voltage 0
(R/G)	0.0414	signal		g official	Release	Battery voltage

< ECU DIAGNOSIS INFORMATION >

Terminal No.		Description			Voltage (V)	
+	-	Signal name	Input/ Output	Condition		(Approx)
28 (W/B)	Ground	Lifting switch (front) up signal	Input	Seat lifting switch (front)	Operate (up)	0
()				(Release	Battery voltage
29 (P/L)	Ground	Lifting switch (rear) up signal	Input	Seat lifting switch (rear)	Operate (up)	0
		5			Release	Battery voltage
31 (GR)	Ground	Sensor ground		_		0
32 (B/W)	Ground	Ground (signal)		_		0
33 (R)	Ground	Power source (C/B)	Input	_		Battery voltage
35	Ground	Sliding motor forward	Output	Seat sliding	Operate (forward)	Battery voltage
(W/R)		output signal	•		Release	0
36 (G/Y)	Ground	Reclining motor forward output signal	Output	Seat reclining	Operate (forward)	Battery voltage
(6/1)		output signal			Release	0
37 (G/W)	Ground	Ground Lifting motor (front) down output signal	Output	utput Seat lifting (front)	Operate (down)	Battery voltage
(6/11)					Stop	0
38 (L/Y)	Ground	Lifting motor (rear) up output signal	Output	Seat lifting (rear)	Operate (up)	Battery voltage
(ЦТ)		output signal			Stop	0
39 (R/B)	Ground	Lifting motor (rear) down output signal	Output	Seat lifting (rear)	Operate (down)	Battery voltage
		output signal			Stop	0
40 (R/W)	Ground	Power source (Fuse)	Input	_		Battery voltage
42 (W/B)	Ground	Sliding motor backward output signal	Output	Seat sliding	Operate (back- ward)	Battery voltage
					Stop	0
44 (P)	Ground	Reclining motor back- ward output signal	Output	Seat reclining	Operate (back- ward)	Battery voltage
					Stop	0
45 (L/R)	Ground	Lifting motor (front) up output signal	Output	Seat lifting (front)	Operate (up)	Battery voltage
(=/13)					Stop	0
48 (B)	Ground	Ground (power)		_		0

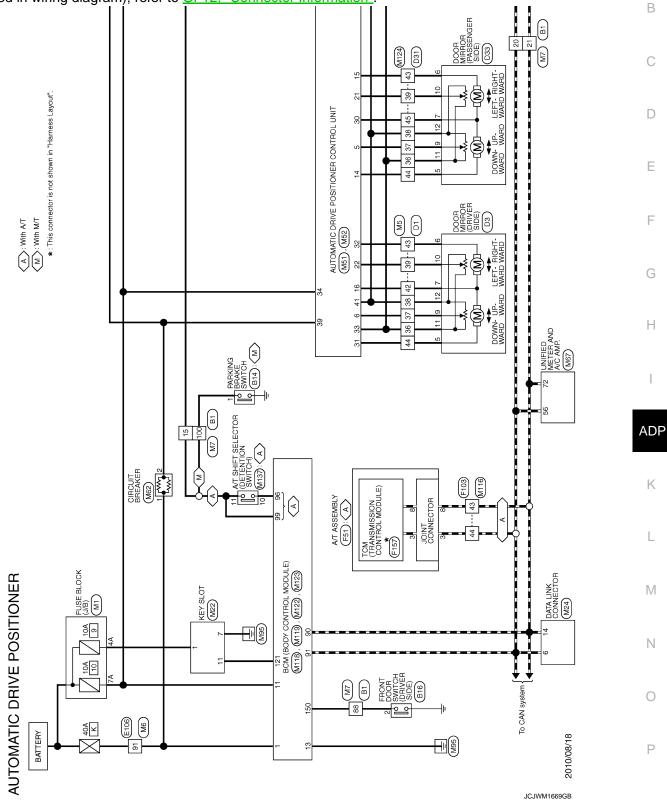
*1: Only for M/T models

*2: Only for A/T models

< ECU DIAGNOSIS INFORMATION >

Wiring Diagram - AUTOMATIC DRIVE POSITIONER CONTROL SYSTEM -

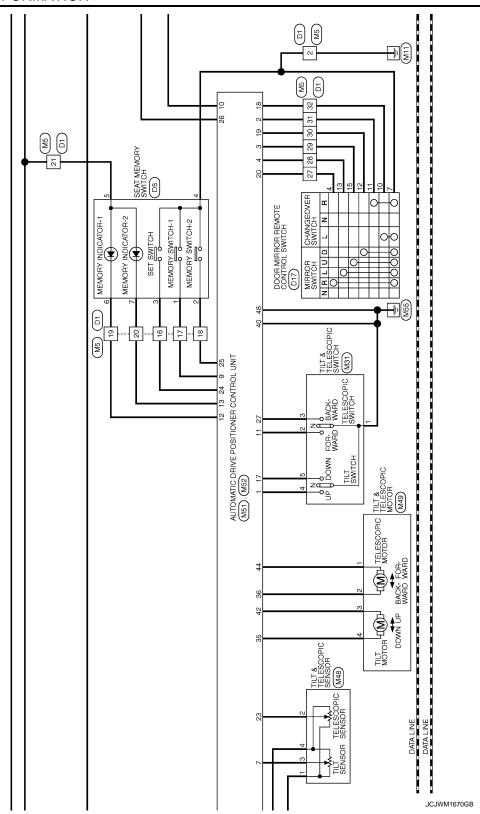
For connector terminal arrangements, harness layouts, and alphabets in a \bigcirc (option abbreviation; if not described in wiring diagram), refer to <u>GI-12, "Connector Information"</u>.



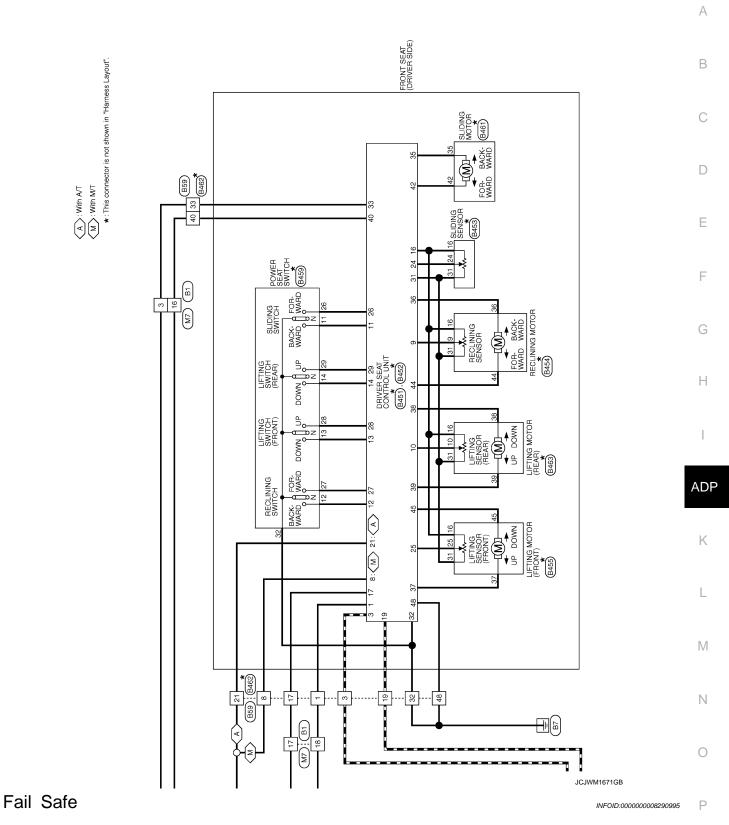
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< ECU DIAGNOSIS INFORMATION >



< ECU DIAGNOSIS INFORMATION >



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

< ECU DIAGNOSIS INFORMATION >

Operating in fail-safe mode	Malfunction Item	Related DTC	Diagnosis
	CAN communication	U1000	<u>ADP-49</u>
	Tilt sensor	B2118	<u>ADP-54</u>
Only manual functions operate normally.	Telescopic sensor	B2119	<u>ADP-57</u>
	Detent switch	B2126	ADP-60
	Parking brake switch	B2127	<u>ADP-62</u>
Only manual functions, except door mirror, operate normally.	UART communication	B2128	<u>ADP-64</u>
Only manual functions, except seat sliding, operate normally.	Seat sliding output	B2112	ADP-50
Only manual functions, except seat reclining, operate normally.	Seat reclining output	B2113	<u>ADP-52</u>

DTC Index

INFOID:000000008290996

CONSULT	Tim	ing ^{*1}			
display	Current mal- function	Previous mal- function	Item	Reference page	
CAN COMM CIRCUIT [U1000]	0	1-39	CAN communication	<u>ADP-49</u>	
SEAT SLIDE [B2112]	0	1-39	Seat slide motor output	<u>ADP-50</u>	
SEAT RECLINING [B2113]	0	1-39	Seat reclining motor output	<u>ADP-52</u>	
TILT SENSOR [B2118]	0	1-39	Tilt sensor input	<u>ADP-54</u>	
TELESCO SENSOR [B2119]	0	1-39	Telescopic sensor input	<u>ADP-57</u>	
DETENT SW [B2126]	0	1-39	Detention switch condition	<u>ADP-60</u>	
PARKING BRAKE [B2127]	0	1-39	Parking brake switch condition	<u>ADP-62</u>	
UART COMM [B2128]	0	1-39	UART communication	<u>ADP-64</u>	

*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.

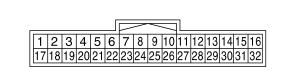
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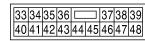
AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Reference Value

INFOID:000000008290997

TERMINAL LAYOUT







JMJIA0199ZZ

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В

PHYSICAL VALUES

	nal No. e color)	Description		Condition		Voltage (V)	F
+	_	Signal name	Input/ Output	Contain		(Approx.)	G
1	Ground	Tilt switch upward signal	Input	Tilt switch	Operate (upward)	0	-
(Y)	Ground	The switch upward signal	mput		Other than above	5	Н
0		Change aver awitch DU		Changester	RH	0	-
2 (LG)	Ground	Changeover switch RH signal	Input	Changeover switch position	Neutral or LH	5	
3	Ground	Mirror switch upward sig-	Input	Mirror switch	Operated (upward)	0	ADP
(G)	Ground	nal	mput	WIND SWICH	Other than above	5	-
4	Ground	Mirror switch leftward sig-	Input	Operated (leftward)		0	K
(Y)	Giouna	nal	input	Mirror switch	Other than above	5	L
5 (R)	Ground	Door mirror sensor (RH) upward/downward signal	Input	Mirror face (door n	nirror RH)	Change between 3.4 (close to peak) 0.6 (close to valley)	-
6 (GR)	Ground	Door mirror sensor (LH) upward/downward signal	Input	Mirror face (door n	nirror LH)	Change between 3.4 (close to peak) 0.6 (close to valley)	Μ
7 (BG)	Ground	Tilt sensor signal	Input	Tilt position		Change between 1.2 (close to top) 3.8 (close to bottom)	N
9					Press	0	-
(BR)	Ground	Memory switch 1 signal	Input	Memory switch 1	Other than above	5	0
10 (V)	Ground	UART communication (TX)	Output	Ignition switch ON		2mSec/div 2mSec/div 2wJulian 2V/div JMJIA0118ZZ	Ρ

< ECU DIAGNOSIS INFORMATION >

	nal No. color)	Description		Condition		Voltage (V)				
+	_	Signal name	Input/ Output	Condition		(Approx.)				
11	Ground	Telescopic switch forward	Input	Telescopic switch	Operate (forward)	0				
(GR)		signal			Other than above	5				
12	. .				Illuminate	1				
(BG)	Ground	Memory indictor 1 signal	Output	Memory indictor 1	Other than above	Battery voltage				
13		Manageria	0.1.1	Maria	Illuminate	1				
(P)	Ground	Memory indictor 2 signal	Output	Memory indictor 2	Other than above	Battery voltage				
14	Ground	Door mirror motor (RH)	Output	Door mirror RH	Operate (upward)	Battery voltage				
(W)	Cround	upward output	Output		Other than above	0				
15	Cround	Door mirror motor (RH)	Quitout	Door mirror RH	Operate (leftward)	Battery voltage				
(BG)	Ground	leftward output	Output		Other than above	0				
		Door mirror motor (LH)			Operate (down- ward)	Battery voltage				
16	Ground	downward output	downward output	Output	Door mirror (LH)	Other than above	0			
(Y)				D	Door mirror motor (LH)	Door mirror motor (LH)			Operate (rightward)	Battery voltage
		rightward output						Other than above	0	
17 (BR)	Ground	Tilt switch downward sig- nal	Input	Tilt switch	Operate (down- ward)	0				
(BR)		TIAI			Other than above	5				
18		Changeover switch LH		Changeover	LH	0				
(W)	Ground	signal	Input	switch position	Neutral or RH	5				
19 (SB)	Ground	Mirror switch downward	Input	Mirror switch	Operate (down- ward)	0				
(36)		signal			Other than above	5				
20	Ground	Mirror switch rightward		Mirror switch	Operate (rightward)	0				
(L)	Giouna	signal	Input	WILLOF SWILCH	Other than above	5				
21 (L)	Ground	Door mirror sensor (RH) leftward/rightward signal	Input	Door mirror RH position		Change between 3.4 (close to left edge) 0.6 (close to right edge)				
22 (B)	Ground	Door mirror sensor (LH) leftward/rightward signal	Input	Door mirror LH pos	sition	Change between 0.6 (close to left edge) 3.4 (close to right edge)				
23 (P)	Ground	Telescopic sensor signal	Input	Telescopic position	I	Change between 0.8 (close to top) 4.4 (close to bottom)				

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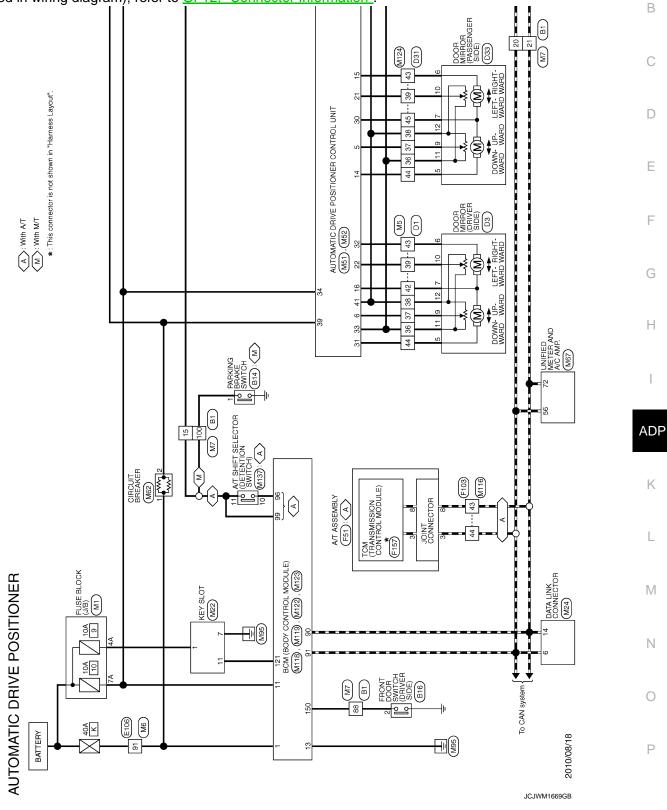
	nal No. e color)	Description			Description		Voltage (V)	А
+	-	Signal name	Input/ Output	Condition		(Approx.)		
24 (R)	Ground	Set switch signal	Input	Set switch	Press Other than above	0 5	В	
25 (V)	Ground	Memory switch 2 signal	Input	Memory switch 2	Press Other than above	0	- C	
26 (P)	Ground	UART communication (RX)	Input	Ignition switch ON		10mSec/div	– D E F	
27	Ground	Telescopic switch back-	Input	Telescopic switch	Operate (backward)	0	- G	
(G)	C. C. L. L.	ward signal			Other than above	5	0	
		Door mirror motor (RH)			Operate (down- ward)	Battery voltage	Н	
30	Ground	downward output	Output	Door mirror (RH)	Other than above	0		
(SB)		Door mirror motor (RH)				Operate (rightward)	Battery voltage	-
		rightward output			Other than above	0	AD	
31	Ground	Door mirror motor (LH)	Output Door r	hirror motor (LH)	Door mirror (LH)	Operate (upward)	Battery voltage	K
(G)	Ground	upward output			Other than above	0	-	
32	Ground	Door mirror motor (LH)	Output	Door mirror (LH)	Operate (leftward)	Battery voltage	L	
(L)	Giouna	leftward output	Output		Other than above	0	M	
33 (W)	Ground	Sensor power supply	Input	_		5	-	
34 (V)	Ground	Power source (Fuse)	Input	_		Battery voltage	N	
35	Ground		Output	Oto options tilt	Operate (upward)	Battery voltage	0	
(L)	Ground	Tilt motor upward output	Output	Steering tilt	Other than above	0	-	
36	Crown d	Telescopic motor forward	0	Steering telescop-	Operate (forward)	Battery voltage	P	
(GR)	Ground	output signal	Output ic	rour - ·	Other than above	0	-	
39 (W)	Ground	Power source (C/B)	Input			Battery voltage	-	
40 (B)	Ground	Ground	_	_		0	-	

	nal No. color)	Description		Condition		Voltage (V)
+	_	Signal name	Input/ Output	Condition		(Approx.)
41 (Y)	Ground	Sensor ground	_	_		0
42 (BG)	Ground	Tilt motor downward out-	ard out- Output Steering tilt	Steering tilt	Operate (down- ward)	Battery voltage
(00)		put		Other than above		0
44	Ground	Telescopic motor back-	Output	Steering telescop-	Operate (backward)	Battery voltage
(G)	Ground	ward output	Juiput	ic	Other than above	0
48 (B)	Ground	Ground				0

< ECU DIAGNOSIS INFORMATION >

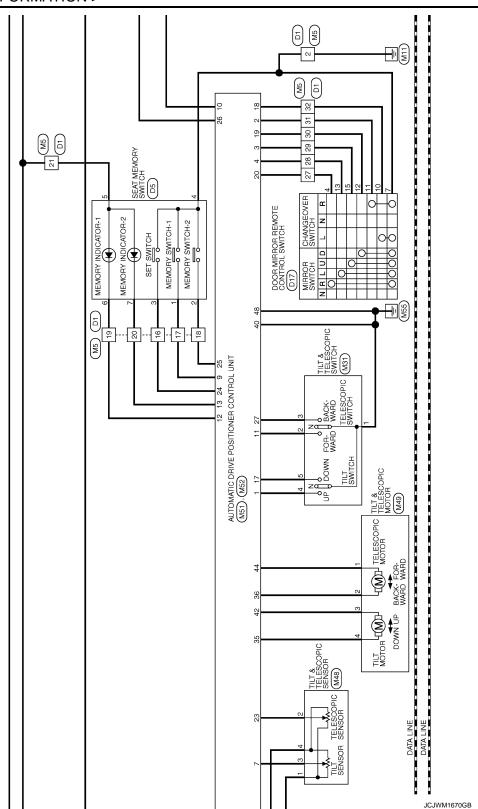
Wiring Diagram - AUTOMATIC DRIVE POSITIONER CONTROL SYSTEM -

For connector terminal arrangements, harness layouts, and alphabets in a \bigcirc (option abbreviation; if not described in wiring diagram), refer to <u>GI-12, "Connector Information"</u>.



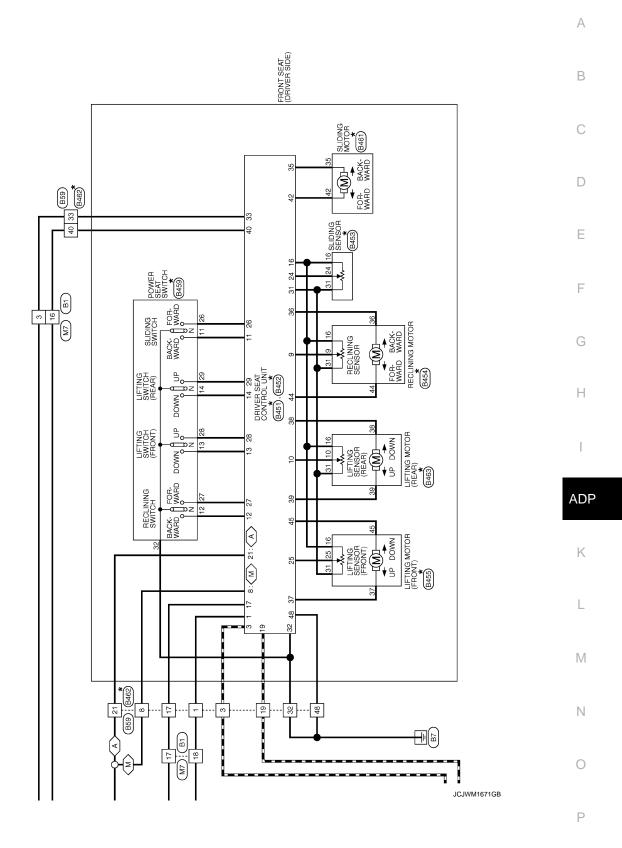
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AUTOMATIC DRIVE POSITIONER CONTROL UNIT < ECU DIAGNOSIS INFORMATION >





< ECU DIAGNOSIS INFORMATION >

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:000000008807294

VALUES ON THE DIAGNOSIS TOOL

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

CONSULT MONITOR ITEM

Monitor Item	Condition	Value/Status
FR WIPER HI	Other than front wiper switch HI	Off
	Front wiper switch HI	On
FR WIPER LOW	Other than front wiper switch LO	Off
	Front wiper switch LO	On
FR WASHER SW	Front washer switch OFF	Off
FR WASHER SW	Front washer switch ON	On
FR WIPER INT	Other than front wiper switch INT/AUTO	Off
	Front wiper switch INT/AUTO	On
FR WIPER STOP	Front wiper is not in STOP position	Off
FR WIFER STOP	Front wiper is in STOP position	On
INT VOLUME	Wiper volume dial is in a dial position 1 - 7	Wiper volume dial pos tion
TURN SIGNAL R	Other than turn signal switch RH	Off
TURN SIGNAL R	Turn signal switch RH	On
TURN SIGNAL L	Other than turn signal switch LH	Off
TURIN SIGINAL L	Turn signal switch LH	On
TAIL LAMP SW	Other than lighting switch 1ST and 2ND	Off
TAIL LAIVIP SVV	Lighting switch 1ST or 2ND	On
	Other than lighting switch HI	Off
HI BEAM SW	Lighting switch HI	On
HEAD LAMP SW 1	Other than lighting switch 2ND	Off
HEAD LAWIF SW I	Lighting switch 2ND	On
	Other than lighting switch 2ND	Off
HEAD LAMP SW 2	Lighting switch 2ND	On
PASSING SW	Other than lighting switch PASS	Off
PASSING SW	Lighting switch PASS	On
AUTO LIGHT SW	Other than lighting switch AUTO	Off
AUTO LIGHT SW	Lighting switch AUTO	On
FR FOG SW	Front fog lamp switch OFF	Off
FK FOG 3W	Front fog lamp switch ON	On
RR FOG SW	NOTE: The item is indicated, but not monitored.	Off
	Driver door closed	Off
DOOR SW-DR	Driver door opened	On
	Passenger door closed	Off
DOOR SW-AS	Passenger door opened	On
	Rear RH door closed	Off
DOOR SW-RR	Rear LH door opened	On

Monitor Item	Condition	Value/Status	
DOOR SW-RL	Rear LH door closed	Off	
DOOR SW-RL	Rear LH door opened	On	
DOOR SW-BK	NOTE: The item is indicated, but not monitored.	Off	
CDL LOCK SW	Other than power door lock switch LOCK	Off	
	Power door lock switch LOCK	On	
CDL UNLOCK SW	Other than power door lock switch UNLOCK	Off	
CDL UNLOCK SW	Power door lock switch UNLOCK	On	
	Other than driver door key cylinder LOCK	Off	
KEY CYL LK-SW	Driver door key cylinder LOCK	On	
	Other than driver door key cylinder UNLOCK	Off	
KEY CYL UN-SW	Driver door key cylinder LOCK	On	
KEY CYL SW-TR	NOTE: The item is indicated, but not monitored.	Off	
HAZARD SW	Hazard switch is OFF	Off	
	Hazard switch is ON	On	
REAR DEF SW	NOTE: The item is indicated, but not monitored.	Off	
TR CANCEL SW	Trunk lid opener cancel switch OFF	Off	
	Trunk lid opener cancel switch ON	On	
TR/BD OPEN SW	Trunk lid opener switch OFF	Off	
	While the trunk lid opener switch is turned ON	On	
TRNK/HAT MNTR	Trunk lid closed	Off	
	Trunk lid opened	On	
REVERSE SW	NOTE: The item is indicated, but not monitored.	Off	
RKE-LOCK	LOCK button of the Intelligent Key is not pressed	Off	
KNE-LOUK	LOCK button of the Intelligent Key is pressed	On	
	UNLOCK button of the Intelligent Key is not pressed	Off	_
RKE-UNLOCK	UNLOCK button of the Intelligent Key is pressed	On	_
	TRUNK OPEN button of the Intelligent Key is not pressed	Off	
RKE-TR/BD	TRUNK OPEN button of the Intelligent Key is pressed	On	
	PANIC button of the Intelligent Key is not pressed	Off	
RKE-PANIC	PANIC button of the Intelligent Key is pressed	On	_
	UNLOCK button of the Intelligent Key is not pressed	Off	_
RKE-P/W OPEN	UNLOCK button of the Intelligent Key is pressed and held	On	_
RKE-MODE CHG	LOCK/UNLOCK button of the Intelligent Key is not pressed and held simulta- neously	Off	
	LOCK/UNLOCK button of the Intelligent Key is pressed and held simultaneously	On	
	Bright outside of the vehicle	Close to 5 V	
OPTICAL SENSOR	Dark outside of the vehicle	Close to 0 V	
	Driver door request switch is not pressed	Off	_
REQ SW -DR	Driver door request switch is pressed	On	
	Passenger door request switch is not pressed	Off	
REQ SW -AS	Passenger door request switch is pressed	On	

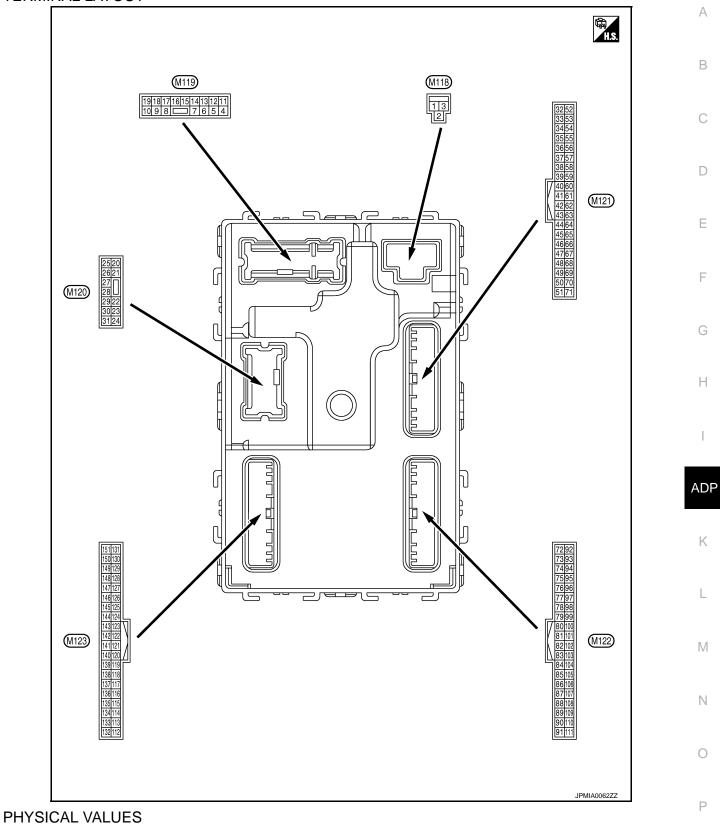
Monitor Item	Condition	Value/Status
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off
REQ SW -RL	NOTE: The item is indicated, but not monitored.	Off
	Trunk lid opener request switch is not pressed	Off
REQ SW -BD/TR	Trunk lid opener request switch is pressed	On
	Push-button ignition switch (push switch) is not pressed	Off
PUSH SW	Push-button ignition switch (push switch) is pressed	On
GN RLY2 -F/B	NOTE: The item is indicated, but not monitored.	Off
ACC RLY -F/B	NOTE: The item is indicated, but not monitored.	Off
	The clutch pedal is not depressed	Off
CLUCH SW	The clutch pedal is depressed	On
	The brake pedal is depressed when No. 7 fuse is blown	Off
BRAKE SW 1	The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is nor- mal	On
	The brake pedal is not depressed	Off
BRAKE SW 2	The brake pedal is depressed	On
	Selector lever in P position (Except M/T models) The clutch pedal is depressed (M/T models)	Off
DETE/CANCL SW	 Selector lever in any position other than P (Except M/T models) The clutch pedal is not depressed (M/T models) 	On
	Selector lever in any position other than P and N	Off
SFT PN/N SW	Selector lever in P or N position	On
S/L -LOCK	NOTE: The item is indicated, but not monitored.	Off
S/L -UNLOCK	NOTE: The item is indicated, but not monitored.	Off
S/L RELAY-F/B	NOTE: The item is indicated, but not monitored.	Off
JNLK SEN -DR	Driver door is unlocked	Off
	Driver door is locked	On
PUSH SW -IPDM	Push-button ignition switch (push-switch) is not pressed	Off
	Push-button ignition switch (push-switch) is pressed	On
GN RLY1 -F/B	Ignition switch in OFF or ACC position	Off
	Ignition switch in ON position	On
DETE SW -IPDM	Selector lever in any position other than P	Off
	Selector lever in P position	On
SFT PN -IPDM	Selector lever in any position other than P and N (Except M/T models) The clutch pedal is not depressed (M/T models)	Off
טו דוז -ודטועו	Selector lever in P or N position (Except M/T models) The clutch pedal is depressed (M/T models)	On
	Selector lever in any position other than P	Off
SFT P -MET	Selector lever in P position	On
	Selector lever in any position other than N	Off
SFT N -MET	Selector lever in N position	On

Monitor Item	Condition	Value/Status
	Engine stopped	Stop
ENGINE STATE	While the engine stalls	Stall
	At engine cranking	Crank
	Engine running	Run
S/L LOCK-IPDM	NOTE: The item is indicated, but not monitored.	Off
S/L UNLK-IPDM	NOTE: The item is indicated, but not monitored.	Off
S/L RELAY-REQ	NOTE: The item is indicated, but not monitored.	Off
VEH SPEED 1	While driving	Equivalent to speed- ometer reading
VEH SPEED 2	While driving	Equivalent to speed- ometer reading
	Driver door is locked	LOCK
DOOR STAT-DR	Wait with selective UNLOCK operation (60 seconds)	READY
	Driver door is unlocked	UNLOCK
	Passenger door is locked	LOCK
DOOR STAT-AS	Wait with selective UNLOCK operation (60 seconds)	READY
	Passenger door is unlocked	UNLOCK
ID OK FLAG	Driver side door is open after ignition switch is turned OFF (Shift position is in the P position)	Reset
	Ignition switch ON	Set
	The engine start is prohibited	Reset
PRMT ENG STRT	The engine start is permitted	Set
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset
KEY SW -SLOT	The Intelligent Key is not inserted into key slot	Off
KET 5W-5LUT	The Intelligent Key is inserted into key slot	On
RKE OPE COUN1	During the operation of the Intelligent Key	Operation frequency of the Intelligent Key
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	_
CONFRM ID ALL	The key ID that the key slot receives is not recognized by any key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by any key ID registered to BCM.	Done
CONFIRM ID4	The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the fourth key ID registered to BCM.	Done
CONFIRM ID3	The key ID that the key slot receives is not recognized by the third key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the third key ID registered to BCM.	Done
CONFIRM ID2	The key ID that the key slot receives is not recognized by the second key ID reg- istered to BCM.	Yet
	The key ID that the key slot receives is recognized by the second key ID regis-	

Monitor Item	Condition	Value/Status
	The key ID that the key slot receives is not recognized by the first key ID regis- tered to BCM.	Yet
CONFIRM ID1	The key ID that the key slot receives is recognized by the first key ID registered to BCM.	Done
TP 4	The ID of fourth Intelligent Key is not registered to BCM	Yet
1 1 4	The ID of fourth Intelligent Key is registered to BCM	Done
	The ID of third Intelligent Key is not registered to BCM	Yet
TP 3	The ID of third Intelligent Key is registered to BCM	Done
TP 2	The ID of second Intelligent Key is not registered to BCM	Yet
182	The ID of second Intelligent Key is registered to BCM	Done
	The ID of first Intelligent Key is not registered to BCM	Yet
TP 1	The ID of first Intelligent Key is registered to BCM	Done
AIR PRESS FL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front LH tire
AIR PRESS FR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front RH tire
AIR PRESS RR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear RH tire
AIR PRESS RL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear LH tire
	ID of front LH tire transmitter is registered	Done
ID REGST FL1	ID of front LH tire transmitter is not registered	Yet
	ID of front RH tire transmitter is registered	Done
ID REGST FR1	ID of front RH tire transmitter is not registered	Yet
	ID of rear RH tire transmitter is registered	Done
ID REGST RR1	ID of rear RH tire transmitter is not registered	Yet
	ID of rear LH tire transmitter is registered	Done
ID REGST RL1	ID of rear LH tire transmitter is not registered	Yet
	Tire pressure indicator OFF	Off
WARNING LAMP	Tire pressure indicator ON	On
	Tire pressure warning alarm is not sounding	Off
BUZZER	Tire pressure warning alarm is sounding	On

< ECU DIAGNOSIS INFORMATION >

TERMINAL LAYOUT



	nal No.	Description				Value
(vvire +	color) –	Signal name	Input/ Output		Condition	(Approx.)
1 (W)	Ground	Battery power supply	Input	Ignition switch (DFF	Battery voltage
2 (Y)	Ground	P/W power supply (BAT)	Output	Ignition switch (DFF	12 V
3 (BG)	Ground	P/W power supply (RAP)	Output	Ignition switch (NC	12 V
					mp battery saver is activated. or room lamp power supply)	0 V
4 (LG)	Ground	Interior room lamp power supply	Output	vated.	mp battery saver is not acti- erior room lamp power sup-	12 V
5	Ground	Passenger door UN-	Output	Passenger	UNLOCK (Actuator is activated)	12 V
(P)	Cround	LOCK	ouput	door	Other than UNLOCK) Ac- tuator is not activated	0 V
7	Ground	Step lamp	Output	Step lamp	ON	0 V
(SB)					OFF	12 V
8	Ground	All doors, fuel lid	Output	All doors, fuel	LOCK (Actuator is activated)	12 V
(V)	Cround	LOCK	Output	lid	Other than LOCK (Actuator is not activated)	0 V
9	Ground	Driver door, fuel lid	Output	Driver door,	UNLOCK (Actuator is activated)	12 V
(G)	Cround	UNLOCK	Output	fuel lid	Other than UNLOCK (Actuator is not activated)	0 V
10	Ground	Rear RH door and rear LH door UN-	Output	Rear RH door and rear LH	UNLOCK (Actuator is activated)	12 V
(P)	Cround	LOCK	Output	door	Other than UNLOCK (Actuator is not activated)	0 V
11 (R)	Ground	Battery power supply	Input	Ignition switch (DFF	Battery voltage
13 (B)	Ground	Ground		Ignition switch (NC	0 V
					OFF	0 V
14 (W)	Ground	Push-button ignition switch illumination ground	Output	Tail lamp	ON	NOTE: When the illumination brighten- ing/dimming level is in the neutra position.
15 (BG)	Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	
(66)					ACC	0 V

	nal No. color)	Description		• • • •		Value
(vvire +	-	Signal name	Input/ Output		Condition	(Approx.)
					Turn signal switch OFF	0 V
17 (W)	Ground	Turn signal RH (Front)	Output	lgnition switch ON	Turn signal switch RH	(V) 15 10 5 0 1 s PKID0926E 6.5 V
					Turn signal switch OFF	0 V
18 (BG)	Ground	Turn signal LH (Front)	Output	lgnition switch ON	Turn signal switch LH	
40					OFF	6.5 V 12 V
19 (V)	Ground	Interior room lamp control	Output	Interior room lamp	ON	0 V
					Turn signal switch OFF	0 V
20 (V)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 0 1 1 1 1 1 1 1 1 1 1 1 1 1
23					OPEN (Trunk lid opener actuator is activated)	12 V
(LG)	Ground	Trunk lid open	Output	Trunk lid	Other than OPEN (Trunk lid opener actuator is not activated)	0 V
					Turn signal switch OFF	0 V
25 (Y)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 0 1 1 1 1 1 1 1 1 1 1 1 1 1
30				Trunk room	ON	0 V
(P)	Ground	Trunk room lamp	Output	lamp	OFF	12 V

	nal No.	Description				Value
(VVire +	color)	Signal name	Input/ Output		Condition	(Approx.)
34	Ground	Trunk room antenna (−)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	(V) 15 0 10 10 15 0 15 0 15 0 15 0 15 0 15
(SB)					When Intelligent Key is not in the passenger compart- ment	(V) 15 0 1 s JMKIA0063GB
35	Ground	Trunk room antenna (+)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	(V) 15 0 0 1 s JMKIA0062GB
(V)					When Intelligent Key is not in the passenger compart- ment	(V) 15 0 0 1 s JMKIA0063GB
38	Ground	Rear bumper anten- na (–)	Output	When the trunk lid opener re- quest switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 0 5 0 1 5 0 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5
(B)					When Intelligent Key is not in the antenna detection area	(V) 15 10 0 1 s 10 1 s 10 1 s 10 1 s 10 1 s 10 1 s 10 10 10 10 10 10 10 10 10 10 10 10 10

	nal No.	Description				Value	
(Wire +	color)	Signal name	Input/ Output		Condition	Value (Approx.)	A
39	Grand	Rear bumper anten-	0.444	When the trunk lid opener re- ut quest switch is -	When Intelligent Key is in the antenna detection area	(V) 15 0 15 0 15 0 15 15 15 15 15 15 15 15 15 15	B C D
(W)	Ground	na (+)	Output	operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 0 0 1 s JMKIA0063GB	E
47	Oneveral	Ignition relay (IPDM	Outrut	laudition outidate	OFF or ACC	12 V	G
(Y)	Ground	E/R) control	Output	Ignition switch	ON	0 V	
50 (BG)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (Trunk lid is closed)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V	H I ADP
					ON (Trunk lid is opened)	0 V	
		Starter relay control	Output	Ignition switch ON (A/T mod- els)	When selector lever is in P or N position	12 V	Κ
52	Ground				When selector lever is not in P or N position	0 V	L
(R)	Cround	Clartor rolay control	Output	Ignition switch ON (M/T mod-	When the clutch pedal is depressed	Battery voltage	
				els)	When the clutch pedal is not depressed	0 V	\mathbb{M}
60	Cround	Push-button ignition	loout	Push-button ig- nition switch	Pressed	0 V	
(BR)	Ground	switch (Push switch)	Input	(push switch)	Not pressed	Battery voltage	Ν
					ON (Pressed)	0 V	
61 (SB)	Ground	Trunk lid opener re- quest switch	Input	Trunk lid open- er request switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB 1.0 V	O
64		Intelligent Key warn-		Intelligent Key	Sounding	0 V	
(G)	Ground	ing buzzer (Engine room)	Output	warning buzzer (Engine room)	Not sounding	12 V	

	nal No.	Description				Value
(VVire +	color)	Signal name	Input/ Output		Condition	(Approx.)
67 (GR)	Ground	Trunk lid opener switch	Input	Trunk lid open- er switch	Pressed Not pressed	0 V (V) 15 0 10 10 ms JPMIA0011GB 11.8 V
68 (BG)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (When rear RH door closes) ON (When rear RH door	(V) 15 0 10 ms JPMIA0011GB 11.8 V 0 V
					opens)	0 V
69 (L)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (When rear LH door closes)	(V) 15 0 10 ms JPMIA0011GB 11.8 V
					ON (When rear LH door opens)	0 V
72	Ground	Id Room antenna 2 (–) Ou (Center console)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	(V) 15 0 1 s JMKIA0062GB
(R)					When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0063GB

	nal No.	Description				Value	٨
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)	А
73	Ground	Room antenna 2 (+) (Center console)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	(V) 15 10 0 1 s JMKIA0062GB	B C D
(G)	Glound				When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0063GB	E
74	Ground	ıd Passenger door an- tenna (–)	Output	When the pas- senger door re- quest switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	G H I
(SB)					When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	ADP K
75	Ground	d Passenger door an- tenna (+) Output		When the pas- senger door re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	M
(BR)			quest switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 10 5 0 1 s JMKIA0063GB	P	

	nal No.	Description				Value
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)
76	Ground	Driver door antenna (−)	Output	When the driv- er door request switch is oper- ated with igni- tion switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 0 10 10 10 10 10 10 10 10 10
(V)	Ground		Cuput		When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB
77	Ground	Driver door antenna (+)	Output	When the driv- er door request switch is oper- ated with igni- tion switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB
(LG)	Ground				When Intelligent Key is not in the antenna detection area	(V) 15 0 1 s JMKIA0063GB
78	Ground	Room antenna 1 (–) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	(V) 15 0 1 s JMKIA0062GB
(Y)					When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0063GB

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition		Value
(vvire +		Signal name	Input/ Output		Condition	(Approx.)
79 Roo		Room antenna 1 (+)		Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 0 1 1 1 1 1 5
(BR)	Ground	(Instrument panel)	Output	OFF –	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0063GB
80 (GR)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
81 (W)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
82 (SB)	Ground	Ignition relay [Fuse block (J/B)] control	Output	Ignition switch	OFF or ACC ON	0 V 12 V
83	Ground	Remote keyless entry ound receiver communica- tion	Input/	During waiting		(V) 15 0 5 0 1 ms JMKIA0064GB
(Y) GI	Ground		Output	When operating gent Key	either button on the Intelli-	(V) 15 10 50 1 ms JMKIA0065GB

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	nal No.	Description				Value
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF (Wiper volume dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V
87 (Y)	Ground	Combination switch INPUT 5	Input	Combination switch	Front fog lamp switch ON (Wiper volume dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3 V
					Any of the conditions be- low with all switches OFF • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 6 • Wiper volume dial 7	(V) 15 10 2 ms JPMIA0040GB 1.3 V

Terminal No. Description Value А (Wire color) Condition Input/ (Approx.) Signal name + _ Output В (V 15 10 All switches OFF С (Wiper volume dial 4) 2 ms JPMIA0041GB D 1.4 V $(\setminus$ 15 10 Ε Lighting switch HI ٢ (Wiper volume dial 4) F 2 ms JPMIA0036GB 1.3 V Combination 88 Combination switch Ground Input (BG) **INPUT 3** switch 15 10 Н Lighting switch 2ND ٢ (Wiper volume dial 4) 2 ms JPMIA0037GB 1.3 V ADP 15 Any of the conditions be-10 low with all switches OFF C · Wiper volume dial 1 Κ · Wiper volume dial 2 · Wiper volume dial 3 2 ms JPMIA0040GB 1.3 V L 90 Input/ CAN-L Ground (P) Output Μ 91 Input/ Ground CAN-H ____ (L) Output OFF 12 V Ν (V 15 10 5 92 Key slot illumi-Key slot illumination Output Blinking Ground (LG) nation 1 s Ρ JPMIA0015GB 6.5 V ON 0 V OFF (LOCK indicator is Battery voltage 93 not illuminated) Ground ON indicator lamp Output Ignition switch (GR) ON 0 V

BCM (BODY CONTROL MODULE)

	nal No. color)	Description				Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
95	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
(BG)	Croana	All the relay control	Output	Ignition Switch	ACC or ON	12 V
96 (GR)	Ground	A/T shift selector (De- tention switch) power supply	Output		_	12 V
		Selector lever P posi-		0.1	P position	0 V
		tion switch (A/T mod- els)		Selector lever	Any position other than P	12 V
99 (R)* ¹ Gra (BR)* ²		ASCD clutch switch (M/T models without ICC)		ASCD clutch	OFF (Clutch pedal is de- pressed)	0 V
	Ground		Input	switch	ON (Clutch pedal is not depressed)	12 V
		ICC clutch switch (M/ T models with ICC)		ICC clutch switch	OFF (Clutch pedal is de- pressed)	0 V
					ON (Clutch pedal is not depressed)	12 V
				Passenger door request switch	ON (Pressed)	0 V
100 Ground (Y)	Ground	Passenger door re- quest switch	Input		OFF (Not pressed)	(V) 15 10 10 ms JDMIA0016GB 1.0 V
					ON (Pressed)	0 V
101 (P)	Ground	Driver door request switch	Driver door re- quest switch	OFF (Not pressed)	(V) 15 0 10 10 ms JPMIA0016GB 1.0 V	
102	Orrest	Blower fan motor re-	0		OFF or ACC	0 V
(BG)	Ground	lay control	Output	Ignition switch	ON	12 V
103 (P)	Ground	Remote keyless entry receiver power sup- ply	Output	Ignition switch OFF		12 V

Terminal No. Description Value А (Wire color) Condition Input/ (Approx.) Signal name + _ Output В (V 15 10 Ō All switches OFF С 2 ms JPMIA0041GB D 1.4 V (V) 15 10 Ε 0 Turn signal switch LH F 2 ms JPMIA0037GB 1.3 V G (V 15 10 Combination Н 107 Combination switch switch Ground Input Turn signal switch RH 0 **INPUT 1** (LG) (Wiper volume dial 4) 2 ms JPMIA0036GB 1.3 V ADP (V 15 10 Ę 0 Front wiper switch LO Κ 2 ms JPMIA0038GB L 1.3 V (V 15 Μ 10 5 0 Front washer switch ON Ν 2 ms JPMIA0039GB 1.3 V Ο

BCM (BODY CONTROL MODULE)

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	nal No. color)	Description	1			Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF (Wiper volume dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V
108	Ground	Combination switch	Input	Combination	Lighting switch AUTO (Wiper volume dial 4)	(V) 15 10 2 ms JPMIA0038GB 1.3 V
(R)		INPUT 4		switch	Lighting switch 1ST (Wiper volume dial 4)	(V) 15 0 2 ms JPMIA0036GB 1.3 V
					Any of the conditions be- low with all switches OFF • Wiper volume dial 1 • Wiper volume dial 5 • Wiper volume dial 6	(V) 15 0 2 ms JPMIA0039GB 1.3 V

Terminal No. Description Value А (Wire color) Condition Input/ (Approx.) Signal name + _ Output В (V 15 10 č All switches OFF С 2 m s JPMIA0041GB D 1.4 V (V) 15 10 Е C Lighting switch PASS F 2 ms JPMIA0037GB 1.3 V G (V 15 10 Combination Н 109 Combination switch switch Lighting switch 2ND n Ground Input **INPUT 2** (W) (Wiper volume dial 4) 2 ms JPMIA0036GB 1.3 V ADP (V 15 10 Front wiper switch INT/ 0 Κ AUTO 2 ms JPMIA0038GB L 1.3 V (V 15 Μ 10 5 Front wiper switch HI 0 Ν 2 ms JPMIA0040GB 1.3 V Ο ON 0 V Ρ 10 110 Ground Hazard switch Input Hazard switch 5 (G) OFF 10 ms JPMIA0012GB 1.1 V

BCM (BODY CONTROL MODULE)

	nal No.	Description				Value	
(VVire +	e color) –	Signal name	Input/ Output		Condition	(Approx.)	
112 (R)	Ground	Rain sensor serial link	Input/ Output	Ignition switch ON		(V) 15 10 5 0 0 0 0 0 0 0 0 0 0 0 0 0	
113	Ground	Optical sensor	Input	Ignition switch	When bright outside of the vehicle	Close to 5 V	
(BG)				ON	When dark outside of the vehicle	Close to 0 V	
114	Ground	Clutch interlock	Input	Clutchinterlock	OFF (Clutch pedal is not depressed)	0 V	
(R)	Ground	switch	Input	switch	ON (Clutch pedal is de- pressed)	Battery voltage	
116 (SB)	Ground	Stop lamp switch 1	Input		_	Battery voltage	
		Stop lamp switch 2 (Without ICC) d Inpu Stop lamp switch 2 (With ICC)		Stop lamp	OFF (Brake pedal is not depressed)	0 V	
118	Ground		Innut	switch	ON (Brake pedal is de- pressed)	Battery voltage	
(BR)	Ground		input		h OFF (Brake pedal is not ICC brake hold relay OFF	0 V	
				Stop lamp switch ON (Brake pedal is depressed) or ICC brake hold relay ON		Battery voltage	
119 (SB)	Ground	Front door lock as- sembly driver side (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	(V) 15 0 10 ms JPMIA0012GB 1.1 V	
					UNLOCK status (Unlock switch sensor ON)	0 V	
121	Ground	Key slot switch	Input	When the Intellig	gent Key is inserted into key	12 V	
(SB)	Ground	Ney SIUL SWILLI	input	When the Intellig	gent Key is not inserted into	0 V	
123	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V	
(V)			'	•	ON	Battery voltage	

	nal No.	Description				Value	А
(vvire +	e color) —	Signal name	Input/ Output		Condition	(Approx.)	A
124 (R)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	(V) 15 10 5 0 •••••••••••••••••••••••••••••	B
					ON (Door open)	JPMIA0011GB 11.8 V 0 V	D
							_
129 (BG)	Ground	Trunk lid opener can- cel switch	Input	Trunk lid open- er cancel switch	CANCEL	(V) 15 0 5 0 10 ms JPMIA0012GB	F
						1.1 V	G
					ON	0 V	
132 (V)	Ground	Power window switch Input/ communication Output		Ignition switch ON		(V) 15 10 5 0 •••••••••••••••••••••••••••••	H
						JPMIA0013GB 10.2 V	AD
				Ignition switch C	1	12 V	
					ON (Tail lamps OFF)	9.5 V	Κ
		Ind Push-button ignition switch illumination	Output	Push-button ig- nition switch il- lumination		NOTE: The pulse width of this wave is varied by the illumination bright- ening/dimming level.	L
133 (L)	Ground					(V) 15 10 5 0 10 10 10 10 10 10 10 10 10 10 10 10 1	M
					OFF	0 V	
134	Ground	LOCK indicator lamp	Output	LOCK indicator	OFF	Battery voltage	0
(LG)	Ground		Calput	lamp	ON	0 V	
137 (BG)	Ground	Receiver and sensor ground	Input	Ignition switch C	DN	0 V	Р
138	Ground	Receiver and sensor	Output	Ignition switch	OFF	0 V	
(V)	Ground	power supply	Calput	ignition switch	ACC or ON	5.0 V	

	nal No.	Description				Value
(Wire	color)	Signal name	Input/ Output		Condition	(Approx.)
139	Ground	Tire pressure receiv-	Input/	Ignition switch	Standby state	(V) 6 4 2 0 • • 0.25 • • 0.25 • • 0.25 • • 0.25
(L)	Ground	er communication	Output	ON	When receiving the signal from the transmitter	(V) 6 4 2 0 + 0.2s 0 0 0 0 0 0 0 0 0 0 0 0 0
140	Ground	Selector lever P/N	Input	Selector lever	P or N position	12 V
(B)	Gibana	position	mput	Selector level	Except P and N positions	0 V
		und Security indicator lamp	Output	Security indica- tor lamp	ON	0 V
141 (W)	Ground				Blinking	(V) 15 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 0 0 0 0 0 0 0 0 0 0 0 0
					OFF	12 V
142 (BR)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper volume dial 4)	All switches OFF Lighting switch 1ST Lighting switch HI Lighting switch 2ND Turn signal switch RH	0 V 15 10 5 0 2 ms
					All switches OFF (Wiper volume dial 4)	JPMIA0031GB 10.7 V 0 V
143 (P)	Ground	Combination switch OUTPUT 1	Output	Combination switch	Front wiper switch HI (Wiper volume dial 4) Any of the conditions be- low with all switches OFF • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 3 • Wiper volume dial 6 • Wiper volume dial 7	(V) 15 0 2 ms JPMIA0032GB 10.7 V

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color) + –		Description				Value
		Signal name	Input/ Output		Condition	(Approx.)
144 (G)	Ground	Combination switch OUTPUT 2	Output	Combination switch	All switches OFF (Wiper volume dial 4)	0 V
					Front washer switch ON (Wiper volume dial 4)	
					Any of the conditions be- low with all switches OFF	
					Wiper volume dial 1Wiper volume dial 5Wiper volume dial 6	2 ms
					All switches OFF	10.7 V 0 V
	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper volume dial 4)	Front wiper switch INT/	0 V
					AUTO	(V)
145 (L)					Front wiper switch LO	
					Lighting switch AUTO	JPMIA0034GB
						10.7 V
	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper volume dial 4)	All switches OFF	0 V
					Front fog lamp switch ON	
146 (SB)					Lighting switch 2ND	(V) 15 0 2 ms JPMIA0035GB 10.7 V
					Lighting switch PASS	
					Turn signal switch LH	
150 (GR)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	(V) 15 0 10 10 ms JPMIA0011GB
						11.8 V
					ON (Door open)	0 V
151 (G)	Ground	Rear window defog- ger relay control	Output	Rear window defogger	Active	0 V
					Not activated	Battery voltage

• *2: M/T models

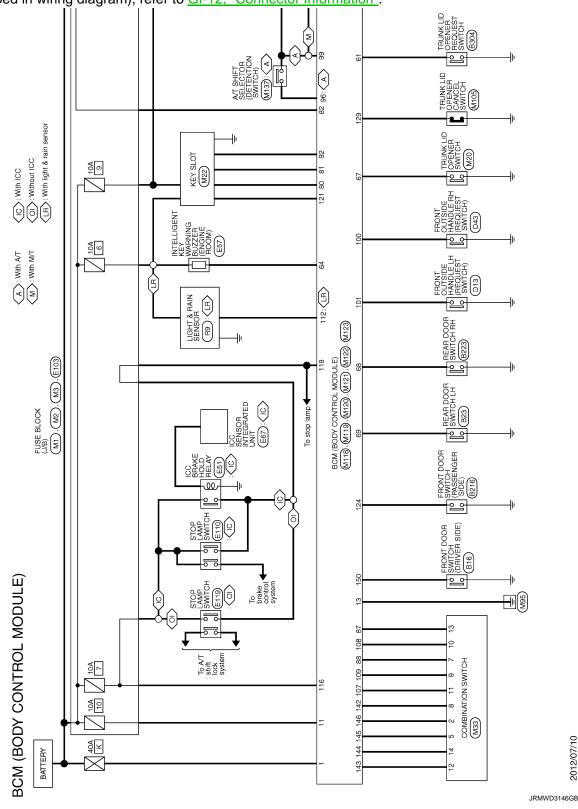
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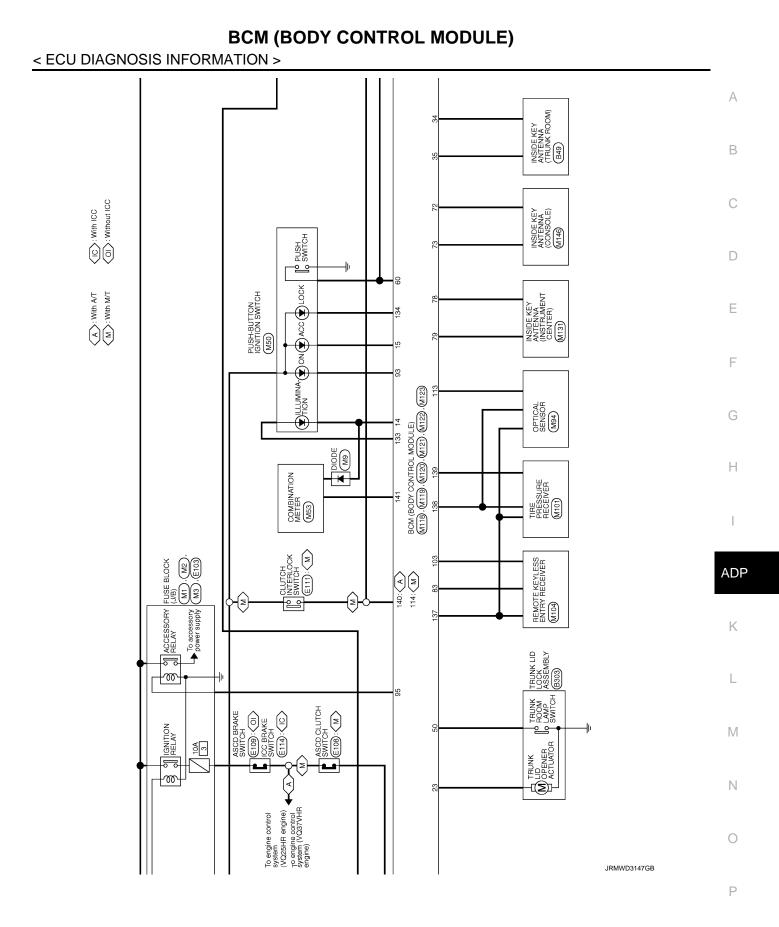
Wiring Diagram - BCM -

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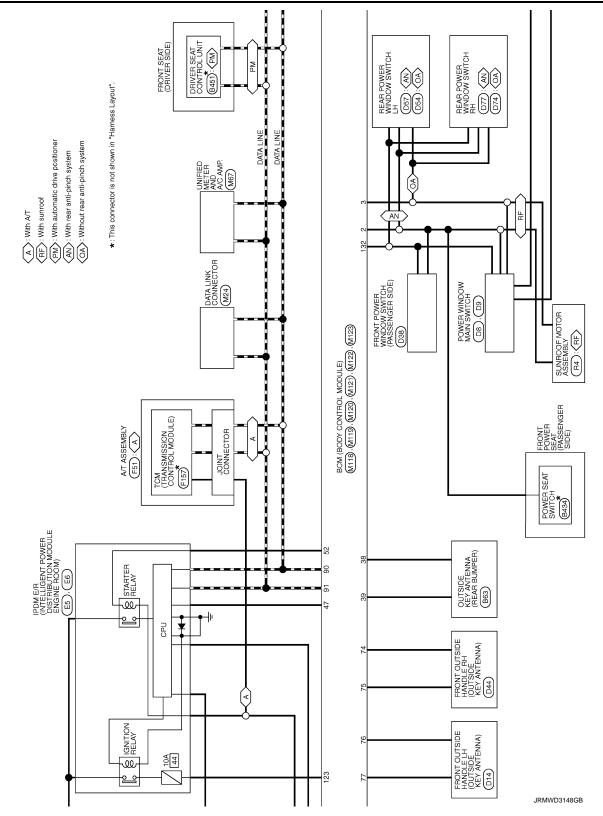
For connector terminal arrangements, harness layouts, and alphabets in a 🔿 (option abbreviation; if not described in wiring diagram), refer to GI-12, "Connector Information".



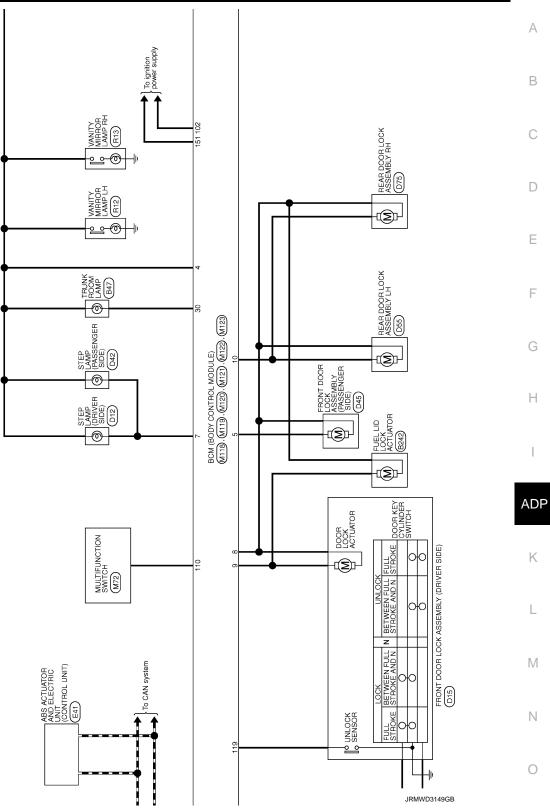
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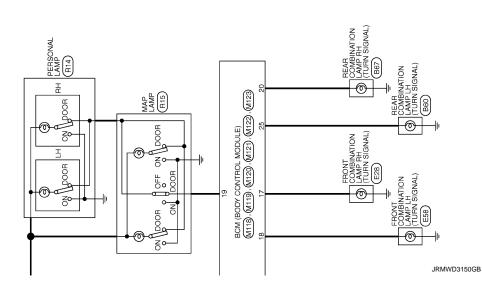


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Fail-safe

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FAIL-SAFE CONTROL BY DTC

BCM performs fail-safe control when any DTC are detected.

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Display contents of CONSULT	Fail-safe	Cancellation
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI-SCANNING	Inhibit engine cranking	Ignition switch $ON \rightarrow OFF$
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status be- comes consistentStarter control relay signalStarter relay status signal
B2608: STARTER RELAY	Inhibit engine cranking	 500 ms after the following signal communication status becomes consistent Starter motor relay control signal Starter relay status signal (CAN)
B260A: IGNITION RELAY	Inhibit engine cranking	 500 ms after the following conditions are fulfilled IGN relay (IPDM E/R) control signal: OFF (12 V) Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions are fulfilledPower position changes to ACCReceives engine status signal (CAN)
B2617: BCM	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM be- comes normal
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization
B26E8: CLUTCH SW	Inhibit engine cranking	 When any of the following BCM recognition conditions are fulfilled Status 1 Clutch switch signal (CAN from ECM): ON Clutch interlock switch signal: OFF (0 V) Status 2 Clutch switch signal (CAN from ECM): OFF Clutch interlock switch signal: ON (Battery voltage)

DTC Inspection Priority Chart

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

Priority		DTC	
1	B2562: LOW VOLTAGE		
2	U1000: CAN COMM U1010: CONTROL UNIT(CAN)		
3	 B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2195: ANTI-SCANNING 		

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< ECU DIAGNOSIS INFORMATION >

Priority	DTC
4	 B2553: IGNITION RELAY B2555: STOP LAMP B2556: PUSH-BTN IGN SW B2557: VEHICLE SPEED B2560: STARTER CONT RELAY B2601: SHIFT POSITION B2602: SHIFT POSITION B2603: SHIFT POSI STATUS B2604: PNP/CLUTCH SW B2605: PNP/CLUTCH SW B2605: STARTER RELAY B26064: IGNITION RELAY B2605: ENG STATE SIG LOST B2607: ENG STATE SIG LOST B2614: BCM B2617: BCM B2618: BCM B2618: BCM B2618: BCM B2618: BCM B2618: CLUTCH SW B2618: CLUTCH SW B2618: CLUTCH SW B2618: CLUTCH SW B2618: VEHICLE TYPE B268: CLUTCH SW B268: STARTER RELAY B2615: PUSH-BTN IGN SW B2615: PUSH-BTN IGN SW B2615: PUSH-BTN IGN SW B2616: PUSH-BTN IGN SW B2617: PUSH-BTN IGN SW B2618: CLUTCH SW B268: CLUTCH SPEED SIG ERR U0415: VEHICLE SPEED
5	 C1704: LOW PRESSURE FL C1705: LOW PRESSURE FR C1706: LOW PRESSURE RR C1707: LOW PRESSURE RL C1708: [NO DATA] FL C1709: [NO DATA] FR C1710: [NO DATA] RR C1711: [NO DATA] RL C1716: [PRESSDATA ERR] FL C1717: [PRESSDATA ERR] FR C1718: [PRESSDATA ERR] RR C1719: [PRESSDATA ERR] RL C1734: CONTROL UNIT
6	B2621: INSIDE ANTENNA B2622: INSIDE ANTENNA B2623: INSIDE ANTENNA

DTC Index

NOTE:

The details of time display are as follows.

• CRNT: A malfunction is detected now.

• PAST: A malfunction was detected in the past.

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to <u>BCS-16, "COM-MON ITEM : CONSULT Function (BCM - COMMON ITEM)"</u>.

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer- ence page
No DTC is detected. further testing may be required.	_	_	_	_	_
U1000: CAN COMM	_	—	—	—	BCS-36
U1010: CONTROL UNIT(CAN)	_	—	—	—	BCS-37
U0415: VEHICLE SPEED	—	—	—	—	BCS-38
B2190: NATS ANTENNA AMP	×	—			<u>SEC-44</u>

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CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer- ence page	
B2191: DIFFERENCE OF KEY	×	—	—	—	<u>SEC-47</u>	-
B2192: ID DISCORD BCM-ECM	×	—	—	—	<u>SEC-48</u>	-
B2193: CHAIN OF BCM-ECM	×	—	—	—	<u>SEC-50</u>	-
B2195: ANTI-SCANNING	×	—	—	—	<u>SEC-51</u>	-
B2553: IGNITION RELAY	—	×	—	—	PCS-46	-
B2555: STOP LAMP	—	×	—	—	<u>SEC-52</u>	-
B2556: PUSH-BTN IGN SW	—	×	×	—	<u>SEC-54</u>	-
B2557: VEHICLE SPEED	×	×	×	—	<u>SEC-56</u>	-
B2560: STARTER CONT RELAY	×	×	×	_	<u>SEC-57</u>	-
B2562: LOW VOLTAGE	_	×	_	_	BCS-39	-
B2601: SHIFT POSITION	×	×	×	—	<u>SEC-58</u>	-
B2602: SHIFT POSITION	×	×	×		<u>SEC-61</u>	-
B2603: SHIFT POSI STATUS	×	×	×	_	<u>SEC-64</u>	-
B2604: PNP/CLUTCH SW	×	×	×	_	<u>SEC-67</u>	-
B2605: PNP/CLUTCH SW	×	×	×	_	<u>SEC-69</u>	-
B2608: STARTER RELAY	×	×	×	_	SEC-71	-
B260A: IGNITION RELAY	×	×	×	_	PCS-48	-
B260F: ENG STATE SIG LOST	×	×	×	_	<u>SEC-73</u>	-
B2614: BCM		×	×		PCS-50	-
B2615: BCM		×	×		PCS-52	-
B2616: BCM	_	×	×	_	PCS-54	-
B2617: BCM	×	×	×		<u>SEC-78</u>	-
B2618: BCM	×	×	×		PCS-56	-
B261A: PUSH-BTN IGN SW		×	×		PCS-57	-
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	_	<u>SEC-80</u>	-
B2621: INSIDE ANTENNA		×		_	DLK-59	-
B2622: INSIDE ANTENNA		×		_	DLK-61	-
B2623: INSIDE ANTENNA	_	×	_	_	DLK-63	-
B26E8: CLUTCH SW	×	×	×	_	<u>SEC-75</u>	-
B26EA: KEY REGISTRATION	_	×	× (Turn ON for 15 seconds)	_	<u>SEC-77</u>	-
C1704: LOW PRESSURE FL	_		—	×		-
C1705: LOW PRESSURE FR	_			×		
C1706: LOW PRESSURE RR	_		—	×	<u>WT-20</u>	
C1707: LOW PRESSURE RL	_		—	×	1	
C1708: [NO DATA] FL	_	_		×		-
C1709: [NO DATA] FR		_		×		
C1710: [NO DATA] RR	_			×	<u>WT-22</u>	
C1711: [NO DATA] RL				×	-	

< ECU DIAGNOSIS INFORMATION >

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer- ence page
C1716: [PRESSDATA ERR] FL	—	—	—	×	
C1717: [PRESSDATA ERR] FR	_	_	_	×	<u>WT-25</u>
C1718: [PRESSDATA ERR] RR	—	—	—	×	<u>VV1-25</u>
C1719: [PRESSDATA ERR] RL	_	_	_	×	
C1729: VHCL SPEED SIG ERR	_	_	_	×	<u>WT-26</u>
C1734: CONTROL UNIT	_	_	_	×	<u>WT-27</u>

MANUAL FUNCTION DOES NOT OPERATE < SYMPTOM DIAGNOSIS >	
SYMPTOM DIAGNOSIS	
MANUAL FUNCTION DOES NOT OPERATE	A
ALL COMPONENT	В
ALL COMPONENT : Description	
All functions do not operate when manually operated.(power seat, tilt & telescopic, and door mi	rror. C
ALL COMPONENT : Diagnosis Procedure	INFOID:000000008291005
1. CHECK DRIVER SEAT CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT	D
Check driver seat control unit power supply and ground circuit. Refer to <u>ADP-65, "DRIVER SEAT CONTROL UNIT : Diagnosis Procedure"</u> .	_
<u>Is the inspection result normal?</u> YES >> GO TO 2.	E
NO >> Repair or replace the malfunction parts.	F
2. CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT POWER SUPPLY AND GROU	JND CIRCUIT
Check automatic drive positioner control unit power supply and ground circuit. Refer to <u>ADP-66</u> , "AUTOMATIC DRIVE POSITIONER CONTROL UNIT : Diagnosis Procedure	<u> </u>
<u>Is the inspection result normal?</u> YES >> GO TO 3.	
NO >> Repair or replace the malfunction parts.	Н
3.CONFIRM THE OPERATION	
Confirm the operation again. Is the result normal?	I
YES >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u> .	
NO >> GO TO 1. POWER SEAT	ADP
POWER SEAT : Description	INFOID:000000008291006
Power seat does not operate when manually operated.	
POWER SEAT : Diagnosis Procedure	INFOID:000000008291007
1.CHECK POWER SEAT SWITCH GROUND CIRCUIT	
Check power seat switch ground circuit. Refer to <u>ADP-88, "Diagnosis Procedure"</u> .	M
Is the inspection result normal?	
YES >> GO TO 2. NO >> Repair or replace harness or connector.	Ν
2.CONFIRM THE OPERATION	
Confirm the operation again. <u>Is the result normal?</u>	0
YES >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u> .	
NO >> GO TO 1. STEERING POSITION FUNCTION DOES NOT OPERATE	Р
STEERING POSITION FUNCTION DOES NOT OPERATE : Description	INFOID:000000008291008
Tilt & telescopic do not operate when manually operated.	

< SYMPTOM DIAGNOSIS >

STEERING POSITION FUNCTION DOES NOT OPERATE : Diagnosis Procedure

	INFOID:000000008291009
1. CHECK TILT & TELESCOPIC SWITCH GROUND CIRCUIT	
Check tilt & telescopic switch ground circuit. Refer to <u>ADP-89, "Diagnosis Procedure"</u> .	
Is the inspection result normal?	
YES >> GO TO 2.	
NO >> Repair or replace harness or connector.	
2.CONFIRM THE OPERATION	
Confirm the operation again. <u>Is the result normal?</u>	
YES >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u> .	
NO >> GO TO 1.	
SEAT SLIDING	
SEAT SLIDING : Description	INFOID:000000008291010
Seat sliding alone does not operate when manually operated.	
SEAT SLIDING : Diagnosis Procedure	INFOID:000000008291011
1.CHECK SLIDING MECHANISM	
Check for the following.Mechanism deformation or pinched foreign materials.	
 Interference with other parts because of poor installation. 	
Is the inspection result normal?	
YES >> GO TO 2. NO >> Repair or replace the malfunction parts.	
2. CHECK SLIDING SWITCH	
Check sliding switch.	
Refer to <u>ADP-68, "Component Function Check"</u> .	
Is the inspection result normal?	
YES >> GO TO 3. NO >> Repair or replace the malfunction parts.	
3. CHECK SLIDING MOTOR	
Check sliding motor. Refer to <u>ADP-117</u> , "Component Function Check".	
Is the inspection result normal?	
YES >> GO TO 4.	
NO >> Repair or replace the malfunction parts. 4.CONFIRM THE OPERATION	
Check the operation again. <u>Is the result normal?</u>	
YES >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u> .	
NO >> GO TO 1.	
SEAT RECLINING	
SEAT RECLINING : Description	INFOID:000000008291012
Seat reclining only does not operate when manually operated.	

ADP-186

< SYMPTOM DIAGNOSIS >	
SEAT RECLINING : Diagnosis Procedure	INFOID:00000008291013
1.CHECK RECLINING MECHANISM	
 Check for the following. Mechanism deformation or pinched foreign materials. Interference with other parts because of poor installation. Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunction parts. 	
2. CHECK RECLINING SWITCH	
Check reclining switch. Refer to <u>ADP-97, "Component Function Check"</u> . <u>Is the inspection result normal?</u> YES >> GO TO 3. NO >> Repair or replace the malfunction parts. 3. CHECK RECLINING MOTOR	
Check reclining motor. Refer to <u>ADP-119</u> , "Component Function Check". <u>Is the inspection result normal?</u> YES >> GO TO 4. NO >> Repair or replace the malfunction parts. 4. CONFIRM THE OPERATION	
Check the operation again. <u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u> . NO >> GO TO 1. SEAT LIFTING (FRONT)	,
SEAT LIFTING (FRONT) : Description	INFOID:00000008291014
Seat lifting (front) only does not operate when manually operated. SEAT LIFTING (FRONT) : Diagnosis Procedure	INFOID:000000008291015
1.CHECK LIFTING (FRONT) MECHANISM	
Check for the following.Mechanism deformation or pinched foreign materials.Interference with other parts because of poor installation.	
Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunction parts. 2.CHECK LIFTING SWITCH (FRONT)	
Check lifting switch (front). Refer to <u>ADP-72, "Component Function Check"</u> .	
Is the inspection result normal?YES>> GO TO 3.NO>> Repair or replace the malfunction parts.	
3.CHECK LIFTING MOTOR (FRONT) Check lifting motor (front).	
Refer to <u>ADP-121, "Component Function Check"</u> . Is the inspection result normal?	

Is the inspection result normal?

MANUAL FUNCTION DOES NOT OPERATE	1
< SYMPTOM DIAGNOSIS >	
YES >> GO TO 4. NO >> Repair or replace the malfunction parts.	
4. CONFIRM THE OPERATION	
Check the operation again. Is the result normal?	
YES >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u> .	
NO >> GO TO 1.	
SEAT LIFTING (REAR)	
SEAT LIFTING (REAR) : Description	INFOID:000000008291016
Seat lifting (rear) only does not operate when manually operated.	
SEAT LIFTING (REAR) : Diagnosis Procedure	INFOID:00000008291017
1.CHECK LIFTING (REAR) MECHANISM	
Check for the following.Mechanism deformation or pinched foreign materials.	
 Interference with other parts because of poor installation. 	
Is the inspection result normal?	
YES >> GO TO 2. NO >> Repair or replace the malfunction parts.	
NO >> Repair or replace the malfunction parts. 2.CHECK LIFTING SWITCH (REAR)	
Check lifting switch (rear). Refer to <u>ADP-74, "Component Function Check"</u> .	
Is the inspection result normal?	
YES >> GO TO 3. NO >> Repair or replace the malfunction parts.	
3. CHECK LIFTING MOTOR (REAR)	
Check lifting motor (rear). Refer to ADP-123, "Component Function Check".	
Is the inspection result normal?	
YES >> GO TO 4.	
NO >> Repair or replace the malfunction parts.	
4.CONFIRM THE OPERATION	
Check the operation again.	
<u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u> .	
NO $>>$ GO TO 1.	
STEERING TILT	
STEERING TILT : Description	INFOID:00000008291018
Steering tilt only does not operate when manually operated.	
STEERING TILT : Diagnosis Procedure	INFOID:00000008291019
1. CHECK STEERING TILT MECHANISM	
Check for the following.	
 Mechanism deformation or pinched foreign materials. 	
Interference with other parts because of poor installation.	
Is the inspection result normal?	
YES >> GO TO 2.	

< SYMPTOM DIAGNOSIS >	
NO >> Repair or replace the malfunction parts.	
2.CHECK TILT SWITCH	А
Check tilt switch. Refer to <u>ADP-76, "Component Function Check"</u> .	В
Is the inspection result normal?	D
YES >> GO TO 3.	
NO >> Repair or replace the malfunction parts.	С
3.CHECK TILT MOTOR	
Check tilt motor. Refer to <u>ADP-125, "Component Function Check"</u> .	D
Is the inspection result normal?	
YES >> GO TO 4.	_
NO >> Repair or replace the malfunction parts.	Е
4.CONFIRM THE OPERATION	
Check the operation again.	F
Is the result normal?	
YES >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u> . NO >> GO TO 1.	G
STEERING TELESCOPIC	G
STEERING TELESCOPIC : Description	Н
Steering telescopic only does not operate when manually operated.	
STEERING TELESCOPIC : Diagnosis Procedure	
1.CHECK STEERING TELESCOPIC MECHANISM	1
Check for the following.	ADF
 Mechanism deformation or pinched foreign materials. Interference with other parts because of poor installation. 	
Is the inspection result normal?	K
YES >> GO TO 2.	
NO >> Repair or replace the malfunction parts.	
2.CHECK TELESCOPIC SWITCH	L
Check telescopic switch.	
Refer to <u>ADP-78, "Component Function Check"</u> . <u>Is the inspection result normal?</u>	M
YES >> GO TO 3.	
NO >> Repair or replace the malfunction parts.	NI
3. CHECK TELESCOPIC MOTOR	Ν
Check telescopic motor. Refer to <u>ADP-127, "Component Function Check"</u> .	0
Refer to <u>ADP-127, "Component Function Check"</u> . Is the inspection result normal?	0
Refer to <u>ADP-127, "Component Function Check"</u> . <u>Is the inspection result normal?</u> YES >> GO TO 4.	
Refer to ADP-127, "Component Function Check". Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunction parts.	0 P
Refer to ADP-127, "Component Function Check". Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunction parts. 4.CONFIRM THE OPERATION	
Refer to ADP-127, "Component Function Check". Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunction parts. 4. CONFIRM THE OPERATION Check the operation again.	
Refer to ADP-127, "Component Function Check". Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunction parts. 4.CONFIRM THE OPERATION Check the operation again. Is the result normal?	
Refer to ADP-127, "Component Function Check". Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunction parts. 4. CONFIRM THE OPERATION Check the operation again.	

MANUAL FUNCTION DUES NOT OPERATE	
< SYMPTOM DIAGNOSIS >	
DOOR MIRROR : Description	INFOID:000000008291022
Door mirror does not operate when manually operated.	
DOOR MIRROR : Diagnosis Procedure	INFOID:000000008291023
1.CHECK DOOR MIRROR MECHANISM	
Check for the following. Mechanism deformation or pinched foreign materials. Interference with other parts because of poor installation. Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunction parts. 2.CHECK MIRROR SWITCH	
Check mirror switch. Refer to <u>ADP-83</u> , " <u>MIRROR SWITCH : Component Function Check</u> ". <u>Is the inspection result normal?</u> YES >> GO TO 3. NO >> Repair or replace the malfunction parts. 3. CHECK MIRROR MOTOR	
Check mirror motor. Refer to <u>ADP-129</u> , "Component Function Check". <u>Is the inspection result normal?</u> YES >> GO TO 4. NO >> Repair or replace the malfunction parts. 4. CONFIRM THE OPERATION	
Check the operation again.	

Is the result normal?

- YES >> Check intermittent incident. Refer to <u>GI-40, "How to Check Terminal"</u>.
- NO >> GO TO 1.

< SYMPTOM DIAGNOSIS >	
MEMORY FUNCTION DOES NOT OPERATE	А
ALL COMPONENT	Γ
ALL COMPONENT : Description	INFOID:000000008291024
All functions do not operate when memory operated. (power seat, tilt & telescopic, and door mire	
ALL COMPONENT : Diagnosis Procedure	INFOID:000000008291025
1.CHECK MANUAL OPERATION	
Check manual operation.	D
<u>Is the inspection result normal?</u> YES >> GO TO 2.	
NO >> Refer to <u>ADP-185, "ALL COMPONENT : Diagnosis Procedure"</u>	Е
2.PERFORM MEMORY STORING PROCEDURE	
Perform memory storing procedure. Refer to <u>ADP-11, "MEMORY STORING : Special Repair Requirement"</u> .	F
Is the inspection result normal?	
YES >> Memory function is normal. NO >> GO TO 3.	G
3. CHECK SEAT MEMORY SWITCH	
Check seat memory switch. Refer to <u>ADP-80, "Component Function Check"</u> .	Н
Is the inspection result normal?	
YES >> GO TO 4.	
NO >> Replace seat memory switch. 4.CHECK DETENTION SWITCH	
Check detention switch.	ADP
Refer to <u>ADP-90, "Component Function Check"</u> .	
Is the inspection result normal?	K
YES >> GO TO 5.	K
NO >> Repair or replace the malfunction parts. 5.CONFIRM THE OPERATION	
Confirm the operation again. <u>Is the result normal?</u>	
YES >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u> .	M
NO >> GO TO 1.	
SEAT SLIDING	Ν
SEAT SLIDING : Description	INFOID:000000008291026
Seat sliding only does not operate when memory operated.	0
SEAT SLIDING : Diagnosis Procedure	INFOID:000000008291027
1.CHECK MANUAL OPERATION	Р
Check manual operation.	
Is the inspection result normal?	
YES >> GO TO 2. NO >> Refer to <u>ADP-186, "SEAT SLIDING : Diagnosis Procedure"</u>	
2.CHECK SLIDING SENSOR	

Check sliding sensor.

MEMORY FUNCTION DOES NOT OPERATE	
< SYMPTOM DIAGNOSIS >	
Refer to ADP-94, "Component Function Check".	
Is the inspection result normal?	
YES >> GO TO 3. NO >> Repair or replace the malfunction parts.	
3. CONFIRM THE OPERATION	
Check the operation again. <u>Is the result normal?</u>	
YES >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u> .	
NO >> GO TO 1.	
SEAT RECLINING	
SEAT RECLINING : Description	INFOID:000000008291028
Seat reclining only does not operate when memory operated.	
SEAT RECLINING : Diagnosis Procedure	INFOID:000000008291029
1.CHECK MANUAL OPERATION	
Check manual operation.	
<u>Is the inspection result normal?</u> YES >> GO TO 2.	
NO >> Refer to <u>ADP-187, "SEAT RECLINING : Diagnosis Procedure"</u>	
2. CHECK RECLINING SENSOR	
Check reclining sensor. Refer to ADP-97, "Component Function Check".	
Is the inspection result normal?	
YES >> GO TO 3.	
NO >> Repair or replace the malfunction parts.	
3.CONFIRM THE OPERATION	
Check the operation again.	
Is the result normal?	
YES >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u> . NO >> GO TO 1.	
SEAT LIFTING (FRONT)	
SEAT LIFTING (FRONT) : Description	INFOID:000000008291030
Seat lifting (front) only does not operate when memory operated.	
SEAT LIFTING (FRONT) : Diagnosis Procedure	
1. CHECK MANUAL OPERATION	INFOID:000000008291031
Check manual operation. <u>Is the inspection result normal?</u>	
YES >> GO TO 2.	
NO >> Refer to <u>ADP-187, "SEAT LIFTING (FRONT) : Diagnosis Procedure"</u>	
2.CHECK LIFTING SENSOR (FRONT)	
Check lifting sensor (front).	
Refer to ADP-100, "Component Function Check".	
<u>Is the inspection result normal?</u> YES >> GO TO 3.	
NO >> Repair or replace the malfunction parts.	

< SYMPTOM DIAGNOSIS >		
3. CONFIRM THE OPERATION		Λ
Check the operation again.		A
Is the result normal?		_
YES >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u> . NO >> GO TO 1.		В
SEAT LIFTING (REAR)		
SEAT LIFTING (REAR) : Description	INFOID:000000008291032	С
Seat lifting (rear) only does not operate when memory operated.		
SEAT LIFTING (REAR) : Diagnosis Procedure	INFOID:000000008291033	D
1.CHECK MANUAL OPERATION		Е
Check manual operation.		
Is the inspection result normal?		_
YES >> GO TO 2. NO >> Refer to <u>ADP-188, "SEAT LIFTING (REAR) : Diagnosis Procedure"</u>		F
2.CHECK LIFTING SENSOR (REAR)		
Check lifting sensor (rear).		G
Refer to ADP-103, "Component Function Check".		
Is the inspection result normal?		Н
YES >> GO TO 3. NO >> Repair or replace the malfunction parts.		
3. CONFIRM THE OPERATION		1
Check the operation again.		
Is the result normal?		
YES >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u> .		AD
NO >> GO TO 1. STEERING TELESCOPIC		
		Κ
STEERING TELESCOPIC : Description	INFOID:000000008291034	
Steering telescopic only does not operate when memory operated.		L
STEERING TELESCOPIC : Diagnosis Procedure	INFOID:000000008291035	
1. CHECK MANUAL OPERATION		M
Check manual operation.		
Is the inspection result normal?		Ν
YES >> GO TO 2.		IN
NO >> Refer to <u>ADP-189. "STEERING TELESCOPIC : Diagnosis Procedure"</u>		
2.CHECK TELESCOPIC SENSOR		0
Check steering telescopic sensor. Refer to <u>ADP-109, "Component Function Check"</u> .		
Is the inspection result normal?		Ρ
YES >> GO TO 3. NO >> Repair or replace the malfunction parts.		
3. CONFIRM THE OPERATION		
Check the operation again.		
Is the result normal?		
YES >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u> .		

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< SYMPTOM DIAGNOSIS >

NO >> GO TO 1. STEERING TILT STEERING TILT : Description INFOID:00000008291036 Steering tilt only does not operate when memory operated. STEERING TILT : Diagnosis Procedure INFOID:00000008291037 **1.**CHECK MANUAL OPERATION Check manual operation. Is the inspection result normal? YES >> GO TO 2. NO >> Refer to ADP-188, "STEERING TILT : Diagnosis Procedure" 2. CHECK TILT SENSOR Check steering tilt sensor. Refer to ADP-106, "Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunction parts. ${f 3.}$ CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident". >> GO TO 1. NO DOOR MIRROR **DOOR MIRROR : Description** INFOID:000000008291038 Door mirror does not operate when memory operated. DOOR MIRROR : Diagnosis Procedure INFOID:000000008291039 **1.**CHECK MANUAL OPERATION Check manual operation. Is the inspection result normal? YES >> GO TO 2. NO >> Refer to ADP-190, "DOOR MIRROR : Diagnosis Procedure" 2. CHECK MIRROR SENSOR Check mirror sensor. Refer to ADP-112, "DRIVER SIDE : Component Function Check". (Driver side) Refer to ADP-114, "PASSENGER SIDE : Component Function Check". (Passenger side) Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunction parts. ${
m 3.}$ confirm the operation Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident". NO >> GO TO 1.

MEMORY INDICATE DOES NOT ILLUMINATE

< SYMPTOM DIAGNOSIS >	
MEMORY INDICATE DOES NOT ILLUMINATE	А
Diagnosis Procedure	
1.CHECK MEMORY INDICATOR	В
Check memory indicator. Refer to <u>ADP-132, "Component Function Check"</u> .	
Is the inspection result normal?	С
YES >> GO TO 2. NO >> Repair or replace the malfunction parts.	
2.CONFIRM THE OPERATION	D
Confirm the operation again. Is the result normal?	Е
 YES >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u>. NO >> GO TO 1. 	
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SEAT SYNCHRONIZATION FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

SEAT SYNCHRONIZATION FUNCTION DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000008291041

1. CHECK SYNCHRONIZATION FUNCTION

Check seat synchronization function. Refer to <u>ADP-24, "SEAT SYNCHRONIZATION FUNCTION : System Description"</u>.

Is the inspection result normal?

YES >> Seat synchronization is OK.

NO >> GO TO 2.

2.CHECK SYSTEM SETTING

Check system setting. Refer to ADP-12, "SYSTEM SETTING : Special Repair Requirement".

Is the inspection result normal?

YES >> Synchronization function is normal.

NO >> GO TO 3.

3.CONFIRM THE OPERATION

Check the operation again.

Refer to <u>ADP-24, "SEAT SYNCHRONIZATION FUNCTION : System Description"</u>.

Is the result normal?

- YES >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u>.
- NO >> Replace driver seat control unit. Refer to <u>ADP-203, "Removal and Installation"</u>.

ENTRY/EXIT ASSIST FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

ENTRY/EXIT ASSIST FUNCTION DOES NOT OPERATE

		Δ
Diagnosis Procedure	INFOID:000000008291042	A
1.PERFORM SYSTEM INITIALIZATION		В
Check system initialization. Refer to <u>ADP-10, "SYSTEM INITIALIZATION : Special Repair Requirement"</u> .		
Is the inspection result normal?		С
YES >> Entry/Exit function is OK. NO >> GO TO 2.		
2.CHECK FRONT DOOR SWITCH (DRIVER SIDE)		D
Check front door switch (driver side). Refer to <u>DLK-66, "Component Function Check"</u> .		Е
Is the inspection result normal?		
 YES >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u>. NO >> Repair or replace the malfunction parts. 		F
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INTELLIGENT KEY INTERLOCK FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

INTELLIGENT KEY INTERLOCK FUNCTION DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000008291043

1. CHECK DOOR LOCK FUNCTION

Check door lock function. Refer to DLK-7, "Work Flow".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

2. PERFORM MEMORY STORING PROCEDURE

- Perform memory storing procedure. Refer to <u>ADP-11, "MEMORY STORING : Special Repair Requirement"</u>.
- Check Intelligent Key interlock function. Refer to <u>ADP-42</u>, "INTELLIGENT KEY INTERLOCK FUNCTION : System Description".

Is the inspection result normal?

- YES >> Intelligent Key inter lock function is normal.
- NO >> Replace driver seat control unit. Refer to <u>ADP-203, "Removal and Installation"</u>.

< SYMPTOM DIAGNOSIS >	
ALL FUNCTIONS DO NOT OPERATE	A
Diagnosis Procedure	INFOID:000000008291044
1.POWER SUPPLY AND GROUND CIRCUIT	В
Check power supply and ground circuit for driver seat control unit. Refer to <u>ADP-65</u> , "DRIVER SEAT CONTROL UNIT : Diagnosis Procedure".	
<u>Is the inspection result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u> . NO >> Repair or replace malfunction part.	C
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< SYMPTOM DIAGNOSIS >

NORMAL OPERATING CONDITION

Description

INFOID:000000008291045

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.	<u>ADP-10</u>
Entry/exit assist function does not operate.	Entry/exit assist function is disabled. NOTE: The entry/exit assist function are enabled before delivery (initial setting).	Change the settings.	ADP-12
Entry assist function does not op- erate.	Manual operation with power seat switch was performed after exit assist function execution.	Perform the memory function.	<u>ADP-11</u>
Seat synchronization function does not operate.	Seat synchronization function is dis- abled. NOTE: The entry/exit assist function are dis- abled before delivery (initial setting).	Change the settings.	<u>ADP-12</u>
	The synchronization function will not op- erate if the steering (tilt, telescopic) or the door mirror moves to the operating end while the seat synchronization function is operating.	Perform the memory function or drive the vehicle at more than 7 km/h (4 MPH).	<u>ADP-24</u>
	Seat adjustment load has exceed any of the volumes below. • Seat sliding: 76 mm • Seat reclining: 9.1 degrees • Seat lifting (rear): 20 mm	_	_
Memory function, entry/exit as- sist function, seat synchroniza- tion function, or Intelligent Key interlock function does not oper- ate.	The operating conditions are not fulfilled.	ed. Fulfill the operation conditions.	Memory function: <u>ADP-29</u>
			Exit assist function: <u>ADP-34</u>
			Entry assist function: <u>ADP-38</u>
			Seat synchronization function: <u>ADP-24</u>
			Intelligent Key interloc function: <u>ADP-42</u>

< PRECAUTION > PRECAUTION PRECAUTIONS

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

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

WARNING:

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that 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 "SRS AIR BAG".
- Never 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:

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never 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 3 minutes before performing any service.

Service

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

Work

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and keep them.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After re-installation is completed, be sure to check that each part works normally.
- Follow the steps below to clean components.
- Water soluble foul: Dip a soft cloth into lukewarm water, and wring the water out of the cloth to wipe the fouled area.

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PRECAUTIONS

< PRECAUTION >

Then rub with a soft and dry cloth.

- Oily foul: Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%), and wipe the fouled area.

Then dip a cloth into fresh water, and wring the water out of the cloth to wipe the detergent off. Then rub with a soft and dry cloth.

- Do not use organic solvent such as thinner, benzene, alcohol, and gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

< REMOVAL AND INSTALLATION >

REMOVAL AND INSTALLATION DRIVER SEAT CONTROL UNIT

Exploded View

Refer to SE-60, "Exploded View".

Removal and Installation

REMOVAL

CAUTION:

2.

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

- Remove the driver seat (1). Refer to SE-63, "Removal and 1. k Installation".
 - щ 10

INSTALLATION

Install in the reverse order of removal.

Remove the mounting bolts (A). 3. Remove driver seat control unit (2).

CAUTION:

Be sure to clump the harness to the right place. NOTE:

After installing the driver seat, perform additional service when replacing control unit. Refer to ADP-10, "ADDI-TIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

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AUTOMATIC DRIVE POSITIONER CONTROL UNIT

< REMOVAL AND INSTALLATION >

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Exploded View

Refer to IP-11, "A/T MODELS : Exploded View".

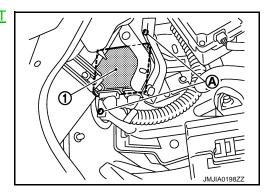
Removal and Installation

REMOVAL

CAUTION:

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

- 1. Remove the battery negative terminal.
- 2. Remove the instrument driver lower panel. Refer to <u>IP-12, "A/T</u> <u>MODELS : Removal and Installation"</u>.
- 3. Remove the screws (A).
- 4. Remove automatic drive positioner control unit (1).



INSTALLATION Install in the reverse order of removal. CAUTION: Be sure to clump the harness to the right place. NOTE:

After installing the driver seat, perform additional service when removing battery negative terminal. Refer to ADP-10, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

INFOID:000000008291051

INFOID:000000008291052

SEAT MEMORY SWITCH

< REMOVAL AND INSTALLATION > SEAT MEMORY SWITCH А **Exploded View** INFOID:000000008291053 Refer to INT-11, "Exploded View". В **Removal and Installation** INFOID:000000008291054 REMOVAL С **CAUTION:** When removing and installing, use shop cloths to protect parts from damage. D 1. Disconnect battery negative terminal. 2. Remove the front door finisher (1). Refer to INT-11, "Removal RRW and Installation". Ε Press pawls and remove seat memory switch (2) from front door 3. finisher (1). 0 F <u>⁄</u>: Pawl 0 10 0 Ð 2 JMJIA0197ZZ **INSTALLATION** Н Install in the reverse order of removal. **CAUTION:** Be sure to clump the harness to the right place. NOTE: After installing the driver seat, perform additional service when removing battery negative terminal. Refer to ADP-10, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement". ADP

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< REMOVAL AND INSTALLATION >

POWER SEAT SWITCH

Exploded View

Refer to SE-60, "Exploded View".

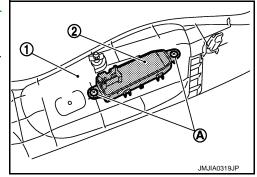
Removal and Installation

REMOVAL

CAUTION:

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

- 1. Remove the seat cushion outer finisher (1). Refer to <u>SE-63</u>, <u>"Removal and Installation"</u>.
- 2. Remove the screws (A).
- 3. Remove the power seat switch (2) from the seat cushion outer finisher (1).



INSTALLATION Install in the reverse order of removal. CAUTION: Be sure to clump the harness to the right place. NOTE:

After installing the driver seat, perform additional service when removing battery negative terminal. Refer to <u>ADP-9</u>, "<u>ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL</u> : <u>Special Repair</u> <u>Requirement</u>".

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INFOID:000000008291056

TILT&TELESCOPIC SWITCH < REMOVAL AND INSTALLATION > **TILT&TELESCOPIC SWITCH** А **Exploded View** INFOID:00000008291057 Refer to IP-11, "A/T MODELS : Exploded View". В **Removal and Installation** INFOID:000000008291058 REMOVAL **CAUTION:** When removing and installing, use shop cloths to protect parts from damage. D 1. Disconnect battery negative terminal. 2. Remove the steering column mask (1). Refer to IP-12, "A/T MODELS : Removal and Installation". 3. Press pawls and remove tilt & telescopic switch (2) from the Ε steering column mask (1). \bigcirc Q Pawl $\hat{}$ F Ð .IM.IIA019577 Н INSTALLATION Install in the reverse order of removal. CAUTION:

Be sure to clump the harness to the right place. NOTE:

After installing the driver seat, perform additional service when removing battery negative terminal. Refer to ADP-9, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement".

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