SECTION ADD AUTOMATIC DRIVE POSITIONER

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< BASIC INSPECTION >

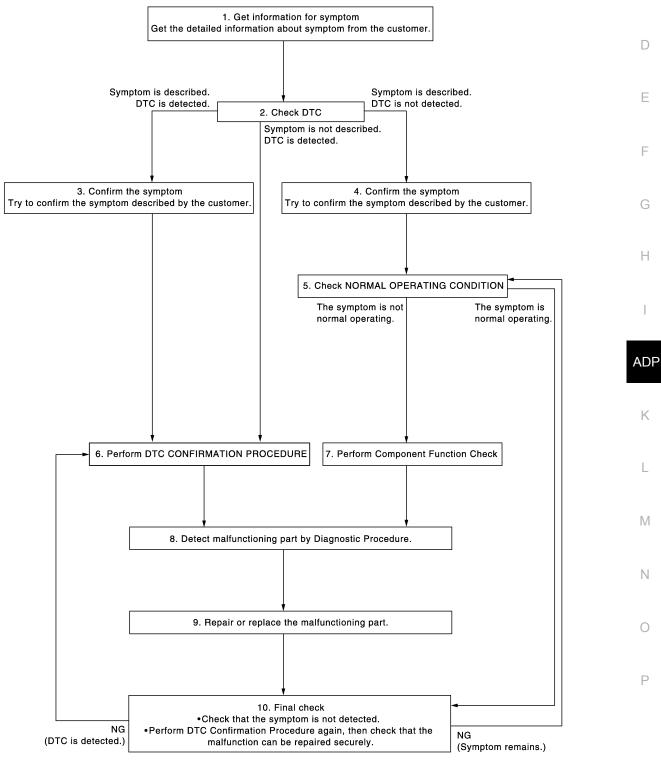
BASIC INSPECTION DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000010577330

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OVERALL SEQUENCE



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DETAILED FLOW

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

1.GET INFORMATION FOR SYMPTOM

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

>> GO TO 2.

2.CHECK DTC WITH AUTOMATIC DRIVE POSITIONER SYSTEM

Check "Self Diagnostic Result" with CONSULT. Refer to ADP-142, "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-213, "Description"</u>.

Is the incident normal operation?

YES >> GO TO 10.

NO >> GO TO 7.

6. PERFORM DTC CONFIRMATION PROCEDURE

Perform the confirmation procedure for the detected DTC.

Is the DTC displayed?

YES >> GO TO 8.

NO >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u>.

7.PERFORM COMPONENT FUNCTION CHECK

Perform the component function check for the isolated malfunctioning point.

>> GO TO 8.

 $\mathbf{8}$. 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.REPAIR 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?

Revision: 2015 February

ADP-6

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

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

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< BASIC INSPECTION >

INSPECTION AND ADJUSTMENT ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description INFOID:000000010577331

Each function is reset to the following condition when the battery terminal is disconnected. Refer to ADP-8, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement".

Function	Condition	Procedure	
Memory (Seat, steering, mirror)	Erased	Perform storing	
Entry/exit assist	OFF	Perform initialization	
		Set slide amount ^{*1}	
Intelligent Key interlock	Erased	Perform storing	
Seat synchronization	OFF	_	

^{*1}: Default value is 40mm.

NOTE:

Notice that disconnecting the battery when detected DTC are present will erase the DTC memory.

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement INFOID:0000000010577332

1.SYSTEM INITIALIZATION

Perform system initialization. Refer to ADP-9, "SYSTEM INITIALIZATION : Description".

>> GO TO 2.

2.system setting

Perform system setting. Refer to ADP-11, "SYSTEM SETTING : Description".

>> GO TO 3.

3.MEMORY STORAGE

Perform memory storage. Refer to ADP-10, "MEMORY STORING : Description".

>> END ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

INFOID:000000010577333

Each function is reset to the following condition when the driver seat control unit is replaced. Refer to ADP-9. "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

Function	Condition	Procedure	
Memory (Seat, steering, mirror)	Erased	Perform storing	
Entry/exit assist	055	Perform initialization	
	OFF	Set slide amount ^{*1}	
Intelligent Key interlock	Erased	Perform storing	
Seat synchronization	OFF	_	

^{*1}: Default value is 40mm.

NOTE:

< 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 Re-
quirement
1.SYSTEM INITIALIZATION
Perform system initialization. Refer to <u>ADP-9. "SYSTEM INITIALIZATION : Description"</u> .
>> GO TO 2.
2.SYSTEM SETTING
Perform system setting. Refer to <u>ADP-11, "SYSTEM SETTING : Description"</u> .
>> GO TO 3.
3.MEMORY STORAGE
Perform memory storage. Refer to <u>ADP-10, "MEMORY STORING : Description"</u> .
>> END
SYSTEM INITIALIZATION G
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. Refer to <u>ADP-9, "SYS-</u>
TEM INITIALIZATION : Special Repair Requirement".
SYSTEM INITIALIZATION : Special Repair Requirement
INITIALIZATION PROCEDURE ADR
1. сноозе метнор
There are two initialization methods.
Which method do you use? 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).
0
>> END
4. STEP B-1
Drive the vehicle at more than 25 km/h (16 MPH).
>> FND

>> END MEMORY STORING

< BASIC INSPECTION >

MEMORY STORING : Description

INFOID:000000010577337

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. Refer to ADP-10, "MEMORY STORING : Special Repair Requirement".

MEMORY STORING : Special Repair Requirement

INFOID:000000010577338

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

Shift A/T selector lever to P position.

>> GO TO 2.

Turn ignition switch ON.

>> GO TO 3.

3.STEP 3

Adjust driver seat, steering column and outside mirror position manually.

>> 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 seconds.
- 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. **NOTE:**
 - To enter driver seat positions into blank memory, memory indicator will be turned on for 5 seconds.
 - To modify driver seat positions, memory indicator will be turned OFF for 0.5 second, then turned ON for 5 seconds.

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

Confirm the operation of each part with memory operation.

>> END

6.STEP 6

Push the Intelligent Key unlock button within 5 seconds after pushing memory switch (while the memory indicator is turned ON).

>> GO TO 7.

7.STEP 7

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

< BASIC INSPECTION >

>> END SYSTEM SETTING

SYSTEM SETTING : Description

The settings of the automatic driving positioner system can be changed, using CONSULT, the display unit in the center of the instrument panel and the set switch. Always check the settings before and after disconnecting the battery terminal or replacing driver seat control unit. Refer to ADP-11, "SYSTEM SETTING : Special Repair Requirement".

Setting Change

				×: Applicable	D
Item	Content	CONSULT	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]	x	_	40mm	E
Entry/exit assist (seat)	Entry/exit assist (seat) can be selected: ON (operated) – OFF (not operated)	x		ON	F
Entry/exit assist (steering column)	Entry/exit assist (steering column) can be selected: ON (operated) – OFF (not operated)	x	x	ON	G
Seat synchronization	Seat synchronization can be selected: ON (operated) – OFF (not operated)	—	x	OFF	
Reset custom settings	All settings can be set to default (factory setting).	—	—	—	Н

SYSTEM SETTING : Special Repair Requirement

1. CHOOSE METHOD	I
There are two ways of setting method.	
Which method do you choose?	ADP
With set switch>>GO TO 2.	
With CONSULT-III>>GO TO 6.	
2. WITH SET SWITCH - STEP 1	K
 Turm ignition switch OFF. Push setting button and hold for more than 10 seconds. 	L
>> GO TO 3.	
3. CONFIRM THE OPERATION	M
Check the entry/exit assist function setting is changed.	
Is the setting changed?	
YES >> GO TO 4.	Ν
NO >> GO TO 1.	
4. WITH SET SWITCH - STEP 2	0
 Turm ignition switch ACC Push setting button and hold for more than 10 seconds. 	0
>> GO TO 5.	Р
5. CONFIRM THE OPERATION	
Check the seat synchronization function setting is changed.	
Is the setting changed?	
YES >> END	

>> GO TO 1. **Revision: 2015 February**

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< BASIC INSPECTION >

6. WITH CONSULT-III - STEP 1

Select "Work support".

>> GO TO 7.

7. WITH CONSULT-III - STEP 2

- 1. Select "EXIT SEAT SLIDE SETTING", "EXIT TILT SETTING" or "SEAT SLIDE VOLUME SET" then touch display to change between ON and OFF.
- EXIT SEAT SLIDE SETTING: Entry/exit assist (seat)
- EXIT TILT SETTING: Entry/exit assist (steering column)
- 2. Then touch "OK".

>> GO TO 8.

8. CONFIRM THE OPERATION

Check the entry/exit assist function setting is changed.

Is the setting changed?

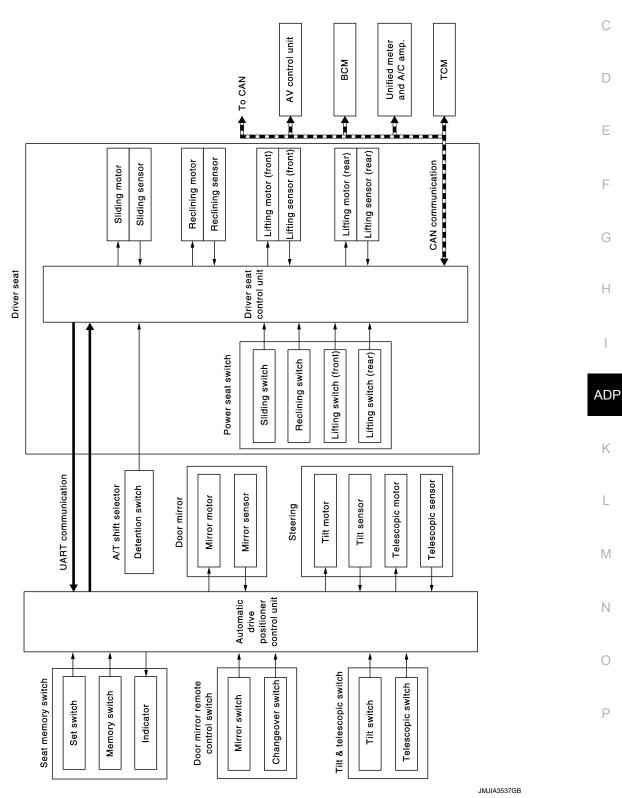
YES >> END NO >> GO TO 1.

< SYSTEM DESCRIPTION >

SYSTEM DESCRIPTION AUTOMATIC DRIVE POSITIONER SYSTEM

AUTOMATIC DRIVE POSITIONER SYSTEM

AUTOMATIC DRIVE POSITIONER SYSTEM : System Diagram



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INFOID:000000010577341

< SYSTEM DESCRIPTION >

AUTOMATIC DRIVE POSITIONER SYSTEM : System Description

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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.

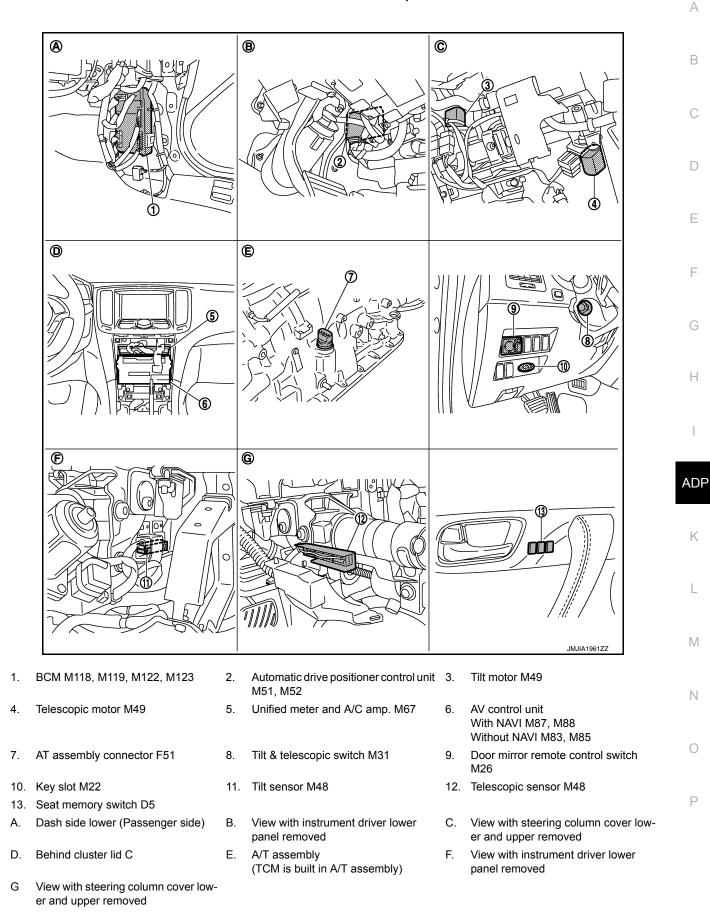
Function		Description	
Manual function		The driving position (seat, steering column and door mirror position) can be adjusted by using the power seat switch, tilt & telescopic switch or door mirror remote control switch.	
Seat synchronization function		The positions of the steering column and door mirror are adjusted to the proper position 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 assist function Entry		On exit, the seat moves backward and the steering column moves upward and for- ward.	
		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:

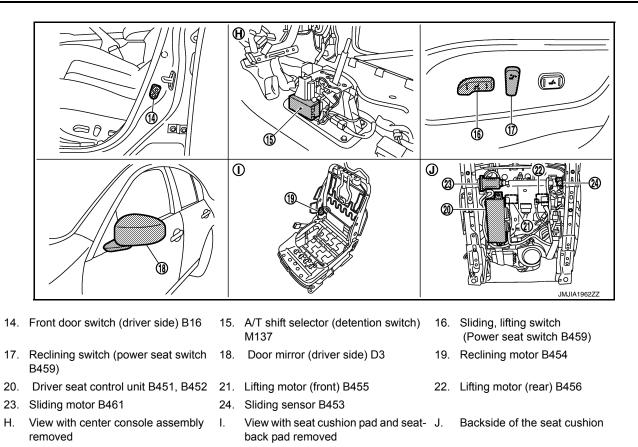
The lumbar support system and the side support system are controlled independently with no link to the automatic drive positioner system.

< SYSTEM DESCRIPTION >

AUTOMATIC DRIVE POSITIONER SYSTEM : Component Parts Location INFOLD:000000010577343



< SYSTEM DESCRIPTION >



AUTOMATIC DRIVE POSITIONER SYSTEM : Component Description

CONTROL UNITS

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.
BCM	 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.
AV control unit	The setting change of auto drive positioner system can be performed on the display.
ТСМ	Transmit the shift position signal (P range) to the driver seat control unit via CAN communication.

INPUT PARTS

Switches

INFOID:000000010577344

< SYSTEM DESCRIPTION >

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.
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

Function	
Detect the up/down and left/right position of outside mirror face.	
Detect the up/down and front/rear position of steering column.	
Detect the up/down position of seat lifting (front).	
Detect the up/down position of seat lifting (rear).	A
Detect the tilt of seatback.	
Detect the front/rear position of seat.	
	Detect the up/down and left/right position of outside mirror face. Detect the up/down and front/rear position of steering column. Detect the up/down position of seat lifting (front). Detect the up/down position of seat lifting (rear). Detect the tilt of seatback.

OUTPUT PARTS

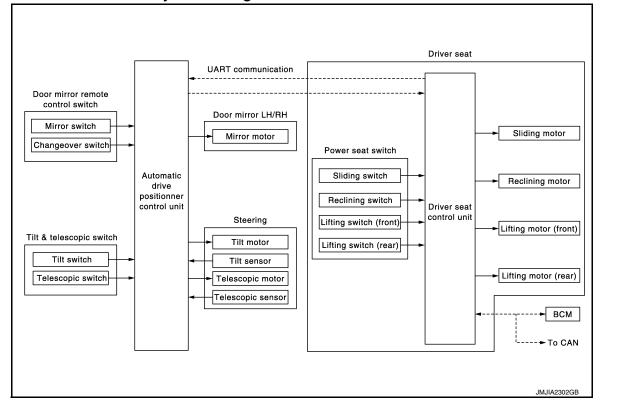
Item	Function	
Door mirror motor (driver side/passenger side)	Move the outside mirror face upward/downward and leftward/rightward.	
Tilt and telescopic motor	Move the steering column upward/downward and forward/backward.	
Lifting motor (front)	Move the seat lifting (front) upward/downward.	
Lifting motor (rear)	Move the seat lifting (rear) upward/downward.	
Reclining motor	Tilt and raise up the seatback.	
Sliding motor	Slide the seat forward/backward.	
Memory indicator	Illuminates or flashes according to the registration/operation status.	

MANUAL FUNCTION

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< SYSTEM DESCRIPTION >

MANUAL FUNCTION : System Diagram



MANUAL FUNCTION : System Description

INFOID:000000010577346

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OUTLINE

The driving position (seat, steering column and door mirror position) can be adjusted manually with power seat 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

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.

< SYSTEM DESCRIPTION >

(Order	Input	Output	Control unit condition	
	2	—	Motors (Tilt, telescopic)	The automatic drive positioner control unit actuates each motor according to the operation of the tilt & telescopic switch.	A
	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.*	В

*: 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.	E
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.	F

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.

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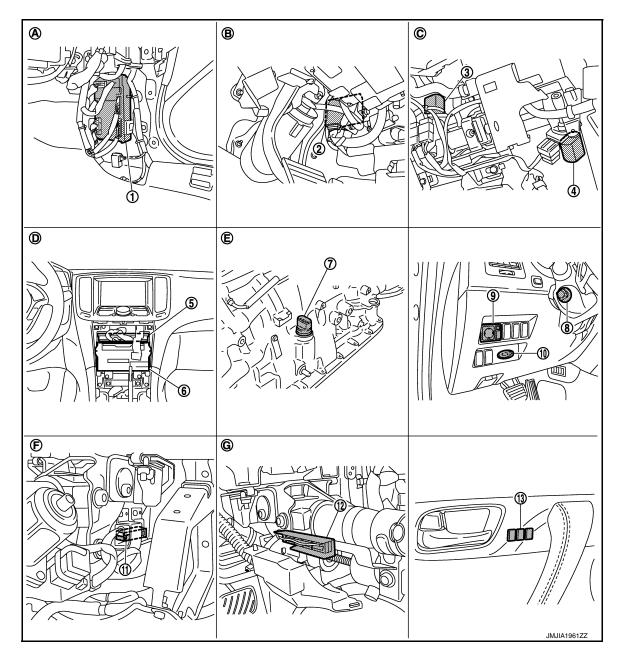
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< SYSTEM DESCRIPTION >

MANUAL FUNCTION : Component Parts Location

INFOID:000000010577347



- 1. BCM M118, M119, M122, M123
- 4. Telescopic motor M49
- 7. AT assembly connector F51
- 10. Key slot M22
- 13. 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. Unified meter and A/C amp. M67
- 8. Tilt & telescopic switch M31
- 11. Tilt sensor M48
- B. View with instrument driver lower panel removed
- E. A/T assembly (TCM is built in A/T assembly)

- Tilt motor M49
- 6. AV control unit With NAVI M87, M88 Without NAVI M83, M85
- 9. Door mirror remote control switch M26
- 12. Telescopic sensor M48
- C. View with steering column cover lower and upper removed
- F. View with instrument driver lower panel removed

< SYSTEM DESCRIPTION >

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14.	Front door switch (driver side) B16	15.	A/T shift selector (detention switch) M137	16.	Sliding, lifting switch (Power seat switch B459)	
17.	Reclining switch (power seat switch B459)	18.	Door mirror (driver side) D3	19.	Reclining motor B454	G
20.	Driver seat control unit B451, B452	21.	Lifting motor (front) B455	22.	Lifting motor (rear) B456	
23.	Sliding motor B461	24.	Sliding sensor B453			Н
H.	View with center console assembly removed	I.	View with seat cushion pad and seat back pad removed	- J.	Backside of the seat cushion	

MANUAL FUNCTION : Component Description

CONTROL UNITS

INFOID:000000010577348

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

INPUT PARTS

Switches

Item	Function	-
Power seat switch	 The following switch is installed. Reclining switch Lifting switch (front) Lifting switch (rear) Sliding switch The specific parts can be operated with the operation of each switch. 	O P

< SYSTEM DESCRIPTION >

Item	Function
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
Tilt and telescopic sensor	Detect the up/down and front/rear position of steering column.

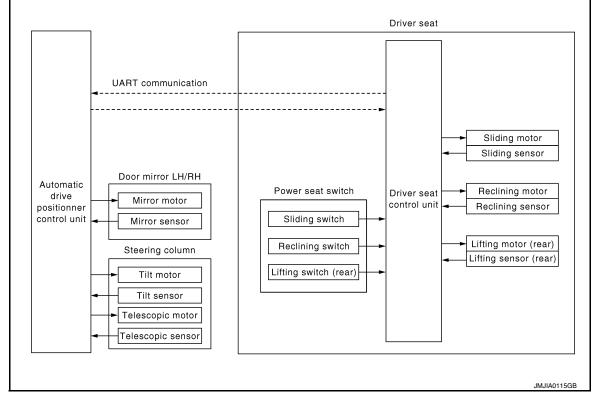
OUTPUT PARTS

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 forward/backward.	
Lifting motor (front)	Move the seat lifter (front) upward/downward.	
Lifting motor (rear)	Move the seat lifter (rear) upward/downward.	
Reclining motor	Tilt and raise up the seatback.	
Sliding motor	Slide the seat forward/backward.	

SEAT SYNCHRONIZATION FUNCTION

SEAT SYNCHRONIZATION FUNCTION : System Diagram

INFOID:000000010577349



SEAT SYNCHRONIZATION FUNCTION : System Description

INFOID:000000010577350

OUTLINE

< SYSTEM DESCRIPTION >

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. NOTE:

- This function is set to OFF before delivery (initial setting).
- For the system setting procedure. Refer to <u>ADP-11</u>, "SYSTEM SETTING : <u>Description</u>".

OPERATION PROCEDURE

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

NOTE:

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

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

 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.

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	P position	

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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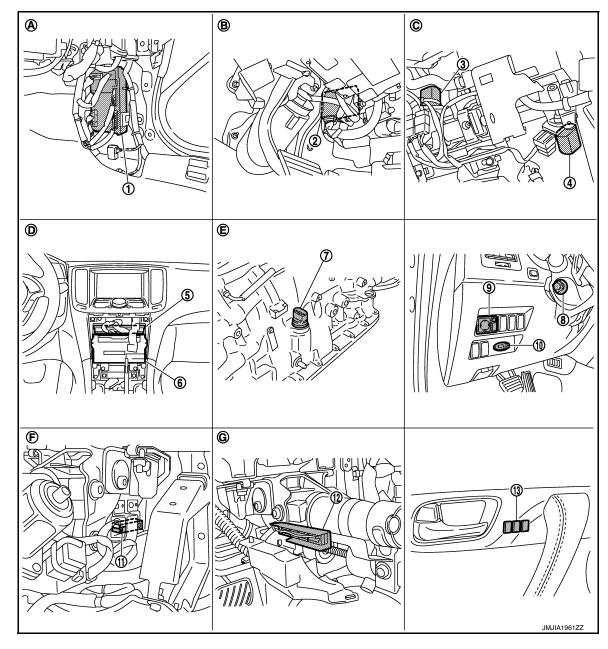
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< SYSTEM DESCRIPTION >

SEAT SYNCHRONIZATION FUNCTION : Component Parts Location

INFOID:000000010577351



- 1. BCM M118, M119, M122, M123
- 4. Telescopic motor M49
- 7. AT assembly connector F51
- 10. Key slot M22
- 13. 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. Unified meter and A/C amp. M67
- 8. Tilt & telescopic switch M31
- 11. Tilt sensor M48
- B. View with instrument driver lower panel removed
- E. A/T assembly (TCM is built in A/T assembly)

- Tilt motor M49
- 6. AV control unit With NAVI M87, M88 Without NAVI M83, M85
- 9. Door mirror remote control switch M26
- 12. Telescopic sensor M48
- C. View with steering column cover lower and upper removed
- F. View with instrument driver lower panel removed

< SYSTEM DESCRIPTION >

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					JMJIA1962ZZ	E
14.	Front door switch (driver side) B16	15.	A/T shift selector (detention switch) M137	16.	Sliding, lifting switch (Power seat switch B459)	
17.	Reclining switch (power seat switch B459)	18.		19.	Reclining motor B454	G
20.	Driver seat control unit B451, B452	21.	Lifting motor (front) B455	22.	Lifting motor (rear) B456	
23.	Sliding motor B461		Sliding sensor B453			Н
H.	View with center console assembly removed	I.	View with seat cushion pad and sea back pad removed	t- J.	Backside of the seat cushion	
\ ^-				D	and a Cara	

SEAT SYNCHRONIZATION FUNCTION : Component Description

CONTROL UNITS

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

INPUT PARTS

Switches

Item	Function	M
Power seat switch	The following switch is installed. Reclining switch Lifting switch (front) Lifting switch (rear) 	Ν
	 Sliding switch The specific parts can be operated with the operation of each switch. 	0

Sensors

Item	Function	P
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 front/rear position of steering column.	
Lifting sensor (rear)	Detect the up/down position of seat lifting (rear).	

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< SYSTEM DESCRIPTION >

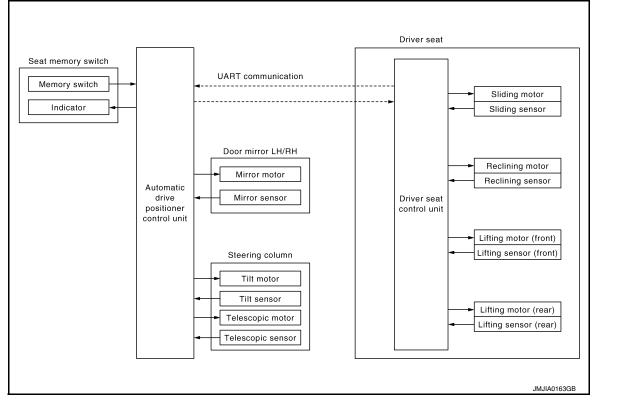
Item	Function
Reclining sensor	Detect the tilt of seatback.
Sliding sensor	Detect the front/rear position of seat.

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 forward/backward.
Lifting motor (rear)	Move the seat lifter (rear) upward/downward.
Reclining motor	Tilt and raise up the seatback.
Sliding motor	Slide the seat forward/backward.

MEMORY FUNCTION

MEMORY FUNCTION : System Diagram



MEMORY FUNCTION : System Description

INFOID:000000010577354

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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

< SYSTEM DESCRIPTION >

Item	Request status	
Switch inputs		A
Power seat switch		
Tilt & telescopic switch	OFF	
Door mirror remote control switch	(Not operated)	В
Set switch		
Memory switch		
A/T selector lever	P position	
		0

However, the memory operation can be performed for 45 seconds after opening the driver door (driver door switch OFF \rightarrow ON) even if the IGN position is in OFF position.

DETAIL FLOW

Order	Input	Output	Control unit condition
1	Memory switch	_	The memory switch signal is inputted to the automatic drive positioner control unit when memory switch 1 or 2 is operated. Memory switch signal is input to driver seat control unit via UART communication.
2	_	Motors (Seat, 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 con- trol 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 automatic drive positioner control unit via UART communication af- ter all motors stop. The automatic drive positioner control unit illumi- nates the memory indicator for 5 seconds.

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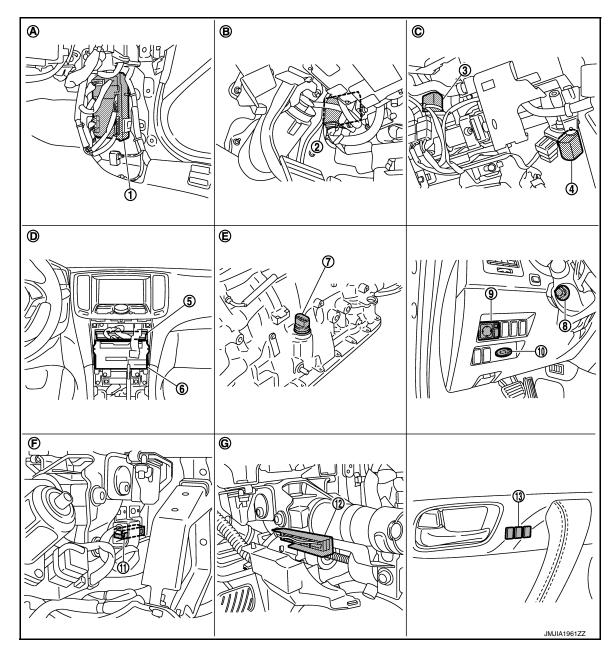
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< SYSTEM DESCRIPTION >

MEMORY FUNCTION : Component Parts Location

INFOID:000000010577355



- 1. BCM M118, M119, M122, M123
- 4. Telescopic motor M49
- 7. AT assembly connector F51
- 10. Key slot M22
- 13. 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. Unified meter and A/C amp. M67
- 8. Tilt & telescopic switch M31
- 11. Tilt sensor M48
- B. View with instrument driver lower panel removed
- E. A/T assembly (TCM is built in A/T assembly)

- Tilt motor M49
- 6. AV control unit With NAVI M87, M88 Without NAVI M83, M85
- 9. Door mirror remote control switch M26
- 12. Telescopic sensor M48
- C. View with steering column cover lower and upper removed
- F. View with instrument driver lower panel removed

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14.	Front door switch (driver side) B16	15.	A/T shift selector (detention switch) M137	16.	Sliding, lifting switch (Power seat switch B459)	
17.	Reclining switch (power seat switch B459)	18.	Door mirror (driver side) D3	19.	Reclining motor B454	G
20.	Driver seat control unit B451, B452	21.	Lifting motor (front) B455	22.	Lifting motor (rear) B456	
23.	Sliding motor B461	24.	Sliding sensor B453			Н
H.	View with center console assembly removed	I.	View with seat cushion pad and seat back pad removed	- J.	Backside of the seat cushion	

MEMORY FUNCTION : Component Description

CONTROL UNITS

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

INPUT PARTS

Switches

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

Sensors

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

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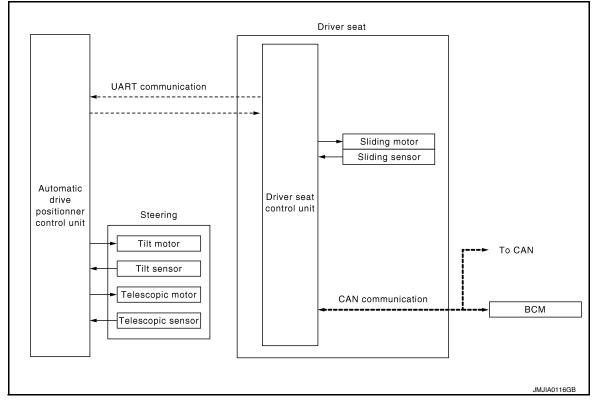
OUTPUT PARTS

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 forward/backward.
Lifting motor (front)	Move the seat lifter (front) upward/downward.
Lifting motor (rear)	Move the seat lifter (rear) upward/downward.
Reclining motor	Tilt and raise up the seatback.
Sliding motor	Slide the seat forward/backward.
Memory indicator	Illuminates or blinks according to the registration/operation status.

EXIT ASSIST FUNCTION

EXIT ASSIST FUNCTION : System Diagram

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EXIT ASSIST FUNCTION : System Description

INFOID:000000010577358

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-11, "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.

Revision: 2015 February

ADP-30

< SYSTEM DESCRIPTION >

Item	Request status	
Ignition position	OFF	
System setting [Entry/exit assist function (seat/steering)]	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

Order	Input	Output	Control unit condition
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.

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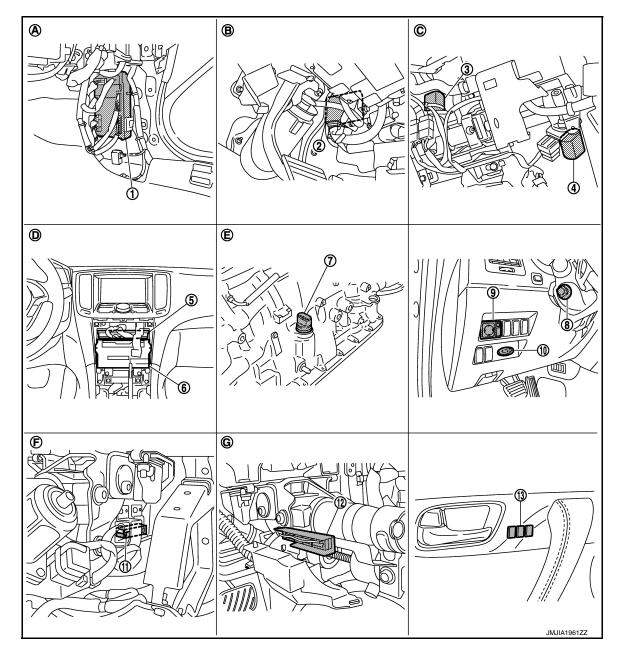
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< SYSTEM DESCRIPTION >

EXIT ASSIST FUNCTION : Component Parts Location

INFOID:000000010577359



- 1. BCM M118, M119, M122, M123
- 4. Telescopic motor M49
- 7. AT assembly connector F51
- 10. Key slot M22
- 13. 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

- Automatic drive positioner control unit 3. M51, M52
- 5. Unified meter and A/C amp. M67
- 8. Tilt & telescopic switch M31
- 11. Tilt sensor M48
- B. View with instrument driver lower panel removed
- E. A/T assembly (TCM is built in A/T assembly)

- Tilt motor M49
- 6. AV control unit With NAVI M87, M88 Without NAVI M83, M85
- 9. Door mirror remote control switch M26
- 12. Telescopic sensor M48
- C. View with steering column cover lower and upper removed
- F. View with instrument driver lower panel removed

< SYSTEM DESCRIPTION >

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					JMJIA1962ZZ	F
•	Front door switch (driver side) B16	15.	A/T shift selector (detention switch) M137	16.	Sliding, lifting switch (Power seat switch B459)	
-	Reclining switch (power seat switch B459)	18.	Door mirror (driver side) D3	19.	Reclining motor B454	G
	Driver seat control unit B451, B452	21.	Lifting motor (front) B455	22.	Lifting motor (rear) B456	
	Sliding motor B461	24.	Sliding sensor B453			Н
	View with center console assembly removed	I.	View with seat cushion pad and seat- back pad removed	J.	Backside of the seat cushion	

EXIT ASSIST FUNCTION : Component Description

CONTROL UNITS

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

INPUT PARTS

Switches

Item	Function	
Front door switch (driver side)	Detect front door (driver side) open/close status.	0

Sensors

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

OUTPUT PARTS

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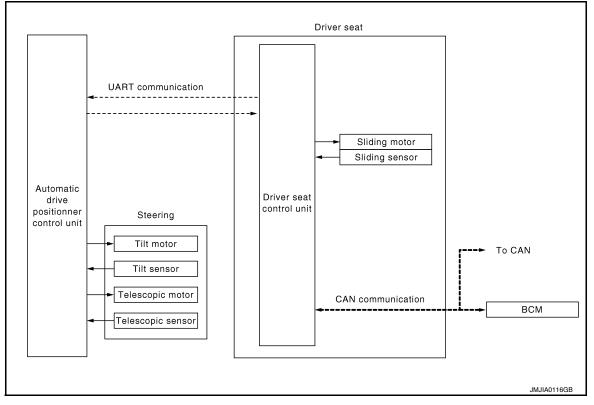
< SYSTEM DESCRIPTION >

Item	Function	
Tilt and telescopic motor	Move the steering column upward/downward and forward/backward.	
Sliding motor	Slide the seat forward/backward.	

ENTRY ASSIST FUNCTION

ENTRY ASSIST FUNCTION : System Diagram

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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-11, "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.

< SYSTEM DESCRIPTION >

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	OFF
Door mirror remote control switch	(Not operated)
Set switch	
Memory switch	
A/T selector lever	P position
	r position

DETAIL FLOW

Order	Input	Output	Control unit condition
1	Door switch/Ignition switch	_	Driver seat control unit receives the signals of [ignition switch signal] and [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 control unit 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.



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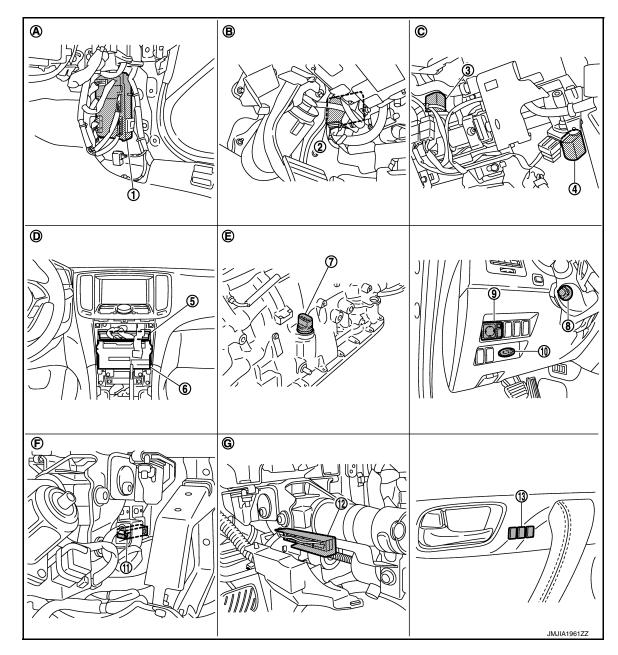
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< SYSTEM DESCRIPTION >

ENTRY ASSIST FUNCTION : Component Parts Location

INFOID:000000010577363



- 1. BCM M118, M119, M122, M123
- 4. Telescopic motor M49
- 7. AT assembly connector F51
- 10. Key slot M22
- 13. 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. Unified meter and A/C amp. M67
- 8. Tilt & telescopic switch M31
- 11. Tilt sensor M48
- B. View with instrument driver lower panel removed
- E. A/T assembly (TCM is built in A/T assembly)

- Tilt motor M49
- 6. AV control unit With NAVI M87, M88 Without NAVI M83, M85
- 9. Door mirror remote control switch M26
- 12. Telescopic sensor M48
- C. View with steering column cover lower and upper removed
- F. View with instrument driver lower panel removed

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14.	Front door switch (driver side) B16	15.	A/T shift selector (detention switch) M137	16.	Sliding, lifting switch (Power seat switch B459)	
17.	Reclining switch (power seat switch B459)	18.	Door mirror (driver side) D3	19.	Reclining motor B454	G
20.	Driver seat control unit B451, B452	21.	Lifting motor (front) B455	22.	Lifting motor (rear) B456	
23.	Sliding motor B461	24.	Sliding sensor B453			Н
H.	View with center console assembly removed	I.	View with seat cushion pad and seat- back pad removed	· J.	Backside of the seat cushion	
NITI		. ~	ampapart Description			1

ENTRY ASSIST FUNCTION : Component Description

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.
ВСМ	Recognizes the following status and transmits it to the driver seat control unit via CAN communication. Driver door: OPEN/CLOSE Ignition switch position: ACC/ON

INPUT PARTS

Switches

		0
Item	Function	
Front door switch (driver side)	Detect front door (driver side) open/close status.	
FIOH door switch (unver side)	Detect from door (driver side) open/close status.	

Sensors

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

OUTPUT PARTS

Revision: 2015 February

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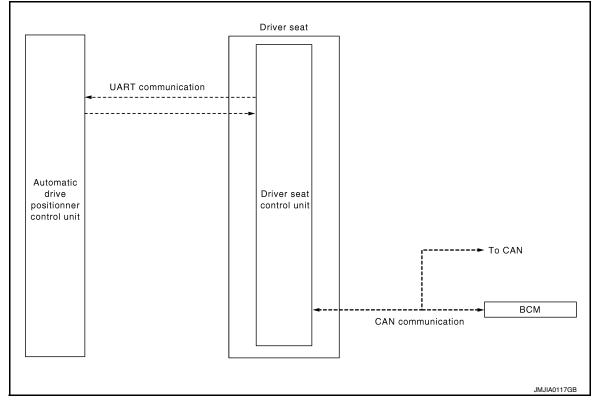
< SYSTEM DESCRIPTION >

Item	Function
Tilt & telescopic motor	Move the steering column upward/downward and forward/backward.
Sliding motor	Slide the seat forward/backward.

INTELLIGENT KEY INTERLOCK FUNCTION

INTELLIGENT KEY INTERLOCK FUNCTION : System Diagram

INFOID:000000010577365



INTELLIGENT KEY INTERLOCK FUNCTION : System Description

INFOID:000000010577366

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 <u>ADP-10</u>, "<u>MEMORY STORING</u> : <u>Description</u>".

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 [Entry/exit function (seat/steering)]	ON
Key switch	OFF (Key is removed.)

< SYSTEM DESCRIPTION >

Item	Request status	٥
Switch inputs Power seat switch Tilt & telescopic switch Door mirror remote control switch Set switch Memory switch 	OFF (Not operated)	В
AT selector lever	P position	C

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.

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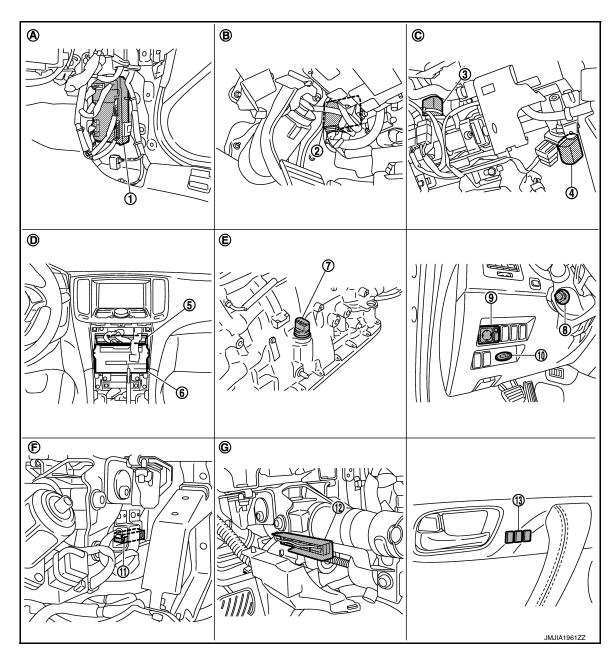
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< SYSTEM DESCRIPTION >

INTELLIGENT KEY INTERLOCK FUNCTION : Component Parts Location INFOLD.000000010577367



- 1. BCM M118, M119, M122, M123
- 4. Telescopic motor M49
- 7. AT assembly connector F51
- 10. Key slot M22
- 13. 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. Unified meter and A/C amp. M67
- 8. Tilt & telescopic switch M31
- 11. Tilt sensor M48
- B. View with instrument driver lower panel removed
- E. A/T assembly (TCM is built in A/T assembly)

- Tilt motor M49
- 6. AV control unit With NAVI M87, M88 Without NAVI M83, M85
- 9. Door mirror remote control switch M26
- 12. Telescopic sensor M48
- C. View with steering column cover lower and upper removed
- F. View with instrument driver lower panel removed

Revision: 2015 February

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14.	Front door switch (driver side) B16	15.	A/T shift selector (detention switch) M137	16.	Sliding, lifting switch (Power seat switch B459)	
17.	Reclining switch (power seat switch B459)	18.	Door mirror (driver side) D3	19.	Reclining motor B454	G
20.	Driver seat control unit B451, B452	21.	Lifting motor (front) B455	22.	Lifting motor (rear) B456	
23.	Sliding motor B461	24.	Sliding sensor B453			Н
H.	View with center console assembly removed	I.	View with seat cushion pad and sea back pad removed	t- J.	Backside of the seat cushion	

INTELLIGENT KEY INTERLOCK FUNCTION : Component Description

CONTROL UNITS

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

CONSULT Function

INFOID:000000010577369

APPLICATION ITEM

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

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.

SELF-DIAGNOSIS RESULTS Refer to <u>ADP-142, "DTC Index"</u>.

DATA MONITOR

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

Revision: 2015 February

DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

< SYSTEM DESCRIPTION >

Monitor Item	Unit	Main Signals	Selection From Menu	Contents	А
MIR CHNG SW-L	"ON/OFF"	×	×	ON/OFF status judged from the door mirror remote control switch (switching to left) signal.	В
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.	С
TELESCO SW-RR	"ON/OFF"	×	×	ON/OFF status judged from the telescoping switch (back-ward) signal.	D
DETENT SW	"ON/OFF"	×	×	The selector lever position "OFF (P position) / ON (other than P position)" judged from the detention switch signal.	
STARTER SW	"ON/OFF"	×	×	Ignition key switch ON (START, ON) /OFF (ACC, OFF) sta- tus judged from the ignition switch signal.	E
SLIDE PULSE	_	_	×	Value (32768) when battery connections are standard. If it moves backward, the value increases. If it moves forward, the value decreases.	F
RECLN PULSE	_	_	×	Value (32768) when battery connections are standard. If it moves backward, the value increases. If it moves forward, the value decreases.	G
LIFT FR PULSE	_	_	×	Value (32768) when battery connections are standard. If it moves DOWN, the value increases. If it moves UP, the value decreases.	Н
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.	AD
MIR/SEN LH U-D	"V"	_	×	Voltage input from door mirror sensor (driver side) up/down is displayed.	K
MIR/SEN LH R-L	"V"	_	×	Voltage input from door mirror sensor (driver side) left/right is displayed.	
TILT SEN	"V"	_	×	Voltage input from tilt sensor is displayed.	L
TELESCO SEN	"V"	-	×	Voltage input from telescopic sensor is displayed.	

ACTIVE TEST

CAUTION:

When driving vehicle, do not perform active test.

Test item	Description		
SEAT SLIDE	Activates/deactivates the sliding motor.		
SEAT RECLINING	Activates/deactivates the reclining motor.	(
SEAT LIFTER FR	Activates/deactivates the lifting motor (front).		
SEAT LIFTER RR	Activates/deactivates the lifting motor (rear).		
TILT MOTOR	Activates/deactivates the tilt motor.	F	
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

Revision: 2015 February

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DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

< SYSTEM DESCRIPTION >

Work item Content		Item
SEAT SLIDE VOLUME SET EXIT TILT SETTING EXIT SEAT SLIDE SETTING		40 mm
	The amount of seat sliding for entry/exit assist can be selected from 3 items.	80 mm
		150 mm
	Entry/exit assist (steering column) can be selected:	ON
	ON (operated) – OFF (not operated)	OFF
	Entry/exit assist (seat) can be selected:	ON
	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	Trouble diagnosis name	DTC detecting condition	Possible cause
U1000	CAN COMM CIR- CUIT	 Driver seat control unit cannot communicate to other control units. Driver seat control unit cannot communicate for more than the specified time. 	 Harness or connectors (CAN communication line is open or shorted)
DTC CONF	IRMATION PROC	EDURE	
1. STEP 1			
Turn ignition	switch ON and wait	t at least 3 seconds.	
>> (GO TO 2.		
2. STEP 2	30 10 2.		
Check "Self	diagnostic result" wi	th CONSULT.	
<u>Is the DTC d</u>	etected?		
	Perform diagnosis p NSPECTION END	procedure. Refer to <u>ADP-45, "Diagnosis Procedu</u>	<u>ıre"</u> .
	Procedure		INFOID:000000010577372
U			
	I-25, "Trouble Diagr		
Special Re	epair Requirem	ent	INFOID:000000010577373
Refer to ADF	P-9, "SYSTEM INIT	ALIZATION : Description".	

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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 forward/backward by changing the rotation direction of sliding motor.

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2112	SEAT SLIDE	The driver seat control unit detects the output of 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.RERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.

2. Check "Self diagnostic result" with CONSULT.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to <u>ADP-46, "Diagnosis Procedure"</u>.

NO >> INSPECTION END

NOTE:

First perform diagnosis for B2126 if B2126 is detected.

Diagnosis Procedure

INFOID:000000010577376

1.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Check "Self diagnostic result" with CONSULT.
- 3. Erase the DTC.
- 4. Perform DTC confirmation procedure. Refer to ADP-46, "DTC Logic".

Is the DTC displayed again?

- YES >> GO TO 2.
- NO >> Check intermittent incident. Refer to <u>GI-47. "Intermittent Incident"</u>.

2. CHECK SLIDING MOTOR CIRCUIT (POWER SHORT)

1. Turn ignition switch OFF.

- 2. Disconnect sliding motor and driver seat control unit connector.
- 3. Check voltage between sliding motor harness connector and ground.

(+) Sliding motor		(-)	Voltage (V) (Approx.)	
Connector	Terminals		(
	35	Ground	0	
D401	42	Ground	0	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

 $\mathbf{3}$.check driver seat control unit output signal

1. Connect driver seat control unit connector.

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

Revision: 2015 February

ADP-46

INFOID:000000010577374

B2112 SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

(+)		
Driver seat control unit		()	Voltage (V) (Approx.)
Connector	Terminals		(
B451	35	Ground	0
	42	Ground	0
the inspection result nor	<u>mal?</u>		
YES >> GO TO 4. NO >> Replace driver	seat control unit. Refer to A	DD 216 "Demoval and Inc	tallation"
.CHECK INTERMITTEN			
efer to <u>GI-47, "Intermitten</u>	tincident.		
>> 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 forward/backward by changing the rotation direction of reclining motor.

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2113	SEAT RECLINING	The driver seat control unit detects the output of re- clining motor output terminal for 0.1 second or more even if the reclining switch is not input.	 Driver seat control unit Reclining motor harness is power shorted

DTC CONFIRMATION PROCEDURE

1.REFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.

2. Check "Self diagnostic result" with CONSULT.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to <u>ADP-48, "Diagnosis Procedure"</u>.

NO >> INSPECTION END

NOTE:

First perform diagnosis for B2126 if B2126 is detected.

Diagnosis Procedure

1.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Check "Self diagnostic result" with CONSULT.
- 3. Erase the DTC.
- 4. Perform DTC confirmation procedure. Refer to <u>ADP-48, "DTC Logic"</u>.

Is the DTC displayed again?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u>.

2. CHECK RECLINING MOTOR CIRCUIT (POWER SHORT)

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

(+) Reclining motor		()	Voltage (V) (Approx.)	
Connector	Terminals		(
B454	36	Ground	0	
D404	44	Giðunu	U	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

$\mathbf{3}$.check driver seat control unit output signal

1. Connect driver seat control unit connector.

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

ADP-48

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B2113 RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Driver sear control unit (-) (Approx.) Connector Terminals 0 B451 36 Ground 0 the inspection result normal?		+)		Voltage (V)
B451 36 44 Ground 0 the inspection result normal? ES >> GO TO 4. 0 O >> Replace driver seat control unit. Refer to ADP-216, "Removal and Installation". CHECK INTERMITTENT INCIDENT CHECK INTERMITTENT INCIDENT . fer to GI-47, "Intermittent Incident".			(-) Voltage (V) (Approx.)	
B451 Ground 0 the inspection result normal? ES >> GO TO 4. O >> Replace driver seat control unit. Refer to <u>ADP-216. "Removal and Installation"</u> . .CHECK INTERMITTENT INCIDENT	Connector			
44 the inspection result normal? ES >> GO TO 4. O >> Replace driver seat control unit. Refer to <u>ADP-216, "Removal and Installation"</u> . CHECK INTERMITTENT INCIDENT ifer to <u>GI-47, "Intermittent Incident"</u> .	B451		- Ground	0
ES >> GO TO 4. O >> Replace driver seat control unit. Refer to <u>ADP-216, "Removal and Installation"</u> . CHECK INTERMITTENT INCIDENT fer to <u>GI-47, "Intermittent Incident"</u> .				
 >> Replace driver seat control unit. Refer to <u>ADP-216, "Removal and Installation"</u>. CHECK INTERMITTENT INCIDENT fer to <u>GI-47, "Intermittent Incident"</u>. 		nal?		
CHECK INTERMITTENT INCIDENT fer to <u>GI-47, "Intermittent Incident"</u> .		aget control unit. Defer to	NDD 216 "Domoval and Inc	tallation"
fer to <u>GI-47, "Intermittent Incident"</u> .	•		ADF-210, Removal and ms	
>> INSPECTION END	efer to <u>GI-47, "Intermitten</u>	t Incident".		

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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:000000010577381

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.RERFORM DTC CONFIRMATION PROCEDURE

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

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to <u>ADP-50, "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 with CONSULT.
- 3. Check tilt sensor signal under the following condition.

Monitor item	Condition	Value
TILT SEN	Tilt position	Change between 1.2 [V] (close to top) 3.4 [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	Automatic drive positioner control unit		Tilt & telescopic sensor		
Connector	Terminal	Connector Terminal		Continuity	
M51	7	M48	3	Existed	

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

B2118 TILT SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Automatic di					
	rive positioner control unit				Continuity
Connector	Termina	al	Ground		Continuity
M51	7				Not existed
CHECK TILT SENSO	eplace harness.		ector.		
 Turn ignition switch Check voltage betw 		sensor harne	ess connector and grou	ınd.	
	(+)				
Tilt &	telescopic sensor		(–)		Voltage (V) (Approx.)
Connector	Termina	al			
M48 s the inspection result r	1		Ground		5
	OFF. tic drive positioner co etween automatic driv	ontrol unit co	nnector. r control unit harness o	connecto	or and tilt & telesco
Automatic drive po	sitioner control unit		Tilt & telescopic sensor		
Connector	Terminal	Connec	ctor Termina		Continuity
M52	33	M48	3 1		Existed
	etween automatic driv	e positioner	control unit harness co	onnector	and ground.
Connector	Termina	al	Ground		Continuity
			Oloulu		Continuity
M52	33				Not existed
s the inspection result in YES YES >> Replace au NO NO >> Repair or result in the second s	normal? tomatic drive position eplace harness. DR GROUND CIRCU OFF. tic drive positioner co etween automatic driv	IT	nit. Refer to <u>ADP-216, "</u>		Not existed
 <u>s the inspection result i</u> YES >> Replace au NO >> Repair or result in the second second	normal? tomatic drive position eplace harness. DR GROUND CIRCU OFF. tic drive positioner co etween automatic driv	IT ontrol unit co ve positione	nit. Refer to <u>ADP-216, "</u> nnector. r control unit harness o		Not existed
 <u>s the inspection result i</u> YES >> Replace au NO >> Repair or result if NO >> Repair or result CHECK TILT SENSO Turn ignition switch Disconnect automa Check continuity be sensor harness cor Automatic drive po 	normal? tomatic drive position eplace harness. DR GROUND CIRCU OFF. tic drive positioner co etween automatic driv nnector.	IT ontrol unit co ve positione	nit. Refer to <u>ADP-216, "</u> nnector. r control unit harness o	connecto	Not existed
 <u>s the inspection result i</u> YES >> Replace au NO >> Repair or result in the second second	normal? tomatic drive position eplace harness. DR GROUND CIRCU OFF. tic drive positioner co etween automatic driv	IT ontrol unit co ve positione	nit. Refer to <u>ADP-216, "</u> nnector. r control unit harness o Tilt & telescopic sensor ctor Termina	connecto	Not existed al and Installation". For and tilt & telesco

Refer to GI-47, "Intermittent Incident".

>> INSPECTION END

B2119 TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

B2119 TELESCOPIC SENSOR

Description

- The telescopic sensor is installed to the steering column assembly.
- В 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 tele-С scopic sensor resistance. Automatic drive positioner control unit calculates the telescopic position from the voltage.

DTC Logic

INFOID:000000010577384 D

INFOID:000000010577383

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DTC DETECTION LOGIC

b2119 SOR 0.1V or more than 4.9V. sor power supply circuit is opened/shorted.) • Telescopic sensor • Telescopic sensor • C CONFIRMATION PROCEDURE	DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
RERFORM DTC CONFIRMATION PROCEDURE Turn ignition switch ON. Check "Self diagnostic result" with CONSULT. the DTC is detected? ES >> Perform diagnosis procedure. Refer to ADP-53. "Diagnosis Procedure". Image: Image	B2119			(Telescopic sensor circuit is opened/shorted, telescopic sen- sor power supply circuit is opened/shorted.)
Turn ignition switch ON. Check "Self diagnostic result" with CONSULT. the DTC is detected? ES >> Perform diagnosis procedure. Refer to ADP-53. "Diagnosis Procedure". IO >> INSPECTION END agnosis Procedure INFORMATION END CHECK TELESCOPIC SENSOR SIGNAL Information switch ON. Select "TELESCO SEN" in "Data monitor" mode with CONSULT. Check the tilt sensor signal under the following condition. Monitor item Condition Value TELESCO SEN Telescopic position 0.8 [V] (close to top) 3.4 [V] (close to bottom) 3.4 [V] (close to bottom) the valve normal? ES >> GO TO 6. IO >> GO TO 2. .CHECK TELESCOPIC SENSOR CIRCUIT CHECK TELESCOPIC SENSOR CIRCUIT	FC CONF	IRMATION PROC	EDURE	
Check "Self diagnostic result" with CONSULT. the DTC is detected? ES >> Perform diagnosis procedure. Refer to ADP-53. "Diagnosis Procedure". IO >> INSPECTION END agnosis Procedure	RERFOR	M DTC CONFIRMA	TION PROCEDURE	
the DTC is detected? ES >> Perform diagnosis procedure. Refer to ADP-53. "Diagnosis Procedure". IO >> INSPECTION END agnosis Procedure INSPECTION END agnosis Procedure CHECK TELESCOPIC SENSOR SIGNAL Turn ignition switch ON. Select "TELESCO SEN" in "Data monitor" mode with CONSULT. Check the tilt sensor signal under the following condition. Monitor item Condition Value Change between 0.8 [V] (close to top) 3.4 [V] (close to bottom) the valve normal? ES >> GO TO 6. O CIRCUIT			t" with CONSULT	
ES >> Perform diagnosis procedure. Refer to <u>ADP-53. "Diagnosis Procedure"</u> . agnosis Procedure INSPECTION END agnosis Procedure INFORMATION END CHECK TELESCOPIC SENSOR SIGNAL INFORMATION END Turn ignition switch ON. Select "TELESCO SEN" in "Data monitor" mode with CONSULT. Select "TELESCO SEN" in "Data monitor" mode with CONSULT. Change between Monitor item Condition TELESCO SEN Telescopic position 0.8 [V] (close to top) 3.4 [V] (close to bottom) the valve normal? ES ES >> GO TO 6. O >> GO TO 2. CHECK TELESCOPIC SENSOR CIRCUIT Circulate context in the sensor circlate context in the sensor circulate contex		-		
agnosis Procedure INFOIL CONSIDERATE CHECK TELESCOPIC SENSOR SIGNAL Info and the construction of the constructi			rocedure. Refer to ADP-53, "Diagnosis Pro	cedure".
CHECK TELESCOPIC SENSOR SIGNAL Turn ignition switch ON. Select "TELESCO SEN" in "Data monitor" mode with CONSULT. Check the tilt sensor signal under the following condition. Monitor item Condition Value TELESCO SEN Telescopic position 0.8 [V] (close to top) 3.4 [V] (close to bottom) the valve normal? ES > GO TO 6. IO >> GO TO 2. CHECK TELESCOPIC SENSOR CIRCUIT	10 >>1	NSPECTION END	-	
Turn ignition switch ON. Select "TELESCO SEN" in "Data monitor" mode with CONSULT. Check the tilt sensor signal under the following condition. Monitor item Condition Value Monitor item Condition Value TELESCO SEN Telescopic position 0.8 [V] (close to top) 3.4 [V] (close to bottom) 3.4 [V] (close to bottom) ES > GO TO 6. O O >> GO TO 2. CHECK TELESCOPIC SENSOR CIRCUIT	iagnosis	Procedure		INFOID:000000010
Select "TELESCO SEN" in "Data monitor" mode with CONSULT. Check the tilt sensor signal under the following condition. Monitor item Condition Value Monitor item Condition Value TELESCO SEN Telescopic position 0.8 [V] (close to top) 3.4 [V] (close to bottom) the valve normal? ES >> GO TO 6. IO >> GO TO 2. CHECK TELESCOPIC SENSOR CIRCUIT Curculation	.CHECK T	ELESCOPIC SENS	OR SIGNAL	
TELESCO SEN Telescopic position Change between 0.8 [V] (close to top) 3.4 [V] (close to bottom) the valve normal? ES >> GO TO 6. IO >> GO TO 2. CHECK TELESCOPIC SENSOR CIRCUIT	Select "7	TELESCO SEN" in "		
TELESCO SEN Telescopic position 0.8 [V] (close to top) 3.4 [V] (close to bottom) the valve normal? ES >> GO TO 6. IO >> GO TO 2. CHECK TELESCOPIC SENSOR CIRCUIT	N	Ionitor item	Condition	Value
ES >> GO TO 6. IO >> GO TO 2. CHECK TELESCOPIC SENSOR CIRCUIT	TELESCO	SEN		0.8 [V] (close to top)
IO >> GO TO 2. CHECK TELESCOPIC SENSOR CIRCUIT				
	-			
Turn ignition switch OFF.				
	.CHECK T	ELESCOPIC SENS		

- 2. Disconnect automatic drive positioner control unit and tilt & telescopic sensor connector.
- Ρ 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	23	M48	2	Existed	

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

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.)	
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 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	Automatic drive positioner 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-216, "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 positioner control unit		Tilt & telescopic 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-47, "Intermittent Incident".

B2119 TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >	
>> INSPECTION END	A
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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:000000010577387

INFOID:000000010577386

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.RERFORM DTC CONFIRMATION PROCEDURE

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

Is the DTC detected?

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

Diagnosis Procedure

1. CHECK DTC WITH "BCM"

Check "Self diagnostic result" for BCM with CONSULT.

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

YES >> Check the DTC. Refer to <u>BCS-88, "DTC Index"</u>.

NO >> GO TO 2.

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

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

Is the DTC detected?

YES >> Check the DTC. Refer to <u>MWI-117, "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 with CONSULT.
- 3. Check detention switch signal under the following condition.

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

Is the status normal?

YES >> GO TO 5.

NO >> GO TO 4.

CHECK DETENTION SWITCH CIRCUIT

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 shift 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 seat	Driver seat control unit		Continuity	
Connector	Terminal	Ground	Continuity	
B451	21	-	Not existed	
Is the inspection result norma	<u>al?</u>			
YES >> Replace driver se	eat control unit. Refer to <u>A</u>	DP-216, "Removal and In	stallation".	
NO >> Repair or replace	e harness.			
F				
5. CHECK INTERMITTENT I	INCIDENT			
5. CHECK INTERMITTENT I Refer to <u>GI-47, "Intermittent I</u>				

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B2128 UART COMMUNICATION LINE

Description

INFOID:000000010577389

INFOID:000000010577390

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 automatic drive positioner control unit is interrupt- ed 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.RERFORM DTC CONFIRMATION PROCEDURE

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

Is the DTC detected?

- YES >> Perform diagnosis procedure. Refer to <u>ADP-58</u>, "Diagnosis Procedure".
- NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000010577391

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	t control unit	Automatic drive po	c drive positioner control unit Continuit	
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		Continuity	
Connector	Terminal	Ground		
B451	1	Ground	Not existed	
	17		NOT EXISTED	

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".

NO >> Repair or replace harness.

PC < DTC/CIRCUIT DIAGNOSI		D GROUND CIRCU	ІТ
POWER SUPPLY AI		CUIT	A
BCM : Diagnosis Proce	edure		INFOID:000000010577392
1.CHECK FUSE AND FUSI			В
Check that the following fuse		owp	
		Gwii.	С
Signal	name		usible link No.
Battery pov	ver supply		L D
Is the fuse fusing? YES >> Replace the blow blown. NO >> GO TO 2. 2.CHECK POWER SUPPLY		r repairing the affected cir	cuit if a fuse or fusible link is □ □ □
 Turn ignition switch OFF. Disconnect BCM connect Check voltage between E 	tors. 3CM harness connector a	nd ground.	G
	(+)		Voltage H
BC Connector	M Terminal	(-)	(Approx.)
M118	1		
M119	11	Ground	Battery voltage
Is the measurement value noYES>> GO TO 3.NO>> Repair or replace 3. CHECK GROUND CIRCUCheck continuity between BC	e harness. IT	l ground.	AD
BC	Μ		Continuity
Connector	Terminal	Ground	
M119 Does continuity exist? YES >> INSPECTION EN NO >> Repair or replace DRIVER SEAT CONT DRIVER SEAT CONTF NOTE: Do not disconnect the batter	harness. ROL UNIT ROL UNIT : Diagnos		Existed M INFOID:000000010577393 C c connector until DTC is con-
firmed with CONSULT. 1.CHECK POWER SUPPLY			P
1. Turn ignition switch OFF.		ness connector and groun	d.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

	+) control unit	(-)	Voltage (V) (Approx.)	
Connector	Terminal		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
B452	33	Ground	Battery voltage	
D432	40	Ground	Ballery Vollage	

Is the inspection result normal?

YES >> GO TO 2.

NO

>> Check the following.

• Harness between driver seat control unit and fuse block (J/B).

Circuit breaker.

2. CHECK GROUND CIRCUIT

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

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

Is the inspection result normal?

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

NO >> Repair or replace harness between driver seat control unit and ground.

DRIVER SEAT CONTROL UNIT : Special Repair Requirement

INFOID:000000010577394

1.PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

>> Refer to ADP-8, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description".

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

AUTOMATIC DRIVE POSITIONER CONTROL UNIT : Diagnosis Procedure

INFOID:000000010577395

NOTE:

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

1.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.

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

	+) sitioner control unit	()	Voltage (V) (Approx.)
Connector	Terminal		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
M52	34	Ground	Battery voltage
WJ2	39	Ground	Ballery vollage

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness between automatic drive positioner control unit and fuse block (J/B). 2.CHECK GROUND CIRCUIT

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

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Automatic unve po	ositioner control unit		Continuity	
Connector	Terminal	Ground	Continuity	
M52	40	Giodila	Existed	
11132	48		Existed	
IO >> Repair or replac	positioner control unit pow e harness between automa	er supply and ground circu atic drive positioner control	unit and ground.	
		ROL UNIT : Special F	Repair Requirement	
PERFORM ADDITIONAL				
erform additional service w	hen removing battery nega	ative terminal.		
>> Refer to <u>ADP-8,</u> <u>: Description"</u> .	"ADDITIONAL SERVICE	WHEN REMOVING BATT	ERY NEGATIVE TERMINAL	
				/

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 with CONSULT.
- 3. Check sliding switch signal under the following conditions.

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

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:000000010577399

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		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
	11	Ground	Patton voltago	
	26	Ground	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.
- 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	11	B459	11	Existed		
5451	26	5435	26			

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

INFOID:000000010577397

SLIDING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Driv	ver seat control unit				Continuity
Connector	٦	Terminal		Ground	Continuity
B451		11		Ground	Not existed
		26			NOT EXISTED
s the inspection result	normal?				
	river seat control replace harness.		<u>DP-216, "</u>	Removal and Ins	stallation".
3.check sliding s	WITCH				
Refer to <u>ADP-63, "Con</u>	nponent Inspecti	<u>on"</u> .			
s the inspection result	normal?				
YES >> GO TO 4.					
	ower seat switch		<u>219, "Rem</u>	ioval and Installa	<u>ation"</u> .
4. CHECK INTERMIT					
Refer to <u>GI-47, "Interm</u>	ittent Incident".				
NODEOT					
>> INSPECTI	-				
Component Inspe	ction				INFOID:000000010577400
1. CHECK SLIDING S	МІТСН				
 Turn ignition switcl Disconnect power 		nector			
3. Check continuity b			nals.		
	- (¹) - b				
Power sea			Condi	ition	Continuity
Term	inai			Onoroto	
	11	Sliding switch (t	backward)	Operate	Existed
32				Release	Not existed
	26	Sliding switch (f	forward)	Operate	Existed
				Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END

Revision: 2015 February

NO >> Replace power seat switch. Refer to <u>ADP-219</u>, "Removal and Installation".

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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 with CONSULT.
- 3. Check reclining switch signal under the following conditions.

Monitor item	Condition	Condition		
RECLINE SW-FR	Reclining switch (forward)	Operate	ON	
RECLINE SW-FR	Reclining Switch (lorward)	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-64, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000010577403

- 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	Ratteny voltage	
	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.
- 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 12 B459		12	Existed
D431	27	5435	27	

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

INFOID:000000010577401

RECLINING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Driv	er seat control unit			Continuity
Connector		Terminal	Cround	Continuity
		12	Ground	Not existed
D401		27		NUL EXISIEU
s the inspection result	normal?			
NO >> Repair or r	eplace harness	ol unit. Refer to <u>ADP-216, "</u>	Removal and In	istallation".
\mathbf{S} .CHECK RECLINING	SWITCH			
Refer to ADP-65, "Com	ponent Inspect	tion".		
s the inspection result	normal?			
YES >> GO TO 4.		h Deferte ADD 240 IIDem	evel and install	ation!
NO >> Replace po .CHECK INTERMITT		h. Refer to <u>ADP-219, "Rem</u> +	ioval and Install	<u>ation</u> .
Refer to <u>GI-47, "Interm</u>	ittent Incident".			
>> INSPECTI				
	-			
Component Inspe	CUON			INFOID:00000001057740
.CHECK RECLINING	SWITCH			
. Turn ignition switch	OFF.			
2. Disconnect power	seat switch cor			
B. Check continuity be	etween power s	seat switch terminals.		
Power sea	t switch		(*	
-	nal	Condi	tion	Continuity
Termi			Operate	Existed
Termi	40	Declining owitch (healguest)	oporato	Exioted
	12	Reclining switch (backward)	Release	Not existed
32 –	12	Reclining switch (backward) Reclining switch (forward)		

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to <u>ADP-219</u>, "Removal and Installation".

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LIFTING SWITCH (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SWITCH (FRONT)

Description

INFOID:000000010577405

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:000000010577406

1.CHECK FUNCTION

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

Monitor item	Condition		Status
LIFT FR SW-UP	Lifting quitch front (up)	Operate	ON
LIFT FR SW-OP	Lifting switch front (up)	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-66. "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000010577407

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	Battery voltage	
	28			

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

Driver sea	at control unit	Power seat switch Connector Terminal		Continuity
Connector	Terminal			Continuity
B451	13	B459	13	Existed
0401	28	5435	28	

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

LIFTING SWITCH (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

D	river seat control unit			Continuity
Connector		Terminal	Ground	Continuity
B451		13	Glound	Not existed
		28		Not existed
s the inspection resu	<u>ilt normal?</u>			
		ol unit. Refer to <u>ADP-216.</u>	"Removal and Inst	tallation".
	r replace harness			
3. CHECK LIFTING	SWITCH (FRON	Γ)		
Refer to <u>ADP-67, "Co</u>		<u>tion"</u> .		
s the inspection resu				
YES >> GO TO 4 NO >> Replace	-	h. Refer to <u>ADP-219, "Re</u>	moval and Installat	ion"
1. CHECK INTERMI	-			<u></u> .
Refer to <u>GI-47, "Inter</u>	mittent Incident".			
>> INSPEC				
	-			
Component Insp	ection			INFOID:000000010577408
1.CHECK LIFTING	SWITCH (FRON	T)		
1. Turn ignition swit		• /		
2. Disconnect powe		nnector.		
		seat switch terminals.		
	and a Mala			
	eat switch	Cond	dition	Continuity
Ierr	ninal		Onenate	Eviated
	13	Lifting switch front (down)	Operate	Existed
32			Release	Not existed
	28	Lifting switch front (up)	Operate	Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to <u>ADP-219</u>, "Removal and Installation".

Lifting switch front (up)

Release

28

M

L

Not existed

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LIFTING SWITCH (REAR)

Description

INFOID:000000010577409

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:000000010577410

1.CHECK FUNCTION

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

Monitor item	Condition	Status	
LIFT RR SW-UP	Lifting owitch roor (up)	Operate	ON
LIFT RR SW-OP	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-68. "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000010577411

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.

(+) Power seat switch		()	Voltage (V) (Approx.)	
Connector	Terminal		(
B459	14	Ground	Patton voltago	
0409	29	Giouna	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.
- Check continuity between driver seat control unit harness connector and power seat switch harness connector.

Driver sea	t control unit	Power sear switch Connector Terminal		Continuity
Connector	Terminal			Continuity
B451	14	B459	14	Existed
D431	29	5409	29	

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

LIFTING SWITCH (REAR)

< DTC/CIRCUIT DIAGNOSIS >

	er seat control unit			Continuity	
Connector	Те	rminal	ro.und	Continuity	
 D451		14	round	Not evicted	
B451		29		Not existed	
the inspection result	normal?				
	iver seat control ι eplace harness.	init. Refer to <u>ADP-216, "R</u>	emoval and Ir	nstallation".	
CHECK LIFTING SV	WITCH (REAR)				
efer to ADP-69, "Com	ponent Inspectior	<u>ו"</u> .			
the inspection result	normal?				
'ES >> GO TO 4.				L. (1 II	
		Refer to <u>ADP-219, "Remo</u>	val and Install	lation".	
CHECK INTERMITT					
efer to <u>GI-47, "Intermi</u>	ittent Incident".				
>> INSPECTION					
omponent Inspe	ction				
	CIUT			INFOID:000000010577	
				INFOID:000000010577	
CHECK LIFTING SV	WITCH (REAR)			INFOID:000000010577	
CHECK LIFTING SV	WITCH (REAR)	ctor.		INFOID:000000010577	
CHECK LIFTING SV	WITCH (REAR) OFF. seat switch conne			INFOID:000000010577	
CHECK LIFTING SV Turn ignition switch Disconnect powers Check continuity be	WITCH (REAR) n OFF. seat switch conne etween power sea			INFOID:00000001057;	
CHECK LIFTING SV Turn ignition switch Disconnect power s Check continuity be Power se	WITCH (REAR) n OFF. seat switch conne etween power sea eat switch		tion	INFOID:00000001057	
CHECK LIFTING SV Turn ignition switch Disconnect power s Check continuity be Power se	WITCH (REAR) n OFF. seat switch conne etween power sea eat switch minal	at switch terminals.	 T		
CHECK LIFTING SV Turn ignition switch Disconnect power so Check continuity be Power so Terr	WITCH (REAR) n OFF. seat switch conne etween power sea eat switch	at switch terminals.	tion Operate Release	Continuity	
CHECK LIFTING SV Turn ignition switch Disconnect power s Check continuity be Power se	WITCH (REAR) n OFF. seat switch conne etween power sea eat switch ninal 14	at switch terminals. Condi Lifting switch rear (up)	Operate	Continuity Existed	
CHECK LIFTING SV Turn ignition switch Disconnect power so Check continuity be Power so Terr	WITCH (REAR) n OFF. seat switch conne etween power sea eat switch minal	at switch terminals.	Operate Release	Continuity Existed Not existed	
CHECK LIFTING SV Turn ignition switch Disconnect power so Check continuity be Power so Terr 32	WITCH (REAR) n OFF. seat switch conne etween power sea eat switch ninal 14 29	at switch terminals. Condi Lifting switch rear (up)	Operate Release Operate	Continuity Existed Not existed Existed	
CHECK LIFTING SV Turn ignition switch Disconnect power so Check continuity be Power so Terr 32 the inspection result	WITCH (REAR) DOFF. seat switch connective of the sear switch minal 14 29 normal?	at switch terminals. Condi Lifting switch rear (up)	Operate Release Operate	Continuity Existed Not existed Existed	
CHECK LIFTING SV Turn ignition switch Disconnect power so Check continuity be Power so Terr 32 the inspection result (ES >> INSPECTIO	WITCH (REAR) OFF. seat switch conne etween power sea eat switch minal 14 29 <u>normal?</u> ON END	at switch terminals. Condi Lifting switch rear (up)	Operate Release Operate Release	Continuity Existed Not existed Existed Not existed	
CHECK LIFTING SV Turn ignition switch Disconnect power so Check continuity be Power so Terr 32 the inspection result (ES >> INSPECTIO	WITCH (REAR) OFF. seat switch conne etween power sea eat switch minal 14 29 <u>normal?</u> ON END	Lifting switch rear (up)	Operate Release Operate Release	Continuity Existed Not existed Existed Not existed	
CHECK LIFTING SV Turn ignition switch Disconnect power so Check continuity be Power so Terr 32 the inspection result (ES >> INSPECTIO	WITCH (REAR) OFF. seat switch conne etween power sea eat switch minal 14 29 <u>normal?</u> ON END	Lifting switch rear (up)	Operate Release Operate Release	Continuity Existed Not existed Existed Not existed	

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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-DOWN" in "Data monitor" mode with CONSULT.
- 3. Check tilt switch signal under the following conditions.

Monitor item	Condition		Status
TILT SW-UP	Tilt quitch (up)	Operate	ON
HEI SW-OP	Tilt switch (up)	Release	OFF
TILT SW-DOWN	Tilt switch (down)	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:000000010577415

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	Terminal		(Approx.)	
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 Connector Terminal		Continuity	
Connector	Terminal			Continuity	
M51	1	M31	4	Existed	
	17	10131	5		

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

INFOID:000000010577413

TILT SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Autom	-			Continuity
Connecto	or Te	erminal	Ground	
M51		1		Not existed
		17		
the inspection re				
NO >> Repair	or replace harness.	sitioner control unit. Re	eter to <u>ADP-217, "</u>	'Removal and Installation".
\mathbf{B} .CHECK TILT SV	VITCH			
efer to <u>ADP-71, "(</u>	Component Inspectio	<u>n"</u> .		
s the inspection re				
YES >> GO TO		itah Dafar ta ADD 000		estellation"
	AITTENT INCIDENT	itch. Refer to <u>ADP-220</u>	Removal and Ir	
efer to <u>GI-47, "Int</u>	ermittent Incident".			
	CTION END			
Component Ins	spection			INFOID:000000010577
.CHECK TILT SV	VITCH			
	witch OFF			
. Turn ignition sv		onnector.		
. Turn ignition sv . Disconnect tilt	& telescopic switch c	connector. scopic switch terminals	5.	
 Turn ignition sv Disconnect tilt Check continui 	& telescopic switch c ty between tilt & teles		5.	
 Turn ignition sv Disconnect tilt Check continui 	& telescopic switch c	scopic switch terminals	S. Condition	Continuity
 Turn ignition sv Disconnect tilt Check continui 	& telescopic switch c ty between tilt & teles telescopic switch Terminal	scopic switch terminals		Continuity Existed
. Turn ignition sv . Disconnect tilt . Check continui Tilt &	& telescopic switch c ty between tilt & teles telescopic switch	scopic switch terminals	Condition	-
 Turn ignition sv Disconnect tilt Check continui 	& telescopic switch c ty between tilt & teles telescopic switch Terminal 4	Tilt switch (up)	Condition Operate	Existed
. Turn ignition sv . Disconnect tilt . Check continui Tilt &	& telescopic switch c ty between tilt & teles telescopic switch Terminal	scopic switch terminals	Condition Operate Release	Existed Not existed
Turn ignition sv Disconnect tilt Check continui Tilt &	& telescopic switch c ty between tilt & teles telescopic switch Terminal 4 5	Tilt switch (up)	Condition Operate Release Operate	Existed Not existed Existed
Turn ignition sv Disconnect tilt Check continui Tilt & 1 the inspection re	& telescopic switch c ty between tilt & teles telescopic switch Terminal 4 5 sult normal?	Tilt switch (up)	Condition Operate Release Operate	Existed Not existed Existed
Turn ignition sv Disconnect tilt Check continui Tilt & 1 <u>the inspection re</u> (ES >> INSPE	& telescopic switch c ty between tilt & teles telescopic switch Terminal 4 5 sult normal? CTION END	Tilt switch (up)	Condition Operate Release Operate Release	Existed Not existed Existed Not existed
Turn ignition sv Disconnect tilt Check continui Tilt &	& telescopic switch c ty between tilt & teles telescopic switch Terminal 4 5 sult normal? CTION END	Tilt switch (down)	Condition Operate Release Operate Release	Existed Not existed Existed Not existed
. Turn ignition sv . Disconnect tilt . Check continui 	& telescopic switch c ty between tilt & teles telescopic switch Terminal 4 5 sult normal? CTION END	Tilt switch (down)	Condition Operate Release Operate Release	Existed Not existed Existed Not existed
. Turn ignition sv . Disconnect tilt . Check continui 	& telescopic switch c ty between tilt & teles telescopic switch Terminal 4 5 sult normal? CTION END	Tilt switch (down)	Condition Operate Release Operate Release	Existed Not existed Existed Not existed
. Turn ignition sv Disconnect tilt Check continui Tilt & 1 s the inspection re YES >> INSPE	& telescopic switch c ty between tilt & teles telescopic switch Terminal 4 5 sult normal? CTION END	Tilt switch (down)	Condition Operate Release Operate Release	Existed Not existed Existed Not existed
Turn ignition sv Disconnect tilt Check continui Tilt & 1 the inspection re YES >> INSPE	& telescopic switch c ty between tilt & teles telescopic switch Terminal 4 5 sult normal? CTION END	Tilt switch (down)	Condition Operate Release Operate Release	Existed Not existed Existed Not existed
. Turn ignition sv Disconnect tilt Check continui Tilt & 1 s the inspection re YES >> INSPE	& telescopic switch c ty between tilt & teles telescopic switch Terminal 4 5 sult normal? CTION END	Tilt switch (down)	Condition Operate Release Operate Release	Existed Not existed Existed Not existed
. Turn ignition sv Disconnect tilt Check continui Tilt & 1 s the inspection re YES >> INSPE	& telescopic switch c ty between tilt & teles telescopic switch Terminal 4 5 sult normal? CTION END	Tilt switch (down)	Condition Operate Release Operate Release	Existed Not existed Existed Not existed
. Turn ignition sv . Disconnect tilt . Check continui 	& telescopic switch c ty between tilt & teles telescopic switch Terminal 4 5 sult normal? CTION END	Tilt switch (down)	Condition Operate Release Operate Release	Existed Not existed Existed Not existed
. Turn ignition sv . Disconnect tilt . Check continui 	& telescopic switch c ty between tilt & teles telescopic switch Terminal 4 5 sult normal? CTION END	Tilt switch (down)	Condition Operate Release Operate Release	Existed Not existed Existed Not existed

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 with CONSULT.
- 3. Check telescopic switch signal under the following conditions.

Monitor item	Condition		Status
TELESCO SW-FR	Telescopic switch (forward)	Operate	ON
TELESCO SW-FR	relescopic switch (lorward)	Release	OFF
TELESCO SW-RR	Telescopic switch (backward)	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:000000010577419

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	Terminal		(Αρριοχ.)	
 M31	2	Ground	Battery voltage	
10151	3	Ground	Dattery 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
	27	10131	3	

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

INFOID:000000010577417

TELESCOPIC SWITCH

< DTC/CIRCUIT DIAGNOSIS >

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-217. "Re</u> NO >> Repair or replace harness. .CHECK TELESCOPIC SWITCH the inspection result normal? YES >> GO TO 4. NO >> Replace tilt & telescopic switch. Refer to <u>ADP-220. "Removal and Insta</u> .CHECK INTERMITTENT INCIDENT tefer to <u>GI-47. "Intermittent Incident"</u> . >> INSPECTION END	
M51 27 a the inspection result normal? YES >> Replace automatic drive positioner control unit. Refer to ADP-217. "Re NO >> Repair or replace harness. .CHECK TELESCOPIC SWITCH Refer to ADP-73, "Component Inspection". a the inspection result normal? YES >> GO TO 4. NO >> Replace tilt & telescopic switch. Refer to ADP-220, "Removal and Insta". .CHECK INTERMITTENT INCIDENT Refer to GI-47, "Intermittent Incident". >> INSPECTION END	moval and Installation".
s the inspection result normal? YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-217. "Re</u> NO >> Repair or replace harness. CHECK TELESCOPIC SWITCH Refer to <u>ADP-73. "Component Inspection"</u> . <u>s the inspection result normal?</u> YES >> GO TO 4. NO >> Replace tilt & telescopic switch. Refer to <u>ADP-220. "Removal and Insta</u> 1 .CHECK INTERMITTENT INCIDENT Refer to <u>GI-47. "Intermittent Incident"</u> . >> INSPECTION END	
YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-217. "Re</u> NO >> Repair or replace harness. CHECK TELESCOPIC SWITCH Refer to <u>ADP-73. "Component Inspection"</u> . <u>s the inspection result normal?</u> YES >> GO TO 4. NO >> Replace tilt & telescopic switch. Refer to <u>ADP-220. "Removal and Insta</u> 1 .CHECK INTERMITTENT INCIDENT Refer to <u>GI-47. "Intermittent Incident"</u> . >> INSPECTION END	
Refer to ADP-73. "Component Inspection". a the inspection result normal? YES >> GO TO 4. NO >> Replace tilt & telescopic switch. Refer to ADP-220. "Removal and Insta CHECK INTERMITTENT INCIDENT Refer to GI-47. "Intermittent Incident". >> INSPECTION END	allation".
<pre>is the inspection result normal? YES >> GO TO 4. NO >> Replace tilt & telescopic switch. Refer to ADP-220. "Removal and Insta 4.CHECK INTERMITTENT INCIDENT Refer to GI-47. "Intermittent Incident". >> INSPECTION END</pre>	<u>allation"</u> .
YES >> GO TO 4. NO >> Replace tilt & telescopic switch. Refer to <u>ADP-220. "Removal and Insta</u> 4. CHECK INTERMITTENT INCIDENT Refer to <u>GI-47, "Intermittent Incident"</u> . >> INSPECTION END	<u>allation"</u> .
4.CHECK INTERMITTENT INCIDENT Refer to <u>GI-47, "Intermittent Incident"</u> . >> INSPECTION END	
Refer to <u>GI-47, "Intermittent Incident"</u> . >> INSPECTION END	
Component Inspection	
	INFOID:0000000105
1.CHECK TELESCOPIC SWITCH	
 Turn ignition switch OFF. Disconnect tilt & telescopic switch connector. Check continuity between tilt & telescopic switch terminals. 	
Tilt & telescopic switch Condition	Continuity
Terminal	Continuity
2 Telescopic switch (forward) Operate	Existed
1 Release	Not existed
3 Telescopic switch (backward) Operate	Existed
Release	Not existed

< DTC/CIRCUIT DIAGNOSIS >

SEAT MEMORY SWITCH

Description

INFOID:000000010577421

INFOID:000000010577422

Set switch or memory switch 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 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 with CONSULT.
- 3. Check seat memory switch signal under the following conditions.

Monitor item	Condi	tion	Status
SET SW	SET SW	Push	ON
SET SW SET SW	Release	OFF	
MEMORY SW 1	Momony quitch 1	Push	ON
WEWORT SW I	Memory switch 1	Release	OFF
	Mamony quitch 2	Push	ON
MEMORY SW 2	Memory switch 2	Release	OFF

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:000000010577423

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		(
	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 >

Connector Terminal Connector Terminal 0 1 1 4 D5 2 4. Check continuity between automatic drive positioner control unit harness connector and ground. Automatic drive positioner control unit Continuity 4. Oconnector Terminal 9 Ground Continuity 4. 9 Ground M51 24 D5 9 Ground Not existed 125 >> Replace automatic drive positioner control unit. Refer to ADDP-217, "Removal and Installation". NO >> Replace automatic drive positioner control unit. Refer to ADDP-217, "Removal and Installation". NO >> Replace automatic drive positioner control unit. Refer to ADDP-217, "Removal and Installation". Scheck K MEMORY SWITCH GROUND CIRCUIT 1. Turn ignition switch OFF. Continuity Connector Terminal Ground Continuity Seat memory switch Ground Continuity D5 4 Existed Existed Is the inspection result normal?<	Automatic drive po	sitioner control unit	Seat m	emory switch	Continuity
M51 24 D5 3 Existed 4. Check continuity between automatic drive positioner control unit harness connector and ground. Automatic drive positioner control unit Ground Automatic drive positioner control unit Ground Automatic drive positioner control unit Ground Automatic drive positioner control unit. Ground M51 24 Set the inspection result normal? YES >> Replace automatic drive positioner control unit. Refer to ADP-217, "Removal and Installation". NO >> Repair or replace harness. Continuity between seat memory switch harness connector and ground. Seat memory switch Ground Continuity D5 4 Existed	Connector	Terminal	Connector	Terminal	Continuity
4. 25 2 A. Check continuity between automatic drive positioner control unit harness connector and ground. Automatic drive positioner control unit Continuity Connector Terminal 9 Ground M51 24 25 25 Is the inspection result normal? YES YES > Replace automatic drive positioner control unit. Refer to ADP-217, "Removal and Installation". NO >> Repair or replace harness. 3. CHECK MEMORY SWITCH GROUND CIRCUIT 1. Turn ignition switch OFF. 2. Check continuity between seat memory switch harness connector and ground. State memory switch Continuity Connector Terminal 05 4 15 the inspection result normal? YES >> GO TO 4. NO >> Repair or replace harness. 4. CHECK SEAT MEMORY SWITCH Refer to ADP-75. "Component Inspection". Is the inspection result normal? YES >> GO TO 5. NO >> Replace seat memory switch. Refer to ADP-218. "Removal and Installation". 5.CHEC		9		1	
4. Check continuity between automatic drive positioner control unit harness connector and ground. Automatic drive positioner control unit Continuity Connector Terminal 9 Ground M51 24 25 Not existed Is the inspection result normal? YES YES > Replace automatic drive positioner control unit. Refer toADP-217, "Removal and Installation". NO > Repair or replace harmess. 3.CHECK MEMORY SWITCH GROUND CIRCUIT 1. 1. Turn ignition switch OFF. 2. Check continuity between seat memory switch harness connector and ground. Seat memory switch Ground Continuity Connector Terminal Ground Continuity YES > GO TO 4. Koo Koo Seat memory switch. NO >> Repair or replace harmess. 4. Existed Existed Is the inspection result normal? YES > GO TO 4. Koo NO >> Replace seat memory switch. Refer to ADP-218, "Removal and Installation". 5. A.CHECK SEAT MEMORY SWITCH Seater to ADP-75. "Component Inspection". Seater to ADP-75. Seater to ADP-218, "Re	M51	24	D5	3	Existed
Automatic drive positioner control unit Continuity Connector Terminal M51 24 25 Not existed Is the inspection result normal? YES YES >> Replace automatic drive positioner control unit. Refer to ADP-217, "Removal and Installation". NO >> Repair or replace harmess. 3.CHECK MEMORY SWITCH GROUND CIRCUIT 1. 1. Turn ignition switch OFF. 2. Check continuity between seat memory switch harness connector and ground. Seat memory switch Ground Continuity Continuity Connector Terminal Ground Continuity Seat memory switch Ground Continuity Continuity Connector Terminal Ground Continuity Seat memory switch Ground Est the inspection result normal? YES YES > GO TO 4. NO >> Replace seat memory switch. Refer to ADP-218, "Removal and Installation". 5.CHECK INTERMITTENT INCIDENT Refer to GI-47, "Intermittent Incident". >> INSPECTION END Compone		25		2	
Connector Terminal Ground Continuity M51 24 Not existed 25 >> Replace automatic drive positioner control unit. Refer to ADP-217, "Removal and Installation". Not existed YES >> Replace automatic drive positioner control unit. Refer to ADP-217, "Removal and Installation". Not existed YES >> Replace automatic drive positioner control unit. Refer to ADP-217, "Removal and Installation". Not existed Scheck MEMORY SWITCH GROUND CIRCUIT 1. Turn ignition switch OFF. Continuity 2. Check continuity between seat memory switch harness connector and ground. Continuity Seat memory switch Ground Continuity D5 4 Existed is the inspection result normal? YES > GO TO 4. NO > Repair or replace harness. 4. 4. CHECK SEAT MEMORY SWITCH Refer to ADP-75, "Component Inspection". is the inspection result normal? YES > GO TO 5. NO >> Replace seat memory switch. Refer to ADP-218, "Removal and Installation". 5. CHECK INTERMITTENT INCIDENT Steer to GL47, "Intermittent Incident". >> INSPECTION END Component Inspection werex executon memory switch connector. <td>Check continuity be</td> <td>etween automatic dri</td> <td>ve positioner contro</td> <td>I unit harness conn</td> <td>ector and ground.</td>	Check continuity be	etween automatic dri	ve positioner contro	I unit harness conn	ector and ground.
Connector Terminal 9 Ground M51 24 25 Not existed Is the inspection result normal? Seat nemory and installation". YES >> Replace automatic drive positioner control unit. Refer to ADP-217, "Removal and Installation". NO >> Repair or replace harness. 3. CHECK MEMORY SWITCH GROUND CIRCUIT 1. 1. Turn ignition switch OFF. 2. Check continuity between seat memory switch harness connector and ground. Seat memory switch Ground 05 4 25 4 105 4 26 Existed 11 Existed 27 YES 28 S GO TO 4. NO >> Repair or replace harness. 4. CHECK SEAT MEMORY SWITCH Refer to ADP-75. "Component Inspection". 18 the inspection result normal? YES >> GO TO 5. NO >> Replace seat memory switch. Refer to ADP-218. "Removal and Installation". 5. CHECK INTERMITTENT INCIDENT Refer to GI-47. "Intermittent Incident". >> INSPECTION END	Automatic d	rive positioner control unit	t		Continuity
M51 24 Not existed Is the inspection result normal? YES >> Repair or replace harness. 3.CHECK MEMORY SWITCH GROUND CIRCUIT 1. Turn ignition switch OFF. 2. 2. Check continuity between seat memory switch harness connector and ground. Continuity Seat memory switch Ground Continuity D5 4 Existed Is the inspection result normal? YES > Go TO 4. NO >> Repair or replace harness. Continuity VES > GO TO 4. Existed NO >> Repair or replace harness. Existed Is the inspection result normal? YES > GO TO 4. NO >> Repair or replace harness. 4 Existed Is the inspection result normal? YES > GO TO 4. Existed NO >> Repair or replace harness. 4 Existed Existed Is the inspection result normal? YES > GO TO 4. NO >> Replace seat memory switch. Refer to ADP-218. "Removal and Installation". 5. Scheeck INTERMITTENT INCIDENT Scheeck INTERMITTENT INCIDENT >> INSPECTION END >> MOCONCOMENT >> MOCONCOMENT	Connector	Termin	al		Continuity
25 Is the inspection result normal? YES >> Replace automatic drive positioner control unit. Refer toADP-217, "Removal and Installation". NO >> Repair or replace harness. 3.CHECK MEMORY SWITCH GROUND CIRCUIT 1. Turn ignition switch OFF. 2. Check continuity between seat memory switch harness connector and ground. Seat memory switch Ground Connector Terminal 05 4 Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace harness. 4.CHECK SEAT MEMORY SWITCH Refer to ADP-75, "Component Inspection". Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace harness. 4.CHECK SEAT MEMORY SWITCH Refer to ADP-75, "Component Inspection". Is the inspection result normal? YES >> GO TO 5. NO >> Replace seat memory switch. Refer toADP-218, "Removal and Installation". 5.CHECK INTERMITTENT INCIDENT Refer to GI-47, "Intermittent Incident". >> INSPECTION END Co		9		Ground	
Is the inspection result normal? YES >> Replace automatic drive positioner control unit. Refer to ADP-217. "Removal and Installation". NO >> Repair or replace harness. 3.CHECK MEMORY SWITCH GROUND CIRCUIT 1. Turn ignition switch OFF. 2. Check continuity between seat memory switch harness connector and ground. Image: Seat memory switch Ground Continuity Image: Seat memory switch Ground Existed Is the inspection result normal? YES > GO TO 4. NO >> Repair or replace harness. 4.CHECK SEAT MEMORY SWITCH Refer to ADP-75. "Component Inspection". Is the inspection result normal? YES > GO TO 5. NO >> Replace seat memory switch. Refer to ADP-218. "Removal and Installation". 5.CHECK INTERMITTENT INCIDENT Set for GI-47. "Intermittent Incident". >> INSPECTION END Component Inspection Image: Set for GI-47. "Intermittent Incident". >> INSPECTION END 1. CHECK SEAT MEMORY SWITCH 1. Turn ignition switch OFF. 2. Disconnect seat memory swi	M51	24			Not existed
YES >> Replace automatic drive positioner control unit. Refer to ADP-217, "Removal and Installation". NO >> Repair or replace harness. 3.CHECK MEMORY SWITCH GROUND CIRCUIT 1. Turn ignition switch OFF. 2. Check continuity between seat memory switch harness connector and ground. Continuity Image: Seat memory switch Ground Continuity Image: DS 4 Ground Existed Is the inspection result normal? YES > GO TO 4. NO >> Repair or replace harness. 4.CHECK SEAT MEMORY SWITCH Refer to ADP-75. "Component Inspection". Existed Is the inspection result normal? YES > GO TO 5. NO >> Replace seat memory switch. Refer to ADP-218. "Removal and Installation". 5.CHECK INTERMITTENT INCIDENT Refer to GI-47. "Intermittent Incident". >> INSPECTION END >> Repare consection Component Inspection ####################################		25			
Connector Terminal Ground Continuity D5 4 Existed Existed Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace harness. 4. CHECK SEAT MEMORY SWITCH Refer to ADP-75. "Component Inspection". Is the inspection result normal? YES >> GO TO 5. NO >> Replace seat memory switch. Refer to ADP-218. "Removal and Installation". 5. CHECK INTERMITTENT INCIDENT Refer to GI-47, "Intermittent Incident". >> INSPECTION END Component Inspection Import 000000000000000000000000000000000000	. Turn ignition switch	OFF.		nector and ground.	
Connector Terminal Ground D5 4 Existed Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace harness. 4. CHECK SEAT MEMORY SWITCH Refer to ADP-75. "Component Inspection". Is the inspection result normal? YES >> GO TO 5. NO >> Replace seat memory switch. Refer to ADP-218. "Removal and Installation". Scheck INTERMITTENT INCIDENT Refer to GI-47, "Intermittent Incident". >> INSPECTION END No => INSPECTION END Component Inspection No => Inspection No => Inspection 1. CHECK SEAT MEMORY SWITCH 1. Turn ignition switch OFF. 2. Disconnect seat memory switch connector.	Sea	at memory switch			Continuity
Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace harness. 4. CHECK SEAT MEMORY SWITCH Refer to <u>ADP-75. "Component Inspection"</u> . Is the inspection result normal? YES >> GO TO 5. NO >> Replace seat memory switch. Refer to <u>ADP-218. "Removal and Installation"</u> . 5. CHECK INTERMITTENT INCIDENT Refer to <u>GI-47. "Intermittent Incident"</u> . >> INSPECTION END Component Inspection 1. CHECK SEAT MEMORY SWITCH 1. Turn ignition switch OFF. 2. Disconnect seat memory switch connector.	Connector	Termin	al	Ground	Continuity
YES >> GO TO 4. NO >> Repair or replace harness. 4. CHECK SEAT MEMORY SWITCH Refer to ADP-75. "Component Inspection". Is the inspection result normal? YES >> GO TO 5. NO >> Replace seat memory switch. Refer to ADP-218. "Removal and Installation". 5. CHECK INTERMITTENT INCIDENT Refer to GI-47, "Intermittent Incident". >> INSPECTION END Component Inspection 1. CHECK SEAT MEMORY SWITCH 1. Turn ignition switch OFF. 2. Disconnect seat memory switch connector.	D5	4			Existed
>> INSPECTION END Component Inspection Inspection Inspection Inspection Inspection Inspection Inspection 2000000000000000000000000000000000000	NO >> Repair or re .CHECK SEAT MEM Refer to <u>ADP-75. "Com</u> <u>s the inspection result</u> YES >> GO TO 5. NO >> Replace se .CHECK INTERMITT	ORY SWITCH ponent Inspection". normal? at memory switch. R ENT INCIDENT	efer to <u>ADP-218, "R</u>	emoval and Installa	<u>tion"</u> .
Component Inspection INFOLD.000000105 1. CHECK SEAT MEMORY SWITCH 1. Turn ignition switch OFF. 2. Disconnect seat memory switch connector.					
 CHECK SEAT MEMORY SWITCH Turn ignition switch OFF. Disconnect seat memory switch connector. 	>> INSPECTIO	ON END			
 Turn ignition switch OFF. Disconnect seat memory switch connector. 	Component Inspec	ction			INFOID:0000000105
2. Disconnect seat memory switch connector.	.CHECK SEAT MEM	ORY SWITCH			
	 Disconnect seat me 	emory switch connec			

SEAT MEMORY SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Seat men	ory switch	Condition		Continuity
Terr	ninal			Continuity
	1	Momony switch 1	Push	Existed
	I	Memory switch 1	Release	Not existed
4		Marrian avitab 0	Push	Existed
4	2	Memory switch 2	Release	Not existed
	2	Cat awitab	Push	Existed
	3	Set switch	Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace seat memory switch. Refer to <u>ADP-218, "Removal and Installation"</u>.

< DTC/CIRCUIT DIAGNOSIS >

DOOR MIRROR REMOTE CONTROL SWITCH 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 door mirror motor operation by transmitting control signal to automatic drive positioner control unit.

CHANGEOVER SWITCH : Component Function Check

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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 changeover	toward the right or left side.	: ON
MIR CHNG SW-R/L	Other than the above.		: OFF
s the inspection result norm	al?		
YES >> Changeover swi NO >> Refer to <u>ADP-77</u>	itch function is OK. 7. "CHANGEOVER SWITCH	: Diagnosis Procedure".	
		duro	
JURINGEOVER SWIT	CH : Diagnosis Proce	Jule	INFOID:000000010577427
	0	uure	INFOID:000000010577427
 CHECK CHANGEOVER Turn ignition switch OFF Disconnect door mirror r Turn ignition switch ON. 	SWITCH INPUT SIGNAL	ctor.	
 CHECK CHANGEOVER Turn ignition switch OFF Disconnect door mirror n Turn ignition switch ON. Check voltage between 	SWITCH INPUT SIGNAL	ctor.	

	Door mirror remo	ote control switch	(-)	(Approx.)	
_	Connector	Terminal		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	K
_	M26	2	Ground	5	
_	WZO	3	Gibana	5	L

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK CHANGEOVER 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.

 Automatic drive po	sitioner control unit	Door mirror remote control switch		Continuity	
 Connector	Terminal	Connector	Terminal	Continuity	
 M51	2	M26	3	Existed	P
I CIVI	18	WZ0	2	Existed	

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

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive po	ositioner control unit		Continuity
Connector	Terminal	Ground	Continuity
M51	M51 2	Ground	Not existed
INIO I	18		NOI EXISIEU

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-217. "Removal and Installation"</u>.

NO >> Repair or replace harness.

$\mathbf{3}$.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	ote control switch		Continuity
Connector	Terminal	Ground	Continuity
M26	13		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-78, "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-78. "Removal and</u> <u>Installation"</u>.

5. CHECK INTERMITTENT INCIDENT

Check intermittent incident. Refer to GI-47, "Intermittent Incident".

>> INSPECTION END

CHANGEOVER SWITCH : Component Inspection

INFOID:000000010577428

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.

Door	mirror remote control	switch	Condition Co		Continuity
Connector	Terr	minal			Continuity
	2			LEFT	Existed
M26	2	12	Changeover owitch	Other than above	Not existed
IVI20	3	13 Changeover switch	RIGHT	Existed	
	5			Other than above	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace door mirror remote control switch. Refer to <u>MIR-78, "Removal and Installation"</u>. MIRROR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

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		D
MIR CON SW-UP/DN	When operating the mirror switch toward the up or down side.	: ON	
MIR CON SW-0P/DN	Other than the above.	: OFF	F
MIR CON SW-RH/LH	When operating the mirror switch toward the right or left side.	: ON	
MIR CON SW-RH/LH	Other than the above.	: OFF	

Is the inspection result normal?

YES >> Mirror switch function is OK.

NO >> Refer to <u>ADP-79, "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.

		(+)			
	Door mirror remote control switch		(-)	Voltage (V) (Approx.)	ADP
	Connector	Terminal		(, , , , , , , , , , , , , , , , , , ,	
	M26	4	Oround	_	K
		5			
		6	- Ground	5	
		14			L

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.

Automatic drive po	sitioner control unit	Door mirror remote control switch			
Connector	Terminal	Connector	Terminal	Continuity	P
	3		6		I
M51	4	M26	5	Existed	
IVIS I	19		14	Existed	
	20		4	1	

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

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< DTC/CIRCUIT DIAGNOSIS >

Automatic drive p	Automatic drive positioner control unit		Continuity
Connector	Terminal		Continuity
	3	Ground	
N/51	4	Ground	Not existed
M51	19		
	20	-	

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-217, "Removal and Installation"</u>. NO >> Repair or replace harness.

$\mathbf{3}$.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 remo	ote control switch		Continuity	
Connector	Connector Terminal		Continuity	
M26	13		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 to <u>ADP-80, "MIRROR SWITCH : Component Inspection"</u>.

Is the inspection result normal?

- YES >> GO TO 5.
- NO >> Replace door mirror remote control switch (mirror switch). Refer to <u>MIR-78, "Removal and Instal-</u> lation".
- 5. CHECK INTERMITTENT INCIDENT

Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u>.

>> INSPECTION END

MIRROR SWITCH : Component Inspection

INFOID:000000010577432

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 r	Door mirror remote control switch			ondition	Continuity	
Connector	Terr	ninal	Condition		Continuity	
				RIGHT	Existed	
	4			Other than the above	Not existed	
				LEFT	Existed	
1400	5	13	Nd and a state	Other than the above	Not existed	
M26			Mirror switch	UP	Existed	
	6			Other than the above	Not existed	
				DOWN	Existed	
	14			Other than the above	Not existed	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace door mirror remote control switch. Refer to MIR-78, "Removal and Installation".

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POWER SEAT SWITCH GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

POWER SEAT SWITCH GROUND CIRCUIT

Diagnosis Procedure

INFOID:000000010577433

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 >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
- NO >> Repair or replace harness.

TILT & TELESCOPIC SWITCH GROUND CIRCUIT

< DTC/CIRCUIT DIAGNO			
TILT &TELESCOPI	C SWITCH GROUI	ND CIRCUIT	
Diagnosis Procedure			INFOID:000000010577434
1. CHECK TILT & TELESC	OPIC SWITCH GROUND (CIRCUIT	
 Turn ignition switch OF Disconnect tilt & telesco Check continuity between 		nd ground.	
	copic switch		Continuity
Connector M31	Terminal 1	Ground	Existed
Is the inspection result norm YES >> Check intermitt NO >> Repair or replace	ent incident. Refer to GI-47	<u>, "Intermittent Incident"</u> .	

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< DTC/CIRCUIT DIAGNOSIS >

DETENTION SWITCH

Description

INFOID:000000010577435

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:000000010577436

1.CHECK FUNCTION

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

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

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

1.CHECK DTC WITH "BCM"

Check "Self Diagnostic Result" for BCM with CONSULT.

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

YES >> Check the DTC. Refer to <u>BCS-88, "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.

A/T shift	(+) A/T shift selector		Voltage (V) (Approx.)	
Connector	Terminal			
M137	11	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

 $\mathbf{3}$.check detention switch circuit

- 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.

INFOID:0000000010577437

DETENTION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Driver se	at control unit			Continuity	
Connector	Terminal		Ground	Continuity	
B451	21			Not existed	
the inspection result norr YES >> Replace driver NO >> Repair or repla CHECK DETENTION S	seat control unit. F ce harness.	Refer to <u>ADP-216</u>	a, "Removal and Insta	llation".	
Refer to ADP-85, "Compon	ent Inspection".				
s the inspection result norr YES >> GO TO 5.	nal? hift selector. Refer t	to <u>TM-183. "Ren</u>	noval and Installation"		
Refer to <u>GI-47, "Intermitten</u>					
>> INSPECTION I Component Inspectio CHECK DETENTION S ¹	n			INFOID:0000000105774	
. Turn ignition switch OF	F.				
 Disconnect A/T shift see Check A/T shift selector A/T shift selector 	elector connector. or terminals.		Condition	Continuity	
 Disconnect A/T shift se Check A/T shift selector 	elector connector. or terminals.				
2. Disconnect A/T shift see 3. Check A/T shift selector A/T shift selector Terminal 10	elector connector. er terminals.	Selector lever	Condition P position Other than above	Continuity Existed Not existed	
2. Disconnect A/T shift set 3. Check A/T shift selector A/T shift selector Terminal 10 s the inspection result norr YES >> INSPECTION I	elector connector. or terminals. 11 11 <u>nal?</u> END	Selector lever	P position	Existed Not existed	

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FRONT DOOR SWITCH (DRIVER SIDE)

< DTC/CIRCUIT DIAGNOSIS >

FRONT DOOR SWITCH (DRIVER SIDE)

Description

Detects front door (driver side) open/close condition.

Component Function Check

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "DOOR SW-DR" in "Data monitor" mode with CONSULT.
- 3. Check the front door switch (driver side) signal under the following conditions.

Monitor item	Condition		Status
DOOR SW-DR	Front door switch	Open	ON
DOOK SW-DR	(driver side)	Close	OFF

Is the inspection result normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:000000010577441

1.CHECK FRONT DOOR SWITCH (DRIVER SIDE) SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect front door switch (driver side) connector.
- 3. Check signal between front door switch (driver side) connector and ground with oscilloscope.

	(+) Front door switch (driver side) Connector Terminal		Voltage (V) (Approx.)
B16	2	Ground	(V) 15 10 5 0 10 ms JPMIA0011GB

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.check front door switch (driver side) circuit

1. Disconnect BCM connector.

2. Check continuity between BCM connector and front door switch (driver side) connector.

B	СМ	Front door switch (driver side)		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
M123	150	B16	2	Existed	

3. Check continuity between BCM connector and ground.

B	CM		Continuity
Connector	Terminal	Ground	Continuity
M123	150		Not existed

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FRONT DOOR SWITCH (DRIVER SIDE)

< DTC/CIF	CUIT DIAG			RIVER SIDE)		
	ection result					
		CM. Refer to <u>BCS-93</u>	, "Exploded View".			А
•		eplace harness. OR SWITCH (DRIVE				
		ponent Inspection".	IR SIDE)			В
	ection result					
YES >>	• GO TO 4.					С
	•	ont door switch (drive	r side). Refer to <u>DL</u> ł	K-356, "Removal and	I Installation".	
		ENT INCIDENT				D
Refer to GI	<u>-47, "Intermi</u>	ttent Incident".				D
>>		ON END				
	ent Inspec				INFOID:000000010577442	E
					INFOID.000000010377442	
		OR SWITCH (DRIVE	R SIDE)			F
	nition switch) OFF. oor switch (driver side				
		etween front door swi		ninals.		G
		tob (drivor oido)				
	Front door swit					
	Front door swit	minal	Co	ndition	Continuity	Н
	Terr	ninal	Co Front door switch	ndition Pushed	Continuity Not existed	Н
				1		Н
	2 ection result	ninal Ground part of door switch normal?	Front door switch	Pushed	Not existed	H
YES >>	2 2 ection result	ninal Ground part of door switch normal? ON END	Front door switch (driver side)	Pushed Released	Not existed Existed	I
YES >>	2 2 ection result	ninal Ground part of door switch normal?	Front door switch (driver side)	Pushed Released	Not existed Existed	H I ADP
YES >>	2 2 ection result	ninal Ground part of door switch normal? ON END	Front door switch (driver side)	Pushed Released	Not existed Existed	I
YES >>	2 2 ection result	ninal Ground part of door switch normal? ON END	Front door switch (driver side)	Pushed Released	Not existed Existed	I
YES >>	2 2 ection result	ninal Ground part of door switch normal? ON END	Front door switch (driver side)	Pushed Released	Not existed Existed	ADP
YES >>	2 2 ection result	ninal Ground part of door switch normal? ON END	Front door switch (driver side)	Pushed Released	Not existed Existed	ADP
YES >>	2 2 ection result	ninal Ground part of door switch normal? ON END	Front door switch (driver side)	Pushed Released	Not existed Existed	ADP
YES >>	2 2 ection result	ninal Ground part of door switch normal? ON END	Front door switch (driver side)	Pushed Released	Not existed Existed	I ADP K L
YES >>	2 2 ection result	ninal Ground part of door switch normal? ON END	Front door switch (driver side)	Pushed Released	Not existed Existed	ADP
YES >>	2 2 ection result	ninal Ground part of door switch normal? ON END	Front door switch (driver side)	Pushed Released	Not existed Existed	I ADP K L M
YES >>	2 2 ection result	ninal Ground part of door switch normal? ON END	Front door switch (driver side)	Pushed Released	Not existed Existed	I ADP K L
YES >>	2 2 ection result	ninal Ground part of door switch normal? ON END	Front door switch (driver side)	Pushed Released	Not existed Existed	I ADP K L M
YES >>	2 2 ection result	ninal Ground part of door switch normal? ON END	Front door switch (driver side)	Pushed Released	Not existed Existed	I ADP K L M

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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 with CONSULT.
- 3. Check sliding sensor signal under the following conditions.

Monitor item	Condition		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-88. "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000010577445

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-216, "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:000000010577443

INFOID:000000010577444

SLIDING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Driver sea	control unit		Sliding se	ensor	O (1) (1)
Connector	Terminal	Connec	tor	Terminal	Continuity
B451	24	B453	,	24	Existed
Check continuity b	etween driver seat co	ntrol unit harı	ness conn	ector and ground	d.
	er seat control unit				Continuity
Connector	Termina	I Ground			
B451	24				Not existed
CHECK SLIDING S Connect driver sea Turn ignition switch	eplace harness. ENSOR POWER SUI t control unit connect	or.	ector and g	ground.	
	(+)				
	Sliding sensor		(-) Ground		Voltage (V)
Connector	Termina	al			(Approx.)
B453	16				5
		PPLY CIRCU	IT		
O >> GO TO 4. CHECK SLIDING S Turn ignition switch Disconnect driver s	OFF. seat control unit conne	ector.		nector and sliding	g sensor harness con
O >> GO TO 4. CHECK SLIDING S Turn ignition switch Disconnect driver s Check continuity b tor.	OFF. seat control unit conne	ector.			-
O >> GO TO 4. CHECK SLIDING S Turn ignition switch Disconnect driver s Check continuity b tor.	n OFF. seat control unit conne etween driver seat co	ector.	ness conr		g sensor harness con Continuity
O >> GO TO 4. CHECK SLIDING S Turn ignition switch Disconnect driver s Check continuity b tor. Driver seat	OFF. seat control unit conne etween driver seat co	ector. ontrol unit har	Sliding se	ensor	-
IO >> GO TO 4. CHECK SLIDING S Turn ignition switch Disconnect driver s Check continuity b tor. Driver seat Connector B451 Check continuity b	n OFF. seat control unit connective etween driver seat co control unit Terminal 16 etween driver seat co	ector. ontrol unit har Connec B453	Sliding se	ensor Terminal 16	Continuity Existed
IO >> GO TO 4. CHECK SLIDING S Turn ignition switch Disconnect driver s Check continuity b tor. Driver seat Connector B451 Check continuity b Driv	o OFF. seat control unit connective etween driver seat control unit control unit Terminal 16 etween driver seat control unit	ector. ontrol unit har Connec B453 ntrol unit hari	Sliding set	ensor Terminal 16 ector and ground	Continuity Existed
IO >> GO TO 4. CHECK SLIDING S Turn ignition switch Disconnect driver s Check continuity b tor. Driver seat Connector B451 Check continuity b Driv Connector	a OFF. seat control unit connective etween driver seat control unit control unit Terminal 16 etween driver seat control unit Terminal	ector. ontrol unit har Connec B453 ntrol unit hari	Sliding set	ensor Terminal 16	Continuity Existed d. Continuity
O >> GO TO 4. CHECK SLIDING S Turn ignition switch Disconnect driver s Check continuity b tor. Driver seat Connector B451 Check continuity b Driv Connector B451 Check continuity b Driv Connector B451	a OFF. seat control unit connective etween driver seat control unit control unit 16 etween driver seat control unit rermina 16 normal?	ector. ontrol unit har Connec B453 ntrol unit hari	Sliding set tor	rensor Terminal 16 ector and ground	Continuity Existed d. Continuity Not existed
IO >> GO TO 4. CHECK SLIDING S Turn ignition switch Disconnect driver s Check continuity b tor. Driver seat Connector B451 Check continuity b Driv Connector B451 the inspection result ES >> Replace dr IO >> Repair or r CHECK SLIDING S Turn ignition switch	a OFF. seat control unit connective etween driver seat control unit control unit 16 etween driver seat control unit rermina 16 normal? iver seat control unit. eplace harness. ENSOR GROUND	ector. ontrol unit har Connec B453 ntrol unit har al Refer to ADF	Sliding set tor	rensor Terminal 16 ector and ground	Continuity Existed d. Continuity Not existed
IO >> GO TO 4. CHECK SLIDING S Turn ignition switch Disconnect driver s Check continuity b tor. Driver seat Connector B451 Check continuity b Driv Connector B451 the inspection result ES >> Replace dr IO >> Repair or r CHECK SLIDING S Turn ignition switch Disconnect driver s	OFF. seat control unit connectiveen driver seat control unit Terminal 16 etween driver seat co er seat control unit Termina 16 ormal? iver seat control unit. eplace harness. ENSOR GROUND OFF. seat control unit connective	ector. ontrol unit har Connec B453 ntrol unit har al Refer to <u>ADF</u> ector.	Sliding set tor	ensor Terminal 16 ector and ground ound	Continuity Existed d. Continuity Not existed
IO >> GO TO 4. CHECK SLIDING S Turn ignition switch Disconnect driver s Check continuity b tor. Driver seat Connector B451 Check continuity b Driv Connector B451 the inspection result ES >> Replace dr IO >> Repair or r CHECK SLIDING S Turn ignition switch Disconnect driver s Check continuity b tor.	OFF. seat control unit connectiveen driver seat control unit Terminal 16 etween driver seat co er seat control unit Termina 16 ormal? iver seat control unit. eplace harness. ENSOR GROUND OFF. seat control unit connective	ector. ontrol unit har Connec B453 ntrol unit har al Refer to <u>ADF</u> ector.	Sliding set tor	removal and Insta	Continuity Existed d. Continuity Not existed Ilation".

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B451

31

B453

31

Existed

SLIDING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> Replace sliding sensor.

NO >> Repair or replace harness.

RECLINING SENSOR

< DTC/CIRCUIT DIAGNOSIS > RECLINING SENSOR А Description INFOID:000000010577446 The reclining sensor 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:0000000010577447 1. CHECK FUNCTION 1. Turn ignition switch ON. D Select "RECLN PULSE" in "Data monitor" mode with CONSULT. 2. Check reclining sensor signal under the following conditions. 3. Ε Condition Value Monitor item Operate (forward) Change (increase)*1 F **RECLN PULSE** Seat reclining Operate (backward) Change (decrease)^{*1} No change^{*1} Release ^{*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-91, "Diagnosis Procedure". NO Diagnosis Procedure INFOID:000000010577448 1. CHECK RECLINING SENSOR SIGNAL Turn ignition switch ON. 1. Check voltage signal between driver seat control unit harness connector and ground with oscilloscope. 2. ADP (+) Voltage (V) Driver seat control unit (-) Condition Κ (Approx.) Connector Terminal 10mSec/div L Operate M B451 9 Ground Seat reclining 2V/div JMJIA0119ZZ Ν Other than 0 or 5 ahove Is the inspection result normal? YES >> Replace driver seat control unit. Refer to ADP-216, "Removal and Installation". NO >> GO TO 2.

2. CHECK RECLINING SENSOR CIRCUIT

1. Turn ignition switch OFF.

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

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

RECLINING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

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

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

Driver s	eat control unit		Continuity
Connector	Connector Terminal		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.

Reclinir	(+) Reclining motor		Voltage (V) (Approx.)
Connector	Connector Terminal		
B454	16	Ground	5

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	Driver seat control unit Reclining motor		Reclining motor	
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-216</u>, "Removal and Installation".

NO >> Repair or replace harness.

5.CHECK RECLINING SENSOR GROUND

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	31	B454	31	Existed

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RECLINING SENSOR

< DTC/CIRCUIT DIAGNOSIS >	
Is the inspection result normal?	
YES >> Replace reclining motor. NO >> Repair or replace harness.	A
	В
	С
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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 with 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-94, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000010577451

1. CHECK LIFTING SENSOR (FRONT) SIGNAL

1. Turn ignition switch ON.

2. Check the voltage signal driver seat control unit harness connector and ground with oscilloscope.

(+) Driver seat control unit		(-) Con			Voltage (V) (Approx.)
				ndition	
Connector	Terminal				(, () ()
B451	25	Ground	Seat Lifting (front)	Operate Other than above	10mSec/div 10mSec/div 2V/div JMJIA01192 0 or 5

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-216</u>, "<u>Removal and Installation</u>".

2. CHECK LIFTING SENSOR (FRONT) CIRCUIT

1. Turn ignition switch OFF.

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

INFOID:000000010577449

INFOID:0000000010577450

LIFTING SENSOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

Diver sea	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 o	connector and ground	d.
	er seat control unit			Continuity
Connector	Termina		Ground	
B451 he inspection result	25			Not existed
ES >> GO TO 3. O >> Repair or r CHECK LIFTING SE Connect driver sea Turn ignition switch	eplace harness. ENSOR (FRONT) PO t control unit connect	or.	ctor and ground.	
5	(+)	,		
I if	ting motor (front)		()	Voltage (V)
Connector	Termina	al		(Approx.)
B455	16		Ground	5
CHECK LIFTING SE Turn ignition switch Disconnect driver s	ENSOR (FRONT) PO OFF. seat control unit conne etween driver seat co	ector.		motor (front) harness
CHECK LIFTING SE Turn ignition switch Disconnect driver s Check continuity be nector.	n OFF. seat control unit conne etween driver seat co	ector. ntrol unit harness o	connector and lifting	motor (front) harness
CHECK LIFTING SE Turn ignition switch Disconnect driver s Check continuity be nector.	OFF. seat control unit conne	ector. ntrol unit harness o		motor (front) harness — Continuity
CHECK LIFTING SE Turn ignition switch Disconnect driver s Check continuity be nector. Driver seat	OFF. seat control unit conne etween driver seat co	ector. ntrol unit harness o Lifting	connector and lifting motor (front)	
CHECK LIFTING SE Turn ignition switch Disconnect driver s Check continuity be nector. Driver seat Connector B451	o OFF. Seat control unit connective etween driver seat co control unit Terminal	ector. ntrol unit harness o Lifting Connector B455	connector and lifting motor (front) Terminal 16	Continuity Existed
CHECK LIFTING SE Turn ignition switch Disconnect driver so Check continuity be nector. Driver seat Connector B451 Check continuity be	o OFF. seat control unit connective etween driver seat co control unit Terminal 16	ector. ntrol unit harness o Lifting Connector B455	connector and lifting motor (front) Terminal 16	Continuity Existed
CHECK LIFTING SE Turn ignition switch Disconnect driver so Check continuity be nector. Driver seat Connector B451 Check continuity be	a OFF. Seat control unit connective etween driver seat co control unit Terminal 16 etween driver seat co	ector. ntrol unit harness of Lifting Connector B455 ntrol unit harness of	connector and lifting motor (front) Terminal 16	Continuity Existed
CHECK LIFTING SE Turn ignition switch Disconnect driver s Check continuity be nector. Driver seat Connector B451 Check continuity be Driv	a OFF. seat control unit connective etween driver seat co control unit Terminal 16 etween driver seat co er seat control unit	ector. ntrol unit harness of Lifting Connector B455 ntrol unit harness of	connector and lifting motor (front) Terminal 16 connector and ground	Continuity Existed
CHECK LIFTING SE Turn ignition switch Disconnect driver s Check continuity be nector. Driver seat Connector B451 Check continuity be Driven Connector B451 he inspection result ES >> Replace dr O >> Repair or r CHECK LIFTING SE Turn ignition switch Disconnect driver s	a OFF. seat control unit connective etween driver seat control unit control unit Terminal 16 etween driver seat control unit rermina 16 normal? iver seat control unit. eplace harness. ENSOR (FRONT) GR	ector. ntrol unit harness of Lifting Connector B455 ntrol unit harness of al Refer to <u>ADP-216</u> OUND ector.	connector and lifting motor (front) Terminal 16 connector and ground Ground , "Removal and Insta	Continuity Existed d. Continuity Not existed Ilation".
CHECK LIFTING SE Turn ignition switch Disconnect driver s Check continuity be nector. Driver sea Connector B451 Check continuity be Driv Connector B451 he inspection result ES >> Replace dr O >> Repair or r CHECK LIFTING SE Turn ignition switch Disconnect driver s Check continuity be nector.	a OFF. seat control unit connective etween driver seat control unit Terminal 16 etween driver seat control unit er seat control unit 16 iver seat control unit eplace harness. ENSOR (FRONT) GR o OFF. seat control unit connective etween driver seat control	ector. ntrol unit harness of Lifting Connector B455 ntrol unit harness of al Refer to ADP-216 OUND ector. ntrol unit harness of	connector and lifting motor (front) Terminal 16 Connector and ground , "Removal and Insta	Continuity Existed d. Continuity Not existed Ilation".
CHECK LIFTING SE Turn ignition switch Disconnect driver s Check continuity be nector. Driver sea Connector B451 Check continuity be Driv Connector B451 he inspection result ES >> Replace dr O >> Repair or r CHECK LIFTING SE Turn ignition switch Disconnect driver s Check continuity be nector.	OFF. seat control unit connective etween driver seat control unit Terminal 16 etween driver seat control unit rerminal 16 etween driver seat control unit 16 etween driver seat control unit 16 etween driver seat control unit 16 etween driver seat control unit. eplace harness. ENSOR (FRONT) GR o OFF. seat control unit connective etween driver seat control unit conne	ector. ntrol unit harness of Lifting Connector B455 ntrol unit harness of al Refer to ADP-216 OUND ector. ntrol unit harness of	connector and lifting motor (front) Terminal 16 connector and ground Ground , "Removal and Insta	Continuity Existed d. Continuity Not existed Ilation".

B451

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B455

31

Existed

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

- YES >> Replace lifting motor (front).
- NO >> Repair or replace harness.

LIFTING SENSOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SENSOR (REAR)

А Description INFOID:000000010577452 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 INEOID 0000000010577453 1. CHECK FUNCTION 1. Turn ignition switch ON. D Select "LIFT RR PULSE" in "Data monitor" mode with CONSULT. 2. Check lifting sensor (rear) signal under the following conditions. 3. Ε Condition Value Monitor item 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

NO >> Perform diagnosis procedure. Refer to <u>ADP-97, "Diagnosis Procedure"</u>.

Diagnosis Procedure

1.CHECK LIFTING SENSOR (REAR) 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) (Approx.)	
Connector	Terminal				(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
B451	10	Ground	Seat Lifting (rear)	Operate	10mSec/div	
				Other than above	0 or 5	

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-216</u>, "Removal and Installation".

NO >> GO TO 2.

2.CHECK LIFTING SENSOR (REAR) CIRCUIT

1. Turn ignition switch OFF.

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	Driver seat control unit		Lifting motor (rear)	
Connector	Terminal	Connector	Terminal	Continuity
B451	10	B456	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.

$\mathbf{3}$.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 m	(+) notor (rear)	(-)	Voltage (V) (Approx.)
Connector	Terminal		
B456	16	Ground	5

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	B456	16	Existed

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

Driver seat	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-216, "Removal and Installation"</u>.

NO >> Repair or replace harness.

5.CHECK LIFTING SENSOR (REAR) GROUND

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	t control unit	Lifting motor (rear)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B451	31	B456	31	Existed

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	LIFTING SENSOR (REAR)	
< DTC	C/CIRCUIT DIAGNOSIS >	
Is the i	inspection result normal?	
YES	>> Replace lifting motor (rear).	A
NO	>> Repair or replace harness.	
		В
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TILT SENSOR

< DTC/CIRCUIT DIAGNOSIS >

TILT SENSOR

Description

INFOID:000000010577455

- 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.

Component Function Check

INFOID:000000010577456

1.CHECK FUNCTION

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

Monitor item	Condition	Value
TILT SEN	Tilt position	Change between 1.2 [V] (Close to top) 3.4 [V] (Close to bottom)

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:000000010577457

1.CHECK TILT SENSOR SIGNAL

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

	+) sitioner control unit	(-)	Condition	Voltage (V) (Approx.)
Connector	Terminal	-		(
M51	7	Ground	Tilt position	Change between 1.2 [V] (Close to top) 3.4 [V] (Close to bottom)

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-217, "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 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.

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

Is the inspection result normal?

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TILT SENSOR

Turn ignition switch	e drive positioner contr n ON. ween tilt & telescopic :			ector and ground.	
	(+)				Voltage (V)
	& telescopic sensor			(-)	(Approx.)
Connector	Termina	al		<u> </u>	-
M48 the inspection result	1			Ground	5
Turn ignition switch Disconnect automa	atic drive positioner co etween automatic dri	ontrol unit co		unit harness conne	ector and tilt & telesco
				opic sensor	
Automatic drive po	sitioner control unit		The a lefest		
Automatic drive po	ositioner control unit Terminal	Conne		Terminal	Continuity
		Conne M4	ector		Existed
Connector M52 Check continuity be	Terminal 33 etween automatic driv	M4 /e positione	ector I8	Terminal 1	Existed
Connector M52 Check continuity be Automatic d	Terminal 33	M4 /e positione	ector 18 er control u	Terminal 1 Init harness connec	Existed
Connector M52 Check continuity be	Terminal 33 etween automatic driv	M4 /e positione	ector 18 er control u	Terminal 1	Existed tor and ground.
Connector M52 Check continuity be Automatic of Connector M52 the inspection result	Terminal 33 etween automatic driv Irive positioner control unit Termina 33 normal?	M4 /e positione al	ector 18 er control u	Terminal 1 Init harness connec	Existed etor and ground. Continuity Not existed
Connector M52 Check continuity be Automatic of Connector M52 the inspection result (ES >> Replace au NO >> Repair or r .CHECK TILT SENS Turn ignition switch Disconnect automatic	Terminal 33 etween automatic driv lrive positioner control unit Termina 33 normal? utomatic drive positior eplace harness. OR GROUND CIRCU n OFF. atic drive positioner co etween automatic dri	M4 /e positione al ner control u IIT	unit. Refer	Terminal 1 unit harness connect Ground to ADP-217. "Rem	Existed tor and ground. Continuity
Connector M52 Check continuity be Automatic of Connector M52 the inspection result (ES >> Replace at IO >> Repair or r CHECK TILT SENS Turn ignition switch Disconnect automa Check continuity b sensor harness con	Terminal 33 etween automatic driv lrive positioner control unit Termina 33 normal? utomatic drive positior eplace harness. OR GROUND CIRCU n OFF. atic drive positioner co etween automatic dri	M4 /e positione al ner control u JIT pontrol unit co ve positione	ector 18 er control u unit. Refer onnector. er control	Terminal 1 unit harness connect Ground to ADP-217. "Rem	Existed tor and ground. Continuity Not existed oval and Installation".
Connector M52 Check continuity be Automatic of Connector M52 the inspection result (ES >> Replace at IO >> Repair or r CHECK TILT SENS Turn ignition switch Disconnect automa Check continuity b sensor harness con	Terminal 33 etween automatic driv Irive positioner control unit Termina 33 normal? utomatic drive positioner eplace harness. OR GROUND CIRCU n OFF. atic drive positioner co etween automatic dri nnector.	M4 /e positione al ner control u JIT pontrol unit co ve positione	ector 18 er control u unit. Refer onnector. er control Tilt & telesc	Terminal 1 Init harness connect Ground to ADP-217. "Rem unit harness connect	Existed tor and ground. Continuity Not existed oval and Installation".

TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

TELESCOPIC SENSOR

Description

INFOID:000000010577458

- · 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.

Component Function Check

INFOID:000000010577459

1.CHECK FUNCTION

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

Monitor item	Condition	Value
TELESCO SEN	Telescopic position	Change between 0.8 [V] (close to top) 3.4 [V] (close to bottom)

Is the indication normal?

YES >> INSPECTION END.

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

Diagnosis Procedure

INFOID:000000010577460

1.CHECK TELESCOPIC SENSOR SIGNAL

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

	+) sitioner control unit	(-)	Condition	Voltage (V) (Approx.)	
Connector	Terminal			(
M51	23	Ground	Telescopic position	Change between 0.8 [V] (close to top) 3.4 [V] (close to bottom)	

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-217</u>, "<u>Removal and Installation</u>". NO >> GO TO 2.

2. CHECK TELESCOPIC 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	ositioner control unit	Tilt & telescopic 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.

TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Automatic dri	ive positioner control unit				Continuity
Connector	Termina	al		Ground	Continuity
M51	23				Not existed
Turn ignition switch	place harness. IC SENSOR POWEF drive positioner contr	rol unit cor	nnector.	ector and ground	
	•				
	(+)				Voltage (V)
Connector	telescopic sensor Termina			()	(Approx.)
M48	1	al		Ground	5
the inspection result n			<u> </u>	Ground	J
.CHECK TELESCOPI	IC SENSOR POWEF	R SUPPLY	CIRCUIT		
. Check continuity be	tic drive positioner co etween automatic driv			unit harness cor	nnector and tilt & teles
 Disconnect automat Check continuity be sensor harness con 	tic drive positioner co etween automatic dri nector.		ner control		nnector and tilt & teles
Disconnect automat Check continuity be sensor harness con Automatic drive pos	tic drive positioner co etween automatic dri nector. sitioner control unit	ve positior	ner control	copic sensor	nector and tilt & teles
Disconnect automat Check continuity be sensor harness con Automatic drive pos Connector	tic drive positioner co etween automatic dri nector. sitioner control unit Terminal	ve positior Conr	Tilt & telesonector	copic sensor Terminal	Continuity
Disconnect automat Check continuity be sensor harness con Automatic drive pos Connector M52	tic drive positioner co etween automatic dri nector. sitioner control unit Terminal 33	ve positior Conr	Tilt & telesc nector	copic sensor Terminal 1	Continuity Existed
Disconnect automat Check continuity be sensor harness con Automatic drive pos Connector M52	tic drive positioner co etween automatic dri nector. sitioner control unit Terminal	ve positior Conr	Tilt & telesc nector	copic sensor Terminal 1	Continuity Existed
Disconnect automat Check continuity be sensor harness con Automatic drive pos Connector M52 Check continuity be	tic drive positioner co etween automatic dri nector. sitioner control unit Terminal 33	ve position Conr M ve position	Tilt & telesc nector	copic sensor Terminal 1	Continuity Existed nector and ground.
Disconnect automat Check continuity be sensor harness con Automatic drive pos Connector M52 Check continuity be Automatic drive Connector	tic drive positioner co etween automatic driv nector. sitioner control unit Terminal 33 tween automatic driv ive positioner control unit Termina	ve positior Conr M /e position	Tilt & teleso nector 148 er control u	copic sensor Terminal 1	Continuity Existed nector and ground. Continuity
Disconnect automatic Check continuity be sensor harness con Automatic drive pose Connector M52 Check continuity be Automatic drive Connector M52	tic drive positioner co etween automatic driv nector. sitioner control unit Terminal 33 tween automatic driv ive positioner control unit Termina 33	ve positior Conr M /e position	Tilt & teleso nector 148 er control u	copic sensor Terminal 1 unit harness conr	Continuity Existed nector and ground.
 Disconnect automat Check continuity be sensor harness con Automatic drive post Connector M52 Check continuity be Automatic drive Check continuity be Check continuity be Automatic drive Check continuity be Check continuity be Automatic drive Automatic drive Check continuity be Automatic drive A	tic drive positioner co etween automatic driv nector. sitioner control unit Terminal 33 tween automatic driv ive positioner control unit Termina 33 normal? tomatic drive positioner splace harness. IC SENSOR GROUN OFF. tic drive positioner co	ve position Conr M /e position al ner control ND CIRCU	Tilt & telesconector	Copic sensor Terminal 1 unit harness conr Ground	Continuity Existed nector and ground. Continuity
 Disconnect automat Check continuity be sensor harness con Automatic drive post Connector M52 Check continuity be Automatic drive Check continuity be Automatic drive Connector M52 the inspection result n YES >> Replace aut NO >> Repair or re CHECK TELESCOPI Turn ignition switch Disconnect automat Check continuity be sensor harness con 	tic drive positioner co etween automatic driv nector. sitioner control unit Terminal 33 tween automatic driv ive positioner control unit Termina 33 normal? tomatic drive positioner place harness. IC SENSOR GROUN OFF. tic drive positioner co etween automatic driv nector.	ve position Conr M /e position al ner control ND CIRCU	unit. Refer	Terminal 1 unit harness conr Ground r to <u>ADP-217, "Re</u> unit harness cor	Continuity Existed nector and ground. Continuity Not existed emoval and Installation
 Disconnect automat Check continuity be sensor harness con Automatic drive pos Connector M52 Check continuity be Automatic drive pos Check continuity be Check continuity be Check TELESCOPI Turn ignition switch Disconnect automatic Check continuity be 	tic drive positioner co etween automatic driv nector. sitioner control unit Terminal 33 tween automatic driv ive positioner control unit Termina 33 normal? tomatic drive positioner place harness. IC SENSOR GROUN OFF. tic drive positioner co etween automatic driv nector.	ve position Conr M ve position al ner control ND CIRCU ontrol unit of ve position	unit. Refer	Copic sensor Terminal 1 unit harness conr Ground	Continuity Existed nector and ground. Continuity Not existed emoval and Installation

< DTC/CIRCUIT DIAGNOSIS >

MIRROR SENSOR DRIVER SIDE

DRIVER SIDE : Description

INFOID:000000010577461

- 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:000000010577462

1.CHECK FUNCTION

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

Monitor item	Condition	Value
MIR/SEN LH U-D	Door mirror (driver side)	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-104, "DRIVER SIDE : Diagnosis Procedure"</u>.

DRIVER SIDE : Diagnosis Procedure

INFOID:000000010577463

1. CHECK DOOR MIRROR (DRIVER SIDE) SENSOR POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Disconnect door mirror (driver side) connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between door mirror (driver side) harness connector and ground.

	(+) Door mirror (driver side)		Voltage (V) (Approx.)	
Connector	Terminal		(FF -)	
D3	23	Ground	5	

Is the inspection result normal?

YES >> GO TO 3.

$2. {\sf CHECK} \text{ door mirror (driver side) sensor power supply circuit}$

- 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 door mirror (driver side) harness connector.

Automatic drive positioner control unit connector	Terminal	Door mirror (driver side) connector	Terminal	Continuity
M52	33	D3	23	Existed

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

< DTC/CIRCUIT DIAGNOSIS >

	Irive positioner control uni	t			Continuity
Connector	Termin	nal	(Ground	
M52	33				Not existed
NO >> Repair or r CHECK DOOR MIR	utomatic drive positio eplace harness. ROR (DRIVER SIDE				emoval and Installation".
	atic drive positioner c between automatic c			ol unit harness	connector and door mirr
Automatic drive p	ositioner control unit		Door mirror	(driver side)	Continuity
Connector	Terminal	Conr	nector	Terminal	
M52	41	C)3	24	Existed
CHECK DOOR MIR Check continuity (driver side) harne	between automatic of			ol unit harness	connector and door mirr
Automatic drive p	ositioner control unit		Door mirror	(driver side)	
Connector	Terminal	Conr	nector	Terminal	Continuity
M51	6 22	- C)3	21	Existed
. Check continuity b	etween automatic dri	ve position	er control u		nector and ground.
Automatic	frive positioner control unit	t			
Connector	Termin			_	Continuity
M51	6		Ground		Not existed
	oor mirror sensor. (Βι eplace harness.	uilt in driver	side mirro	.)	
					INFOID-00000004057
PASSENGER SID	E : Description				INFOID:00000001057
PASSENGER SID The mirror sensor (pa The resistance of 2 s operated. Automatic drive posit	assenger side) is inst sensors (horizontal a ioner control unit calc	nd vertical)	is change	d when the doc	
PASSENGER SID The mirror sensor (pa The resistance of 2 s operated.	assenger side) is insta sensors (horizontal a ioner control unit calc terminals.	nd vertical) culates the o) is change door mirror	d when the doc	le). r mirror (passenger side)

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

ADP-105

< DTC/CIRCUIT DIAGNOSIS >

Monitor item	Condition	Value
MIR/SEN RH U-D	 Door mirror (passenger side) 	Change between 3.4 [V] (close to peak) 0.6 [V] (close to valley)
MIR/SEN RH R-L		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-106, "PASSENGER SIDE : Diagnosis Procedure"</u>.

PASSENGER SIDE : Diagnosis Procedure

INFOID:000000010577466

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

1. Turn ignition switch OFF.

2. Disconnect door mirror (passenger side) connector.

3. Turn ignition switch ON.

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

(+) Door mirror (passenger side)		()	Voltage (V) (Approx.)	
Connector	Terminal		()	
D33	23	Ground	5	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

${\small 2.} {\small {\rm check \ Door \ Mirror \ (passenger \ Side) \ Sensor \ power \ Supply \ Circuit}}$

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.

Automatic drive po	Automatic drive positioner control unit		Door mirror (passenger side)		
Connector	Terminal	Connector	Terminal	Continuity	
M52	33	D33	23	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 ADP-217, "Removal and Installation".

NO >> Repair or replace harness.

3. check door mirror (passenger side) sensor ground

- 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.

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive po	sitioner control unit	Door mirror (p	assenger side)	Continuity	А
Connector	Terminal	Connector	Terminal	Continuity	
M52	41	D33	24	Existed	_
	10				В

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK DOOR MIRROR (PASSENGER SIDE) SENSOR HARNESS CONTINUITY

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

Automatic drive po	sitioner control unit	Door mirror (p	assenger side)	Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
M51	5	D33	21	Existed	
	21	D33	22	Existed	

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

Automatic drive po	sitioner control unit		Continuity	0
Connector	Terminal	Ground	Continuity	G
M51	5	Ground	Not existed	
	21		Not existed	Н

Is the inspection result normal?

YES >> Replace door mirror sensor. (Built in passenger side door mirror).

NO >> Repair or replace harness.

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SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

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.
- The seat is slid forward/backward by changing the rotation direction of sliding motor.

Component Function Check

1.CHECK FUNCTION

- Turn ignition switch ON. 1.
- Select "SEAT SLIDE" in "Active test" mode with CONSULT. 2.
- 3. Check the sliding motor operation.

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to ADP-108, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:000000010577469

1. CHECK SLIDING MOTOR POWER SUPPLY

- 1. Turn ignition switch OFF.
- Disconnect sliding motor connector. 2.
- 3. Turn the ignition switch ON.
- Perform "Active test" ("SEAT SLIDE") with CONSULT 4.
- 5. Check voltage between sliding motor harness connector and ground.

(+) Sliding motor		(-)	Condition		Voltage (V) (Approx.)	
Connector	Terminal				(, , , , , , , , , , , , , , , , , , ,	
				OFF	0	
35			FR (forward)	Battery voltage		
D464				RR (backward)	0	
B461 –		Ground	SEAT SLIDE	OFF	0	
	42			FR (forward)	0	
				RR (backward)	Battery voltage	

Is the inspection result normal?

YES >> Replace sliding motor. (Built in seat cushion frame.) 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.

INFOID:000000010577467

INFOID:000000010577468

SLIDING MOTOR

Connector Terminal Continuity B452 35 35 Existed 42 B461 42 Existed k continuity between driver seat control unit harness connector and ground. Continuity Driver seat control unit Ground Continuity Connector Terminal Continuity B452 35 A2 0 0 Ground Continuity Connector Terminal Continuity B452 35 A2 Not existed 0 35 42 Not existed 0 0 Not existed Not existed 0 42 Not existed Not existed 0 0 1 Replace driver control unit. Refer to ADP-216. "Removal and Installation". >> Replace driver control unit. Refer to ADP-216. "Removal and Installation". Not existed	Driver sea	at control unit	Slidi	ng motor	0
B452 42 B461 42 Existed k continuity between driver seat control unit harness connector and ground. Image: Continuity of the seat control unit harness connector and ground. Image: Continuity of the seat control unit harness connector and ground. Driver seat control unit Continuity Connector Terminal Ground Ground B452 35 B452 42 Dection result normal? >> Replace driver control unit. Refer to ADP-216, "Removal and Installation".	Connector	Terminal			Continuity
Driver seat control unit Continuity Connector Terminal B452 35 42 Not existed Dection result normal? >> Replace driver control unit. Refer to ADP-216, "Removal and Installation".	B452		B461		Existed
Connector Terminal Ground Continuity B452 35 Not existed Not existed Dection result normal? >> Replace driver control unit. Refer to ADP-216, "Removal and Installation". Continuity	heck continuity b	between driver seat co	ntrol unit harness co	onnector and grou	nd.
Connector Terminal B452 35 42 Not existed Dection result normal? >> Replace driver control unit. Refer to ADP-216, "Removal and Installation".	Dri	ver seat control unit			Continuity
B452 35 Not existed Dection result normal? >> Replace driver control unit. Refer to ADP-216, "Removal and Installation".	Connector		al	Ground	Continuity
>> Replace driver control unit. Refer to <u>ADP-216, "Removal and Installation"</u> .	B452				Not existed
	>> Replace d	lriver control unit. Refe	er to <u>ADP-216, "Rem</u>	<u>noval and Installat</u>	ion".

RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

RECLINING MOTOR

Description

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

Component Function Check

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "SEAT RECLINING" in "Active test" mode with CONSULT.
- 3. Check the reclining motor operation.

Test ite	m	Desc	ription
	OFF		Stop
SEAT RECLINING	FR	Seat reclining	Forward
	RR		Backward

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-110, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000010577472

1. CHECK RECLINING MOTOR POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Disconnect reclining motor connector.
- 3. Turn the ignition switch ON.
- 4. Perform "Active test" ("SEAT RECLINING") with CONSULT
- 5. Check voltage between reclining motor harness connector and ground.

(+) Reclining motor		(-) Condi		dition	Voltage (V) (Approx.)	
Connector	Terminal				(
			SEAT RECLINING	OFF	0	
	36	- Ground		FR (forward)	Battery voltage	
D454				RR (backward)	0	
B454				OFF	0	
	44			FR (forward)	0	
				RR (backward)	Battery voltage	

Is the inspection result normal?

YES >> Replace reclining motor. (Built in seat back frame.)

- 2. CHECK RECLINING MOTOR 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.

INFOID:000000010577470

INFOID:000000010577471

RECLINING MOTOR

	ntrol unit	Recli	ning motor	Continuity
Connector	Terminal	Connector	Terminal	Continuity
B452	36 44	B454	36 44	Existed
heck continuity betwe	een driver seat co	ntrol unit harness c	onnector and grour	nd.
Driver se	eat control unit			Continuity
Connector	Termina	al	Ground	Continuity
B452	36 44			Not existed

LIFTING MOTOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING MOTOR (FRONT)

Description

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

Component Function Check

1.CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to ADP-112, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:000000010577475

1. CHECK LIFTING MOTOR (FRONT) POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Disconnect lifting motor (front) connector.
- 3. Turn the ignition switch ON.
- 4. Perform "Active test" ("SEAT LIFTER FR") with CONSULT.
- 5. Check voltage between lifting motor (front) harness connector and ground.

(+) Lifting motor (front)		(-)	(-) Cond		Voltage (V) (Approx.)	
Connector	Terminal	*			(/ () () () () () () () () () () () () ()	
			OFF	0		
	37	Ground	SEAT LIFTER FR	UP	0	
D455				DWN (down)	Battery voltage	
B455				OFF	0	
	45			UP	Battery voltage	
				DWN (down)	0	

Is the inspection result normal?

YES >> Replace lifting motor (front). (Built in seat cushion frame.)

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 connector.

INFOID:000000010577473

INFOID:000000010577474

LIFTING MOTOR (FRONT)

	trol unit	Liftin	g motor (front)	O antinuit.
Connector	Terminal	Connector	Terminal	Continuity
B452	37	B455	37	Existed
	45	D400	45	
neck continuity betwe	en driver seat cor	trol unit harness	connector and ground	1.
Driver se	at control unit			Continuity
Connector	Terminal		Ground	Continuity
B452	37			Not existed
inspection result norr	45			

LIFTING MOTOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING MOTOR (REAR)

Description

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

Component Function Check

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "SEAT LIFTER RR" in "Active test" mode with CONSULT.
- 3. Check the lifting motor (rear) operation.

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:000000010577478

1. CHECK LIFTING MOTOR (REAR) POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Disconnect lifting motor (rear) connector.
- 3. Turn the ignition switch ON.
- 4. Perform "Active test" ("SEAT LIFTER RR") with CONSULT
- 5. Check voltage between lifting motor (rear) harness connector and ground.

(+) Lifting motor (rear)		(-)	Condition		Voltage (V) (Approx.)
Connector	Terminal				()
		Ground	Ground SEAT LIFTER RR	OFF	0
	38			UP	Battery voltage
D450				DWN (DOWN)	0
B456				OFF	0
	39			UP	0
				DWN (DOWN)	Battery voltage

Is the inspection result normal?

YES >> Replace lifting motor (rear). (Built in seat cushion frame.)

2. CHECK LIFTING MOTOR (REAR) CIRCUIT

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

INFOID:000000010577476

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LIFTING MOTOR (REAR)

Driver seat cont	rol unit	Li	fting motor (rear)	Continuity
Connector	Terminal	Connector	Termina	Continuity
B452	38 39	B456	38	Existed
ck continuity betwe		ntrol unit harne	ss connector and gr	ound.
Driver sea	at control unit			Continuity
Connector	Termina	al	Ground	Continuity
B452	38 39			Not existed

TILT MOTOR

< DTC/CIRCUIT DIAGNOSIS >

TILT MOTOR

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

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "TILT MOTOR" in "Active test" mode with CONSULT.
- 3. Check the tilt motor operation.

Test item		Description	
	OFF		Stop
TILT MOTOR	UP	Steering tilt	Upward
	DWN		Downward

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-116, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000010577481

1. CHECK TILT MOTOR POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Disconnect tilt & telescopic motor connector.
- 3. Turn the ignition switch ON.
- 4. Perform "Active test" ("TILT MOTOR") with CONSULT.
- 5. Check voltage between tilt & telescopic motor harness connector and ground.

(+) Tilt & telescopic motor		(-)	(-) Co		Voltage (V) (Approx.)
Connector	Terminal				(
		Ground	TILT MOTOR	OFF	0
	3			UP	0
M40				DWN (down)	Battery voltage
M49				OFF	0
	4			UP	Battery voltage
				DWN (down)	0

Is the inspection result normal?

YES >> Replace tilt motor. (Built in steering column assembly.)

- 2. CHECK TILT MOTOR CIRCUIT
- 1. Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit and tilt & telescopic motor connector.
- Check continuity between automatic drive positioner control unit harness connector and tilt & telescopic motor harness connector.

INFOID:000000010577479

INFOID:0000000010577480

TILT MOTOR

_	er control unit Tilt & telescopic motor Conti				Continuity
Connector	Terminal	Connecto	r Tei	rminal	Continuity
M52	35 42	M49		4 3	Existed
eck continuity betwe	en automatic driv	e positioner co	ontrol unit harne	ss connecto	r and ground.
Automatic drive p	positioner control unit				Continuity
Connector	Termina	al	Ground		Continuity
M52	35 42				Not existed

TELESCOPIC MOTOR

< DTC/CIRCUIT DIAGNOSIS >

TELESCOPIC MOTOR

Description

- · The telescopic motor is installed to the steering column assembly.
- The telescopic motor is activated with the automatic drive positioner control unit.
- Compresses the steering column by changing the rotation direction of telescopic motor.

Component Function Check

1.CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "TELESCO MOTOR" in "Active test" mode with CONSULT.
- 3. Check the telescopic motor operation.

	Description	
OFF		Stop
FR	Steering telescopic	Forward
RR		Backward
	FR	OFF FR Steering telescopic

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-118, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000010577484

1. CHECK TELESCOPIC MOTOR POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Disconnect tilt & telescopic motor connector.
- 3. Turn the ignition switch ON.
- 4. Perform "Active test" ("TELESCO MOTOR") with CONSULT
- 5. Check voltage between tilt & telescopic motor harness connector and ground.

(+) Tilt & telescopic motor		(-)	Condition		Voltage (V) (Approx.)	
Connector	Terminal				(, , , , , , , , , , , , , , , , , , ,	
				OFF	0	
	1	Ground	TELESCOPIC MO-	FR (forward)	0	
M40				RR (backward)	Battery voltage	
M49			TOR	OFF	0	
	2			FR (forward)	Battery voltage	
				RR (backward)	0	

Is the inspection result normal?

YES >> Replace telescopic motor. (Built in steering column assembly.)

2. CHECK TELESCOPIC MOTOR CIRCUIT

1. Turn ignition switch OFF.

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

INFOID:000000010577482

INFOID:000000010577483

TELESCOPIC MOTOR

O ann a stan	ner control unit	Tilt & tel	escopic motor	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M52	36	M49	2	Existed
	44	in io	1	Existed
eck continuity betwe	en automatic drive	e positioner contro	l unit harness conr	ector and ground.
	ositioner control unit			Continuity
Connector	Terminal		Ground	Containedly
M52	36			Not existed
spection result norm	44			

< 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

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

Refer to ADP-42, "CONSULT Function".

Is the inspection result normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-120, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000010577487

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.

(+) Door mirror		(-)	Condition		Voltage (V) (Approx.)
Connector	Terminal				
	10			UP	Battery voltage
	12	Ground	Door mirror remote	Other than above	0
D3 (Driver side)				LEFT	Battery voltage
D33 (Passenger side)	11		control switch	Other than above	0
			DOWN / RIGHT	Battery voltage	
	10			Other than above	0

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

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 po	sitioner control unit	Door mirror (driver side)		Continuit	
Connector	Terminal	Connector	Terminal	- Continuity	
	16		10		
M51	31	D3	12	Existed	
	32		11		

INFOID:000000010577485

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DOOR MIRROR MOTOR

<u> </u>	Door mirror passenger si Automatic drive po	-	Door mirror	(passenger side)		
	Connector	Terminal	Connector	Terminal	Continuity	
		14		12		
	M51	15	D33	11	Existed	
	-	30		10		
(Check continuity be	tween automatic driv	e positioner contro	I unit connector and	ground.	
[[Door mirror driver side]					
	Automatic dr	ive positioner control unit			Continuity	
	Connector	Termina	I		Continuity	
		16		Ground		
	M51	31			Not existed	
		32				
[[Door mirror passenger si					
		ive positioner control unit			Continuity	
	Connector	Termina	I		,	
		14		Ground		
	M51	15			Not existed	
		30				
hec	>> Repair or re HECK DOOR MIRF k door mirror moto	eplace harness. ROR MOTOR r.	ler control unit. Re	fer to <u>ADP-217, "Rem</u>	noval and Installation".	
.Cl hec efer the (ES NO .Cl	>> Repair or re HECK DOOR MIRE k door mirror moto to <u>ADP-121, "Con</u> inspection result r >> GO TO 4. >> Replace do HECK INTERMITT	eplace harness. ROR MOTOR r. <u>nponent Inspection"</u> . <u>normal?</u> or mirror. Refer to <u>MI</u> ENT INCIDENT			noval and Installation". emoval and Installation".	
.Cl hec efer the (ES NO .Cl	>> Repair or re HECK DOOR MIRE k door mirror moto to <u>ADP-121, "Con</u> inspection result r >> GO TO 4. >> Replace do	eplace harness. ROR MOTOR r. <u>nponent Inspection"</u> . <u>normal?</u> or mirror. Refer to <u>MI</u> ENT INCIDENT				
.Cl hec efer the (ES NO .Cl	>> Repair or re HECK DOOR MIRE k door mirror moto to <u>ADP-121, "Con</u> inspection result r >> GO TO 4. >> Replace do HECK INTERMITT to <u>GI-47, "Intermit</u>	eplace harness. ROR MOTOR r. nponent Inspection". normal? or mirror. Refer to <u>MI</u> ENT INCIDENT ttent Incident".				
.CI hece ferent the (ES NO .CI eferent eferent	>> Repair or re HECK DOOR MIRI k door mirror moto to <u>ADP-121, "Con</u> inspection result r >> GO TO 4. >> Replace do HECK INTERMITT to <u>GI-47, "Intermit</u> >> INSPECTIO	eplace harness. ROR MOTOR r. nponent Inspection". normal? or mirror. Refer to <u>MI</u> ENT INCIDENT ttent Incident".				
.CI hece ferent the (ES NO .CI eferent eferent	>> Repair or re HECK DOOR MIRE k door mirror moto to <u>ADP-121, "Con</u> inspection result r >> GO TO 4. >> Replace do HECK INTERMITT to <u>GI-47, "Intermit</u>	eplace harness. ROR MOTOR r. nponent Inspection". normal? or mirror. Refer to <u>MI</u> ENT INCIDENT ttent Incident".				
.Cl hec efer <u>the</u> /ES NO .Cl efer	>> Repair or re HECK DOOR MIRI k door mirror moto to <u>ADP-121, "Con</u> inspection result r >> GO TO 4. >> Replace do HECK INTERMITT to <u>GI-47, "Intermit</u> >> INSPECTIO	eplace harness. ROR MOTOR r. nponent Inspection". normal? or mirror. Refer to <u>MI</u> ENT INCIDENT ttent Incident". DN END ction			emoval and Installation".	
.Cl hec efer (ES NO .Cl efer off .Cl	>> Repair or re HECK DOOR MIRE k door mirror moto to <u>ADP-121, "Con</u> inspection result r >> GO TO 4. >> Replace do HECK INTERMITT to <u>GI-47, "Intermit</u> >> INSPECTION NOOR MIRE	eplace harness. ROR MOTOR r. nponent Inspection". normal? or mirror. Refer to <u>MI</u> ENT INCIDENT ttent Incident". ON END ction ROR MOTOR-I motor does not trap for	R-75. "DOOR MIR	ROR ASSEMBLY : R	emoval and Installation".	
.Cl hec efer (ES NO .Cl efer .Cl hec efer	>> Repair or re HECK DOOR MIRE k door mirror moto to <u>ADP-121</u> , "Cor inspection result r >> GO TO 4. >> Replace do HECK INTERMITT to <u>GI-47</u> , "Intermit >> INSPECTION DOOR MIRE HECK DOOR MIRE	eplace harness. ROR MOTOR r. <u>nponent Inspection"</u> . <u>normal?</u> or mirror. Refer to <u>MI</u> ENT INCIDENT <u>ttent Incident"</u> . ON END ction ROR MOTOR-I motor does not trap for <u>ided View"</u> .	R-75. "DOOR MIR	ROR ASSEMBLY : R	emoval and Installation".	
.CI hecefer /ES NO .CI efer .CI hecefer the /ES	>> Repair or re HECK DOOR MIRE k door mirror moto to ADP-121, "Cor inspection result r >> GO TO 4. >> Replace do HECK INTERMITT to GI-47, "Intermit >> INSPECTION DOOR MIRE K that door mirror r to MIR-75, "Exploit inspection result r >> GO TO 2.	eplace harness. ROR MOTOR r. nponent Inspection". normal? or mirror. Refer to <u>MI</u> ENT INCIDENT ttent Incident". ON END ction ROR MOTOR-I motor does not trap for ided View".	R-75. "DOOR MIR	ROR ASSEMBLY : R	emoval and Installation".	
.Cl hece fer (ES NO .Cl efer .Cl hece fer (ES NO	>> Repair or re HECK DOOR MIRE k door mirror moto to ADP-121, "Cor inspection result r >> GO TO 4. >> Replace do HECK INTERMITT to GI-47, "Intermit >> INSPECTION NOOR MIRE HECK DOOR MIRE k that door mirror r to MIR-75, "Exploit inspection result r S >> GO TO 2. >> Replace do	eplace harness. ROR MOTOR r. normal? or mirror. Refer to <u>MI</u> ENT INCIDENT ttent Incident". ON END ction ROR MOTOR-I motor does not trap for ded View". normal?	R-75. "DOOR MIR	ROR ASSEMBLY : R	emoval and Installation".	
.Cl hece fer (ES NO .Cl efer .Cl hece fer (ES NO	>> Repair or re HECK DOOR MIRE k door mirror moto to ADP-121, "Cor inspection result r >> GO TO 4. >> Replace do HECK INTERMITT to GI-47, "Intermit >> INSPECTION DOOR MIRE K that door mirror r to MIR-75, "Exploit inspection result r >> GO TO 2.	eplace harness. ROR MOTOR r. normal? or mirror. Refer to <u>MI</u> ENT INCIDENT ttent Incident". ON END ction ROR MOTOR-I motor does not trap for ded View". normal?	R-75. "DOOR MIR	ROR ASSEMBLY : R	emoval and Installation".	
.Cl hece fer (ES NO .Cl efer .Cl hece fer (ES NO .Cl hece fer .Cl hece fer .Cl	>> Repair or re HECK DOOR MIRE k door mirror moto to ADP-121, "Cor inspection result r >> GO TO 4. >> Replace do HECK INTERMITT to GI-47, "Intermit >> INSPECTION NOOR MIRE HECK DOOR MIRE k that door mirror r to MIR-75, "Exploit inspection result r S >> GO TO 2. >> Replace do	eplace harness. ROR MOTOR r. nponent Inspection". normal? or mirror. Refer to <u>MI</u> ENT INCIDENT ttent Incident". ON END ction ROR MOTOR-I motor does not trap for ded View". normal? or mirror.Refer to <u>MIF</u> ROR MOTOR-II OFF.	R-75. "DOOR MIR	ROR ASSEMBLY : R	emoval and Installation".	

DOOR MIRROR MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Connector	Terr	Operational direction	
Connector	(+)	(-)	
	10	11	RIGHT
D3 (Driver side)	11	10	LEFT
D3 (Driver side) D33 (Passenger side)	12	10	UP
	10	12	DOWN

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace door mirror. Refer to <u>MIR-75, "DOOR MIRROR ASSEMBLY : Removal and Installation"</u>.

SEAT MEMORY INDICATOR

< DTC/CIRCUIT DIAGNOSIS >

SEAT MEMORY INDICATOR

Description

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INFOID:000000010577490

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- Memory switch 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 with CONSULT.
- 3. Check the memory indicator operation.

	Test item		Description	
	OFF			OFF
MEMORY SW INDCTR	ON-1	Memory swite	ch indicator	Indicator 1: ON
	ON-2			Indicator 2: ON
he operation of relevation	ant parts normal?			
ES >> INSPECTIO		_		
IO >> Perform dia	gnosis procedure. R	efer to <u>ADP-123, "Dia</u>	agnosis Procedure	<u>•"</u> .
agnosis Procedu	Jre			INFOID:00000001057749
CHECK MEMORY IN				
			<u> </u>	
neck voltage between	seat memory switch	harness connector a	nd ground.	
	(+)			
Sea	t memory switch		(-)	Voltage (V)
Connector	Termin	al		(Approx.)
D5	5		Ground	Battery voltage
the inspection result r	ormal?			
'ES >> GO TO 2.				
IO >> Check the	e following. [No.10 located in fus	e block (I/B)]		
		ween memory indicate	or and fuse.	
CHECK MEMORY IN		-		
Turn ignition switch	OFF			
Disconnect automat	tic drive positioner c	ontrol unit and seat m		
		rive positioner contro	I unit harness cor	nnector and seat memory
switch harness con	iector.			
Automatic drive pos	sitioner control unit	Seat merr	ory switch	
	Terminal	Connector	Terminal	Continuity
Connector				
Connector M51	12	D5	6	Existed

_	Automatic drive po	ositioner control unit		Continuity
_	Connector	Terminal	Ground	Continuity
_	M51	12	Giouna	Not existed
	M51	13		Not existed

SEAT MEMORY INDICATOR

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

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

3.CHECK MEMORY INDICATOR

Refer to ADP-124, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace seat memory switch. Refer to <u>ADP-218</u>, "<u>Removal and Installation</u>".

4.CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:000000010577492

1. CHECK SEAT MEMORY INDICATOR

1. Turn ignition switch OFF.

- 2. Disconnect seat memory switch connector.
- 3. Check continuity between seat memory switch terminals.

Seat mer	Seat memory switch			
Ter	Terminal			
(+)*	(+)* (-)*			
5	6	Existed		
	7	LAISIEU		

*: For a digital tester

NOTE:

When checking by an analog tester, the polarity (+) and (–) becomes inverse.

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace seat memory switch. Refer to <u>ADP-218. "Removal and Installation"</u>.

< ECU DIAGNOSIS INFORMATION >

ECU DIAGNOSIS INFORMATION DRIVER SEAT CONTROL UNIT

Reference Value

VALUES ON THE DIAGNOSIS TOOL

CONSULT MONITOR ITEM

Monitor Item	Condi	tion	Value/Status	
	O at au itab	Push	ON	
SET SW	Set switch	Release	OFF	D
	Managar avitala 4	Push	ON	
MEMORY SW1	Memory switch 1	Release	OFF	E
MEMORY SW2	Mamany awitab 0	Push	ON	
MEMORY SW2	Memory switch 2	Release	OFF	
	Cliding quitch (front)	Operate	ON	F
SLIDE SW-FR	Sliding switch (front)	Release	OFF	
SLIDE SW-RR	Sliding switch (rear)	Operate	ON	G
SLIDE SW-RR	Siluing Switch (rear)	Release	OFF	0
RECLN SW-FR	Boolining switch (front)	Operate	ON	
RECLIN SW-FR	Reclining switch (front)	Release	OFF	Н
	Reclining switch (rear)	Operate	ON	
RECLN SW-RR	Reclining Switch (rear)	Release	OFF	
LIFT FR SW-UP	Lifting switch front (up)	Operate	ON	
LIFT FR SW-UP		Release	OFF	
LIFT FR SW-DN	Lifting switch front (down)	Operate	ON	ADP
LIFT FR SW-DN		Release	OFF	
LIFT RR SW-UP		Operate	ON	
LIFT KK SW-OF	Lifting switch rear (up)	Release	OFF	K
LIFT RR SW-DN	Lifting switch rear (down)	Operate	ON	
LIFT KK SW-DN	Lining Switch lear (down)	Release	OFF	L
MIR CON SW-UP	Mirror switch	Up	ON	
	WIITOF SWIGH	Other than above	OFF	
MIR CON SW-DN	Mirror switch	Down	ON	M
	WIITOF SWIGH	Other than above	OFF	
MIR CON SW-RH	Mirror switch	Right	ON	N
	WINTER SWITCH	Other than above	OFF	
MIR CON SW-LH	Mirror switch	Left	ON	
	WIITOF SWITCH	Other than above	OFF	0
MIR CHNG SW-R	Changeover switch	Right	ON	
	Changeover switch	Other than above	OFF	P
MIR CHNG SW-L	Changeover switch	Left	ON	
	Shangeover Switch	Other than above	OFF	
TILT SW-UP	Tilt switch	Up	ON	
		Other than above	OFF	
TILT SW-DOWN	Tilt switch	Down	ON	
		Other than above	OFF	

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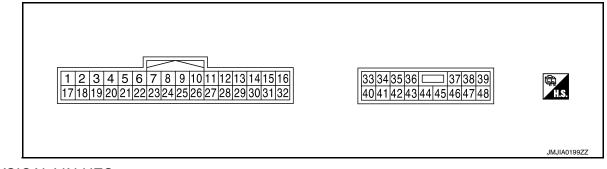
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< ECU DIAGNOSIS INFORMATION >

Monitor Item	Со	ndition	Value/Status
TELESCO SW-FR	Telescopic switch	Forward	ON
TELESCO SW-FR	Telescopic switch	Other than above	OFF
TELESCO SW-RR	Tilt switch	Backward	ON
	The Switch	Other than above	OFF
DETENT SW	AT selector lever	P position	OFF
DETENT OW		Other than above	ON
STARTER SW	Ignition position	Cranking	ON
on at let off		Other than above	OFF
		Forward	The numeral value decreases *1
SLIDE PULSE	Seat sliding	Backward	The numeral value increases *1
		Other than above	No change to numeral value ^{*1}
	Seat reclining	Forward	The numeral value decreases *1
RECLN PULSE		Backward	The numeral value increases *1
		Other than above	No change to numeral value ^{*1}
	Seat lifter (front)	Up	The numeral value decreases *1
LIFT FR PULSE		Down	The numeral value increases *1
		Other than above	No change to numeral value ^{*1}
		Up	The numeral value decreases *1
LIFT RR PULSE	Seat lifter (rear)	Down	The numeral value increases *1
		Other than above	No change to numeral value ^{*1}
MIR/SEN RH U-D	Door mirror (passenger s	ide)	Change between 3.4 (close to peak) 0.6 (close to valley)
MIR/SEN RH R-L	Door mirror (passenger s	iide)	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}: The value at the position attained when the battery is connected is regarded as 32768.

TERMINAL LAYOUT



PHYSICAL VALUES

< ECU DIAGNOSIS INFORMATION >

	nal No. color)	Description		Condition		Voltage (V)	/
+	-	Signal name	Input/ Output	Conditio	'n	(Approx)	E
1 (L/W)	Ground	UART communication (RX)	Input	Ignition switch ON		2mSec/div	
3 (R/Y)	_	CAN-H	—	_		_	E
9 (W/G)	Ground	Reclining sensor signal	Input	Seat reclining	Operate	10mSec/div	F
					Stop	0 or 5	
10 (P/B)	Ground	Lifting sensor (rear) sig- nal	Input	Seat lifting (rear)	Operate	10mSec/div	A
					Stop	0 or 5	
11 (B/R)	Ground	Sliding switch backward signal	Input	Sliding switch	Operate (backward)	0	ŀ
. ,					Release	Battery voltage	
12 (SB)	Ground	Reclining switch back- ward signal	Input	Reclining switch	Operate (backward) Release	0 Battery voltage	
13	Ground	Lifting switch (front)	Input	Lifting switch (front)	Operate (down)	0	
(LG/R)		down signal		,	Release	Battery voltage	
14 (G/B)	Ground	Lifting switch (rear) down signal	Input	Lifting switch (rear)	Operate (down)	0	
					Release	Battery voltage	
16 (O)	Ground	Sensor power supply	Output	_		5	
17 (Y/R)	Ground	UART communication (TX)	Output	Ignition switch ON		10mSec/div	

< ECU DIAGNOSIS INFORMATION >

	nal No. color)	Description		Condition		Voltage (V)	
+	-	Signal name	Input/ Output	Conditio	M 1	(Approx)	
19 (V)	_	CAN-L	_			_	
21 (L/Y)	Ground	Detention switch	Input	A/T selector lever	P position Except P po- sition	0 20mSec/div	
24 (R)	Ground	Sliding sensor signal	Input	Seat sliding	Operate	10mSec/div 10mSec/div 2V/div JMJA0119ZZ	
					Stop	0 or 5	
25 (Y/B)	Ground	Lifting sensor (front) sig- nal	Input	Seat lifting (front)	Operate	10mSec/div	
					Stop	0 or 5	
26 (Y)	Ground	Sliding switch forward signal	Input	Sliding switch	Operate (forward) Release	0 Battery voltage	
					Operate		
27 (R/G)	Ground	Reclining switch forward signal	Input	Reclining switch	(forward)	0	
28	Ground	Lifting switch (front) up	Input	Seat lifting switch	Release Operate (up)	Battery voltage 0	
(W/B)	Cround	signal	input	(front)	Release	Battery voltage	
29 (P/L)	Ground	Lifting switch (rear) up signal	Input	Seat lifting switch (rear)	Operate (up)	0	
(,,,_)				(Release	Battery voltage	
31 (GR)	Ground	Sensor ground		I		0	
32 (B/W)	Ground	Ground (signal)	_	_		0	
33 (R)	Ground	Power source (C/B)	Input	_		Battery voltage	
35 (W/R)	Ground	Sliding motor forward output signal	Output	Seat sliding	Operate (forward)	Battery voltage	
()					Release	0	

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< ECU DIAGNOSIS INFORMATION >

	nal No. color)	Description		Condition		Voltage (V)	-							
+	-	Signal name	Input/ Output			(Approx)								
36 (G/Y)	Ground	Reclining motor forward	Output	Seat reclining	Operate (forward)	Battery voltage	-							
(G/T)		output signal			Release	0	-							
37 (G/W)	Ground	Lifting motor (front) down output signal	Output	Seat lifting (front)	Operate (down)	Battery voltage	-							
(6/11)		output signal			Stop	0	_							
38 (L/Y)	Ground	Lifting motor (rear) up output signal	Output	Seat lifting (rear)	Operate (up)	Battery voltage	-							
					Stop	0	_							
39 (R/B)	Ground	Lifting motor (rear) down	Output	Seat lifting (rear)	Operate (down)	Battery voltage	-							
(R/D)		output signal			Stop	0	-							
40 (R/W)	Ground	Power source (Fuse)	Input	_		Battery voltage	_							
42 (W/B)	Ground	Sliding motor backward	Output	Seat sliding	Operate (backward)	Battery voltage	-							
(00/0)		output signal			Stop	0								
44 (P)	Ground	Reclining motor back- ward output signal	Output	Seat reclining	Operate (backward)	Battery voltage	-							
(٢)			Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	0	
45 (L/R)	Ground	Lifting motor (front) up output signal	Output	Seat lifting (front)	Operate (up)	Battery voltage	-							
					Stop	0	_							
48 (B)	Ground	Ground (power)	_	_		0	1							

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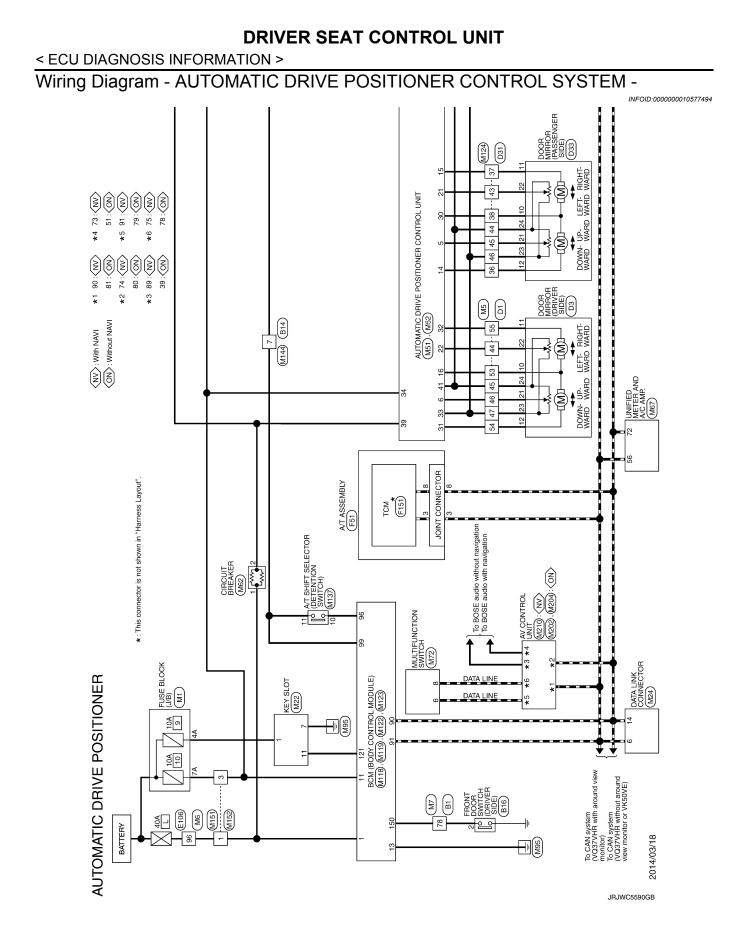
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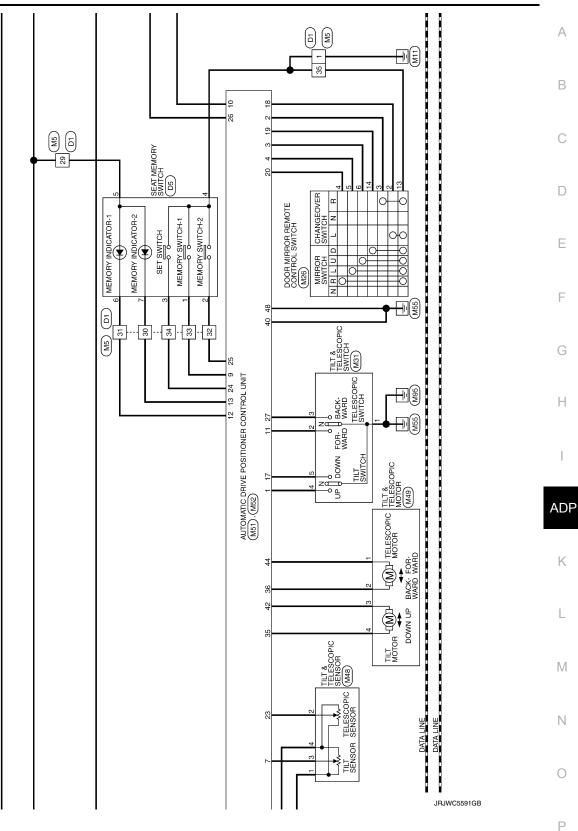
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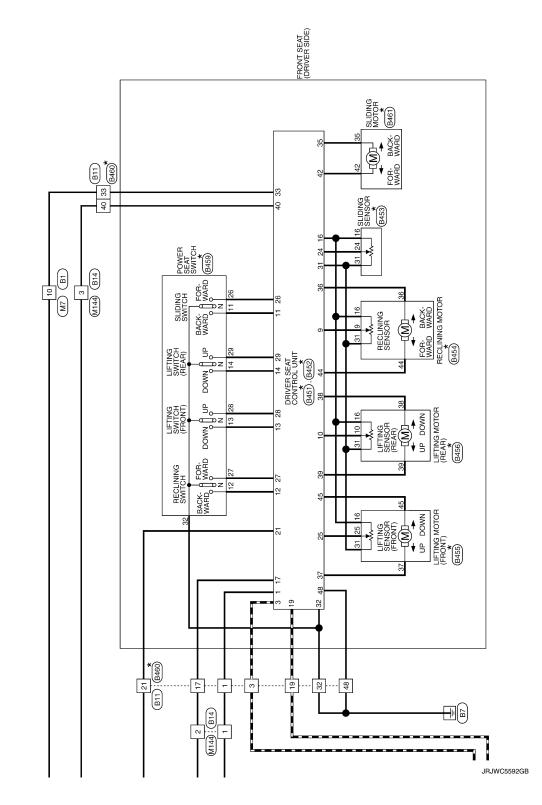
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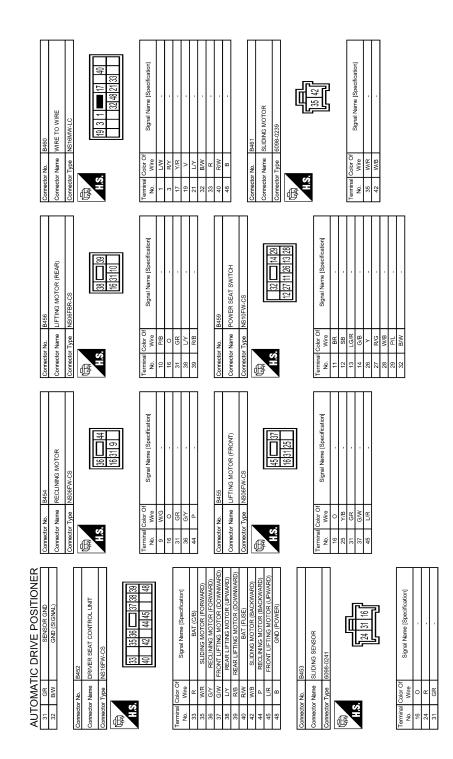
* : This connector is not shown in "Harness Layout".

	А
Switch (pRivER sIDE)	В
	С
Connector No. B16 Connector Name FRV0 Connector Name FRV0 Connector Name PM51 Main Wite Name Connector Name Main Wite Name Connector Name Main Wite Name Connector Name Main	D
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ALTOMATIC DRIVE POSITIONER Corrector Name WIRE TO WIRE Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE Connector Name Stratter Type Termine Connector Name Spectration Name Spectration	Μ
AUTOMAT AUTOMAT Connector Name N N N N S N N S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S	Ν

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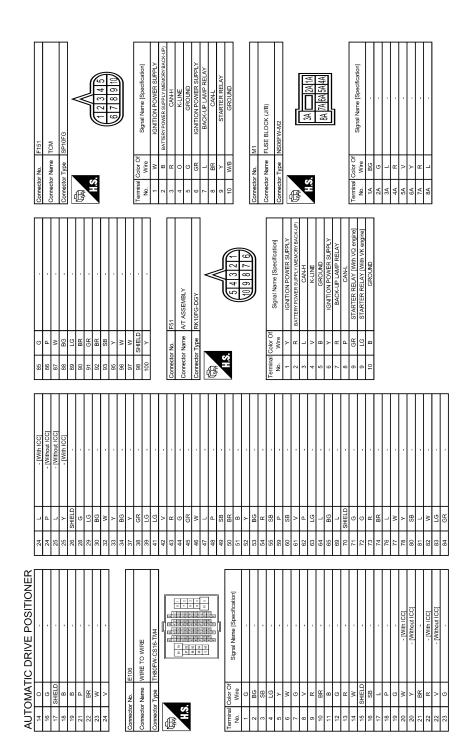
А DOOR MIRROR (PASSENGER SIDE) 4 В Signal Name [Specification] 19 18 17 16 С TH24MW-NH 12 11 10 24 23 22 Color Of Wire W SHELD SHELD Connector Name Connector Type 88 ≻ 유 이 유 이 > > Connector No. ပျကနည်ပ D H.S. 49 inal Ś 6 3 3 3 F Е 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 4444442414038355 282242212121914141 583453252131844437 4 Signal Name [Specification] Signal Name [Specification] SEAT MEMORY SWITCH F WIRE TO WIRE 2 G Color Of Wire ð Color C Wire Connector Name Connector Type Connector Name Tvpe u ≻ оS чЖ - | ≥ | a ച≥ nnector No. H.S. H.S.H. Connector erminal No. ន្តន Ś ß E õ Н Signal Name [Specification] DOOR MIRROR (DRIVER SIDE) 9 12 11 10 9 24 23 22 21 ADP Color Of Wire R B R O G L ^{SB} B R G Connector Name NDG onnector No. ∠ ≥ 55 54 55 H.S. Κ 12 5 5 5 45 8 Ś ſ AUTOMATIC DRIVE POSITIONER Commedia No. 1D1 L Signal Name [Specification] Μ WIRE TO WIRE TH40FW Color Of Wire Connector Name Connector Type R B GR GR ы со В S S S G G в - GR - GR -비뚭 ე > ຩ ≻ <u>ମ</u>୍ଚ ଅ Ν Ś H.S. erminal No. 4 E

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< ECU DIAGNOSIS INFORMATION >



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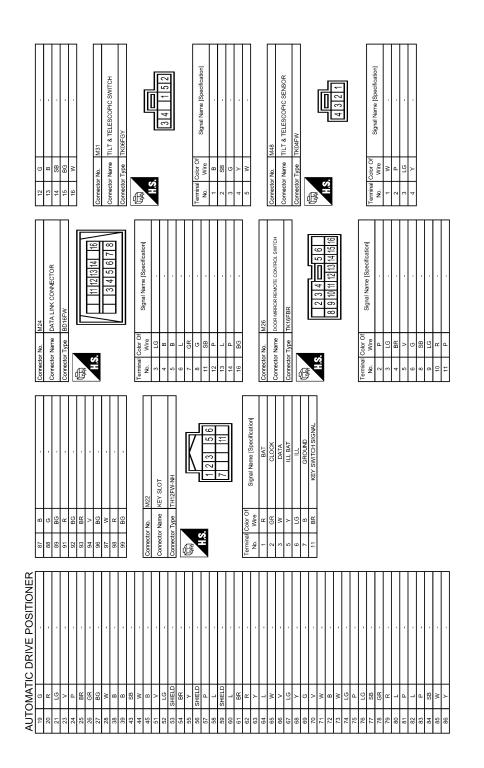
	А
effective contraction contrac	В
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81 L L 83 Y V V 88 P P V 88 P V V 88 P P V 99 P P V 91 P V V 93 P V V 10 No V V 11 No V V 13 B B V 13 B V V 14 V V V 13 V V V 14 V V V 13 V V V 14 V <td>D</td>	D
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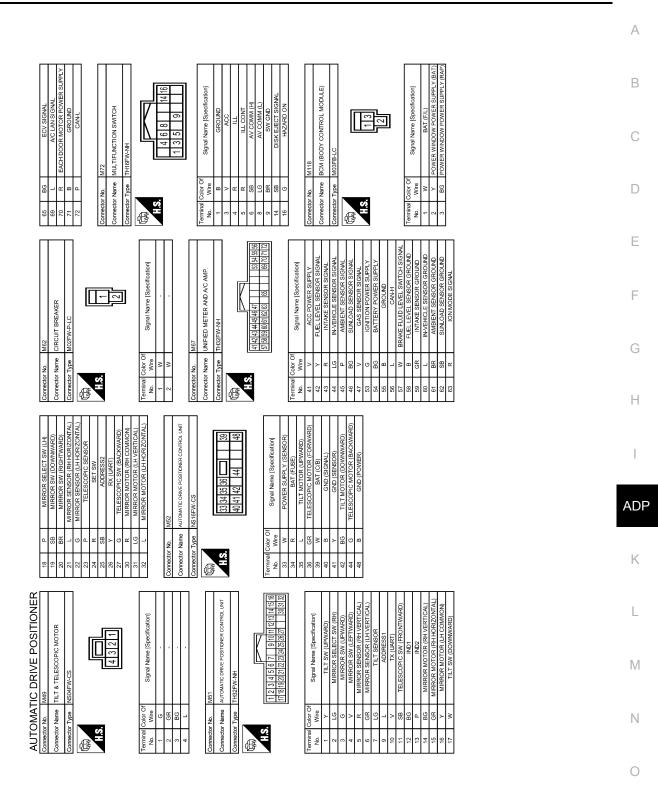
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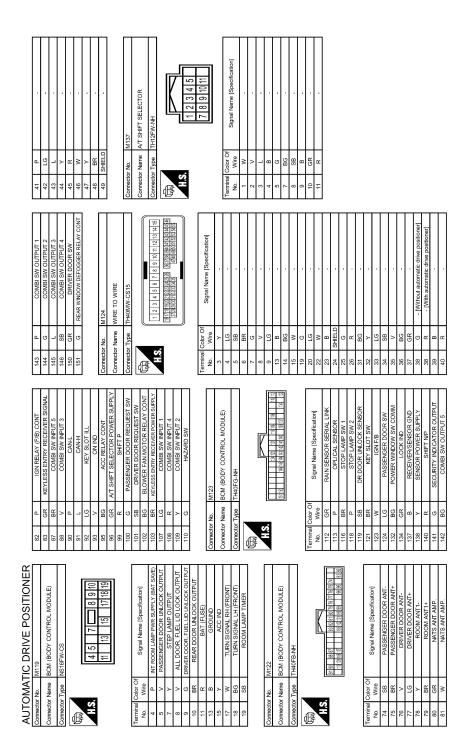
< ECU DIAGNOSIS INFORMATION >



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INFOID:000000010577495

DRIVER SEAT CONTROL UNIT < ECU DIAGNOSIS INFORMATION >

Revision: 2015 February

Fail Safe

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-45</u>
Only manual functions operate normally.	Tilt sensor	B2118	<u>ADP-50</u>
	Telescopic sensor	B2119	<u>ADP-53</u>
	Detent switch	B2126	<u>ADP-56</u>
Only manual functions, except door mirror, operate normally.	UART communication	B2128	ADP-58
Only manual functions, except seat sliding, operate normally.	Seat sliding output	B2112	<u>ADP-46</u>
Only manual functions, except seat reclining, operate normally.	Seat reclining output	B2113	<u>ADP-48</u>

DTC Index

INFOID:000000010577496

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-45</u>
SEAT SLIDE [B2112]	0	1-39	Seat slide motor output	<u>ADP-46</u>
SEAT RECLINING [B2113]	0	1-39	Seat reclining motor output	<u>ADP-48</u>
TILT SENSOR [B2118]	0	1-39	Tilt sensor input	<u>ADP-50</u>
TELESCO SENSOR [B2119]	0	1-39	Telescopic sensor input	ADP-53
DETENT SW [B2126]	0	1-39	Detention switch condition	<u>ADP-56</u>
UART COMM [B2128]	0	1-39	UART communication	<u>ADP-58</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.

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Reference Value

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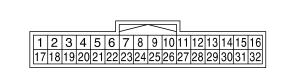
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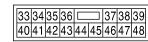
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TERMINAL LAYOUT







JMJIA0199ZZ

PHYSICAL VALUES

	nal No. color)	Description		Conditio	on	Voltage (V)	F
(+)	(-)	Signal name	Input/ Output			(Approx.)	G
1	Ground	Tilt switch up signal	Input	Tilt switch	Operate (up)	0	
(Y)	Ground	The switch up signal	mput	The Switch	Other than above	5	Н
0		Changes yer switch DU		Changeouer	RH	0	
2 (LG)	Ground	Changeover switch RH signal	Input	Changeover switch position	Neutral or LH	5	I
3	Ground	Mirror switch up signal	Input	Mirror switch		0	ADP
(G)	Ground		input	WINTER SWITCH	Other than above	5	
4	Ground	Mirror switch left signal	Input	Mirror switch	Operated (left)	0	K
(V)	Ground	Will of Switch left Signal	input		Other than above	5	L
5 (R)	Ground	Door mirror sensor (RH) up/down signal	Input	Door mirror RH pos	sition	Change between 3.4 (close to peak) 0.6 (close to valley)	
6 (GR)	Ground	Door mirror sensor (LH) up/down signal	Input	Door mirror LH pos	sition	Change between 3.4 (close to peak) 0.6 (close to valley)	M
7 (LG)	Ground	Tilt sensor signal	Input	Tilt position		Change between 1.2 (close to top) 3.4 (close to bottom)	Ν
9					Push	0	
(L)	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 2v/div JMJIA0118ZZ	Ρ

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

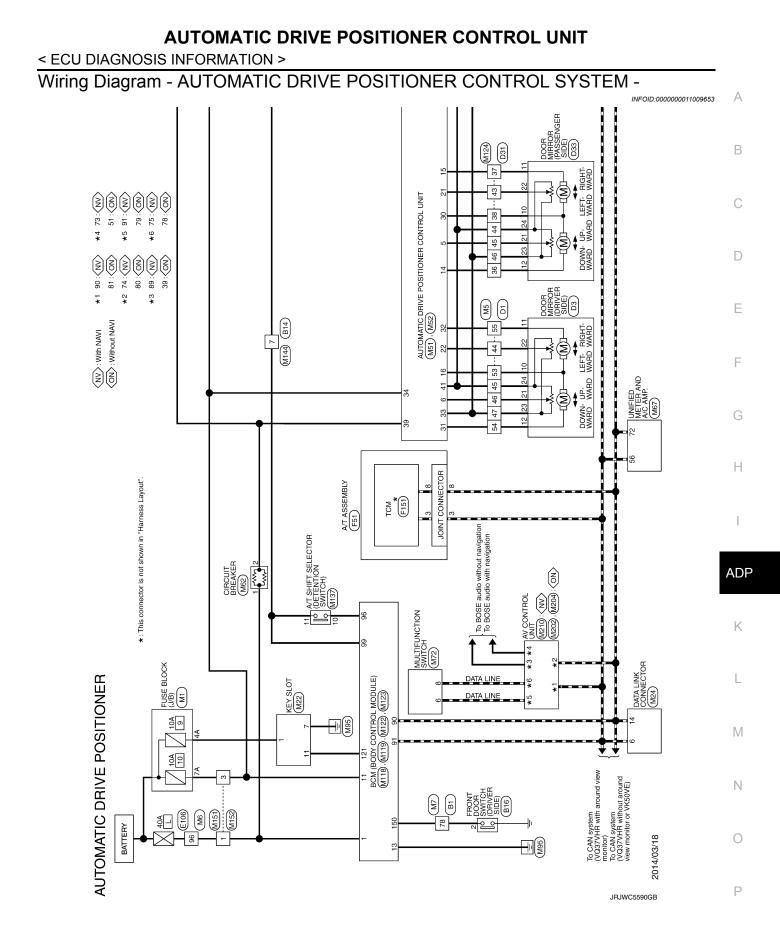
	nal No. e color)	Description		Conditio	on	Voltage (V)
(+)	(-)	Signal name	Input/ Output			(Approx.)
11 (SB)	Ground	Telescopic switch forward signal	Input	Telescopic switch	Operate (forward) Other than	0
					above	5
12 (BG)	Ground	Memory indictor 1 signal	Output	Memory indictor 1	Illuminate Other than	0
(60)					above	Battery voltage
13 (P)	Ground	Memory indictor 2 signal	Output	Memory indictor 2	Illuminate Other than	0
(1)					above	Battery voltage
14	Ground	Door mirror motor (RH) up	Output	Door mirror RH	Operate (up)	Battery voltage
(BG)		output signal			Other than above	0
15	Ground	Door mirror motor (RH)	Output	Door mirror RH	Operate (left)	Battery voltage
(GR)	Ground	left output signal	Output		Other than above	0
		Door mirror motor (LH) down output signal Door mirror motor (LH)	Output	Dutput Door mirror (LH)	Operate (down)	Battery voltage
16	Ground				Other than above	0
(Y)	Ground		Output		Operate (right)	Battery voltage
		right output signal			Other than above	0
17	Ground	Tilt switch down signal	Input	Tilt switch	Operate (down)	0
(W)	Cround	The switch down signal	input	The Switch	Other than above	5
18	Ground	Changeover switch LH	Input	Changeover	LH	0
(P)	Ground	signal	input	switch position	Neutral or RH	5
19	Ground	Mirror switch down signal	Input	Mirror switch	Operate (down)	0
(SB)	Cround		mpar		Other than above	5
20	Ground	Mirror switch right signal	Innut	Mirror switch	Operate (right)	0
(BR)	Ground	Mirror switch right signal	Input	MITOr Switch	Other than above	5
21 (L)	Ground	Door mirror sensor (RH) left/right signal	Input	Door mirror RH position		Change between 3.4 (close to left edge) 0.6 (close to right edge)
22 (G)	Ground	Door mirror sensor (LH) left/right 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		Change between 0.8 (close to top) 3.4 (close to bottom)

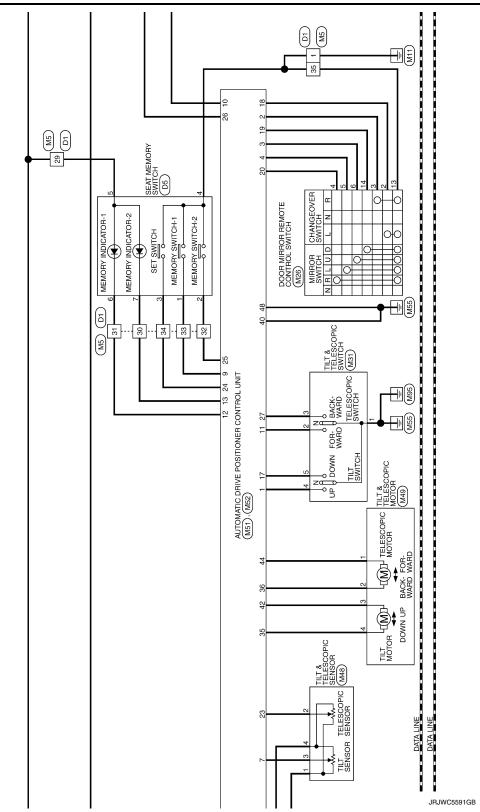
< ECU DIAGNOSIS INFORMATION >

	nal No. color)	Description		Condition		Voltage (V)	А
(+)	(-)	Signal name	Input/ Output	Contain		(Approx.)	
24 (R)	Ground	Set switch signal	Input	Set switch	Push Other than above	0 5	В
25 (SB)	Ground	Memory switch 2 signal	Input	Memory switch 2	Push Other than above	0 5	С
26 (Y)	Ground	UART communication (RX)	Input	Ignition switch ON	1	10mSec/div	E F
27		Telescopic switch back-			Operate (backward)	0	
(G)	Ground	ward signal	Input	Telescopic switch	Other than above	5	G
		Door mirror motor (RH)			Operate (down)	Battery voltage	Н
30		down output signal			Other than above	0	-
(R)	Ground	Door mirror motor (RH) right output signal	Output	Door mirror (RH)	Operate (right)	Battery voltage	-
					Other than above	0	AD
31		Door mirror motor (LH)	0 1 1		Operate (up)	Battery voltage	-
(LG)	Ground	up output signal	Output	Door mirror (LH)	Other than above	0	K
32	Quand	Door mirror motor (LH)	0.1.1		Operate (left)	Battery voltage	L
(L)	Ground	left output signal	Output	Door mirror (LH)	Other than above	0	-
33 (W)	Ground	Sensor power supply	Input		I	5	M
34 (R)	Ground	Power source (Fuse)	Input			Battery voltage	N
35	O an a d	-	0.1.1		Operate (up)	Battery voltage	
(L)	Ground	Tilt motor up output signal	Output	Steering tilt	Other than above	0	0
36	Oreverd	Telescopic motor forward	Quitaut	Steering telescop-	Operate (forward)	Battery voltage	P
(GR)	Ground	output signal	Output	ic	Other than above	0	-
39 (W)	Ground	Power source (C/B)		_	1	Battery voltage	
40 (B)	Ground	Ground	_			0	-

Revision: 2015 February

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



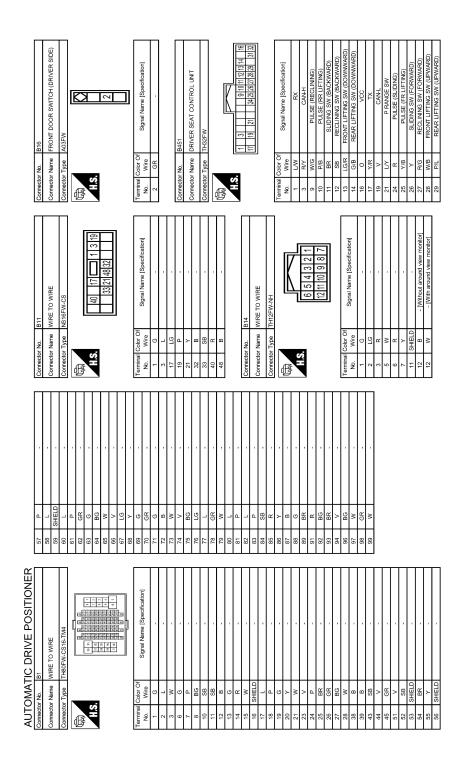


AUTOMATIC DRIVE POSITIONER CONTROL UNIT < ECU DIAGNOSIS INFORMATION >

А FRONT SEAT (DRIVER SIDE) В SLIDING MOTOR B461 С FOR- BACK-WARD WARD 35 Ś D 811 840 33 8460 SLIDING 6 Ε B453) POWER SEAT SWITCH B459) F B14 M7 B1 FOR-WARD (m 9 M144 SLIDING FOR- BACK WARD WARD RECLINING MOTOR (B454) σ bΖ RECLINING BACK-WARD G Ş ł LIFTING SWITCH (REAR) ₿, 14 29 DRIVER SEAT CONTROL UNIT (8451), (8452) 38 44 шог Н * : This connector is not shown in "Harness Layout". NMOD LIFTING SWITCH (FRONT) LIFTING MOTOR (REAR) (8456) 28 С β <u>1</u>0 FOR-WARD RECLINING SWITCH ADP 98 2 - Dz 2 ₽ BACK-WARD ١¢ LIFTING MOTOR (FRONT) Κ 25 5 ł B455 37 L 48 σ 32 m Μ B11 B46 17 48 ... 32 ... 19 . - Ю Ν B14 N M144 0 JRJWC5592GB

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< ECU DIAGNOSIS INFORMATION >



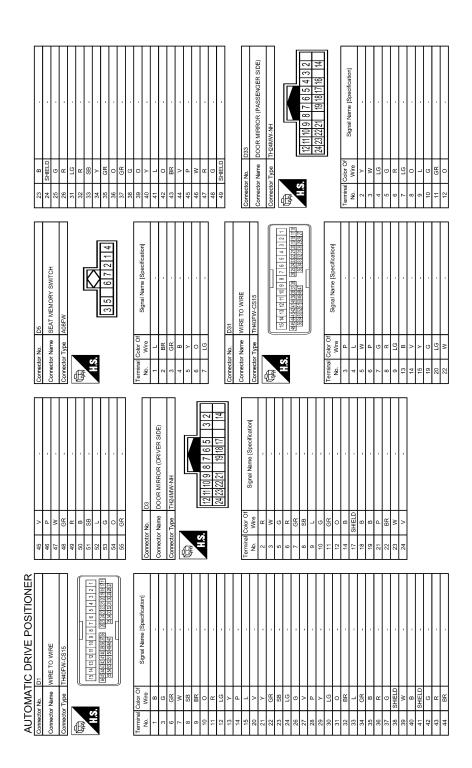
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AUTOMATIC DRIVE POSITIONER CONTROL UNIT < ECU DIAGNOSIS INFORMATION >

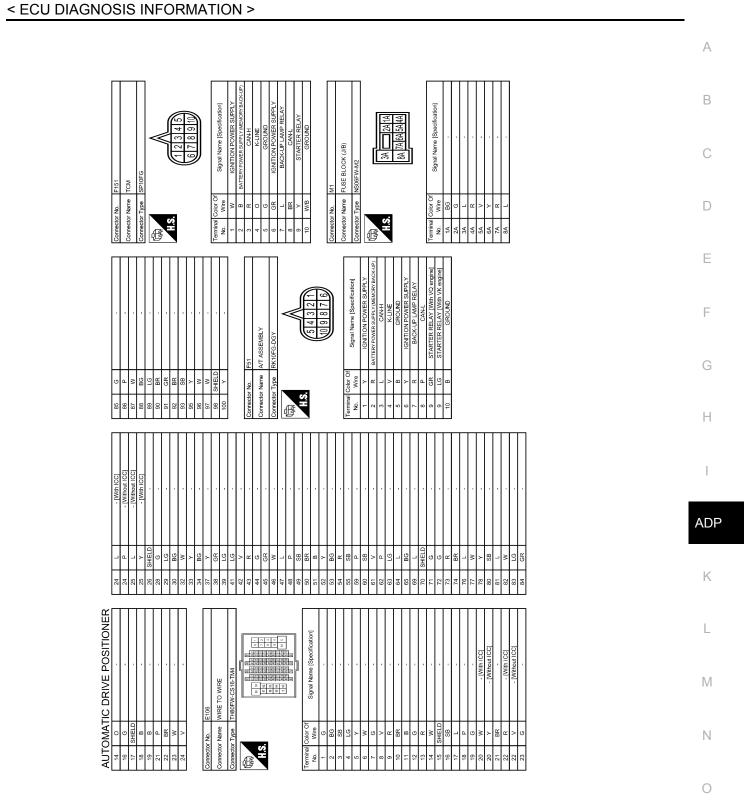
А В Signal Name [Specification] Signal Name [Specification] 48 21 SLIDING MOTOR С WIRE TO WIRE 6098-0235 NS16MV B460 B461 Color Of Wire Color Of Wire W/R Connector Type Connector Type nnector Name Connector Name ΝŽ Connector No. D mector No. H.S. H.S. erminal 33 40 48 35 No. Ś ß ß Ε Signal Name [Specification] Signal Name [Specification] 4 29 38 39 39 16 31 10 LIFTING MOTOR (REAR) F POWER SEAT SWITCH 32 🔲 12 27 11 26 NS10FW-C5 NS06FBR-B456 B459 G Color Of Wire Color Of Wire 31 GR 38 L/Y 39 R/B N/B B/V Connector Name Connector Name Connector Type Connector Type O P/B Connector No. 照 8 GB G/B R/G Connector No. H.S. H.S. 29 32 26 13 Ś Ś ß E Н Signal Name [Specification] Signal Name [Specification] 36 - 44 16 31 9 45 - 37 16 31 25 LIFTING MOTOR (FRONT) RECLINING MOTOR ADP B455 olor Of Wire Solor Of Wire Connector Name Connector Name o R 2ª ч Connector Type Connector Type o ^g R ^g B ^k Connector No. Connector No. H.S. H.S.H 36 37 Κ ß Ś C Ś AUTOMATIC DRIVE POSITIONER L 48 Signal Name [Specification] Signal Name [Specification] DRIVER SEAT CONTROL UNIT 44 0 BAT (C/B SLIDING SENSOR Μ 5 NS16FW-CS B453 nector No. onnector Name nnector Type nector Name nector Type olor U Wire olor C Wire ġ 0 8 8 Ν H.S.H. H.S. No. Ś ß Æ Ο

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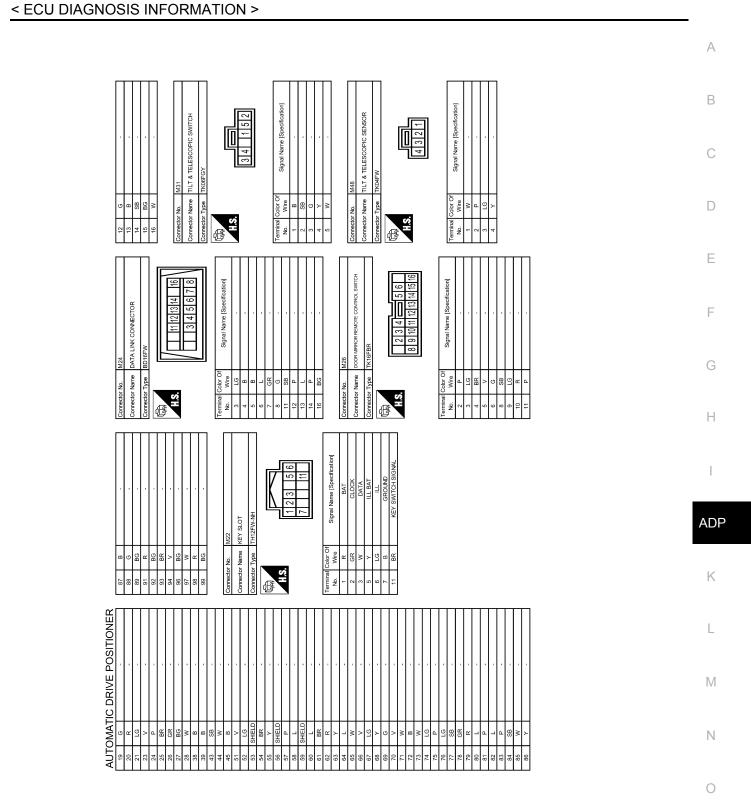


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Terminal Control Signal Name (Specification) 47 1 1 No. With Mine (Specification) Signal Name (Specification) 48 P P 1 C No. Signal Name (Specification) 48 P P 2 LG -(With Mine arcon seed) 50 LG Signal Name (Specification) 3 Signal Name (Specification) - 1 LG - 1 C - - 1 LG - 1 C - - 1 LG - 1 N - - - N - N 1 N - - - N - N - N <	W	A THROMW-CS16-TM4
Terminal Color Of Wine Signal Name [Spacification] 46 P N. Wine Signal Name [Spacification] 49 BG . 1 16 . 17 51 59 BG . 3 51 51 59 BG . 3 51 . <		
No. Win Signal Name [Specification] 46 EG 1		
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4 1.G · 6 0.R · <td></td> <td></td>		
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< ECU DIAGNOSIS INFORMATION >

65 BG ECV SIGNAL. 69 L ECU SIGNAL. 70 R EACH DOOR MOTOR POWER SUPPLY. 71 B GROUND 72 P CANL. 72 P CANL. Comredor No. M72 CANL. Comredor No. M72 CANL.		Terminal Color Of No. Signal Name [Specification] 1 B GROUND 3 V ACC 4 R ILL 6 SB ACCOMM (H) 8 LG ACCOMM (L)	9 BR 14 SB DIG 16 G	Corrector No. M118 Corrector Name BCM (BODY CONTROL MODULE) Corrector Type M03FB-LC	ALS 13	Terminal Color Of No. Signal Name [Specification] 1 Wr BAT [FL] 2 Y POWER WINDOW POWER SUPPLY (BAT) 3 BG POWER WINDOW POWER SUPPLY (RAP)
Corrrector No. M62 Corrrector Name CIRCUIT BREAKER Corrrector Type M02FW-P-LC	Na. Wire Signal Name [Specification] Na. Wire	Image: Provide a state of the sta	[5] 28(55) (10) (12) (13) (14) (17) (17) emiral Color Of Signal Name (Specification) No. Wree	41 V ACC POWER SUPPLY 42 Y FUEL LEVEL SENSOR SIGNAL 43 R INTAKE SENSOR SIGNAL 44 LG INVEHICLE SENSOR SIGNAL	□ 8 > 0 8 m →	57 W BRAKE FLUDLEVEL SWITCH SIGNAL 58 B FULL EVEL SENSOR GROUND 60 L INTARE SENSOR GROUND 61 BR AMBIENT SENSOR GROUND 62 SB SUNLOAD SENSOR GROUND 63 R INVEHICLE SENSOR GROUND 63 R AMBIENT SENSOR GROUND 63 R SUNLOAD SENSOR GROUND 63 R INNODE SIGNAL
18 P MIRROR SELECT SW (LH) 19 55 MIRROR SW (RIOHTWARD) 20 BR MIRROR SW (RIOHTWARD) 21 L MIRROR SENSOR (HH-ORIZONTAL) 221 L MIRROR SENSOR (HH-ORIZONTAL) 23 P MIRROR SENSOR (HH-ORIZONTAL) 23 P TLEESCORTO SENSOR (HH-ORIZONTAL) 23 P ADRESS 26 MIRROR SENSOR (HH-ORIZONTAL) 27 C MIRROR SENSOR (HH-ORIZONTAL) 26 MIRROR SENSOR (HH-ORIZONTAL) 27 C TLESCORTO 27 G TRECORDIC SENSOR 27 G TRECORDIC SENSOR (HURT)	LG MIRROR MOTOR (LH HORIZONTAL) L MIRROR MOTOR (LH HORIZONTAL) dor No. MS2 dor No. MS2 dor Yoe Norther Courted Luni	33 34 35 36 - 39 40 41 42 44 48	Terminal Cuer Of No. Wire 33 W POWER SUPPLY (SENSOR) 34 R ANT (INC) 35 I THI MOTOR (EWARD)	GR GR	42 BG TILT MOTOR (DOWNMAE)) 44 G TELESCOPIC MOTOR (BACKWARD) 48 B GND (POWER)	
AUTOMATIC DRIVE POSITIONER Corrector Name Connector Name Connector Type Connector Type MA Connector Type Connector Type Connector Type MA Connector Type MA Connector Type Connector Type MA Connector Type Connector Type Co	Reminal Color Of Wre Signal Name (Specification) No. Wreo - 1 G - 2 GR - 3 BG - 4 L -	Connector No. M51 Connector Name Aurowarc DRNE POSITIONER CONTROL UNIT Connector Type TH32FW-NH1	1 2 3 4 5 6 7 9 10 11 21 3 14 5 6 6 7 9 10 11 21 3 14 5 16 17 11 12 13 14 5 16 17 11 13 13 13 13 13 13 13 13 13 13 13 13	Terminal No. Color Of Wire Signal Name (Specification) 1 Y TILT SW (UPWARD) 2 LG MIRROR SELECT SW (RH)		11 SB TELESCOPIC SW (FRONTWARD) 12 BC INDT 13 P INDZ 14 BG MIRROR MOTOR (RH-VERTICAL) 15 GR MIRROR MOTOR (RH-VERTICAL) 16 Y MIRROR MOTOR (RH-MIRLORIZAL) 17 W TILT SW (DOWMARD)

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AUTOMATIC DRIVE POSITIONER CONTROL UNIT < ECU DIAGNOSIS INFORMATION >

А В Signal Name [Specification] A/T SHIFT SELECTOR റ യ С TH12FW-NH Connector No. M137 color Of Wire Connector Name onnector Type - 8 0 8 8 8 8 8 D ≃ ≥ n m < | > H.S. erminal No. 48 ß Ε
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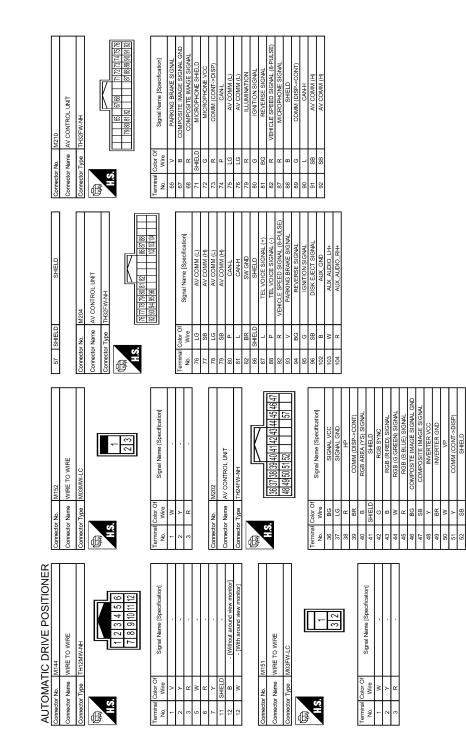
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 <t Signal Name [Specification] N R F ₫ WIRE TO WIRE TH40MW-CS15 REAR M124 Connector Type Connector Name Color BG 880 임명법이 ്വ ß <u>ଅ < ଅ</u> 2 щa Connector No. AIS. 146 150 151 No. 143 8 2 8 8 l ₽ ß Н ENTRY RECEIVER POWER SUPPL COMBI SW INPUT 1 LINK BCM (BODY CONTROL MODULE) Signal Name [Specification] AIN SENSOR SERIAL OPLICAL SENSOR I RIVER DOOR REQUES WER FAN MOTOR REL I SW INPUT SW INPUT CAN-LL CAN-LH Y SLOT ILL LOCK IND RECEIVER/SENSOF SENSOR POWER SI SHIFT NP STOP LAMP SV S DOOR UNLOCK : KEY SLOT SV 134133 [34133 [3413] 134133 [34133 [3413] 134133 [3413] PASSENGER E POWER WINDOW PASSENGER DOOF SW I I RELAY (I FNTRY RI ₹ COMBI ADP "H40FG Color Of Wire Connector Name Connector Type R 9 8 9 9 ମ୍ଚ > ଞ୍ଜ ନ୍ତ ж o 8 8 8 5 ≥ 2 8 8 a ≻ a ဗဗ္ဗ ⊻≻o Connector No. H.S. Κ 8 8 8 8 109 118 123 132 137 137 137 113 141 ß 88 ġ C AUTOMATIC DRIVE POSITIONER Commenter No. | M119 L 19 BCM (BODY CONTROL MODULE) BCM (BODY CONTROL MODULE) Signal Name [Specification] <u>₩</u> Signal Name [Specification] 6 OM LAMP PWR SUPPLY (BA EAR DOOR, FUEL LID UNLOCK, OUT EAR DOOR UNLOCK OUT BAT (FUSE) GROUND ACC IND TURN SIGNAL TH (FRONT TURN SIGNAL LH (FRONT ROOM LAMP TIMER ANT AMP ANT AMP DRIVER DOOR A DRIVER DOOR A ROOM ANT1-ROOM ANT1-7 | 15 | -PASSENGER [PASSENGER [83 82 DOOR, FUEL NATS A 13 Μ 91 90 88 87 110 109 109 107 4 5 11 M122 ģ Xolor Of Wire BR Connector Name Connector Type nnector No. mector Name olor C Wire > ೮ H <u>к</u> в ≻ ≥ 8 8 입 > 띪 ଞ|≥ Ν H.S. AHS. ermina No. Ē g Ē

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BCM (BODY CONTROL MODULE)

Reference Value

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
R WIPER LOW	Other than front wiper switch LO	Off
	Front wiper switch LO	On
R WASHER SW	Front washer switch OFF	Off
-K WASHER SW	Front washer switch ON	On
-R WIPER INT	Other than front wiper switch INT/AUTO	Off
	Front wiper switch INT/AUTO	On
-R WIPER STOP	Front wiper is not in STOP position	Off
R WIPER STOP	Front wiper is in STOP position	On
NT VOLUME	Wiper volume dial is in a dial position 1 - 7	Wiper volume dial position
RR WIPER ON	Other than rear wiper switch ON	Off
	Rear wiper switch ON	On
RR WIPER INT	Other than rear wiper switch INT	Off
	Rear wiper switch INT	On
	Rear washer switch OFF	Off
RR WASHER SW	Rear washer switch ON	On
	Rear wiper is in STOP position	Off
RR WIPER STOP	Rear wiper is not in STOP position	On
URN SIGNAL R	Other than turn signal switch RH	Off
URIN SIGINAL R	Turn signal switch RH	On
	Other than turn signal switch LH	Off
FURN SIGNAL L	Turn signal switch LH	On
TAIL LAMP SW	Other than lighting switch 1ST and 2ND	Off
AIL LAIVIP SVV	Lighting switch 1ST or 2ND	On
HI BEAM SW	Other than lighting switch HI	Off
	Lighting switch HI	On
	Other than lighting switch 2ND	Off
IEAD LAMP SW 1	Lighting switch 2ND	On
	Other than lighting switch 2ND	Off
IEAD LAMP SW 2	Lighting switch 2ND	On
	Other than lighting switch PASS	Off
PASSING SW	Lighting switch PASS	On
	Other than lighting switch AUTO	Off
AUTO LIGHT SW	Lighting switch AUTO	On

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< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
FR FOG SW	Front fog lamp switch OFF	Off
	Front fog lamp switch ON	On
RR FOG SW	NOTE: The item is indicated, but not monitored.	Off
DOOR SW-DR	Driver door closed	Off
	Driver door opened	On
DOOR SW-AS	Passenger door closed	Off
	Passenger door opened	On
DOOR SW-RR	Rear RH door closed	Off
	Rear RH door opened	On
DOOR SW-RL	Rear LH door closed	Off
JOON SWINE	Rear LH door opened	On
DOOR SW-BK	Back door closed	Off
JOON SW-BR	Back door opened	On
CDL LOCK SW	Other than power door lock switch LOCK	Off
JDL LOCK SW	Power door lock switch LOCK	On
	Other than power door lock switch UNLOCK	Off
CDL UNLOCK SW	Power door lock switch UNLOCK	On
	Other than driver door key cylinder LOCK position	Off
KEY CYL LK-SW	Driver door key cylinder LOCK position	On
	Other than driver door key cylinder UNLOCK position	Off On Off Off
KEY CYL UN-SW	Driver door key cylinder UNLOCK position	On
KEY CYL SW-TR	NOTE: The item is indicated, but not monitored.	Off
	Hazard switch is OFF	Off
HAZARD SW	Hazard switch is ON	On
REAR DEF SW	NOTE: The item is indicated, but not monitored.	Off
TR CANCEL SW	NOTE: The item is indicated, but not monitored.	Off
	Back door opener switch OFF	Off
FR/BD OPEN SW	While the back door opener switch is turned ON	On
TRNK/HAT MNTR	NOTE: The item is indicated, but not monitored.	Off
REVERSE SW	NOTE: The item is indicated, but not monitored.	Off
	LOCK button of the Intelligent Key is not pressed	Off
RKE-LOCK	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
RKE-TR/BD	NOTE: The item is indicated, but not monitored.	Off
	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

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< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status	- A
RKE-MODE CHG	LOCK/UNLOCK button of the Intelligent Key is not pressed and held simultaneous- ly	Off	A
	LOCK/UNLOCK button of the Intelligent Key is pressed and held simultaneously	On	
	Bright outside of the vehicle	Close to 5 V	– B
OPTICAL SENSOR	Dark outside of the vehicle	Close to 0 V	
	Driver door request switch is not pressed	Off	С
REQ SW -DR	Driver door request switch is pressed	On	_
REQ SW -AS	Passenger door request switch is not pressed	Off	
	Passenger door request switch is pressed	On	– D
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off	_ Е
REQ SW -RL	NOTE: The item is indicated, but not monitored.	Off	
REQ SW -BD/TR	Back door request switch is not pressed	Off	_ F
REW OW -BD/1K	Back door request switch is pressed	On	_ 1
PUSH SW	Push-button ignition switch (push switch) is not pressed	Off	_
F03H 3W	Push-button ignition switch (push switch) is pressed	On	G
IGN 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	H
CLUCH SW	NOTE: The item is indicated, but not monitored.	Off	
BRAKE SW 1	The brake pedal is depressed when No. 7 fuse is blown	Off	_
DRAKE SW I	The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal	On	
BRAKE SW 2	The brake pedal is not depressed	Off	- AD
BRARE SW 2	The brake pedal is depressed	On	
DETE/CANCL SW	Selector lever in P position	Off	K
DETE/O/MOE OW	Selector lever in any position other than P	On	
SFT PN/N SW	Selector lever in any position other than P and N	Off	
	Selector lever in P or N position	On	L
S/L -LOCK	NOTE: The item is indicated but not monitored.	Off	D. /
S/L -UNLOCK	NOTE: The item is indicated but not monitored.	Off	- M
S/L RELAY-F/B	NOTE: The item is indicated but not monitored.	Off	N
UNLK SEN -DR	Driver door is unlocked	Off	
UNER SEN-DR	Driver door is locked	On	0
PUSH SW -IPDM	Push-button ignition switch (push-switch) is not pressed	Off	0
	Push-button ignition switch (push-switch) is pressed	On	
IGN RLY1 -F/B	Ignition switch in OFF or ACC position	Off	Р
	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	Off	
	Selector lever in P or N position	On	

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Monitor Item	Condition	Value/Status
SFT P -MET	Selector lever in any position other than P	Off
	Selector lever in P position	On
SFT N -MET	Selector lever in any position other than N	Off
	Selector lever in N position	On
	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 (5 seconds)	READY
	Driver door is unlocked	UNLOCK
	Passenger door is locked	LOCK
DOOR STAT-AS	Wait with selective UNLOCK operation (5 seconds)	READY
	Passenger door is unlocked	UNLOCK
ID OK FLAG	Driver side door is open after ignition switch is turned OFF (Selector lever is in the P position)	Reset
	Ignition switch ON	Set
PRMT ENG STRT	The engine start is prohibited	Reset
FRIMITEINGSTRT	The engine start is permitted	Set
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset
	The Intelligent Key is not inserted into key slot	Off
KEY SW -SLOT	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 accords with any key ID registered to BCM.	Done
	The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM.	Yet
CONFIRM ID4	The key ID that the key slot receives is recognized by the fourth key ID registered to BCM.	Done
	The key ID that the key slot receives is not recognized by the third key ID registered to BCM.	Yet
CONFIRM ID3	The key ID that the key slot receives is recognized by the third key ID registered to BCM.	Done

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Monitor Item	Condition	Value/Status
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 registered to BCM.	Done
CONFIRM ID1	The key ID that the key slot receives is not recognized by the first key ID registered to BCM.	Yet
	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
1P 4	The ID of fourth Intelligent Key is registered to BCM	Done
TP 3	The ID of third Intelligent Key is not registered to BCM	Yet
1P 3	The ID of third Intelligent Key is registered to BCM	Done
	The ID of second Intelligent Key is not registered to BCM	Yet
TP 2	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

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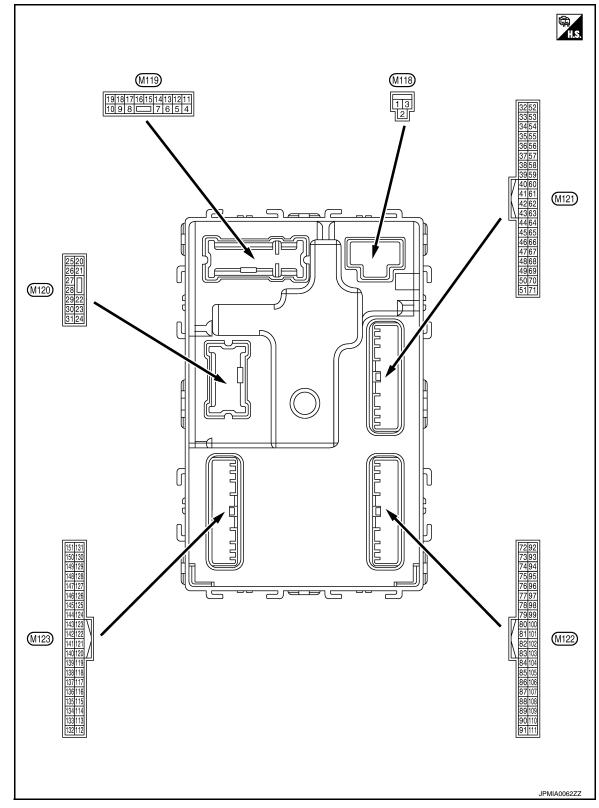
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TERMINAL LAYOUT



PHYSICAL VALUES

inal No.	Description	1			Value	
-	Signal name	Input/ Output		Condition	(Approx.)	
Ground	Battery power supply	Input	Ignition switch OF	F	Battery voltage	
Ground	P/W power supply (BAT)	Output	Ignition switch OF	F	12 V	
Ground	P/W power supply (IGN)	Output	Ignition switch ON	J	12 V	
					0 V	
Ground	Interior room lamp power supply	Output	ed.	-	12 V	
Oracia	Passenger door UN-	Outrast	Desservedeer	UNLOCK (Actuator is activated)	12 V	
Ground	LOCK	Output	Passenger door	Other than UNLOCK (Actuator is not activated)	0 V	
Cround	Stop Jamp control	Outout	Stop Jama	ON	0 V	
Ground		Output	Step lamp	OFF	12 V	
Cround	All doors, fuel lid	Output	All dooro fuol lid	LOCK (Actuator is activated)	12 V	
Ground	LOCK	Output	All doors, fuel lid	Other than LOCK (Actuator is not activated)	0 V	
, Driver door, fuel lid	Driver door, fuel lid	Driver door, fuel lid	Outout	Driver door, fuel	UNLOCK (Actuator is activated)	12 V
Ground	UNLOCK	Output	lid	Other than UNLOCK (Actuator is not activated)	0 V	
Ground	Rear RH door and	Output	Rear RH door	UNLOCK (Actuator is activated)	12 V	
Ground	LOCK	Output	and rear LH door	Other than UNLOCK (Actuator is not activated)	0 V	
Ground	Battery power supply	Input	Ignition switch OF	F	Battery voltage	
Ground	Ground	_	Ignition switch ON	1	0 V	
Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage	
	-			ACC or ON	0 V	
				Turn signal switch OFF	0 V	
Ground	Turn signal RH (Front)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 1 s PKID0226E	
	 color) - Ground 	Signal name Ground Battery power supply Ground P/W power supply Ground P/W power supply Ground P/W power supply Ground Interior room lamp Ground Passenger door UN-LOCK Ground Step lamp control Ground Driver door, fuel lid <lock< td=""> Ground Driver door, fuel lid<lock< td=""> Ground Rear RH door and rear LH door UN-LOCK Ground Battery power supply Ground All cocr, fuel lid<lock< td=""> Ground Driver door, fuel lid<lock< td=""> Ground All cocr and rear LH door and rear LH door UN-LOCK Ground Ground Ground ACC indicator lamp</lock<></lock<></lock<></lock<>	Color) Input/ Output Ground Battery power supply Input Ground P/W power supply Output Ground P/W power supply Output Ground P/W power supply Output Ground Interior room lamp power supply Output Ground Passenger door UN- LOCK Output Ground Step lamp control Output Ground All doors, fuel lid LOCK Output Ground Driver door, fuel lid UNLOCK Output Ground Rear RH door and rear LH door UN- LOCK Output Ground Ground Ground Input Ground ACC indicator lamp Output Ground ACC indicator lamp Output	Signal name Input/ Output Ground Battery power supply Input Ignition switch OF Ground P/W power supply (BAT) Output Ignition switch OF Ground P/W power supply (IGN) Output Interior room lamp (Cuts the interior of (Outputs the interior Ply) Ground Passenger door UN- LOCK Output Passenger door Ground Step lamp control Output Step lamp Ground Step lamp control Output All doors, fuel lid LOCK Output Ground Driver door, fuel lid UNLOCK Output All doors, fuel lid lid Driver door, fuel lid Ground Rear RH door and rear LH door UN- LOCK Output Rear RH door and rear LH door Ground Ground Ground Ignition switch OF Ground ACC indicator lamp Output Ignition switch OF Ground ACC indicator lamp Output	color) Signal name Input/ Output Condition Ground Battery power supply (BAT) Input Ignition switch OFF Ground P/W power supply (BAT) Output Ignition switch OFF Ground P/W power supply (IGN) Output Ignition switch OFF Ground P/W power supply (IGN) Output Ignition switch ON Ground P/W power supply (IGN) Output Interior room lamp battery saver is activated. (Cuts the interior room lamp power supply) Ground Interior room lamp power supply Output Interior room lamp battery saver is not activated. (Outputs the interior room lamp power supply) Ground Step lamp control Output Passenger door UNLOCK (Actuator is activated) Ground Step lamp control Output Step lamp ON Ground Step lamp control Output All doors, fuel lid UOCK UNLOCK (Actuator is not activated) Ground Driver door, fuel lid UNLOCK Output Driver door, fuel lid UNLOCK UNLOCK (Actuator is activated) Ground Rear RH door and rear LH door UN- LOCK Output Rear RH door and rear LH door UN	

	nal No.	Description				Value
(Wire +	e color) -	Signal name	Input/ Output		Condition	(Approx.)
					Turn signal switch OFF	0 V
18 (BG)	Ground	Turn signal LH (Front)	Output	lgnition switch ON	Turn signal switch LH	(V) 15 0 10 10 15 15 15 15 15 15 15 15 15 15
				Other than under condition Interior room lamp timer is activated.		6.5 V 5.0 V
19 (SB)	Ground	Interior room lamp control	Output	 Interior room lamp timer is activated. (Door is unlocked. etc) Welcome light function is activated. 		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
					Turn signal switch OFF	0 V
25 (G)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5
26		Dece inc.	0.1.1		OFF (Stopped)	6.5 V 0 V
(P)	Ground	Rear wiper	Output	Rear wiper	ON (Operated)	12 V
34	Ground	Luggage room anten-	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB
(SB)	Siduid	na (–)	Suput	OFF	When Intelligent Key is not in the passenger com- partment	(V) 15 10 5 0 1 s JMKIA0063GB

	nal No.	Description					
(Wire +	e color) –	Signal name	Input/ Output		Condition	Value (Approx.)	A
35	Ground	Luggage room anten-	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB	B C D
(V)	Ground	na (+)	Output	OFF	When Intelligent Key is not in the passenger com- partment	(V) 15 10 5 0 1 s JMKIA0063GB	E
38	Ground	Back door antenna (-	Output	When the back door opener re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 15 10 5 0 15 15 10 5 0 15 15 15 15 15 15 15 15 15 15 15 15 15	G H I
(B)	Ground)	Output	quest switch is operated with ig- nition switch OFF	When Intelligent Key is not in the antenna detec- tion area	(V) 15 10 5 0 1 s JMKIA0063GB	ADP K
39	Ground	Back door antenna	Output	When the back door opener re-	When Intelligent Key is in the antenna detection area	(V) 15 10 0 1 s JMKIA0062GB	M
(W)	Ground	(+)	Output	quest switch is operated with ig- nition switch OFF	When Intelligent Key is not in the antenna detec- tion area	(V) 15 10 5 0 1 s JMKIA0063GB	P
47 (Y)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC ON	12 V 0 V	

	nal No.	Description				Value
(Wire	e color) -	Signal name	Input/ Output		Condition	(Approx.)
52	Ground	Starter relay control	Output	Ignition switch	When selector lever is in P or N position	12 V
(LG)	Ground	Starter relay control	Output	· ON	When selector lever is not in P or N position	0 V
60	Ground	Push-button ignition	Input	Push-button ig- nition switch	Pressed	0 V
(SB)	Giouna	switch (Push switch)	input	(Push switch)	Not pressed	12 V
					ON (Pressed)	0 V
61 (W)	Ground	Back door opener re- quest switch	Input	Back door re- quest switch	OFF (Not pressed)	(V) 15 10 10 10 10 10 10 10 10 10 10
64	Oraciand	Intelligent Key warn-	0	Intelligent Key	Sounding	0 V
(L)	Ground	ing buzzer (Engine room)	Output	warning buzzer (Engine room)	Not sounding	12 V
65 (BG)	Ground	Rear wiper stop posi- tion	Input	Rear wiper	In stop position	(V) 10 10 10 10 10 10 10 10 10 10
					Not in stop position	0 V
66					OFF (Door close)	12 V
(LG)	Ground	Back door switch	Input	Back door switch	ON (Door open)	0 V
					Pressed	0 V
67 (P)	Ground	Back door opener switch	Input	Back door open- er switch	Not pressed	(V) ₁₅ 10 5 0 • • 10ms JPMIA0594GB 8.5 - 9.0 V
68 (BR)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (Door close) ON (Door open)	(V) 10 5 0 + 10ms JPMIA0594GB 8.5 - 9.0 V 0 V

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value	^
(Wire	e color) –	Signal name	Input/ Output		Condition	(Approx.)	А
69 (R)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (Door close)	(V) ₁₅ 10 5 0 ++10ms JPMIA0594GB 8.5 - 9.0 V	B C D
				-	ON (Door open)	0 V	
74		Passenger door an-		When the pas- senger door re- quest switch is operated with ig- nition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 0 15 0 15 0 15 0 15 0 15 0 15 0 15	E F G
(SB)	Ground	tenna (–)	Output		When Intelligent Key is not in the antenna detec- tion area	(V) 15 10 5 0 15 10 5 0 15 15 10 5 0 15 15 10 5 0 15 15 15 15 15 15 15 15 15 15 15 15 15	Η
75	Ground	Fround Passenger door an- tenna (+)	Output	When the pas- senger door re- quest switch is operated with ig- nition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	ADF K L
(BR)	Siound				When Intelligent Key is not in the antenna detec- tion area	(V) 15 0 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 15 10 5 0 15 15 15 15 15 15 15 15 15 15 15 15 15	M N O

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	inal No.	Description				Value
(VVIFE +	e color) -	Signal name	Input/ Output		Condition	(Approx.)
76	Ground	Driver door antenna		When the driver door request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB
(V)		()	Output		When Intelligent Key is not in the antenna detec- tion area	(V) 15 0 0 15 0 15 0 15 0 15 0 15 0 15 0 1
77	Ground	nd Driver door antenna (+)	Output	When the driver door request switch is operat- ed with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 0 1 s JMKIA0062GB
(LG)	Glound				When Intelligent Key is not in the antenna detec- tion area	(V) 15 0 0 1 s JMKIA0063GB
78	Ground	Room antenna (–) (Instrument panel)		Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB
(Y)	Ground		Output		When Intelligent Key is not in the passenger com- partment	(V) 15 0 0 1 s 0 JMKIA0063GB

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description				Value	
+		Signal name	Input/ Output		Condition	(Approx.)	
79		Room antenna (+)	0.444	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 0 1 1 1 1 1 1 1 1 1 1 1 1 1	
(BR)	Ground	(Instrument panel)	Output	OFF	When Intelligent Key is not in the passenger com- partment	(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 (P)	Ground	Ignition relay [Fuse block (J/B)] control	Output	Ignition switch	OFF or ACC ON	0 V 12 V	
83	Remote keyless entry		During waiting		(V) 15 10 5 1 1 1 1 1 1 1 1 1 1 1 1 1		
(GR)	Ground	d receiver communica- tion	Output	When operating either button on the Intelli- gent Key		(V) 15 10 5 0 1 ms JMKIA0055GB	

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	inal No. e color)	Description				Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
		Combination switch INPUT 5	Input	Combination switch	All switches OFF (Wiper volume dial 4)	(V) 15 10 5 0 <i>2</i> ms JPMIA0041GB 1.4 V
87 (BR)	Ground				Front fog lamp switch ON (Wiper volume dial 4)	(V) 10 0 2 ms JPMIA0037GB 1.3 V
(BK)					Rear wiper switch ON (Wiper volume dial 4)	(V) 15 0 2 ms JPMIA0039GB 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 0 2 ms JPMIA0040GB 1.3 V

	inal No.	Description				Value	
(Wire +	e color) -	Signal name	Input/ Output		Condition	(Approx.)	А
					All switches OFF (Wiper volume dial 4)	(V) 15 0 2 ms JPMIA0041GB 1.4 V	B
					Lighting switch HI (Wiper volume dial 4)	(V) 15 0 2 ms JPMIA0036GB 1.3 V	F
88 (V)	Ground	Combination switch INPUT 3	Input	Combination switch	Lighting switch 2ND (Wiper volume dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3 V	G H I
					Rear washer switch ON (Wiper volume dial 4)	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V	AD K
					Any of the conditions be- low with all switches OFF • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 3	(V) 15 10 5 0 2 ms JPMIA0040GB 1.3 V	M
90 (P)	Ground	CAN-L	Input/ Output		_		С
91 (L)	Ground	CAN-H	Input/ Output		_		P

	inal No.	Description				Value
(Wire +	e color) –	Signal name	Input/ Output		Condition	(Approx.)
					OFF	12 V
92 (LG)	Ground	Key slot illumination	Output	Key slot illumina- tion	Blinking	(V) 15 10 5 0 1 s JPMIA0015GB 6.5 V
					ON	0 V
93 (V)	Ground	ON indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
				ON or ACC	0 V	
95	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
(BG)	Ciouna		Output	Ignition Switch	ACC or ON	12 V
96 (GR)	Ground	A/T shift selector (De- tention switch) power supply	Output		_	12 V
99	Cround	Selector lever P posi-	Input	Selector lever	P position	0 V
(R)	(R) Ground	tion switch	mput	Selector level	Any position other than P	12 V
					ON (Pressed)	0 V
100 (G)	Ground	Passenger door re- quest switch	Input	Passenger door request switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB 1.0 V
					ON (Pressed)	0 V
101 (SB)	Ground	Driver door request switch	Input	Driver door re- quest switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB
						1.0 V
102 (BG)	Ground	Blower fan motor re- lay control	Output	Ignition switch	OFF or ACC	0 V
(80)					ON	12 V
103 (BR)	Ground	Remote keyless entry receiver power sup- ply	Output	Ignition switch OF	F	12 V

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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

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JPMIA0039GB

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1.3 V

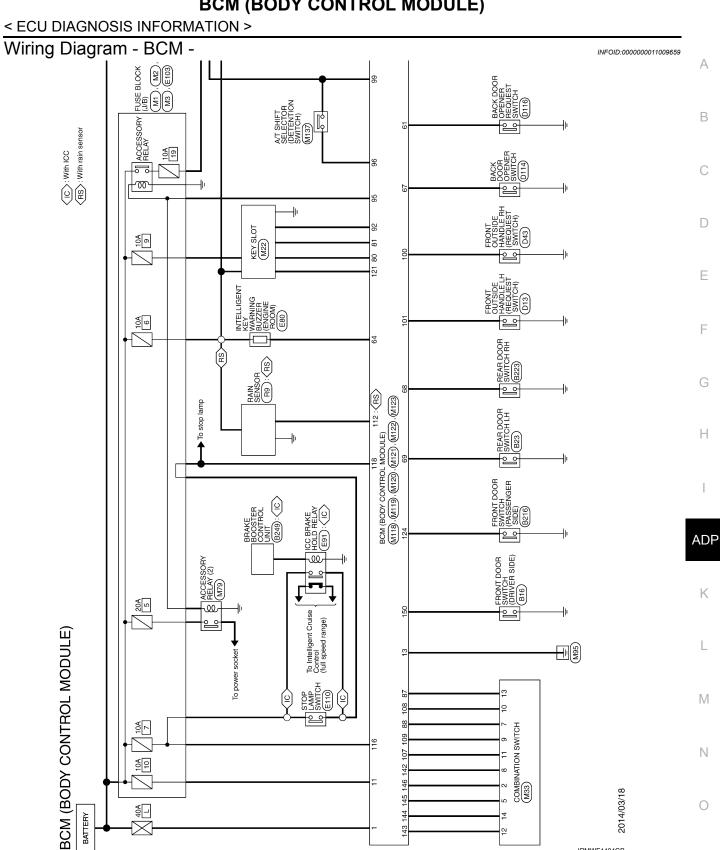
	nal No. e color)	Description			o	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF (Wiper volume dial 4)	(V) 15 0 0 2 ms JPMIA0041GB 1.4 V
					Lighting switch AUTO (Wiper volume dial 4)	(V) 15 10 5 0 2 ms JPMIA0038GB 1.3 V
108 (R)	Ground	Combination switch INPUT 4	Input	Combination switch	Lighting switch 1ST (Wiper volume dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3 V
					Rear wiper switch INT (Wiper volume dial 4)	(V) 15 0 2 ms JPMIA0040GB 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 10 2 ms JPMIA0039GB 1.3 V

	nal No.	Description				Value	Δ
(Wire +	e color)	Signal name	Input/ Output		Condition	(Approx.)	А
					All switches OFF	(V) 15 10 2 ms JPMIA0041GB 1.4 V	B C D
					Lighting switch PASS	(V) 15 0 2 ms JPMIA0037GB 1.3 V	E
109 (Y)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper volume dial 4)	Lighting switch 2ND	(V) 15 0 2 ms JPMIA0036GB 1.3 V	G H I
					Front wiper switch INT/ AUTO	(V) 15 0 5 0 2 ms JPMIA0038GB 1.3 V	ADP K
					Front wiper switch HI	(V) 15 0 2 ms JPMIA0040GB 1.3 V	M
110 (G)	Ground	Hazard switch	Input	Hazard switch	ON	0 V (V) 15 10 5 0 10 ms JPMIA0012GB 1.1 V	O P

	nal No.	Description				Value	
(vvire +	e color) –	Signal name	Input/ Output		Condition	(Approx.)	
112 (GR)	Ground	Rain sensor serial link	Input/ Output	Ignition switch ON		(V) 15 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	
(P)	0.00.00		···pat	ON	When dark outside of the vehicle	Close to 0 V	
116 (BR)	Ground	Stop lamp switch 1	Input		_	Battery voltage	
		Stop lamp switch 2		Stop lamp switch	OFF (Brake pedal is not depressed)	0 V	
118	Ground	(Without ICC)	- Input		ON (Brake pedal is de- pressed)	Battery voltage	
(P)	Cround	Stop lamp switch 2	mpar		OFF (Brake pedal is not de- brake hold relay OFF	0 V	
		(With ICC)			ON (Brake pedal is de- prake hold relay ON	Battery voltage	
119 (SB)	Ground	Front door lock as- sembly driver side (Unlock sensor)	sembly driver side	Input	Driver door	LOCK status (Unlock sensor switch OFF)	(V) 15 0 • • 10ms JPMIA0594GB
					UNLOCK status (Unlock switch sensor ON)	8.5 - 9.0 V 0 V	
121				When the Intellige slot	ent Key is inserted into key	12 V	
(BR)	Ground	Key slot switch	Input	When the Intellige key slot	ent Key is not inserted into	0 V	
123 (W)	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V	
124 (LG)	Ground	Passenger door switch	Input	Passenger door switch	ON OFF (Door close)	Battery voltage	
					ON (Door open)	0 V	

	nal No.	Description				Velue	
(Wire +	e color) –	Signal name	Input/ Output		Condition	Value (Approx.)	A
132 (BG)	Ground	Power window switch communication	Input/ Output	Ignition switch ON		(V) 15 10 10 10 10 10 10 ms JPMIA0013GB 10.2 V	B C D
				Ignition switch OF	FF or ACC	12 V	
134 (GR)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	OFF ON	Battery voltage	E
137 (B)	Ground	Receiver and sensor ground	Input	Ignition switch Of		0 V	_
138 (Y)	Ground	Sensor power supply	Output	Ignition switch	OFF	0 V	F
					ACC or ON	5.0 V	G
140 (R)	Ground	Selector lever P/N position	Input	Selector lever	P or N position Except P and N positions	12 V 0 V	0
					ON	0 V	Н
141 (G)	Ground	Security indicator lamp	Output	Security indica- tor lamp	Blinking OFF	(V) 15 10 15 10 15 10 15 10 15 10 15 10 15 10 10 10 10 10 10 10 10 10 10	 ADF
					All switches OFF	0 V	
142 (BG)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper volume	Lighting switch 1ST Lighting switch HI Lighting switch 2ND	(V) 15 10 5 0	
				dial 4)	Turn signal switch RH	2 ms JPMIA0031GB 10.7 V	M
					All switches OFF (Wiper volume dial 4)	0 V	
143	Ground	Combination switch	Output	Combination	Front wiper switch HI (Wiper volume dial 4) Rear wiper switch INT (Wiper volume dial 4)	(V) 15 10 5	O P
(P)	(P) Ground	OUTPUT 1	- Culput	switch	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	5 2 ms JPMIA0032GB 10.7 V	

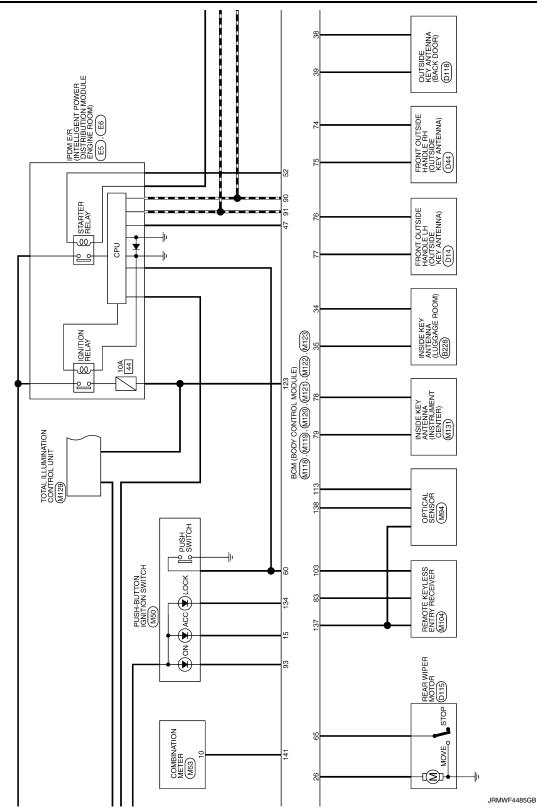
	nal No.	Description				Value
(VVire	e color) –	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF (Wiper volume dial 4)	0 V
					Front washer switch ON (Wiper volume dial 4)	
144		Combination switch		Combination	Rear wiper switch ON (Wiper volume dial 4)	(V) 15 10
(G)	Ground	OUTPUT 2	Output	switch	Rear washer switch ON (Wiper volume dial 4)	
					Any of the conditions be- low with all switches OFF • Wiper volume dial 1 • Wiper volume dial 5 • Wiper volume dial 6	2 ms JPMIA0033GB 10.7 V
					All switches OFF	0 V
					Front wiper switch INT/ AUTO	(V)
145	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper volume dial 4)	Front wiper switch LO	15 10 5
(L)	Ground				Lighting switch AUTO	0 2 ms JPMIA0034GB 10.7 V
					All switches OFF	0 V
					Front fog lamp switch ON	
				Combination	Lighting switch 2ND	(V) 15
146	Ground	Combination switch	Output	switch	Lighting switch PASS	
(SB)	Giodila	OUTPUT 4	Output	(Wiper volume dial 4)	Turn signal switch LH	0 2 ms 10.7 V
150 (GR)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	(V) ₁₅ 10 5 0 • • 10ms JPMIA0594GB 8.5 - 9.0 V
					ON (Door open)	0 V
151	Ground	Rear window defog-	Output	Rear window de-	Active	0 V
(G)	Cibana	ger relay control	Calput	fogger	Not activated	Battery voltage



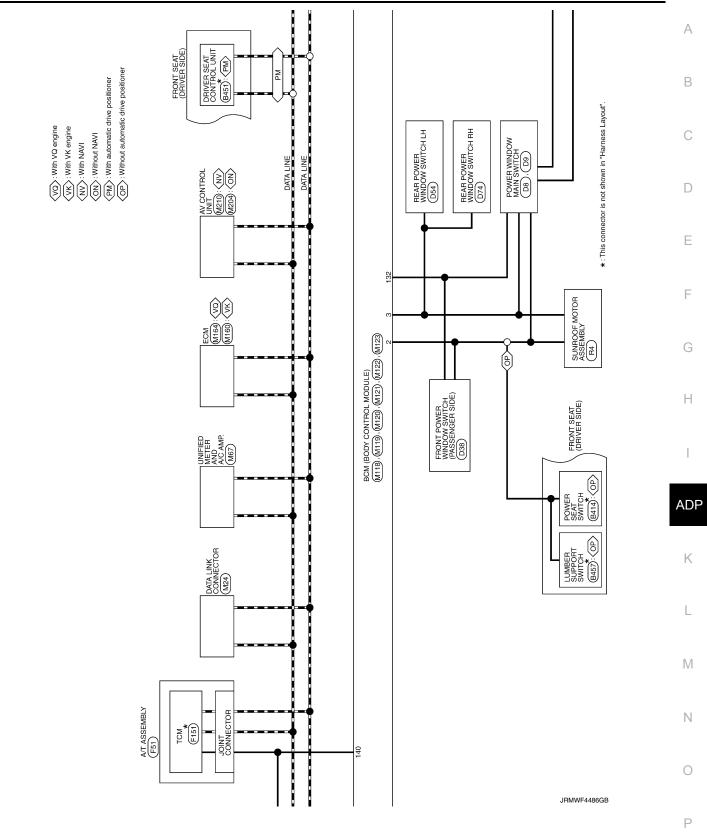
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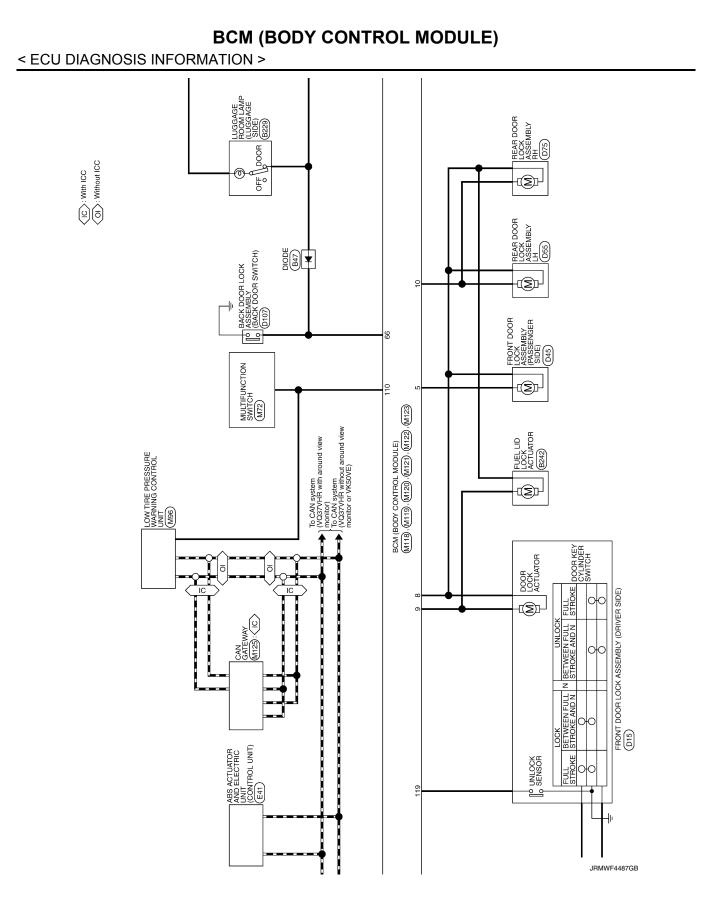
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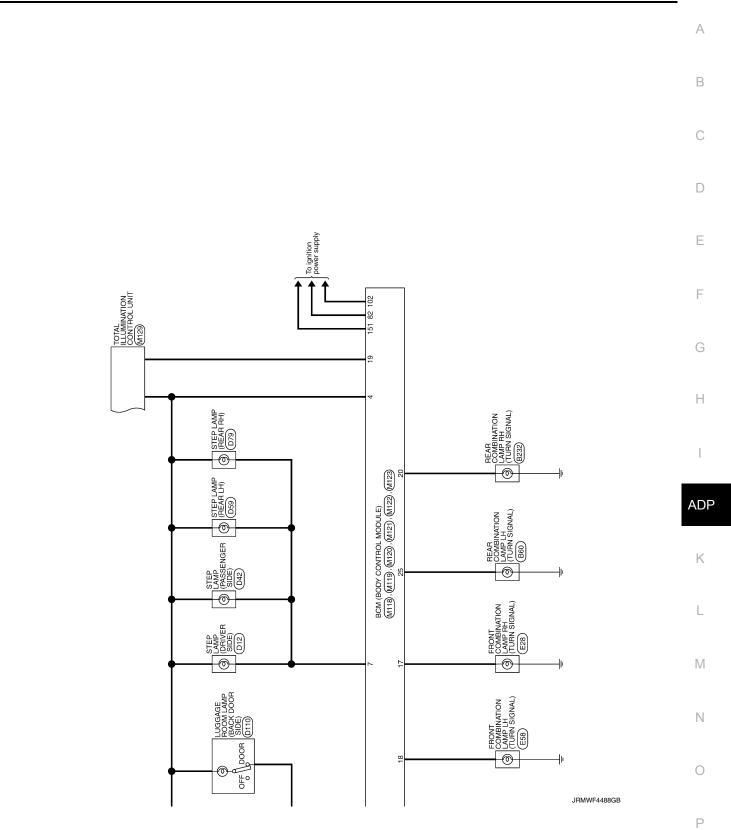
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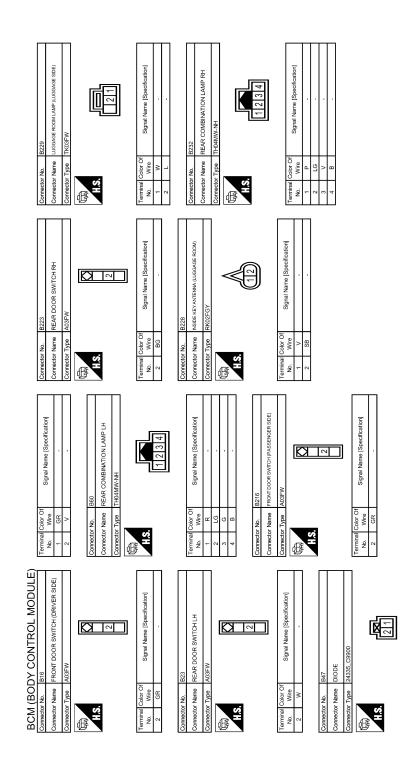


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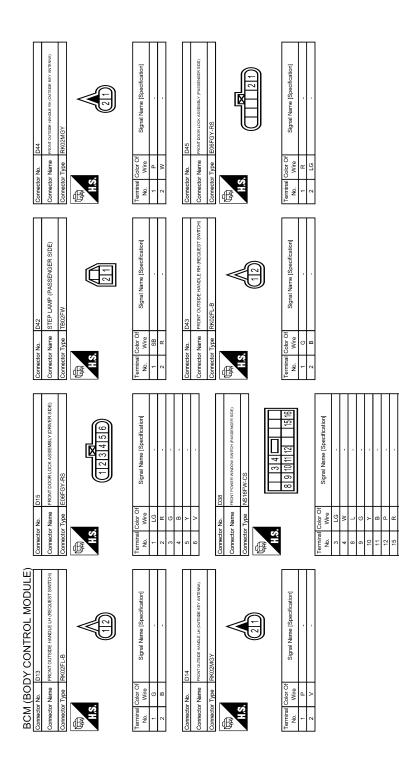
BCM (BODY CONTROL MODULE) < ECU DIAGNOSIS INFORMATION >

А В POWER WINDOW MAIN SWITCH Signal Name [Specification] Signal Name [Specification] STEP LAMP (DRIVER SIDE) С Color Of Wire Connector Name Tvpe olor Of Wire onnector Name D 38 m ≥ ector No. ector No. H.S.H. H.S. erminal No. erminal No. E Ē Ε Signal Name [Specification] POWER WINDOW MAIN SWITCH Signal Name [Specification] 15 LUMBAR SUPPORT SWITCH 5 58 57 48 33 2 3 4 0 9 10 11 13 1 LIFTING SW (F REAR L NS16FW-CS 80 G Color C Connector Name Vire N Connector Name Connector Type R S Type Connector No. 삐 ∣≥ mector No. ALS. H.S. 32 No. 8 R No. 8 6 8 ß Ē Н Signal Name [Specification] Signal Name [Specification] DRIVER SEAT CONTROL UNIT I 5 10 21 24 25 26 27 ω 1910 48 33 🔲 4 3 6 5 POWER SEAT SWITCH ADP 1 3 17 19 2 Color Of Wire ≥ |> |≤|· 8 L 9 L/R 33 R Connector Name Connector Name Connector Type Vire Vire CGR SB PIB Ş ₽ Connector No. Connector No. H.S. H.S.H. Κ No. Ś ß ß BCM (BODY CONTROL MODULE) Connector No. | B242 IGNITION IBA OFF SW IGNITION GROUND BRAKE HOLD RILY DRIVE SIGNAL L BRAKE BOOSTER CONTROL UNIT Signal Name [Specification] Signal Name [Specification] 46 47 40 FUEL LID LOCK ACTUATOR 1 ē Μ M04FW-TK24F nnector No. B249 Connector Name Connector Type onnector Name ector Type Color C Wire ≥ > SB G Wire вIJ Ν H.S. H.S. Ē Ś ſ Ο

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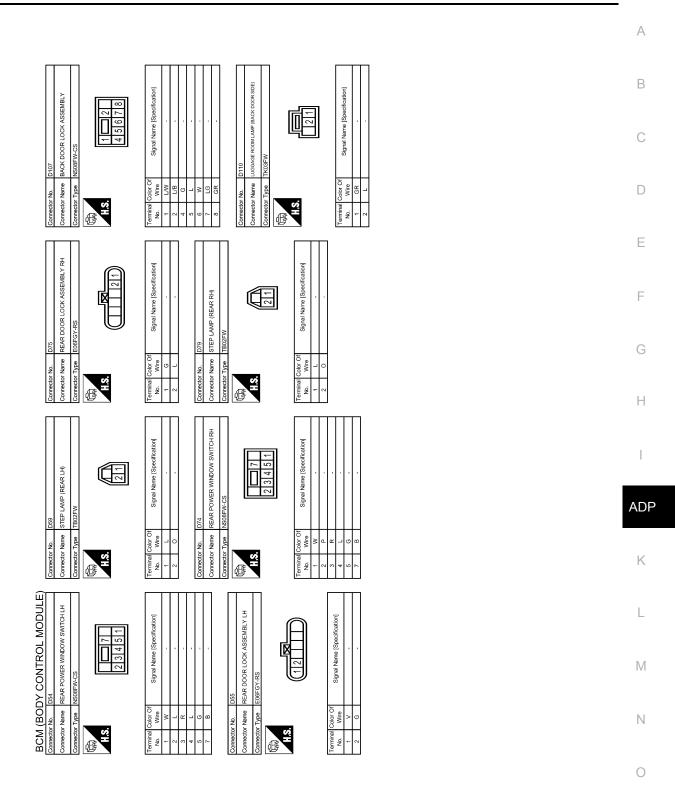
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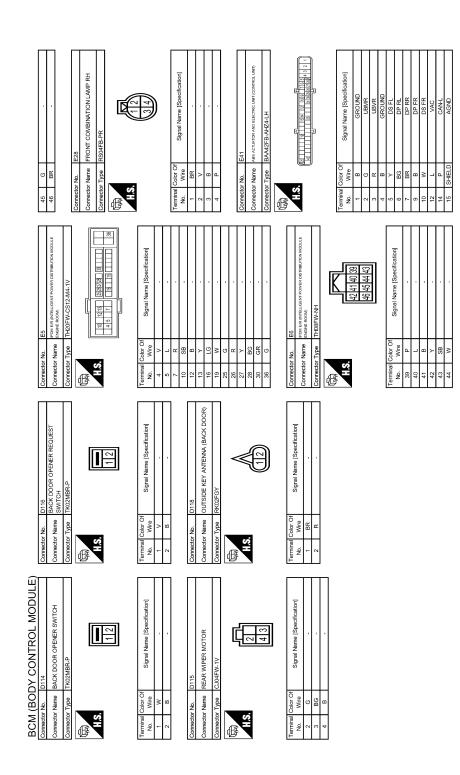
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BCM (BODY CONTROL MODULE) < ECU DIAGNOSIS INFORMATION >

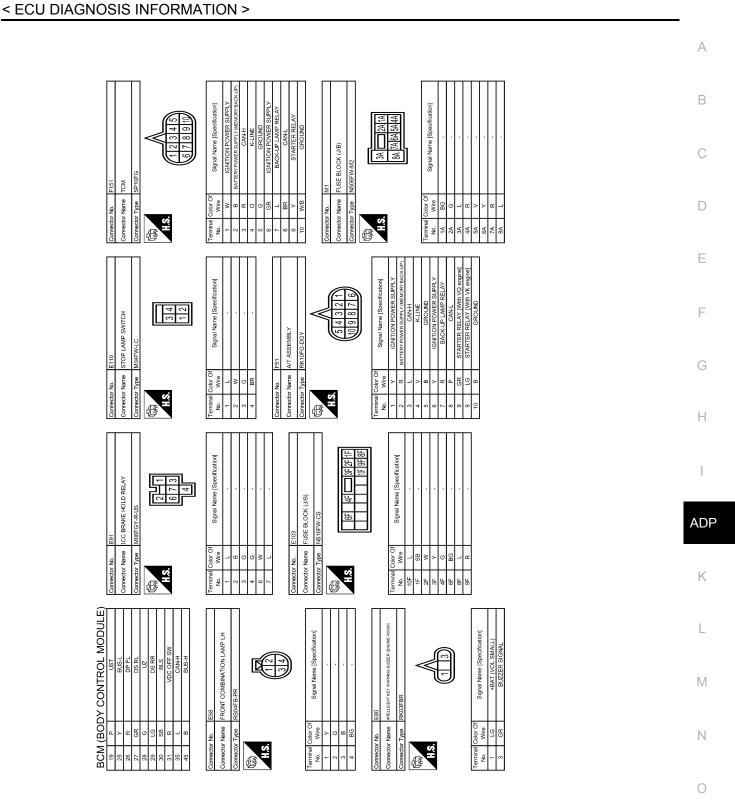


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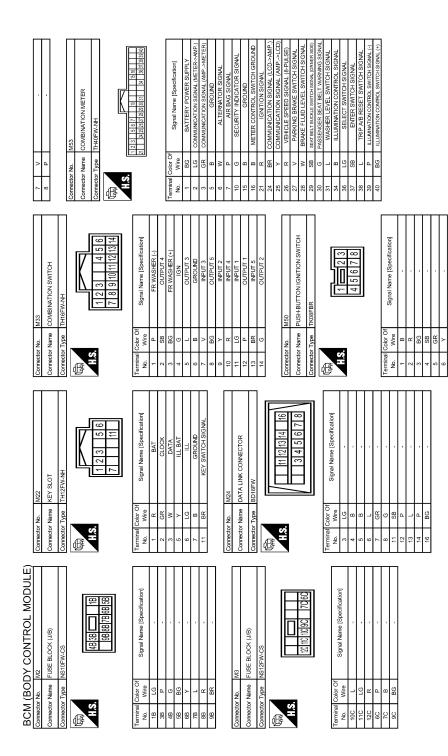


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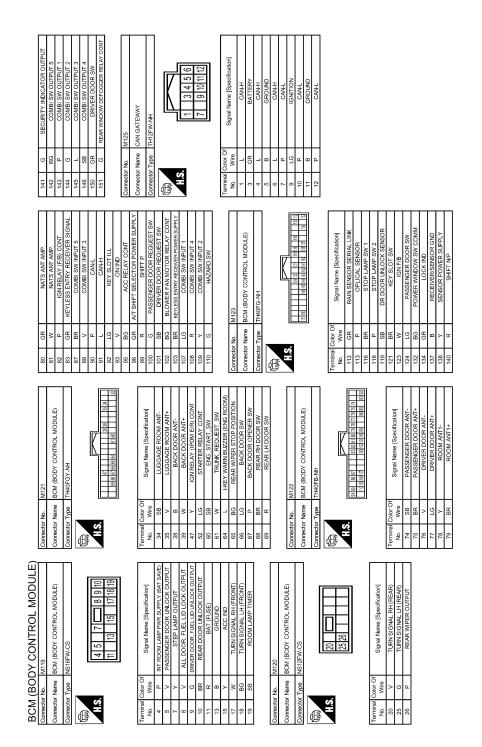
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eeffication eeffi	E
M94 Definition Signal Name (Specification) Signal Name (Specification) Signal Name (Specification) M96 DOWER DOWER DOWER DOWER POWER DOWER	F
Connector No. M94 Connector Name Connector Name Connector Name No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. Connector Name No. No. No. No. No. No. No. No. Connector Name No. No. No. No. No. No. No. Signal Signal No. No. No. No. No. No. No. Signal Signal No.	G
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Connector No. M72 Connector Name M14 Connector Name M14 Terminal Color No. B H14 SB Connector Name M13 No. B Connector Name M14 No. B Connector Name M13 No. B Connector Name M23 No. Wire Connector Name ACC No. Wire Connector Name ACC No. Wire Connector Name ACC SB L G SB M33 J G G SB M34 S L G G SB J G G G G G J G G G G G G J G G G G G G G J G G G G <td>K</td>	K
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BCM (BODY CONTROL MODULE commetor Nu. Dimentor Nu. MB7 Connector Num WIFED METER AND AC AMP. Dimentor Num UNFED METER AND AC AMP. Dimentor Num MB7 Dimentor Num Signal Num (Specification) Num Annen Num Dimentor Num Convoltation Num Annen Num Signal Num Signal Num (Specification) Num Num Signal Num Convoltation	Μ
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Connector No. Connector Name Connector Type	Remnial C 8. Mo. 9. Mo. 9. Mo. 9. Mo. 111 112 112 112 112 112 112 11
M160 ECM ECM 2020 Rd 100 M0 2020 Rd 100 Rd 10	Image: Section Sectin Sectin Section Section Section Section Section Section Section
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Comedior No. M131 Commedior Name INSEE KEY AITE-NAI INSTRAMENT CENTERS) Commenter Type RIXCI2MGY	Terminal Color Of No. Supal Name (Specification) No. No. No. M137 Connector Name AT SHIFT SELECTOR M137 Connector Name AT SHIFT SELECTOR No. No. No. No. No. No. No. No. No. No. Signal Name (Specification) No. No. No. Signal Name (Specification) No. Signal Name (Specification)
BCM (BODY CONTROL MODULE Connector Name Torix TULUNINATION CONTROL UNIT Connector Type THOFW-NAH	Terminal Color of Ne. Signal Nume [Specification] A. L TALL DDL2 A L TALL DDL2 A L TALL DDL2 B P TALL DDL2 C V DDL2 F P MAC SIGNAL F W DDL2 F MAC SIGNAL F MOD LAMP RISINAL F MOD LAMP RISINAL F MOD LAMP RISINAL F MAD RISINAL RISINAL F MAD RISINAL RISINAL F MAD RISINAL RISINAL

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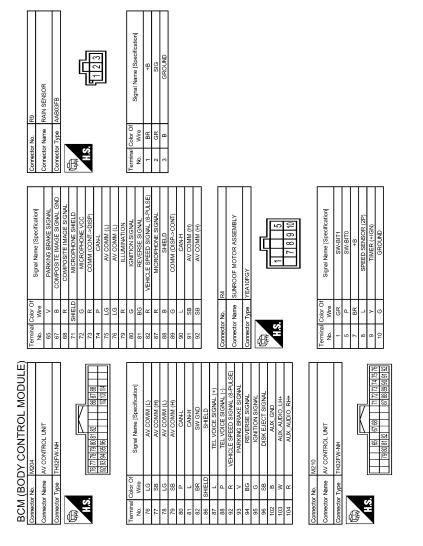
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BCM (BODY CONTROL MODULE) < ECU DIAGNOSIS INFORMATION >

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Fail-safe

FAIL-SAFE CONTROL BY DTC

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

< ECU DIAGNOSIS INFORMATION >

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 consistent Starter control relay signal Starter relay status signal
B2608: STARTER RELAY	Inhibit engine cranking	 500 ms after the following signal communication status becomes consistent Starter 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 (Battery voltage) 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: STARTER RELAY CIRC	Inhibit engine cranking	1 second after the starter 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

FAIL-SAFE CONTROL BY RAIN SENSOR MALFUNCTION

- BCM judges the rain sensor serial link error by the rain sensor serial link condition and detects the rain sensor malfunction by rain sensor malfunction signal.
- When BCM detects the rain sensor serial link error or the rain sensor malfunction while front wiper AUTO operation, BCM operates a fail-safe control.

NOTE:

If rain sensor malfunction is detected when ignition switch is turned OFF \Rightarrow ON and front wiper switch is INT	K
position, BCM operates a fail-safe control.	

REAR WIPER MOTOR PROTECTION

BCM detects the rear wiper stopping position according to the rear wiper stop position signal. When the rear wiper stop position signal does not change for more than 5 seconds while driving the rear wiper, BCM stops power supply to protect the rear wiper motor.

Condition of cancellation

- 1. More than 1 minute is passed after the rear wiper stops.
- 2. Turn rear wiper switch OFF.
- 3. Operate the rear wiper switch or rear washer switch.

DTC Inspection Priority Chart

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

Priority	DTC	F
1	B2562: LOW VOLTAGE	
2	U1000: CAN COMM U1010: CONTROL UNIT(CAN)	

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< ECU DIAGNOSIS INFORMATION >

Priority	DTC
3	 B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2195: ANTI SCANNING
4	 B2553: IGNITION RELAY B2555: STOP LAMP B2556: PUSH-BTN IGN SW B2557: VEHICLE SPEED B2560: STARTER CONT RELAY B2601: SHIFT POSITION B2602: SHIFT POSI STATUS B2603: SHIFT POSI STATUS B2604: PNP/CLUTCH SW B2605: PNP/CLUTCH SW B2607: ENG STATE RELAY B2607: ENG STATE SIG LOST B2614: BCM B2615: BCM B2616: BCM B2617: BCM B2618: BCM B2618: BCM B2618: BCM B2618: BCM B2618: PUSH-BTN IGN SW B2614: PUSH-BTN IGN SW B2615: PUSH-BTN IGN SW B2614: PUSH-BTN IGN SW B2614: PUSH-BTN IGN SW B2615: PUSH-BTN IGN SW B2615: PUSH-BTN IGN SW B2616: PUSH-BTN IGN SW B2616: PUSH-BTN IGN SW B2617: PUSH-BTN IGN SW B2618: PUSH-BTN IGN SW B2619: PUSH-BTN IGN SW B2619: PUSH-BTN IGN SW B2619: PUSH-BTN IGN SW B2619: PUSH-BTN IGN SW
5	B2621: INSIDE ANTENNA B2623: INSIDE ANTENNA
6	B26E7: TPMS CAN COMM

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-20, "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 warn- ing lamp ON	Reference
No DTC is detected. Further testing may be required.	_	_	_	_
U1000: CAN COMM		_	—	<u>BCS-39</u>
U1010: CONTROL UNIT(CAN)		_	—	<u>BCS-40</u>
U0415: VEHICLE SPEED SIG		_	—	<u>BCS-41</u>
B2190: NATS ANTENNA AMP	×	—	—	<u>SEC-47</u>
B2191: DIFFERENCE OF KEY	×	—	—	<u>SEC-50</u>
B2192: ID DISCORD BCM-ECM	×	—	—	<u>SEC-51</u>
B2193: CHAIN OF BCM-ECM	×	—	—	<u>SEC-53</u>
B2195: ANTI SCANNING	×	—	—	<u>SEC-54</u>
B2553: IGNITION RELAY	_	×	—	PCS-53
B2555: STOP LAMP	—	×	—	<u>SEC-55</u>

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< ECU DIAGNOSIS INFORMATION >

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warn- ing lamp ON	Reference	A
B2556: PUSH-BTN IGN SW	_	×	×	<u>SEC-57</u>	В
B2557: VEHICLE SPEED	×	×	×	<u>SEC-59</u>	_
B2560: STARTER CONT RELAY	×	×	×	<u>SEC-60</u>	_
B2562: LOW VOLTAGE	_	×	—	<u>BCS-42</u>	С
B2601: SHIFT POSITION	×	×	×	<u>SEC-61</u>	_
B2602: SHIFT POSITION	×	×	×	<u>SEC-64</u>	D
B2603: SHIFT POSI STATUS	×	×	×	<u>SEC-66</u>	
B2604: PNP/CLUTCH SW	×	×	×	<u>SEC-69</u>	_
B2605: PNP/CLUTCH SW	×	×	×	<u>SEC-71</u>	E
B2608: STARTER RELAY	×	×	×	<u>SEC-73</u>	_
B260A: IGNITION RELAY	×	×	×	PCS-55	_
B260F: ENG STATE SIG LOST	×	×	×	<u>SEC-75</u>	- Г
B2614: BCM	_	×	×	PCS-57	_
B2615: BCM	_	×	×	PCS-59	G
B2616: BCM	_	×	×	PCS-61	_
B2617: BCM	×	×	×	<u>SEC-77</u>	-
B2618: BCM	×	×	×	PCS-63	– H
B261A: PUSH-BTN IGN SW	_	×	×	<u>SEC-79</u>	
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	<u>SEC-82</u>	I
B2621: INSIDE ANTENNA	_	×	—	<u>DLK-101</u>	
B2623: INSIDE ANTENNA	_	×	—	<u>DLK-103</u>	AD
B26E7: TPMS CAN COMM	_	—	_	<u>BCS-43</u>	
B26EA: KEY REGISTRATION	_	×	× (Turn ON for 15 seconds)	<u>SEC-76</u>	K

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< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

MANUAL FUNCTION DOES NOT OPERATE

ALL COMPONENT

ALL COMPONENT : Diagnosis Procedure

INFOID:000000010577504

1. CHECK DRIVER SEAT CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT

Check driver seat control unit power supply and ground circuit. Refer to ADP-59, "DRIVER SEAT CONTROL UNIT : Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

2. CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT

Check automatic drive positioner control unit power supply and ground circuit. Refer to <u>ADP-60, "AUTOMATIC DRIVE POSITIONER CONTROL UNIT : Diagnosis Procedure"</u>.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

3.confirm the operation

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u>.

NO >> GO TO 1.

POWER SEAT

POWER SEAT : Diagnosis Procedure

1.CHECK POWER SEAT SWITCH GROUND CIRCUIT

Check power seat switch ground circuit. Refer to ADP-82, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connector.

2. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u>.

NO >> GO TO 1.

STEERING POSITION FUNCTION DOES NOT OPERATE

STEERING POSITION FUNCTION DOES NOT OPERATE : Diagnosis Procedure

INFOID:000000010577506

1. CHECK TILT & TELESCOPIC SWITCH GROUND CIRCUIT

Check tilt & telescopic switch ground circuit. Refer to <u>ADP-83</u>, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connector.

2.confirm the operation

INFOID:000000010577505

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Confirm the operation again.	
Is the result normal?	
YES >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u> .	
NO >> GO TO 1. SEAT SLIDING	
SEAT SLIDING : Diagnosis Procedure	INFOID:000000010577507
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-62, "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-108, "Component Function Check"</u> .	
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?	
YES >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u> .	
NO >> GO TO 1. SEAT RECLINING	
SEAT RECLINING : Diagnosis Procedure	INFOID:000000010577508
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-64</u> , "Component Function Check".	
Is the inspection result normal?	
YES >> GO TO 3.	
NO >> Repair or replace the malfunction parts.	
3.CHECK RECLINING MOTOR	
Check reclining motor.	

< SYMPTOM DIAGNOSIS > Refer to ADP-110, "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-47, "Intermittent Incident</u> ".	
SEAT LIFTING (FRONT)	
SEAT LIFTING (FRONT) : Diagnosis Procedure	INFOID:000000010577509
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-66, "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-112, "Component Function Check"</u> .	
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?	
YES >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u> .	
NO >> GO TO 1. SEAT LIFTING (REAR)	
SEAT LIFTING (REAR) : Diagnosis Procedure	
	INFOID:000000010577510
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.	
2.CHECK LIFTING SWITCH (REAR)	
Check lifting switch (rear).	
Refer to ADP-68, "Component Function Check".	

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Is the inspection result normal?	-
YES >> GO TO 3. NO >> Repair or replace the malfunction parts.	A
3. CHECK LIFTING MOTOR (REAR)	D
Check lifting motor (rear). Refer to ADP-114, "Component Function Check".	D
Is the inspection result normal?	С
YES >> GO TO 4.	C
NO >> Repair or replace the malfunction parts. 4. CONFIRM THE OPERATION	
	D
Check the operation again. Is the result normal?	
YES >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u> .	Е
NO >> GO TO 1.	
STEERING TILT	E
STEERING TILT : Diagnosis Procedure	1
1.CHECK STEERING TILT MECHANISM	G
 Check for the following. Mechanism deformation or pinched foreign materials. Interference with other parts because of poor installation. 	
Is the inspection result normal?	Н
YES >> GO TO 2.	
NO >> Repair or replace the malfunction parts.	
2.CHECK TILT SWITCH	
Check tilt switch. Refer to ADP-70, "Component Function Check".	ADP
Is the inspection result normal?	
YES >> GO TO 3.	Κ
NO >> Repair or replace the malfunction parts.	
3. CHECK TILT MOTOR	-
Check tilt motor. Refer to ADP-116, "Component Function Check".	L
Is the inspection result normal?	
YES >> GO TO 4.	\mathbb{M}
NO >> Repair or replace the malfunction parts.	
4.CONFIRM THE OPERATION	- N
Check the operation again.	
<u>Is the result normal?</u>	
YES >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u> . NO >> GO TO 1.	0
STEERING TELESCOPIC	
STEERING TELESCOPIC : Diagnosis Procedure	2 2
1.CHECK STEERING TELESCOPIC MECHANISM	_
Check for the following. Mechanism deformation or pinched foreign materials. 	
 Interference with other parts because of poor installation. 	

Is the inspection result normal?

SYMPTOM DIAGNOSIS > YES >> GO TO 2. NO >> Repair or replace the maifunction parts. 2. CHECK TELESCOPIC SWITCH Check telescopic switch. Refer to <u>APP-72</u> . "Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the maifunction parts. 3. CHECK TELESCOPIC MOTOR Check the operation again. Is the result normal? YES >> GO TO 4. NO >> Repair or replace the maifunction parts. 4. CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> GO TO 4. NO >> Repair or replace the maifunction parts. 4. CONFIRM THE OPERATION Check the operation result normal? YES >> Check intermittent incident. Refer to <u>GI-47. "Intermittent incident". NO >> GO TO 1. DOOR MIRROR DOOR MIRROR MECHANISM Check for the following. ************************************</u>	MANUAL FUNCTION DOES NOT OPERATE
NO >> Repair or replace the malfunction parts. 2. CHECK TELESCOPIC SWITCH Check IELESCOPIC SWITCH Check IELESCOPIC SWITCH Is the inspection result normal? YES >> GOTO 3. NO >> Repair or replace the malfunction parts. 3. CHECK TELESCOPIC MOTOR Check IELEScOPIC MOTOR Check Intermittent function parts. 4. CONFIRM THE OPERATION Check Intermittent incident. Refer to GL-47. "Intermittent Incident". NO >> GOTO 1. DOOR MIRROR 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 >> GOTO 2. NO >> Repair or replace the malfunction parts. 2. CHECK MIRROR S	< SYMPTOM DIAGNOSIS >
2.CHECK TELESCOPIC SWITCH Check telescopic switch. Refer to ADP-72. "Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunction parts. 3.CHECK TELESCOPIC MOTOR Check telescopic motor. Refer to ADP-718. "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 inspection result normal? YES YES >> Check intermittent incident. Refer to GL47. "Intermittent Incident". NO >> GO TO 1. DOOR MIRROR DOOR MIRROR DOOR MIRROR DOOR MIRROR MECHANISM Check to the following	
Check telescopic switch. Refer to ADP-72 "Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the mailunction parts. 3. CHECK TELESCOPIC MOTOR Check telescopic motor. Refer to ADP-118. "Component Function Check". Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the maifunction parts. 4. CONFIRM THE OPERATION Check the operation again. Is the inspection result normal? YES >> Check intermittent incident. Refer to GI-47. "Intermittent Incident". NO >> GO TO 1. DOOR MIRROR DOOR MIRROR MECHANISM Check to to BOR MIRROR MECHANISM Check to the following. • Mechanism deformation or pinched foreign materials. • Interference with other parts because of poor installation. • Isthe inspection result normal? YES >> GO TO 2. NO >> Repair or replace the maifunction parts. 2.CHECK MIRROR SWITCH Check mirror switch. Refer to MIRCI SWITCH Component Function Check". Is the inspection result normal? YES <tr< td=""><td></td></tr<>	
Refer to ADP-72. "Component Function Check". Is the inspection result normal? YES >> COTO 3. NO >> Repair or replace the malfunction parts. 3. CHECK TELESCOPIC MOTOR Check telescopic motor. Refer to ADP-118. "Component Function Check". Is the inspection result normal? YES >> CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-47. "Intermittent Incident". 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 GI-47. "Intermittent Incident". NO >> GOTO 1. DOOR MIRROR DOOR MIRROR DOOR MIRROR SUBCE ************************************	
Is the inspection result normal? YES >> GOTO 3. NO >> Repair or replace the malfunction parts. 3. CHECK TELESCOPIC MOTOR Check telescopic motor. Refer to ADP-118. "Component Function Check". Is the inspection result normal? YES >> GOTO 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 GI-47. "Intermittent Incident". NO >> GOTO 1. DOOR MIRROR DOOR MIRROR DOOR MIRROR to pair biggnosis Procedure seconexecerce 1.CHECK DOOR MIRROR MECHANISM Check for the following. . • Mechanism deformation or prinched foreign materials. • Interference with other parts because of poor installation. Is the inspection result normal? YES >> GOTO 2. NO >> Repair or replace the malfunction parts. 2.CHECK MIRROR SWITCH : Component Function Check". Is the inspection result normal? YES >> GOTO 4. NO >> Repair or replace the malfunctio	
NO →> Repair or replace the malfunction parts. 3. CHECK TELESCOPIC MOTOR Check telescopic motor. Refer to ADP-118. "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? YES →> Check intermittent incident. Refer to GL-47. "Intermittent Incident". NO →> GO TO 1. DOOR MIRROR DOOR MIRROR : Diagnosis Procedure 4. 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 MIR-11. "MIRROR SWITCH : Component Function Check". Is the inspection result normal? YES →> GO TO 3. NO →> Repair or replace the malfunction parts. 3. CHECK MIRROR MOTOR Check mirror switch. 3. CHECK MIRROR MOTOR Check mirror motor. Refer to ADP-120. "Component Function Check". Is the inspection result normal? YES →> GO TO 4. NO →> Repair or replace the malfunction parts. 4. CONFIRM THE OPERATION Check mirror motor. Refer to ADP-120. "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 inspection result normal? YES →> Check intermittent incident. Refer to GL-47. "Intermittent Incident".	
3. CHECK TELESCOPIC MOTOR Check telescopic motor: Refer to ADP-118. "Component Function Check". Is the inspection result normal? YES >> CONFIRM THE OPERATION Check the operation again. Is the inspection result normal? YES >> Check intermittent incident. Refer to GL47. "Intermittent Incident". NO >> Repair or replace the malfunction parts. A.CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GL47. "Intermittent Incident". NO >> GO TO 1. DOOR MIRROR 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 Component Function Check". Is the inspection result normal? YES YES >> GO TO 3. NO >> Repair or replace the malfunction parts. 3.CHECK MIRROR MOTOR Check mirror motor.	
Check telescopic motor. Refer to ADP-118, "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? YES >> Check intermittent incident. Refer to GL-47. "Intermittent Incident". NO >> GO TO 1. DOOR MIRROR DOOR MIRROR SUDOR MIRCOR 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 MR-11, "MIRROR SWITCH : Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunction parts. 3. CHECK MIRROR MOTOR Check mirror motor. Refer to MR-11, "MIRROR MOTOR Check mirror motor. Refer to ADP-120. "Component Functio	
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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>GL47. "Intermittent Incident"</u> . NO >> GO TO 1. DOOR MIRROR DOOR MIRROR : Diagnosis Procedure 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 MIR-11. "MIRROR SWITCH : Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunction parts. 3. CHECK MIRROR MOTOR Check mirror motor. Refer to ADP-120. "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 inspection result normal? YES >> Check intermittent incident. Refer to <u>GL47. "Intermittent Incident"</u> .	•
4. CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GL47. "Intermittent Incident". NO >> GO TO 1. DOOR MIRROR DOOR MIRROR DOOR MIRROR : Diagnosis Procedure weodcommonstation of pinched foreign materials. 1. CHECK DOOR MIRROR MECHANISM 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 MIR-11. "MIRROR SWITCH : Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunction parts. 3. CHECK MIRROR MOTOR Check mirror motor. Refer to ADP-120. "Component Function Check". Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunction parts. 4. CONFIRM THE OPERATION Mo Check the operation again. Sche result normal? YE	
Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GL47. "Intermittent Incident". NO >> GO TO 1. DOOR MIRROR DOOR MIRROR DOOR MIRROR : Diagnosis Procedure Intermittent incident. 1.CHECK DOOR MIRROR MECHANISM Check for the following. Check for the following. Interference with other parts because of poor installation. Is the inspection result normal? YES YES >> GO TO 2. NO >> Repair or replace the malfunction parts. 2.CHECK MIRROR SWITCH Check mirror switch. Refer to MIR-11. "MIRROR SWITCH : Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunction parts. 3.CHECK MIRROR MOTOR Check mirror motor. Refer to ADP-120. "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 inspection result normal? YES >> Check	
Is the result normal? YES >> Check intermittent incident. Refer to GL47. "Intermittent Incident". NO >> GO TO 1. DOOR MIRROR	
YES >> Check intermittent incident. Refer to GI-47. "Intermittent Incident". NO >> GO TO 1. DOOR MIRROR DOOR MIRROR I Diagnosis Procedure 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 MIRROR SWITCH Check mirror switch. Refer to MIRT.11. "MIRROR SWITCH : Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunction parts. 3.CHECK MIRROR MOTOR Check mirror motor. Refer to ADP-120. "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 inspection result normal? YES > Check intermittent inci	
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Check mirror motor. Refer to <u>ADP-120</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-47</u> , "Intermittent Incident".	
Refer to ADP-120. "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? YES >> Check intermittent incident. Refer to GI-47. "Intermittent Incident".	
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 GI-47, "Intermittent Incident".	
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 GI-47. "Intermittent Incident".	Is the inspection result normal?
4.CONFIRM THE OPERATION Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u> .	
Check the operation again. <u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u> .	
Is the result normal? YES >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u> .	
YES >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u> .	Check the operation again
	Is the result normal?

< SYMPTOM DIAGNOSIS >	
MEMORY FUNCTION DOES NOT OPERATE	
ALL COMPONENT	А
ALL COMPONENT : Diagnosis Procedure	В
1. CHECK MANUAL OPERATION	
Check manual operation.	С
Is the inspection result normal?	U
YES >> GO TO 2. NO >> Refer to <u>ADP-200, "ALL COMPONENT : Diagnosis Procedure"</u>	
2. PERFORM INITIALIZATION AND MEMORY STORING PROCEDURE	D
 Perform initialization procedure. Refer to <u>ADP-9, "SYSTEM INITIALIZATION : Special Repair Requirement"</u>. Perform memory storing procedure. 	E
 Refer to <u>ADP-10</u>, "<u>MEMORY STORING</u>: <u>Special Repair Requirement</u>". 3. Check memory function. Refer to <u>ADP-26</u>, "<u>MEMORY FUNCTION</u>: <u>System Description</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-74, "Component Function Check"</u> .	Η
<u>Is the inspection result normal?</u> YES >> GO TO 4.	I
NO >> Replace seat memory switch.	
4.CHECK DETENTION SWITCH	ADP
Check detention switch. Refer to ADP-84, "Component Function Check".	ADF
Is the inspection result normal?	
YES >> GO TO 5.	K
NO >> Repair or replace the malfunction parts.	
5.CONFIRM THE OPERATION	L
Confirm the operation again.	
<u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u> .	\mathbb{M}
NO >> GO TO 1. SEAT SLIDING	
SEAT SLIDING : Diagnosis Procedure	Ν
1. CHECK MANUAL OPERATION	0
Check manual operation.	
Is the inspection result normal?	Р
YES >> GO TO 2. NO >> Refer to <u>ADP-201, "SEAT SLIDING : Diagnosis Procedure"</u>	
2. CHECK SLIDING SENSOR	
Check sliding sensor. Refer to <u>ADP-88, "Component Function Check"</u> .	
Is the inspection result normal?	

MEMORY FUNCTION DOES NOT OPERATE	
< SYMPTOM DIAGNOSIS >	
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-47, "Intermittent Incident"</u> . NO >> GO TO 1.	
SEAT RECLINING	
SEAT RECLINING : Diagnosis Procedure	00010577516
1.CHECK MANUAL OPERATION	
Check manual operation.	
Is the inspection result normal?	
YES >> GO TO 2. NO >> Refer to <u>ADP-201, "SEAT RECLINING : Diagnosis Procedure"</u>	
2. CHECK RECLINING SENSOR	
Check reclining sensor. Refer to <u>ADP-91, "Component Function Check"</u> .	
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-47, "Intermittent Incident"</u> . NO >> GO TO 1.	
SEAT LIFTING (FRONT)	
SEAT LIFTING (FRONT) : Diagnosis Procedure	00010577517
1.CHECK MANUAL OPERATION	
Check manual operation.	
Is the inspection result normal?	
YES >> GO TO 2. NO >> Refer to <u>ADP-202, "SEAT LIFTING (FRONT) : Diagnosis Procedure"</u>	
2. CHECK LIFTING SENSOR (FRONT)	
Check lifting sensor (front). Refer to <u>ADP-94, "Component Function Check"</u> .	
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-47, "Intermittent Incident"</u> . NO >> GO TO 1.	
SEAT LIFTING (REAR)	

< SYMPTOM DIAGNOSIS >		
SEAT LIFTING (REAR) : Diagnosis Procedure	INFOID:000000010577518	
1. CHECK MANUAL OPERATION		/
Check manual operation.		r
Is the inspection result normal?		E
YES >> GO TO 2. NO >> Refer to <u>ADP-202, "SEAT LIFTING (REAR) : Diagnosis Procedure"</u>		
2.CHECK LIFTING SENSOR (REAR)		(
Check lifting sensor (rear).	<u> </u>	
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-47, "Intermittent Incident"</u> .		
NO >> GO TO 1. STEERING TELESCOPIC		(
STEERING TELESCOPIC : Diagnosis Procedure	INFOID:000000010577519	
1.CHECK MANUAL OPERATION		
Check manual operation.		
Is the inspection result normal?		
YES >> GO TO 2. NO >> Refer to <u>ADP-203, "STEERING TELESCOPIC : Diagnosis Procedure"</u>		A
2.CHECK TELESCOPIC SENSOR		
Check steering telescopic sensor.		
Refer to ADP-102, "Component Function Check".		I
<u>Is the inspection result normal?</u> 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-47. "Intermittent Incident"</u> . NO >> GO TO 1.		
STEERING TILT		
STEERING TILT : Diagnosis Procedure	INFOID:000000010577520	
1.CHECK MANUAL OPERATION		
Check manual operation.		
Is the inspection result normal?		
YES >> GO TO 2.		
NO >> Refer to <u>ADP-203, "STEERING TILT : Diagnosis Procedure"</u>		
2.CHECK TILT SENSOR		
Check steering tilt sensor. Refer to <u>ADP-100</u> , " <u>Component Function Check</u> ".		

< SYMPTOM DIAGNOSIS > 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 GI-47, "Intermittent Incident". NO >> GO TO 1. DOOR MIRROR DOOR MIRROR : Diagnosis Procedure INFOID:000000010577521 1. CHECK MANUAL OPERATION Check manual operation. Is the inspection result normal? YES >> GO TO 2. NO >> Refer to ADP-204, "DOOR MIRROR : Diagnosis Procedure" 2.check mirror sensor Check mirror sensor. Refer to <u>ADP-104</u>, "<u>DRIVER SIDE</u> : <u>Component Function Check</u>". (Driver side) Refer to <u>ADP-105</u>, "<u>PASSENGER SIDE</u> : <u>Component Function Check</u>". (Passenger side) Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunction parts. $\mathbf{3.}$ CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u>.

NO >> GO TO 1.

MEMORY INDICATE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >	
MEMORY INDICATE DOES NOT OPERATE	A
Diagnosis Procedure	D:000000010577522
1.CHECK MEMORY INDICATOR	В
Check memory indicator. Refer to ADP-123, "Component Function Check".	
Is the inspection result normal?	С
YES >> GO TO 2.	
NO >> Repair or replace the malfunction parts.	D
2.CONFIRM THE OPERATION	
Confirm the operation again.	
Is the result normal?	E
YES >> Check intermittent incident. Refer to <u>GI-47, "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:000000010577523

1.CHECK SYSTEM SETTING

Check system setting.

Refer to ADP-11, "SYSTEM SETTING : Special Repair Requirement".

Is the inspection result normal?

YES >> Synchronization function is normal.

NO >> GO TO 2.

2. CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".

NO >> GO TO 1.

ENTRY/EXIT ASSIST FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

ENTRY/EXIT ASSIST FUNCTION DOES NOT OPERATE

Diagnosis Procedure	INFOID:000000010577524	А
1.CHECK SYSTEM SETTING		В
 Check system setting. Refer to <u>ADP-11, "SYSTEM SETTING : Special Repair Requirement"</u>. Check the operation. 		С
Is the inspection result normal?		
YES >> Entry/Exit function is OK. NO >> GO TO 2.		D
2.PERFORM SYSTEM INITIALIZATION		
 Perform system initialization. Refer to <u>ADP-9. "SYSTEM INITIALIZATION : Special Repair Requirement"</u>. Check the operation. 		Ε
Is the inspection result normal?		_
YES >> Entry/Exit function is OK. NO >> GO TO 3.		F
3. CHECK FRONT DOOR SWITCH (DRIVER SIDE)		G
Check front door switch (driver side). Refer to <u>ADP-86, "Component Function Check"</u> .		
Is the inspection result normal?		Н
YES >> GO TO 4. NO >> Repair or replace the malfunction parts.		
4.CONFIRM THE OPERATION		
Confirm the operation again.		
Is the result normal?		AD
YES >> Check intermittent incident. Refer to <u>GI-47. "Intermittent Incident"</u> . NO >> GO TO 1.	I	

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INTELLIGENT KEY INTERLOCK FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

INTELLIGENT KEY INTERLOCK FUNCTION DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000010577525

1. CHECK DOOR LOCK FUNCTION

Check door lock function.

Refer to DLK-19, "INTELLIGENT KEY SYSTEM : System Description".

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-10, "MEMORY STORING : Special Repair Requirement"</u>.
- 2. Check Intelligent Key interlock function. Refer to <u>ADP-38</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-216</u>, "Removal and Installation".

< SYMPTOM DIAGNOSIS >

NORMAL OPERATING CONDITION

Description

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

Symptom	Cause	Action to take	Reference page	
	No initialization has been performed.	Perform initialization.	ADP-9	
Entry/exit assist function and seat synchronization do not op- erate.	Entry/exit assist function is disabled. NOTE: The entry/exit assist function and seat synchronization function are disabled be- fore delivery (initial setting).	Change the settings.	<u>ADP-11</u>	
Entry assist function does not op- erate.	Manual operation with power seat switch was performed after exit assist function execution.	Perform the memory function.	ADP-22	
	Either the entry/exit assist function (seat) or the entry/exit assist function (steering) is disabled.	Enable both functions.	<u>ADP-11</u>	
Seat synchronization function does not operate.	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-22</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			
Lumbar support does not per- form memory operation.	The lumbar support system are con- trolled independently with no link to the automatic drive positioner system.	_	Lumbar support system: <u>SE-11</u>	
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.		Memory function: <u>ADP-26</u>	
		nchroniza- ligent Key The operating conditions are not fulfilled. Fulfill the operation		Exit assist function: <u>ADP-30</u>
			Entry assist function: <u>ADP-34</u>	
			Seat synchronization function: <u>ADP-22</u>	
			Intelligent Key interlock function: <u>ADP-38</u>	

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< 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.

Precautions for Removing Battery Terminal

 When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.
 NOTE:

ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.

• For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch. **NOTE:**

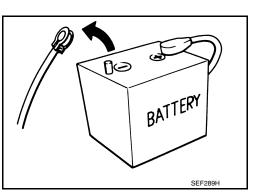
If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.

After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.
 NOTE:

The removal of 12V battery may cause a DTC detection error.

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.



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ADP-214

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PRECAUTIONS

< PRECAUTION >

- 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

INFOID:000000010577529

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

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

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

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< REMOVAL AND INSTALLATION >

REMOVAL AND INSTALLATION DRIVER SEAT CONTROL UNIT

Exploded View

Refer to SE-122, "Exploded View".

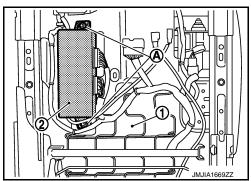
Removal and Installation

REMOVAL

CAUTION:

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

- 1. Remove the driver seat (1). Refer to <u>SE-125, "Removal and</u> <u>Installation"</u>.
- 2. Remove the mounting bolts (A).
- 3. Remove driver seat control unit (2).



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 replacing control unit. Refer to <u>ADP-8</u>, "<u>ADDI-</u><u>TIONAL SERVICE WHEN REPLACING CONTROL UNIT</u>: <u>Description</u>".



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AUTOMATIC DRIVE POSITIONER CONTROL UNIT

< REMOVAL AND INSTALLATION >

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Exploded View

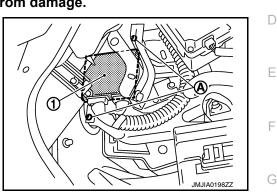
Refer to IP-12, "Exploded View".

Removal and Installation

REMOVAL

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

- 1. Remove the instrument driver lower panel. Refer to <u>IP-13</u>, <u>"Removal and Installation"</u>.
- 2. Remove the screws (A).
- 3. 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-8, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description".

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< REMOVAL AND INSTALLATION >

SEAT MEMORY SWITCH

Exploded View

Refer to INT-12, "Exploded View".

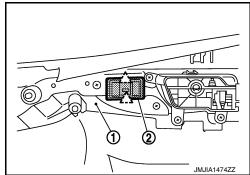
Removal and Installation

REMOVAL

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

- 1. Remove the front door finisher (1). Refer to <u>INT-12, "Removal</u> and Installation".
- 2. Press pawls and remove seat memory switch (2) from front door finisher (1).

A : Pawl



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-8, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description"</u>.

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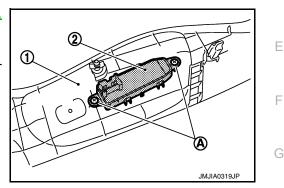
POWER SEAT SWITCH

< REMOVAL AND INSTALLATION >

POWER SEAT SWITCH

Exploded View Refer to <u>SE-122</u>, "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-126</u>, "Disassembly and Assembly".

- 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 ADP-8, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description".

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TILT&TELESCOPIC SWITCH

< REMOVAL AND INSTALLATION >

TILT&TELESCOPIC SWITCH

Exploded View

Refer to IP-12, "Exploded View".

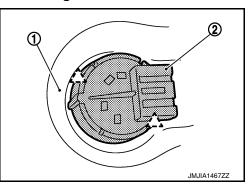
Removal and Installation

REMOVAL

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

- 1. Remove the steering column mask (1). Refer to <u>IP-13</u>, "Removal and Installation".
- 2. Press pawls and remove tilt & telescopic switch (2) from the steering column mask (1).

2 : Pawl



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-8, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description"</u>.

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