# SECTION ADP AUTOMATIC DRIVE POSITIONER

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# **BASIC INSPECTION**

# DIAGNOSIS AND REPAIR WORKFLOW

Work Flow INFOID:0000000005170893 В

**OVERALL SEQUENCE** 



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#### 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-III. Refer to ADP-144, "DTC Index"

#### Is any symptom described and any DTC is displayed?

Symptom is described, DTC is displayed.>>GO TO 3.

Symptom is not described, DTC is displayed.>>GO TO 6. Symptom is described, DTC is not displayed.>>GO TO 4.

#### 3.CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

>> GO TO 6.

# 4. CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

>> GO TO 5.

# CHECK NORMAL OPERATING CONDITION

Check normal operating condition. Refer to ADP-213, "Description".

#### Is the incident normal operation?

>> INSPECTION END YES

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 GI-37, "Intermittent Incident".

# 7 . PERFORM COMPONENT FUNCTION CHECK

Perform the component function check for the isolated malfunctioning point.

>> GO TO 8.

# 8.DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

Isolate the malfunctioning point by performing the diagnosis procedure relevant to the symptom during the component diagnosis.

>> GO TO 9.

#### $\mathbf{9}.$ 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?

#### **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

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

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

<sup>\*:</sup> Default value is 40mm.

# ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement

#### 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-10, "SYSTEM SETTING: Description".

>> GO TO 3.

#### 3.MEMORY STORAGE

Perform memory storage. Refer to ADP-9, "MEMORY STORING: Description".

# >> END ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Description

INFOID:0000000005170896

Each function is reset to the following condition when the driver seat control unit is replaced.

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

<sup>\*:</sup> Default value is 40mm.

# ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement

# 1.SYSTEM INITIALIZATION

< BASIC INSPECTION >		
Perform system initialization. Refer to <u>ADP-9, "SYSTEM INITIALIZATION: Description"</u> .		Α
>> GO TO 2.		
2.system setting		В
Perform system setting. Refer to <u>ADP-10. "SYSTEM SETTING : Description"</u> .		
>> GO TO 3.		
3.MEMORY STORAGE		
Perform memory storage. Refer to ADP-9, "MEMORY STORING: Description".		D
>> END SYSTEM INITIALIZATION		Е
SYSTEM INITIALIZATION : Description	INFOID:0000000005170898	
Always perform the initialization when the battery terminal is disconnected or the driver seat replaced.	control unit is	F
The entry/exit assist function will not operate normally if no initialization is performed.		
SYSTEM INITIALIZATION : Special Repair Requirement	INFOID:0000000005170899	G
INITIALIZATION PROCEDURE		Н
1. CHOOSE METHOD		11
There are two initialization methods.		ı
Which method do you use? With door switch>>GO TO 2.		
With vehicle speed>>GO TO 4.		ADI
2. STEP A-1		
Turn ignition switch from ACC to OFF position.		K
>> GO TO 3.		
3. STEP A-2		L
Driver door switch is ON (open) $\rightarrow$ OFF (close) $\rightarrow$ ON (open).		
>> END		M
<b>4.</b> STEP B-1		
Drive the vehicle at more than 25 km/h (16 MPH).		N
>> END		
MEMORY STORING		0
MEMORY STORING : Description	INFOID:0000000005170900	
Always perform the memory storage when the battery terminal is disconnected or the driver sear replaced. The memory function and Intelligent Key interlock function will not operate normally storage is performed.		Ρ
MEMORY STORING : Special Repair Requirement	INFOID:0000000005170901	

Revision: 2009 August ADP-9 2010 EX35

Memory Storage Procedure

#### < BASIC INSPECTION >

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.

# **2.**STEP 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:

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).

#### NOTE:

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

>> GO TO 7.

#### **7**.STEP 7

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

>> END

#### SYSTEM SETTING

#### SYSTEM SETTING: Description

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

INFOID:0000000005170902

Setting Change

#### < BASIC INSPECTION >

				×: Applicable	Э
Item	Content	CONSULT-III	Set switch	Factory setting	
Amount of seat sliding for entry/exit assist	The amount of seat sliding for entry/exit assist can be selected from 3 items. [40mm/80mm/150mm]	х	_	40mm	
Entry/exit assist (seat)	Entry/exit assist (seat) can be selected: ON (operated) – OFF (not operated)	х	v	OFF	
Entry/exit assist (steering column)	Entry/exit assist (steering column) can be selected: ON (operated) – OFF (not operated)	х	Х	ON	
Seat synchronization	Seat synchronization can be selected: ON (operated)  OFF (not operated)	_	х	OFF	

# SYSTEM SETTING: Special Repair Requirement

INFOID:0000000005170903

# 1. CHOOSE METHOD

There are three way of setting method.

Which method do you choose?

With set switch>>GO TO 2.

With CONSULT-III>>GO TO 4.

 $2.\,$ WITH SET SWITCH - STEP 1

- 1. Turn ignition switch OFF.
- Push setting button and hold for more than 10 seconds, then confirm blinking of the memory switch indicator.
- Entry/exit assist (seat/steering column) are ON: Memory switch indicator blink two times.
- Entry/exit assist (seat/steering column) are OFF: Memory switch indicator blink once.

>> GO TO 3.

# 3. WITH SET SWITCH - STEP 2

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- Turn ignition switch ACC.
- Push setting button and hold for more than 10 seconds, then confirm blinking of the memory switch indicator.
- Synchronization are ON: Memory switch indicator blink two times.
- Synchronization are OFF: Memory switch indicator blink once.

>> END

# 4. WITH CONSULT-III - STEP 1

Select "Work support".

>> GO TO 5.

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# 5. 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".

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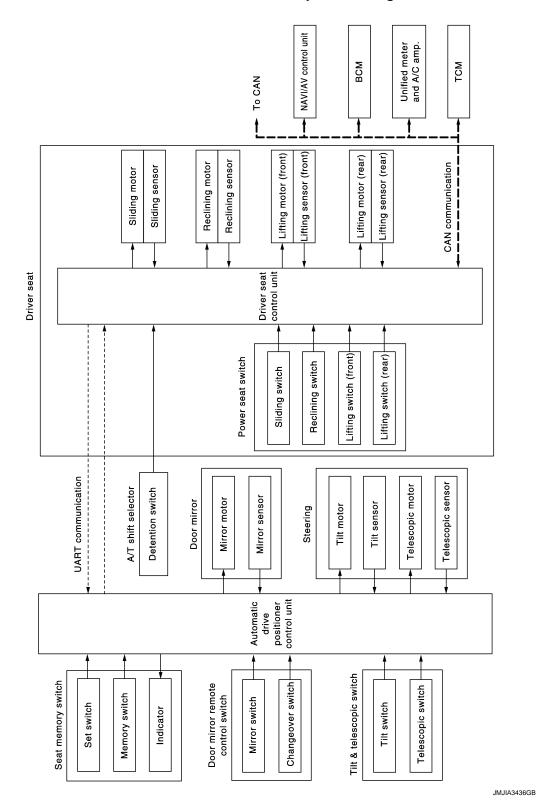
>> END

# SYSTEM DESCRIPTION

# AUTOMATIC DRIVE POSITIONER SYSTEM AUTOMATIC DRIVE POSITIONER SYSTEM

AUTOMATIC DRIVE POSITIONER SYSTEM: System Diagram

INFOID:0000000005170904



#### < SYSTEM DESCRIPTION >

# AUTOMATIC DRIVE POSITIONER SYSTEM: System Description

INFOID:0000000005170905

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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	ı	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/Evit assist function	Exit	On exit, the seat moves backward and the steering column moves upward and forward.
Entry/Exit assist function Entry		On entry, the seat and steering column returns from exiting position to the previous driving position.
Intelligent Key interlock functi	on	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.

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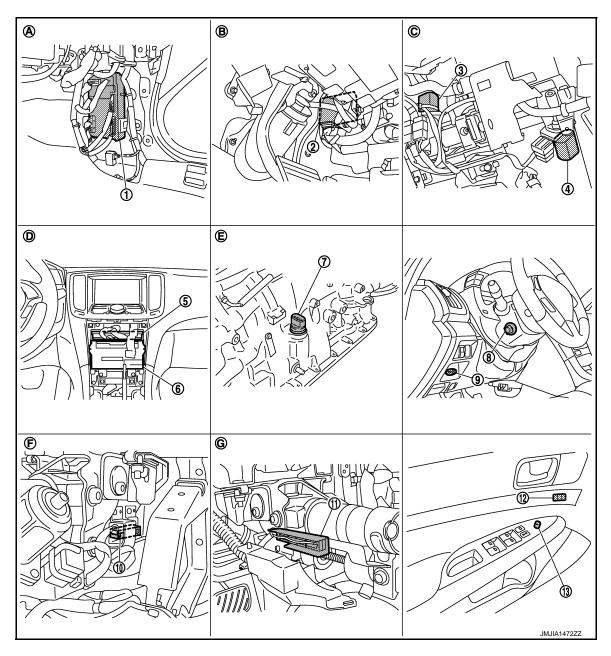
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# AUTOMATIC DRIVE POSITIONER SYSTEM: Component Parts Location INFOID:000000005170906

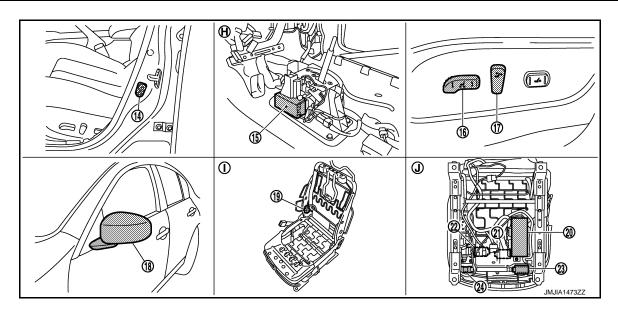


- 1. BCM M118, M119, M122, M123
- 4. Telescopic motor M49
- 7. AT assembly connector F51
- 10. Tilt sensor M48
- Door mirror remote control switch D17
- A. Dash side lower (Passenger side)
- D. Behind cluster lid C
- G View with steering column cover lower and upper removed

- Automatic drive positioner control unit 3. M51, M52
- 5. Unified meter and A/C amp. M67
- 8. Tilt & telescopic switch M31
- 11. Telescopic 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. Key slot M22
- 12. Seat memory switch D5
- View with steering column cover lower and upper removed
- F. View with instrument driver lower panel removed

#### < SYSTEM DESCRIPTION >



- 14. Front door switch (driver side) B16
- 15. A/T shift selector (detention switch) 16. Sliding, lifting switch
- 17. Reclining switch (power seat switch 18. Door mirror (driver side) D3
- (Power seat switch B459)

- 20. Driver seat control unit B451, B452 21. Lifting motor (front) B455
- 22. Lifting motor (rear) B456

19. Reclining motor B454

- 23. Sliding motor B461
- 24. Sliding sensor B453
  - - View with seat cushion pad and seat- J. Backside of the seat cushion
- View with center console assembly I. removed
  - back pad removed

# AUTOMATIC DRIVE POSITIONER SYSTEM: Component Description

INFOID:0000000005170907

#### **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	<ul> <li>It communicates with the driver seat control unit via UART communication.</li> <li>Perform various controls with the instructions of driver seat control unit.</li> <li>Perform the controls of the tilt &amp; telescopic, door mirror and the seat memory switch.</li> </ul>
ВСМ	Transmit the following status to the driver seat control unit via CAN communication.  Driver door: OPEN/CLOSE Ignition switch position: ACC/ON Door lock: UNLOCK (with Intelligent Key or driver side door request switch operation) Key ID Key switch: Insert/Pull out Intelligent Key Starter: CRANKING/OTHER
Unified meter and A/C amp.	Transmit the vehicle speed signal to the driver seat control unit via CAN communication.
TCM	Transmit the shift position signal (P range) to the driver seat control unit via CAN communication.

#### **INPUT PARTS**

**Switches** 

**ADP-15** Revision: 2009 August 2010 EX35

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#### < 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	<ul> <li>The following switch is installed.</li> <li>Mirror switch</li> <li>Changeover switch</li> <li>The specific parts can be operated with the operation of each switch.</li> </ul>

#### Sensors

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

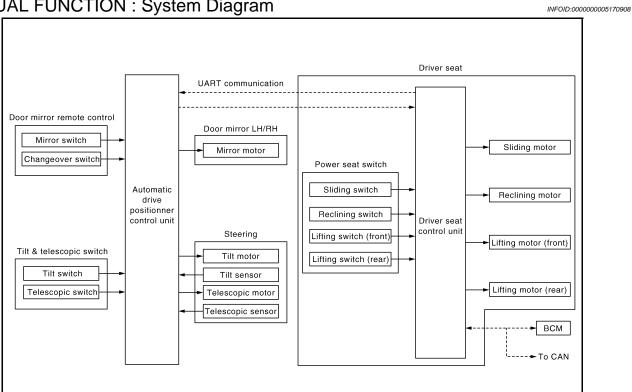
#### **OUTPUT PARTS**

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

# MANUAL FUNCTION

#### < SYSTEM DESCRIPTION >

# MANUAL FUNCTION: System Diagram



# MANUAL FUNCTION: System Description

#### 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**

- Turn ignition switch ON.
- Operate power seat switch, tilt & telescopic switch or door mirror remote control switch.
- 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, reclining)	_	The power seat switch signal is inputted to the driver seat control unit when the power seat switch is operated.
2	_	Motors (sliding, lifting, reclining)	The driver seat control unit outputs signals to each motor according to the power seat switch input signal.

#### 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.

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# < 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.
3	Sensors (Tilt, telescopic)	_	The automatic drive positioner control unit recognizes any operation limit of each actuator via each sensor and will not operate the actuator anymore at that time.*

<sup>\*:</sup> 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 automatic drive positioner control unit when the door mirror remote control switch is operated.
2	_	Motors (Door mirror motor)	The automatic drive positioner control unit actuates each motor according to the operation of the door mirror remote control switch.

#### NOTE:

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

# MANUAL FUNCTION: Component Parts Location

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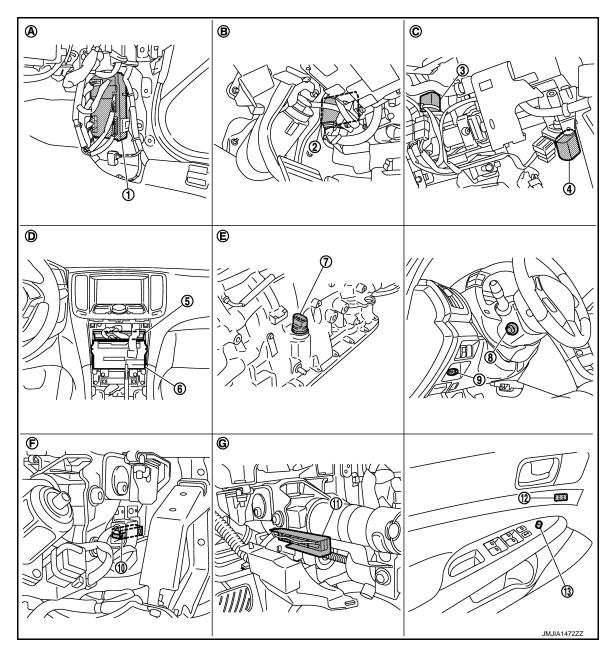
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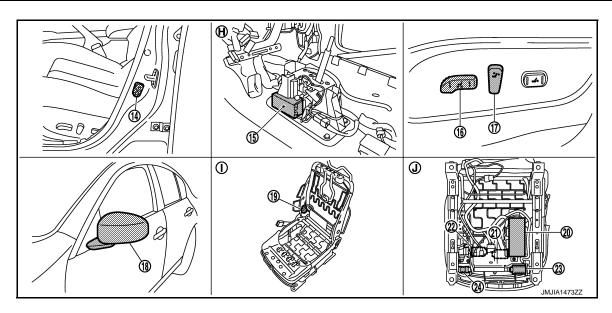


- BCM M118, M119, M122, M123
- Telescopic motor M49
- AT assembly connector F51
- 10. Tilt sensor M48
- 13. Door mirror remote control switch
- A. Dash side lower (Passenger side)
- D. Behind cluster lid C
- View with steering column cover lower and upper removed

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

- Tilt motor M49
- AV control unit With NAVI M87, M88 Without NAVI M83, M85
- 9. Key slot M22
- 12. Seat memory switch D5
- View with steering column cover lower and upper removed
- 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)
- Sliding, lifting switch (Power seat switch B459)

- 17. Reclining switch (power seat switch 18.
- Door mirror (driver side) D3
- Reclining motor B454
- 20. Driver seat control unit B451, B452 21. Lifting motor (front) B455
  - 24. Sliding sensor B453
- 22. Lifting motor (rear) B456

- 23. Sliding motor B461
- H. View with center console assembly I.
- View with seat cushion pad and seat- J. Backside of the seat cushion back pad removed

# MANUAL FUNCTION: Component Description

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# **CONTROL UNITS**

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Item	Function
Driver seat control unit	<ul> <li>Operates the specific seat motor with the signal from the power seat switch.</li> <li>Transmits the ignition switch signal (ACC/ON) via UART communication to the automatic drive positioner control unit.</li> </ul>
Automatic drive positioner control unit	Operates the specific motor with the signal from tilt & telescopic switch or door mirror remote control switch.
BCM	Recognizes the following status and transmits it to the driver seat control unit via CAN communication.  • Ignition position: ACC/ON

#### **INPUT PARTS**

#### **Switches**

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

#### < 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

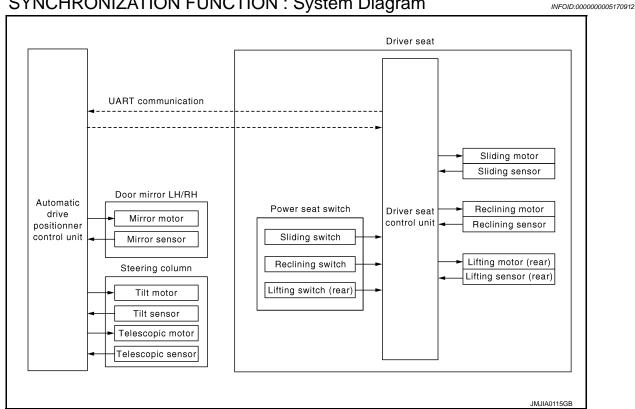
Item	Function
Tilt and telescopic sensor	Detect the up/down and left/right position of steering column.

#### **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 frontward/rearward.
Lifting motor (front)	Move the seat lifter (front) upward/downward.
Lifting motor (rear)	Move the seat lifter (rear) upward/downward.
Reclining motor	Tilt and raise up the seatback.
Sliding motor	Slide the seat frontward/rearward.

#### SEAT SYNCHRONIZATION FUNCTION

# SEAT SYNCHRONIZATION FUNCTION: System Diagram



SEAT SYNCHRONIZATION FUNCTION: System Description

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**OUTLINE** 

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#### < 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-10, "SYSTEM SETTING: Description"</u>.

#### **OPERATION PROCEDURE**

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

#### NOTE:

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

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

- The seat synchronization function will not operate if the steering column or door mirror moves to the operating end while this function is operating. Perform memory function or drive the vehicle at vehicle speed of 7 km/h or more once to activate this function again.
- If the seat position is uncomfortable after the adjustment, seat position can be adjusted easily by memory operation.

#### **OPERATION CONDITION**

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

ltem	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, outside mirror)	Driver seat control unit requests the operation to position according to the direction and distance of seat movement to the automatic 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.

# SEAT SYNCHRONIZATION FUNCTION: Component Parts Location

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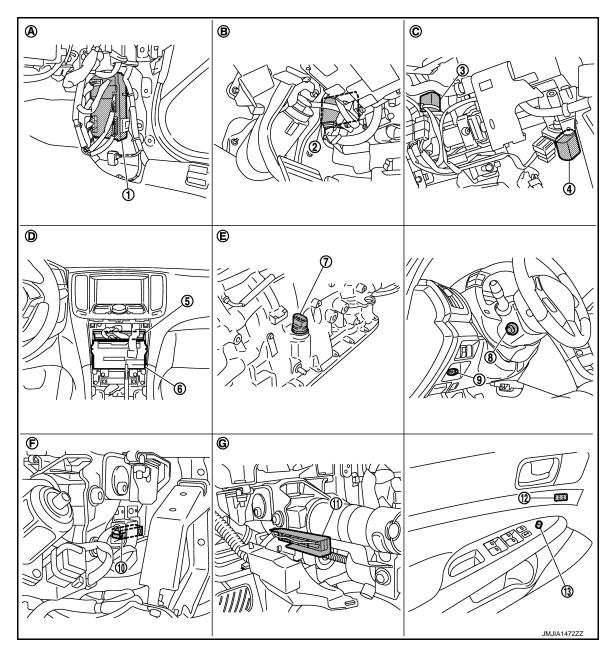
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- BCM M118, M119, M122, M123
- Telescopic motor M49
- AT assembly connector F51
- 10. Tilt sensor M48
- 13. Door mirror remote control switch
- Dash side lower (Passenger side) Α.
- D. Behind cluster lid C
- View with steering column cover lower and upper removed

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

- Tilt motor M49
- AV control unit With NAVI M87, M88 Without NAVI M83, M85
- 9. Key slot M22
- 12. Seat memory switch D5
- View with steering column cover lower and upper removed
- View with instrument driver lower panel removed

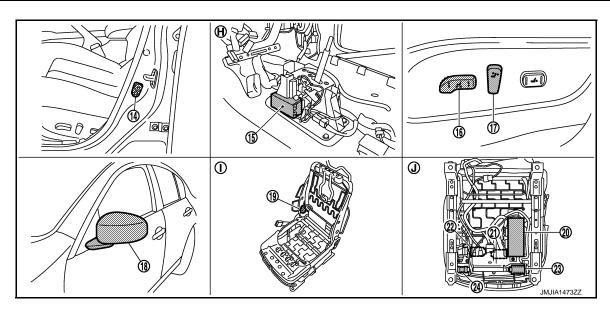
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- 14. Front door switch (driver side) B16
- 15. A/T shift selector (detention switch) 16. Sliding, lifting switch (Power seat switch B459)
- 17. Reclining switch (power seat switch 18. Door mirror (driver side) D3
- - 19. Reclining motor B454
- 20. Driver seat control unit B451, B452 21. Lifting motor (front) B455
  - 24. Sliding sensor B453
- 22. Lifting motor (rear) B456

- 23. Sliding motor B461
- H. View with center console assembly I. removed
- View with seat cushion pad and seat- J. Backside of the seat cushion back pad removed

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

#### Sensors

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

#### < SYSTEM DESCRIPTION >

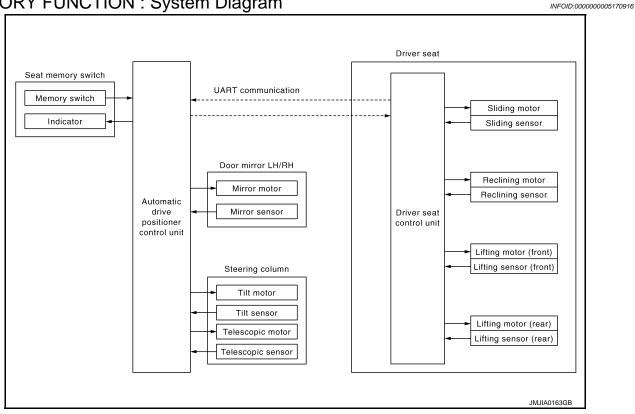
Item	Function
Reclining sensor	Detect the tilt of seatback.
Sliding sensor	Detect the front/rear position of seat.

#### **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 frontward/rearward.
Lifting motor (rear)	Move the seat lifter (rear) upward/downward.
Reclining motor	Tilt and raise up the seatback.
Sliding motor	Slide the seat frontward/rearward.

#### MEMORY FUNCTION

#### **MEMORY FUNCTION: System Diagram**



# **MEMORY FUNCTION: System Description**

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#### **OUTLINE**

The driver seat control unit can store the optimum driving positions (seat, steering column and door mirror position) for 2 people. If the front seat position is changed, one-touch (pressing desired memory switch for more than 0.5 second) operation allows changing to the other driving position.

Further information for the memory storage procedure. Refer to ADP-9, "MEMORY STORING: Description".

#### **OPERATION PROCEDURE**

- Turn ignition switch ON
- 2. Press desired memory switch for more than 0.5 second.
- Driver seat, steering and door mirror will move to the memorized position.

#### **OPERATION CONDITION**

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#### < SYSTEM DESCRIPTION >

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

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

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 recognizes the memory switch pressed for 0.5 second or more and requests each motor operation to automatic drive positioner control unit via UART communication. The automatic drive positioner control unit operates each motor.	
		Memory switch Indicator	Driver seat control unit requests the flashing of memory indicator to automatic drive positioner control unit via UART communication while either of the motors is operating. The automatic drive positioner control unit illuminates the memory indicator.
3	Sensors (Seat, 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 reaches the recorded address.
4	_	Memory switch Indicator	Driver seat control unit requests the illumination of memory indicator to auto drive positioner control unit via UART communication after all motors stop. The auto driving positioner control unit illuminates the memory indicator for 5 seconds.

# **MEMORY FUNCTION: Component Parts Location**

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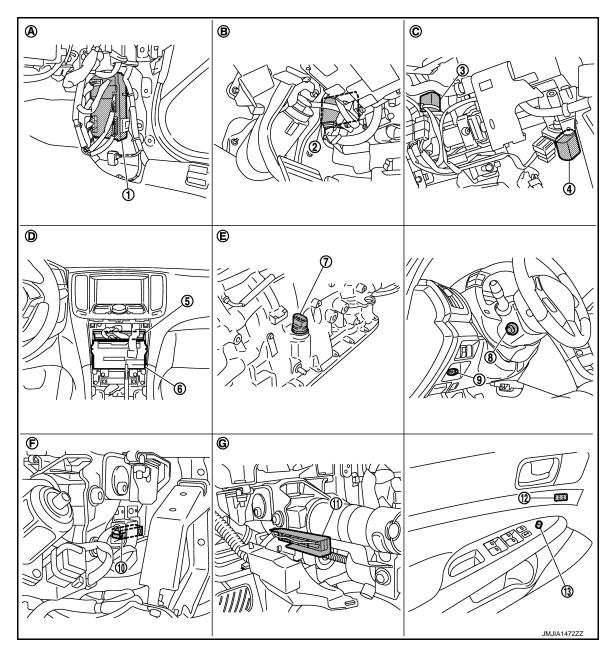
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- BCM M118, M119, M122, M123
- Telescopic motor M49
- AT assembly connector F51
- 10. Tilt sensor M48
- 13. Door mirror remote control switch
- A. Dash side lower (Passenger side)
- D. Behind cluster lid C
- View with steering column cover lower and upper removed

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

- Tilt motor M49
- AV control unit With NAVI M87, M88 Without NAVI M83, M85
- 9. Key slot M22
- 12. Seat memory switch D5
- View with steering column cover lower and upper removed
- View with instrument driver lower panel removed

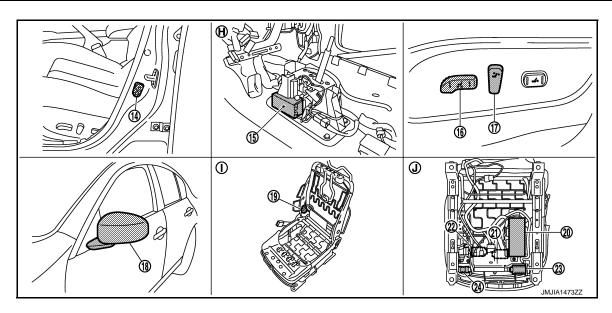
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- 14. Front door switch (driver side) B16
- 15. A/T shift selector (detention switch)
- Sliding, lifting switch (Power seat switch B459)

- 17. Reclining switch (power seat switch 18.
- Door mirror (driver side) D3
- Reclining motor B454
- 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
- H. View with center console assembly I. removed
- View with seat cushion pad and seat- J. Backside of the seat cushion back pad removed

# MEMORY FUNCTION: Component Description

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# **CONTROL UNITS**

Item	Function
Driver seat control unit	<ul> <li>The address of each part is recorded.</li> <li>Operates each motor of seat to the registered position.</li> <li>Requests the operations of steering column and door mirror to automatic drive positioner control unit</li> </ul>
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
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 left/right position of steering column.
Lifting sensor (front)	Detect the up/down position of seat lifting (front).
Lifting sensor (rear)	Detect the up/down position of seat lifting (rear).
Reclining sensor	Detect the tilt of seatback.
Sliding sensor	Detect the front/rear position of seat.

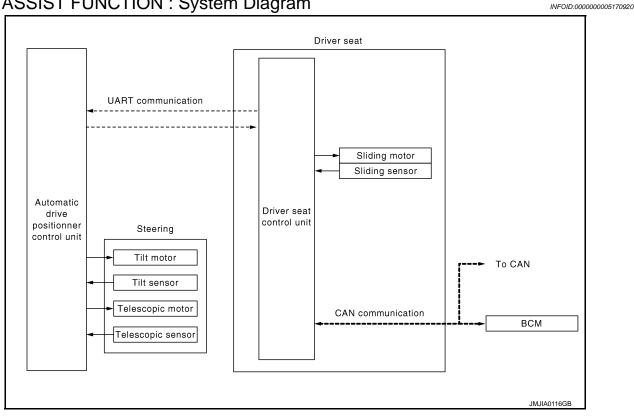
#### < SYSTEM DESCRIPTION >

#### **OUTPUT PARTS**

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

#### **EXIT ASSIST FUNCTION**

# **EXIT ASSIST FUNCTION: System Diagram**



# **EXIT ASSIST FUNCTION: System Description**

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#### **OUTLINE**

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

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

- This function is set to ON before delivery (initial setting).
- Further information for the system setting procedure. Refer to <u>ADP-10, "SYSTEM SETTING: Description"</u>.

#### **OPERATION PROCEDURE**

- Open the driver door with ignition switch in ON position.
- 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.

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# < SYSTEM DESCRIPTION >

Item	Request status
Ignition position	OFF
System setting	ON
Initialization	Done
Switch inputs  Power seat switch  Tilt & telescopic switch  Door mirror remote control switch  Set switch  Memory switch	OFF (Not operated)
A/T selector lever	P position

# **DETAIL FLOW**

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 recognizes 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 communication. The automatic drive positioner control unit operates each motor for a constant amount.

# **EXIT ASSIST FUNCTION: Component Parts Location**

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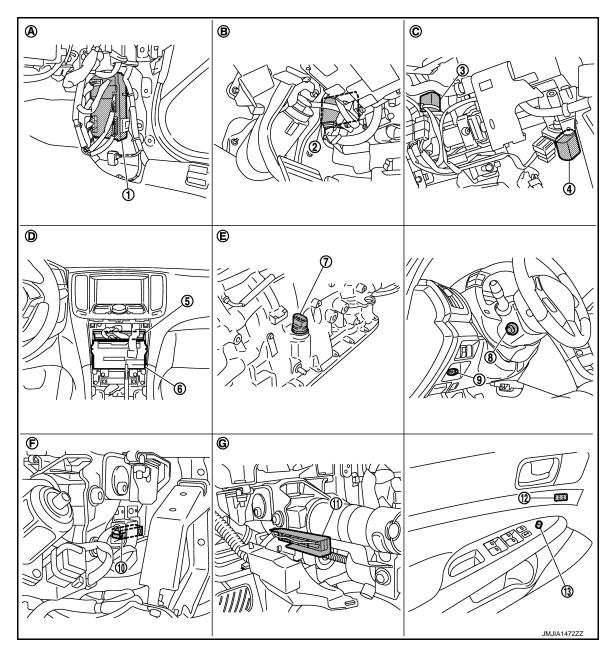
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- 1. BCM M118, M119, M122, M123
- 4. Telescopic motor M49
- 7. AT assembly connector F51
- 10. Tilt sensor M48
- Door mirror remote control switch D17
- A. Dash side lower (Passenger side)
- D. Behind cluster lid C
- G View with steering column cover 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. Telescopic 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. Key slot M22
- 12. Seat memory switch D5
- View with steering column cover lower and upper removed
- F. View with instrument driver lower panel removed

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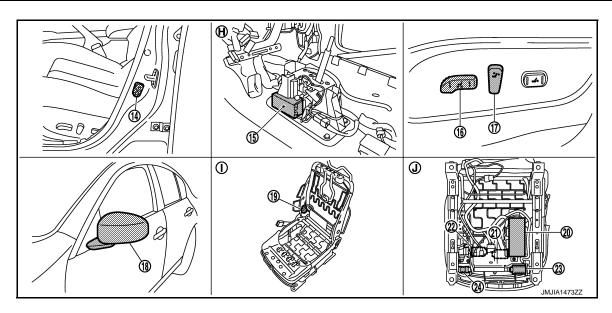
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- 14. Front door switch (driver side) B16
- 15. A/T shift selector (detention switch)
- Sliding, lifting switch (Power seat switch B459)
- 17. Reclining switch (power seat switch 18. Door mirror (driver side) D3
- 19. Reclining motor B454
- 20. Driver seat control unit B451, B452 21. Lifting motor (front) B455
- 22. Lifting motor (rear) B456

- 23. Sliding motor B461
- 24. Sliding sensor B453
- H. View with center console assembly I. removed
- View with seat cushion pad and seat- J. Backside of the seat cushion back pad removed

# **EXIT ASSIST FUNCTION: Component Description**

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#### **CONTROL UNITS**

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

#### **INPUT PARTS**

#### **Switches**

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

#### Sensors

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

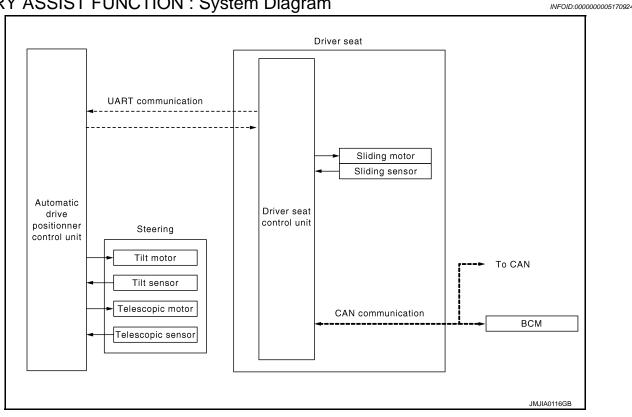
#### **OUTPUT PARTS**

#### < SYSTEM DESCRIPTION >

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

#### **ENTRY ASSIST FUNCTION**

#### **ENTRY ASSIST FUNCTION: System Diagram**



# **ENTRY ASSIST FUNCTION: System Description**

#### **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 ADP-10, "SYSTEM SETTING: Description".

#### **OPERATION PROCEDURE**

- 1. A: Turn the ignition switch ON. B: Turn the ignition switch from OFF to ACC after closing the driver door.
- 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.

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

# **DETAIL FLOW**

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

# **ENTRY ASSIST FUNCTION: Component Parts Location**

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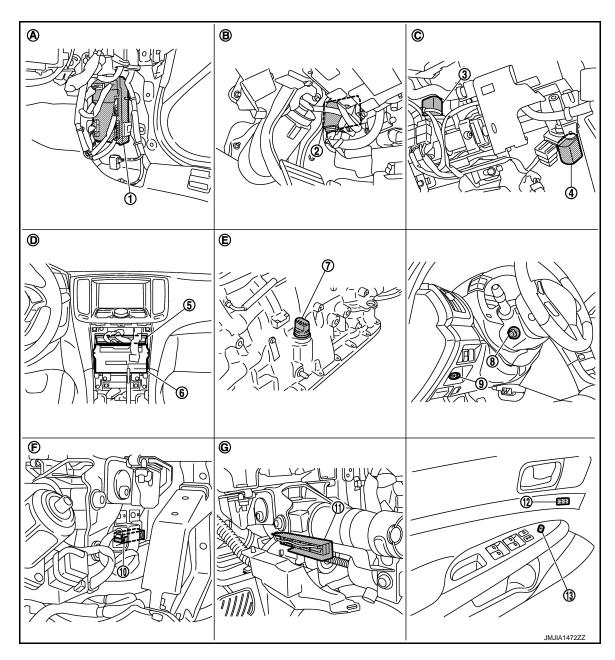
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- 1. BCM M118, M119, M122, M123
- 4. Telescopic motor M49
- 7. AT assembly connector F51
- 10. Tilt sensor M48
- Door mirror remote control switch D17
- A. Dash side lower (Passenger side)
- D. Behind cluster lid C
- G View with steering column cover 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. Telescopic 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. Key slot M22
- 12. Seat memory switch D5
- View with steering column cover lower and upper removed
- F. View with instrument driver lower panel removed

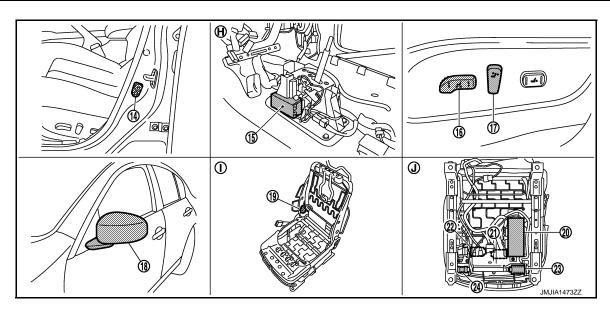
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- 14. Front door switch (driver side) B16
- 15. A/T shift selector (detention switch)
- Sliding, lifting switch (Power seat switch B459)
- 17. Reclining switch (power seat switch 18. Door mirror (driver side) D3
- 19. Reclining motor B454
- 20. Driver seat control unit B451, B452 21. Lifting motor (front) B455
  - 24. Sliding sensor B453
- 22. Lifting motor (rear) B456

- 23. Sliding motor B461
- H. View with center console assembly I.
- View with seat cushion pad and seat- J. Backside of the seat cushion back pad removed

# **ENTRY ASSIST FUNCTION: Component Description**

INFOID:0000000005170927

# **CONTROL UNITS**

removed

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

#### **INPUT PARTS**

#### **Switches**

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

#### Sensors

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

#### **OUTPUT PARTS**

### < SYSTEM DESCRIPTION >

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

### INTELLIGENT KEY INTERLOCK FUNCTION

### INTELLIGENT KEY INTERLOCK FUNCTION: System Diagram

INFOID:0000000005170928

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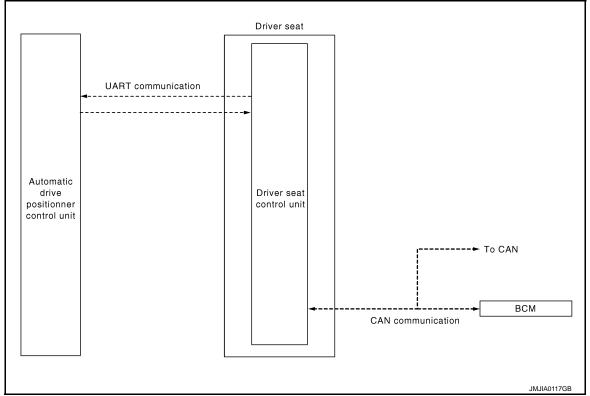
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# INTELLIGENT KEY INTERLOCK FUNCTION : System Description

INFOID:0000000005170929

### **OUTLINE**

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

### **OPERATION PROCEDURE**

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

#### NOTE:

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

Further information for Intelligent Key interlock function. Refer to ADP-9, "MEMORY STORING: Description".

### **OPERATION CONDITION**

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

Item	Request status	
Ignition position	OFF	
System setting	ON	
Key switch	OFF (Key is removed.)	

### < SYSTEM DESCRIPTION >

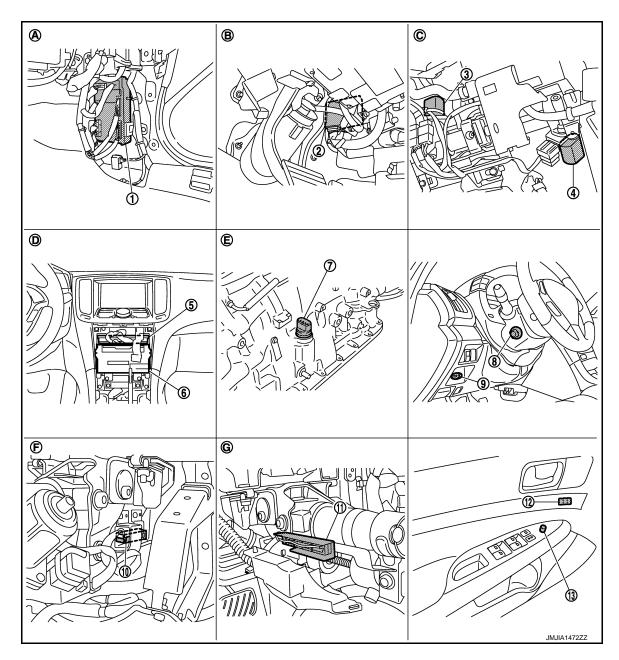
Item	Request status
Switch inputs  Power seat switch  Tilt & telescopic switch  Door mirror control switch  Set switch  Memory switch	OFF (Not operated)
AT selector lever	P position

### **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 performing the memory function.
4	_	_	Driver seat control unit performs the entry assist function.

### < SYSTEM DESCRIPTION >

### INTELLIGENT KEY INTERLOCK FUNCTION: Component Parts Location INFOID-000000005170930



- 1. BCM M118, M119, M122, M123
- 4. Telescopic motor M49
- 7. AT assembly connector F51
- 10. Tilt sensor M48
- Door mirror remote control switch D17
- 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. Telescopic 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. Key slot M22
- 12. Seat memory switch D5
- View with steering column cover lower and upper removed
- F. View with instrument driver lower panel removed

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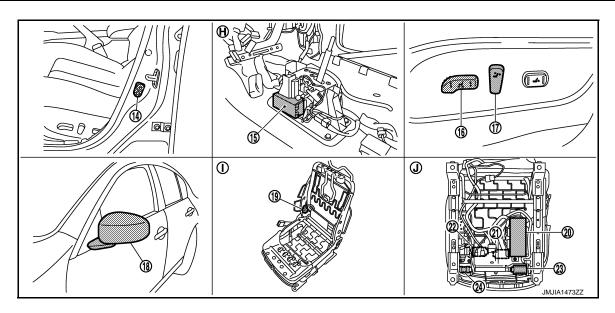
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### < SYSTEM DESCRIPTION >



- 14. Front door switch (driver side) B16
- 15. A/T shift selector (detention switch)
- Sliding, lifting switch (Power seat switch B459)

- 17. Reclining switch (power seat switch 18.
- Door mirror (driver side) D3
- Reclining motor B454
- 20. Driver seat control unit B451, B452 21. Lifting motor (front) B455
  - 24. Sliding sensor B453
- 22. Lifting motor (rear) B456

- 23. Sliding motor B461
- H. View with center console assembly I. removed
- View with seat cushion pad and seat- J. Backside of the seat cushion back pad removed

### INTELLIGENT KEY INTERLOCK FUNCTION: Component Description

INFOID:0000000005170931

### **CONTROL UNITS**

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

### **DIAGNOSIS SYSTEM (DRIVER SEAT C/U)**

### < SYSTEM DESCRIPTION >

# DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

### **Diagnosis Description**

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

DIAGNOSTIC MODE

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

### **CONSULT-III Function**

INFOID:0000000005170933

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

**DATA MONITOR** 

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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.

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# **DIAGNOSIS SYSTEM (DRIVER SEAT C/U)**

### < SYSTEM DESCRIPTION >

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

# DIAGNOSIS SYSTEM (DRIVER SEAT C/U)

### < SYSTEM DESCRIPTION >

Test item	Description
MIRROR MOTOR LH	Activates/deactivates the mirror motor (driver side).
MEMORY SW INDCTR	Turns ON/OFF the memory indicator.

### **WORK SUPPORT**

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

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# DTC/CIRCUIT DIAGNOSIS

### U1000 CAN COMM CIRCUIT

Description INFOID.000000005170934

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	<ul> <li>Driver seat control unit cannot communicate to other control units.</li> <li>Driver seat control unit cannot communicate for more than the specified time.</li> </ul>	Harness or connectors (CAN communication line is open or shorted)

### DTC CONFIRMATION PROCEDURE

### **1.**STEP 1

Turn ignition switch ON and wait at least 3 seconds.

>> GO TO 2.

### 2.STEP 2

Check "Self diagnostic result" with CONSULT-III.

### Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to <u>ADP-44, "Diagnosis Procedure"</u>.

NO >> INSPECTION END

### Diagnosis Procedure

INFOID:0000000005170936

Refer to LAN-18, "Trouble Diagnosis Flow Chart".

### Special Repair Requirement

INFOID:0000000005170937

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

### **B2112 SLIDING MOTOR**

### < DTC/CIRCUIT DIAGNOSIS >

### **B2112 SLIDING MOTOR**

Description

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

DTC Logic

#### DTC DETECTION LOGIC

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

### DTC CONFIRMATION PROCEDURE

### 1. RERFORM DTC CONFIRMATION PROCEDURE

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

#### Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to <u>ADP-45, "Diagnosis Procedure"</u>.

NO >> INSPECTION END

#### NOTE:

First perform diagnosis for B2126 if B2126 is detected.

### Diagnosis Procedure

INFOID:0000000005170940

### 1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON.
- Check "Self diagnostic result" with CONSULT-III.
- Erase the DTC.
- Perform DTC confirmation procedure. Refer to <u>ADP-45, "DTC Logic"</u>.

#### Is the DTC displayed again?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to GI-37, "Intermittent Incident".

# 2.check sliding motor circuit (power short)

- 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.)	$\circ$
Connector	Terminals		,	O
B461	35	Ground	0	
B401	42	Giodila	U	Р

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

# 3. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

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### **B2112 SLIDING MOTOR**

### < DTC/CIRCUIT DIAGNOSIS >

(+)			Voltago (V)	
Driver sea	t control unit	(–)	Voltage (V) (Approx.)	
Connector	Terminals			
D.454	35	Onesia	0	
B451	42	- Ground	U	

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit. Refer to <u>ADP-216</u>, "Removal and Installation"

4. CHECK INTERMITTENT INCIDENT

Refer to GI-37, "Intermittent Incident".

>> INSPECTION END

### **B2113 RECLINING MOTOR**

### < DTC/CIRCUIT DIAGNOSIS >

### **B2113 RECLINING MOTOR**

Description INFOID:0000000005170941

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

DTC Logic

### DTC DETECTION LOGIC

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

#### DTC CONFIRMATION PROCEDURE

### 1. REFORM DTC CONFIRMATION PROCEDURE

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

#### Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to <u>ADP-47, "Diagnosis Procedure"</u>.

NO >> INSPECTION END

### NOTE:

First perform diagnosis for B2126 if B2126 is detected.

### Diagnosis Procedure

INFOID:0000000005170943

### 1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON.
- 2. Check "Self diagnostic result" with CONSULT-III.
- 3. Erase the DTC.
- Perform DTC confirmation procedure. Refer to <u>ADP-47</u>, "<u>DTC Logic</u>".

### Is the DTC displayed again?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to GI-37, "Intermittent Incident".

# 2.CHECK RECLINING MOTOR CIRCUIT (POWER SHORT)

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

-	+)			_
	ng motor	(–)	Voltage (V) (Approx.)	
Connector	Terminals		()	0
B454	36 44	Ground	0	D

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

# 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.

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### **B2113 RECLINING MOTOR**

### < DTC/CIRCUIT DIAGNOSIS >

	(+)	(-)	Voltage (V) (Approx.)	
Driver sea	at control unit			
Connector	Terminals		,	
B451	36	Ground	0	
D431	44	Giodila	U	

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit. Refer to <u>ADP-216. "Removal and Installation"</u>.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-37, "Intermittent Incident".

>> INSPECTION END

### **B2118 TILT SENSOR**

### < DTC/CIRCUIT DIAGNOSIS >

# B2118 TILT SENSOR

Description INFOID:0000000005170944

- 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

#### 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-III.

#### Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to <u>ADP-49</u>, "<u>Diagnosis Procedure</u>".

NO >> INSPECTION END

### Diagnosis Procedure

1. CHECK TILT SENSOR SIGNAL

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- Turn ignition switch ON.
   Select "TILT SEN" in "Data monitor" mode with CONSULT-III.
- 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

- Turn ignition switch OFF.
- 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	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.

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### **B2118 TILT SENSOR**

### < DTC/CIRCUIT DIAGNOSIS >

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

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

# 3.CHECK TILT 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.

(	+)		N 14 00	
Tilt & teleso	copic 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 TILT SENSOR POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit 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
M52	33	M48	1	Existed

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

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 ADP-216, "Removal and Installation".

NO >> Repair or replace harness or connector.

### ${f 5.}$ CHECK TILT SENSOR GROUND CIRCUIT

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

Automatic drive po	ositioner 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 or connector.

### 6. CHECK INTERMITTENT INCIDENT

### **B2118 TILT SENSOR**

### < DTC/CIRCUIT DIAGNOSIS >

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### **B2119 TELESCOPIC SENSOR**

### < DTC/CIRCUIT DIAGNOSIS >

# **B2119 TELESCOPIC SENSOR**

Description INFOID:0000000005170947

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

DTC Logic

#### DTC DETECTION LOGIC

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

### DTC CONFIRMATION PROCEDURE

### 1. RERFORM DTC CONFIRMATION PROCEDURE

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

#### Is the DTC is detected?

YES >> Perform diagnosis procedure. Refer to ADP-52, "Diagnosis Procedure".

NO >> INSPECTION END

# Diagnosis Procedure

INFOID:0000000005170949

### 1. CHECK TELESCOPIC SENSOR SIGNAL

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

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

### Is the valve normal?

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

# 2.CHECK TELESCOPIC SENSOR CIRCUIT

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

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

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

### **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 or connector.

# 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 & telesc	(+) 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

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

Automatic drive po	ositioner control unit Tilt & telescopic sensor Continuity		Tilt & telescopic sensor	
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 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 ADP-216, "Removal and Installation".

NO >> Repair or replace harness or connector.

### 5. CHECK TELESCOPIC SENSOR GROUND CIRCUIT

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

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

### Is the inspection result normal?

Revision: 2009 August

YES >> Replace tilt & telescopic sensor.

NO >> Repair or replace harness.

### 6. CHECK INTERMITTENT INCIDENT

Refer to GI-37, "Intermittent Incident".

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### **B2119 TELESCOPIC SENSOR**

>> INSPECTION END

### **B2126 DETENT SW**

Description INFOID:0000000005170950

Detention switch is installed on A/T shift selector. It is turned OFF when the A/T selector lever is in P posi-

 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:0000000005170951

#### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause	F
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)	F

### DTC CONFIRMATION PROCEDURE

### 1. RERFORM DTC CONFIRMATION PROCEDURE

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

#### Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-55, "Diagnosis Procedure".

NO >> INSPECTION END

### Diagnosis Procedure

### CHECK DTC WITH "BCM"

Check "Self diagnostic result" for BCM with CONSULT-III.

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

>> Check the DTC. Refer to BCS-79, "DTC Index". YES

NO >> GO TO 2.

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

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

### Is the DTC detected?

YES >> Check the DTC. Refer to ADP-144, "DTC Index".

NO >> GO TO 3.

# 3.CHECK DETENTION SWITCH SIGNAL

- 1. Turn ignition switch ON.
- Select "DETENT SW" in "Data Monitor" mode with CONSULT-III. 2.
- 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.

>> GO TO 4. NO

### 4. CHECK DETENTION SWITCH CIRCUIT

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### **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		rol 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.

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B451	21		Not existed

### Is the inspection result normal?

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

NO >> Repair or replace harness.

# 5. CHECK INTERMITTENT INCIDENT

Refer to GI-37, "Intermittent Incident".

>> INSPECTION END

### **B2128 UART COMMUNICATION LINE**

### < DTC/CIRCUIT DIAGNOSIS >

### **B2128 UART COMMUNICATION LINE**

Description INFOID:000000005170953

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

DTC Logic

### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2128	UART COMM	The communication between driver seat control unit and auto drive positioner control unit is interrupted for a period of time.	UART communication line (UART communication line is open or shorted)     Driver seat control unit     Automatic drive positioner control unit

### DTC CONFIRMATION PROCEDURE

## 1. 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-III.

#### Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to <u>ADP-57</u>, "<u>Diagnosis Procedure</u>".

NO >> INSPECTION END

### Diagnosis Procedure

# 1. CHECK UART COMMUNICATION LINE CONTINUITY

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

Driver seat	control unit	Automatic drive po	sitioner control unit	Continuity	
Connector	Terminal	Connector Terminal		Continuity	
B451	1	M51	10	Existed	
D401	17	IVIST	26	LAISIEU	

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

Driver seat	control unit		Continuity
Connector	Terminal	Ground Not existe	Continuity
B451	1		Not existed
5431	17		INOL EXISTED

### Is the inspection result normal?

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YES >> Check intermittent incident. Refer to GI-37, "Intermittent Incident".

NO >> Repair or replace harness.

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### POWER SUPPLY AND GROUND CIRCUIT

### < DTC/CIRCUIT DIAGNOSIS >

### POWER SUPPLY AND GROUND CIRCUIT

**BCM** 

BCM : Diagnosis Procedure

INFOID:0000000005170956

### 1. CHECK FUSE AND FUSIBLE LINK

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

Signal name	Fuse and fusible link No.	
Rattery power supply	К	
Battery power supply	10	

### Is the fuse fusing?

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

NO >> GO TO 2.

# 2.CHECK POWER SUPPLY CIRCUIT

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

(+) BCM		(-)	Voltage (Approx.)
Connector	Terminal		(/ .pp. 0/11)
M118	1	Ground	Battery voltage
M119	11		

### Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

### 3.CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

ВСМ			Continuity
Connector	Terminal	Ground	Continuity
M119	13		Existed

### Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.

### DRIVER SEAT CONTROL UNIT

# DRIVER SEAT CONTROL UNIT : Diagnosis Procedure

INFOID:0000000005170957

#### NOTE:

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

### 1. CHECK POWER SUPPLY CIRCUIT

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

### POWER SUPPLY AND GROUND CIRCUIT

### < DTC/CIRCUIT DIAGNOSIS >

(+)			Voltage (V) (Approx.)
Driver se	Driver seat control unit		
Connector	Terminal		<b>, , , ,</b>
B452	33	Ground	Battery voltage
D402	40		

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Check the following.

- Repair or replace 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 sea	Driver seat control unit		Continuity
Connector	Terminal	Ground	Continuity
B451	32		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

### 1.PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

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

### AUTOMATIC DRIVE POSITIONER CONTROL UNIT

### AUTOMATIC DRIVE POSITIONER CONTROL UNIT: Diagnosis Procedure

#### NOTE:

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

### 1. CHECK POWER SUPPLY CIRCUIT

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

(+)		(–)	Voltage (V) (Approx.)
Automatic drive positioner control unit			
Connector	Terminal		(* 44)
M52	34	Ground	Battery voltage
IVISZ	39		

### 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.

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### POWER SUPPLY AND GROUND CIRCUIT

### < DTC/CIRCUIT DIAGNOSIS >

Automatic drive	Automatic drive positioner control unit		Continuity
Connector	Terminal	Ground	Continuity
M52	40	Ground	Existed
IVIOZ	48		LAISIEU

### Is the inspection result normal?

YES >> Automatic drive positioner control unit power supply and ground circuit are OK.

NO >> Repair or replace harness between automatic drive positioner control unit and ground.

### AUTOMATIC DRIVE POSITIONER CONTROL UNIT: Special Repair Requirement

INFOID:0000000005170960

# 1. PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

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

### **SLIDING SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

### 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

#### INFOID:0000000005170962

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# 1. CHECK FUNCTION

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

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

#### Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-61, "Diagnosis Procedure"</u>.

### Diagnosis Procedure

#### INFOID:0000000005170963

## 1. CHECK SLIDING SWITCH SIGNAL

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

(+) Power seat switch		(-)	Voltage (V) (Approx.)	
Connector	Terminal		(* <b>. . . . . .</b>	
B459	11	Ground	Pottory voltage	
D439	26	Giouna	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 seat	control unit	Power seat switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B451	11	B459	11	Existed
D+31	26	D433	26	LXISIEU

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

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### **SLIDING SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

Driver se	Driver seat control unit		Continuity
Connector	Terminal	Ground	Continuity
B451	11	Ground	Not existed
D401	26		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 or connector.

# 3. CHECK SLIDING SWITCH

Refer to ADP-62, "Component Inspection".

### Is the inspection result normal?

YES >> GO TO 4.

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

### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-37, "Intermittent Incident".

### >> INSPECTION END

# Component Inspection

INFOID:0000000005170964

- 1. CHECK SLIDING SWITCH
- 1. Turn ignition switch OFF.
- Disconnect power seat switch connector.
- 3. Check continuity between power seat switch terminals.

Power se	eat switch	Condition		Continuity
Teri	minal	Condition		Continuity
	11	Sliding switch (backward)	Operate	Existed
32	11		Release	Not existed
32	26	Sliding switch (forward)	Operate	Existed
	20	Silding Switch (lorward)	Release	Not existed

### Is the inspection result normal?

YES >> INSPECTION END

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

### **RECLINING SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

### **RECLINING SWITCH**

Description INFOID:000000005170965

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

#### INFOID:0000000005170966

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### 1. CHECK FUNCTION

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

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

### Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-63, "Diagnosis Procedure"</u>.

### Diagnosis Procedure

#### INFOID:0000000005170967

## 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		(/ .pp. 0/)	
B459	12	Ground	Rattory voltago	
D439	27	Giodila	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 seat	control unit	Power seat switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B451	12	B459	12	Existed
D431	27	B409	27	LAISted

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

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### **RECLINING SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B451	12	Ground	Not existed
D43 I	27		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 or connector.

# 3. CHECK RECLINING SWITCH

Refer to ADP-64, "Component Inspection".

### Is the inspection result normal?

YES >> GO TO 4.

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

### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-37, "Intermittent Incident".

>> INSPECTION END

# Component Inspection

INFOID:0000000005170968

### 1. CHECK RECLINING SWITCH

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

Power se	eat switch	Condition		Continuity
Terr	minal	Condition		Continuity
	12	Reclining switch (backward)	Operate	Existed
32	12		Release	Not existed
32	27	Declining quitab (farward)	Operate	Existed
	21	Reclining switch (forward)	Release	Not existed

### Is the inspection result normal?

YES >> INSPECTION END

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

### **LIFTING SWITCH (FRONT)**

### < DTC/CIRCUIT DIAGNOSIS >

### LIFTING SWITCH (FRONT)

Description

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:0000000005170970

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# 1. CHECK FUNCTION

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

Monitor item	Condition		Status
LIET ED CW LID	Lifting quitch front (up)	Operate	ON
LIFT FR SW-UP	Lifting switch front (up)	Release	OFF
LIFT FR SW-DN	Lifting switch front (down)	Operate	ON
LIFT FR SW-DIN	Litting Switch from (down)	Release	OFF

### Is the indication normal?

YES >> INSPECTION END

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

### Diagnosis Procedure

#### INFOID:0000000005170971

## 1. CHECK LIFTING SWITCH SIGNAL

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

(+) Power seat switch		(–)	Voltage (V) (Approx.)	
Connector	Terminal		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
B459	13	Ground	Pottory voltage	
D <b>4</b> 39	28	Ground	Battery voltage	

### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.CHECK LIFTING SWITCH (FRONT) CIRCUIT

- 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 seat	control unit	Power seat switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B451	13	B459	13	Existed
D431	28	5459	28	LAISIEU

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

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### **LIFTING SWITCH (FRONT)**

### < DTC/CIRCUIT DIAGNOSIS >

Driver se	Driver seat control unit		Continuity
Connector	Terminal	Ground	Continuity
B451	13	Ground	Not existed
D431	28		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 or connector.

# 3.CHECK LIFTING SWITCH (FRONT)

Refer to ADP-66, "Component Inspection".

### Is the inspection result normal?

YES >> GO TO 4.

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

### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-37, "Intermittent Incident".

### >> INSPECTION END

# Component Inspection

INFOID:0000000005170972

## 1. CHECK LIFTING SWITCH (FRONT)

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

Power se	eat switch	Condition		Continuity
Teri	minal	Condi	uon	Continuity
	13	Lifting switch front (down)	Operate	Existed
32	13		Release	Not existed
32	28	Lifting switch front (up)	Operate	Existed
			Release	Not 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 (REAR)**

### < DTC/CIRCUIT DIAGNOSIS >

### LIFTING SWITCH (REAR)

Description

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:0000000005170974

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# 1. CHECK FUNCTION

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

Monitor item	Condition		Status
LIFT RR SW-UP	Lifting switch rear (up)	Operate	ON
LIFT KK SW-OF	Litting Switch real (up)	Release	OFF
LIFT RR SW-DN	Lifting switch rear (down)	Operate	ON
EII I KK SW-DN	Litting Switch real (down)	Release	OFF

#### Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-67, "Diagnosis Procedure"</u>.

### Diagnosis Procedure

#### INFOID:0000000005170975

# 1. CHECK LIFTING SWITCH (REAR) SIGNAL

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

(+) Power seat switch		(–)	Voltage (V) (Approx.)	
Connector	Terminal		(. 4-1-074)	
B459	14	Ground	Pottory voltago	
D439	29	Giouna	Battery voltage	

### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.CHECK LIFTING SWITCH (REAR) CIRCUIT

- 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 seat	control unit	Power sear switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B451	14	B459	14	Existed
D401	29	D-109	29	LAISIEU

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

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### **LIFTING SWITCH (REAR)**

### < DTC/CIRCUIT DIAGNOSIS >

Driver se	Driver seat control unit		Continuity	
Connector	Terminal	Ground	Continuity	
B451	14	Ground	Not existed	
D431	29		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 or connector.

# 3.CHECK LIFTING SWITCH (REAR)

Refer to ADP-68, "Component Inspection".

### Is the inspection result normal?

YES >> GO TO 4.

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

### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-37, "Intermittent Incident".

### >> INSPECTION END

# Component Inspection

INFOID:0000000005170976

# 1. CHECK LIFTING SWITCH (REAR)

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

Power seat switch		Condition		Continuity
Terr	minal	Condi	lion	Continuity
	14	14 Lifting switch rear (up)		Existed
32	14	Litting Switch real (up)	Release	Not existed
32		Lifting switch rear (down)	Operate	Existed
	29		Release	Not existed

### Is the inspection result normal?

YES >> INSPECTION END

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

### **TILT SWITCH**

Description INFOID:000000005170977

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

#### INFOID:0000000005170978

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# 1. CHECK FUNCTION

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

Monitor item	Condition Status		
TILT SW-UP	Tilt switch (up)	Operate	ON
TILI 3W-OF	The Switch (up)	Release	OFF
TILT SW-DN	Tilt switch (down)	Operate	ON
TILI 3W-DN	Till Switch (down)	Release	OFF

### Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-69, "Diagnosis Procedure"</u>.

### Diagnosis Procedure

#### INFOID:0000000005170979

### 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		(/ (PP : 0/11)	
M31	4	Ground	Pottory voltage	
IVIO I	5	Ground	Battery voltage	

### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2. CHECK TILT SWITCH CIRCUIT

- 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	sitioner control unit	Tilt & telescopic switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M51	1	M31	4	Existed
I CIVI	17	IVIO I	5	LAISIEU

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

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### **TILT SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

Automatic drive p	Automatic drive positioner control unit		Continuity
Connector	Terminal	Ground	Continuity
M51	1	Ground	Not existed
IVIO	17		Not existed

### Is the inspection result normal?

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

NO >> Repair or replace harness or connector.

# 3. CHECK TILT SWITCH

Refer to ADP-70, "Component Inspection".

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace tilt & telescopic switch. Refer to <u>ADP-220, "Removal and Installation"</u>.

### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-37, "Intermittent Incident".

### >> INSPECTION END

# Component Inspection

INFOID:0000000005170980

### 1. CHECK TILT SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect tilt & telescopic switch connector.
- 3. Check continuity between tilt & telescopic switch terminals.

Tilt & telescopic switch		Condition		Continuity
Terminal				
1	4 Ti	Tilt switch (up)	Operate	Existed
			Release	Not existed
	5	Tilt switch (down)	Operate	Existed
			Release	Not existed

### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace tilt & telescopic switch. Refer to ADP-220, "Removal and Installation".

### TELESCOPIC SWITCH

### < DTC/CIRCUIT DIAGNOSIS >

### TELESCOPIC SWITCH

Description INFOID:000000005170981

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

#### INFOID:0000000005170982

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# 1. CHECK FUNCTION

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

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

### Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-71, "Diagnosis Procedure"</u>.

### Diagnosis Procedure

#### INFOID:0000000005170983

## 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		(· -FF : 6711)	
M31	2	Ground	Battery voltage	
IVIST	3			

### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2. CHECK TELESCOPIC SWITCH CIRCUIT

- 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 positioner control unit		Tilt & telescopic switch		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
M51	11	M31	2	Existed	
	27		3	LAISIEU	

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

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### **TELESCOPIC SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

Automatic drive positioner control unit			Continuity	
Connector	Terminal	Ground Not exis	Continuity	
M51	11		Not existed	
	27		Not existed	

### Is the inspection result normal?

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

NO >> Repair or replace harness or connector.

# 3. CHECK TELESCOPIC SWITCH

Refer to ADP-72, "Component Inspection".

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace tilt & telescopic switch. Refer to ADP-220, "Removal and Installation".

### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-37, "Intermittent Incident".

>> INSPECTION END

# Component Inspection

INFOID:0000000005170984

### 1. CHECK TELESCOPIC SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect tilt & telescopic switch connector.
- 3. Check continuity between tilt & telescopic switch terminals.

Tilt & telescopic switch		Condition		Continuity
Terminal				
1	2 Telescopic sv	Telescopic switch (forward)	Operate	Existed
		relescopic switch (forward)	Release	Not existed
	3 Telesco	Telescopic switch (backward)	Operate	Existed
		Telescopic Switch (backward)	Release	Not existed

### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace tilt & telescopic switch. Refer to ADP-220, "Removal and Installation".

### **SEAT MEMORY SWITCH**

#### < DTC/CIRCUIT DIAGNOSIS >

### SEAT MEMORY SWITCH

Description INFOID:0000000005170985

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

### Component Function Check

## 1. CHECK FUNCTION

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

Monitor item	Condition		Status
SET SW	SET SW	Push	ON
SELSW	SELSW	Release	OFF
MEMORY SW 1	Memory switch 1	Push	ON
		Release	OFF
MEMORY SW 2	Marrie 1110	Push	ON
	Memory switch 2	Release	OFF

#### Is the indication normal?

YES >> INSPECTION END

>> Perform diagnosis procedure. Refer to ADP-73, "Diagnosis Procedure". NO

### Diagnosis Procedure

INFOID:0000000005170987

INFOID:0000000005170986

## 1. CHECK SEAT MEMORY SWITCH SIGNAL

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

	+) nory switch	(-) Voltage (V) (Approx.)	
Connector	Terminal		(/ .pp. 0/)
	3		
D5	1	Ground	5
_	2		

#### Is the inspection result normal?

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

### 2.CHECK MEMORY SWITCH CIRCUIT

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

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### **SEAT MEMORY SWITCH**

#### < DTC/CIRCUIT DIAGNOSIS >

Automatic drive p	ositioner control unit	Seat memory switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
	24		3	
M51	9	D5	1	Existed
	25		2	

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

Automatic drive po	sitioner control unit	Continuity	
Connector	Terminal		Continuity
	24	Ground	
M51	9		Not existed
	25		

#### Is the inspection result normal?

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

NO >> Repair or replace harness or connector.

## 3.check memory switch ground circuit

- 1. Turn ignition switch OFF.
- 2. Check continuity between seat memory switch harness connector and ground.

Seat men	nory switch	Continuity	
Connector	Terminal	Ground	Continuity
D5	4		Existed

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness or connector.

### 4. CHECK SEAT MEMORY SWITCH

Refer to ADP-74, "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-37, "Intermittent Incident".

#### >> INSPECTION END

## Component Inspection

INFOID:0000000005170988

### 1. CHECK SEAT MEMORY SWITCH

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

### **SEAT MEMORY SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

Seat mem	Seat memory switch		Condition		
Terr	ninal	Condition		Continuity	
	3	Set switch	Push	Existed	
	3	Set Switch	Release	Not existed	
4	4		Push	Push	Existed
4	ı	Memory switch 1	Release	Not existed	
		Mamany queitab 2	Push	Existed	
	2	Memory switch 2	Release	Not existed	

### Is the inspection result normal?

YES >> INSPECTION END

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

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### < DTC/CIRCUIT DIAGNOSIS >

# DOOR MIRROR REMOTE CONTROL SWITCH CHANGEOVER SWITCH

### CHANGEOVER SWITCH: Description

INFOID:0000000005170989

Changeover switch is integrated into door mirror remote control switch.

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

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

### CHANGEOVER SWITCH: Component Function Check

INFOID:0000000005170990

### 1. CHECK CHANGEOVER SWITCH FUNCTION

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

Refer to ADP-41, "CONSULT-III Function".

#### Is the inspection result normal?

YES >> Changeover switch function is OK.

NO >> Refer to ADP-76, "CHANGEOVER SWITCH: Diagnosis Procedure".

### CHANGEOVER SWITCH: Diagnosis Procedure

INFOID:0000000005170991

### 1. CHECK CHANGEOVER SWITCH SIGNAL

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

(+) Automatic drive positioner control unit		(-)	Col	Condition		
Connector	Terminal				(Approx.)	
	2	Ground		RIGHT	0	
M51			Change over	Other than above	5	
IVIOI	18		switch	LEFT	0	
				Other than above	5	

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 2.

## 2. CHECK HARNESS CONTINUITY

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

Automatic drive p	ositioner control unit	Door mirror remote control switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M51	2	D17	11	Existed
I CIVI	18	ווט	10	Existed

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

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

#### Is the inspection result normal?

### < DTC/CIRCUIT DIAGNOSIS >

YES >> GO TO 3.

NO >> Repair or replace harness.

### 3.CHECK DOOR MIRROR REMOTE CONTROL SWITCH GROUND CIRCUIT

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

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

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

### f 4.CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT OUTPUT SIGNAL

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

	+) ositioner control unit	(-)	Voltage (V) (Approx.)	
Connector	Terminal		(, .FP10///)	
M51	2	Ground	5	
I CIVI	18	Ground	3	

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace automatic drive positioner control unit. Refer to ADP-217, "Removal and Installation".

### $oldsymbol{5}$ .CHECK CHANGEOVER SWITCH

Check changeover switch.

Refer to ADP-77, "CHANGEOVER SWITCH: Component Inspection".

#### Is the inspection result normal?

YES >> Refer to GI-37, "Intermittent Incident".

NO >> Replace door mirror remote control switch. Refer to MIR-119, "Removal and Installation".

### 6.CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to GI-37, "Intermittent Incident".

### Is the inspection result normal?

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

>> Repair or replace the malfunctioning parts.

### CHANGEOVER SWITCH: Component Inspection

### 1. CHECK CHANGEOVER SWITCH

Check door mirror remote control switch.

Door mirror remote control switch		Condition		Continuity
Terr	ninal	Condition		Continuity
10			LEFT	Existed
10	7	7 Change over switch	Other than above	Not existed
44	7		RIGHT	Existed
11			Other than above	Not existed

#### Is the inspection result normal?

YES >> INSPECTION END ADP

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#### < DTC/CIRCUIT DIAGNOSIS >

NO >> Replace door mirror remote control switch. Refer to MIR-119. "Removal and Installation".

### MIRROR SWITCH

MIRROR SWITCH: Description

INFOID:0000000005170993

It operates angle of the door mirror face.

It transmits mirror face adjust operation to AUTOMATIC DRIVE POSITIONER CONTROL UNIT.

### MIRROR SWITCH: Component Function Check

INFOID:0000000005170994

### 1. CHECK MIRROR SWITCH FUNCTION

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

Refer to ADP-41, "CONSULT-III Function".

#### Is the inspection result normal?

YES >> Mirror switch function is OK.

NO >> Refer to <u>ADP-78</u>, "<u>MIRROR SWITCH</u>: <u>Diagnosis Procedure</u>".

### MIRROR SWITCH: Diagnosis Procedure

INFOID:0000000005170995

### 1. CHECK MIRROR SWITCH FUNCTION

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

(+) Automatic drive positioner control unit		(–)	Condition		Voltage (V) (Approx.)
Connector	Terminal				, , ,
	3			UP	0
	3			Other than above	5
				LEFT	0
M51	4	Ground	Mirror switch	Other than above	5
I GIVI	19	Ground	WIITOI SWILCII	DOWN	0
	20			Other than above	5
				RIGHT	0
			Other than above	5	

#### Is the inspection result normal?

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

## 2. CHECK HARNESS CONTINUITY

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

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

<sup>4.</sup> Check continuity between automatic drive positioner control unit connector and ground.

#### < DTC/CIRCUIT DIAGNOSIS >

Automatic drive po	Automatic drive positioner control unit		Continuity
Connector	Terminal		Continuity
	3	Ground	
M51	4	Giodila	Not existed
IVIST	19		
	20		

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

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

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

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

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

### 4. CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT OUTPUT SIGNAL

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

(+)		(-)	Voltage (V) (Approx.)
Automatic drive positioner control unit			
Connector	Terminal		( ++)
	3	Ground	_
M51	4		
IVI3 I	19	Ground	5
	20		

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace automatic drive positioner control unit. Refer to ADP-217, "Removal and Installation".

### 5. CHECK MIRROR SWITCH

Check mirror switch

Refer to ADP-80, "MIRROR SWITCH: Component Inspection".

### Is the inspection result normal?

YES >> Refer to GI-37, "Intermittent Incident".

NO >> Replace door mirror remote control switch. Refer to MIR-119, "Removal and Installation".

### 6.CHECK INTERMITTENT INCIDENT

#### Check intermittent incident.

Refer to GI-37, "Intermittent Incident".

#### Is the inspection result normal?

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

NO >> Repair or replace the malfunctioning parts.

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### < DTC/CIRCUIT DIAGNOSIS >

### MIRROR SWITCH: Component Inspection

INFOID:0000000005170996

## 1. CHECK MIRROR SWITCH

Check door mirror remote control switch.

Door mirror rem	ote control switch	Condition		Continuity	
Terr	minal			Continuity	
4			RIGHT	Existed	
4			Other than above	Not existed	
13			LEFT	Existed	
13	7	7	NATura de Maria	Other than above	Not existed
15		Mirror switch	UP	Existed	
15			Other than above	Not existed	
12			DOWN	Existed	
12			Other than above	Not existed	

### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace door mirror remote control switch.Refer to MIR-119, "Removal and Installation".

### **POWER SEAT SWITCH GROUND CIRCUIT**

### < DTC/CIRCUIT DIAGNOSIS >

### POWER SEAT SWITCH GROUND CIRCUIT

## Diagnosis Procedure

### INFOID:0000000005170997

## 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 s	eat switch		Continuity
Connector	Terminal	Ground	Continuity
B459	32		Existed

### Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-37, "Intermittent Incident".

NO >> Repair or replace harness.

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### TILT &TELESCOPIC SWITCH GROUND CIRCUIT

### < DTC/CIRCUIT DIAGNOSIS >

### TILT &TELESCOPIC SWITCH GROUND CIRCUIT

### Diagnosis Procedure

INFOID:0000000005170998

## 1. CHECK TILT & TELESCOPIC SWITCH GROUND CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect tilt & telescopic switch connector.
- 3. Check continuity between tilt & telescopic switch and ground.

Tilt & teleso	copic switch		Continuity
Connector	Connector Terminal		Continuity
M31	1		Existed

### Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-37, "Intermittent Incident".

NO >> Repair or replace harness.

#### **DETENTION SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

### **DETENTION SWITCH**

Description INFOID:0000000005170999

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:0000000005171000

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## 1. CHECK FUNCTION

- Turn ignition switch ON.
- 2. Select "DETENT SW" signal in "Data monitor" mode with CONSULT-III.
- 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

>> Perform diagnosis procedure. Refer to ADP-83, "Diagnosis Procedure". NO

### Diagnosis Procedure

#### INFOID:000000005171001

### 1. CHECK DTC WITH "BCM"

Check "Self Diagnostic Result" for BCM with CONSULT-III.

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

YES >> Check the DTC. Refer to BCS-79, "DTC Index".

NO >> GO TO 2.

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### 2.CHECK DETENTION SWITCH INPUT SIGNAL

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

(+)			Voltage (V) (Approx.)	
A/T shift selector		(-)		
Connector	Terminal		(11 - 7	
M137	11	Ground	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

## 3.check detention switch circuit

- 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	t control unit	A/T shift selector		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B451	21	M137	11	Existed

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

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### **DETENTION SWITCH**

#### < DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B451	21		Not existed

#### Is the inspection result normal?

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

NO >> Repair or replace harness or connector.

### 4. CHECK DETENTION SWITCH

Refer to ADP-84, "Component Inspection".

### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace A/T shift selector. Refer to <u>TM-161</u>, "<u>2WD</u>: <u>Removal and Installation</u>".

### 5. CHECK INTERMITTENT INCIDENT

Refer to GI-37, "Intermittent Incident".

#### >> INSPECTION END

## Component Inspection

INFOID:0000000005171002

### 1. CHECK DETENTION SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect A/T shift selector connector.
- Check A/T shift selector terminals.

A/T shift selector		Condition		Continuity
Terminal				Continuity
10	40		P position	Existed
10	11	Selector lever	Other than above	Not existed

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace A/T shift selector. Refer to TM-161, "2WD : Removal and Installation".

### 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

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## 1. CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "DOOR SW-DR" in "Data monitor" mode with CONSULT-III.
- 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-DK	(driver side)	Close	OFF

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-85</u>. "<u>Diagnosis Procedure</u>".

### Diagnosis Procedure

### INFOID:0000000005171005

## 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)		Voltage (V) (Approx.)
Connector	Terminal		( 'FF'')
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.

В	BCM		Front door switch(driver side)	
Connector	Terminal	Connector Terminal		Continuity
M123	150	B16	2	Existed

3. Check continuity between BCM connector and ground.

BCM			Continuity	
Connector Terminal		Ground	Continuity	
M123	150		Not existed	

### FRONT DOOR SWITCH (DRIVER SIDE)

#### < DTC/CIRCUIT DIAGNOSIS >

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-84, "Exploded View".

NO >> Repair or replace harness or connector.

## 3.check front door switch (driver side)

Refer to ADP-86, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace front door switch (driver side). Refer to <u>DLK-265, "Removal and Installation"</u>.

### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-37, "Intermittent Incident".

#### >> INSPECTION END

### Component Inspection

INFOID:0000000005171006

## 1. CHECK FRONT DOOR SWITCH (DRIVER SIDE)

- 1. Turn ignition switch OFF.
- 2. Disconnect front door switch (driver side) connector.
- 3. Check continuity between front door switch (driver side) terminals.

Front door switch (driver side)		Condition		Continuity
Terminal				Continuity
2	Ground part of door	Front door switch	Pushed	Not existed
2	switch		Released	Existed

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace front door switch (driver side). Refer to <u>DLK-265, "Removal and Installation"</u>.

### **SLIDING SENSOR**

#### < DTC/CIRCUIT DIAGNOSIS >

### SLIDING SENSOR

Description INFOID:0000000005171007

- 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-III.
- 3. Check sliding sensor signal under the following conditions.

Monitor item	Condition		Valve
	Seat sliding	Operate (forward)	Change (increase)*1
SLIDE PULSE		Operate (backward)	Change (decrease)*1
		Release	No change <sup>*1</sup>

<sup>\*1:</sup> 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-87</u>, "Diagnosis <u>Procedure"</u>.

### Diagnosis Procedure

1. CHECK SLIDING SENSOR SIGNAL

Turn ignition switch ON.

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	24	Ground	Seat sliding	Operate	10mSec/div
				Other than above	0 or 5

#### Is the inspection result normal?

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

NO >> GO TO 2.

## 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.

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### SLIDING SENSOR

#### < DTC/CIRCUIT DIAGNOSIS >

Driver seat	Driver seat control unit		Sliding sensor	
Connector	Terminal	Connector Terminal		Continuity
B451	24	B453	24	Existed

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

Driver seat control unit			Continuity	
Connector	Connector Terminal		Continuity	
B451	24		Not existed	

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

## 3.CHECK SLIDING SENSOR POWER SUPPLY

- Connect driver seat control unit connector.
- 2. Turn ignition switch ON.
- 3. Check voltage between sliding sensor harness connector and ground.

	(+) Sliding sensor		Voltage (V) (Approx.)	
Connector	Terminal		(11 - /	
B453	16	Ground	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

### 4. CHECK SLIDING 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 sliding sensor harness connector.

Driver seat	Driver seat control unit Sliding sensor		Continuity	
Connector	Terminal	Connector Terminal		Continuity
B451	16	B453	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, "Removal and Installation"</u>.

NO >> Repair or replace harness or connector.

## 5. CHECK SLIDING SENSOR GROUND

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

Driver seat	control unit	Sliding	sensor	Continuity
Connector	Terminal	Connector	Terminal	Continuity
B451	31	B453	31	Existed

### **SLIDING SENSOR**

### < DTC/CIRCUIT DIAGNOSIS >

Ic the	inspection	recult	normal?

YES >> Replace sliding sensor.

NO >> Repair or replace harness or connector.

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### **RECLINING SENSOR**

#### < DTC/CIRCUIT DIAGNOSIS >

### RECLINING SENSOR

Description INFOID:0000000005171010

- The reclining motor is installed to the seatback frame.
- 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:0000000005171011

### 1. CHECK FUNCTION

- Turn ignition switch ON.
- 2. Select "RECLN PULSE" in "Data monitor" mode with CONSULT-III.
- 3. Check reclining sensor signal under the following conditions.

Monitor item	Condition		Value
		Operate (forward)	Change (increase)*1
RECLN PULSE	Seat reclining	Operate (backward)	Change (decrease)*1
		Release	No change <sup>*1</sup>

<sup>\*1:</sup> 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-90</u>, "Diagnosis <u>Procedure"</u>.

### Diagnosis Procedure

INFOID:0000000005171012

### 1. CHECK RECLINING SENSOR SIGNAL

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

(+ Driver seat		(–) Condition		Voltage (V) (Approx.)	
Connector	Terminal				( 44.5)
B451	9	Ground	Seat reclining	Operate Other than	10mSec/div 2V/div JMJIA0119ZZ
				Other than above	0 or 5

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

### RECLINING SENSOR

#### < DTC/CIRCUIT DIAGNOSIS >

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

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

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

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

### 3.CHECK RECLINING SENSOR POWER SUPPLY

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

(+)			Valta es (V)	
Reclining motor		(–)	Voltage (V) (Approx.)	
Connector	Terminal		,	
B454	16	Ground	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

### f 4.CHECK RECLINING SENSOR POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect driver seat control unit connector.
- Check continuity between driver seat control unit harness connector and reclining motor harness connector.

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

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

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

### Is the inspection result normal?

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

NO >> Repair or replace harness or connector.

## 5. CHECK RECLINING SENSOR GROUND

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

Driver seat	control unit	Reclinir	ng 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 or connector.

### **LIFTING SENSOR (FRONT)**

#### < DTC/CIRCUIT DIAGNOSIS >

### LIFTING SENSOR (FRONT)

Description INFOID:000000005171013

- 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-III.
- 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 <sup>*1</sup>

<sup>\*1:</sup>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 ADP-93, "Diagnosis Procedure".

### Diagnosis Procedure

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 an oscilloscope.

(+)  Driver seat control unit  Connector Terminal		(-)	Con	dition	Voltage (V) (Approx.)
B451	25	Ground	Seat Lifting (front)	Operate	10mSec/div
			(nonly	Other than above	2V/div JMJIA0119ZZ

#### Is the inspection result normal?

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

NO >> GO TO 2.

## 2.check lifting sensor (front) circuit

- 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.

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### LIFTING SENSOR (FRONT)

#### < DTC/CIRCUIT DIAGNOSIS >

Driver seat	control unit	Lifting mo	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
B451	25	B455	25	Existed

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

Driver seat	control unit		Continuity
Connector	Terminal	Ground	Continuity
B451	25		Not existed

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

## 3.CHECK LIFTING SENSOR (FRONT) POWER SUPPLY

- Connect driver seat control unit connector.
- 2. Turn ignition switch ON.
- 3. Check voltage between lifting motor (front) harness connector and ground.

	+) otor (front)	(-)	Voltage (V) (Approx.)
Connector	Terminal		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
B455	16	Ground	Battery voltage

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

### 4. CHECK LIFTING SENSOR (FRONT) 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 lifting motor (front) harness connector.

Driver seat control unit		Lifting mo	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
B451	16	B455	16	Existed

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

Driver seat	control unit		Continuity
Connector	Connector Terminal		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 or connector.

## 5. CHECK LIFTING SENSOR (FRONT) GROUND

- 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.

Driver seat	Driver seat control unit		Lifting motor (front)		
Connector	Terminal	Connector	Terminal	Continuity	
B451	31	B455	31	Existed	

### LIFTING SENSOR (FRONT)

	LIFTING SENSOR (FRONT)	
	/CIRCUIT DIAGNOSIS >	
	nspection result normal?	Λ
YES NO	>> Replace lifting motor (front). >> Repair or replace harness.	А
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### LIFTING SENSOR (REAR)

#### < DTC/CIRCUIT DIAGNOSIS >

### LIFTING SENSOR (REAR)

Description INFOID:000000005171016

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

### Component Function Check

INFOID:0000000005171017

### 1. CHECK FUNCTION

- Turn ignition switch ON.
- 2. Select "LIFT RR PULSE" in "Data monitor" mode with CONSULT-III.
- 3. Check lifting sensor (rear) signal under the following conditions.

Monitor item	Condition		Value
		Operate (Up)	Change (increase)*1
LIFT RR PULSE	Seat lifting (rear)	Operate (Down)	Change (decrease)*1
		Release	No change <sup>*1</sup>

<sup>\*1:</sup> 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-96</u>, "<u>Diagnosis Procedure</u>".

### Diagnosis Procedure

INFOID:0000000005171018

### 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.

	+) control unit Terminal	(-)	Condition		Voltage (V) (Approx.)
B451	10	Ground	Seat Lifting (rear)	Operate Other than above	10mSec/div 2V/div JMJIA0119ZZ

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-216, "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.
- Check the continuity between driver seat control unit harness connector and lifting motor (rear) harness connector.

### LIFTING SENSOR (REAR)

#### < DTC/CIRCUIT DIAGNOSIS >

Driver seat	control unit	Lifting motor (rear)		Continuity
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 or connector.

## 3.check lifting sensor (rear) power supply

- Connect driver seat control unit connector.
- 2. Turn ignition switch ON.
- 3. Check the voltage between lifting motor (rear) harness connector and ground.

Lifting n	(+) notor (rear)	(-)	Voltage (V)
Connector	Terminal		(Approx.)
B456	16	Ground	Battery voltage

### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

### 4.CHECK LIFTING SENSOR (REAR) POWER SUPPLY CIRCUIT

- 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	Driver seat control unit		Lifting motor (rear)	
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 control unit			Continuity
Connector Terminal		Ground	Continuity
B451	16		Not existed

### Is the inspection result normal?

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

NO >> Repair or replace harness or connector.

## 5. CHECK LIFTING SENSOR (REAR) GROUND

- 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	31	B456	31	Existed

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## **LIFTING SENSOR (REAR)**

### < DTC/CIRCUIT DIAGNOSIS >

### Is the inspection result normal?

YES >> Replace lifting motor (rear).

NO >> Repair or replace harness or connector.

### TILT SENSOR

Description INFOID:0000000005171019

- 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

### Compension Function Check

1. Turn ignition switch ON.

1. CHECK FUNCTION

- 2. Select "TILT SEN" in "Data monitor" mode with CONSULT-III.
- 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 ADP-99, "Diagnosis Procedure".

### Diagnosis Procedure

### 1. CHECK TILT SENSOR SIGNAL

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

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

#### Is the inspection result normal?

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

NO >> GO TO 2.

## 2.check tilt sensor circuit

- 1. Turn ignition switch OFF.
- 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 positioner control unit		Tilt & telescopic sensor		Continuity
Connector	Terminal	Connector Terminal		Continuity
M51	7	M48	3	Existed

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

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

#### Is the inspection result normal?

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### **TILT SENSOR**

#### < DTC/CIRCUIT DIAGNOSIS >

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

## 3.check tilt 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  Connector Terminal			Voltage (V)	
		(–)	Voltage (V) (Approx.)	
			, , ,	
M48	1	Ground	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

### 4. CHECK TILT 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 tilt & telescopic sensor harness connector.

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

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

	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 ADP-217, "Removal and Installation".

NO >> Repair or replace harness or connector.

## 5. CHECK TILT SENSOR GROUND CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect automatic drive positioner control unit 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
M52	41	M48	4	Existed

### Is the inspection result normal?

YES >> Replace tilt & telescopic sensor.

NO >> Repair or replace harness or connector.

#### TELESCOPIC SENSOR

#### < DTC/CIRCUIT DIAGNOSIS >

## TELESCOPIC SENSOR

Description INFOID:0000000005171022

- 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:0000000005171023

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### 1. CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "TELESCO SEN" in "Data monitor" mode with CONSULT-III.
- 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 ADP-101, "Diagnosis Procedure".

### Diagnosis Procedure

#### INFOID:0000000005171024

### 1. CHECK TELESCOPIC SENSOR SIGNAL

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

(+) Automatic drive positioner control unit		(-)	Condition	Voltage (V) (Approx.)	
Connector	Terminal			( 44)	
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 ADP-217, "Removal and Installation".

NO >> GO TO 2.

### 2. CHECK TELESCOPIC SENSOR CIRCUIT

- Turn ignition switch OFF.
- 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 positioner 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.

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### 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 or connector.

## 3.CHECK TELESCOPIC SENSOR POWER SUPPLY

- 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		(, 44, 2, 11)	
M48	2	Ground	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

### 4.CHECK TELESCOPIC SENSOR POWER SUPPLY CIRCUIT

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

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

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

Automatic drive positioner control unit			Continuity
Connector	Connector Terminal		Continuity
M52	33		Not existed

#### Is the inspection result normal?

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

NO >> Repair or replace harness or connector.

### 5. CHECK TELESCOPIC SENSOR GROUND CIRCUIT

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

Automatic drive po	ositioner 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.

#### < DTC/CIRCUIT DIAGNOSIS >

### MIRROR SENSOR DRIVER SIDE

### INFOID:0000000005171025

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### DRIVER SIDE : Description

- 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:0000000005171026

### 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-III.
- 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 Hillor (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-103, "DRIVER SIDE: Diagnosis Procedure"</u>.

### DRIVER SIDE: Diagnosis Procedure

#### INFOID:0000000005171027

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

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

(+)			Voltage (V) (Approx.)	
Door mirror (driver side)		(–)		
Connector	Terminal		(11.5)	
D3	23	Ground	5	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

## 2.CHECK DOOR MIRROR (DRIVER SIDE) SENSOR POWER SUPPLY CIRCUIT

- 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

<sup>4.</sup> Check continuity between automatic drive positioner control unit harness connector and ground.

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### < DTC/CIRCUIT DIAGNOSIS >

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 ADP-217, "Removal and Installation".

NO >> Repair or replace harness or connector.

## 3.check door mirror (driver side) sensor ground

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

Automatic drive po	sitioner control unit	Door mirror (driver side)		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
M52	41	D3	24	Existed	

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness or connector.

### f 4.CHECK DOOR MIRROR (DRIVER SIDE) SENSOR CIRCUIT

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

Automatic drive positioner control unit		Door mirror (driver side)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M51	6	D3	21	Existed
IVIO	22	D3	22	Existed

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

Automatic drive positioner control unit			Continuity	
Connector	Terminal	Ground	Continuity	
M51	6	Ground	Not existed	
I CIVI	22	-	INOL EXISTED	

#### Is the inspection result normal?

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

NO >> Repair or replace harness or connector.

#### PASSENGER SIDE

### PASSENGER SIDE: Description

INFOID:0000000005171028

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

### PASSENGER SIDE: Component Function Check

#### INFOID:0000000005171029

## 1. CHECK FUNCTION

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

#### < DTC/CIRCUIT DIAGNOSIS >

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

#### Is the indication normal?

YES >> INSPECTION END

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

### PASSENGER SIDE: Diagnosis Procedure

INFOID:0000000005171030

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

- 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.

(+)			Value and AA	
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.

## 2.check door mirror (passenger side) sensor power supply circuit

- 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) harness connector.

Automatic drive po	Automatic drive positioner control unit		assenger side)	Continuity
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 positioner control unit			Continuity	
Connector Terminal		Ground	Continuity	
M52	33		Not existed	

#### Is the inspection result normal?

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

NO >> Repair or replace harness or connector.

## $3. {\sf CHECK}$ door mirror (passenger side) sensor ground

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

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#### < DTC/CIRCUIT DIAGNOSIS >

Automatic drive po	sitioner control unit	Door mirror (passenger side)		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
M52	41	D33	24	Existed	

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness or connector.

### 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	Automatic drive positioner control unit		Door mirror (passenger side)	
Connector	Terminal	Connector	Terminal	Continuity
M51	5	D33	21	Existed
IVIO	21	D33	22	LXISIEU

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

Automatic drive p	Automatic drive positioner control unit		Continuity	
Connector	Terminal	Ground	Continuity	
M51	5	Ground	Not existed	
I GIVI	21		NOI EXISIEU	

### Is the inspection result normal?

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

NO >> Repair or replace harness or connector.

### **SLIDING MOTOR**

#### < DTC/CIRCUIT DIAGNOSIS >

### **SLIDING MOTOR**

Description INFOID:0000000005171031

- 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 frontward/rearward by changing the rotation direction of sliding motor.

### Component Function Check

# 1.CHECK FUNCTION

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

Te	est item	Des	cription
	OFF		Stop
SEAT SLIDE	FR	Seat sliding	Forward
	RR		Backward

#### Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-107</u>, "<u>Diagnosis Procedure</u>".

### Diagnosis Procedure

## 1. CHECK SLIDING MOTOR POWER SUPPLY

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

(+) Sliding motor Connector Terminal		(-)	Condition		Voltage (V) (Approx.)
Connector	Terriiriai		OFF		0
	35			FR (forward)	Battery voltage
D 404		O	OF AT OUR	RR (backward)	0 Battery voltage 0 0
B461	Ground	Ground	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 slide cushion frame.)

NO >> GO TO 2.

## 2.CHECK SLIDING MOTOR CIRCUIT

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

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### **SLIDING MOTOR**

### < DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit		Sliding motor		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B452	35	- B461	35	Existed
D432	42		42	

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

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

### Is the inspection result normal?

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

NO >> Repair or replace harness or connector.

#### **RECLINING MOTOR**

#### < DTC/CIRCUIT DIAGNOSIS >

### **RECLINING MOTOR**

Description INFOID:0000000005171034

- 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 frontward/rearward 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-III.
- Check the reclining motor operation.

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

#### Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-109, "Diagnosis Procedure"</u>.

### Diagnosis Procedure

## 1. CHECK RECLINING MOTOR POWER SUPPLY

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

	(+) Reclining motor		Condition		Voltage (V) (Approx.)	
Connector	Terminal				, , ,	
				OFF	0	
	36	Ground	SEAT RECLINING	FR (forward)	Battery voltage	
D454				RR (backward)	0	
D404	B454			OFF	0	
	44			FR (forward)	0	
		l		RR (backward)	Battery voltage	

#### Is the inspection result normal?

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

NO >> GO TO 2.

## 2.CHECK RECLINING MOTOR CIRCUIT

- Turn ignition switch OFF.
- Disconnect driver seat control unit connector.
- Check continuity between driver seat control unit harness connector and reclining motor harness connector.

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### **RECLINING MOTOR**

### < DTC/CIRCUIT DIAGNOSIS >

Driver se	at control unit	Reclining motor		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B452	36	B454	36	Existed
D432	44	D404	44	LXISIGU

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

Driver sea	Driver seat control unit		Continuity	
Connector	Terminal	Ground	Continuity	
B452	36	Ground	Not existed	
D432	44		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 or connector.

### **LIFTING MOTOR (FRONT)**

#### < DTC/CIRCUIT DIAGNOSIS >

### LIFTING MOTOR (FRONT)

Description INFOID:000000005171037

- The lifting motor (front) is installed to the seat slide 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-III.
- 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-111, "Diagnosis Procedure".

### Diagnosis Procedure

## 1.CHECK LIFTING MOTOR (FRONT) POWER SUPPLY

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

	(+) Lifting motor (front)		Con	dition	Voltage (V) (Approx.)				
Connector	Terminal				,				
				OFF	0				
	37	Ground	SEAT LIFTER FR	UP	0				
B455				DWN (down)	Battery voltage				
D400			Glound	Giodila	Glound	Glouild SLA	SEAT LIFTER FR	OFF	0
	45			UP	Battery voltage				
				DWN (down)	0				

#### Is the inspection result normal?

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

NO >> GO TO 2.

## 2.CHECK LIFTING MOTOR (FRONT) CIRCUIT

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

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### **LIFTING MOTOR (FRONT)**

#### < DTC/CIRCUIT DIAGNOSIS >

Driver sea	t control unit	Lifting motor (front)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B452	37	B455	37	Existed
D432	45	B400	45	Existed

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

Driver sea	Driver seat control unit		Continuity
Connector	Terminal	Ground	Continuity
B452	37	Ground	Not existed
D432	45		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 or connector.

### **LIFTING MOTOR (REAR)**

#### < DTC/CIRCUIT DIAGNOSIS >

### LIFTING MOTOR (REAR)

Description INFOID:0000000005171040

- The lifting motor (rear) is installed to the seat slide 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-III.
- 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-113, "Diagnosis Procedure"</u>.

### Diagnosis Procedure

1. CHECK LIFTING MOTOR (REAR) POWER SUPPLY

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

	+) otor (rear) Terminal	(-)	Condition		Voltage (V) (Approx.)	
	38 B456				OFF	0
		Ground	SEAT LIFTER RR	UP	Battery voltage	
D456				DWN (DOWN)	0	
D430				OFF	0	
39			UP	0		
				DWN (DOWN)	Battery voltage	

#### Is the inspection result normal?

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

NO >> GO TO 2.

## 2.CHECK LIFTING MOTOR (REAR) CIRCUIT

- 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.

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### **LIFTING MOTOR (REAR)**

#### < DTC/CIRCUIT DIAGNOSIS >

Driver se	at control unit	Lifting motor (rear)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B452	38	B456	38	Existed
D+02	39	D+30	39	LAISIEU

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

Driver sea	Driver seat control unit		Continuity	
Connector	Terminal	Ground	Continuity	
B452	38	Ground	Not existed	
D402	39		inot 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 or connector.

#### **TILT MOTOR**

#### < DTC/CIRCUIT DIAGNOSIS >

### **TILT MOTOR**

Description INFOID:0000000005171043

- 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-III.
- 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 ADP-115, "Diagnosis Procedure".

### Diagnosis Procedure

## 1. CHECK TILT MOTOR POWER SUPPLY

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

(+) Tilt & telescopic motor  Connector Terminal		(-)	Condition		Voltage (V) (Approx.)
				OFF	0
	M49	- Ground	TILT MOTOR	UP	0
N440				DWN (down)	Battery voltage
10149				OFF	0
4			UP	Battery voltage	
				DWN (down)	0

#### Is the inspection result normal?

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

NO >> GO TO 2.

## 2. CHECK TILT MOTOR CIRCUIT

- Turn ignition switch OFF.
- 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.

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### **TILT MOTOR**

#### < DTC/CIRCUIT DIAGNOSIS >

Automatic drive p	ositioner control unit	Tilt & telescopic motor		Continuity
Connector	Terminal	Connector Terminal		Continuity
M52	35	M49	4	Existed
IVIOZ	42	10149	3	Existed

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

Automatic drive p	Automatic drive positioner control unit		Continuity
Connector	Terminal	Ground	Continuity
M52	35	Ground	Not existed
IVIƏZ	42		Not existed

#### Is the inspection result normal?

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

NO >> Repair or replace harness or connector.

#### TELESCOPIC MOTOR

#### < DTC/CIRCUIT DIAGNOSIS >

### TELESCOPIC MOTOR

Description INFOID:0000000005171046

- 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

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

Test item		Description	
	OFF		Stop
TELESCO MOTOR	FR	Steering telescopic	Forward
	RR		Backward

#### Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to ADP-117, "Diagnosis Procedure".

### Diagnosis Procedure

## 1. CHECK TELESCOPIC MOTOR POWER SUPPLY

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

	(+) Tilt & telescopic motor		(-) Cond		Voltage (V) (Approx.)
Connector	Terminal				(11 - )
				OFF	0
	1	1 Ground	TELESCOPIC MOTOR	FR (forward)	0
M49				RR (backward)	Battery voltage
10149	W49			OFF	0
	2			FR (forward)	Battery voltage
				RR (backward)	0

#### Is the inspection result normal?

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

NO >> GO TO 2.

## 2.CHECK TELESCOPIC MOTOR CIRCUIT

- Turn ignition switch OFF.
- 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.

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### **TELESCOPIC MOTOR**

#### < DTC/CIRCUIT DIAGNOSIS >

Automatic drive p	ositioner control unit	Tilt & telescopic motor		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M52	36	M49	2	Existed
IVIOZ	44	10149	1	Existed

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

Automatic drive po	Automatic drive positioner control unit		Continuity	
Connector	Terminal	Ground	Continuity	
M52	36	Ground	Not existed	
IVIOZ	44		Not existed	

#### Is the inspection result normal?

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

NO >> Repair or replace harness or connector.

#### DOOR MIRROR MOTOR

#### < DTC/CIRCUIT DIAGNOSIS >

### DOOR MIRROR MOTOR

Description INFOID:0000000005171049

It makes mirror face operate from side to side and up and down with the electric power that AUTOMATIC DRIVE POSITIONER CONTROL UNIT supplies.

### Component Function Check

#### INFOID:0000000005171050

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### 1. CHECK DOOR MIRROR MOTOR FUNCTION

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

Refer to ADP-41, "CONSULT-III Function".

#### Is the inspection result normal?

YES >> INSPECTION END

>> Refer to ADP-119, "Diagnosis Procedure". NO

### Diagnosis Procedure

#### INFOID:0000000005171051

## 1. CHECK DOOR MIRROR MOTOR INPUT SIGNAL

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

(+)  Door mirror  Connector Terminal		(–)	Condition		Voltage (V) (Approx.)
	12			UP	Battery voltage
	12	11 Ground	Door mirror remote control switch	Other than above	0
D3 (Driver side)	44			LEFT	Battery voltage
D33 (Passenger side)	11			Other than above	0
,	10			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

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

[Door mirror driver side]

Automatic drive p	ositioner control unit	Door mirror (driver side)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
	16		10	
M51	31	D3	12	Existed
	32		11	

[Door mirror passenger side] Automatic drive positioner control unit Door mirror (passenger side) Continuity Connector **Terminal** Connector **Terminal** 14 12 M51 15 D33 11 Existed 30 10

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#### **DOOR MIRROR MOTOR**

#### < DTC/CIRCUIT DIAGNOSIS >

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

[Door mirror driver side]

[Boot minter driver side]			
Automatic drive po	sitioner control unit		Continuity
Connector	Terminal		Continuity
	16	Ground	
M51	31		Not existed
	32		
[Door mirror passenger side]			
Automatic drive po	sitioner control unit		Continuity
Connector	Terminal		Continuity
	14	Ground	
M51	15		Not existed
	30		

#### Is the inspection result normal?

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

NO >> Repair or replace harness or connector.

### 3. CHECK DOOR MIRROR MOTOR

Check door mirror motor.

Refer to ADP-120, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace door mirror. Refer to MIR-115, "DOOR MIRROR ASSEMBLY: Removal and Installation".

### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-37, "Intermittent Incident".

>> INSPECTION END

## Component Inspection

INFOID:0000000005171052

### 1. CHECK DOOR MIRROR MOTOR-I

Check that door mirror motor does not trap foreign objects and does not have any damage. Refer to MIR-115, "DOOR MIRROR ASSEMBLY: Exploded View".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace door mirror.Refer to MIR-115, "DOOR MIRROR ASSEMBLY: Removal and Installation".

### 2.CHECK DOOR MIRROR MOTOR-II

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

Connector	Teri	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

### **DOOR MIRROR MOTOR**

< DTC/CIRCUIT DIAGNOSIS > >> Replace door mirror. Refer to MIR-115, "DOOR MIRROR ASSEMBLY: Removal and Installation". NO Α F Н ADP K

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#### SEAT MEMORY INDICATOR

#### < DTC/CIRCUIT DIAGNOSIS >

### SEAT MEMORY INDICATOR

Description INFOID:000000005171053

• 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

INFOID:0000000005171054

### 1. CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Select "MEMORY SW INDCTR" in "Active test" mode with CONSULT-III.
- 3. Check the memory indicator operation.

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

#### Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to ADP-122, "Diagnosis Procedure".

### Diagnosis Procedure

INFOID:0000000005171055

### 1. CHECK MEMORY INDICATOR POWER SUPPLY

Check voltage between seat memory switch harness connector and ground.

( Seat mem	+) nory switch	(-)	Voltage (V) (Approx.)
Connector	Terminal		(11 - 7
D5	5	Ground	Battery voltage

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Check the following.

- 10A fuse [No.10 located in fuse block (J/B)].
- · Harness for open or short between memory indicator and fuse.

### 2. CHECK MEMORY INDICATOR CIRCUIT

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

Automatic drive po	sitioner control unit	Seat mem	nory switch	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M51	12	D5	6	Existed
I CIVI	13	D5	7	EXISTEC

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

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

#### **SEAT MEMORY INDICATOR**

#### < DTC/CIRCUIT DIAGNOSIS >

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

## 3. CHECK MEMORY INDICATOR

Refer to ADP-123. "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 4.

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

### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-37, "Intermittent Incident".

#### >> INSPECTION END

### Component Inspection

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 m	emory switch		
7	erminal	Continuity	
(+)	(-)		
5	6	Existed	
3	7	LAISIEU	

#### Is the inspection result normal?

YES >> INSPECTION END

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

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INFOID:0000000005171056

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< ECU DIAGNOSIS INFORMATION >

## **ECU DIAGNOSIS INFORMATION**

### DRIVER SEAT CONTROL UNIT

Reference Value

#### VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

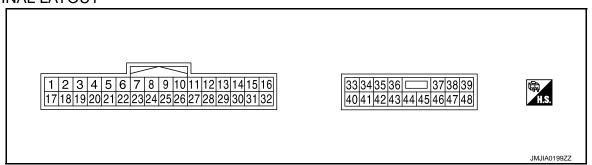
Monitor Item	Condit	ion	Value/Status
SET SW	Set switch	Push	ON
SET SW	Set Switch	Release	OFF
MEMORY SW1	Mamary quitab 1	Push	ON
WEWORT SWI	Memory switch 1	Release	OFF
MEMORY SW2	Mamary quitab 2	Push	ON
MEMORY SW2	Memory switch 2	Release	OFF
OLIDE OW ED	Olishin an annitale (facust)	Operate	ON
SLIDE SW-FR	Sliding switch (front)	Release	OFF
CLIDE CW DD	Oliding quitab (root)	Operate	ON
SLIDE SW-RR	Sliding switch (rear)	Release	OFF
DEOLIN OW ED	5 " ' ' ' ' ' ' '	Operate	ON
RECLN SW-FR	Reclining switch (front)	Release	OFF
	2	Operate	ON
RECLN SW-RR	Reclining switch (rear)	Release	OFF
		Operate	ON
LIFT FR SW-UP	Lifting switch front (up)	Release	OFF
		Operate	ON
LIFT FR SW-DN	Lifting switch front (down)	Release	OFF
		Operate	ON
LIFT RR SW-UP	Lifting switch rear (up)	Release	OFF
		Operate	ON
LIFT RR SW-DN	Lifting switch rear (down)	Release	OFF
MID 00M 0M 11D		Up	ON
MIR CON SW-UP	Mirror switch	Other than above	OFF
		Down	ON
MIR CON SW-DN	Mirror switch	Other than above	OFF
		Right	ON
MIR CON SW-RH	Mirror switch	Other than above	OFF
		Left	ON
MIR CON SW-LH	Mirror switch	Other than above	OFF
		Right	ON
MIR CHNG SW-R	Changeover switch	Other than above	OFF
		Left	ON
MIR CHNG SW-L	Changeover switch	Other than above	OFF
		Up	ON
TILT SW-UP	Tilt switch	Other than above	OFF
		Down	ON
TILT SW-DOWN	Tilt switch	Other than above	OFF

### < ECU DIAGNOSIS INFORMATION >

Monitor Item	Cond	dition	Value/Status
TELESCO SW-FR	Talagonia awitah	Forward	ON
TELESCO SW-FR	Telescopic switch	Other than above	OFF
TELESCO SW-RR	Tilt switch	Backward	ON
TELESCO SW-RK	THE SWILCH	Other than above	OFF
DETENT SW	AT selector lever	P position	OFF
DETENT SW	AT Selector level	Other than above	ON
STARTER SW	Ignition position	Cranking	ON
	ignition position	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
		Forward	The numeral value decreases *1
RECLN PULSE	Seat reclining	Backward	The numeral value increases *1
		Other than above	No change to numeral value*1
		Up	The numeral value decreases *1
LIFT FR PULSE	Seat lifter (front)	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 si	de)	Change between 3.4 (close to peak) 0.6 (close to valley)
MIR/SEN RH R-L	Door mirror (passenger si	de)	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)

<sup>\*1:</sup> The value at the position attained when the battery is connected is regarded as 32768.

#### **TERMINAL LAYOUT**



PHYSICAL VALUES

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Revision: 2009 August ADP-125 2010 EX35

### < ECU DIAGNOSIS INFORMATION >

Term	ninal No.		Description				
+	-	Wire color	Signal name	Input/ Output	Condition	l	Voltage (V) (Approx)
1	Ground	L/W	UART communication (RX)	Input	Ignition switch ON		2mSec/div 2W/div JMJIA0118ZZ
3	_	R/Y	CAN-H	_	_		_
9	Ground	W/G	Reclining sensor sig- nal	Input	Seat reclining	Operate	10mSec/div
						Stop	0 or 5
10	Ground	P/B	Lifting sensor (rear) signal	Input	Seat lifting (rear)	Operate	10mSec/div
						Stop	0 or 5
11	Ground	BR	Sliding switch back- ward signal	Input	Sliding switch	Operate (back- ward)	0
						Release	Battery voltage
12	Ground	SB	Reclining switch back- ward signal	Input	Reclining switch	Operate (back- ward)	0
						Release	Battery voltage
13	Ground	LG/R	Lifting switch (front) down signal	Input	Lifting switch (front)	Operate (down)	0
			GOWIT SIGNAL		(iioiii)	Release	Battery voltage
14	Ground	G/B	Lifting switch (rear) down signal	Input	Lifting switch (rear)	Operate (down)	0
16	Ground	0	Sensor power supply	Output		Release	Battery voltage 5
	Cround		Control power suppry	Carpar			<u> </u>
17	Ground	Y/R	UART communication (TX)	Output	Ignition switch ON		10mSec/div 2V/div JMJIA0121ZZ
19	_	V	CAN-L	_	_		_

### < ECU DIAGNOSIS INFORMATION >

Term	ninal No.		Description				
+	-	Wire color	Signal name	Input/ Output	Condition	า	Voltage (V) (Approx)
						P position	0
21	Ground	L/Y	Detention switch	Input	A/T selector lever	Except P position	20mSec/div  AAAAAAAAAAAAA
24	Ground	R	Sliding sensor signal	Input	Seat sliding	Operate	10mSec/div 2V/div JMJIA0119ZZ
						·	
25	Ground	Y/B	Lifting sensor (front) signal	Input	Seat lifting (front)	Operate	10mSec/div 2V/div JMJIA0119ZZ
						Stop	0 or 5
26	Ground	Υ	Sliding switch forward signal	Input	Sliding switch	Operate (forward)	0
						Release	Battery voltage
27	Ground	R/G	Reclining switch forward signal	Input	Reclining switch	Operate (forward)	0
			wara digital			Release	Battery voltage
28	Ground	W/B	Lifting switch (front) up signal	Input	Seat lifting switch (front)	Operate (up)	0
			oignai		(none)	Release	Battery voltage
29	Ground	P/L	Lifting switch (rear) up signal	Input	Seat lifting switch (rear)	Operate (up)	0
			Signal		(ICai)	Release	Battery voltage
31	Ground	GR	Sensor ground	_	_		0
32	Ground	B/W	Ground (signal)		_		0
33	Ground	R	Power source (C/B)	Input	_		Battery voltage
35	Ground	W/R	Sliding motor forward output signal	Output	Seat sliding	Operate (forward)	Battery voltage
			Tr			Release	0
36	Ground	G/Y	Reclining motor forward output signal	Output	Seat reclining	Operate (forward)	Battery voltage
						Release	0

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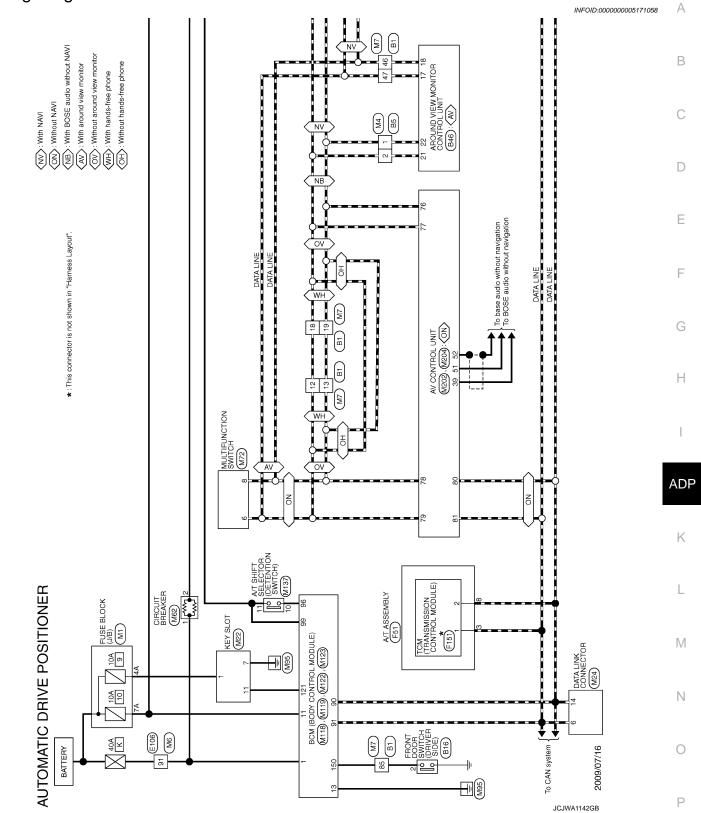
Ν

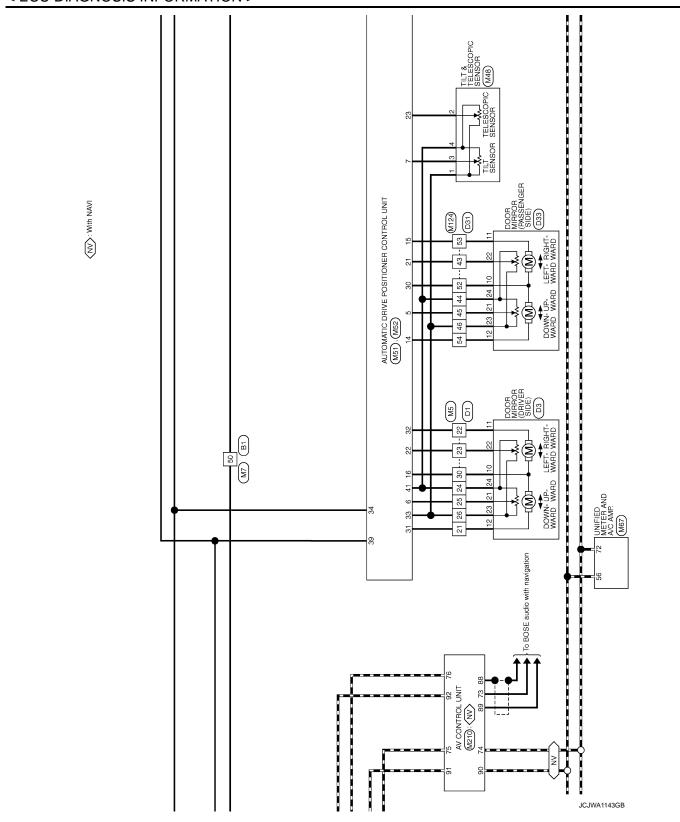
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## < ECU DIAGNOSIS INFORMATION >

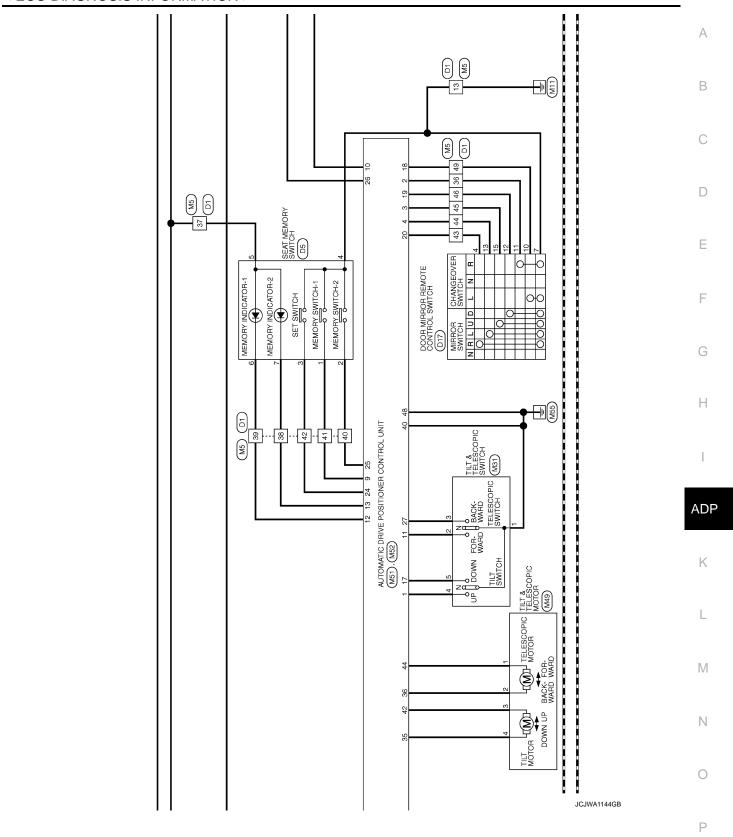
Tern	ninal No.	Wire	Description				Voltage (V)
+	-	color	Signal name	Input/ Output	Condition	n	(Approx)
37	Ground	G/W	Lifting motor (front)	Output	Seat lifting (front)	Operate (down)	Battery voltage
38 Ground L/Y output signal Output Seat lifting (rear)		0					
38	Ground	L/Y	. , .	Output	Seat lifting (rear)		Battery voltage
			output signal			Stop	0
39	Ground	R/B	Lifting motor (rear)	Output	Seat lifting (rear)	Operate (down)	Battery voltage
			down output signal			Stop	0
40	Ground	R/W	Power source (Fuse)	Input	_	1	Battery voltage
42	Ground	W/B	Sliding motor back- ward output signal	Output	Seat sliding	Operate (back- ward)	Battery voltage
						Stop	0
44	Ground	Р	Reclining motor back- ward output signal	Output	Seat reclining	Operate (back- ward)	Battery voltage
						Stop	0
45	Ground	L/R	Lifting motor (front) up output signal	Output	Seat lifting (front)	Operate (up)	Battery voltage
			output signal			Stop	0
48	Ground	В	Ground (power)	_	_	•	0

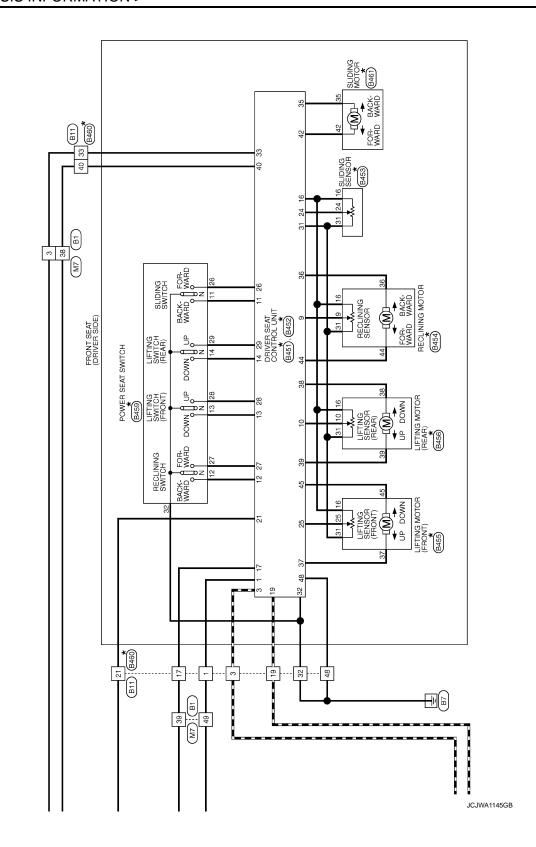
# Wiring Diagram - AUTOMATIC DRIVE POSITIONER CONTROL SYSTEM -





### < ECU DIAGNOSIS INFORMATION >





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

### < ECU DIAGNOSIS INFORMATION >

No. Bif FOUNT DOOR SWITCH (DRIVER SIDE)  Type AddSPW  Color Signal Name (Specification)	В
Connector No. Connector Name Connector Type  Terminal Color  2 V V	D
3 [9] B B B B B B B B B B B B B B B B B B B	Е
	F
10 10 10 10 10 10 10 10 10 10 10 10 10 1	G
14   SB   16   SB   16   SB   16   SB   16   SB   16   SB   16   SB   SB   SB   SB   SB   SB   SB   S	Н
B5 WRE TO WRE TH32MM-NH TH32MM-NH Signal Name	ADP
SHEED   SHEE	K
Second State   Seco	
ONER I SI S	L
WINE  OSIG-TM4  OSIG-TM4  Signal Name (Specification)	M
AUTOMATIC DRIVE POSITIONER  Connector Name   BI	N
Na	
Connector No.   Connector No.   Connector No.   Connector Type   Connect	0
JCJWA11460	Р

AUTOMAT	AUTOMATIC DRIVE POSITIONER	Connector No.		8451	36 6	G.Y RECLINING MOTOR (FORWARD) G.W FRONT LIFTING MOTOR (DOWNWARD)	$\neg$
Connector Name Connector Type	AROUND VIEW MONITOR CONTROL UNIT TH40FW-NH	Connector Name Connector Type		DRIVER SEAT CONTROL UNIT TH32FW	Н	Н	Connector Name         LIFTING MOTOR (FRONT)           Connector Type         NS06FW-CS
3 5 7		H.S.	1 2 3 4 17 18 19 20	4 5 6 7 8 9 10 11 12 13 14 15 15 20 21 22 23 24 15 58 27 28 28 30 31 52	40 R 42 W 44 44 L 45 L	W.B BAT (FUELD) W.B SLIDING MOTOR (BACKWARD) P RECLINING MOTOR (BACKWARD) LR FRONT LIFTING MOTOR (LIPMARD) B GND (POWER)	43 45 37 16 31 25 1
Color of Wire	Signal Nam	Terminal No.	Color of Wire	Signal Name [Specification]	Connector No. Connector Name	ПП	nal C
а >-	GND BATTERY	– ო	₽ Z	RX CAN-H	Connector Type	be   6098 0241	16 O – 25 Y/B –
۵ و	IGNITION SIGNAL	6 5	9/M	PULSE (RECLINING)	F		H
508	ILLUMINATION SIGNAL	= =	8 8	SLIDING SW (BACKWARD)	ė	04 04	Н
g > :	VEHICLE SPEED SIGNAL (8-PULSE) REVERSE SIGNAL	13	LG/R	FRONT LIFTING SW (DOWNWARD)		24 31 10	
> @	CONTROL SIGNAL CONTROL SIGNAL	16	g/B	REAR LIFTING SW (DOWNWARD) VCC			Т
В	AV COMM (H)	17	Y/R	ΧŢ	la	Color Signal Name [Specification]	
<i>5</i>	AV COMM (L)	19	> ≥	CAN-L D PANGE SW	No.	of Wire	Connector Type NS06FBR-CS
> 9	AV COMM (L)	24	<u>د</u> د ا	PULSE (SLIDING)	${\sf H}$		医
3 0	AUXILIARY INFARED LED (+) AUXILIARY INFARED LED (-)	59 50	9 }	SLIDING SW (FORWARD)	5	י	38 39
W		27	R/G	RECLINING SW (FORWARD)	:		16 31 10
SHIELD >	CAMERA IMAGE SIGNAL GND	28	8/B	FRONT LIFTING SW (UPWARD)  PEAR LIFTING SW (LIDWARD)	Connector No.	┰	
. <sub>5</sub>	SIDE CAMERA RH IMAGE GND	31	GR	SENSOR GND	Connector Name	ne RECLINING MOTOR	
SHIELD	SIDE CAMERA BH GND	32	B/W	GND (SIGNAL)	Connector Type	be NS06FW-CS	Terminal Color Signal Name [Specification] No. of Wire
8	SIDE CAMERA RH COMM				修		H
۷.	SIDE CAMERA RH POWER SUPPLY	Connector No.		B452	H.S.	77	- 16 0
HH H	REAR CAMERA COMM	Connector Name		DRIVER SEAT CONTROL UNIT		30 444	38
SHIELD	Ц	Connector Type	П	NS16FW-CS			39 R/B –
¥ >	REAR CAMERA GND DEAD CAMERA IMAGE SIGNAL	4					
- ≥	REAR CAMERA IMAGE GND	H.S.	3	00 20 00 00	Terminal Co	Color Signal Name [Specification]	
			8 4	<del>4</del> <del>1</del>	+		
		Terminal No.	Color of Wire	Signal Name [Specification]	36 6	G/Y P	
		33	R/W	BAT (C/B) SLIDING MOTOR (FORWARD)			

JCJWA1147GB

### < ECU DIAGNOSIS INFORMATION >

		Α
Signal Name [Speeifcation]		В
		С
1   1   1   1   1   1   1   1   1   1		D
Dositioner]  positioner]		Е
- [With automatic drive positioned] - [Without automatic drive positioned] - [With automatic drived		F
11   10   12   13   14   14   15   16   17   17   17   17   17   17   17		G
23   8   8   8   8   8   8   8   8   8		Н
eoification]		I
No.   B461   Name   SLIDING MOTOR   Name   SLIDING MOTOR   Name   Sum   Name   Specification   Name   Name   Specification   Name   N		ADP
Connector Name   SLDINIG MOTO   Connector Type   6089-0239		K
Connector No.		IX
		L
SEAT SWITCH CS Signal Name [Specification] Signal Name [Specification]  Signal Name [Specification]  Signal Name [Specification]		M
10 DRIVE PO   10 DRIVE PO   10 DRIVE PO   10 DRIVE		N
Color Name   Col		0
Oommoo Oo	JCJWA1148GB	
		Р

**ADP-135** Revision: 2009 August 2010 EX35

22 V -	ŀ	23 F	ľ	╀	R	30 W =	┝	32 BR -	H	34 GR -	H	43 Y	Н		$\dashv$	+	4	54 0 -			ſ	Connector No. D33	Connector Name DOOR MIRROR (PASSENGER SIDE)	Connector Type TH24MW-NH	Œ		12 11 10 7 6 5 4 3 2 2 3 2 3 2 3 2 3 2 3 3 2 3 3 2 3 3 2 3		Terminal Color Signal Name [Specification]	t	DIS	8	æ,	- 1 /	ľ	+	F	17 G SIDE CAMERA RH IMAGE GND			Н	Н	23 W –	24 V =
AUTOMATIC DRIVE POSITIONER Connector No.   D17	Ī	Connector Name DOOR MIRROR REMOTE CONTROL SWITCH	Connector Type TK16FBR				4	101111111111111111111111111111111111111	5 10 11 17 19			Terminal Color	No. of Wire Signal Name [Specification]	4 BR -	7 B –	+	+	10 GR -	-	1	1	15 Y =		Connector No. D31	Connector Name WIRE TO WIRE	Connector Type TH40FW-CS15		15   14   13   12   11   10   9   8   7   6   5   4   3   2   1	88		Terminal Color		+	I I	ł	F	-	15 W	L	× 61	В	~		21 BR - [Without BOSE audio]

JCJWA1149GB

### < ECU DIAGNOSIS INFORMATION >

PPPLY-1 UPPLY-2	АВ
STANDEY SUPPLY-2 STANDEY SUPPLY-2 FUSE BLOCK (J/B) NS06FW-M2  A TA EA	С
Connector No.   Connector No.   Connector No.   Connector Name   Connector Name   Connector Name   Connector Type   Connect	D
ModulE)  fifeation]  fifeation]	Е
	F
	G
SHE    98   SHE    99   L   100   P   100	Н
	1
Q	ADP
	K
85 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	
	L
WIRE CSIG-TM4  Signal Name (Specification)  Signal Name (Specification)	М
AUTCOMATIC DRIVE POSITIONER Connector Name WRE TO WIRE  Connector Type I H90FW-CSI6-TMA    No. of Wire   Signal Name (Specification)	N
Name	
Connector Name   Conn	0
	JCJWA1150GB
	Р

**ADP-137** Revision: 2009 August 2010 EX35

MA	NAATIC DRIVING   NAAT	ŀ	$\exists$	a	1	$\dashv$	œ	M (	<b>5</b> -	+	5 >	╀	Н	$^{+}$	8	<b>9</b>	×   .	7		+	5 >	2	H	SHIELD	29 Y -	Н	8 1	32 SB	╀	35 P	Н	37 BR -	Н	39 0	SB	7	+	Yn ?	- A 444	45 G = Mith automatic drive positioner	9 >	> 0	. a	0 0	+	-
	AUTONAT  Connector No.  Connector No.  Connector Name  2 0 0  2 0 0  3 0 V  4 R  4 R  4 R  6 0 0  7 LG  8 B  8 B  8 B  8 B  8 B  8 B  8 B  8	ITIONER							17	7 6 5 4 3	g		Name [Specification]	dane lobecureagori	1	-		_	_	1	1: 1	-	-	1	-	_	1	1	1	1	-	_	_									6				

JCJWA1151GB

### < ECU DIAGNOSIS INFORMATION >

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			9			ID				O O															~				~																																				
F	20 R	T	62 SHIELD	T		П	╗		68 LG	╗		73 G	H	H	H	ł	1 2	+	+	+	+	+	+	+	$\dashv$	06		-	93 BR	-	L	L	L	99 R	l																														
		1												1		ification]		a positioner]	ve positioner]																																														E
1	1		71	JOBN OF JOBN	יותב ו כי איותב	TH80MW-CS16-TM4		15	14 14 14 14 14 14 14 14 14 14 14 14 14 1	11 (2) (3) (3) (3) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	2 2 2		N 80 N			Signal Name [Specification]		- [With automatic drive positioner]	- [Without automatic dr		1	1	)	1	I	I	_	1	-	1	1		1			1	11		1		1	1	ı	1	1	1	-	0	1		1	1													
	100 SB		Connector No. M.	Γ		Connector Type TI	þ		H.S.					J		No of Wire		93 :	$^{+}$	+	9	7 M	+	+	13 B		15 G	-			20 BR	Г	Г	24 V	Г	Г	Т	Т	T	$^{+}$	35 P	+	34	+	+	$\dashv$	38 BR	H	H	╀	46 B	H													
				1	1			_	1														- [With ICC]	out ICC]		h ICC]	out ICC]	- [With ICC]	out ICC]	h ICC]	out ICC]	h ICC]	out ICC]									1	1	1	1		_																		
																							- [Wit	- [With		- [Wit	- [Witho	− [Wit	- [With	- [Wit	- [With	- [With	- [With																														,	Α	
-	۵ ا	HB -	۵	>	BR	5	Μ	٦	G	SB	5	В	M	~	SHIFLD	>	- {	¥ :	97 :	9 :	>	SS	BR	_	g	W	GR	~	Ь	7	α	>	Μ	SB	SB	SB	3 >	٠ .	, -	1	<u>.</u>	>	æ	SHELD	>	>	BR	۵	GR	*	-	SHIELD													
49	20	52	23	54	26	23	29	09	19	62	63	64	92	99	67	8	8	60	2 2	5	72	73	74	74	75	92	16	77	77	78	78	79	79	8	8	82	8	8 8	8	3 8	98	87	88	6	<del>-</del> 6	95	93	94	92	96	97	86													
		T		F							cification	- Incaron																																																					
AUTOMATIC DRIVE POSITIONER Connector No.   M6	WIRE TO WIRE	TH80MW-CS16-TM4			1123	2 7 1320 3343 5560 5383 92 97	8 8 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3		50 ES ES		Signal Name [Snecification]	orginal tvaline Lope	-	1	1			1	1		1	1	1	1	1	I	1	1	1	-	1		1			1	1				1	1	1	1	1	1	1		1	1	1	ı												-	
MATIC [	me WIRE 1		1		-	r-     n	9 4	9			Color	Wire	w	~	<u> </u>	100	al company	: פ	_    - 	¥,	œ	HH.	0	_	œ	а	>	SB	^	0	_	W	۵	BR	<b>→</b>	>		, (	,	10	5 1	<u></u>	*	œ	SHIELD	>	0	38	<b>*</b>	0	0	A													1
AUTON Connector No.	Connector Name	Connector Type		修	Š						Terminal Co		-	2	8	T	T	+	$^{+}$	+	+	+	+	4	$\dashv$	4	91	Ц			L	L	L	L	L	L	╀	╀	+	+	4	4	4	_	_	4	Н	L	L	L	Ł	45												(	(
																																																						JC.	JW	A1	152	2G	В						F

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20 BR   MIRROR SW (RIGHTWARD)   21 L   MIRROR SENSOR (LH HORIZONTAL)   22 G   MIRROR SENSOR (LH HORIZONTAL)   23 P   TELESCOPIO SENSOR	24         R         SET SW           25         SP         ADDRESS2           26         Y         TELESCOPIC SW (EMSTWARD)           30         R         MIRROR MOTOR (RH COMMON)           31         LG         MIRROR MOTOR (LH HORTZONTAL)           32         L         MIRROR MOTOR (LH HORTZONTAL)	Connector No.   MS2	
Connector No. M49 Connector Name TILT & TELESCOPIC MOTOR Connector Type NS04PW-CS	#8. 4321	Termina   Color   Co	17         W         TILT SW (DOWNWARD)           18         P         MIRROR SELECT SW (LH)           19         SB         MIRROR SW (DOWNWARD)
Connector No. M31 Connector Name TILT & TELESCOPIC SMITCH Connector Type TKURGY	## 34 11 52	Termina   Color   Signal Name   Specification   Towns   Color   Termina   Color   Termina   Color   Connector Type   TKO4FW   Connector Type   TKO	
AUTOMATIC DRIVE POSITIONER  Connector No. M22  Connector Name KEY SLOT  Connector Type   TH12FW-NH	44.8.1.1.1.2.3.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1	Terminal   Color   Terminal   Color   Terminal   Color	

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### < ECU DIAGNOSIS INFORMATION >

		А
IGN RELY (F. B) CONT  KEVLESS ENTRY RECEIVER COMM  COMBIS SWI WIRUT 3  COMBIS SWI WIRUT 3  FURSH SWI WIRUT 3  FURSH SWI WIRUT 4  CAN-H  KEY SGI TILL  ON IND  PUDDIE LAWP CONT  ACT SHIFT SELECTOR POWER SUPPLY  S'LL CONDITION 1  COMBIS SWI INPUT 2  HAZARD SWI RECIVER POWER SUPPLY  COMBIS SWI INPUT 2  HAZARD SWI WIPUT 1  COMBIS SWI INPUT 2  HAZARD SWI WIPUT 2  COMBIS SWI INPUT 3  LOMBIS SWI INPUT 3  S'LL UNIT COMM  S'LL UNIT COMM		В
IGNA N NEVLESSE O CO CO CO CO CO CO CO CO CO C		С
N		D
10 (LE)  10 (Martin Particular)  Were Supply OK OUTPUT O		Е
IN TOOL MOD  Specific Cook LAMP PC  TOOL LAWP PC  TOOL LAWP PC  TOOL LAWP PC  TOOL LOUD  A ROCE IND  A		F
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70   R   71   B   72   P   71   B   72   P   73   P   73   P   73   P   73   P   73   P   73   P   74   P   74   P   75   P   7		K
1 NER 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		L
Signal Name [Specification]  ACC DOWER SUPPLY  FUEL LEVEL SENSOR SIGNAL  AMBERT SENSOR SIGNAL  AMBERT SENSOR SIGNAL  SULLAD SENSOR SIGNAL  GAS SENSOR SIGNAL  GAS SENSOR SIGNAL  GAS SENSOR SIGNAL  GAS SENSOR SIGNAL  INTAKE SENSOR SIGNAL  GAS SENSOR SIGNAL  GAS SENSOR SIGNAL  INTAKE SENSOR GROUND  SUNIOND SENSOR GROUND  ECV SIGNAL  ECV SIGNAL  ACCIAN SIGNAL  ACCIAN SIGNAL		M
		Ν
Connector Name   Conn		0
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AUTOM,	AUTOMATIC DRIVE POSITIONER Jonnector No. M123	Terminal	Color	3.5	2	>	1	్రీ	Connector No.	M204	
	т	N N	of Wire	Signal Name [Specification]	١,٠	1-		T		т	
Connector Name	He BCM (BODY CONTROL MODULE)	7	<b>X</b>	1	0 4	J 8	1	ة T	Connector Name	AV CONTROL UNIT	
Connector Type	P TH40FG-NH	. 00	ΓG	1	· c	g	1	Ş	Connector Type	TH32FW-NH	
	1	6	Υ		7	ď	-	] [4 		1	
国		12	L	-	00	SB	-	<b>摩</b>	_		
E.S.		13	^	1	6	В	•		E.S.		
191 193	lea for lead and the first fir	14	В		0	æ	1	 	75 77	78 70 80 84 85 88 85 00 01	
151 150	3 2	15	<b>≥</b>	1	Ξ	œ	'	7	92 93	96 96 96	
		20 0	<b>α</b>	1 1							
		20 2	>	- [With BOSE audio]	Connector No.	or No.	M202	_			
Terminal Color	L	20	W	- [Without BOSE audio]		;	F	Ter	Terminal Color		
_	Sign	21	5	- [With BOSE audio]	Connect	connector Name	AV CONTROL UNIT	_	No. of Wire		
Н		21	L	- [Without BOSE audio]	Connector Type	or Type	TH24FW-NH		76 P	AV COMM (L) [With base audio and hands-free phone]	
116 SB		22	SB	1	ą				76 B	AV COMM (L) [With base audio without hands-free phone]	
Н		23	GR	_	厚				76 Y	AV COMM (L) [With BOSE audio]	
119 SB	DR DO	24	ß	ı	H.S.		<u></u>		77 G	AV COMM (H) [Except for base audio and hands-free phone]	
$\dashv$	3	25	Υ	I		26 27	38 30 40 41 42 43 44 45 46 47		J 77	AV COMM (H) [With base audio and hands-free phone]	
$\dashv$		26	ч	1		3 9	00 00 01 01 01 01 01 01 01 01 01 01 01 0		4	AV COMM (L)	
+		59	SHIELD	11		ή φ	37		+	AV COMM (H)	
4	┪	90	Μ	T				<u>"</u> ]	۵ 80	CAN-L	
4	PUSH-BUTTON	31	LG	1				<u>[</u> " ]	81 L	CAN-H	
_		32	g	I	Terminal	_	Signal Name [Specification]		┪		
137 0	+	33	BR	ı	Š	of Wire	7	<u> </u>	86 SHIELD		
138 Y	RECEIVER/SENSOR POWER SUPPLY	34	>	£	36	0	SIGNAL VCC	<u> </u>	87 L	TEL VOICE SIGNAL (+)	
+	+	35	ŋ	If	37	ឧ	SIGNAL GND	<u>" </u> T	+	TEL VOICE SIGNAL (-)	
140 GR		43	L	1	38	œ	HP	<u> </u>	92 R	VEHICLE SPEED SIGNAL (8-PULSE)	
4	SECI	44	>	I	38	띪	COMM (DISP->CONT)	<u>"</u> ]	93	PARKING BRAKE SIGNAL	
4		45	ď	I	40	В	RGB AREA (YS) SIGNAL	<u>"</u> T	+	REVERSE SIGNAL	
+		46	×	П	41		SHIELD	<u>"</u> T	95 G	IGNITION SIGNAL	
144 G		52	ď	1	45	≥	RGB SYNC	<u>"</u> T	+	DISK EJECT SIGNAL	
+		23	ŋ	1	€£ :	<b>5</b>	RGB (R:RED) SIGNAL	] T	+	AUX SOUND SIGNAL GND	
+	4	54	W	T	4	_	RGB (G:GREEN) SIGNAL	<u> </u>	+	AUX SOUND SIGNAL LH (+)	
+	TIRE P	22	0	1	42	1	RGB (B:BLUE) SIGNAL	] T	104 R	AUX SOUND SIGNAL RH (+)	
+	+				9 [	> {	COMPOSITE IMAGE SIGNAL GND	_			
151	REAR WINDOW DEFOGGER RELAY CONT				4/	9 :	COMPOSITE IMAGE SIGNAL	Т			
		Connector No.	No.	W13/	84 6	- 8	INVERTER VCC	_			
Connector No	M124	Connector Name	Name	A/T SHIFT SELECTOR	£ 6	5 0	INVERTIEN GIND	_			
	Т	Connector Type	Type	TH12FW-NH	2 2	>	(CONT>DISP)	Т			
Connector Name	ie WIRE TO WIRE				25	SHELD	SHELD	_			
Connector Type	TH40MW-CS15	Ø			57	SHED	SHELD	Т			
	1	\ \frac{1}{2}			28	SHELD	SHELD	_			
<b>-</b>		2		7	3		2771	7			
( <u>S</u>	2 3 4 5 6 7 8 9 10 11 12 13 14 15			1 2 3 4 5 6 7 8 9 10 11							
191	16 17 18 19 2021 22 22 24 25 25 25 25 25 25 25 25 25 25 25 25 25										
		Terminal	Color	Signal Name [Specification]							
		o.	or wire								
		_	A.								

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### Fail Safe

AUTOMATIC DRIVE POSITIONER

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	ADP-44
Only manual functions operate normally.	Tilt sensor	B2118	<u>ADP-49</u>
Only manual functions operate normally.	Telescopic sensor	B2119	<u>ADP-52</u>
	Detent switch	B2126	<u>ADP-55</u>
Only manual functions, except door mirror, operate normally.	UART communication	B2128	<u>ADP-57</u>
Only manual functions, except seat sliding, operate normally.	Seat sliding output	B2112	<u>ADP-45</u>
Only manual functions, except seat reclining, operate normally.	Seat reclining output	B2113	ADP-47

DTC Index

CONSULT-III	Tim	ing <sup>*1</sup>		
display	Current mal- function	Previous mal- function	Item	Reference page
CAN COMM CIRCUIT [U1000]	0	1-39	CAN communication	ADP-44
SEAT SLIDE [B2112]	0	1-39	Seat slide motor output	ADP-45
SEAT RECLINING [B2113]	0	1-39	Seat reclining motor output	ADP-47
TILT SENSOR [B2118]	0	1-39	Tilt sensor input	ADP-49
TELESCO SENSOR [B2119]	0	1-39	Telescopic sensor input	ADP-52
DETENT SW [B2126]	0	1-39	Detention switch condition	ADP-55
UART COMM [B2128]	0	1-39	UART communication	ADP-57

<sup>\*1.</sup> 

<sup>• 0:</sup> Current malfunction is present

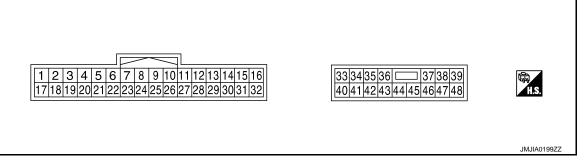
<sup>• 1-39:</sup> Displayed if any previous malfunction is present when current condition is normal. The numeral value increases by one at each IGN ON to OFF cycle from 1 to 39. The counter remains at 39 even if the number of cycles exceeds it. However, the counter is reset to 1 if any malfunction is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

< ECU DIAGNOSIS INFORMATION >

### AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Reference Value

#### **TERMINAL LAYOUT**



#### PHYSICAL VALUES

Terr	minal No.		Description				
+	-	Wire color	Signal name	Input/ Out- put	Condition	on	Voltage (V) (Approx.)
1	Ground	Y	Tilt switch up signal	Innut	Tilt switch	Operate (up)	0
1	Giodila	r	The switch up signal	Input	THE SWILCH	Other than above	5
			Changeover switch RH		Changeover	RH	0
2	Ground	LG	signal	Input	switch position	Neutral or LH	5
2	Craund	G	Missos quitale un aignal	lanut	Mirror switch	Operated (up)	0
3	Ground	G	Mirror switch up signal	Input	WIIITOT SWITCH	Other than above	5
4	0		NA:	la a t	Naimen envited	Operated (left)	0
4	Ground	V	Mirror switch left signal	Input	Mirror switch	Other than above	5
5	Ground	R	Door mirror sensor (RH) up/down signal	Input	Door mirror RH po	osition	Change between 3.4 (close to peak) 0.6 (close to valley)
6	Ground	GR	Door mirror sensor (LH) up/down signal	Input	Door mirror LH po	sition	Change between 3.4 (close to peak) 0.6 (close to valley)
7	Ground	0	Tilt sensor signal	Input	Tilt position		Change between 1.2 (close to top) 3.4 (close to bottom)
						Push	0
9	Ground	L	Memory switch 1 signal	Input	Memory switch 1	Other than above	5
10	Ground	V	UART communication (TX)	Out- put	Ignition switch ON	ı	2mSec/div 2mSec/div 2V/div JMJIA0118ZZ

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Terr	minal No.		Description				
+	-	Wire color	Signal name	Input/ Out- put	Condition	on	Voltage (V) (Approx.)
11	Ground	GR	Telescopic switch for-	Input	Telescopic	Operate (forward)	0
"	Ground	GIX	ward signal	mput	switch	Other than above	5
				Out-	Memory indictor	Illuminate	0
12	Ground	0	Memory indictor 1 signal	put	1	Other than above	Battery voltage
				Out-	Memory indictor	Illuminate	0
13	Ground	Р	Memory indictor 2 signal	put	2	Other than above	Battery voltage
14	Ground	W	Door mirror motor (RH)	Out-	Door mirror RH	Operate (up)	Battery voltage
14	Ground	VV	up output signal	put	Door Hillion Kin	Other than above	0
15	Cround		Door mirror motor (RH)	Out-	Door mirror DH	Operate (left)	Battery voltage
15	Ground	G	left output signal	put	Door mirror RH	Other than above	0
			Door mirror motor (LH)			Operate (down)	Battery voltage
40	0	V	down output signal	Out-	D	Other than above	0
16	Ground	Υ	Door mirror motor (LH)	put	Door mirror (LH)	Operate (right)	Battery voltage
			right output signal			Other than above	0
17	Ground	W	Tilt switch down signal	Input	Tilt switch	Operate (down)	0
17	Ground	VV	The Switch down Signal	mput	THE SWILCH	Other than above	5
			Changeover switch LH		Changeover	LH	0
18	Ground	Р	signal	Input	switch position	Neutral or RH	5
19	Ground	SB	Mirror switch down sig-	Innut	Mirror switch	Operate (down)	0
19	Ground	SD	nal	Input	WIITOI SWILCH	Other than above	5
20	Ground	DD.	Mirror quitab right size -	lnn::4	Mirror quitab	Operate (right)	0
20	Ground	BR	Mirror switch right signal	Input	Mirror switch	Other than above	5
21	Ground	L	Door mirror sensor (RH) left/right signal	Input	Door mirror RH po	osition	Change between 3.4 (close to left edge) 0.6 (close to right edge)
22	Ground	G	Door mirror sensor (LH) left/right signal	Input	Door mirror LH po	sition	Change between 0.6 (close to left edge) 3.4 (close to right edge)
23	Ground	Р	Telescopic sensor signal	Input	Telescopic positio	n	Change between 0.8 (close to top) 3.4 (close to bottom)

### < ECU DIAGNOSIS INFORMATION >

Terr	minal No.		Description				
+	-	Wire color	Signal name	Input/ Out- put	Condition	on	Voltage (V) (Approx.)
						Push	0
24	Ground	R	Set switch signal	Input	Set switch	Other than above	5
						Push	0
25	Ground	SB	Memory switch 2 signal	Input	Memory switch 2	Other than above	5
26	Ground	Y	UART communication (RX)	Input	Ignition switch ON		10mSec/div 2V/div JMJIA0121ZZ
27	Ground	G	Telescopic switch back-	Input	Telescopic	Operate (back- ward)	0
			ward signal	•	switch	Other than above	5
			Door mirror motor (RH)			Operate (down)	Battery voltage
30	Ground	R	down output signal	Out-	Door mirror (RH)	Other than above	0
30	Ground	IX.	Door mirror motor (RH)	put	Door Hillion (RCH)	Operate (right)	Battery voltage
			right output signal			Other than above	0
31	Ground	LG	Door mirror motor (LH)	Out-	Door mirror (LH)	Operate (up)	Battery voltage
	Orouna		up output signal	put	Door Illinor (Ell)	Other than above	0
32	Ground	L	Door mirror motor (LH)	Out-	Door mirror (LH)	Operate (left)	Battery voltage
	Orodina		left output signal	put	Deer miner (En)	Other than above	0
33	Ground	R	Sensor power supply	Input	_		5
34	Ground	R	Power source (Fuse)	Input	_		Battery voltage
35	Ground	L	Tilt motor up output sig-	Out-	Steering tilt	Operate (up)	Battery voltage
			nal	put	Ü	Other than above	0
36	Ground	GR	Telescopic motor for-	Out-	Steering tele-	Operate (forward)	Battery voltage
			ward output signal	put	scopic	Other than above	0
39	Ground	SB	Power source (C/B)		_		Battery voltage
40	Ground	В	Ground	_	_		0
41	Ground	Υ	Sensor ground	_	_		0

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Teri	minal No.		Description				
+	-	Wire color	Signal name	Input/ Out- put	Conditi	on	Voltage (V) (Approx.)
42	Ground	0	Tilt motor down output	Out-	Steering tilt	Operate (down)	Battery voltage
42	Ground	O	signal	put	Steering tilt	Other than above	0
44	Ground	G	Telescopic motor back- ward output signal	Out-	Steering tele-	Operate (back- ward)	Battery voltage
			waru output Signal	put	δυμίο	Other than above	0
48	Ground	В	Ground	_	_		0

**AUTOMATIC DRIVE POSITIONER CONTROL UNIT** < ECU DIAGNOSIS INFORMATION > Wiring Diagram - AUTOMATIC DRIVE POSITIONER CONTROL SYSTEM -Α INFOID:0000000005589498 \(\lambda \text{INV}\); With NAVI \(\lambda \text{NM}\); Without NAVI \(\lambda \text{NM}\); With BOSE audio without NAVI \(\lambda \text{NM}\); With around view monitor \(\lambda \text{VM}\); With hands-free phone \(\lambda \text{COH}\); Without hands-free phone NV В AROUND VIEW MONITOR CONTROL UNIT C D Е To base audio without navigation To BOSE audio without navigation ★: This connector is not shown in "Harness Layout". F G AV CONTROL UNIT Н MULTIFUNCTION SWITCH M72 ADP N<sub>O</sub> 8 Κ TCM (TRANSMISSION CONTROL MODULE) L **AUTOMATIC DRIVE POSITIONER** CIRCUIT BREAKER (M62) A/T ASSEMBLY (F51) FUSE BLOCK (J/B) (M1) KEY SLOT

11 121 BCM (BODY CONTROL MODULE) (M118), (M123), (M123)

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Web and the second seco

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BATTERY

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FRONT DOOR SWITCH (DRIVER SIDE)

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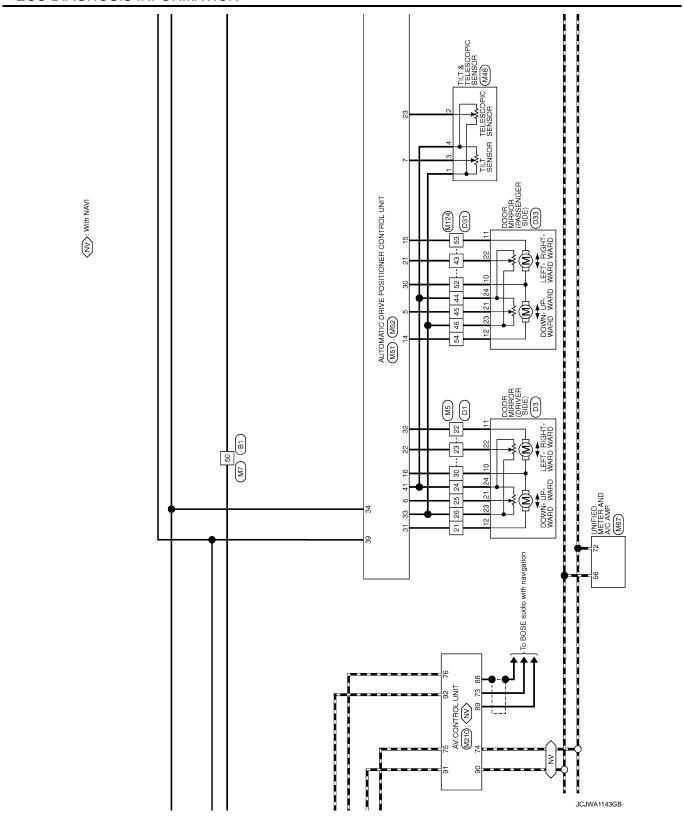
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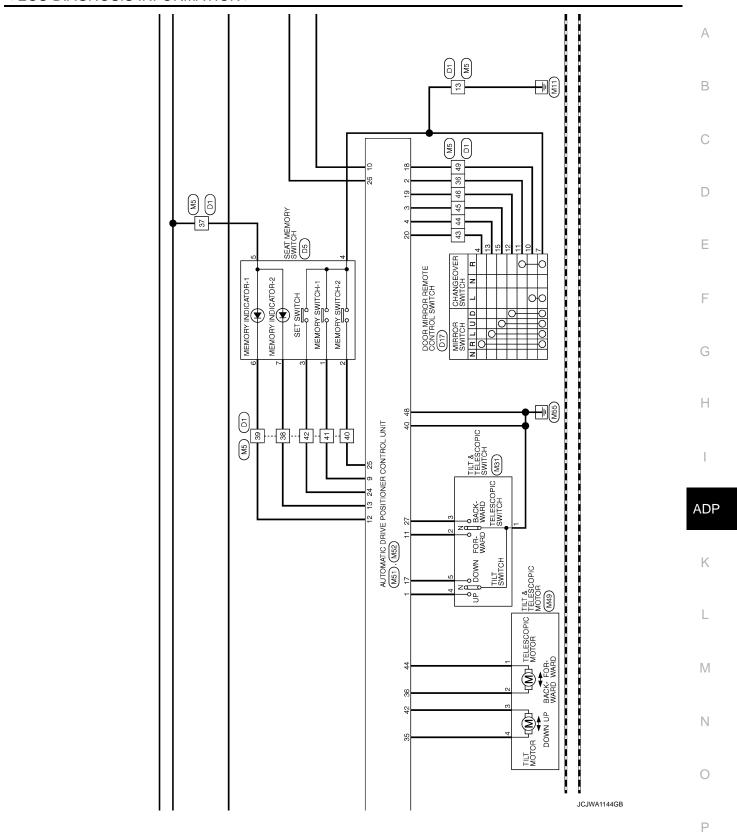
DATA LINK CONNECTOR M24

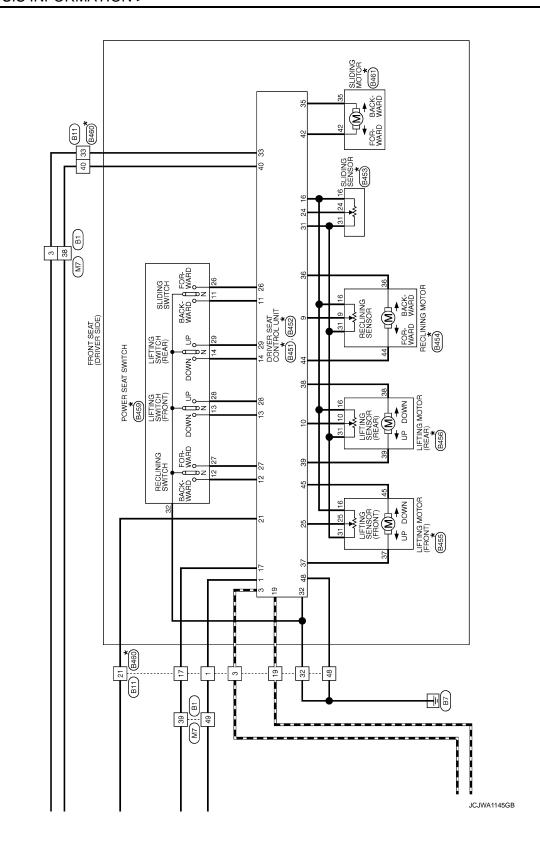
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To CAN system ∤







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

### < ECU DIAGNOSIS INFORMATION >

No. Bif FOUNT DOOR SWITCH (DRIVER SIDE)  Type AddSPW  Color Signal Name (Specification)	В
Connector No. Connector Name Connector Type  Terminal Color  2 V V	D
3 [9] B B B B B B B B B B B B B B B B B B B	Е
	F
10 10 10 10 10 10 10 10 10 10 10 10 10 1	G
14   SB   16   SB   16   SB   16   SB   16   SB   16   SB   16   SB   SB   SB   SB   SB   SB   SB   S	Н
B5 WRE TO WRE TH32MM-NH TH32MM-NH Signal Name	ADP
SHEED   SHEE	K
Second State   Seco	
ONER I SPECIAL DESCRIPTION OF THE SPECIAL DESCRI	L
WINE  OSIG-TM4  OSIG-TM4  Signal Name (Specification)	M
AUTOMATIC DRIVE POSITIONER  Connector Name   BI	N
Na	
Connector No.   Connector No.   Connector No.   Connector Type   Connect	0
JCJWA11460	Р

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### < ECU DIAGNOSIS INFORMATION >

	Connector Name LIFTING MOTOR (FRONT)	Connector Type NS06FW-CS	<b>E</b>	45 31 25		Terminal Color Signal Name [Specification] No. of Wire	- 0 91	$^{+}$	37 GAW	t		Connector No. B456	L		Connector Type NS06FBR-CS	Œ		38 139	16 31 10			lar	of Wire	+	0 0	t	39 R/B -							
2	36 G/Y FROUINING MOTOR (PORWARD) 37 G/W FRONT LIFTING MOTOR (DOWNWARD) 38 I.V. BEAD HETHIR MOTOR (DOWNWARD)	R/B	40 R/W BAT (FUSE) 42 W/B SLIDING MOTOR (BACKWARD) 44 P RECINING MOTOR (RACKWARD)	L/R B	Connector No. B453	Connector Name SLIDING SENSOR	Connector Type 6098 0241				24 31 16			la	of Wire	+	31 GR =	ł		т	Connector Name RECLINING MOTOR	Connector Type NS06FW-CS	<b>£</b>	AHA)	Z	16 21 0	6 1201		ŀ	Fermina	16 O – – 31 GR – –	36 G/Y 44 P		
	Connector Name DRIVER SEAT CONTROL UNIT	Connector Type TH32FW	<b>E</b>	1 2 3 4 5 6 7 8 9 10111213141516   17 18 19 20 21 12 23 24 15 56 27 28 29 30 31 32		Terminal Color Signal Name [Specification]	1 L/W RX	R/Y	9 W/G PULSE (RECLINING)	BR	SB	13 LG/R FRONT LIFTING SW (DOWNWARD) 14 G/B REARTIFITING SW (DOWNWARD)	0	17 Y/R TX	> 3	۲,	24 R PULSE (SEIDING) 25 Y/B PULSE (FR LIFTING.)	Υ	R/G	28 W/B FRONT LIFTING SW (UPWARD)	GR GR	H		O DAED	Т		Connector Type NS16FW-CS	₫.	A-A-A-	33 34 35 36 T 37 38 39 40 41 42 43 44 45 46 47 48	01 01 01 01 01	<u></u>	of Wire	A THE COURT OF THE
ٳڂ	Connector Name AROUND VIEW MONITOR CONTROL UNIT	Connector Type TH40FW-NH	够	2 4 6 1 14 16 18 10 12 12 12 13 13 13 15 15 19 11 18 18 18 18 18 18 18 18 18 18 18 18		Terminal Color Signal Name [Specification] No. of Wire	1 B GND		4 GP GCP	O	6 SB VEHICLE SPEED SIGNAL (8-PULSE)		╀	В	9	Z1 G AV COMM (H)	22 Y AV COMM (L) 23 LG AUXILIARY INFARED LED (+)	ß	М	28 SHIELD CAMERA IMAGE SIGNAL GND	- 0	SHIELD	В	+	34 K SIDE CAMERA RH POWER SUPPLY	BR REA	SHIELD	œ	æ ≻ 3	40 W REAR GAMERA IMAGE GND				

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### < ECU DIAGNOSIS INFORMATION >

		А
Side Camera LH IMAGE SIGNAL SIDE CAMERA LH POWER SUPPLY SIDE CAMERA LH BAGE GND SIDE CAMERA LH GND  NW  Signal Name [Specification]  Signal Name [Specification]		В
Note that the second se		С
1		D
re positioner] re positioner] re positioner] rive positioner]		Е
automatic drive  E CAMERA LH  E CAMERA LH  E CAMERA LH		F
11 10 10 10 10 10 10 10 10 10 10 10 10 1		G
15   15   15   15   15   15   15   15		Н
No.   B461   Nume   SLIDING MOTOR   Nume   SLIDING MOTOR   Nume   SLIDING MOTOR   Nume   Specification   Nume   Specification   Nume   Nume   Specification   Nume   Num		I
Signal Nam Signal Nam Signal Nam Signal Nam Signal Nam Signal Nam		ADP
Connector No.   Back		K
Connector No.		
NAME OF THE PROPERTY OF THE PR		L
Signal Name [Specification]  Signal Name [Specification]  Signal Name [Specification]		M
1.0 D   1.0		Ν
AUTOMAT  Connector Name  Connector Type  11 BR  12 BN  13 LG/BR  14 G/B  22 B/W  23 B/W  23 B/W  32 B/W  33 R/Y  11 L/W  3 R/Y  31 L/W  31 L/W  32 B/W  34 R/W  35 R/W  36 R/W  37 R/W  37 R/W  38 R/W  38 R/W  38 R/W  38 R/W  39 R/W  31 L/W  31 L/W  31 L/W  31 L/W  32 B/W  33 R/W  34 R/W  35 R/W  36 R/W  37 R/W  37 R/W  38 R/W  38 R/W  38 R/W  39 R/W  30 R/W  30 R/W  31 L/W  31 L/W  31 R/W  32 R/W  33 R/W  34 R/W  48 R/W		0
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	1	-	1	1		-	I	1	-	-	-	_	-	-	-	1	-	-		1			D33	DOOR MIRROR (PASSENGER SIDE)	TH24MW-NH			10     7     6     5     4     3     2       22     21     19     18     17     16     14		Signal Name [Specification]	SIDE CAMERA RH COMM	SIDE CAMERA RH IMAGE SIGNAL	SIDE CAMERA RH POWER SUPPLY	1	=	-	1	=	_	SIDE CAMERA RH IMAGE GND	SIDE CAMERA RH GND	-	1	1	1	-
	>	۵	×	SB	۵	SHELD	≥	LG	BR	0	GR	ŋ	Υ	^	Ф	W	g	GR	0	٦			. No.	· Name	- Type			12 11 24 23		Color	×	P	Ф	œ	_	G	æ	0	HB.	ت :	>	ا ۵	1	ا	s :	>
Ī	22	23	24	22	56	59	30	31	32	33	34	35	43	44	45	46	52	53	54	55			Connector No.	Connector Name	Connector Type	6	Š			Terminal	į e	4	5	9	7	0	=	12	91	- 1	82	61	21	22	52 52	74
AUTOMATIC DRIVE POSITIONER	D17	DOOR MIRROR REMOTE CONTROL SWITCH		TK16FBR				4	8 9 10 11 12 13 15	21 71 11 21 2			Simpl Name Concidention		1	1	_	1	1	_	ı		1		D31	WIRE TO WIRE	TH40FW-CS15		15   14   13   12   11   10   9   8   7   6   5   4   3   2   1	2013413313		Comment of the state of the sta		1	-	1	1	1	1				- [With BOSE audio]	- [Without BOSE audio]	- [With BOSE audio]	- [Without BOSE audio]
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AUT	Connector No.	Connector Name		Connector Type	đ.	1	H.S.						Terminal	No.	4	7	8	6	10	11	12	13	15		Connector No.	Connector Name	Connector Type	優 H.S.				Terminal	No.	7	80	6	12	13	14	12	18	19	20	20	21	21

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### < ECU DIAGNOSIS INFORMATION >

PPPLY-I UPPLY-2	АВ
STANDBY SUPPLY-2  STANDBY SUPPLY-2  FUSE BLOCK (J/B)  NS06FW-M2  3A	С
Connector No.   Connector No.   Connector No.   Connector Name   Connector Name   Connector Name   Connector Type   Connect	D
Module)	Е
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	L
WIRE -CSIG-TM4 Signal Name (Specification)	М
AUTCOMATIC DRIVE POSITIONER Connector Name WRE TO WIRE  Connector Type I H90FW-CSI6-TMA  MR TO WIRE  Terminal Color of Wire  Signal Name (Specification)  In S	N
Name	
Connector Name   Connector Name   Connector Name   Connector Name   Connector Name   Connector Type   Connector Type   Connector Name   Conn	0
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	BR	- م	7 0	2	r 3	A 0	5 -	7	5 >	>	a	<b>&gt;</b>	W	2	٥	>	ŀ	16	٦	ŋ	<b>&gt;</b>	GR	۳	W	SHIELD	У	Υ	В	BR	SB	Υ	Р	LG	BR	Ь	0	SB	7	ď	BR	۸	G	SB	۸	Ь	В	Я	>	ΓG	SB	
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AUTOMATIC DRIVE POSITIONER	M4	WIRE TO WIRE	THA MUSCOLLE	I H3ZFW-NH				16151413121110987654321	30 29 28 27 26 25 24 23 22 21 20 19 18 17				Signal Name [Specification]						1	1		1	1	1	II.	I	_		1	-	1	1	_	0	-			M5	WIRE TO WIRE		TH40MW-CS15					16 17 18 19 20 21 22 23 24 25 26 36 37 38 38 40 41 42 43 44 45 46 46 46 47 40 40 40 40 40 40 40 40 40 40 40 40 40				Signal Nama [Specification]	
JMA	r No.	r Name	Ton	adk				16 15 1	32 31 3				Color	or wire	-	>		×	g	PT	œ	>	>	Χ	5	а	SHIELD	ď	œ	Y	5	В	W	SHIELD	٨			Š	r Name		r Type			E	1	1617181	767177			Color	
AUTC	Connector No.	Connector Name	Connecto	Confrector Type	<b>€</b>	¥	Ė						Terminal	No.	- c	7 ~	4	2	9	7	00	14	15	91	21	22	23	24	25	26	27	28	29	30	31			Connector No.	Connector Name		Connector Type	ą	事	\$						Terminal	No.

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	1			WIRE TO WIRE	- 1'	H8UMW-CS16-1M4				8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8			]	Constanting Courses	orginal realing Lope	- [With automatic drive positioner]	<ul> <li>[Without automatic d</li> </ul>	-		1	1		I	1	1		1	1							1	1	1	1	_	-	1	1	1			1	-	1			1																F	
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AUTOMATIC DRIVE POSITIONER	WIRE	-CS16-TM4			8 10 10 10 10 10 10 10 10 10 10 10 10 10	10 80 82 82 83 83 83 83 83 83 83 83 83 83 83 83 83				Signal Name [Snecification]	de la companya de la	-	-	=		-	1	-		1	1			1	1		1		1						1		ı	1	_	1	1	1	1		1	1	1	1			1																VI	
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AUTOMA	Connector Name	Connector Type	ą	The state of the s	E.S.					Terminal Color		. M	2 R	3 B	4 SHIELD	5 G	8	9 BR	10 R	L	⊦	ŀ	14	. T	╀	17 SB	L	000	L	L	1	200	1	4	4	4	_	Ц	32 G		L	L	Ü		4	38		L	L	┸	45 W	1														(	Э	
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20 BR MIRROR SW (RIGHTWARD)	21 L MIRE	- a	24 R SETSW	9 >	G TELESCO	ď	ΓG	32 L MIRROR MOTOR (LH HORIZONTAL)		Specification   Connector No.   M52	Connector Name ALITOMATIC DRIVE POSITIONER CONTROL LINIT		Connector Type NS16FW-CS			32 34 35 36 7	1 20 00 10 00	11 24 14 04		⊢	l erminal Color Signal Name [Specification]	£	15 16 34 B	L	GR TELESCO	39 SB BAT (C/B)	40 B	41 Y	45 O	44 G TELESCOF	(UPWARD) 48 B GND(POWER)	LEF I WARU)	(RH VERTICAL)	NSOR	381	ART)	(FRONTWARD)	2	(RH VERTICAL)	HOBIZONTAL)	(LH COMMON)	WNWARD)	CT SW (LH)	CONTRIBUTE
Connector No. M49	ne	Connector Type NS04FW-CS	<b>1</b>			1 3 0 1	1 2 6 4		Terminal Color	No.	- B	2 GR	3 0	- 4	7	Connector No. M51	Т	Connector Name AUTOMATIC DRIVE POSITIONER CONTROL UNIT	Connector Type TH32FW-NH				1234567 91011	17 18 19 20 21 22 23 24 25 26 27			la L	No. of Wire			σ :	>	6 GR MIRROR SENSOR (I'H VERTICAL)	í c		10 V TX (UART)	GR TELESCOF	۵	W MIRROR MOT	: @	7 >-	17 W TILT SW (DOWNWARD)	18 P MIRROR SELECT SW (LH)	CONTRACO NO COCCUM
Connector No. M31	ne	Connector Type TK06FGY				3 4 1 5 2			Terminal Color	_		2 GR –	- G	> !:	- M		Connector No. M48	Connector Name TILT & TELESCOBIC SENSOR	╗	Connector Type TK04FW	<b>@</b>	<u> </u>		4 3 2 1				ler	IVO. OI WIFE	<b>*</b>	a. «	0:	- A 4											
AUTOMATIC DRIVE POSITIONER Connector No.   M22	Connector Name KEY SLOT	Connector Type TH12FW-NH			7	12356	7 11		Color	No. of Wire Signal Name [Specification]		2 GR CLOCK	M :		7 R GND	KFY SW			Connector No. M24	Connector Name DATA LINK CONNECTOR	Connector Type RD16FW	1	<b>6</b>	<u></u>	11 12 13 14 16	0 4 5 8 4 0	4 0 0 /		-	Terminal Color Signal Name [Specification]	of Wire	+	20 m	) _	- ^ _	5	┞	 - Å 91						

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### < ECU DIAGNOSIS INFORMATION >

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IGN RELAY (F/B) CONT  KEVLESS ENTRY RECEIVER COMM  COMBI SWI NIPUT 5  COMBI SWI NIPUT 5  COMBI SWI NIPUT 5  COMBI SWI NIPUT 5  COMPL  KEY SLOT ILL  PUDDLE LAMP CONT  ACT SHILT SELECTOR POWER SUPPLY  SAL CONDITION 1  COMBI SWI NIPUT 2  HAZZARO SWW  SAL UNIT FOWER SUPPLY  COMBI SWI NIPUT 2  HAZZARO SWW  SAL UNIT COMM  SA		В
KEVLESS O O O O O O O O O O O O O O O O O O		С
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bion line in the control of the cont		Е
INSIGEW-CS  SIGN (BODY CONTROL MODULE)  INSIGEW-CS  SIGNAL NAMP POWER SUPPRIVENCE TO THE TOTAL TOON BY THE LID LOCK OUTPUT ALL DOOR BY THE LID LOCK OUTPUT STEP LAMP OUTPUT ALL DOOR PLEL LID LOCK OUTPUT BY THE DOOR PLEL LID UNICOK OUTPUT BY THE DOOR PLEL LID UNICOK OUTPUT BY THE DOOR PLEL LID UNICOK OUTPUT BY THE DOOR WILL CAND ALL DAY OF THE DAY STEP BY THE STORM LOCK OUTPUT BY THE BY		F
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AV COMTROL MC CONTROL MAN (Spe DISK EJECTS HAZARD (L MILL CONTROL MC CONTROL MC M		ADP
		K
710   R   72   P   73   P   73   P   74   P   74   P   75   P		
P. P. Signal, Light L. Signal, Lighar, L. Signal, L. Si		L
IC DRIVE POSITIONER  M82  CIRCUIT BREAKER  M87  M87  M87  WINTED METER AND A/C AMP: TH92PW-NH  Signal Name [Specification] ACC POWER SUPPLY FILE LEVEL ENEOR SIGNAL INTAKE SENSOR SIGNAL INTAKE SENSOR SIGNAL SIMILOAD SENSOR SIGNAL SIMILOAD SENSOR SIGNAL CAN-H  BRAKE FLUID LEVEL SINGRA SIGNAL CONTION DEVICE SENSOR SIGNAL SIMILOAD SENSOR SIGNAL CAN-H  BRAKE FLUID LEVEL SINGRA SIGNAL CAN-H  BRAKE FLUID LEVEL SINGRA SIGNAL CAN-H  CAN-H  CAN-H  CAN-H  BRAKE FLUID LEVEL SINGRA GROUND INTAKE SENSOR GROUND SUNLOAD SENSOR GROUND		M
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Comestor Name   Comestor Nam		0
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AUTOMATI	AUTOMATIC DRIVE POSITIONER										
Connector No.	M123	Terminal	Color	Signal Name [Specification]	2	>	1	Con	Connector No.	M204	
Connector Name	BCM (BODY CONTROL MODULE)	O	of Wire		ო •	ء د	1	Con	Connector Name	AV CONTROL UNIT	
Connector Type	TH40FG-NH	- α			t 4:	ے م	1 1	S	Connector Type	TH32FW-NH	
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No. of Wire	Signal Name [Specification]	2 2	s ©	- [With BOSE audio]	Connect	Connector Name	AV CONTROL UNIT	e -	_	Signal Name [Specification]	
113 P	OPLICAL SENSOR	21	_	- [Without BOSE audio]	Connect	Connector Type	TH24FW-NH	Ľ	76 P	AV COMM (L) [With base audio and hands-free phone]	
116 SB	STOP LAMP SW 1	22	SB	1	q			LI	76 B	AV COMM (L) [With base audio without hands-free phone]	
118 P	STOP LAMP SW 2	23	GR	-	唐				76 Y	AV COMM (L) [With BOSE audio]	
119 SB	DR DOOR UNLOCK SENSOR	24	ŋ	1	H.S.		[		77 G	AV COMM (H) [Except for base audio and hands-free phone]	
4	KEY SLOT SW	25	>	1		36 37	38 39 40 41 42 43 44 45 46 47		J 77	AV COMM (H) [With base audio and hands-free phone]	
4	IGN F/B	┪	ď	ı		Ş	50 50 51 52 50		+	AV COMM (L)	
+	PASSENGER DOOR SW	7	SHIELD	1		40+	05 00	1	+	AV COMM (H)	
4	POWER WINDOW SW COMM	30	>	1				<u>" </u>	80 B0	CAN-L	
4	PUSH-BUTTON IGNITION SWILL POWER	31	<sub>S</sub>	1		ŀ		<u> </u>	$\dashv$	CAN-H	
Ĭ	LOCK IND	32	ŋ	If	Termina	_	Signal Name [Specification]		7		
4	RECEIVER/SENSOR GND	33	ä	I	Š	of Wire	7		86 SHIELD		
138 Y	RECEIVER/SENSOR POWER SUPPLY	34	>	ſ	36	0	SIGNAL VCC		87 L	TEL VOICE SIGNAL (+)	
139 L	TIRE PRESSURE RECEIVER COMM	35	G	-	37	LG	SIGNAL GND		88 P	TEL VOICE SIGNAL (-)	
140 GR	SHIFT N/P	43	٦	-	38	ч	HP		92 R	VEHICLE SPEED SIGNAL (8-PULSE)	
141 G	SECURITY INDICATOR OUTPUT	44	Υ		38	BR	COMM (DISP->CONT)	٥	93 /	PARKING BRAKE SIGNAL	
142 0	COMBI SW OUTPUT 5	45	В	-	40	В	RGB AREA (YS) SIGNAL	<u> </u>	94 0	REVERSE SIGNAL	
143 P	COMBI SW OUTPUT 1	46	W	-	41	SHIELD	SHIELD		95 G	IGNITION SIGNAL	
144 G	COMBI SW OUTPUT 2	52	ч	=	42	W	RGB SYNC		A 96	DISK EJECT SIGNAL	
145 L	COMBI SW OUTPUT 3	53	ß	-	43	В	RGB (R:RED) SIGNAL		102 B	AUX SOUND SIGNAL GND	
146 SB	COMBI SW OUTPUT 4	54	W	-	44	٦	RGB (G:GREEN) SIGNAL		103 W	AUX SOUND SIGNAL LH (+)	
149 W	TIRE PRESS WARNING CHECK SW	22	0	-	45	а	RGB (B:BLUE) SIGNAL		104 R	AUX SOUND SIGNAL RH (+)	
Н	DRIVER DOOR SW				46	>	COMPOSITE IMAGE SIGNAL GND				
151 G	REAR WINDOW DEFOGGER RELAY CONT				47	SB	COMPOSITE IMAGE SIGNAL				
		Connector No.		M137	8	>	INVERTER VCC				
1		Connector Name		A/T SHIFT SELECTOR	46	£ ,	INVERTER GND				
Connector No.	M124		T		S :	y ;	dA				
Connector Name	WIRE TO WIRE	Connector Type	٦	TH12FW-NH	21	>	COMM (CONT->DISP)				
T		1			25	SHELD	SHIELD				
Connector Type	TH40MW-CS15	季			ê	SHIELD	SHIELD				
<b>4</b>		S E S		<u> </u>	28	SHIELD	SHIELD				
Athly				123456							
- Z	2 3 4 5 6 7 8 9 10 11 12 13 14 15			7 8 9 10 11							
161718192	1617 1819 2021 22 23 24 25 26 39 37 39 38 40 41 42 49 44 45 46 27 28 29 30 31 32 39 34 35 47 48 49 50 51 52 59 54 55										
		lerminal No.	Color of Wire	Signal Name [Specification]							
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AUTOMATIC DRIVE POSITIONER Connector No. M210
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Color   Signal Name [Specification]	V PARKING BRAKE SIGNAL	G COMPOSITE IMAGE SIGNAL GND	R COMPOSITE IMAGE SIGNAL	SHIELD MICROPHONE SHIELD	R MICROPHONE VCC	R COMM (CONT->DISP)	P CAN-L	B AV COMM (L)	Y AV COMM (L)	R ILLUMINATION	G IGNITION SIGNAL	O REVERSE SIGNAL	R VEHICLE SPEED SIGNAL (8-PULSE)	SHIELD	G MICROPHONE SIGNAL	SHIELD	G COMM (DISP->CONT)	L CAN-H	G AV COMM (H)
Terminal Colc No. of Wi	۸ 9	D 49	R 89	71 SHIE	72 R	73 R	74 P	75 B	76 Y	79 R	D 08	81	82 R	S3 SHIE	87 G	BB SHIE	D 68	7 06	91 G

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### < ECU DIAGNOSIS INFORMATION >

# **BCM (BODY CONTROL MODULE)**

Reference Value

#### VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

Monitor Item	Condition	Value/Status
FR WIPER HI	Other than front wiper switch HI	Off
TR WII LICTII	Front wiper switch HI	On
FR WIPER LOW	Other than front wiper switch LO	Off
I K WII LIK LOW	Front wiper switch LO	On
FR WASHER SW	Front washer switch OFF	Off
TR WASHER SW	Front washer switch ON	On
FR WIPER INT	Other than front wiper switch INT	Off
I IX WIF LIX IIVI	Front wiper switch INT	On
FR WIPER STOP	Front wiper is not in STOP position	Off
FR WIPER STOP	Front wiper is in STOP position	On
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	Wiper intermittent dial position
DD WIDED ON	Other than rear wiper switch ON	Off
RR WIPER ON	Rear wiper switch ON	On
RR WIPER INT	Other than rear wiper switch INT	Off
RR WIPER INT	Rear wiper switch INT	On
DD MACHED CM	Rear washer switch OFF	Off
RR WASHER SW	Rear washer switch ON	On
DD WIDED OTOD	Rear wiper is in STOP position	Off
RR WIPER STOP	Rear wiper is not in STOP position	On
TUDNI OLONIAL D	Other than turn signal switch RH	Off
TURN SIGNAL R	Turn signal switch RH	On
	Other than turn signal switch LH	Off
TURN SIGNAL L	Turn signal switch LH	On
	Other than lighting switch 1ST and 2ND	Off
TAIL LAMP SW	Lighting switch 1ST or 2ND	On
	Other than lighting switch HI	Off
HI BEAM SW	Lighting switch HI	On
	Other than lighting switch 2ND	Off
HEAD LAMP SW 1	Lighting switch 2ND	On
	Other than lighting switch 2ND	Off
HEAD 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
	Front fog lamp switch OFF	Off
FR FOG SW	Front fog lamp switch ON	On
RR FOG SW	NOTE: The item is indicated, but not monitored.	Off

## < ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status	
DOOD SW DD	Driver door closed	Off	
DOOR SW-DR	Driver door opened	On	<del></del>
DOOD CW AC	Passenger door closed	Off	_
DOOR SW-AS	Passenger door opened	On	
2002 014 22	Rear RH door closed	Off	<del></del>
DOOR SW-RR	Rear RH door opened	On	(
	Rear LH door closed	Off	<del></del>
DOOR SW-RL	Rear LH door opened	On	
	Back door closed	Off	
DOOR SW-BK	Back door opened	On	
	Other than power door lock switch LOCK	Off	
CDL 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	<u> </u>
	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	_
KEY CYL UN-SW	Driver door key cylinder UNLOCK position	On	
ZEV OVI OW TD	NOTE:		<del></del>
KEY CYL SW-TR	The item is indicated, but not monitored.	Off	
HAZARD SW	Hazard switch is OFF	Off	
IAZAND SW	Hazard switch is ON	On	
REAR DEF SW	NOTE: The item is indicated, but not monitored.	Off	A
TR CANCEL SW	NOTE: The item is indicated, but not monitored.	Off	
ED/DD ODEN OW	Back door opener switch OFF	Off	
TR/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	
	LOCK button of the key is not pressed	Off	
RKE-LOCK	LOCK button of the key is pressed	On	
	UNLOCK button of the key is not pressed	Off	_
RKE-UNLOCK	UNLOCK button of the key is pressed	On	<u> </u>
RKE-TR/BD	NOTE: The item is indicated, but not monitored.	Off	
	PANIC button of the key is not pressed	Off	
RKE-PANIC	PANIC button of the key is pressed	On	
	UNLOCK button of the key is not pressed	Off	
RKE-P/W OPEN	UNLOCK button of the key is pressed and held	On	
	LOCK/UNLOCK button of the key is not pressed and held simultaneously	Off	
RKE-MODE CHG	LOCK/UNLOCK button of the key is pressed and held simultaneously	On	
	Bright outside of the vehicle	Close to 5 V	
OPTICAL SENSOR	Dark outside of the vehicle	Close to 0 V	<del></del>

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Monitor Item	Condition	Value/Status
REQ SW -DR	Driver door request switch is not pressed	Off
INEQ OW -DIN	Driver door request switch is pressed	On
REQ SW -AS	Passenger door request switch is not pressed	Off
NEQ OW -AO	Passenger door request switch is pressed	On
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off
REQ SW -RL	NOTE: The item is indicated, but not monitored.	Off
REQ SW -BD/TR	Back door request switch is not pressed	Off
REQ 3W -BD/TR	Back door request switch is pressed	On
DUCHOW	Push-button ignition switch (push switch) is not pressed	Off
PUSH SW	Push-button ignition switch (push switch) is pressed	On
ION DI VO. E/D	Ignition switch in OFF or ACC position	Off
GN RLY2 -F/B	Ignition switch in ON position	On
ACC RLY -F/B	NOTE: The item is indicated, but not monitored.	Off
CLUCH SW	NOTE: The item is indicated, but not monitored.	Off
	The brake pedal is depressed when No. 7 fuse is blown	Off
BRAKE SW 1	The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal	On
	The brake pedal is not depressed	Off
BRAKE SW 2	The brake pedal is depressed	On
DETE (0.4.1.0)	Selector lever in P position	Off
DETE/CANCL SW	Selector lever in any position other than P	On
OFT DAYALOW	Selector lever in any position other than P and N	Off
SFT PN/N SW	Selector lever in P or N position	On
0/1 1 0 0 1 /	Steering is unlocked	Off
S/L -LOCK	Steering is locked	On
- "	Steering is locked	Off
S/L -UNLOCK	Steering is unlocked	On
0// 05/ 0// 5/	Ignition switch in OFF or ACC position	Off
S/L RELAY-F/B	Ignition switch in ON position	On
INU K OEN DE	Driver door is unlocked	Off
UNLK SEN -DR	Driver door is locked	On
	Push-button ignition switch (push-switch) is not pressed	Off
PUSH SW -IPDM	Push-button ignition switch (push-switch) is pressed	On
	Ignition switch in OFF or ACC position	Off
GN RLY1 -F/B	Ignition switch in ON position	On
	Selector lever in any position other than P	Off
DETE SW -IPDM	Selector lever in P position	On
	Selector lever in any position other than P and N	Off
SFT PN -IPDM	Selector lever in P or N position	On
	Selector lever in any position other than P	Off
SFT P -MET	Selector lever in P position	On

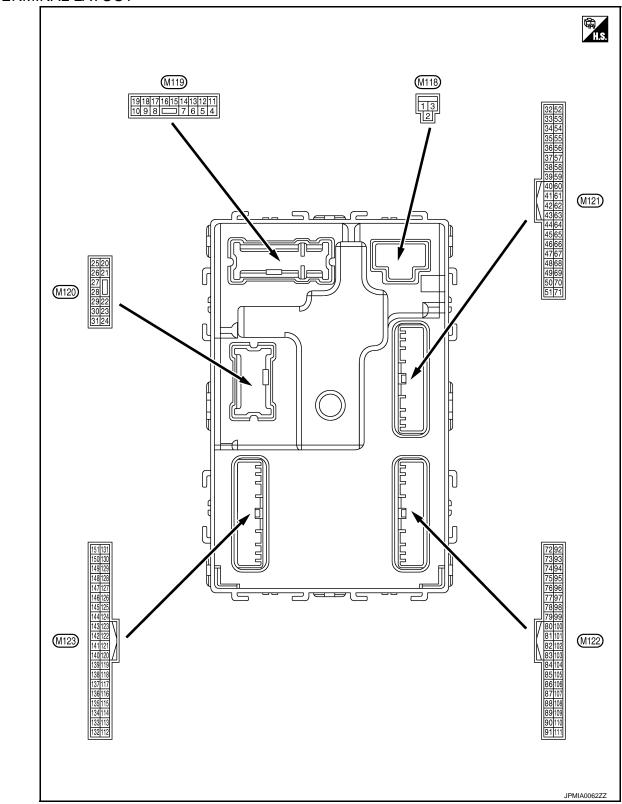
### < ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status	
SFT N -MET	Selector lever in any position other than N	Off	/
SFI IN -IVIET	Selector lever in N position	On	
	Engine stopped	Stop	
ENGINE STATE	While the engine stalls	Stall	
ENGINE STATE	At engine cranking	Crank	
	Engine running	Run	
C/L LOCK IDDM	Steering is unlocked	Off	
S/L LOCK-IPDM	Steering is locked	On	
0/1. LINII IZ IDDM	Steering is locked	Off	
S/L UNLK-IPDM	Steering is unlocked	On	
S/L RELAY-REQ	Steering lock system is not the LOCK condition and the changing condition from LOCK to UNLOCK.	Off	
5/L RELAY-REQ	Steering lock system is the LOCK condition or the changing condition from LOCK to UNLOCK.	On	
VEH SPEED 1	While driving	Equivalent to speedometer reading	
VEH SPEED 2	While driving	Equivalent to speedometer 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	
D OK EL A O	Steering is locked	Reset	
D OK FLAG	Steering is unlocked	Set	Α
2014T ENO 27DT	The engine start is prohibited	Reset	
PRMT ENG STRT	The engine start is permitted	Set	
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset	
(E) ( O) ( O) ( O)	The key is not inserted into key slot	Off	
KEY SW -SLOT	The key is inserted into key slot	On	
RKE OPE COUN1	During the operation of the key	Operation frequency of the key	
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	_	
CONFRM ID ALL	The key ID that the key slot receives does not accord with any key ID registered to BCM.	Yet	
OONERIVI ID ALL	The key ID that the key slot receives accords with any key ID registered to BCM.	Done	
CONFIRM ID4	The key ID that the key slot receives does not accord with the fourth key ID registered to BCM.	Yet	
OOM IINW ID4	The key ID that the key slot receives accords with the fourth key ID registered to BCM.	Done	
CONFIRM ID3	The key ID that the key slot receives does not accord with the third key ID registered to BCM.	Yet	
CONFINIVIIDS	The key ID that the key slot receives accords with 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 does not accord with the second key ID registered to BCM.	Yet
CONFIRMIDZ	The key ID that the key slot receives accords with the second key ID registered to BCM.	Done
CONFIRM ID1	The key ID that the key slot receives does not accord with the first key ID registered to BCM.	Yet
CONFIRMIDI	The key ID that the key slot receives accords with the first key ID registered to BCM.	Done
TP 4	The ID of fourth key is not registered to BCM	Yet
1 P 4	The ID of fourth key is registered to BCM	Done
TD 2	The ID of third key is not registered to BCM	Yet
TP 3	The ID of third key is registered to BCM	Done
TD 0	The ID of second key is not registered to BCM	Yet
TP 2	The ID of second key is registered to BCM	Done
TP 1	The ID of first key is not registered to BCM	Yet
IP I	The ID of first key is registered to BCM	Done
AIR PRESS FL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front LH tire
AIR PRESS FR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front RH tire
AIR PRESS RR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear RH tire
AIR PRESS RL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear LH tire
ID REGST FL1	ID of front LH tire transmitter is registered	Done
ID REGGI FLI	ID of front LH tire transmitter is not registered	Yet
ID REGST FR1	ID of front RH tire transmitter is registered	Done
D REGGI PRI	ID of front RH tire transmitter is not registered	Yet
D REGST RR1	ID of rear RH tire transmitter is registered	Done
ID NEGOT NAT	ID of rear RH tire transmitter is not registered	Yet
D DECST DL1	ID of rear LH tire transmitter is registered	Done
D REGST RL1	ID of rear LH tire transmitter is not registered	Yet
A/A DNIINIC I AMD	Tire pressure indicator OFF	Off
WARNING LAMP	Tire pressure indicator ON	On
DUZZED	Tire pressure warning alarm is not sounding	Off
BUZZER	Tire pressure warning alarm is sounding	On

### TERMINAL LAYOUT



PHYSICAL VALUES

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	inal No.	Description				Value
+ (Wire	e color) –	Signal name	Input/ Output		Condition	(Approx.)
1 (W)	Ground	Battery power supply	Input	Ignition switch OF	F	Battery voltage
2 (W)	Ground	P/W power supply (BAT)	Output	Ignition switch OF	F	Battery voltage
3 (Y)	Ground	P/W power supply (RAP)	Output	Ignition switch ON		Battery voltage
-					battery saver is activated.	0 V
4 (LG)	Ground	Interior room lamp power supply	Output	ed.	battery saver is not activator room lamp power supply)	Battery voltage
5	Ground	Passenger door UN-	Output	Passenger door	UNLOCK (Actuator is activated)	Battery voltage
(L)	Ground	LOCK	Output	Passenger door	Other than UNLOCK (Actuator is not activated)	0 V
7	Ground	Step lamp	Output	Stop Jamp	ON	0 V
(Y)	Ground	эсер таптр	Output	Step lamp	OFF	Battery voltage
8	Ground	All doors, fuel lid	Output	All doors	LOCK (Actuator is activated)	Battery voltage
(V)	Oround	LOCK	Output	All doors	Other than LOCK (Actuator is not activated)	0 V
9	Ground	Driver door, fuel lid	Output	Driver door	UNLOCK (Actuator is activated)	Battery voltage
(G)	Oround	UNLOCK	Output	Dilver door	Other than UNLOCK (Actuator is not activated)	0 V
10	Ground	Rear RH door and rear LH door UN-	Output	Rear RH door	UNLOCK (Actuator is activated)	Battery voltage
(BR)	Oround	LOCK	Output	and rear LH door	Other than UNLOCK (Actuator is not activated)	0 V
11 (R)	Ground	Battery power supply	Input	Ignition switch OF	F	Battery voltage
13 (B)	Ground	Ground	_	Ignition switch ON		0 V
					OFF	0 V
14 (W)	Ground	Push-button ignition switch illumination	Output	Tail lamp		NOTE: When the illumination brightening/dimming level is in the neutral position
(vv)		ground			ON	10 0 2 ms JSNIA0010GB
15	Ground	ACC indicator laws	Outros	Ignition outtob	OFF or ON	Battery voltage
(Y)	Ground	ACC indicator lamp	Output	Ignition switch	ACC	0 V

	inal No.	Description				Value	Λ
(Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)	Α
					Turn signal switch OFF	0 V	Е
17 (W)	Ground	Turn signal RH (Front)	Output	Ignition switch ON	Turn signal switch RH	15 10 5 0 1 s PKID0926E	
					Turn signal switch OFF	6.5 V 0 V	Е
18 (O)	Ground	Turn signal LH (Front)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 s PKID0926E 6.5 V	F
19	Ground	Room lamp timer	Output	Interior room	OFF	Battery voltage	-
(V)	2.300	control		lamp	ON Turn signal switch OFF	0 V 0 V	
20 (V)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 PKID0926E 6.5 V	AL K
23			•		OPEN (Back door opener actuator is activated)	Battery voltage	L
(G)	Ground	Back door open	Output	Back door	Other than OPEN (Back door opener actuator is not activated)	0 V	N
					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 s PKID0926E 6.5 V	C
26		<b>D</b>	0 :	D	OFF (Stopped)	0 V	
(G)	Ground	Rear wiper	Output	Rear wiper	ON (Operated)	Battery voltage	

	inal No. e color)	Description			Condition	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
34	Ground	Luggage room anten-	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB
(SB)	Glodina	na (–)	Cuipui	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB
35	Ground	Luggage room antenna (+)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB
(V)					When Intelligent Key is not in the passenger compartment	(V) 15 10 5 11 1 s  JMKIA0063GB
38		Back door antenna (–		When the back door opener re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB
(B)	Ground	)	Output	quest switch is operated with ig- nition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB

Terminal No.		Description				Value	
(Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)	
30		Rack door antonna		When the back	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB	
39 (W) Grou	Ground	Back door antenna (+)	Output	door opener request switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 11 1 s  JMKIA0063GB	
47	Ground	Ignition relay (IPDM	Output	Ignition switch	OFF or ACC	Battery voltage	
(Y)	Giodila	E/R) control	Output	ignition switch	ON	0 V	
52	Ground	Starter relay control	Output	Ignition switch ON	When selector lever is in P or N position	Battery voltage	
(SB)	Ground				When selector lever is not in P or N position	0 V	
61 (W)	Ground	Back door opener request switch	Input	Back door opener request switch	ON (Pressed)  OFF (Not pressed)	0 V  (V) 15 10 5 0 JPMIA0016GB 1.0 V	
64		Intelligent Key warn-	_	Intelligent Key	Sounding	0 V	
(V)	Ground	ing buzzer (Engine room)	Output	warning buzzer (Engine room)	Not sounding	Battery voltage	
65 (O)	Ground	Rear wiper stop position	Input	Rear wiper	In stop position	(V) 15 10 5 0 10 ms JPMIA0016GB 1.0 V	
					Not in aton position	0 V	
	1				Not in stop position	UV	

	inal No.	Description				Value
+	e color)	Signal name	Input/ Output		Condition	(Approx.)
66 (R)	Ground	Back door switch	Input	Back door switch	OFF (Door close)	(V) 15 10 5 0 10 ms JPMIA0011GB
					ON (Door open)	0 V
					Pressed	0 V
67 (GR)	Ground	Back door opener switch	Input	Back door opener switch	Not pressed	(V) 15 10 5 0 10 ms 10 ms JPMIA0011GB
68 (BR)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (Door close)	(V) 15 10 5 0 10 ms 10 ms JPMIA0011GB
					ON (Door open)	0 V
69 (R)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (Door close)	(V) 15 10 5 0 10 ms 10 ms JPMIA0011GB
					ON (Door open)	0 V

	ninal No. e color)	Description			One distan	Value	А
+	-	Signal name	Input/ Output		Condition	(Approx.)	
72		Room antenna 2 (–)		Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB	B C
(R)	Ground	(Center console)	Output	ŎFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB	E F
73	Ground	Room antenna 2 (+)	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB	G H
(G)	Ground	(Center console)	Cuipui	ŌFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB	ADF K
74		Passenger door an-		When the passenger door re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	M
(SB)	Ground	tenna (–)	Output	quest switch is operated with ig- nition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB	O

	ninal No. e color)	Description	Г		O a madition	Value	
+	-	Signal name	Input/ Output		Condition	(Approx.)	
75		Passenger door antenna (+)	Output	When the passenger door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	
(GR)	Ground				When Intelligent Key is not in the antenna detection area	(V) 15 10 1	
76	Ground	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 5 0 1 s JMKIA0062GB	
(V)	Glound				When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB	
77	Cround	Driver door antenna	Output	When the driver door request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	
(LG)	Ground	Outp	Output	switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB	

### < ECU DIAGNOSIS INFORMATION >

color) -	Signal name	Input/ Output		Condition	Value (Approx.)
					(V)
	Room antenna 1 (–)		Ignition switch	When Intelligent Key is in the passenger compartment	15 10 5 0 1 s JMKIA0062GB
Ground	(Instrument panel)	Output	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB
	Room antenna 1 (+)		Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB
Ground	(Instrument panel)	Output	ŎFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB
Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
Ground	Ignition relay [Fuse block (J/B)] control	Output	Ignition switch	OFF or ACC	0 V Battery voltage
G	Ground	Room antenna 1 (+) (Instrument panel)  Ground NATS antenna amp.  Ground NATS antenna amp.	Ground Room antenna 1 (+) (Instrument panel) Output  Ground NATS antenna amp. Input/ Output  Ground NATS antenna amp. Input/ Output  Ground Ignition relay [Fuse Output	Room antenna 1 (+) Output Ignition switch OFF  Ground NATS antenna amp. Input/Output During waiting  Ground NATS antenna amp. Input/Output During waiting  Ground Ignition relay [Fuse Output Ignition switch]	Room antenna 1 (+) (Instrument panel)  Bround  NATS antenna amp.  Input/Output  During waiting  NATS antenna amp.  Input/Output  During waiting  NATS antenna amp.  Input/Output  During waiting  Ignition switch is pressed while inserting the key into the key slot.  Ignition switch is pressed while inserting the key into the key slot.  Ignition relay [Fuse  Output Ignition switch is Offer or ACC

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	inal No. e color)	Description			Condition	Value	
+	-	Signal name	Input/ Output		Condition	(Approx.)	
83		Remote keyless entry receiver communication	Input/ Output	During waiting		(V) 15 10 5 0 1 ms	
(Y)	Ground			When operating ei	ther button on the key	(V) 15 10 5 1 ms  JMKIA0065GB	
					All switches OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB	
87	Ground	Combination switch INPUT 5	Input	Combination	Front fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3 V	
(BR)				switch	Rear wiper switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V	
					Any of the conditions below with all switches OFF  • Wiper intermittent dial 1  • Wiper intermittent dial 2  • Wiper intermittent dial 6  • Wiper intermittent dial 7	(V) 15 10 5 0 2 ms JPMIA0040GB	

	inal No.	Description				Value	А
(Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)	А
					All switches OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V	B C
					Lighting switch HI (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3 V	E
88 (V)	Ground	Combination switch INPUT 3	Input	Combination switch	Lighting switch 2ND (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3 V	G H
					Rear washer switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V	ADI K
					Any of the conditions below with all switches OFF  • Wiper intermittent dial 1  • Wiper intermittent dial 2  • Wiper intermittent dial 3	(V) 15 10 5 0 2 ms JPMIA0040GB	M
89		Push-button ignition		Push-button igni-	Pressed	1.3 V 0 V	0
(BR)	Ground	switch (Push switch)	Input	tion switch (push switch)	Not pressed	Battery voltage	
90 (P)	Ground	CAN-L	Input/ Output	_			Р
91 (L)	Ground	CAN-H	Input/ Output	_		_	

	inal No. e color)	Description	ı		O Bit	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
					OFF	Battery voltage
92 (LG)	Ground	Key slot illumination	Output	Key slot illumina- tion	Blinking	(V) 15 10 5 0 1 s JPMIA0015GB
						6.5 V
					ON OFF or ACC	0 V
93 (V)	Ground	ON indicator lamp	Output	Ignition switch	ON ON	Battery voltage  0 V
94					OFF	Battery voltage
94 (Y)	Ground	Puddle lamp control	Output	Puddle lamp	ON	0 V
95					OFF	0 V
(O)	Ground	ACC relay control	Output	Ignition switch	ACC or ON	Battery voltage
96 (GR)	Ground	A/T shift selector (Detention switch) power supply	Output	_	I	Battery voltage
97	0	Steering lock condition No. 1	Input	Steering lock	LOCK status	0 V
(L)	Ground				UNLOCK status	Battery voltage
98	Ground	Steering lock condi-	Input	Steering lock	LOCK status	Battery voltage
(P)	P) Ground	tion No. 2	IIIput	Steering lock	UNLOCK status	0 V
99	Ground	Selector lever P posi-	Input	Selector lever	P position	0 V
(R)	0.000	tion switch			Any position other than P	Battery voltage
					ON (Pressed)	0 V
100 (G)	Ground	Passenger door request 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 request switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB 1.0 V
400		Dlower for marter			OFF or ACC	0 V
102 (O)	Ground	Blower fan motor re- lay control	Output	Ignition switch	ON ON	Battery voltage
		, 00111101				zanc., vonago

Terminal No. (Wire color)		Description				Value
(Wire co	olor)	Signal name	Input/ Output		Condition	(Approx.)
103 (LG) G	round	Remote keyless entry receiver power supply	Output	Ignition switch OF	F	Battery voltage
106 (W) G	round	Steering lock unit power supply	Output	Ignition switch	OFF or ACC	Battery voltage
					ON  All switches OFF	0 V  15 10 5 0  JPMIA0041GB  1.4 V
					Turn signal switch LH	(V) 15 10 2 ms JPMIA0037GB 1.3 V
107 (LG)	round	Combination switch INPUT 1	Input	Combination switch (Wiper intermit- tent dial 4)	Turn signal switch RH	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3 V
					Front wiper switch LO	(V) 15 10 5 0 2 ms JPMIA0038GB
					Front washer switch ON	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V

	inal No. e color)	Description	1	Condition		Value
+	e color)	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF (Wiper intermittent dial 4)	(V) 15 10 5 2 ms JPMIA0041GB 1.4 V
					Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 10 2 ms JPMIA0038GB 1.3 V
108 (R)	Ground	Combination switch INPUT 4	Input	Combination switch	Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB
					Rear wiper switch INT (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0040GB
					Any of the conditions below with all switches OFF  • Wiper intermittent dial 1  • Wiper intermittent dial 5  • Wiper intermittent dial 6	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V

	inal No.	Description				Value		
+	e color)	Signal name	Input/ Output		Condition	(Approx.)		
					All switches OFF	(V) 15 10 5 0 2 ms JPMIA0041GB		
					Lighting switch PASS	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3 V		
109 (Y)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermit- tent dial 4)	Lighting switch 2ND	(V) 15 10 5 0 2 ms JPMIA0036GB		
					Front wiper switch INT	(V) 15 10 5 0 2 ms JPMIA0038GB 1.3 V		
					Front wiper switch HI	(V) 15 10 5 0 2 ms JPMIA0040GB 1.3 V		
					ON	0 V		
110 (G)	Ground	Hazard switch	Input	Hazard switch	OFF	(V) 15 10 5 0 10 ms JPMIA0012GB		

	inal No.	Description				Value			
+	e color)	Signal name	Input/ Output		Condition	(Approx.)			
					LOCK status	Battery voltage			
111 (Y)	Ground	Steering lock unit communication	Input/ Output	Steering lock	LOCK or UNLOCK	(V) 15 10 50 MS  JMKIA0066GB			
					For 15 seconds after UN- LOCK	Battery voltage			
					15 seconds or later after UNLOCK	0 V			
113	Ground	Optical sensor	Input	Ignition switch	When bright outside of the vehicle	Close to 5 V			
(P)	Cround	Option scrioor	mput	ON	When dark outside of the vehicle	Close to 0 V			
116 (SB)	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	Gtop famp ownor	ON (Brake pedal is depressed)	Battery voltage			
(P)	0.00.10	Stop lamp switch 2			OFF (Brake pedal is not de- brake hold relay OFF	0 V			
		(With ICC)			ON (Brake pedal is de- rake hold relay ON	Battery voltage			
119 (SB)	Ground	Front door lock assembly driver side (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	(V) 15 10 5 0 10 ms JPMIA0012GB 1.1 V			
					UNLOCK status (Unlock switch sensor ON)	0 V			
121	Ground	Key slot switch	Input	When the key is in	serted into key slot	Battery voltage			
(BR)	2.344			When the key is not inserted into key slot 0 \					
123	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V			
(۷۷)	(W) Glodild IGN leedba				ON	Battery voltage			

# < ECU DIAGNOSIS INFORMATION >

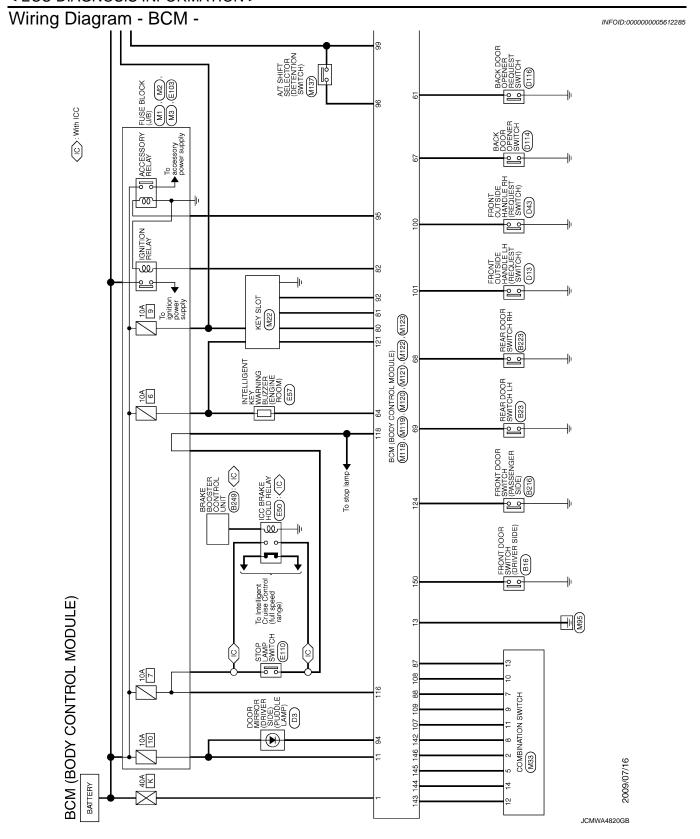
	inal No.	Description				Value	
+ (Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)	F
124 (LG)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	(V) 15 10 5 0 10 ms  JPMIA0011GB	G
					ON (Door open)	11.8 V 0 V	
					1	(V) 15	E
132 (BR)	Ground	Power window switch communication	Input/ Output			10 5 0	F
						ЈРМІА0013GB 10.2 V	(
				Ignition switch OF	F or ACC	Battery voltage	
-					ON (Tail lamps OFF)	9.5 V	ŀ
133 (W)	Ground	Push-button ignition switch illumination	Output	Push-button ignition switch illumination	ON (Tail lamps ON)	NOTE: The pulse width of this wave is varied by the illumination brightening/dimming level.  (V) 15 10 5 0  JPMIA0159GB	Al
					OFF	0 V	
134	Ground	LOCK indicator lamp	Output	LOCK indicator	OFF	Battery voltage	Ĺ
(GR)	Sibulia		Catput	lamp	ON	0 V	
137 (O)	Ground	Receiver and sensor ground	Input	Ignition switch ON		0 V	Ν
138	Ground	Receiver and sensor	Output	Ignition switch	OFF	0 V	
(Y)	Ciodila	power supply	Capat	.9	ACC or ON	5.0 V	

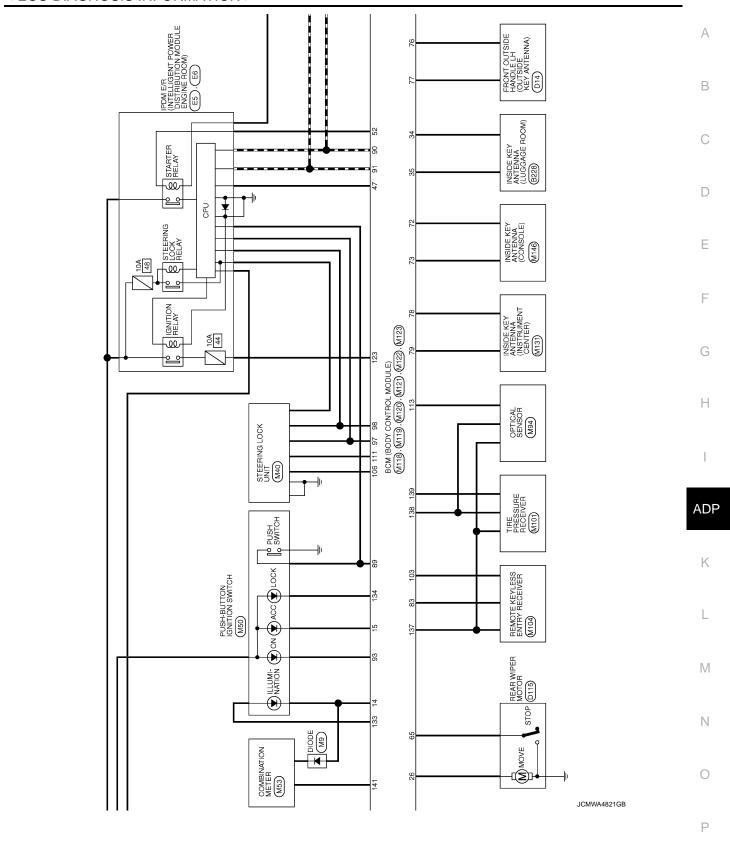
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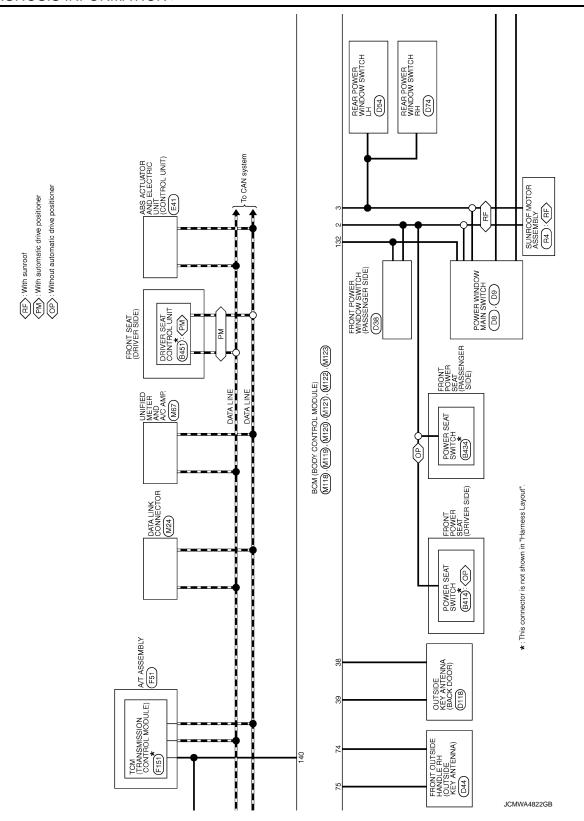
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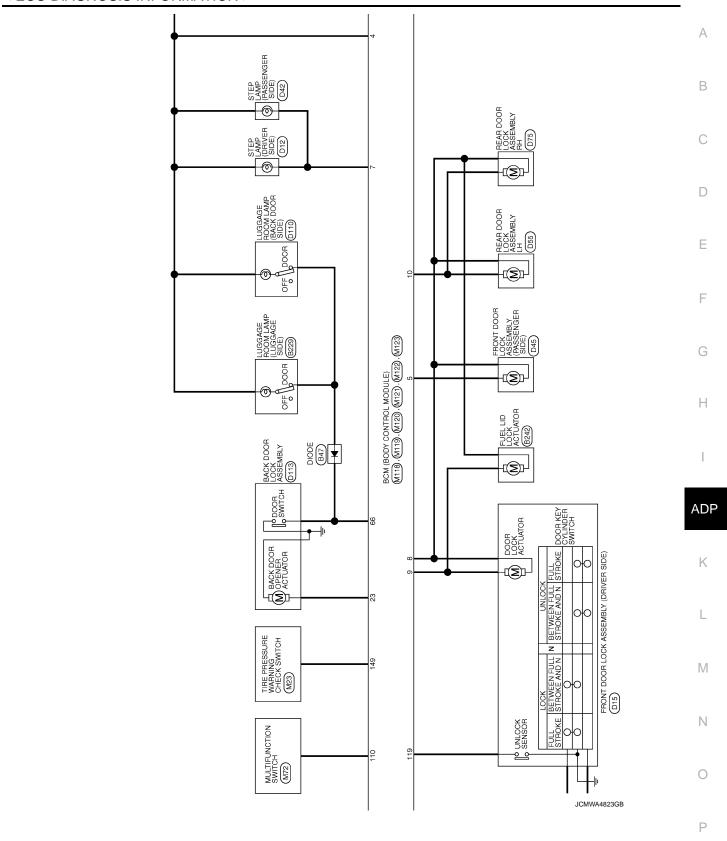
	inal No.	Description				Value
+	e color)	Signal name	Input/ Output		Condition	(Approx.)
139	Ground	Tire pressure receiv-	Input/	Ignition switch	Standby state	(V) 6 4 2 0 
(L)		er communication	Output	ON	When receiving the signal from the transmitter	(V) 6 4 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
140	Craund	Selector lever P/N	lanut	Coloator layer	P or N position	Battery voltage
(GR)	Ground	position	Input	Selector lever	Except P and N positions	0 V
141 (G)	Ground	Security indicator	Output	Security indicator	ON Blinking	0 V  (V) 15 10 5 0 JPMIA0014GB
142 (O)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper intermittent dial 4)	OFF All switches OFF Lighting switch 1ST Lighting switch HI Lighting switch 2ND Turn signal switch RH	Battery voltage  0 V
					All switches OFF	10.7 V 0 V
143 (P)	Ground	Combination switch OUTPUT 1	Output	Combination switch	(Wiper intermittent dial 4)  Front wiper switch HI (Wiper intermittent dial 4)  Rear wiper switch INT (Wiper intermittent dial 4)  Any of the conditions below with all switches OFF  Wiper intermittent dial 1  Wiper intermittent dial 2  Wiper intermittent dial 3  Wiper intermittent dial 6  Wiper intermittent dial 7	(V) 15 10 5 0 2 ms JPMIA0032GB

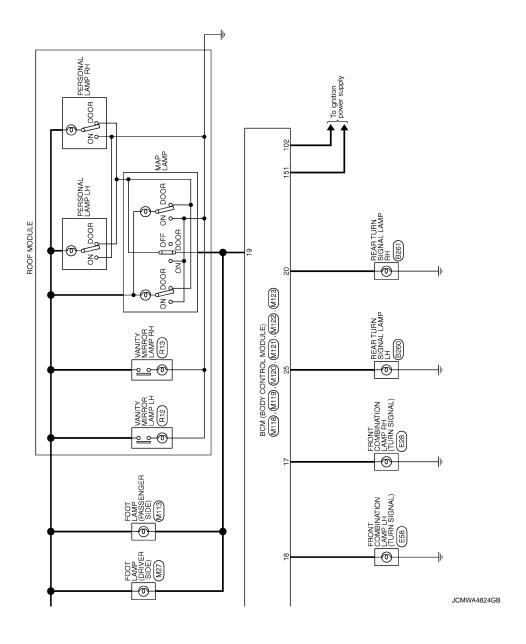
	inal No.	Description				Value		
(Wir	e color)	Signal name	Input/ Output		Condition	value (Approx.)		
					All switches OFF (Wiper intermittent dial 4)	0 V		
					Front washer switch ON (Wiper intermittent dial 4)			
144	44 Combinati	Combination switch		Combination	Rear wiper switch ON (Wiper intermittent dial 4)	(V)		
(G)	Ground	OUTPUT 2	Output	switch	Rear washer switch ON (Wiper intermittent dial 4)	10 5 0		
					Any of the conditions below with all switches OFF  Wiper intermittent dial 1  Wiper intermittent dial 5  Wiper intermittent dial 6	2 ms JPMIA0033GB		
					All switches OFF	0 V		
					Front wiper switch INT			
				Combination	Front wiper switch LO	(V) 15		
145 (L)	Ground	Combination switch OUTPUT 3	Output	switch (Wiper intermit- tent dial 4)	Lighting switch AUTO	10 5 0 2 ms JPMIA0034GB		
					All switches OFF	10.7 V 0 V		
					Front fog lamp switch ON			
				Combination switch	Lighting switch 2ND	(V)		
146	Ground	Combination switch	Output		Lighting switch PASS	15		
(SB)	Giodila	OUTPUT 4	Output	(Wiper intermit- tent dial 4)	Turn signal switch LH	JPMIA0035GB		
						10.7 V		
149		Tire pressure warn-				(V) 15 10 5		
(W)	Ground	ing check switch	Input	Ignition switch ON		0 10 ms JPMIA0011GB		
						11.8 V		
150				Driver door	OFF (Door close)	(V) 15 10 5 0		
(LG)	Ground	Driver door switch	Input	switch	(= 23. 3.335)	10 ms JPMIA0011GB		
					ON (Door open)	0 V		
151	Graves	Rear window defog-	Outerit	Rear window de-	Active	0 V		
(G)	Ground	ger relay control	Output	fogger	Not activated	Battery voltage		







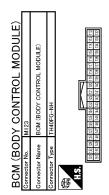




# < ECU DIAGNOSIS INFORMATION >

NATS ANT AMP  ION RELY (F.B) CONT  KEVLESS ENTRY RECRIVER COMM  COMBI SWINDUT 3  COMBI SWINDUT 3  CAN-L  COMBI SWINDUT 3  ACD RELAY CONT  COMBI SWINDUT 1  COMBI SWINDUT 1  COMBI SWINDUT 2  H-AZARD SW  S/L UNIT COMM  S/L UNIT CO	В
<del>}}}}</del>	С
S   S   S   S   S   S   S   S   S   S	D
TH40FGY-NH	E
Color   Colo	G
	Н
Signal Name   Specificat	ADP
Connector No.   MII9	K
ODULE)  (cation)  U(E)  Supply(RAP)  Supply(RAP)	L
Colorector Name   Color   Color   Colorector Name   Colorector N	М
	N
	WA4825GB
Jewn	Р

**ADP-193** Revision: 2009 August 2010 EX35



Signal Name [Specification]	OPLICAL SENSOR	STOP LAMP SW 1	STOP LAMP SW 2	DR DOOR UNLOCK SENSOR	KEY SLOT SW	IGN F/B	PASSENGER DOOR SW	POWER WINDOW SW COMM	PUSH-BUTTON IGNITION SW ILL POWER	LOCK IND	RECEIVER/SENSOR GND	RECEIVER/SENSOR POWER SUPPLY	TIRE PRESSURE RECEIVER COMM	SHIFT N/P	SECURITY INDICATOR OUTPUT	COMBI SW OUTPUT 5	COMBI SW OUTPUT 1	COMBI SW OUTPUT 2	COMBI SW OUTPUT 3	COMBI SW OUTPUT 4	TIRE PRESS WARNING CHECK SW	DRIVER DOOR SW	REAR WINDOW DEFOGGER RELAY CONT
Color of Wire	Д	SB	Ь	SB	BR	W	PΠ	BR	Μ	GR	0	Υ	٦	GR	9	0	Ь	ŋ	٦	SB	W	PC	ß
Terminal No.	113	116	118	119	121	123	124	132	133	134	137	138	139	140	141	142	143	144	145	146	149	150	151

JCMWA4826GB

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			
B2013: ID DISCORD BCM-S/L	Inhibit engine cranking	Erase DTC			
B2014: CHAIN OF S/L-BCM	Inhibit engine cranking	Erase DTC			
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 → OFF			
B2557: VEHICLE SPEED	Inhibit steering lock	When normal vehicle speed signals are received from ABS actuator and electric unit (control unit) for 500 ms			
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent  Starter control relay signal  Starter relay status signal			
B2601: SHIFT POSITION	Inhibit steering lock	500 ms after the following signal reception status becomes consistent  • Selector lever P position switch signal  • P range signal (CAN)			
B2602: SHIFT POSITION	Inhibit steering lock	<ul> <li>5 seconds after the following BCM recognition conditions are fulfilled</li> <li>Ignition switch is in the ON position</li> <li>Selector lever P position switch signal: Except P position (battery voltage)</li> <li>Vehicle speed: 4 km/h (2.5 MPH) or more</li> </ul>			
B2603: SHIFT POSI STATUS	Inhibit steering lock	<ul> <li>500 ms after the following BCM recognition conditions are fulfilled</li> <li>Ignition switch is in the ON position</li> <li>Selector lever P position switch signal: Except P position (battery voltage)</li> <li>Selector lever P/N position signal: Except P and N positions (0 V)</li> </ul>			
B2604: PNP SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions are fulfilled  • Status 1  - Ignition switch is in the ON position  - Selector lever P/N position signal: P and N position (battery voltage)  - P range signal or N range signal (CAN): ON  • Status 2  - Ignition switch is in the ON position  - Selector lever P/N position signal: Except P and N positions (0 V)  - P range signal and N range signal (CAN): OFF			
B2605: PNP SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions are fulfilled  Ignition switch is in the ON position Power position: IGN Selector lever P/N position signal: Except P and N positions (0 V) Interlock/PNP switch signal (CAN): OFF Status 2 Ignition switch is in the ON position			
B2606: S/L RELAY	Inhibit engine cranking	<ul> <li>Selector lever P/N position signal: P or N position (battery voltage)</li> <li>PNP switch signal (CAN): ON</li> <li>500 ms after the following CAN signal communication status becomes consistent</li> <li>Steering lock relay signal (Request signal)</li> <li>Steering lock relay signal (Condition signal)</li> </ul>			

Revision: 2009 August ADP-195 2010 EX35

#### < ECU DIAGNOSIS INFORMATION >

Display contents of CONSULT	Fail-safe	Cancellation				
B2607: S/L RELAY	Inhibit engine cranking	<ul> <li>500 ms after the following CAN signal communication status becomes consistent</li> <li>Steering lock relay signal (Request signal)</li> <li>Steering lock relay signal (Condition signal)</li> </ul>				
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent  Starter motor relay control signal  Starter relay status signal (CAN)				
B2609: S/L STATUS	Inhibit engine cranking     Inhibit steering lock	When the following steering lock conditions agree  BCM steering lock control status  Steering lock condition No. 1 signal status  Steering lock condition No. 2 signal status				
B260A: IGNITION RELAY	Inhibit engine cranking	<ul> <li>500 ms after the following conditions are fulfilled</li> <li>IGN relay (IPDM E/R) control signal: OFF (Battery voltage)</li> <li>Ignition ON signal (CAN to IPDM E/R): OFF (Request signal)</li> <li>Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)</li> </ul>				
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions are fulfilled  • Power position changes to ACC  • Receives engine status signal (CAN)				
B2612: S/L STATUS	Inhibit engine cranking     Inhibit steering lock	When any of the following conditions are fulfilled  Steering lock unit status signal (CAN) is received normally  The BCM steering lock control status matches the steering lock status recognized by the steering lock unit status signal (CAN from IPDM E/R)				
B2617: STARTER RELAY CIRC	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal				
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal				
B2619: BCM	Inhibit engine cranking	1 second after the steering lock unit power supply output control inside BCM becomes normal				
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization				
B26E9: S/L STATUS	Inhibit engine cranking     Inhibit steering lock	When BCM transmits the LOCK request signal to steering lock unit, and receives LOCK response signal from steering lock unit, the following conditions are fulfilled  • Steering condition No. 1 signal: LOCK (0 V)  • Steering condition No. 2 signal: LOCK (Battery voltage)				

#### HIGH FLASHER OPERATION

BCM detects the turn signal lamp circuit status by the current value.

BCM increases the turn signal lamp blinking speed if the bulb or harness open is detected with the turn signal lamp operating.

#### NOTE:

The blinking speed is normal while activating the hazard warning lamp.

#### 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.
- Turn rear wiper switch OFF.
- 3. Operate the rear wiper switch or rear washer switch.

## DTC Inspection Priority Chart

INFOID:0000000005612287

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

# < ECU DIAGNOSIS INFORMATION >

Priority	DTC	
1	B2562: LOW VOLTAGE	
	U1000: CAN COMM CIRCUIT	
2	U1010: CONTROL UNIT (CAN)	
	B2190: NATS ANTENNA AMP	
	B2191: DIFFERENCE OF KEY	
3	B2192: ID DISCORD BCM-ECM	
	B2193: CHAIN OF BCM-ECM	
	B2195: ANTI SCANNING	
	B2013: ID DISCORD BCM-S/L	
	B2014: CHAIN OF S/L-BCM     B2553: IGNITION RELAY	
	B2555: STOP LAMP	
	B2556: PUSH-BTN IGN SW	
	B2557: VEHICLE SPEED	
	B2560: STARTER CONT RELAY	
	B2601: SHIFT POSITION  Bases GUIET POSI	
	B2602: SHIFT POSITION     B2603: SHIFT POSI STATUS	
	B2604: PNP SW	
	• B2605: PNP SW	
	B2606: S/L RELAY	
	B2607: S/L RELAY     B0000: STARTER RELAY	
	B2608: STARTER RELAY     B2609: S/L STATUS	
	B260A: IGNITION RELAY	
4	B260B: STEERING LOCK UNIT	
	B260C: STEERING LOCK UNIT	
	B260D: STEERING LOCK UNIT     B260E: SNO STATE SIGN LOCK	
	B260F: ENG STATE SIG LOST     B2612: S/L STATUS	
	B2614: ACC RELAY CIRC	
	B2615: BLOWER RELAY CIRC	
	B2616: IGN RELAY CIRC	
	B2617: STARTER RELAY CIRC  B2616: B2616  B2617: STARTER RELAY CIRC  B2616: B2617: STARTER RELAY CIRC  B2617: STARTER RELAY C	_
	B2618: BCM     B2619: BCM	
	B261A: PUSH-BTN IGN SW	
	B261E: VEHICLE TYPE	
	B26E9: S/L STATUS	
	B26EA: KEY REGISTRATION     C1729: VHCL SPEED SIG ERR	
	U0415: VEHICLE SPEED SIG	
	C1704: LOW PRESSURE FL	
	C1704: LOW PRESSURE FL     C1705: LOW PRESSURE FR	
	C1706: LOW PRESSURE RR	
	C1707: LOW PRESSURE RL	
	• C1708: [NO DATA] FL	
5	<ul> <li>C1709: [NO DATA] FR</li> <li>C1710: [NO DATA] RR</li> </ul>	
5	• C1711: [NO DATA] RL	
	C1716: [PRESSDATA ERR] FL	
	C1717: [PRESSDATA ERR] FR	
	C1718: [PRESSDATA ERR] RR	
	C1719: [PRESSDATA ERR] RL     C1724: CONTROL LINIT	
	C1734: CONTROL UNIT     B2621: INSIDE ANTENNA	
6	B2622: INSIDE ANTENNA	
	B2623: INSIDE ANTENNA	

DTC Index

NOTE:

#### < ECU DIAGNOSIS INFORMATION >

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 <a href="BCS-16">BCS-16</a>, "COM-MON ITEM: CONSULT-III Function (BCM - COMMON ITEM)".

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
No DTC is detected. further testing may be required.	_	_	_	_	_
U1000: CAN COMM CIRCUIT	_	_	_	_	BCS-37
U1010: CONTROL UNIT (CAN)	_	_	_	_	BCS-38
U0415: VEHICLE SPEED SIG	_	_	_	_	BCS-39
B2013: ID DISCORD BCM-S/L	×	×	_	_	SEC-48
B2014: CHAIN OF S/L-BCM	×	×	_	_	SEC-49
B2190: NATS ANTENNA AMP	×	_	_	_	SEC-41
B2191: DIFFERENCE OF KEY	×	_	_	_	SEC-44
B2192: ID DISCORD BCM-ECM	×	_	_	_	<u>SEC-45</u>
B2193: CHAIN OF BCM-ECM	×	_	_	_	SEC-46
B2195: ANTI SCANNING	×	_	_	_	SEC-47
B2553: IGNITION RELAY	_	×	_	_	PCS-49
B2555: STOP LAMP	_	×	_	_	SEC-52
B2556: PUSH-BTN IGN SW	_	×	×	_	SEC-54
B2557: VEHICLE SPEED	×	×	×	_	SEC-56
B2560: STARTER CONT RELAY	×	×	×	_	<u>SEC-57</u>
B2562: LOW VOLTAGE	_	×	_	_	BCS-40
B2601: SHIFT POSITION	×	×	×	_	<u>SEC-58</u>
B2602: SHIFT POSITION	×	×	×	_	<u>SEC-61</u>
B2603: SHIFT POSI STATUS	×	×	×	_	<u>SEC-63</u>
B2604: PNP SW	×	×	×	_	SEC-66
B2605: PNP SW	×	×	×	_	<u>SEC-68</u>
B2606: S/L RELAY	×	×	×	_	SEC-70
B2607: S/L RELAY	×	×	×	_	<u>SEC-71</u>
B2608: STARTER RELAY	×	×	×	_	SEC-73
B2609: S/L STATUS	×	×	×	_	<u>SEC-75</u>
B260A: IGNITION RELAY	×	×	×	_	PCS-51
B260B: STEERING LOCK UNIT	_	×	×	_	<u>SEC-79</u>
B260C: STEERING LOCK UNIT	_	×	×	_	SEC-80
B260D: STEERING LOCK UNIT	_	×	×	_	<u>SEC-81</u>
B260F: ENG STATE SIG LOST	×	×	×	_	<u>SEC-82</u>
B2612: S/L STATUS	×	×	×	_	<u>SEC-86</u>
B2614: ACC RELAY CIRC	_	×	×	_	PCS-53
B2615: BLOWER RELAY CIRC	_	×	×	_	PCS-56
B2616: IGN RELAY CIRC	_	×	×	_	PCS-59

## < ECU DIAGNOSIS INFORMATION >

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
B2617: STARTER RELAY CIRC	×	×	×	_	SEC-90
B2618: BCM	×	×	×	_	PCS-62
B2619: BCM	×	×	×	_	SEC-92
B261A: PUSH-BTN IGN SW	_	×	×	<del></del>	SEC-93
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	_	SEC-96
B2621: INSIDE ANTENNA	_	×	_	_	DLK-59
B2622: INSIDE ANTENNA	_	×	_	_	DLK-61
B2623: INSIDE ANTENNA	_	×	_	_	DLK-63
B26E1: ENG STATE NO RES	×	×	×	_	SEC-83
B26E9: S/L STATUS	×	×	× (Turn ON for 15 seconds)	_	SEC-84
B26EA: KEY REGISTRATION	_	×	× (Turn ON for 15 seconds)	_	<u>SEC-85</u>
C1704: LOW PRESSURE FL	_	_	_	×	
C1705: LOW PRESSURE FR	_	_	_	×	<u>WT-25</u>
C1706: LOW PRESSURE RR	_	_	_	×	<u>vv 1-25</u>
C1707: LOW PRESSURE RL	_	_	_	×	
C1708: [NO DATA] FL		_	_	×	
C1709: [NO DATA] FR			_	×	<u>WT-27</u>
C1710: [NO DATA] RR		_	_	×	<u> </u>
C1711: [NO DATA] RL	_	_	_	×	
C1716: [PRESSDATA ERR] FL	_	_	_	×	
C1717: [PRESSDATA ERR] FR	_	_	_	×	WT-30
C1718: [PRESSDATA ERR] RR	_	_	_	×	<u>vv 1-30</u>
C1719: [PRESSDATA ERR] RL	_	_	_	×	
C1729: VHCL SPEED SIG ERR	_	_	_	×	<u>WT-32</u>
C1734: CONTROL UNIT	_	_	_	×	WT-34

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< SYMPTOM DIAGNOSIS >

# SYMPTOM DIAGNOSIS

# MANUAL FUNCTION DOES NOT OPERATE

#### ALL COMPONENT

## ALL COMPONENT : Diagnosis Procedure

INFOID:0000000005171068

# ${f 1}.$ CHECK DRIVER SEAT CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT

Check driver seat control unit power supply and ground circuit.

Refer to ADP-58, "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 ADP-59, "AUTOMATIC DRIVE POSITIONER CONTROL UNIT: Diagnosis Procedure".

#### 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 GI-37, "Intermittent Incident".

NO >> GO TO 1.

POWER SEAT

## POWER SEAT : Diagnosis Procedure

INFOID:0000000005171069

# 1. CHECK POWER SEAT SWITCH GROUND CIRCUIT

Check power seat switch ground circuit.

Refer to ADP-81, "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 GI-37, "Intermittent Incident".

NO >> GO TO 1.

### STEERING POSITION FUNCTION DOES NOT OPERATE

### STEERING POSITION FUNCTION DOES NOT OPERATE: Diagnosis Procedure

INFOID:0000000005171070

# 1. CHECK TILT & TELESCOPIC SWITCH GROUND CIRCUIT

Check tilt & telescopic 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

SYMPTOM DIAGNOSIS >	
onfirm the operation again.	_
the result normal?	
YES >> Check intermittent incident. Refer to <u>GI-37, "Intermittent Incident"</u> .	
NO >> GO TO 1. SEAT SLIDING	
EAT SLIDING: Diagnosis Procedure	INFOID:000000005171071
.CHECK SLIDING MECHANISM	
heck for the following.	
Mechanism deformation or pinched foreign materials.  Interference with other parts because of poor installation.	
the inspection result normal?	
YES >> GO TO 2.	
NO >> Repair or replace the malfunction parts.	
CHECK SLIDING SWITCH	
heck sliding switch. efer to ADP-61, "Component Function Check".	
the inspection result normal?	
YES >> GO TO 3. NO >> Repair or replace the malfunction parts.	
CHECK SLIDING MOTOR	
	_
heck sliding motor. efer to ADP-107, "Component Function Check".	
the inspection result normal?	
YES >> GO TO 4.	
NO >> Repair or replace the malfunction parts.	
CONFIRM THE OPERATION	
heck the operation again.	
sthe result normal?  YES >> Check intermittent incident. Refer to GI-37, "Intermittent Incident".	
NO >> GO TO 1.	
EAT RECLINING	
EAT RECLINING : Diagnosis Procedure	INFOID:0000000005171072
.CHECK RECLINING MECHANISM	
heck for the following.	
Mechanism deformation or pinched foreign materials.	
Interference with other parts because of poor installation.  the inspection result normal?	
YES >> GO TO 2.	
NO >> Repair or replace the malfunction parts.	
CHECK RECLINING SWITCH	
heck reclining switch.	
efer to ADP-63, "Component Function Check".	
efer to ADP-63, "Component Function Check".  the inspection result normal?	
efer to ADP-63, "Component Function Check".  the inspection result normal?  YES >> GO TO 3.	
efer to ADP-63, "Component Function Check".  the inspection result normal?  YES >> GO TO 3.	

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#### < SYMPTOM DIAGNOSIS >

Refer to ADP-109, "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-37, "Intermittent Incident".

NO >> GO TO 1.

SEAT LIFTING (FRONT)

### SEAT LIFTING (FRONT): Diagnosis Procedure

INFOID:0000000005171073

# 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 ADP-65, "Component Function Check".

#### 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 ADP-111, "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-37, "Intermittent Incident".

NO >> GO TO 1.

SEAT LIFTING (REAR)

# SEAT LIFTING (REAR): Diagnosis Procedure

INFOID:0000000005171074

# 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-67, "Component Function Check".

< SYMPTOM DIAGNOSIS >	
Is the inspection result normal?	
YES >> GO TO 3.  NO >> Repair or replace the malfunction parts.	Α
3. CHECK LIFTING MOTOR (REAR)	
Check lifting motor (rear).	В
Refer to ADP-113, "Component Function Check".	
Is the inspection result normal?	С
YES >> GO TO 4. NO >> Repair or replace the malfunction parts.	
4. CONFIRM THE OPERATION	_
Check the operation again.	D
Is the result normal?	
YES >> Check intermittent incident. Refer to GI-37, "Intermittent Incident".	Е
NO >> GO TO 1. STEERING TILT	
	F
STEERING TILT : Diagnosis Procedure	
1. CHECK STEERING TILT MECHANISM	G
Check for the following.	
<ul> <li>Mechanism deformation or pinched foreign materials.</li> <li>Interference with other parts because of poor installation.</li> </ul>	Н
Is the inspection result normal?	
YES >> GO TO 2.	
NO >> Repair or replace the malfunction parts.	
2 CHECK THE SWITCH	
2.CHECK TILT SWITCH	
2.CHECK TILT SWITCH  Check tilt switch.  Refer to ADP-69, "Component Function Check".	ADP
Check tilt switch.	ADP
Check tilt switch. Refer to ADP-69, "Component Function Check".  Is the inspection result normal?  YES >> GO TO 3.	ADP K
Check tilt switch.  Refer to ADP-69, "Component Function Check".  Is the inspection result normal?  YES >> GO TO 3.  NO >> Repair or replace the malfunction parts.	
Check tilt switch. Refer to ADP-69, "Component Function Check".  Is the inspection result normal?  YES >> GO TO 3.  NO >> Repair or replace the malfunction parts.  3. CHECK TILT MOTOR	
Check tilt switch.  Refer to ADP-69, "Component Function Check".  Is the inspection result normal?  YES >> GO TO 3.  NO >> Repair or replace the malfunction parts.	
Check tilt switch. Refer to ADP-69, "Component Function Check".  Is the inspection result normal?  YES >> GO TO 3.  NO >> Repair or replace the malfunction parts.  3. CHECK TILT MOTOR  Check tilt motor.  Refer to ADP-115, "Component Function Check".  Is the inspection result normal?	K L
Check tilt switch. Refer to ADP-69. "Component Function Check".  Is the inspection result normal?  YES >> GO TO 3.  NO >> Repair or replace the malfunction parts.  3. CHECK TILT MOTOR  Check tilt motor.  Refer to ADP-115, "Component Function Check".  Is the inspection result normal?  YES >> GO TO 4.	
Check tilt switch. Refer to ADP-69, "Component Function Check".  Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunction parts.  3. CHECK TILT MOTOR  Check tilt motor. Refer to ADP-115, "Component Function Check".  Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunction parts.	K L
Check tilt switch.  Refer to ADP-69, "Component Function Check".  Is the inspection result normal?  YES >> GO TO 3.  NO >> Repair or replace the malfunction parts.  3. CHECK TILT MOTOR  Check tilt motor.  Refer to ADP-115, "Component Function Check".  Is the inspection result normal?  YES >> GO TO 4.  NO >> Repair or replace the malfunction parts.  4. CONFIRM THE OPERATION	K L
Check tilt switch. Refer to ADP-69, "Component Function Check".  Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunction parts.  3. CHECK TILT MOTOR  Check tilt motor. Refer to ADP-115, "Component Function Check".  Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunction parts.	K L M
Check tilt switch. Refer to ADP-69. "Component Function Check".  Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunction parts.  3.CHECK TILT MOTOR  Check tilt motor. Refer to ADP-115, "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-37, "Intermittent Incident".	K L M
Check tilt switch. Refer to ADP-69, "Component Function Check".  Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunction parts.  3.CHECK TILT MOTOR  Check tilt motor. Refer to ADP-115, "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-37, "Intermittent Incident". NO >> GO TO 1.	K L M
Check tilt switch. Refer to ADP-69. "Component Function Check".  Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunction parts.  3. CHECK TILT MOTOR  Check tilt motor. Refer to ADP-115. "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-37, "Intermittent Incident". NO >> GO TO 1. STEERING TELESCOPIC	K L M
Check tilt switch. Refer to ADP-69. "Component Function Check".  Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunction parts.  3. CHECK TILT MOTOR  Check tilt motor. Refer to ADP-115, "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-37, "Intermittent Incident". NO >> GO TO 1. STEERING TELESCOPIC  STEERING TELESCOPIC : Diagnosis Procedure	K L M
Check tilt switch. Refer to ADP-69. "Component Function Check".  Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunction parts.  3. CHECK TILT MOTOR  Check tilt motor. Refer to ADP-115. "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-37, "Intermittent Incident". NO >> GO TO 1. STEERING TELESCOPIC	K L M
Check tilt switch. Refer to ADP-69. "Component Function Check".  Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunction parts.  3. CHECK TILT MOTOR  Check tilt motor. Refer to ADP-115. "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-37. "Intermittent Incident". NO >> GO TO 1. STEERING TELESCOPIC  STEERING TELESCOPIC : Diagnosis Procedure  1. CHECK STEERING TELESCOPIC MECHANISM  Check for the following.	K L M
Check tilt switch. Refer to ADP-69. "Component Function Check".  Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunction parts.  3. CHECK TILT MOTOR  Check tilt motor. Refer to ADP-115. "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-37, "Intermittent Incident". NO >> GO TO 1. STEERING TELESCOPIC  STEERING TELESCOPIC : Diagnosis Procedure	K L M

Is the inspection result normal?

#### < SYMPTOM DIAGNOSIS >

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

# 2.CHECK TELESCOPIC SWITCH

Check telescopic switch.

Refer to ADP-71, "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-117, "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-37, "Intermittent Incident".

NO >> GO TO 1.

#### DOOR MIRROR

## DOOR MIRROR : Diagnosis Procedure

INFOID:0000000005171077

# 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 ADP-78, "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-119, "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-37, "Intermittent Incident".

NO >> GO TO 1.

< SYMPTOM DIAGNOSIS > MEMORY FUNCTION DOES NOT OPERATE Α ALL COMPONENT ALL COMPONENT: Diagnosis Procedure INFOID:0000000005171078 В 1. CHECK MANUAL OPERATION Check manual operation. Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunction parts. D 2.perform initialization and memory storing procedure Perform initialization procedure. Refer to ADP-9, "SYSTEM INITIALIZATION: Special Repair Requirement". Е Perform memory storing procedure. Refer to ADP-9, "MEMORY STORING: Special Repair Requirement". 3. Check memory function. Refer to ADP-25, "MEMORY FUNCTION: System Description". Is the inspection result normal? >> Memory function is normal. YES NO >> GO TO 3. 3. CHECK SEAT MEMORY SWITCH Check seat memory switch. Refer to ADP-73, "Component Function Check". Is the inspection result normal? YES >> GO TO 4. NO >> Replace seat memory switch. 4. CHECK DETENTION SWITCH ADP Check detention switch. Refer to ADP-83, "Component Function Check". Is the inspection result normal? YES >> GO TO 5. NO >> Repair or replace the malfunction parts. 5 . CONFIRM THE OPERATION Confirm the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-37, "Intermittent Incident". NO >> GO TO 1. SEAT SLIDING Ν SEAT SLIDING: Diagnosis Procedure INFOID:0000000005171079 1. CHECK MANUAL OPERATION C Check manual operation. Is the inspection result normal? Р YFS >> GO TO 2. >> Refer to ADP-201, "SEAT SLIDING: Diagnosis Procedure" NO 2.CHECK SLIDING SENSOR Check sliding sensor. Refer to ADP-87, "Component Function Check".

Is the inspection result normal?

#### < 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 GI-37, "Intermittent Incident".

NO >> GO TO 1.

#### SEAT RECLINING

### SEAT RECLINING : Diagnosis Procedure

INFOID:0000000005171080

## 1. CHECK MANUAL OPERATION

Check manual operation.

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to ADP-201, "SEAT RECLINING : Diagnosis Procedure"

### CHECK RECLINING SENSOR

Check reclining sensor.

Refer to ADP-90, "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 GI-37, "Intermittent Incident".

NO >> GO TO 1.

#### SEAT LIFTING (FRONT)

## SEAT LIFTING (FRONT): Diagnosis Procedure

INFOID:0000000005171081

### 1. CHECK MANUAL OPERATION

Check manual operation.

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to ADP-202, "SEAT LIFTING (FRONT): Diagnosis Procedure"

# 2.CHECK LIFTING SENSOR (FRONT)

Check lifting sensor (front).

Refer to ADP-93, "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 GI-37, "Intermittent Incident".

NO >> GO TO 1.

### SEAT LIFTING (REAR)

< SYMPTOM DIAGNOSIS >		
SEAT LIFTING (REAR) : Diagnosis Procedure	INFOID:0000000005171082	А
1. CHECK MANUAL OPERATION		, ,
Check manual operation.		В
Is the inspection result normal?		
YES >> GO TO 2. NO >> Refer to ADP-202, "SEAT LIFTING (REAR) : Diagnosis Procedure"		
2.CHECK LIFTING SENSOR (REAR)		C
Check lifting sensor (rear).		
Refer to ADP-96, "Component Function Check".  Is the inspection result normal?		D
YES >> GO TO 3.		
NO >> Repair or replace the malfunction parts.		Е
3.CONFIRM THE OPERATION		
Check the operation again.  Is the result normal?		F
YES >> Check intermittent incident. Refer to GI-37, "Intermittent Incident".		
NO >> GO TO 1.		G
STEERING TELESCOPIC		
STEERING TELESCOPIC : Diagnosis Procedure	INFOID:0000000005171083	Н
1. CHECK MANUAL OPERATION		
Check manual operation.		I
Is the inspection result normal? YES >> GO TO 2.		
NO >> Refer to ADP-203, "STEERING TELESCOPIC : Diagnosis Procedure"		AD
2.CHECK TELESCOPIC SENSOR		
Check steering telescopic sensor.		K
Refer to <u>ADP-101, "Component Function Check"</u> . <u>Is the inspection result normal?</u>		1 <
YES >> GO TO 3.		
NO >> Repair or replace the malfunction parts.		L
3.CONFIRM THE OPERATION		
Check the operation again.  Is the result normal?		M
YES >> Check intermittent incident. Refer to GI-37, "Intermittent Incident".		
NO >> GO TO 1. STEERING TILT		Ν
STEERING TILT : Diagnosis Procedure	INFOID:0000000005171084	0
1. CHECK MANUAL OPERATION		
Check manual operation.		Р
Is the inspection result normal? YES >> GO TO 2.		
NO >> Refer to ADP-203, "STEERING TILT : Diagnosis Procedure"		
2.CHECK TILT SENSOR		
Check steering tilt sensor.	_	
Refer to ADP-99, "Component Function Check".		

#### < 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-37, "Intermittent Incident".

NO >> GO TO 1.

#### DOOR MIRROR

### DOOR MIRROR: Diagnosis Procedure

INFOID:0000000005171085

### 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 ADP-103, "DRIVER SIDE: Component Function Check". (Driver side)

Refer to ADP-104, "PASSENGER SIDE: Component Function Check". (Passenger side)

#### 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-37, "Intermittent Incident".

NO >> GO TO 1.

#### **MEMORY INDICATE DOES NOT OPERATE**

# < SYMPTOM DIAGNOSIS > MEMORY INDICATE DOES NOT OPERATE Α Diagnosis Procedure INFOID:0000000005171086 1. CHECK MEMORY INDICATOR В Check memory indicator. Refer to ADP-122, "Component Function Check". C Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunction parts. 2.CONFIRM THE OPERATION D Confirm the operation again. Is the result normal? Е YES >> Check intermittent incident. Refer to GI-37, "Intermittent Incident". NO >> GO TO 1. F Н ADP K L M Ν 0

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#### SEAT SYNCHRONIZATION FUNCTION DOES NOT OPERATE

#### < SYMPTOM DIAGNOSIS >

## SEAT SYNCHRONIZATION FUNCTION DOES NOT OPERATE

# Diagnosis Procedure

INFOID:0000000005171087

# 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-37, "Intermittent Incident".

NO >> GO TO 1.

# **ENTRY/EXIT ASSIST FUNCTION DOES NOT OPERATE**

#### < SYMPTOM DIAGNOSIS >

< SYMPTOM DIAGNOSIS > ENTRY/EXIT ASSIST FUNCTION DOES NOT OPERATE	
Diagnosis Procedure	Α
1.CHECK SYSTEM SETTING	В
Check system setting.     Refer to ADP-11, "SYSTEM SETTING: Special Repair Requirement".      Check the operation.  Is the inspection result normal?	С
YES >> Entry/Exit function is OK.  NO >> GO TO 2.	D
<ol> <li>Perform System Initialization.         Refer to <u>ADP-9, "SYSTEM INITIALIZATION: Special Repair Requirement".</u> </li> <li>Check the operation.</li> </ol>	Е
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 ADP-85. "Component Function Check".  Is the inspection result normal?  YES >> GO TO 4.	Н
NO >> Repair or replace the malfunction parts. f 4.CONFIRM THE OPERATION	I
Confirm the operation again.  Is the result normal?  YES >> Check intermittent incident. Refer to GI-37, "Intermittent Incident".  NO >> GO TO 1.	ADP
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#### INTELLIGENT KEY INTERLOCK FUNCTION DOES NOT OPERATE

#### < SYMPTOM DIAGNOSIS >

# INTELLIGENT KEY INTERLOCK FUNCTION DOES NOT OPERATE

### Diagnosis Procedure

INFOID:0000000005171089

# 1. CHECK DOOR LOCK FUNCTION

Check door lock function.

Refer to DLK-7, "Work Flow".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

# 2. PERFORM MEMORY STORING PROCEDURE

1. Perform memory storing procedure.

Refer to ADP-9, "MEMORY STORING: Special Repair Requirement".

2. Check Intelligent Key interlock function.

Refer to ADP-37, "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 ADP-216, "Removal and Installation".

### **NORMAL OPERATING CONDITION**

### < SYMPTOM DIAGNOSIS >

# NORMAL OPERATING CONDITION

Description INFOID:000000005171090

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-25
Entry/exit assist function does not operate.	Entry/exit assist function is disabled.  NOTE: The entry/exit assist function are enabled before delivery (initial setting).  Change t		ADP-11
Entry assist function does not operate.	Manual operation with power seat switch was performed after exit assist function execution.	Perform the memory function.	<u>ADP-25</u>
	Seat synchronization function is disabled.  NOTE: The entry/exit assist function are disabled before delivery (initial setting).	Change the settings.	ADP-11
Seat synchronization function does not operate.	The synchronization function will not operate 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).	ADP-25
	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 perform memory operation.	The lumbar support system are controlled independently with no link to the automatic drive positioner system.	_	Lumbar support system: SE-10
Memory function, entry/exit assist function, seat synchronization function, or Intelligent Key interlock function does not operate.			Memory function: ADP-25
	The operating conditions are not fulfilled.	Fulfill the operation conditions.	Exit assist function: <u>ADP-29</u>
			Entry assist function: <u>ADP-33</u>
			Seat synchronization function: <u>ADP-21</u>
			Intelligent Key interlock function: <u>ADP-37</u>

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# **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:**

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

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

#### **WARNING:**

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

Service INFOID:000000005171092

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

Work INFOID:0000000005171093

- 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.

#### **PRECAUTIONS**

#### < PRECAUTION >

- 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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#### DRIVER SEAT CONTROL UNIT

< REMOVAL AND INSTALLATION >

# REMOVAL AND INSTALLATION

# DRIVER SEAT CONTROL UNIT

Exploded View

Refer to SE-129, "Exploded View".

Removal and Installation

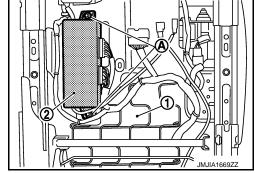
#### INFOID:0000000005171095

#### **REMOVAL**

#### **CAUTION:**

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

- 1. Remove the driver seat (1). Refer to <u>SE-132, "Removal and 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>, "ADDI-TIONAL SERVICE WHEN REPLACING CONTROL UNIT: Description".

#### **AUTOMATIC DRIVE POSITIONER CONTROL UNIT**

< REMOVAL AND INSTALLATION >

## AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Exploded View

Refer to IP-11, "Exploded View".

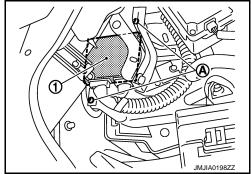
Removal and Installation

**REMOVAL** 

#### **CAUTION:**

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

- 1. Remove the instrument driver lower panel. Refer to <u>IP-12.</u> "Removal and Installation".
- 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 <u>ADP-8</u>, "<u>ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL</u>: <u>Description"</u>.

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#### **SEAT MEMORY SWITCH**

#### < REMOVAL AND INSTALLATION >

## **SEAT MEMORY SWITCH**

Exploded View

Refer to INT-17, "Exploded View".

Removal and Installation

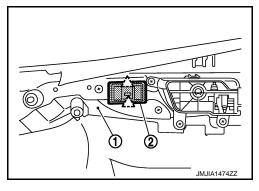
#### **REMOVAL**

#### **CAUTION:**

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

- 1. Remove the front door finisher (1). Refer to <u>SE-133, "Disassembly and Assembly"</u>.
- 2. Press pawls and remove seat memory switch (2) from front door 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".

#### **POWER SEAT SWITCH**

#### < REMOVAL AND INSTALLATION >

## POWER SEAT SWITCH

Exploded View

Refer to SE-129, "Exploded View".

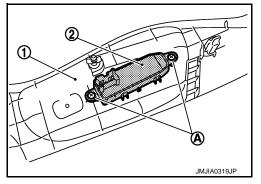
Removal and Installation

#### **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-133</u>, "<u>Disassembly and Assembly</u>".
- 2. Remove the screws (A).
- 3. Remove the power seat switch (2) from the seat cushion outer finisher (1).



#### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

Be sure to clump the harness to the right place.

#### NOTE:

After installing the driver seat, perform additional service when removing battery negative terminal. Refer to 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-11, "Exploded View".

Removal and Installation

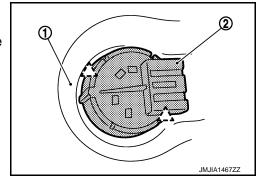
#### **REMOVAL**

#### **CAUTION:**

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

- 1. Remove the steering column mask (1). Refer to IP-12, "Removal and Installation".
- 2. Press pawls and remove tilt & telescopic switch (2) from the steering column mask (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".