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#### **PRECAUTIONS**

#### < PRECAUTION >

# **PRECAUTION**

## **PRECAUTIONS**

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRF-TFNSIONER"

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. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

#### **WARNING:**

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

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

#### WARNING:

- When working near the 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 or batteries, and wait at least three minutes before performing any service.

Precaution for Work INFOID:0000000012551053

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- · When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with a new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components:
- Water soluble dirt:
- Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area.
- Then rub with a soft, dry cloth.
- Oily dirt:
- Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%) and wipe the dirty area.
- Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off.
- Then rub with a soft, dry cloth.
- Do not use organic solvent such as thinner, benzene, alcohol or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

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## **PREPARATION**

# < PREPARATION >

# **PREPARATION**

# **PREPARATION**

Special Service Tool

INFOID:0000000012551054

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

# SYSTEM DESCRIPTION

# **COMPONENT PARTS**

# **Component Parts Location**



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## **COMPONENT PARTS**

#### < SYSTEM DESCRIPTION >

1. Push-button ignition switch BCM (view with combination meter 3. TCM removed) A. ADP steering switch (if equipped) 5. A. Driver seat control unit Automatic drive positioner control B. Tilt motor, telescopic motor (if B. Front door switch LH unit (view with AV control unit re-C. Power seat switch LH equipped) moved) D. Sliding motor LH, reclining motor LH, lifting motor LH (front/rear)

Power mirror remote control switch 9.

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## Component Description

Door mirror LH (RH similar)

INFOID:0000000012551056

Seat memory switch

Component parts	Description
Driver seat control unit	<ul> <li>Main units of automatic drive positioner system.</li> <li>It is connected to the CAN.</li> <li>It communicates with automatic drive positioner control unit via UART communication.</li> <li>It performs memory function after receiving the door unlock signal from BCM.</li> <li>Operates each motor of seat to the registered position.</li> <li>Requests the operation of steering column (if equipped) and door mirror to automatic drive positioner control unit</li> <li>Operates the specific seat motor with the signal from power seat switch.</li> <li>Transmits the ignition switch signal (ACC/ON) via UART communication to automatic driver positioner control unit.</li> </ul>
Automatic drive positioner control unit	<ul> <li>It communicates with driver seat control unit via UART communication.</li> <li>Performs various controls with the instructions of driver seat control unit.</li> <li>Performs the controls of tilt &amp; telescopic (if equipped), door mirror and seat memory switch.</li> <li>Operates steering column (if equipped) and door mirror with the signal from the driver seat control unit</li> </ul>
ВСМ	Recognizes the following status and transmits it to driver seat control unit via CAN communication.  Handle position: LHD  Driver door: OPEN/CLOSE  Ignition switch position: ACC/ON  Door lock: UNLOCK (with Intelligent Key or driver side door request switch operation)  Key ID  Starter: CRANKING/OTHER
ТСМ	The following signals are transmitted to driver seat control unit via CAN communication.  • Shift position signal (P range)  • Identification of transmission: CVT
Combination meter	Transmits the vehicle speed signal to driver seat control unit via CAN communication.
CVT shift selector (Detention switch)	<ul> <li>Detention switch is installed on CVT shift selector. It is turned OFF when CVT shift selector is in P position.</li> <li>Driver seat control unit judges that CVT shift selector is in P position if continuity does not exist in this circuit.</li> </ul>

# **COMPONENT PARTS**

# < SYSTEM DESCRIPTION >

Component parts		Description	
Power mirror remote con-	Mirror switch	<ul> <li>Mirror switch is integrated in power mirror remote control switch</li> <li>It operates angle of door mirror face.</li> <li>It transmits mirror face adjust operation to automatic drive positioner control unit.</li> </ul>	
trol switch	Changeover switch	<ul> <li>Changeover switch is integrated in power mirror remote control switch.</li> <li>Changeover switch has three positions (L, N and R).</li> <li>It changes operating door mirror motor by transmitting control signal to automatic drive positioner control unit.</li> </ul>	
ADP steering switch (if	Tilt switch	<ul> <li>Tilt switch is equipped to steering column.</li> <li>The operation signal is input to automatic drive positioner control unit when tilt switch is operated.</li> </ul>	
equipped)	Telescopic switch	<ul> <li>Telescopic switch is equipped to steering column.</li> <li>The operation signal is input to automatic drive positioner control unit when telescopic switch is operated.</li> </ul>	
	Set switch	It is used for registration and setting change of driving position and Intelligent Key interlock function.	
Seat memory switch	Seat memory switch	<ul> <li>The maximum 2 driving positions can be registered by memory switch 1 to 2.</li> <li>Driving position is set to the registered driving position when memory switch is pressed while operation conditions are satisfied.</li> </ul>	
	Seat memory indicator	Memory indicator indicates the status of auto driving position system by turning ON or blinking.	
Power seat switch	Sliding switch	<ul> <li>Sliding switch is equipped to power seat switch on seat cushion side surface.</li> <li>The operation signal is input to driver seat control unit when sliding switch is operated.</li> </ul>	
	Reclining switch	<ul> <li>The operation signal is input to driver seat control unit when reclining switch is operated.</li> <li>The operation signal is input to driver seat control unit when reclining switch is operated.</li> </ul>	
	Lifting switch (front)	<ul> <li>Lifting switch (front) is equipped to power seat switch on seat cushion side surface.</li> <li>The operation signal is input to driver seat control unit when lifting switch (front) is operated.</li> </ul>	
	Lifting switch (rear)	<ul> <li>Lifting switch (rear) is equipped to power seat switch on seat cushion side surface.</li> <li>The operation signal is input to driver seat control unit when lift ing switch (rear) is operated.</li> </ul>	
Door mirror (driver side/ passenger side)	Door mirror motor	It makes mirror face operate from side to side and up and down with the electric power that automatic drive positioner control unit supplies.	
	Mirror sensor	<ul> <li>Mirror sensor is installed to door mirror.</li> <li>The resistance of 2 sensors (horizontal and vertical) is changed when door mirror is operated.</li> <li>Automatic drive positioner control unit calculates door mirror position according to the change of the voltage of 2 sensor input terminals.</li> </ul>	

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Component parts		Description	
	Tilt motor	<ul> <li>Tilt motor is installed to steering column assembly.</li> <li>Tilt motor is activated with automatic drive positioner control uni</li> <li>Steering column is tilted upward/downward by changing the ro tation direction of tilt motor.</li> </ul>	
Tilt motor (if equipped)	Tilt sensor	<ul> <li>Tilt sensor is integrated in tilt motor.</li> <li>The resistance of tilt sensor is changed according to the up/down position of steering column.</li> <li>The terminal voltage of automatic drive positioner control unit will be changed according to a change of tilt sensor resistance</li> <li>Automatic drive positioner control unit calculates the tilt position from the voltage.</li> </ul>	
	Telescopic motor	<ul> <li>Telescopic motor is installed to steering column assembly.</li> <li>Telescopic motor is activated with automatic drive positioner control unit.</li> <li>Compresses steering column by changing the rotation direction of telescopic motor.</li> </ul>	
Telescopic motor (if equipped)	Telescopic sensor	<ul> <li>Telescopic sensor is integrated in telescopic motor.</li> <li>The resistance of telescopic sensor is changed according to the forward/backward position of steering column.</li> <li>The terminal voltage of automatic drive positioner control unit will be changed according to a change of telescopic sensor resistance.</li> <li>Automatic drive positioner control unit calculates the telescopic position from the voltage.</li> </ul>	
Sliding motor LH	Sliding motor LH	<ul> <li>Seat sliding motor LH is installed to the seat cushion frame.</li> <li>Seat sliding motor LH is activated with driver seat control unit.</li> <li>Slides the seat forward/backward by changing the rotation direction of sliding motor.</li> </ul>	
	Sliding sensor	<ul> <li>Sliding sensor is integrated in sliding motor.</li> <li>The pulse signal is input to driver seat control unit when sliding is performed.</li> <li>Driver seat control unit counts the pulse and calculates the sliding amount of the seat.</li> </ul>	
Reclining motor LH	Reclining motor LH	<ul> <li>Seat reclining motor LH is installed to seat back frame.</li> <li>Seat reclining motor LH is activated with driver seat control unit</li> <li>Seatback is reclined forward/backward by changing the rotation direction of reclining motor.</li> </ul>	
	Reclining sensor	<ul> <li>Reclining sensor is integrated in reclining motor.</li> <li>The pulse signal is input to driver seat control unit when the reclining is operated.</li> <li>Driver seat control unit counts the pulse and calculates the reclining amount of the seat.</li> </ul>	
Lifting motor LH (front)	Lifting motor LH (front)	<ul> <li>Lifting motor LH (front) is installed to seat side cushion frame.</li> <li>Lifting motor LH (front) is activated with driver seat control unit</li> <li>Seat lifter (front) is moved upward/downward by changing the rotation direction of lifting motor (front).</li> </ul>	
	Lifting sensor (front)	Lifting sensor (front) is installed in lifting motor (rear).      When lifting motor (rear) operates, pulse signal is transmitted to driver seat control unit from lifting sensor. Driver seat control un counts the pulse and calculates the lift position (rear) of the sea	
	Lifting motor LH (rear)	<ul> <li>Lifting motor LH (rear) is installed to seat slide cushion frame.</li> <li>Lifting motor LH (rear) is activated with driver seat control unit</li> <li>Seat lifter (rear) is moved upward/downward by changing the retation direction of lifting motor (rear).</li> </ul>	
Lifting motor LH (rear)	Lifting sensor (rear)	<ul> <li>Lifting sensor (rear) is installed to seat side cushion frame.</li> <li>The pulse signal is input to driver seat control unit when lifting (rear) is operated.</li> <li>Driver seat control unit counts the pulse and calculates the lifting (rear) amount of the seat.</li> </ul>	

# **AUTOMATIC DRIVE POSITIONER SYSTEM**

# AUTOMATIC DRIVE POSITIONER SYSTEM: System Diagram

WITH AROUND VIEW MONITOR

Combination meter AV control unit IPDM E/R TCM ECM BCM ABS To CAN Lifting sensor (front) Lifting sensor (rear) CAN communication Lifting motor (front) Lifting motor (front) Lifting motor (rear) Lifting motor (rear) Reclining sensor Reclining motor Reclining motor Sliding sensor Sliding motor Sliding motor Driver seat control unit **Driver** seat Power seat switch LH Lifting switch (front) Lifting switch (rear) Reclining switch Sliding switch UART communication Seat memory switch Telescopic sensor Telescopic motor Telescopic motor Memory switch Mirror sensor Mirror motor Tilt motor Tilt sensor Set switch Door mirror Tilt motor Indicator drive positioner control unit Automatic ADP Steering Switch Changeover switch Power mirror remote control switch Telescopic switch Mirror switch

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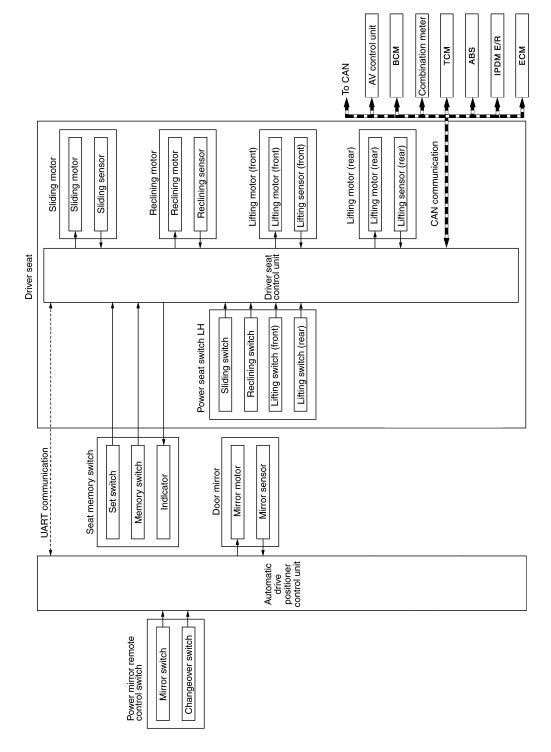
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## WITHOUT AROUND VIEW MONITOR



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# AUTOMATIC DRIVE POSITIONER SYSTEM: System Description

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## **OUTLINE**

The system automatically moves the driver seat, steering column (if equipped) 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.

## < SYSTEM DESCRIPTION >

Function Description		Description
Manual function		The driving position (seat, steering column and door mirror position) can be adjusted by using the power seat switch, ADP steering switch or door mirror remote control switch.
Memory function		The seat, steering column and door mirror move to the stored driving position by pressing seat memory switch (1 or 2).
	Exit	On exit, the seat moves backward and the steering column moves upward.
Entry/Exit assist function	Entry	On entry, the seat and steering column returns from exiting position to the previous driving position.
Intelligent Key interlock function		Perform memory operation, exiting operation and entry operation by Intelligent Key unlock operation or driver side door request switch unlock operation.

# NOTE:

The lumbar support system is controlled independently with no link to the automatic drive positioner system.

MANUAL FUNCTION

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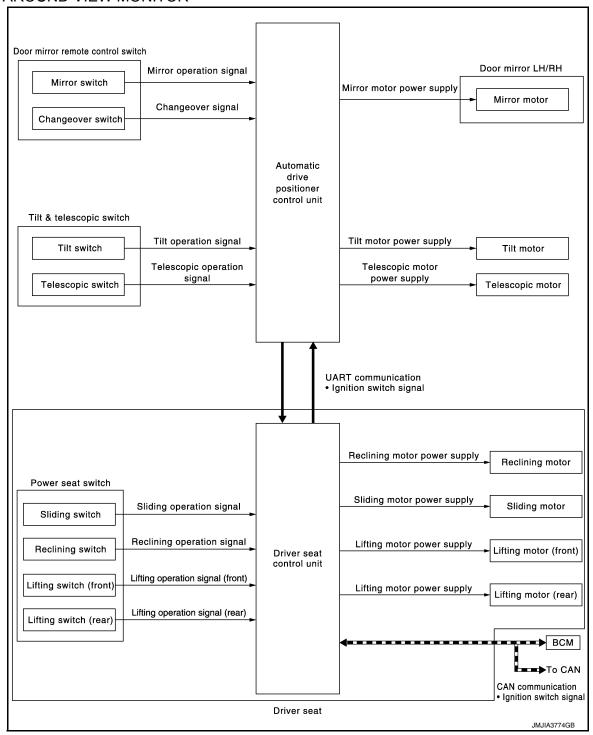
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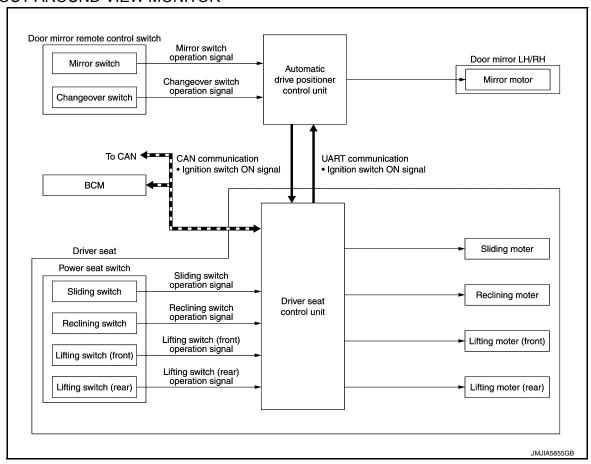
# MANUAL FUNCTION : System Diagram

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#### WITH AROUND VIEW MONITOR



## WITHOUT AROUND VIEW MONITOR



# MANUAL FUNCTION: System Description

INFOID:0000000012551060

# ADP

#### **OUTLINE**

The driving position (seat, steering column and door mirror position) can be adjusted manually with power seat switch, ADP steering switch (if equipped) and door mirror remote control switch.

#### OPERATION PROCEDURE

- Turn ignition switch ON.
- Operate power seat switch, ADP steering 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, reclin- ing)	_	The power seat switch signal is inputted to the driver seat control unit when the power seat switch is operated.
2	_	Motors (sliding LH, lifting LH, reclining LH)	The driver seat control unit outputs signals to each motor according to the power seat switch input signal.

Tilt and Telescopic (if equipped)

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#### < SYSTEM DESCRIPTION >

Order	Input	Output	Control unit condition
1	ADP steering switch	_	The ADP steering switch signal is input to the automatic drive positioner control unit when the ADP steering switch is operated.
2	_	Motors (tilt, telescopic)	The automatic drive positioner control unit actuates the motors according to the operation of the ADP steering switch signal.
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 motors anymore at that time.

#### Door Mirror

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

#### NOTE:

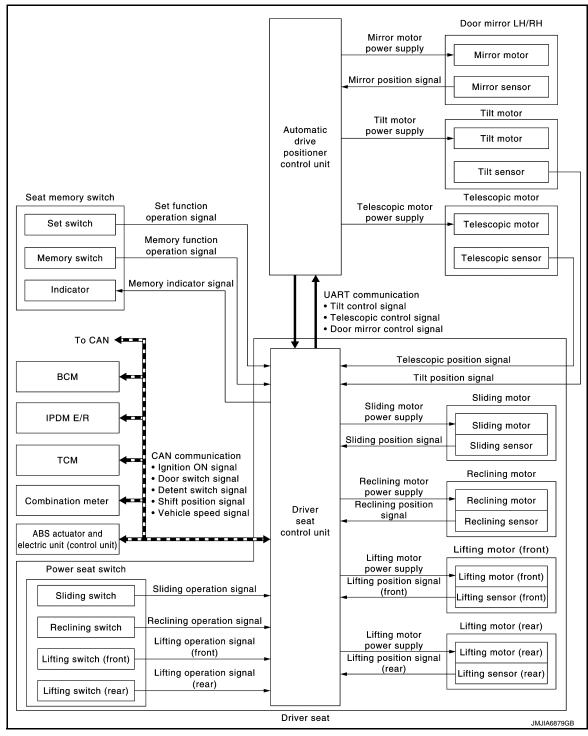
The door mirrors can be operated manually when ignition switch is in either ACC or ON position. The ignition switch signal (ACC/ON) is transmitted from BCM to the driver seat control unit via CAN communication and from the driver seat control unit to the automatic drive positioner control unit via UART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

## **MEMORY FUNCTION**

# **MEMORY FUNCTION: System Diagram**

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#### WITH AROUND VIEW MONITOR



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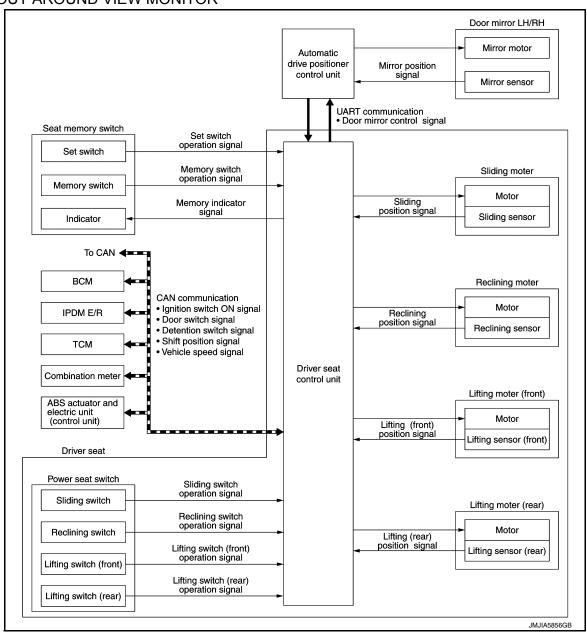
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#### WITHOUT AROUND VIEW MONITOR



# MEMORY FUNCTION: System Description

INFOID:0000000012551062

## **OUTLINE**

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

#### NOTE:

For further information for the memory storage procedure, refer to Owner's Manual.

#### OPERATION PROCEDURE

- 1. Turn ignition switch ON.
- Press desired memory switch.
- 3. Front seat LH, steering column (if equipped) and door mirror will move to the memorized position.

#### OPERATION CONDITION

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

## < SYSTEM DESCRIPTION >

Item	Request status
Ignition position	ON
Switch inputs  Power seat switch  ADP steering switch (if equipped)	OFF
<ul><li>Door mirror control switch</li><li>Set switch</li><li>Seat memory switch</li></ul>	(Not operated)
CVT selector lever	P position

However, the memory operation can be performed for 45 seconds after opening the front door LH (front door switch LH OFF  $\rightarrow$  ON) even if the ignition switch is OFF.

## **DETAIL FLOW**

Order	Input	Output	Control unit condition
1	Memory switch	The memory switch signal is inputted to the automatic drive p control unit when memory switch 1 or 2 is operated.  Memory switch signal is input to driver seat control unit via l communication.	
2		Motors (seat, steering, door mirror)	Driver seat control unit operates each motor of seat when it recognizes the memory switch pressed and requests each motor operation to automatic drive positioner control unit via UART communication. The automatic drive positioner control unit operates each motor.
2	_	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 sensor input. The positions of the steering column armirrors are monitored with each sensor signal that is input drive positioner control unit via UART communication. Dri		Driver seat control unit judges the operating seat position with each seat sensor input. The positions of the steering column and outside mirrors 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.

# **EXIT ASSIST FUNCTION**

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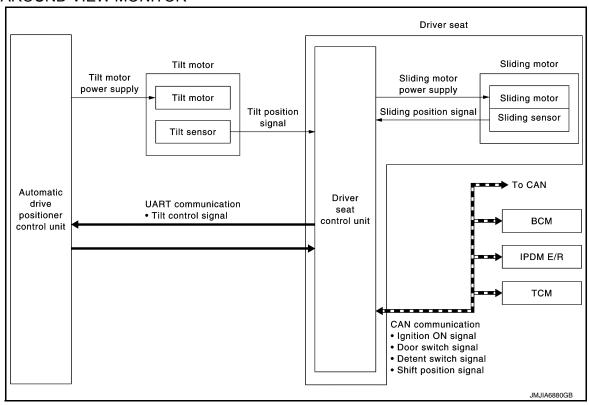
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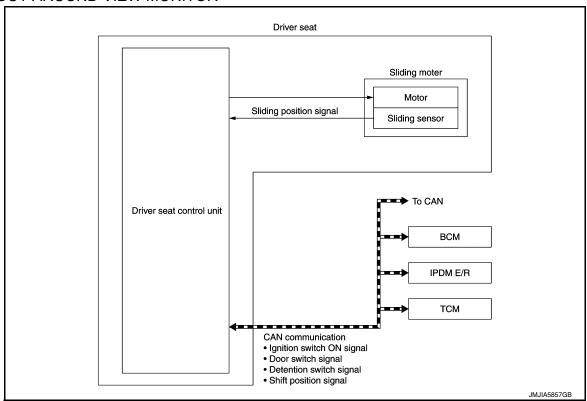
# **EXIT ASSIST FUNCTION : System Diagram**

INFOID:0000000012551063

#### WITH AROUND VIEW MONITOR



## WITHOUT AROUND VIEW MONITOR



**EXIT ASSIST FUNCTION: System Description** 

INFOID:0000000012551064

**OUTLINE** 

#### < SYSTEM DESCRIPTION >

When exiting, if the conditions are satisfied, the seat is moved backward from normal sitting position and the steering column is moved up.

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

#### NOTE:

- This function is set to ON before delivery (initial setting).
- For further information for the system setting procedure, refer to Owner's Manual.

#### **OPERATION PROCEDURE**

- 1. Open the front door LH with ignition switch in OFF position.
- 2. Front seat LH 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.

ltem	Request status
Ignition switch	OFF
System setting [Entry/exit assist function]	ON
Initialization	Done
Switch inputs  Power seat switch  ADP steering switch (if equipped)  Door mirror remote control switch  Set switch  Seat memory switch	OFF (Not operated)
CVT selector lever	P position

#### **DETAIL FLOW**

Order	Input	Output	Control unit condition
1	Front door switch LH	or switch LH — Driver seat control unit receives front door switch LH signal (or from BCM via CAN communication.	
2	_	Motors [seat sliding LH, tilt (if equipped)]	Driver seat control unit operates the seat sliding motor LH, which recognizes that the driver side door is opened with ignition switch OFF. Driver seat control unit then requests the operations of tilt motor (if equipped) to auto drive positioner control unit via UART communication. The automatic drive positioner control unit operates each motor for a constant amount.

# ENTRY ASSIST FUNCTION

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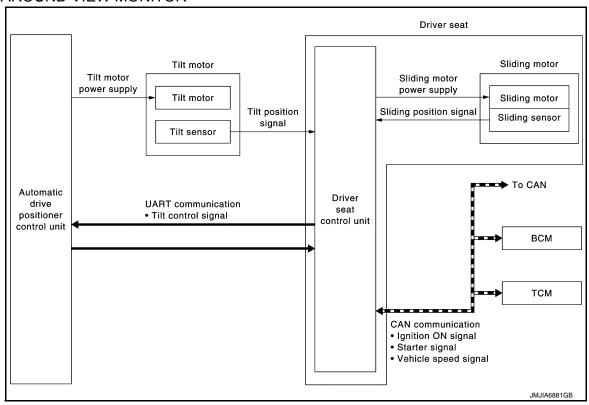
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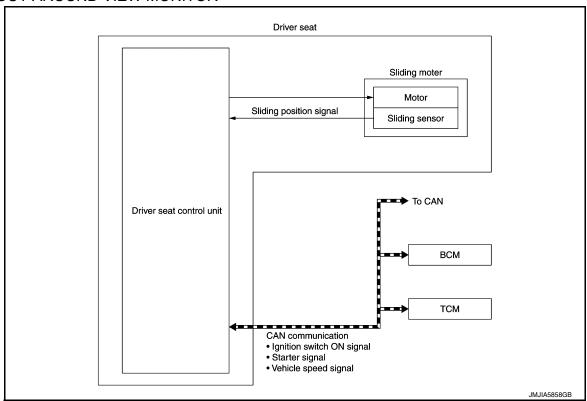
# **ENTRY ASSIST FUNCTION: System Diagram**

INFOID:0000000012551065

#### WITH AROUND VIEW MONITOR



## WITHOUT AROUND VIEW MONITOR



**ENTRY ASSIST FUNCTION: System Description** 

INFOID:0000000012551066

#### < SYSTEM DESCRIPTION >

The seat is in the exiting position when either following condition is satisfied, the seat returns from exiting position to the previous driving position.

#### NOTE:

- This function is set to OFF before delivery (initial setting).
- For further information for the system setting procedure, refer to Owner's Manual.

#### **OPERATION PROCEDURE**

- 1. Turn the ignition switch to ACC.
- Front seat LH and steering column will return from the exiting position to entry position.

#### OPERATION CONDITION

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

Item	Request status
Seat, steering column	The vehicle is not moved after performing the exit assist function.
Switch inputs Power seat switch ADP steering switch (if equipped) Door mirror control switch Set switch Memory switch	OFF (Not operated)
CVT selector lever	P position

#### **DETAIL FLOW**

Order	Input	Output	Control unit condition
1	Door switch/Ignition switch	<ul> <li>Driver seat control unit receives the signals of ignition switch signal and front door switch from BCM via CAN communication.</li> </ul>	
2	_	Motors [sliding LH, tilt (if equipped)]	Driver seat control unit operates the sliding motor LH when the operating conditions are satisfied and requests the operation of tilt motor (if equipped) to automatic drive positioner control unit via UART communication. The automatic drive positioner control unit operates the tilt motor (if equipped).
	Sensors [sliding, tilt (if equipped)]	_	Each sensor monitors the operating positions of seat and steering column, then stops the operation of motor when each part reaches the recorded address.

# INTELLIGENT KEY INTERLOCK FUNCTION

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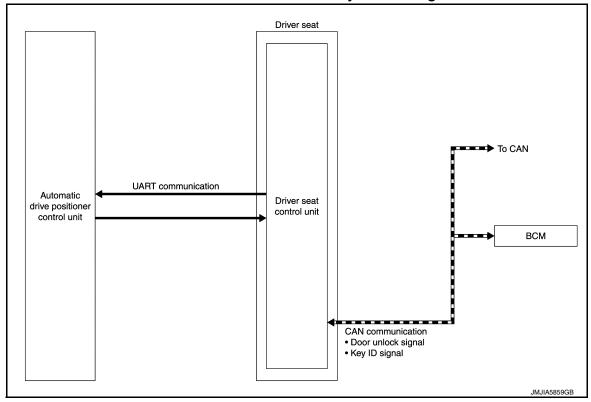
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# INTELLIGENT KEY INTERLOCK FUNCTION : System Diagram

INFOID:0000000012551067



# INTELLIGENT KEY INTERLOCK FUNCTION: System Description

INFOID:0000000012551068

- By associating Intelligent Key and automatic drive positioner system, the unlock operation of Intelligent Key
  or driver side door request switch performs memory function and entry/exit assist function.
- Registration of Intelligent Key interlock function can register a different key ID to the driver seat control unit, one by one, for memory switch 1 and 2. A total of 2 key IDs can be registered.
- When ignition switch is OFF, and door unlock operation is performed using Intelligent Key or driver side door request switch, driver seat automatically adjusts to a driving position other than seat sliding. Seat sliding and steering column tilt perform return operation and are set to standby status.
- In standby status, when ignition switch is operated from OFF to ACC, return operation sets seat sliding and steering column tilt to a registered position.

#### NOTE:

- When another key ID is newly registered to a key switch to which a key ID is already registered, the previously registered key ID is overwritten and becomes unusable.
- When starter signal turns ON during return operation, the operation is interrupted, starter signal turns from ON to OFF, and operation restarts.

#### **OPERATION PROCEDURE**

- Unlock driver door by Intelligent Key or driver side door request switch.
- 2. Operation other than memory function of seat sliding is performed. Seat sliding and steering column tilt perform exit assist operation.
- 3. Turn ignition switch ACC.
- 4. Driver seat and steering column will return from the exiting position to entry position.

#### NOTF:

Further information for Intelligent Key interlock function. Refer to <u>ADP-76, "INTELLIGENT KEY INTERLOCK STORING: Description".</u>

#### OPERATION CONDITION

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

## < SYSTEM DESCRIPTION >

Item	Request status
Ignition position	OFF
Intelligent Key interlock function	Registered
Switch inputs  Power seat switch  Tilt & telescopic switch (if equipped)  Door mirror control switch  Set switch  Memory switch	OFF (Not operated)
CVT shift selector	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 seat slide and steering tilt move directly to the exit assist function. Other loads move to the exit assist function after performing memory function.
3	_	_	Driver seat control unit performs the entry assist function.

Fail Safe

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

Operating in fail-safe mode	Malfunction Item	Related DTC	Diagnosis
	CAN communication	U1000	ADP-79
Only manual functions operate normally.	CONTROL UNIT	U1010	ADP-80
	EEPROM	B2130	ADP-89
Only manual functions, except door mirror, operate normally.	UART communication	B2128	ADP-87
Only manual functions, except seat sliding, operate normally.	Seat sliding output	B2112	ADP-81
Only manual functions, except seat reclining, operate normally.	Seat reclining output	B2113	ADP-83
Only manual functions, except steering tilt, operate normally.	Steering column tilt output	B2116	ADP-85

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## **DIAGNOSIS SYSTEM (DRIVER SEAT CONTROL UNIT)**

## < SYSTEM DESCRIPTION >

# DIAGNOSIS SYSTEM (DRIVER SEAT CONTROL UNIT)

# CONSULT Function (AUTO DRIVE POS.)

INFOID:0000000012551070

#### **CAUTION:**

After disconnecting the CONSULT vehicle interface (VI) from the data link connector, the ignition must be cycled OFF  $\rightarrow$  ON (for at least 5 seconds)  $\rightarrow$  OFF. If this step is not performed, the BCM may not go to "sleep mode", potentially causing a discharged battery and a no-start condition.

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

#### APPLICATION ITEMS

Diagnostic mode	Description
ECU Identification	Displays part numbers of driver seat control unit parts.
Self Diagnostic Result	Performs self-diagnosis for the auto drive positioner system and displays the results.
Active Test	Drive each output device.
Data Monitor	Displays input signals transmitted from various switches and sensors to driver seat control unit in real time.
Work support	Changes the setting of each function.

#### SELF-DIAGNOSIS RESULTS

Refer to ADP-34, "DTC Index".

#### **ACTIVE TEST**

#### **CAUTION:**

When driving vehicle, do not perform active test.

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

#### **DATA MONITOR**

Monitor Item	Unit	Main Signals	Selection From Menu	Contents
DETENT SW	"ON/OFF"	×	×	The selector lever position "OFF (P position) / ON (other than P position)" judged from the detention switch signal.
P RANG SW CAN	"ON/OFF"	×	×	ON/OFF status judged from the P range switch signal.
STARTER SW	"ON/OFF"	×	×	Ignition key switch ON (START, ON) /OFF (ACC, OFF) status judged from the ignition switch signal.
R RANGE (CAN)	"ON/OFF"	×	×	ON/OFF status judged from the R range switch signal.
VEHICLE SPEED	_	×	×	Display the vehicle speed signal received from combination meter by numerical value [km/h].
DOOR SW-FL	"OPEN/ CLOSED"	×	×	ON/OFF status judged from the door switch (front driver side) signal.
DOOR SW-FR	"OPEN/ CLOSED"	×	×	ON/OFF status judged from the door switch (front passenger side) signal.

# **DIAGNOSIS SYSTEM (DRIVER SEAT CONTROL UNIT)**

# < SYSTEM DESCRIPTION >

Monitor Item	Unit	Main Signals	Selection From Menu	Contents	
IGN ON SW	"ON/OFF"	×	×	ON/OFF status judged from the ignition switch signal.	
ACC ON SW	"ON/OFF"	×	×	ON/OFF status judged from the ACC switch signal.	
KYLS DR UNLK	"ON/OFF"	×	×	ON/OFF status judged from the driver side door unlock actuator output switch signal.	
KEYLESS ID	_	×	×	Key ID status judged from the key ID signal.	
VHCL SPEED (ABS)	"RCV"	×	×	Vehicle speed status judged from vehicle speed signal.	
HANDLE	"RHD/LHD"	×	×	RHD/LHD status judged from handle position signal.	
TRANSMISSION	"A/T"	×	×	CVT status judged from transmission.	
SET SW	"ON/OFF"	×	×	ON/OFF status judged from the setting switch signal.	
MEMORY SW1	"ON/OFF"	×	×	ON/OFF status judged from the seat memory switch 1 signal.	
MEMORY SW2	"ON/OFF"	×	×	ON/OFF status judged from the seat memory switch 2 signal.	
SLIDE SW-FR	"ON/OFF"	×	×	ON/OFF status judged from the sliding switch (forward) signal.	
SLIDE SW-RR	"ON/OFF"	×	×	ON/OFF status judged from the sliding switch (backward) signal.	
RECLN SW-FR	"ON/OFF"	×	×	ON/OFF status judged from the reclining switch (forward) signal.	
RECLN SW-RR	"ON/OFF"	×	×	ON/OFF status judged from the reclining switch (backward) signal.	
LIFT FR SW-UP	"ON/OFF"	×	×	ON/OFF status judged from the lifting switch front (upward) signal.	
LIFT FR SW-DN	"ON/OFF"	×	×	ON/OFF status judged from the lifting switch front (downward) signal.	
LIFT RR SW-UP	"ON/OFF"	×	×	ON/OFF status judged from the lifting switch rear (upward) signal.	
LIFT RR SW-DN	"ON/OFF"	×	×	ON/OFF status judged from the lifting switch rear (downward) signal.	
MIR CON SW-UP	"ON/OFF"	×	×	ON/OFF status judged from the mirror switch (up) signal.	
MIR CON SW-DN	"ON/OFF"	×	×	ON/OFF status judged from the mirror switch (down) signal.	
MIR CON SW-RH	"ON/OFF"	×	×	ON/OFF status judged from the door mirror remote control switch (passenger side) signal.	
MIR CON SW-LH	"ON/OFF"	×	×	ON/OFF status judged from the door mirror remote control switch (driver side) signal.	
MIR CHNG SW-R	"ON/OFF"	×	×	ON/OFF status judged from the door mirror remote control switch (switching to right) signal.	
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 ADP steering switch (upward) signal.	
TILT SW-DOWN	"ON/OFF"	_	×	ON/OFF status judged from the ADP steering switch (downward) signal.	
TELESCO SW-FR	"ON/OFF"	_	×	ON/OFF status judged from the ADP steering switch (forward) signal.	
TELESCO SW-RR	"ON/OFF"	_	×	ON/OFF status judged from the ADP steering switch (backward) signal.	
SLIDE PULSE	_	_	×	Value (32768) when battery connections are standard. If it moves backward, the value increases. If it moves forward, the value decreases.	

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# **DIAGNOSIS SYSTEM (DRIVER SEAT CONTROL UNIT)**

# < SYSTEM DESCRIPTION >

Monitor Item	Unit	Main Signals	Selection From Menu	Contents
RECLN PULSE	_	-	×	Value (32768) when battery connections are standard. If it moves backward, the value increases. If it moves forward, the value decreases.
LIFT FR PULSE	_	_	×	Value (32768) when battery connections are standard. If it moves DOWNWARD, the value increases. If it moves UPWARD, the value decreases.
LIFT RR PULSE	_	-	×	Value (32768) when battery connections are standard. If it moves DOWNWARD, the value increases. If it moves UPWARD, the value decreases.
MIR/SEN RH U-D	"V"	-	×	Voltage input from door mirror sensor (passenger side) up/down is displayed.
MIR/SEN RH R-L	"V"	_	×	Voltage input from door mirror sensor (passenger side) left/right is displayed.
MIR/SEN LH U-D	"V"	-	×	Voltage input from door mirror sensor (driver side) up/down is displayed.
MIR/SEN LH R-L	"V"	_	×	Voltage input from door mirror sensor (driver side) left/right is displayed.
TILT PULSE	_	-	×	Value (32768) when battery connections are standard. If it moves DOWN, the value increases. If it moves UP, the value decreases.
TELESCO PULSE	_	-	×	Value (32768) when battery connections are standard. If it moves backward, the value increases. If it moves forward, the value decreases.

## **WORK SUPPORT**

Work item	Content	Item
EXIT SEAT SLIDE SETTING	Entry/exit assist (seat) can be selected:	ON
EXIT SEAT SLIDE SETTING	ON (operated) – OFF (not operated)	OFF
EXIT TILT SETTING	Entry/exit assist (steering column) can be selected:	ON
EXIT TILI SETTING	ON (operated) – OFF (not operated)	OFF
		40 mm (1.6 in)
SEAT SLIDE VOLUME SET	The amount of seat sliding for entry/exit assist can be selected from 3 items	80 mm (3.1 in)
		150 mm (6 in)

< ECU DIAGNOSIS INFORMATION >

# **ECU DIAGNOSIS INFORMATION**

# DRIVER SEAT CONTROL UNIT

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## VALUES ON THE DIAGNOSIS TOOL

CONSULT MONITOR ITEM

Monitor Item	Condition		Value/Status
DETENT OW	C)/T coloctor lover	P position	OFF
DETENT SW	CVT selector lever	Other than above	ON
D DANC CW CAN	C)/T coloctor lover	P position	ON
P RANG SW CAN	CVT selector lever	Other than above	OFF
CTARTER CW	Impition position	Cranking	ON
STARTER SW	Ignition position	Other than above	OFF
D DANCE (CAN)	CVT coloctor lover	R position	ON
R RANGE (CAN)	CVT selector lever	Other than above	OFF
VEHICLE SPEED	The condition of vehicle spe	eed is displayed	km/h
DOOD CW EL	Driver deer	Open	OPEN
DOOR SW-FL	Driver door	Close	CLOSED
DOOD OW ED	December deer	Open	OPEN
DOOR SW-FR	Passenger door	Close	CLOSED
JON ON OW	15 - 22 - 5 - 24 - 15	ON position	ON
IGN ON SW	Ignition switch	Other than above	OFF
ACC ON CW	Ignition quitab	ACC or ON position	ON
ACC ON SW	Ignition switch	Other than above	OFF
10405511111	Intelligent Key or driver	ON	ON
KYLS DR UNLK	side door request switch	OFF	OFF
KEYLESS ID	UNLOCK button of Intellige	nt Key is pressed	1, 2, 3, 4 or 5
\(\(\)(\)(\)(\)(\)(\)(\)(\)(\)(\)(\)(\)(	CAN all and from APO	Received	ON
VHCL SPEED (ABS)	CAN signal from ABS	Not received	OFF
LIANDIE	Driving position	+	LHD
HANDLE	Driving position		RHD
TRANSMISSION	Transmission type		A/T
CET CW	Oat awitala	Push	ON
SET SW	Set switch	Release	OFF
MEMORY CVA	Marray witch 4	Push	ON
MEMORY SW1	Memory switch 1	Release	OFF
MEMORY CWO	Maman, auditah 2	Push	ON
MEMORY SW2	Memory switch 2	Release	OFF
CLIDE CW ED	Cliding quitch (forward)	Operate	ON
SLIDE SW-FR	Sliding switch (forward)	Release	OFF
CLIDE CW DD	Olishing quitals (language)	Operate	ON
SLIDE SW-RR	Sliding switch (backward)	Release	OFF
DECLN CW/ FD	Declining quitab (famured)	Operate	ON
RECLN SW-FR	Reclining switch (forward)	Release	OFF

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## < ECU DIAGNOSIS INFORMATION >

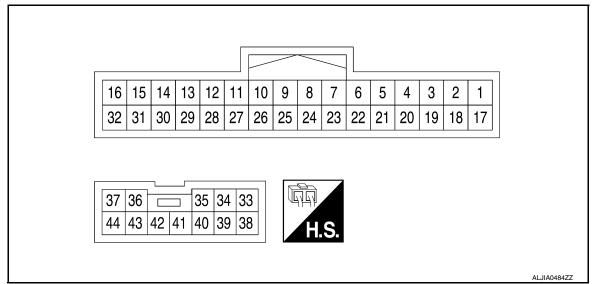
Monitor Item	Condit	ion	Value/Status
DECLN OW DD	Reclining switch (back-	Operate	ON
RECLN SW-RR	ward)	Release	OFF
LIET ED CW LID	Lifting switch front (up-	Operate	ON
LIFT FR SW-UP	ward)	Release	OFF
LIFT FR SW-DN	Lifting switch front (down-	Operate	ON
LIFT FR SW-DN	ward)	Release	OFF
LIFT RR SW-UP	Lifting switch rear (upward)	Operate	ON
LIFT KK SW-OF	Litting Switch real (upward)	Release	OFF
LIFT RR SW-DN	Lifting switch rear (down-	Operate	ON
LII I KK SW-DN	ward)	Release	OFF
MIR CON SW-UP	Mirror switch	Up	ON
WIIN CON SW-OI	Willion Switch	Other than above	OFF
MIR CON SW-DN	Mirror switch	Down	ON
WIIN CON OW-DIN	WIIITOI SWITCH	Other than above	OFF
MIR CON SW-RH	Mirror switch	Right	ON
WIIN CON SW-INT	Willion Switch	Other than above	OFF
MIR CON SW-LH	Mirror switch	Left	ON
WIIN CON OW-LIT	Willion Switch	Other than above	OFF
MIR CHNG SW-R	Changeover switch	Right	ON
WIII CHING SW-IC	Changeover switch	Other than above	OFF
MIR CHNG SW-L	Changeover switch	Left	ON
WIIN CHING SW-L	Changeover switch	Other than above	OFF
TILT SW-UP	Tilt switch	Upward	ON
TIET OW OF	THE SWIGHT	Other than above	OFF
TILT SW-DOWN	Tilt switch	Downward	ON
THE TOWN BOWN	THE OWNOR	Other than above	OFF
TELESCO SW-FR	Telescopic switch	Forward	ON
TEEEGGG GW TR	releasepie awitari	Other than above	OFF
TELESCO SW-RR	Telescopic switch	Backward	ON
	Tologoopio owitori	Other than above	OFF
		Forward	The numeral value decreases *
SLIDE PULSE	Seat sliding	Backward	The numeral value increases*
		Other than above	No change to numeral value*
		Forward	The numeral value decreases*
RECLN PULSE	Seat reclining	Backward	The numeral value increases *
		Other than above	No change to numeral value <sup>*</sup>
		Upward	The numeral value decreases *
LIFT FR PULSE	Seat lifter (front)	Downward	The numeral value increases *
		Other than above	No change to numeral value*
		Upward	The numeral value decreases *
LIFT RR PULSE	Seat lifter (rear)	Downward	The numeral value increases *
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## < ECU DIAGNOSIS INFORMATION >

Monitor Item	Con	dition	Value/Status
MIR/SEN RH U-D	Door mirror (passenger si	ide)	Change between 3.4 (close to peak) 0.6 (close to valley)
MIR/SEN RH R-L	Door mirror (passenger si	ide)	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)
		Upward	The numeral value decreases *
TILT PULSE	Tilt position	Downward	The numeral value increases *
		Other than above	No change to numeral value*
		Forward	The numeral value decreases *
TELESCO PULSE	Telescopic position	Backward	The numeral value increases *
		Other than above	No change to numeral value*

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

## **TERMINAL LAYOUT**



## PHYSICAL VALUES

	nal No. color)	Description		Cons	dition	Voltage (V)
+	-	Signal name	Input/ Output	Condition		(Approx)
5 (W)	Ground	Sensor power supply	Output	_		Battery voltage
6 (B)	Ground	Lifting switch (rear) down- ward signal	Input Li	Lifting switch (rear)	Operate (downward)	0
(11)	(R) Glound	waru sigilai		(rear)	Release	Battery voltage
7 (Y)	Ground	Lifting switch (front) down- ward signal	Input	Lifting switch (front)	Operate (downward)	0
(1)		waru signai		(HOIII)	Release	Battery voltage
8 (PD)	Ground	Reclining switch backward	Input	Reclining switch	Operate (backward)	0
(DR)	(BR)	signal			Release	Battery voltage

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# < ECU DIAGNOSIS INFORMATION >

	nal No. color)	Description		Cons	dition	Voltage (V)	
+	-	Signal name	Input/ Output	Condition		(Approx)	
9 (SB)	Ground	Sliding switch backward signal	Input	Sliding switch	Operate (backward)	0	
					Release	Battery voltage	
10 (G)	Ground	Memory indicator 2 signal	Output	Memory indicator 2	Illuminate Other than above	1 Battery voltage	
					Press	0	
11 (GR)	Ground	Memory switch 2 signal	Input	Memory switch 2	Other than above	5	
12* (W)	Ground	Telescopic sensor signal	Input	Telescopic	Operate	10mSec/div 2V/div JMJIA0119ZZ	
					Other than above	0 or 5	
13 (G)	Ground	Reclining sensor signal	Input	Seat reclining	Operate	10mSec/div	
					Stop	0 or 5	
15 (SB)	Ground	UART communication (TX/RX)	Input	Ignition switch ON		10msec/div	
16 (P)	_	CAN-H	_	_	_	_	
21					Press	0	
(L)	Ground	Set switch signal	Input	Set switch	Other than above	5	
22 (V)	Ground	Lifting switch (rear) up- ward signal	Input	Seat lifting switch (rear)	Operate (upward)	0	
(V)		waru sigilai		(rear)	Release	Battery voltage	
23 (G)	Ground	Lifting switch (front) up- ward signal	Input	Seat lifting switch (front)	Operate (upward)	0	
					Release	Battery voltage	
24 (P)	Ground	Reclining switch forward signal	Input	Reclining switch	Operate (forward)	0	
					Release	Battery voltage	
25 (L)	Ground	Sliding switch forward signal	Input	Sliding switch	Operate (forward)	0	
					Release	Battery voltage	

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# < ECU DIAGNOSIS INFORMATION >

Terminal No. (wire color)		Description	Description		dition	Voltage (V)
+	-	Signal name	Input/ Output	Condition		(Approx)
26 (Y)	Ground	Memory indicator 1 signal	Output	Memory indicator 1	Illuminate Other than above	1 Battery voltage
27 (V)	Ground	Memory switch 1 signal	Input	Memory switch 1	Press Other than above	0 5
28 <sup>*</sup> (BR)	Ground	Tilt sensor signal	Input	Tilt	Operate Other than above	10mSec/div 2V/div JMJIA0119ZZ 0 or 5
					Suisi tilaii above	0 01 0
29 (R)	Ground	Lifting sensor (rear) signal	Input	Seat lifting (rear)	Operate	10mSec/div 2V/div JMJIA0119ZZ
					Stop	0 or 5
30 (Y)	Ground	Lifting sensor (front) signal	Input	Seat lifting (front)	Operate	10mSec/div 2V/div JMJIA0119ZZ
					Stop	0 or 5
31 (L)	Ground	Sliding sensor signal	Input	Seat sliding	Operate	10mSec/div 2V/div JMJIA0119ZZ
32					Stop	0 or 5
32 (W)	_	CAN-L	_		_	_
34 (SB)	Ground	Lifting motor LH (front) up- ward output signal	Output	Seat lifting (front)	Operate (upward) Stop	Battery voltage
35	Ground	Reclining motor LH for-	Output	Seat reclining	Operate (forward)	Battery voltage
(V)	Cidana	ward output signal	Carput	- Court Toolining	Release	0
36 (W)	Ground	Sliding motor LH back- ward output signal	Output	Seat sliding	Operate (backward)	Battery voltage
(۷۷)		waru output signal			Stop	0

## < ECU DIAGNOSIS INFORMATION >

	nal No. color)	Description		Condition		Voltage (V)	
+	-	Signal name	Input/ Output	Conc	aidon	(Approx)	
37 (R)	Ground	Power source	Input	-	_	Battery voltage	
39 (B)	Ground	Ground (power)	_	_	_	0	
40 (L)	Ground	Lifting motor LH (rear) downward output signal	Output	Seat lifting (rear)	Operate (downward)	Battery voltage	
(L)		downward output signal	ward output signal		Stop	0	
41	Ground	Lifting motor LH (rear) up- ward output signal	Output Seat lifting (rea		Operate (upward)	Battery voltage	
(Y)		ward output signal			Stop	0	
42 (GR)	Ground	Lifting motor LH (front) downward output signal	Output	Seat lifting (front)	Operate (downward)	Battery voltage	
(OIV)		downward output signal			Stop	0	
43 (BR)	Ground	Reclining motor LH back- ward output signal	Output	Seat reclining	Operate (backward)	Battery voltage	
(DK)		waru output signal			Stop	0	
44 (G)	Ground	Sliding motor LH forward output signal	Output	Seat sliding	Operate (forward)	Battery voltage	
(6)		output signal			Release	0	

<sup>\*:</sup> If equipped

Fail Safe

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

Operating in fail-safe mode	Malfunction Item	Related DTC	Diagnosis
	CAN communication	U1000	ADP-79
Only manual functions operate normally.	CONTROL UNIT	U1010	ADP-80
	EEPROM	B2130	ADP-89
Only manual functions, except door mirror, operate normally.	UART communication	B2128	ADP-87
Only manual functions, except seat sliding, operate normally.	Seat sliding output	B2112	ADP-81
Only manual functions, except seat reclining, operate normally.	Seat reclining output	B2113	ADP-83
Only manual functions, except steering tilt, operate normally.	Steering column tilt output	B2116	ADP-85

DTC Index

CONSULT	Timing*1				
display	Current mal- function	Previous mal- function	Item	Reference page	
CAN COMM CIRCUIT [U1000]	0	1-39	CAN communication	ADP-79	
CONTROL UNIT [U1010]	0	1-39	Control unit	ADP-80	
SEAT SLIDE [B2112]	0	1-39	Seat slide motor output	ADP-81	
SEAT RECLINING [B2113]	0	1-39	Seat reclining motor output	ADP-83	

## < ECU DIAGNOSIS INFORMATION >

CONSULT	Timing*1				
display	Current mal- function	Previous mal- function	Item	Reference page	
STEERING TILT [B2116]	0	1-39	Tilt motor output	ADP-85	
UART COMM [B2128]	0	1-39	UART communication	ADP-87	
EEPROM [B2130]	0	1-39	EEPROM	ADP-89	

\*1.

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

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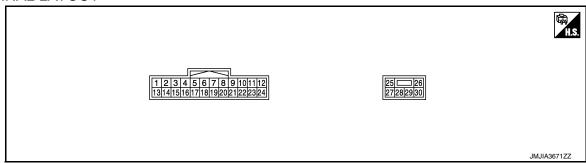
## **AUTOMATIC DRIVE POSITIONER CONTROL UNIT**

< ECU DIAGNOSIS INFORMATION >

# AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Reference Value

## **TERMINAL LAYOUT**



## PHYSICAL VALUES

Terminal No. (wire color)		Description		Condition		Voltage (V)
+	-	Signal name	Input/ Output	Condition		(Approx.)
1 <sup>*</sup> Ground	Cround	Tilt quitab upward aignal	lanut	Tilt switch	Operate (upward)	0
	Ground	Tilt switch upward signal	Input		Other than above	5
0		Changeover switch RH signal	Input	Changeover switch position	RH	0
2 (GR)	Ground				Neutral or LH	5
3 (G) Ground	Mirror switch up signal	Input	Mirror switch	Operated (up)	0	
				Other than above	5	
4 (P) Ground	Mirror switch left signal	Input	Mirror switch	Operated (left)	0	
				Other than above	5	
5 (W)	Ground	Door mirror sensor (pas- senger side) up/down signal	Input	Door mirror RH position		Change between 3.4 (close to peak) 0.6 (close to valley)
6 (R)	Ground	Door mirror sensor (driver side) up/down signal	Input	Door mirror LH position		Change between 3.4 (close to peak) 0.6 (close to valley)
7 <sup>*</sup> Ground	Ground	Telescopic switch forward signal	Input	Telescopic switch	Operate (forward)	0
	Ground				Other than above	5
8 (G)	Ground	UART communication (TX/RX)	Output	Ignition switch ON		10msec/div 5V/div JMJIA1391ZZ

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

### < ECU DIAGNOSIS INFORMATION >

	inal No. color)	Description		Conditi	on	Voltage (V)
+	-	Signal name	Input/ Output	Conditi	OII	(Approx.)
10	Ground	Door mirror motor (pas- senger side) up output	Output	Door mirror RH	Operate (up)	Battery voltage
(BR)	Ground	signal	Output	Door Hillion Kin	Other than above	0
11	Ground	Door mirror motor (pas- senger side) left output	Output	Door mirror RH	Operate (left)	Battery voltage
(G)	Cround	signal	Output	Boot Hillion Turi	Other than above	0
		Door mirror motor (driver side) down output sig-			Operate (down)	Battery voltage
12	Ground	nal	Output	Door mirror (LH)	Other than above	0
(BG)	Cround	Door mirror motor (driver side) right output sig-	Output	Door Hillion (EIT)	Operate (right)	Battery voltage
		nal			Other than above	0
13 <sup>*</sup>	Ground	Tilt switch downward	Input	Tilt switch	Operate (down- ward)	0
(Y)		signal			Other than above	5
14		Changeover switch LH		Changeover	LH	0
(P)	Ground	signal	Input	switch position	Neutral or RH	5
15	Ground	Mirror switch down sig-	Input	Mirror switch	Operate (down)	0
(R)	Glound	nal	mput	WIIITOI SWILCII	Other than above	5
16	Ground	Mirror switch right signal	lpput	Mirror ewitch	Operate (right)	0
(W)	Glound	Will of Switch right Signal	Input	Mirror switch	Other than above	5
17 (G)	Ground	Door mirror sensor (passenger side) left/right signal	Input	Door mirror RH po	osition	Change between 3.4 (close to left edge) 0.6 (close to right edge)
18 (BG)	Ground	Door mirror sensor (driver side) left/right signal	Input	Door mirror LH po	osition	Change between 0.6 (close to left edge) 3.4 (close to right edge)
19 <sup>*</sup> (L)	Ground	Telescopic switch back- ward signal	Input	Telescopic switch	Operate (back- ward)	0
(=)		<del> </del>			Other than above	5
20 (Y)	Ground	Ground	_	_		0
21 (BG)	Ground	Door mirror motor sensor power supply	Input			5

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

### < ECU DIAGNOSIS INFORMATION >

		nal No. color)	Description		Conditi	on	Voltage (V)
	+	-	Signal name	Input/ Output	Conditi	on	(Approx.)
			Door mirror motor (passenger side) down out-			Operate (down)	Battery voltage
	22	Ground	put signal  Door mirror motor (passenger side) right output	Output	Door mirror (RH)	Other than above	0
?)	SB)	Ground		Output	Boot militer (rarr)	Operate (right)	Battery voltage
			signal			Other than above	0
	23	Ground	Door mirror motor (driv-	Output	Door mirror (LH)	Operate (up)	Battery voltage
	LG)		er side) up output signal		(= 1)	Other than above	0
	24	Ground	Door mirror motor (driv-	Output	Door mirror (LH)	Operate (left)	Battery voltage
	(L)		er side) left output signal		,	Other than above	0
	25 (L)	Ground	Power source	Input	_		Battery voltage
	26 <sup>*</sup> (V)	Ground	Telescopic motor back- ward output signal	Output	Steering tele- scopic	Operate (back- ward)	Battery voltage
	(V)		ward output digital		σοσρίο	Other than above	0
	27 <sup>*</sup> LG)	Ground	Tilt and telescopic motor power source		_		Battery voltage
	28 <sup>*</sup> SB)	Ground	Tilt motor downward output signal	Output	Steering tilt	Operate (down- ward)	Battery voltage
(•	36)		output signal			Other than above	0
			Tilt motor upward output		Steering tilt	Operate (upward)	Battery voltage
	29 <sup>*</sup>	Ground	signal	Output	Otoering till	Other than above	0
(E	3R)	Cround	Telescopic motor for-	Odiput	Steering tele-	Operate (forward)	Battery voltage
			ward output signal		scopic	Other than above	0
	30 (B)	Ground	Ground	_	_		0

<sup>\*:</sup> If equipped

## **BCM (BODY CONTROL MODULE)**

### < ECU DIAGNOSIS INFORMATION >

# **BCM (BODY CONTROL MODULE)**

# List of ECU Reference

ECU	Reference
	BCS-31, "Reference Value"
BCM	BCS-50, "Fail Safe"
BCIVI	BCS-51, "DTC Inspection Priority Chart"
	BCS-52, "DTC Index"

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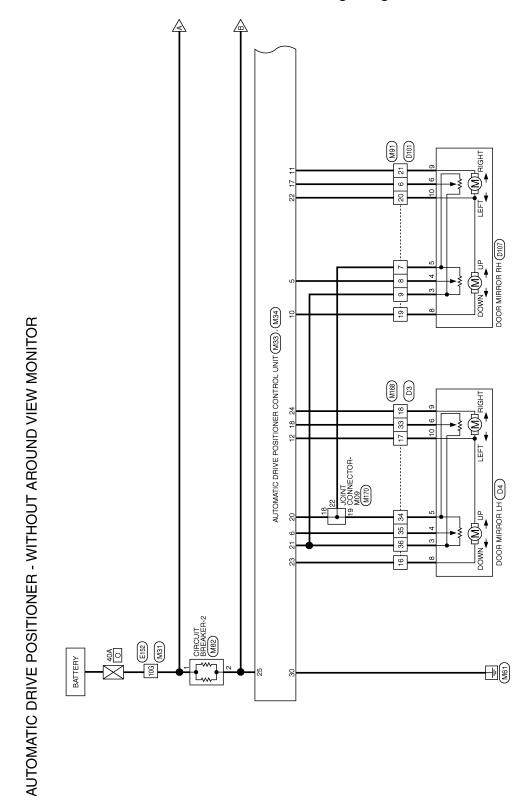
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# WIRING DIAGRAM

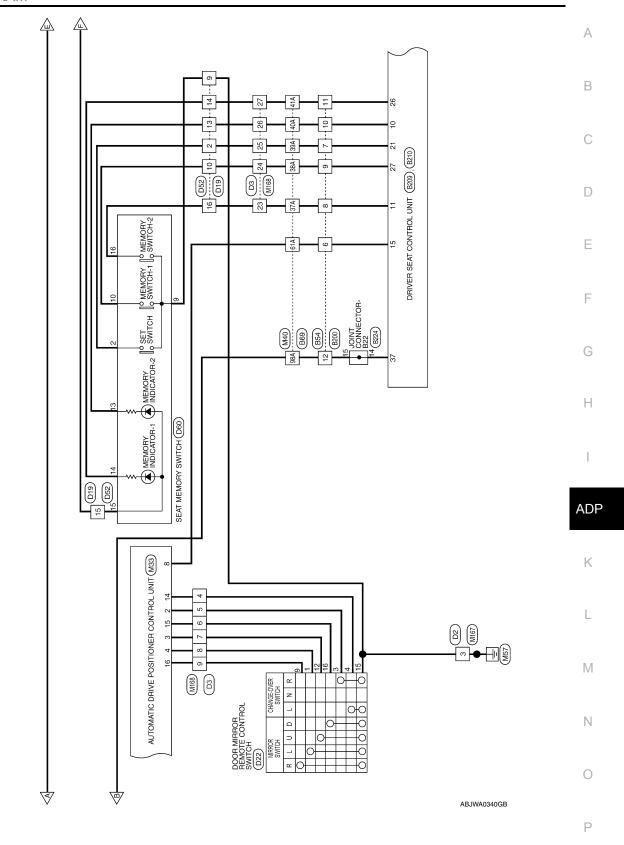
# AUTOMATIC DRIVE POSITIONER SYSTEM WITHOUT AROUND VIEW MONITOR

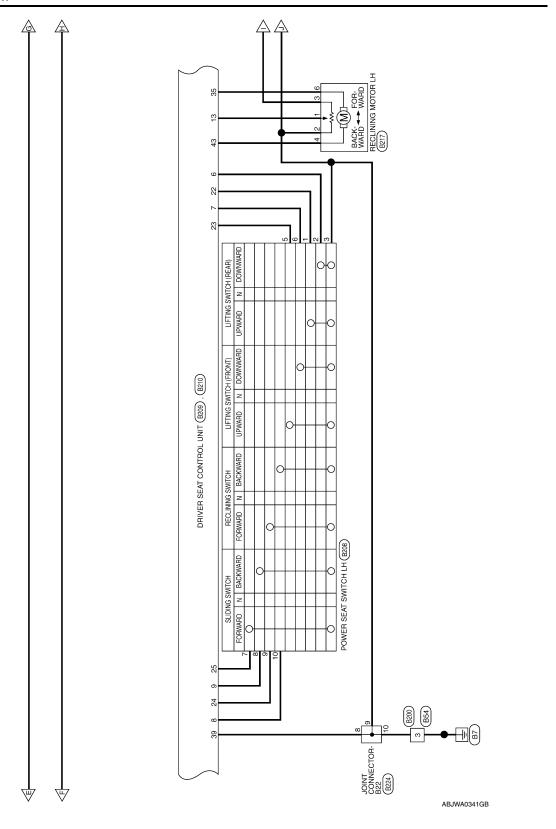
WITHOUT AROUND VIEW MONITOR: Wiring Diagram

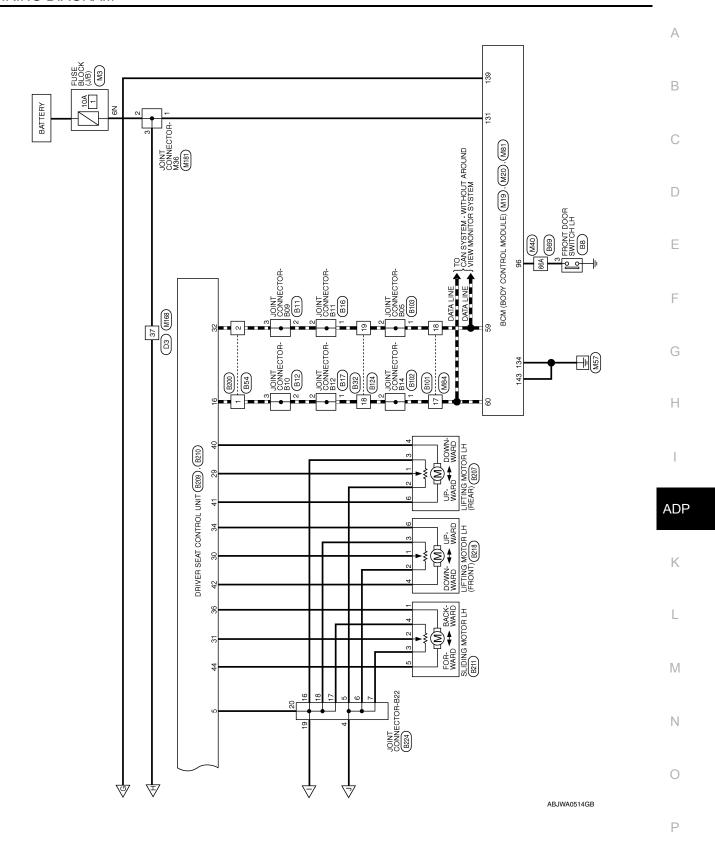
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Signal Name

# AUT

Revision: November 2015

Connector No.   M19   Connector No.   M20   Connector Name   BCM (BODY CONTROL   MODULE)   Connector Name   BCM (BODY CONTROL   MODULE)   Connector Color   GRAY   Connector   Connector Color   GRAY   Connector   Connector
--

Color of Wire ≥ Terminal No. 10G 12G 13G 14G 15G 16G 17G 18G 19G 20G 21G 22G 23G 24G 25G 26G 27G 28G 29G 30G 31G32G33G34G35G35G37G38G39G40G41G 42G43G44G45G46G47G48G49G50G 16 26 36 46 <sup>56</sup> 66 76 86 96 106 91G 92G 93G 94G 95G 96G 97G 98G 99G 100G Connector Name WIRE TO WIRE Connector Color WHITE M31 Connector No. ABJIA0799GB

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### < WIRING DIAGRAM >

Signal Name	MIRROR SW (RIGHTWARD)	MIRROR SENSOR (RH HORIZONTAL)	MIRROR SENSOR (LH HORIZONTAL)	ı	GND (SENSOR GND)	POWER SUPPLY (SENSOR FOR 5V)	MIRROR MOTOR [RH COMMON (DOWN&RIGHT)]	MIRROR MOTOR [LH VERTICAL (UP)]	MIRROR MOTOR [LH HORIZONTAL (LEFT)]
Color of Wire	W	g	BG	ı	>	BG	SB	LG	L
Terminal No.	16	17	18	19	20	21	22	23	24

Signal Name	MIRROR SENSOR (LH VERTICAL)	ı	UART (TX/RX)	ı	MIRROR MOTOR [RH VERTICAL (UP)]	MIRROR MOTOR [RH HORIZONTAL (LEFT)]	MIRROR MOTOR [LH COMMON (DOWN& RIGHT)]	I	MIRROR SELECT SW (LH)	MIRROR SW (DOWNWARD)
Color of Wire	Œ	1	g	1	BB	ŋ	BG	ı	۵	Œ
Terminal No.	9	7	8	6	10	11	12	13	14	15

3	AUTOMATIC DRIVE POSITIONER CONTROL UNIT	ITE	5 6 7 8 9 10 11 12	Signal Name	l	MIRROR SELECTOR SW (RH)	MIRROR SW (UPWARD)	MIRROR SW (LEFTWARD)	MIRROR SENSOR (RH VERTICAL)
. M33		lor WHITE	2 3 4 8 14 15 16	Color of Wire	ı	GR	В	۵	8
Connector No.	Connector Name	Connector Color	斯 H.S.	Terminal No.	1	2	3	4	5

Signal Name	_	ı	ı	GND (POWER)
Color of Wire	_	-	ı	В
Terminal No.	27	28	29	30

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

CONTROL UNIT	ІТЕ	25 <u>28 29 30</u>	Signal Name	BAT (PTC)	-
<u>5</u>	lor WH		Color of Wire	Т	ı
	Connector Color WHITE	原 H.S.	Terminal No.	25	56

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Connector No. MIDE TO WIDE	Terminal No.	I No. Color of Wire	of Signal Name	Connector No.	5	IOGENOO VOOS)
Connector Color GRAY	37A	PC	- (WITHOUT ELECTRIC TILT AND TELESCOPIC STEERING COLUMN)	Connector Color	_	MODULE) WHITE
	38A	>	- (WITHOUT ELECTRIC TILT AND TELESCOPIC STEERING COLUMN)	E	143	137[136]135[134]133[132[131]130]129 142   141   140   139   138
6A 7A 8A 9A 10A	39A	SB	ı	Ģ.		
11.4 12.9 13.9 14.9 15.9 16.9 17.7 18.4 19.4 20.0 21.9 22.9 22.9 23.9 24.9 25.9 25.9 25.9 25.9 25.9 25.9 25.9 25	40A	BB	- (WITHOUT ELECTRIC TILT AND TELESCOPIC STEERING COLUMN)	N O	Color of Wire	Signal Name
31 a 32 a 33 a 34 a 35 a 35 a 37 a 38 a 39 a 40 a 41 a	41A	>	1	131	>	BAT BCM FUSE
42A 43A 44A 45A 46A 47A 48A 49A 50A	61A	G	ı	134	ω :	GND 2
514 524 534 544 554 564 574 584 594 604 614	66A	BG	ı	139	ء <	BAT POWER F/L
62A 63A 64A 65A 66A 67A 68A 69A 70A	984		- (WITH AUTOMATIC DRIVE POSITIONER)	143	מ	GIND 1
Connector No. M82 Connector Name CIRCUIT BREAKER-2 Connector Color WHITE	Connector No. Connector Nar Connector Col	Connector No. M Connector Name W Connector Color W	Connector No. M84 Connector Name WIRE TO WIRE Connector Color WHITE			
	H.S.	16 15 14 13 32 31 30 29	13 12 11 10 9 8 7 6 5 4 3 2 11 10 19 18 17			
Terminal No. Color of Signal Name	Terminal No.	I No. Color of Wire	of Signal Name			
	17	7	1			
		(				

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### < WIRING DIAGRAM >

Signal Name

Color of Wire ш

Terminal No. က

Signal Name

Color of Wire

Terminal No.

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Connector Name | WIRE TO WIRE

Connector Name | WIRE TO WIRE

M91

Connector No.

Connector Color WHITE

M167

Connector No.

Connector Color WHITE

	()()	()()		()()						
Signal Name	- (WITHOUT ELECTRIC TILT AND TELESCOPIC STEERING COLUMN)	- (WITHOUT ELECTRIC TILT AND TELESCOPIC STEERING COLUMN)	I	- (WITHOUT ELECTRIC TILT AND TELESCOPIC STEERING COLUMN)	ı	-	ı	ı	I	ı
Color of Wire	ГG	>	SB	BR	<b>\</b>	BG	>	Я	BG	>
Terminal No.	23	24	25	26	27	33	34	32	36	37

Signal Name	ı	1	ı	ı	ı	ı	- (WITH AUTOMATIC DRIVE POSITIONER)	- (WITH AUTOMATIC DRIVE POSITIONER)	<ul><li>– (WITH AUTOMATIC DRIVE POSITIONER)</li></ul>
Color of Wire	۵	GR	ш	g	۵	×	LG LG	BG	٦
Ferminal No.	4	5	9	7	8	6	16	17	18

	Connector No.	шe	ģ	ō	S		_	M168	38												
$\Box$	Connector Name WIRE TO WIRE	1 2	ថ្ល	5	Ra	Ĕ	_	I₩	ᄴ		>	∣≒	끭						_		
0	Connector Color WHITE	ıne	ģ	ō	ပ္ပ	lor	_	¥	╘	ш											
	[4]	国 H.S.											_						1		
Щ	-	2	8	4	ß	9	_	0 0	6	9	=	12	9 10 11 12 13 14 15 16 17 18 19 20	4	5	16	1	18	19	R	_
	21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39	ผ	g	24	25	92	27	83	ಜ	8	8	잃	æ	용	33	98	37	88	ස	8	
	I		Ш			I		Ш	Ш			Ш			I	I		Ш		ı	_

Signal Name	- (WITHOUT ELECTRIC TILT AND TELESCOPIC STEERING COLUMN)	- (WITHOUT ELECTRIC TILT AND TELESCOPIC STEERING COLUMN)	ı	- (WITHOUT ELECTRIC TILT AND TELESCOPIC STEERING COLUMN)	I	ı	ı	-	-	ı
Color of Wire	re	>	SB	BB	>	BG	>	Я	BG	≥
Terminal No.   Color of Wire	23	24	25	26	27	33	34	35	36	37

ပ္ပ	Connector No.	ect	ō	ž		_	M168	89											
ပိ	Connector Name WIRE TO WIRE	ect	ō	z	Ĕ	_	₹	쀭	۲	2	l₩	삝							
ပိ	Connector Color WHITE	ect	ō	ပိ	ō	_	۷	≒	Е										
修																			
 ₹	į	<b>7</b>					۳	Ш	I۱	М		Ш							- 1
-	2	3	4	2	9	7	8	6	10	=	12	13	14	15	16	9 10 11 12 13 14 15 16 17 18	18	19	- 4
21	22	22 23 24 25	24	25	26 27	27	28 29	23	8	31	30 31 32 33 34	33	8	35	36	37	88	88	
		11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	$\ $	П

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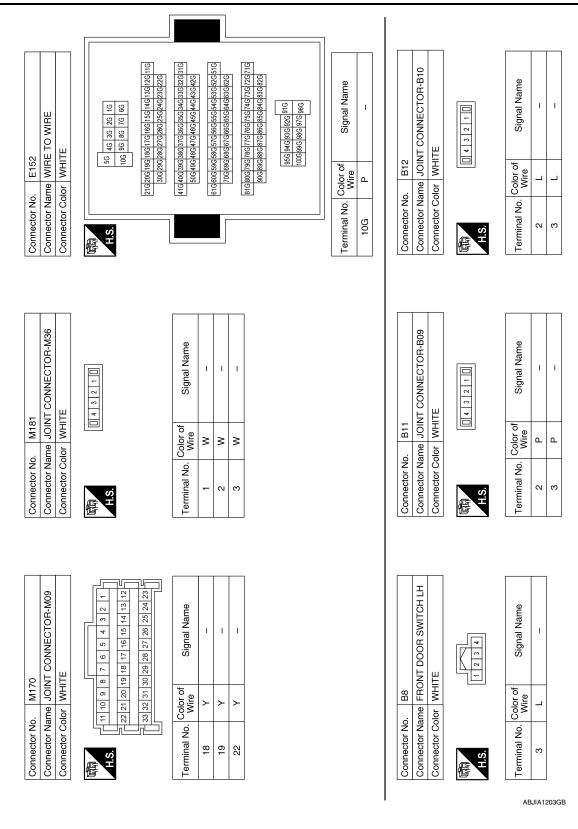
- (WITH AUTOMATIC DRIVE POSITIONER) - (WITH AUTOMATIC DRIVE POSITIONER) - (WITH AUTOMATIC DRIVE POSITIONER)

BG BB SB

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### < WIRING DIAGRAM >



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	Connector Color WHITE  ALS.	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	16   15   14   13   12   11   10   9   8   7   6   5   4
Color of With	color of Signal Name	Color of Col	olor of
į		18	WIFE L
	-	19	۵

Signal Name

Color of Wire

Terminal No.

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Connector Name JOINT CONNECTOR-B11
Connector Color WHITE

B16

Connector No.

Signal Name	-	-	- (WITHOUT ELECTRIC TILT AND TELESCOPIC STEERING COLUMN)	- (WITHOUT ELECTRIC TILT AND TELESCOPIC STEERING COLUMN)	- (WITHOUT ELECTRIC TILT AND TELESCOPIC STEERING COLUMN)	-	ı
Color of Wire	>	SB	ГС	^	BR	У	Г
Terminal No. Color of Wire	9		8	6	10	11	12

	RE TO WIRE	BROWN	4   3 2 1 1 1 1 1 0 9 8 7 6	Signal Name	-	-	-
. B54	me WIF	_	5 4 11 11	Color of Wire	٦	Ь	В
Connector No.	Connector Name WIRE TO WIRE	Connector Color	用.S.	Terminal No.	1	2	3

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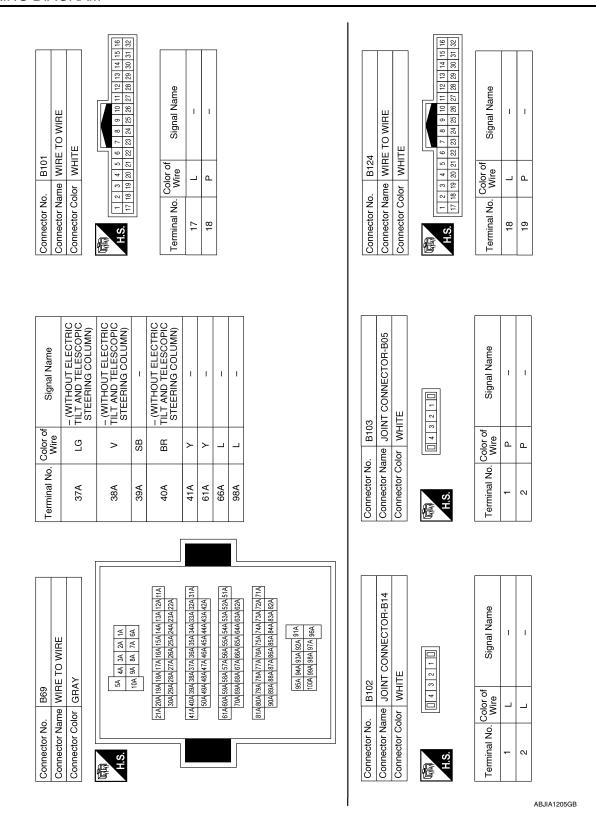
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### < WIRING DIAGRAM >



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### < WIRING DIAGRAM >

Connector No.	B207	
Connector Na	Ime LIFT	Connector Name LIFTING MOTOR LH (REAR)
Connector Color	lor WHITE	TE
4		
		3 2 1
2		6 5 4
Terminal No.	Color of Wire	Signal Name
_	ш	ı
2	В	ı
3	M	1
4	T	- (WITH AUTOMATIC DRIVE POSITIONER)
9	>	- (WITH AUTOMATIC DRIVE POSITIONER)

		_	_		
Signal Name	_	I	-	_	_
Color of Wire	GR	>	ŋ	<b>\</b>	В
Terminal No. Wire	8	6	10	11	12

0	WIRE TO WIRE	BROWN	9 10 11 12	Signal Name	1	ı	ı	1	ı
. B200			1 2 3 6 7 8	Color of Wire	Ь	Μ	В	SB	_
Collinector No.	Connector Name	Connector Color	SH E	Terminal No. Color of Wire	1	7	3	9	

Signal Name	ı	ı	I	1	ı
Color of Wire	<b>\</b>	Γ	SB	۵	BR
Terminal No. Wire	9	7	8	6	10

89	Connector Name POWER SEAT SWITCH LH	里	3 8 7 6 5	Signal Name	_	ı	( i i i i i i i i i i i i i i i i i i i
. B208	me PO	lor WH	101	Color of Wire	>	æ	
Connector No.	Connector Na	Connector Color WHITE	所 H.S.	Terminal No. Wire	F	2	

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Signal Name	SET SW	REAR LIFTER SW (UPWARD)	FRONT LIFTER SW (UPWARD)	RECLINER SW (FORWARD)	SLIDE SW (FORWARD)	IND 1	ADDRESS 1	ı	PULSE (REAR LIFTER)	PULSE (FRONT LIFTER)	PULSE (SLIDE)	CAN-L
Color of Wire	٦	>	ŋ	Ь	٦	>	^	1	В	<b>\</b>	٦	M
Terminal No.	12	22	23	54	25	26	27	28	59	30	31	35

Signal Name	SLIDE SW (BACKWARD)	IND 2	ADDRESS 2	1	PULSE (RECLINER)	1	UART (TX/RX)	CAN-H	1	ı	ı	ı
Color of Wire	SB	В	GR	ı	9	ı	SB	۵	ı	ı	ı	ı
Color of Wire	6	10	F	12	13	14	15	16	17	18	19	20

			17										
	DRIVER SEAT CONTROL UNIT	WHITE	12 11 10 9 8 7 6 5 4 3 2 2 2 1 20 19 18	Signal Name	ı	I	-	ı	POWER SUPPLY (ENCODER)	REAR LIFTER SW (DOWNWARD)	FRONT LIFTER SW (DOWNWARD)	RECLINER SW (BACKWARD)	
).   B209		$\vdash$	15 14 13 1 31 30 29 2	Color of Wire	ı	ı	ı	ı	Μ	ш	>	BR	
Connector No.	Connector Name	Connector Color	<b>ن</b> ا	Terminal No.	-	2	3	4	2	9	7	8	

	SLIDING MOTOR LH	\.	3 2 1	Signal Name	- (WITH AUTOMATIC DRIVE POSITIONER)	ı	1	ı	- (WITH AUTOMATIC DRIVE POSITIONER)
, B211		lor GR/	2 4	Color of Wire	>	LG	В	>	G
Connector No.	Connector Name	Connector Color GRAY	是 H.S.	Terminal No.	-	2	3	4	5

Signal Name	BAT (PTC)	I	GND	REAR LIFTER MOTOR (DOWNWARD)	REAR LIFTER MOTOR (UPWARD)	FRONT LIFTER MOTOR (DOWNWARD)	RECLINER MOTOR (BACKWARD)	SLIDE MOTOR (FORWARD)
Color of Wire	Я	-	В	_	<b>\</b>	GR	BR	g
Terminal No.	37	38	39	40	41	42	43	44

0	DRIVER SEAT CONTROL UNIT	ITE	37 36 7 38 34 33 44 43 42 41 40 38 38	Signal Name
. B210		lor WH	37	Color of Wire
Connector No.	Connector Name	Connector Color WHITE	雨 H.S.	Terminal No.

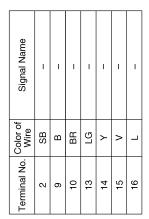
Signal Name	I	FRONT LIFTER MOTOR (UPWARD)	RECLINER MOTOR (FORWARD)	SLIDE MOTOR (BACKWARD)
Color of Wire	1	SB	>	>
Terminal No. Color of Wire	33	34	35	36

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									7						_					Α
							ш			2 1	8 8			Signai Name	1					В
							E TO WIRE	ITE		4 3 2	16 15 14 13 12 11 10 9									С
						No. D2	Connector Name WIRE TO WIRE	Color WHITE		7 6 5 4	16 15 14		Color of	o. Wire	В					D
						Connector No.	Connector	Connector Color		僵	H.S.			l erminai No.	က					Е
																				F
Connector No. B218 Connector Name LIFTING MOTOR LH (FRONT) Connector Color WHITE  H.S.  Terminal No. Color of Signal Name	ı	1	ı	- (WITH AUTOMATIC DRIVE POSITIONER)	- (WITH AUTOMATIC DRIVE POSITIONER)	Signal Name	Olginal Ivaline	1	ı	ı	1	ı	1	1	1					G
ame LIFTING Slor WHITE	D >-	В	>	GR D	SB D	Color of	Wire	В	В	В	ш	ш	<b>&gt;</b>	<b>×</b> :	A 3	^ >	<b>.</b>			
Connector No. B218 Connector Name LIFTINC Connector Color WHITE H.S. Solor of Color	-	2	က	4	9	Terminal No		80	6	10	41	15	91	/1	8 9	2 8	0,4		Į	ADF
								•	•	•	•	•		•	•		_			K
Connector No. B217 Connector Name RECLINING MOTOR LH Connector Color WHITE  H.S  Terminal No. Color of Signal Name	1	1	ı	- TH AUTOMATIC	DRIVE POSITIONER)		Connector Name JOINT CONNECTOR-B22			4 3 2 1	14 13		Signal Name			1	1			L
BE217 RECLINING WHITE  3 2 1 1 6 5 4 4					DRIV	B224	OINT CO	PINK		8 7 6 5	_			,				-		M
r No. B21 r Name REC r Color WH	S O	В	8	HB ;	>		Name	Color		10 9	20 19 18		No. Color of	<u> </u>	n ee	В	В	_		Ν
Connector No. B217 Connector Name RECLIN Connector Color WHITE  A.S. Terminal No. Color of	-	2	က	4 (	9	Connector No.	Connector	Connector Color		僵	HS		Terminal No.		. 12	9	7			0
																		ABJIA1208GB		

### < WIRING DIAGRAM >









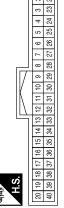
Connector No.	D4
Connector Name	Connector Name (WITHOUT AROUND VIEW MONITOR SYSTEM)
Connector Color WHITE	WHITE





Signal Name	ı	ı	_	1	I	I	ı
Color of Wire	SB	BG	У	>	LG	٦	BG
Terminal No. Wire	က	4	9	9	8	6	10





Signal Name	1	ı	1	I	1	ı	1	- (WITH AUTOMATIC DRIVE POSITIONER)	- (WITH AUTOMATIC DRIVE POSITIONER)	1	I	ı	ı	I	ı	1	1	1	ı
Color of Wire	SB	LG	_	BR	>	>	LG	BG	_	T	BR	SB	LG	<b>\</b>	>	<b>\</b>	BG	SB	^
Terminal No.	4	2	9	2	8	6	16	17	18	23	54	25	26	22	33	34	38	98	37

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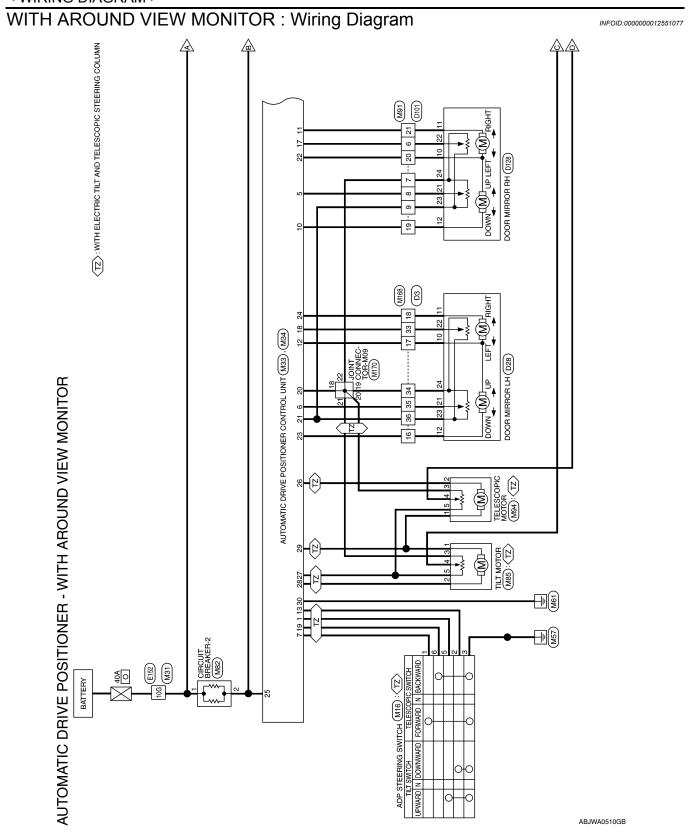
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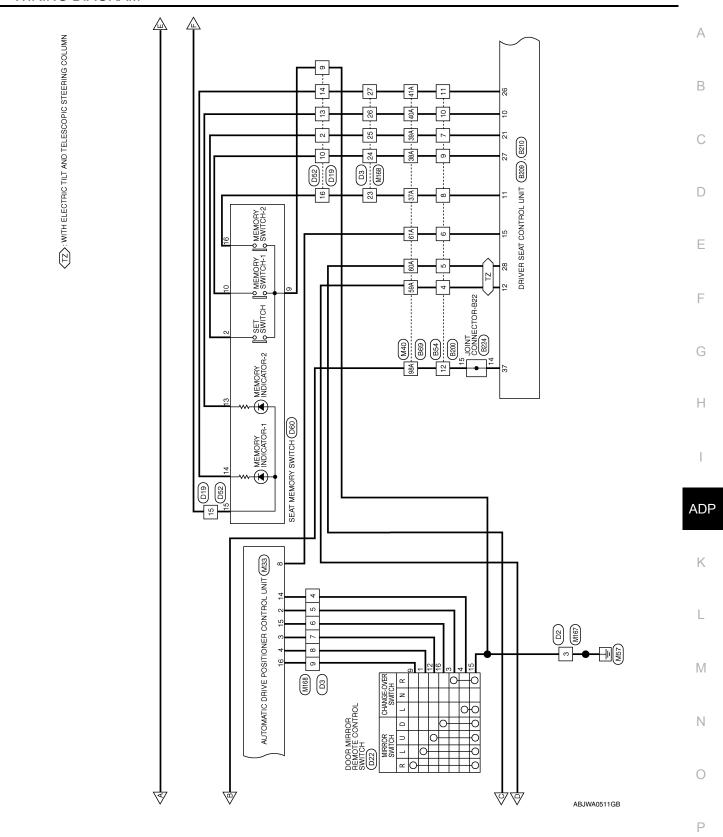
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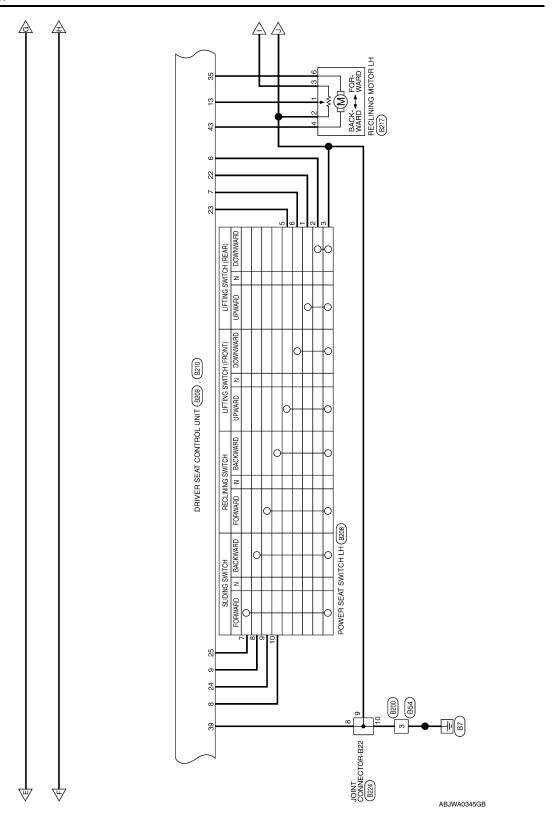
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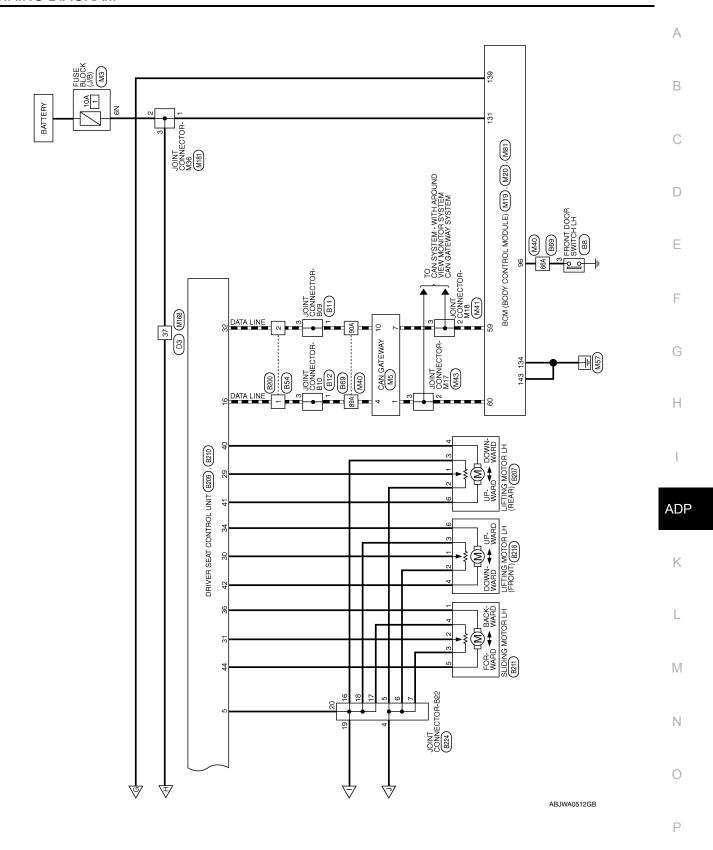
	000	R MIRROR REMOTE	Connector Name WIBE TO WIBE	Jame WIRE	= TO WIRE	3	Connector Name		SEAT MEMORY SWITCH
	(	THINK TO HING TO CH			C - W =   F	3	וומכוכו יים		MEIN C. C.
Connector Name	ne CON AUTC POSI	CONTROL SWITCH (WITH AUTOMATIC DRIVE POSITIONER)	Connector Color	color WHITE	IE I	S	Connector Color	lor WHITE	ш
Connector Color	or GRAY	· >	管			E			abla
H.S.		9 9	Ä.S.	9 10 11 12	2 13 14 15 16	7	H.S.	16 15 14 1:	5 4 3 2 1 13 12 11 10 9
	9 10 11 1	12 13 14 15 16							
Terminal No.	Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name	Ten	Terminal No.	Color of Wire	Signal Name
-	>	1	2	SB	I		2	SB	ı
3	LG	ı	6	В	I		6	В	1
4	SB	1	10	BR	I		10	BB	1
6	>	1	13	LG	I		13	F.G	ı
12	BR	1	14	<b>\</b>	I		14	>	1
15	В	1	15	>	ı		15	>	ı
16	_	ı	16	_	I		16	_	ı
Connector No.	וטוט		Connector No.	יטוט ) סו					
Connector Name	-	WIRE TO WIRE	Connector Name		DOOR MIRROR RH (WITHOUT AROUND VIEW				
	-		yolo C rotocano C	_	IIOR SYSIEM)				
€ E				-	_				
ું. જું	16 15 14 13 12 32 31 30 29 28	27 28 25 24 23 22 21 20 19 18	H.S.	6 5 11 12 11	11 0 8 2 1 1 1 2 8 2 1 1 1 1 1 1 1 1 1 1 1 1				
Terminal No.	Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name				
9	>	1	ო	>	I				
7	_	1	4	BB	1				
80	BR	ı	2	7	-				
6	>	1	9	>	I				
19	BB	ı	80	BB	ı				
20	SB	ı	6	LG	I				
21	9	ı	10	SB	I				

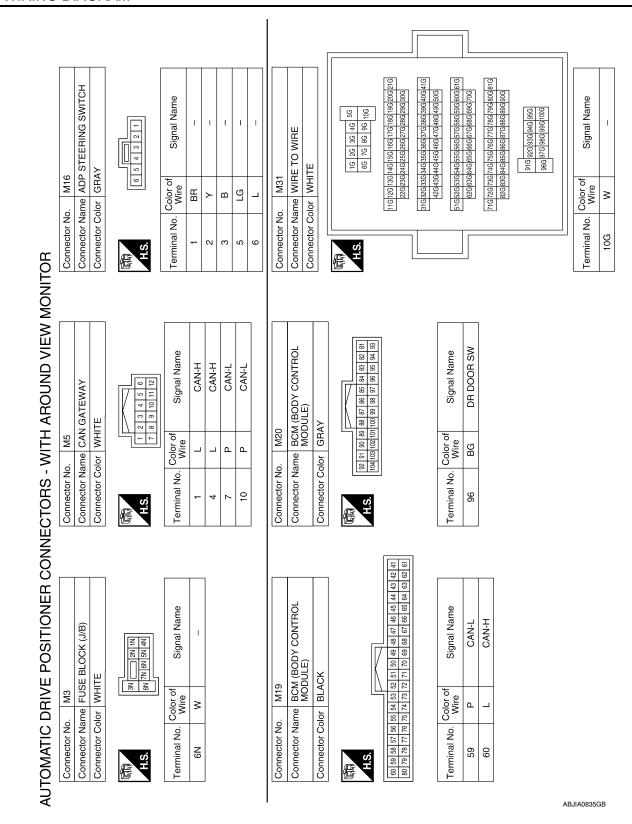
### WITH AROUND VIEW MONITOR











### < WIRING DIAGRAM >

Signal Name	MIRROR SW (RIGHTWARD)	MIRROR SENSOR (RH HORIZONTAL)	MIRROR SENSOR (LH HORIZONTAL)	TELESCOPIC SW (BACKWARD)	GND (SENSOR GND)	POWER SUPPLY (SENSOR FOR 5V)	MIRROR MOTOR [RH COMMON (DOWN&RIGHT)]	MIRROR MOTOR [LH VERTICAL (UP)]	MIRROR MOTOR [LH HORIZONTAL (LEFT)]
Color of Wire	W	g	BG	٦	>	BG	SB	LG	L
Terminal No.	16	17	18	19	20	21	22	23	24

Signal Name	MIRROR SENSOR (LH VERTICAL)	TELESCOPIC SW (FRONTWARD)	UART (TX/RX)	ı	MIRROR MOTOR [RH VERTICAL (UP)]	MIRROR MOTOR [RH HORIZONTAL (LEFT)]	MIRROR MOTOR [LH COMMON (DOWN& RIGHT)]	TILT SW (DOWNWARD)	MIRROR SELECT SW (LH)	MIRROR SW (DOWNWARD)
Color of Wire	ш	BB	G	1	BR	9	BG	>	۵	Œ
Terminal No.	9	7	8	6	10	11	12	13	14	15

Connector No.		3
Connector Name		AUTOMATIC DRIVE POSITIONER CONTROL UNIT
Connector Color	olor WHITE	IITE
ν <u>i</u>	1 2 3 4 5 13 14 15 16 17	5 6 7 8 9 10 11 12 5 17 18 19 20 21 22 23 24
Terminal No.	Color of Wire	Signal Name
1	ЫLG	TILT SW (UPWARD)
2	GR	MIRROR SELECTOR SW (RH)
3	g	MIRROR SW (UPWARD)
4	Д	MIRROR SW (LEFTWARD)
5	<b>M</b>	MIRROR SENSOR (RH VERTICAL)

Signal Name	TELESCOPIC MOTOR (BACKWARD)	POWER SUPPLY (SENSOR FOR 16V)	TILT MOTOR (DOWNWARD)	STRG MOTOR COMMON (UPWARD/ FORWARD)	GND (POWER)
Color of Wire	>	ΓG	SB	BR	В
Terminal No.	26	27	28	59	30

Connector No.	M34	
Connector Name		AUTOMATIC DRIVE POSITIONER CONTROL UNIT
Connector Color WHITE	olor WHI	TE
顾到 H.S.		25 <u> </u>
Terminal No.	Color of Wire	Signal Name
25	L	BAT (PTC)

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### < WIRING DIAGRAM >

Connector Name   WIRE TO WIRE	MHITE   Connector Name   WINE TO WINE   Connector Name   WINE TO WINE   Connector Name   WINE TO WINE   Connector Name   Co	onnector Name	, TILT MOTOR WHITE	Connecto	r Color WH	RE TO WIRE	Con	nector Nar		SCOPIC MOTOR
MHTE   Connector Color   WHTE   Connector Color   BROWN	MHTE   Connector Color   WHTE   Connector Color   BROWN	onnector Color	WHITE	Connecto			Con	nector Col		
Name	Name									Z
Name	Name									
Name   Terminal No.   Color of   Signal Name   Terminal No.   Color of   Terminal No.   Wire   Color of   Terminal No.   Color of   Terminal No.   Color of   Terminal No.   Wire   Terminal No.   Color of   Terminal No.   Color of   Terminal No.   Color of   Terminal No.   Color of   Terminal No.   Terminal No.   Color of   Terminal No.   Terminal No.   Color of   Terminal No.   Terminal No.   Terminal No.   Color of   Terminal No.   Termina	Name   Terminal No.   Color of   Signal Name   Terminal No.   Color of   Signal Name   Terminal No.   Wire   Color of   Terminal No.	S.	٠ د	H.S.	2 3 4	6 7 8 9 10 11 12 13 14 15 22 23 24 25 26 27 28 29 30 31		ν <u>ς</u>		<del>4</del>
6   G     1   BR     1   BR   1   BR     1   BR     1   BR     1   BR     1   BR     1   BR   1   BR     1   BR     1   BR     1   BR     1   BR     1   BR   1   BR     1   BR     1   BR     1   BR     1   BR     1   BR   1   BR     1   BR     1   BR     1   BR     1   BR     1   BR   1   BR     1   BR     1   BR     1   BR     1   BR     1   BR   1   BR     1   BR     1   BR     1   BR     1   BR     1   BR   1   BR     1   BR     1   BR     1   BR     1   BR     1   BR   1   BR     1   BR     1   BR     1   BR     1   BR     1   BR   1   BR     1   BR     1   BR     1   BR     1   BR     1   BR   1   BR     1   BR     1   BR     1   BR     1   BR     1   BR   1   BR     1   BR     1   BR     1   BR     1   BR     1   BR   1   BR     1   BR	6   G			Terminal			Tern		Solor of Wire	Signal Name
19   8   W   -     3   V	7			9	g	ı		-	BB	1
S   W	9   8G				>	ı		2	>	1
9 BG - 4 SB   19 BR - (WITH AUTOMATIC   5 LG   19   19 BR   - (WITH AUTOMATIC   5 LG   19   19   19   19   19   19   19   1	9 BG — 4 SB — 4 SB — 19 BR — W/ITH AUTOMATIC 5 LG — 5 LG — 19 BR — W/ITH AUTOMATIC 5 LG — 19 BR — W/ITH AUTOMATIC 5 LG — LG — W/ITH AUTOMATIC 5 LG — LG — W/ITH AUTOMATIC 5 LG — W/ITH AUTOMATIC 5 LG — W/ITH AUTOMATIC 5 LG — LG — W/ITH AUTOMATIC 5 LG — W	3		8	>	ı		က	>	ı
19   BR   - (WITH AUTOMATIC   20   SB   - (WITH AUTOMATIC   21   G   - (WITH AUTOMATIC   21   G   DRIVE POSITIONER)	19   BR   -(W/TH AUTOMATIC   20   SB   -(W/TH AUTOMATIC   21   G   -(W/TH AUTOMATIC   21   G   DRIVE POSITIONER)     15 i.i6     16 i.i6     16 i.i6     16 i.i6     16 i.i6     17     18 i.i6	4		6	BG	ı		4	SB	1
20 SB	20 SB   G   G   G   G   G   G   G   G   G			19	BB	- (WITH AUTOMATIC DRIVE POSITIONER)		2	LG	1
Name	Name			20	SB	- (WITH AUTOMATIC DRIVE POSITIONER)				
mector No.         M167           mector Name wife TO wife         M167           mector Color         WHITE           Image: Interpretation of Wife Signal Name         Signal Name           3         B         -	mector No.   M167   M167   M167   M167   M167   M167   M167   M167   M17E   M1			21	g	- (WITH AUTOMATIC DRIVE POSITIONER)				
M167   Color of   WIRE TO V   WHITE   Clor Color   WHITE   Color of   Color	Connector No.         M167           Connector Name         WIRE TO WIRE           Connector Color         WHITE           It 2         Image: Standard of the standa									
onnector Name   WIRE TO WIRE    Mail	onnector Name   WIRE TO WIRE    Name   Wile   Signal Name   Signal Name	onnector No.	M167							
MHITE    1   2   3	WHITE   WHITE   S   S   S   S   S   S   S   S   S	nnector Name	WIRE TO WIRE							
Color of Wire B	Color of Wire B	nnector Color								
Color of Wire B	Color of Wire B	ς <u>i</u>	1 2 3							
В	В									

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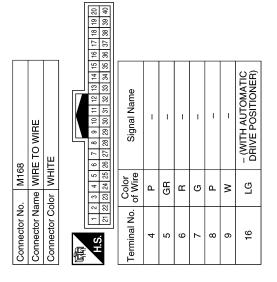
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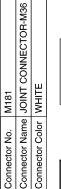
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Revision: November 2015 ADP-63 2016 Pathfinder

Signal Name	– (WITH ELECTRIC TILT AND TELESCOPIC STEERING COLUMN)	- (WITHOUT ELECTRIC TILT AND TELESCOPIC STEERING COLUMN)	ı	1	I	-	1	ı
Color of Wire	Ы	BR	>	BG	Υ	В	BG	W
Terminal No.	26	26	27	33	34	32	36	37

Terminal No.	Color of Wire	Signal Name
	BG	- (WITH AUTOMATIC DRIVE POSITIONER)
	7	- (WITH AUTOMATIC DRIVE POSITIONER)
	L	- (WITH ELECTRIC TILT AND TELESCOPIC STEERING COLUMN)
	ГG	- (WITHOUT ELECTRIC TILT AND TELESCOPIC STEERING COLUMN)
	BR	– (WITH ELECTRIC TILT AND TELESCOPIC STEERING COLUMN)
	^	- (WITHOUT ELECTRIC TILT AND TELESCOPIC STEERING COLUMN)
	SB	







Signal Name	1	1	1
Color of Wire	Μ	Ν	Α
Terminal No.	1	2	က

Connector No.	Ż	M170	_							
Connector Name JOINT CONNECTOR-M09	2	Ž	LC	Ó	I	SCT	OR-	οÑ		
Connector Color WHITE	≶		ш							
		'=							_	
11 10 9 8 7 6 5 4 3 2	6	8	7	9	5	4	3 2	-	垣	
2										
7         22         21         20         19         18         17         16         15         14         13         12	20	19	18	17	16	15	13	12	ηг	
		١	١	1	1					

	Signal Name	ı	ı	ı	I	ı
	Color of Wire	Y	Υ	Υ	>	Υ
]	Terminal No. Wire	18	19	20	21	22

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Signal Name	L
Color of Wire	N
Terminal No.	0
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	Terminal No. Color of Wire 1 L 3 L

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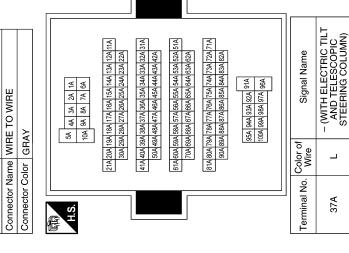
inal No.	Terminal No. Wire	Signal Name
9	^	- (WITHOUT ELECTRIC TILT AND TELESCOPIC STEERING COLUMN)
10	LG	- (WITH ELECTRIC TILT AND TELESCOPIC STEERING COLUMN)
10	BR	- (WITHOUT ELECTRIC TILT AND TELESCOPIC STEERING COLUMN)
11	Υ	ı
12	_	ı

			ı		_													
00	WIRE TO WIRE	BROWN		9 10 11 12		Signal Name	_	-	-	-	1	-	-	-	ı	-	_	ı
. B200				1 2 3 6 7 8	2010	Wire	Ф	M	В	Μ	BR	SB	7	GR	>	В	Υ	۳
Connector No.	Connector Name	Connector Color		是 H.S.		Terminal No.	-	2	3	4	2	9	2	8	6	10	11	12

Signal Name	I	_	ı	- (WITH ELECTRIC TILT AND TELESCOPIC STEERING COLUMN)	- (WITHOUT ELECTRIC TILT AND TELESCOPIC STEERING COLUMN)	- (WITH ELECTRIC TILT AND TELESCOPIC STEERING COLUMN)
Color of Wire	٦	У	SB	٦	ГС	BR
Terminal No. Color of Wire	2	9	7	80	8	6

- 1															
	Signal Name	- (WITHOUT ELECTRIC TILT AND TELESCOPIC STEERING COLUMN)	- (WITH ELECTRIC TILT AND TELESCOPIC STEERING COLUMN)	- (WITHOUT ELECTRIC TILT AND TELESCOPIC STEERING COLUMN)	ı	- (WITH ELECTRIC TILT AND TELESCOPIC STEERING COLUMN)	- (WITHOUT ELECTRIC TILT AND TELESCOPIC STEERING COLUMN)	ı	_	ı	_	_	1	_	ı
	Color of Wire	LG	BB	>	SB	ГG	BB	>	BR	_	<b>\</b>	٦	٦	۵	_
	Terminal No.	37A	38A	38A	39A	40A	40A	41A	¥69	60A	61A	V99	¥68	¥06	V86

	WIRE TO WIRE	BROWN	10 9 8 7 6	Signal Name	ı	ı	ı	_
. B54			12 11	Color of Wire	_	Ь	В	BR
Connector No.	Connector Name	Connector Color	南南 H.S.	Terminal No. Wire	-	2	3	4



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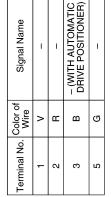
Connector No.

### < WIRING DIAGRAM >

Signal Name	ı	1	ı	ı	ı
Color of Wire	Y	٦	SB	Ь	BR
Terminal No.	9	7	8	6	10

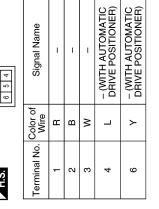
Signal Name	SET SW	REAR LIFTER SW (UPWARD)	FRONT LIFTER SW (UPWARD)	RECLINER SW (FORWARD)	SLIDE SW (FORWARD)	IND 1	ADDRESS 1	PULSE (TILT)	PULSE (REAR LIFTER)	PULSE (FRONT LIFTER)	PULSE (SLIDE)	CAN-L
Color of Wire	_	>	g	۵	_	>	>	BR	æ	٨	_	8
Terminal No.	21	22	23	24	25	56	27	28	59	30	31	32

Connector No.	B208
Connector Name	Connector Name POWER SEAT SWITCH LI
Connector Color WHITE	WHITE



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Signal Name	FRONT LIFTER SW (DOWNWARD)	RECLINER SW (BACKWARD)	SLIDE SW (BACKWARD)	IND 2	ADDRESS 2	PULSE (TELESCOPIC)	PULSE (RECLINER)	1	UART (TX/RX)	CAN-H	-	_	ı	
Color of Wire	>	BB	SB	ŋ	GR	W	g	ı	SB	۵	ı	-	ı	
Ferminal No.	7	8	6	10	11	12	13	14	15	16	17	18	19	ç

Connector No.	B207
Connector Name	Connector Name LIFTING MOTOR LH (REAR)
Connector Color WHITE	WHITE



			1	2 1 18 17							
60	DRIVER SEAT CONTROL UNIT	WHITE		11 10 9 8 7 6 5 4 3 2 2 2 2 2 1 20 19	Signal Name	_	ı	I	_	POWER SUPPLY (ENCODER)	REAR LIFTER SW (DOWNWARD)
. B209				30 29 28	Color of Wire	ı	1	ı	ı	8	œ
Connector No.	Connector Name	Connector Color		H.S. 32 31	Terminal No.	1	2	3	4	5	9

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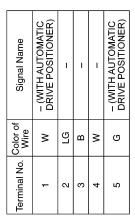
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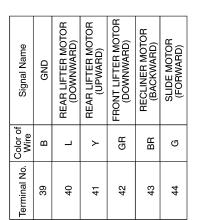
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Connector No.	B211
Connector Name	Connector Name SLIDING MOTOR LH
Connector Color GRAY	GRAY











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Signal Name	ı	ı	-	- (WITH AUTOMATIC DRIVE POSITIONER)	- (WITH AUTOMATIC DRIVE POSITIONER)
Color of Wire	>	В	Μ	GR	SB
Terminal No. Color of Wire	1	2	8	4	9

	۲۲ NIT		
B210	DRIVER SEAT CONTROL UNIT	WHITE	
Connector No.	Connector Name DRIVER SEAT CONTROL UN	Connector Color WHITE	



inal No. Col	Color of Signal Name	1	SB FRONT LIFTER MOTOR (UPWARD)	V (FORWARD)	W (BACKWARD)	R BAT (PTC)	ļ
	Terminal No. Co	33		35		37	00

Connector No.	B217
Connector Name	Connector Name RECLINING MOTOR
Connector Color WHITE	WHITE
	3 2 1



Signal Name	1	I	ı	I	- (WITH AUTOMA DRIVE POSITION
Color of Wire	ŋ	В	Μ	BR	۸
Terminal No. Wire	-	2	3	4	9

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### < WIRING DIAGRAM >

Connector No. B224 Connector Name IOINT CONNECTOR-822	Terminal No.	Color of Wire	Signal Name	Connector No. D2
Connector Color PINK	8	В	1	
	6	В	ı	
[10] 9   8   7   6   5   4   3   2   1	10	В	1	[元] [7] [6] [5] [4] [[1] [1] [1] [1] [1] [1] [1] [1] [1] [
S	14	ш	1	16 15 14 13 12 11 10 9 8
_	15	Œ	ı	
	16	>	1	
Terminal No. Wire Signal Name	17	>	1	Terriinal No. Wire Signal Name
- B	18	>	ı	- B
5 B -	19	>	1	
	20	>	1	
- B				
Connector No. D3 Connector Name WIRE TO WIRE	Terminal No.	Color of Wire	Signal Name	Connector Name WIRE TO WIRE
Connector Color WHITE	17	BG	– (WITH AUTOMATIC DRIVE POSITIONER)	Connector Color WHITE
	18	7	- (WITH AUTOMATIC DRIVE POSITIONER)	
H.S.	23	_	1	H.S. 16 15 14 13 12 11 10 9
00 10 14 15 14 14 15 15 14 10 0 8 7 8 8 7 8 8 1	24	BB	ı	2
26 25 24 23	25	SB	ı	
	56	ГG	ı	
Terminal No Color of Signal Name	27	>	ı	Terminal No Color of Signal Name
Wire	33	>	ı	Wire
4 SB –	34	>	ı	2 SB –
- LG –	35	BG	ı	
- T 9	36	SB	ı	10 BR –
7 BR –	37	>	ı	13 LG –
- N 8				14 Y –
- Д				15 V –
16 LG –				16 L –

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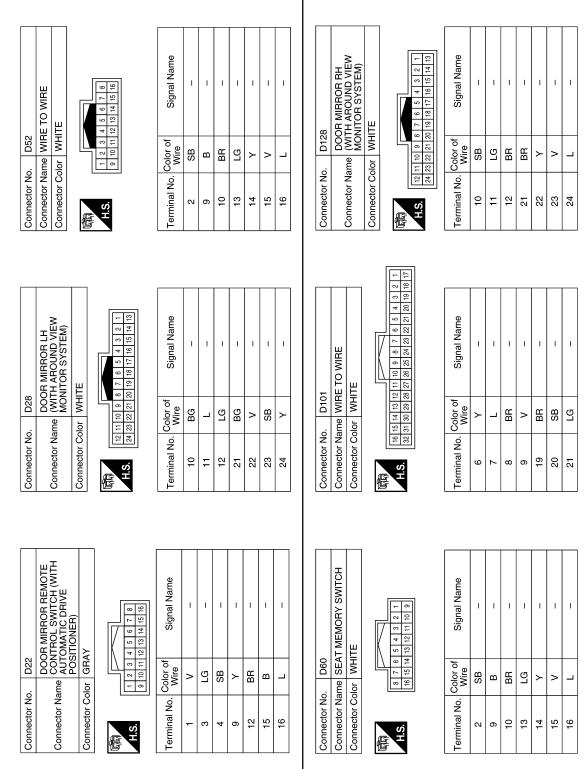
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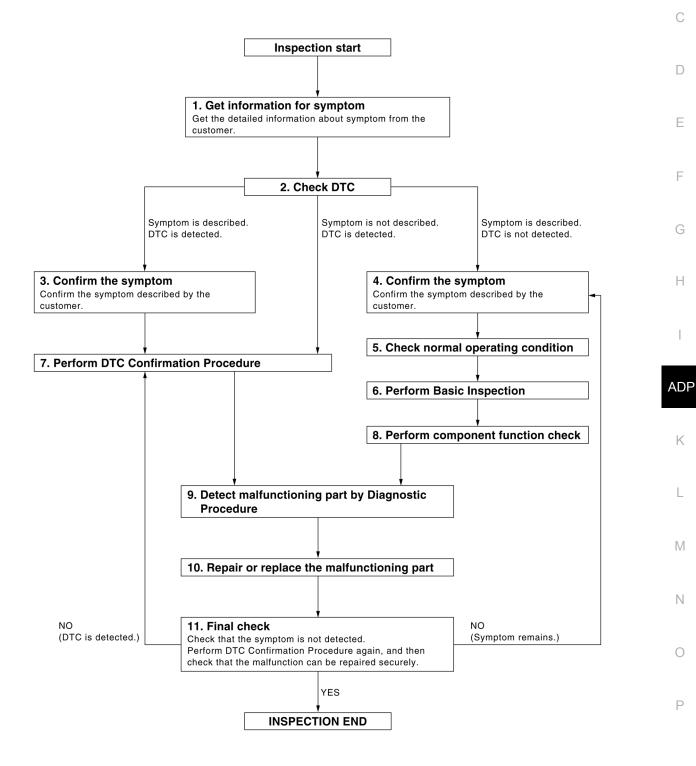
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# **BASIC INSPECTION**

### DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

**WORK FLOW** 



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### **DIAGNOSIS AND REPAIR WORK FLOW**

### < 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.

### f 2. CHECK DTC WITH AUTOMATIC DRIVE POSITIONER SYSTEM

Check "Self Diagnostic Result" with CONSULT.

Refer to ADP-34, "DTC Index".

Is any symptom described and any DTC is displayed?

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

Symptom is not described, DTC is displayed.>>GO TO 7.

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

3. CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

>> GO TO 7.

### 4. CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

>> GO TO 5.

### 5. CHECK NORMAL OPERATING CONDITION

Check normal operating condition. Refer to ADP-162, "Description".

Is the incident normal operation?

YES >> Inspection End.

NO >> GO TO 6.

### 6. PERFORM BASIC INSPECTION

Isolate the malfunctioning point with a basic inspection.

>> GO TO 8.

### 7. PERFORM DTC CONFIRMATION PROCEDURE

Perform the confirmation procedure for the detected DTC.

Is the DTC displayed?

YES >> GO TO 9.

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

### 8. PERFORM COMPONENT FUNCTION CHECK

Perform the component function check for the isolated malfunctioning point.

>> GO TO 9.

### 9. DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

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

>> GO TO 10.

### 10. REPAIR OR REPLACE

Repair or replace the malfunctioning part.

### DIAGNOSIS AND REPAIR WORK FLOW

### < BASIC INSPECTION >

>> GO TO 11.

# 11. FINAL CHECK

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

### Are all malfunctions corrected?

YES >> Inspection End.

Symptom is detected.>> GO TO 4.

DTC is detected.>> GO TO 7.

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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 (if equipped), mirror]	Erased Perform storing	
Faturita posist	ON	Perform initialization
Entry/exit assist	ON	Set slide amount <sup>*1</sup>
Intelligent Key interlock	Erased	Perform initialization
intelligent Ney Interlock	Liaseu	Perform storing

<sup>\*1:</sup> Default value is 40 mm.

#### NOTE:

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

# ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Work Procedure

# 1.SYSTEM INITIALIZATION

Perform system initialization. Refer to ADP-75, "SYSTEM INITIALIZATION: Work Procedure".

>> GO TO 2.

## 2.MEMORY STORAGE

Perform memory storage. Refer to ADP-76, "MEMORY STORING: Work Procedure".

>> GO TO 3.

# 3.INTELLIGENT KEY INTERLOCK STORAGE

Perform Intelligent Key interlock storage. Refer to <u>ADP-77</u>, "INTELLIGENT KEY INTERLOCK STORING: <u>Work Procedure"</u>.

>> GO TO 4.

# 4.SYSTEM SETTING

Perform system setting. Refer to ADP-77, "SYSTEM SETTING: Work Procedure".

>> Inspection End.

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

INFOID:0000000012551081

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

Function	Condition	Procedure
Memory [Seat, steering (if equipped), mirror]	Erased	Perform storing
Entry/ovit againt	ON	Perform initialization
Entry/exit assist	ON	Set slide amount*1

< BASIC INSPECTION >			
Function	Condition	Procedure	
Intelligent Key interlock	Erased	Perform initialization	А
intelligent Key Interlock	Liaseu	Perform storing	
*1: Default value is 40 mm.  NOTE:  Notice that disconnecting the battery when detections are the statement of the statement	rted DTC are pres	ent will erase the DTC memory	В
ADDITIONAL SERVICE WHEN REPL	•	•	С
1.SYSTEM INITIALIZATION			D
Perform system initialization. Refer to ADP-75, "	SYSTEM INITIALI	ZATION : Work Procedure".	
>> GO TO 2.			Е

# 2.MEMORY STORAGE

Perform memory storage. Refer to ADP-76, "MEMORY STORING: Work Procedure".

>> GO TO 3.

# 3. INTELLIGENT KEY INTERLOCK STORAGE

Perform Intelligent Key interlock storage. Refer to ADP-77, "INTELLIGENT KEY INTERLOCK STORING: Work Procedure".

>> GO TO 4.

### 4.SYSTEM SETTING

Perform system setting. Refer to ADP-77, "SYSTEM SETTING: Work Procedure".

>> Inspection End.

### SYSTEM INITIALIZATION

### SYSTEM INITIALIZATION: Description

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

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

### SYSTEM INITIALIZATION: Work Procedure

### INITIALIZATION PROCEDURE

# 1. CHOOSE METHOD

There are two initialization methods.

Which method do you use?

With door switch>>GO TO 2.

With vehicle speed>>GO TO 4.

 $\mathbf{2}$ . STEP A-1

Turn ignition switch from ACC to OFF position.

>> GO TO 3.

# 3. STEP A-2

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

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### < BASIC INSPECTION >

>> Inspection End.

## 4. STEP B-1

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

>> Inspection End.

### **MEMORY STORING**

## **MEMORY STORING: Description**

Always perform the memory storage when the battery terminal is disconnected or the driver seat control unit is replaced. The memory function will not operate normally if no memory storage is performed.

### MEMORY STORING: Work Procedure

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### Memory Storage Procedure

Two positions for the driver seat, steering column and outside mirror can be stored for memory operation by following procedure.

**1**.STEP 1

Check the following conditions.

- · Ignition switch: ON
- · CVT shift selector: P (Park) position

>> GO TO 2.

# **2**.STEP 2

Adjust driver seat, steering column (if equipped) and outside mirror position manually.

>> GO TO 3.

# **3.**STEP 3

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 seconds.
- 2. Push the memory switch (1 or 2) for at least 1 second within 5 seconds after pushing the set switch.

#### NOTE:

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

#### NOTE:

If memory is stored in the same memory switch, the previous memory will be deleted.

>> GO TO 4.

# **4.**STEP 4

Confirm the operation of each part with memory operation.

>> Inspection End.

### INTELLIGENT KEY INTERLOCK STORING

### INTELLIGENT KEY INTERLOCK STORING: Description

NFOID:000000001255108

Always perform the Intelligent Key interlock function storage when the battery terminal is disconnected or the driver seat control unit is replaced. The Intelligent Key interlock function will not operate normally if no memory storage is performed.

#### < BASIC INSPECTION >

### INTELLIGENT KEY INTERLOCK STORING: Work Procedure

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Intelligent Key Interlock Storage Procedure

Performing the following operation associates the registered driving position with Intelligent Key. When driver door unlock operation is performed by Intelligent Key or driver door request switch, display of the registered driving position and turnout operation can be performed.

**1.**STEP 1

Check the following conditions.

- Ignition switch: OFFInitialization: done
- · Driving position: registered

>> GO TO 2.

# **2**.STEP 2

1. Push set switch.

#### NOTE:

Memory indicator for which driver seat position is already retained in memory is illuminated for 5 seconds.

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

#### NOTE:

From the time registration is performed, the applicable memory indicator blinks for 5 seconds.

>> GO TO 3.

## **3.**STEP 3

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

>> Inspection End.

### SYSTEM SETTING

# SYSTEM SETTING: Description

INFOID:0000000012551089

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

### Setting Change

x: Applicable

Item	Content	CONSULT	Set switch	Factory setting
Amount of seat sliding for entry/exit assist	The amount of seat sliding for entry/exit assist can be selected from 3 items. [40 mm/80 mm/150 mm]	x	_	40 mm
Entry/exit assist (seat)	Entry/exit assist (seat) can be selected: ON (operated) – OFF (not operated)	х	x	ON
Entry/exit assist [steering column (if equipped)]	Entry/exit assist (steering column) can be selected: ON (operated) – OFF (not operated)	x	^	ON

### SYSTEM SETTING: Work Procedure

INFOID:0000000012551090

# 1. CHOOSE METHOD

There are three setting methods.

Which method do you choose?

With CONSULT>>GO TO 2.

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### < BASIC INSPECTION >

With set switch>>GO TO 4.

# 2. WITH CONSULT - STEP 1

Select "Work support".

>> GO TO 3.

# 3. WITH CONSULT - STEP 2

- 1. Select "EXIT SEAT SLIDE SETTING", or "EXIT TILT SETTING" 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. Select "SEAT SLIDE VOLUME SET" and touch either of "40 mm", "80 mm", or "150 mm".
- 3. Then touch "OK".

>> Inspection End.

# 4. WITH SET SWITCH - STEP 1

Turn ignition switch OFF.

>> GO TO 5.

# 5. WITH SET SWITCH - STEP 2

Push set switch 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.

>> Inspection End.

### **U1000 CAN COMM CIRCUIT**

# DTC/CIRCUIT DIAGNOSIS

# U1000 CAN COMM CIRCUIT

Description INFOID:0000000012551091 B

Refer to LAN-38, "CAN COMMUNICATION SYSTEM: CAN Communication Signal Chart".

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.

### Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to <u>ADP-79</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

### Diagnosis Procedure

Refer to LAN-21, "Trouble Diagnosis Flow Chart".

### Special Repair Requirement

Refer to ADP-75, "SYSTEM INITIALIZATION: Work Procedure".

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# **U1010 CONTROL UNIT (CAN)**

### < DTC/CIRCUIT DIAGNOSIS >

# U1010 CONTROL UNIT (CAN)

Description INFOID:000000012551095

Refer to LAN-38, "CAN COMMUNICATION SYSTEM: CAN Communication Signal Chart".

DTC Logic

### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
U1010	CONTROL UNIT (CAN)	When detecting error during the initial diagnosis of CAN controller of driver seat control unit.	Driver seat control unit

# Diagnosis Procedure

INFOID:0000000012551097

# 1. REPLACE DRIVER SEAT CONTROL UNIT

When DTC [U1010] is detected, replace driver seat control unit.

>> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".

### **B2112 SLIDING MOTOR**

### < DTC/CIRCUIT DIAGNOSIS >

### **B2112 SLIDING MOTOR**

Description INFOID:0000000012551098

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

DTC Logic INFOID:0000000012551099

### 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 LH output terminal for 0.1 second or more even if the sliding switch is not input.		E

### DTC CONFIRMATION PROCEDURE

# 1. PERFORM DTC CONFIRMATION PROCEDURE

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

### Is the DTC detected?

YES >> Refer to ADP-81, "Diagnosis Procedure".

NO >> Inspection End.

# Diagnosis Procedure

Regarding Wiring Diagram information, refer to ADP-56, "WITH AROUND VIEW MONITOR: Wiring Diagram' or ADP-40, "WITHOUT AROUND VIEW MONITOR: Wiring Diagram".

# 1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Check "Self diagnostic result" with CONSULT.
- Erase the DTC.
- Perform DTC confirmation procedure. Refer to ADP-81, "DTC Logic".

#### Is the DTC displayed again?

YES >> GO TO 2.

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

# 2.CHECK SLIDING MOTOR LH CIRCUIT (POWER SHORT)

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

(+) Sliding motor LH		(–)	Voltage (V) (Approx.)
Connector	Terminals		( .pp. 3.4)
B211	1	Cround	0
BZTT	5	Ground	0

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

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### **B2112 SLIDING MOTOR**

### < DTC/CIRCUIT DIAGNOSIS >

# 3. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

(+) Driver seat control unit		(-)	Voltage (V) (Approx.)	
Connector	Terminals		(· ••••)	
B210	36	Ground	0	
D2 10	44	Giouna	U	

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> Inspection End

### **B2113 RECLINING MOTOR**

#### < DTC/CIRCUIT DIAGNOSIS >

### **B2113 RECLINING MOTOR**

Description INFOID:0000000012551101

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

DTC Logic INFOID:0000000012551102

### DTC DETECTION LOGIC

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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 LH output terminal for 0.1 second or more even if the reclining switch is not input.	Driver seat control unit     Front power seat LH (reclining motor) harness is shorted	Е

### DTC CONFIRMATION PROCEDURE

# 1. PERFORM DTC CONFIRMATION PROCEDURE

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

#### Is the DTC detected?

>> Refer to ADP-83, "Diagnosis Procedure". YES

>> Inspection End. NO

# Diagnosis Procedure

Regarding Wiring Diagram information, refer to ADP-56, "WITH AROUND VIEW MONITOR: Wiring Diagram" or ADP-40, "WITHOUT AROUND VIEW MONITOR: Wiring Diagram".

# 1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON.
- 2. Check "Self diagnostic result" with CONSULT.
- Erase the DTC.
- Perform DTC confirmation procedure. Refer to ADP-83, "DTC Logic".

### Is the DTC displayed again?

YES >> GO TO 2.

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

# 2.CHECK RECLINING MOTOR LH CIRCUIT (POWER SHORT)

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

	(+)		Voltage (V)	
Reclining motor LH		(–)	Voltage (V) (Approx.)	
Connector	Terminals		( .pp. 5)	
B217	4	Cround	0	
D21/	6	Ground	U	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector. ADP

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### **B2113 RECLINING MOTOR**

### < DTC/CIRCUIT DIAGNOSIS >

# 3. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

(+) Driver seat control unit		(-)	Voltage (V) (Approx.)	
Connector	Terminals		( , , , , , , , , , , , , , , , , , , ,	
B210	35	Ground	0	
D2 10	43	Ground	O O	

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit. Refer to <u>ADP-163, "Removal and Installation"</u>.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> Inspection End.

### **B2116 TILT MOTOR**

### < DTC/CIRCUIT DIAGNOSIS >

### **B2116 TILT MOTOR**

Description INFOID:0000000012551104

- 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 up/down by changing the rotation direction tilt motor.

DTC Logic INFOID:0000000012551105

### DTC DETECTION LOGIC

_					D
-	DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause	
-	B2116	STEERING TILT	The automatic drive positioner control unit detects tilt motor operation for 0.1 second or more when tilt switch has not been turned on, and there is no output of automatic operation.	Linit	Е

### DTC CONFIRMATION PROCEDURE

# 1. PERFORM DTC CONFIRMATION PROCEDURE

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

### Is the DTC detected?

YES >> Refer to ADP-85, "Diagnosis Procedure".

NO >> Inspection End.

# Diagnosis Procedure

Regarding Wiring Diagram information, refer to ADP-56, "WITH AROUND VIEW MONITOR: Wiring Diagram".

# 1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON.
- 2. Check "Self diagnostic result" with CONSULT.
- Erase the DTC.
- Perform DTC confirmation procedure. Refer to ADP-85, "DTC Logic".

#### Is the DTC displayed again?

YES >> GO TO 2.

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

# 2.CHECK TILT MOTOR CIRCUIT (POWER SHORT)

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

	+) motor	(-)	Voltage (V) (Approx.)	
Connector	Terminals			
M85	1	Ground	0	
COIVI	2	Giouna	U	

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector. ADP

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### **B2116 TILT MOTOR**

### < DTC/CIRCUIT DIAGNOSIS >

# $\overline{3}$ .check automatic drive positioner control unit output signal

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

Automatic drive po	+) ositioner control unit	(–)	Voltage (V) (Approx.)	
Connector	Terminals			
M34	28	Ground	0	
IVIO <del>4</del>	29	Giodila	U	

### Is the inspection result normal?

- YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
- NO >> Replace automatic drive positioner control unit. Refer to ADP-164, "Removal and Installation".

## **B2128 UART COMMUNICATION LINE**

### < DTC/CIRCUIT DIAGNOSIS >

### **B2128 UART COMMUNICATION LINE**

Description INFOID:0000000012551107

Driver seat control unit performs UART communication with the automatic drive positioner control unit using 1 communication line. Driver seat control unit receives the operation signals of ADP steering switch, door mirror remote control switch and the position signals of tilt sensor, telescopic sensor and door mirror sensors from the automatic drive positioner control unit and transmits the operation request signal.

DTC Logic INFOID:0000000012551108

#### DTC DETECTION LOGIC

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

### DTC CONFIRMATION PROCEDURE

# 1.PERFORM DTC CONFIRMATION PROCEDURE

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

#### Is the DTC detected?

YES >> Refer to ADP-87, "Diagnosis Procedure".

>> Inspection End. NO

# Diagnosis Procedure

Regarding Wiring Diagram information, refer to ADP-56, "WITH AROUND VIEW MONITOR: Wiring Diagram" or ADP-40, "WITHOUT AROUND VIEW MONITOR: Wiring Diagram".

# 1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON.
- Check "Self diagnostic result" with CONSULT.
- Erase the DTC.
- Perform DTC confirmation procedure. Refer to ADP-87, "DTC Logic".

#### Is the DTC displayed again?

YES >> GO TO 2.

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

# $oldsymbol{2}$ . CHECK UART COMMUNICATION LINE CONTINUITY

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

Driver seat control unit		Automatic drive position	Continuity	
Connector	Terminal	Connector Terminal		Continuity
B209	15	M33	8	Yes

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

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## **B2128 UART COMMUNICATION LINE**

### < DTC/CIRCUIT DIAGNOSIS >

Driver seat contro		Continuity	
Connector	Terminal	Ground	Continuity
B209	15		No

### Is the inspection result normal?

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

NO >> Repair or replace harness.

### **B2130 EEPROM**

### < DTC/CIRCUIT DIAGNOSIS >

#### **B2130 EEPROM** Α **DTC Logic** INFOID:0000000012551110 DTC DETECTION LOGIC В Trouble diagnosis DTC No. Possible cause DTC detecting condition name B2130 **EEPROM** Driver seat control unit detected CPU malfunction. · Driver seat control unit DTC CONFIRMATION PROCEDURE D 1. PERFORM DTC CONFIRMATION PROCEDURE

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

### Is the DTC detected?

>> Refer to ADP-89, "Diagnosis Procedure". YES

>> Inspection End. NO

# Diagnosis Procedure

# 1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON.
- Check "Self diagnostic result" with CONSULT.
- Erase the DTC.
- Perform DTC confirmation procedure. Refer to ADP-89, "DTC Logic".

### Is the DTC displayed again?

YES >> GO TO 2.

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

# $2.\,$ REPLACE DRIVER SEAT CONTROL UNIT

>> Inspection End.

Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".

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### POWER SUPPLY AND GROUND CIRCUIT

### < DTC/CIRCUIT DIAGNOSIS >

## POWER SUPPLY AND GROUND CIRCUIT

**BCM** 

BCM : Diagnosis Procedure

INFOID:0000000013007743

Regarding Wiring Diagram information, refer to BCS-55, "Wiring Diagram".

# 1. CHECK FUSE AND FUSIBLE LINK

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

Terminal No.	Signal name	Fuse and fusible link No.
139	Fusible link battery power	O (40A)
131	BCM battery fuse	1 (10A)

### Is the fuse or fusible link blown?

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

NO >> GO TO 2

# 2. CHECK POWER SUPPLY CIRCUIT

- Disconnect BCM connector M81.
- 2. Check voltage between BCM connector M81 terminals 131, 139 and ground.

В	CM	Ground	Voltage	
Connector	Connector Terminal		(Approx.)	
M81	131		Potton, voltogo	
IVIO I	139	_	Battery voltage	

### Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness or connectors.

# $3.\,$ CHECK GROUND CIRCUIT

Check continuity between BCM connector M81 terminals 134, 143 and ground.

В	CM	Ground	Continuity	
Connector	Terminal		Continuity	
M81	134		Yes	
IVIO	143	<del>-</del>	165	

### Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness or connectors.

## DRIVER SEAT CONTROL UNIT

# DRIVER SEAT CONTROL UNIT: Diagnosis Procedure

INFOID:0000000012551113

#### NOTE:

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

Regarding Wiring Diagram information, refer to <u>ADP-56, "WITH AROUND VIEW MONITOR: Wiring Diagram"</u> or <u>ADP-40, "WITHOUT AROUND VIEW MONITOR: Wiring Diagram"</u>.

### POWER SUPPLY AND GROUND CIRCUIT

### < DTC/CIRCUIT DIAGNOSIS >

# 1. CHECK POWER SUPPLY CIRCUIT

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

(+) Driver seat control unit		(-)	Power source	Condition	Voltage (V) (Approx.)
Connector	Terminal				(
B210	37	Ground	Battery power sup- ply	Ignition switch OFF	Battery voltage

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Check the following.

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

# 2. CHECK GROUND CIRCUIT

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

Driver seat contr		Continuity	
Connector	Terminal	Ground	Continuity
B210	39		Yes

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness.

# DRIVER SEAT CONTROL UNIT: Special Repair Requirement

# ${f 1}$ . PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

>> Refer to ADP-74, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMI-NAL: 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.

Regarding Wiring Diagram information, refer to ADP-56, "WITH AROUND VIEW MONITOR: Wiring Diagram" or ADP-40, "WITHOUT AROUND VIEW MONITOR: Wiring Diagram".

# 1. CHECK POWER SUPPLY CIRCUIT

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

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### POWER SUPPLY AND GROUND CIRCUIT

### < DTC/CIRCUIT DIAGNOSIS >

(+)				
Automatic drive position	(–)	Voltage (V) (Approx.)		
Connector	Terminal		,	
M34	25	Ground	Battery voltage	

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Check the following.

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

# 2. CHECK GROUND CIRCUIT

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

Automatic drive positione		Continuity	
Connector	Terminal	Ground	Continuity
M34	30		Yes

### Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness.

# AUTOMATIC DRIVE POSITIONER CONTROL UNIT: Special Repair Requirement

INFOID:0000000012551116

# 1.PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

>> Refer to <u>ADP-74</u>, "<u>ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Description</u>".

### SLIDING SWITCH

### < DTC/CIRCUIT DIAGNOSIS >

### SLIDING SWITCH

Description INFOID:0000000012551117

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

# Component Function Check

# 1. CHECK FUNCTION

- Select "SLIDE SW-FR", "SLIDE SW-RR" in "DATA MONITOR" mode with CONSULT.
- Check sliding switch signal under the following conditions.

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

### Is the inspection result normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-93, "Diagnosis Procedure"</u>.

# Diagnosis Procedure

Regarding Wiring Diagram information, refer to ADP-56, "WITH AROUND VIEW MONITOR: Wiring Diagram" or ADP-40, "WITHOUT AROUND VIEW MONITOR: Wiring Diagram".

# 1. CHECK SLIDING SWITCH SIGNAL

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

Driver seat con Connector	ntrol unit	(–)	Condition		Voltage (V) (Approx.)
	9			Operate (backward)	0
B209	9	Ground	Sliding	Release	Battery voltage
B203	25		Cround	switch	Operate (forward)
	25			Release	Battery voltage

### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 2.

# 2. CHECK SLIDING SWITCH CIRCUIT

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

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Driver seat co	ntrol unit	Power seat switch LH		Continuity
Connector	Terminal	Connector Terminal		Continuity
B209	9	B208	8	Yes
D209	25	D200	7	165

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

Driver seat control ur	it connector		Continuity
Connector	Terminal	Ground	Continuity
P200	9	Giouna	No
B209	25	-	No

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

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

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

(+)			\/altage (\)/\	
Driver seat contr	ol unit	(–)	Voltage (V) (Approx.)	
Connector	Terminals		(	
B209	9	Ground	Battery voltage	
D209	25	Ground	Dattery Voltage	

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit. Refer to <u>ADP-163, "Removal and Installation"</u>.

### 4. CHECK SLIDING SWITCH

Refer to ADP-94, "Component Inspection".

### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace power seat switch LH. Refer to <u>ADP-166, "Removal and Installation"</u>.

# 5. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-163, "Removal and Installation"</u>.

NO >> Repair or replace malfunctioning part.

# Component Inspection

INFOID:0000000012551120

# 1. CHECK SLIDING SWITCH

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

## **SLIDING SWITCH**

## < DTC/CIRCUIT DIAGNOSIS >

Teri	minal	Condition		Continuity
Power sea	at switch LH			Continuity
	8	Sliding switch (backward)	Operate	Yes
3	U	Silding Switch (backward)	Release	No
3	7	Sliding switch (forward)	Operate	Yes
/	Siluling Switch (lorward)	Release	No	

# Is the inspection result normal?

YES >>	Inspection	n End.
--------	------------	--------

NO >> Replace power seat switch LH. Refer to <u>ADP-166, "Removal and Installation"</u>.

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### **RECLINING SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

# RECLINING SWITCH

Description INFOID:000000012551121

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

# Component Function Check

INFOID:0000000012551122

# 1. CHECK FUNCTION

- 1. Select "RECLN SW-FR", "RECLN SW-RR" in "DATA MONITOR" mode with CONSULT.
- 2. Check reclining switch signal under the following conditions.

Monitor item	Condition	Status	
RECLN SW-FR	Reclining switch (forward)	Operate	ON
RECLIN SW-FR	Reclining Switch (lorward)	Release	OFF
RECLN SW-RR	Reclining switch (backward)	Operate	ON
RECLIN SW-RR	Recilling Switch (backward)	Release	OFF

### Is the inspection result normal?

YES >> Inspection End.

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

# Diagnosis Procedure

INFOID:0000000012551123

Regarding Wiring Diagram information, refer to <u>ADP-56, "WITH AROUND VIEW MONITOR: Wiring Diagram"</u> or <u>ADP-40, "WITHOUT AROUND VIEW MONITOR: Wiring Diagram"</u>.

# 1. CHECK RECLINING SWITCH SIGNAL

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

(+) Driver seat co	ntrol unit	(-)	Cor	ndition	Voltage (V)
Connector	Termi- nals	( )		(Approx.)	
	24			Operate (forward)	0
B209		Ground	Reclining	Release	Battery voltage
5203	8	Ground	switch	Operate (backward)	0
				Release	Battery voltage

### Is the inspection result normal?

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

# 2. CHECK RECLINING SWITCH CIRCUIT

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

### **RECLINING SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit		Power seat switch LH connector		O a matina vida v	
Connector	Terminal	Connector	Terminal	Continuity	
B209	24	B208	9	Yes	
D209	8	B200	10	163	

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
D200	24	Ground	No
B209	8		INO

### Is the inspection result normal?

>> GO TO 3. YES

NO >> Repair or replace harness.

# 3. CHECK DRIVER SEAT CONTROL UNIT OUTPUT

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

Driver seat of	ontrol unit	(–)	Voltage (V) (Approx.)
Connector	Terminals		(Approx.)
B209	8	Ground	Battery voltage
5209	24	Sibulia	Dattery Voltage

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".

## 4. CHECK RECLINING SWITCH

Refer to ADP-97, "Component Inspection",

### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace power seat switch LH. Refer to ADP-166, "Removal and Installation".

# 5. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

### Component Inspection

# 1. CHECK RECLINING SWITCH

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

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## **RECLINING SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

Terr	ninals	Condi	tion	Continuity
Power sea	at switch LH	Condi	liOH	Continuity
	10	Reclining switch	Operate	Yes
3	10	(backward)	Release	No
3	9	Reclining switch	Operate	Yes
	9	(forward)	Release	No

# Is the inspection result normal?

YES >> Inspection End.

NO >> Replace power seat switch LH. Refer to <u>ADP-166, "Removal and Installation"</u>.

### LIFTING SWITCH (FRONT)

### < DTC/CIRCUIT DIAGNOSIS >

# LIFTING SWITCH (FRONT)

Description INFOID:0000000012551125

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

# Component Function Check

#### INFOID:0000000012551126

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# 1. CHECK FUNCTION

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

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

### Is the inspection result normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-99</u>, "<u>Diagnosis Procedure</u>".

# Diagnosis Procedure

INFOID:0000000012551127

Regarding Wiring Diagram information, refer to ADP-56, "WITH AROUND VIEW MONITOR: Wiring Diagram" or ADP-40, "WITHOUT AROUND VIEW MONITOR: Wiring Diagram".

# 1. CHECK LIFTING SWITCH SIGNAL

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

(+)					
Driver seat co	ntrol unit	(-)	Co	ndition	Voltage (V)
Connector	Termi- nals				(Approx.)
	7			Operate (downward)	0V
B209	,	Ground	Lifting switch	Release	Battery voltage
B203	23	Ground	(front)	Operate (up- ward)	0V
	20			Release	Battery voltage

### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 2.

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

2. CHECK LIFTING SWITCH (FRONT) CIRCUIT

**ADP-99** Revision: November 2015 2016 Pathfinder

# **LIFTING SWITCH (FRONT)**

### < DTC/CIRCUIT DIAGNOSIS >

Driver seat con	trol unit	Power seat sv	vitch LH	Continuity
Connector	Terminal	Connector	Terminal	Continuity
B209	7	B208	6	Yes
D209	23	D200	5	163

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

Driver seat cont	rol unit		Continuity
Connector	Terminal	Ground	Continuity
B209	7	Giodila	No
6209	23		INO

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

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

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

(+)			N/ II
Driver seat con	trol unit	(–)	Voltage (V) (Approx.)
Connector	Terminals		(
B209	7	Ground	Battery voltage
B209	23	Ground	Dattery Voltage

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".

### 4. CHECK LIFTING SWITCH (FRONT)

Refer to ADP-100, "Component Inspection".

### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace power seat switch LH. Refer to <u>ADP-166, "Removal and Installation"</u>.

# 5. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

# **Component Inspection**

INFOID:0000000012551128

# 1. CHECK LIFTING SWITCH (FRONT)

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

# **LIFTING SWITCH (FRONT)**

## < DTC/CIRCUIT DIAGNOSIS >

Terr	minal	Condition		Continuity
Power sea	t switch LH	Condition		Continuity
	6	Lifting switch front (down-	Operate	Yes
3	0	ward)	Release	No
3	5	Lifting switch front (up-	Operate	Yes
	5	ward)	Release	No

# Is the inspection result normal?

YES :	>> Ins	pection	End.
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NO >> Replace power seat switch LH. Refer to <u>ADP-166, "Removal and Installation"</u>.

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# **LIFTING SWITCH (REAR)**

### < DTC/CIRCUIT DIAGNOSIS >

# LIFTING SWITCH (REAR)

Description INFOID:000000001255112S

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

# Component Function Check

INFOID:0000000012551130

# 1. CHECK FUNCTION

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

Monitor item	Condition		Status
LIFT RR SW-UP	Lifting quitch roor (upword)	Operate	ON
LII I KK SW-OF	Lifting switch rear (upward)	Release	OFF
LIFT RR SW-DN	Lifting switch rear (downward)	Operate	ON
LII T KK SW-DN	Litting Switch real (downward)	Release	OFF

### Is the inspection result normal?

YES >> Inspection End.

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

# Diagnosis Procedure

INFOID:0000000012551131

Regarding Wiring Diagram information, refer to <u>ADP-56</u>, "WITH AROUND VIEW MONITOR: Wiring Diagram" or <u>ADP-40</u>, "WITHOUT AROUND VIEW MONITOR: Wiring Diagram".

# 1. CHECK LIFTING SWITCH (REAR) SIGNAL

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

(+)	1				
Driver seat c	ontrol unit	(-)		Condition	Voltage (V)
Connector	Termi- nals				(Approx.)
	6			Operate (down- ward)	0
B209		Ground	Lifting switch	Release	Battery voltage
5209	22	Ground	(rear)	Operate (up- ward)	0
				Release	Battery voltage

### Is the inspection result normal?

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

2. CHECK LIFTING SWITCH (REAR) CIRCUIT

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

### LIFTING SWITCH (REAR)

### < DTC/CIRCUIT DIAGNOSIS >

Driver seat co	ontrol unit	Power sear switch LH		Continuity
Connector	Terminal	Connector Terminal		Continuity
B209	6	B208	2	Yes
B209	22	B200	1	162

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B209	6	Ground	No
B209	22		INO

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# 3. CHECK DRIVER SEAT CONTROL UNIT OUTPUT

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

(+) Driver seat control unit			Voltage (V) (Approx.)	
		(–)		
Connector	Terminals		( )	
B209	B209 6 Ground		Battery voltage	
D209	22	Glound	battery voltage	

#### Is the inspection result normal?

>> GO TO 4. YES

NO >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".

## 4. CHECK LIFTING SWITCH (REAR)

Refer to ADP-103, "Component Inspection",

### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace power seat switch LH. Refer to ADP-166, "Removal and Installation".

# 5. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".

**ADP-103** 

NO >> Repair or replace the malfunctioning part.

### Component Inspection

# 1. CHECK LIFTING SWITCH (REAR)

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

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INFOID:0000000012551132

# **LIFTING SWITCH (REAR)**

### < DTC/CIRCUIT DIAGNOSIS >

Terr	minal	Condition		Continuity
Power sea	at switch LH	Condition		Continuity
	1	Lifting switch rear (up-	Operate	Yes
3	'	ward)	Release	No
3	2	Lifting switch rear (down-	Operate	Yes
	ward)		Release	No

# Is the inspection result normal?

YES >> Inspection End.

NO >> Replace power seat switch LH. Refer to <u>ADP-166, "Removal and Installation"</u>.

### **TILT SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

# TILT SWITCH

Description INFOID:0000000012551133

ADP steering switch (tilt switch) is equipped to the steering column. The operation signal is input to the automatic drive positioner control unit when the ADP steering switch is operated.

# Component Function Check

# 1. CHECK FUNCTION

- 1. Select "TILT SW-UP", "TILT SW-DOWN" in "DATA MONITOR" mode with CONSULT.
- 2. Check tilt switch signal under the following conditions.

Monitor item	Condition		Status
TILT SW-UP	Tilt switch (upward)	Operate	ON
TILI SW-UP	Till Switch (upward)	Release	OFF
TILT SW-DOWN	Tilt switch (downward)	Operate	ON
TIET SVV-DOVVIN		Release	OFF

### Is the inspection result normal?

YES >> Inspection End.

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

# Diagnosis Procedure

Regarding Wiring Diagram information, refer to <u>ADP-56, "WITH AROUND VIEW MONITOR: Wiring Diagram".</u>

# 1. CHECK TILT SWITCH SIGNAL

- Disconnect ADP steering switch (tilt switch).
- 2. Check voltage between ADP steering switch harness connector and ground.

(+) ADP steering switch (tilt switch)			Voltage (V) (Approx.)	
		(–)		
Connector	Terminals		( 44)	
M16	2	Ground	5	
10110	5	Cibulia	3	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# $oldsymbol{2}.$ CHECK TILT SWITCH CIRCUIT

- 1. Disconnect automatic drive positioner control unit.
- 2. Check continuity between automatic drive positioner control unit harness connector and ADP steering switch harness connector.

	e positioner control unit	ADP steering switch (tilt switch)		Continuity
Connector	Terminal	Connector Terminal		
M33	1	M16	5	Yes
	13	IVITO	2	100

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

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### **TILT SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

Automatic drive po	Automatic drive positioner control unit		Continuity
Connector	Terminal	Ground	Continuity
M33	1	Ground	No
IVIOS	13		NO

### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-164, "Removal and Installation".

NO >> Repair or replace harness.

# 3. CHECK TILT SWITCH

Refer to ADP-106, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace ADP steering switch (tilt switch). Refer to ADP-167, "Removal and Installation".

# 4. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> Inspection End.

# Component Inspection

INFOID:0000000012551136

# 1. CHECK TILT SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect ADP steering switch (tilt switch).
- 3. Check continuity between ADP steering switch terminals.

switch (t	steering ilt switch)	Condition		Continuity
Terr	minal			
	5	Tilt switch (upward)	Operate	Yes
3	3	The Switch (upward)	Release	No
3	2	Tilt switch (downward)	Operate	Yes
	2		Release	No

### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace ADP steering switch (tilt switch). Refer to ADP-167, "Removal and Installation".

### TELESCOPIC SWITCH

### < DTC/CIRCUIT DIAGNOSIS >

# TELESCOPIC SWITCH

Description INFOID:0000000012551137

ADP steering switch (telescopic switch) is equipped to the steering column. The operation signal is input to the automatic drive positioner control unit when the telescopic switch is operated.

# Component Function Check

# 1. CHECK FUNCTION

- 1. Select "TELESCO SW-FR", "TELESCO SW-RR" in "DATA MONITOR" mode with CONSULT.
- 2. Check telescopic switch signal under the following conditions.

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

### Is the inspection result normal?

YES >> Inspection End.

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

# Diagnosis Procedure

Regarding Wiring Diagram information, refer to <u>ADP-56, "WITH AROUND VIEW MONITOR: Wiring Diagram".</u>

# 1. CHECK TELESCOPIC SWITCH SIGNAL

- 1. Disconnect ADP steering switch (telescopic switch).
- 2. Check voltage between ADP steering switch harness connector and ground.

(+) ADP steering switch (telescopic switch)		(-)	Voltage (V) (Approx.)
Connector	Terminals		(, ipp. 5)
M16	1	Ground	5
WITO	6	Ground	<b>5</b>

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2. CHECK TELESCOPIC SWITCH CIRCUIT

- 1. Disconnect automatic drive positioner control unit.
- Check continuity between automatic drive positioner control unit harness connector and ADP steering switch harness connector.

	positioner control nit	ADP steering switch (telescopic switch)		Continuity
Connector	Terminal	Connector Terminal		
M33	7	M16	1	Yes
IVIOO	19	IVITO	6	165

3. 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	Continuity	
M33	7	Ground	No	
IVISS	19		INO	

### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-164, "Removal and Installation".

NO >> Repair or replace harness.

# ${f 3}$ . CHECK TELESCOPIC SWITCH

Refer to ADP-108, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace ADP steering switch (telescopic switch). Refer to ADP-167, "Removal and Installation".

# 4. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> Inspection End.

# Component Inspection

INFOID:0000000012551140

# 1. CHECK TELESCOPIC SWITCH

- Turn ignition switch OFF.
- 2. Disconnect ADP steering switch (telescopic switch).
- 3. Check continuity between ADP steering switch terminals.

ADP steering switch (telescopic switch)  Terminal		Condition		Continuity
3	1	Telescopic switch (forward)	Operate	Yes
			Release	No
	6	Telescopic switch (backward)	Operate	Yes
			Release	No

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace ADP steering switch (telescopic switch). Refer to ADP-167, "Removal and Installation".

### **SEAT MEMORY SWITCH**

#### < DTC/CIRCUIT DIAGNOSIS >

## SEAT MEMORY SWITCH

Description INFOID:0000000012551141

Seat memory switch is installed to the front door LH trim. The operation signal is input to the driver seat control unit when the memory switch is operated.

## Component Function Check

#### INFOID:0000000012551142

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## 1. CHECK FUNCTION

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

Monitor item	Cond	lition	Status
MEMORY OWA	Memory quitch 1	Push	ON
MEMORY SW 1	Memory switch 1	Release	OFF
MEMORY SW 2	Push	Push	ON
MEMORT SW 2	Memory switch 2	Release	OFF
SET SW	Set switch	Push	ON
SET SW	Set switch	Release	OFF

#### Is the inspection result normal?

YES >> Inspection End.

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

## Diagnosis Procedure

INFOID:0000000012551143

Regarding Wiring Diagram information, refer to ADP-56, "WITH AROUND VIEW MONITOR: Wiring Diagram" or ADP-40, "WITHOUT AROUND VIEW MONITOR: Wiring Diagram".

## 1. CHECK SEAT MEMORY SWITCH SIGNAL

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

(	(+)		
Seat men	Seat memory switch		Voltage (V) (Approx.)
Connector	Terminals		( 4-1)
	2		
D60	10	Ground	5
	16		

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

## 2. CHECK MEMORY SWITCH CIRCUIT

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

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## **SEAT MEMORY SWITCH**

#### < DTC/CIRCUIT DIAGNOSIS >

Driver seat	control unit	Seat men	nory switch	Continuity
Connector	Terminal	Connector	Terminal	Continuity
	11		16	
B209	21	D60	2	Yes
	27		10	

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

Driver seat control unit			Continuity
Connector	Terminal		Continuity
	11	Ground	
B209	21		No
	27		

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".

NO >> Repair or replace harness.

## 3. CHECK MEMORY SWITCH GROUND CIRCUIT

Check continuity between seat memory switch harness connector and ground.

Seat memory switch			Continuity
Connector	Connector Terminal		Continuity
D60	9		Yes

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 4. CHECK SEAT MEMORY SWITCH

Refer to ADP-110, "Component Inspection".

#### Is the inspection result normal?

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

NO >> Replace seat memory switch. Refer to ADP-165, "Removal and Installation".

## Component Inspection

INFOID:0000000012551144

## 1. CHECK SEAT MEMORY SWITCH

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

Term	inal	Condition		Continuity
Seat mem	ory switch			
	10	Memory switch 1	Push	Yes
	10	Wiemory Switch 1	Release	No
9	16	Memory switch 2	Push	Yes
3	10	Wemory Switch 2	Release	No
	2	Set switch	Push	Yes
2	Oct Switch	Release	No	

#### Is the inspection result normal?

YES >> Inspection End.

## **SEAT MEMORY SWITCH**

## < DTC/CIRCUIT DIAGNOSIS >

>> Replace seat memory switch. Refer to ADP-165, "Removal and Installation". NO Α В С  $\mathsf{D}$ Е F G Н ADP K L M Ν 0 Р

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#### < DTC/CIRCUIT DIAGNOSIS >

# DOOR MIRROR REMOTE CONTROL SWITCH CHANGEOVER SWITCH

## CHANGEOVER SWITCH: Description

INFOID:0000000012551145

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:0000000012551146

## 1. CHECK FUNCTION

- 1. Select "MIR CHNG SW-R", "MIR CHNG SW-L" in "DATA MONITOR" mode with CONSULT.
- 2. Check changeover switch signal under the following conditions.

Monitor item	Condition		Status
MIR CHNG SW-R	AID CLINIC CW/D	Operate	ON
MIR CHNG SW-R Mirror switch (right)	Will of Switch (right)	Release	OFF
MIR CHNG SW-L Mirror switch (left)	Mirror awitch (loft)	Operate	ON
	Willion Switch (IEIL)	Release	OFF

#### Is the inspection result normal?

YES >> II

>> Inspection End.

NO

>> Perform diagnosis procedure. Refer to <u>ADP-112, "CHANGEOVER SWITCH : Diagnosis Procedure"</u>.

## CHANGEOVER SWITCH: Diagnosis Procedure

INFOID:0000000012551147

Regarding Wiring Diagram information, refer to <u>ADP-56, "WITH AROUND VIEW MONITOR: Wiring Diagram"</u> or <u>ADP-40, "WITHOUT AROUND VIEW MONITOR: Wiring Diagram"</u>.

## 1. CHECK CHANGEOVER SWITCH SIGNAL

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

(+) Automatic drive positioner control unit				
		(-)	Change over switch condition	Voltage (V) (Approx.)
Connector	Terminal			
	2		RIGHT	0
M33	2	Ground	Other than above	5
IVISS	14	Giodila	LEFT	0
	14		Other than above	5

#### Is the inspection result normal?

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

## 2. CHECK HARNESS CONTINUITY

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

## < DTC/CIRCUIT DIAGNOSIS >

Automatic drive pos unit	itioner control	Door mirror remote control switch		Continuity
Connector	Terminal	Connector Terminal		
M33	2	D22	3	Yes
	14	022	4	162

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

Automatic drive positioner control unit			Continuity	
Connector Terminal		Ground	Continuity	
M33	2	Giodila	No	
IVIOO	14		NO	

#### 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		Continuity	
Connector Terminal		Ground	Continuity
D22	15		Yes

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 4. CHECK CHANGEOVER SWITCH

#### Check changeover switch.

Refer to ADP-113, "CHANGEOVER SWITCH: Component Inspection".

#### Is the inspection result normal?

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

NO >> Replace door mirror remote control switch. Refer to MIR-23, "Removal and Installation".

## 5. CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to GI-47, "Intermittent Incident".

### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-164, "Removal and Installation".

NO >> Repair or replace the malfunctioning parts.

## CHANGEOVER SWITCH: Component Inspection

## 1. CHECK CHANGEOVER SWITCH

Check door mirror remote control switch.

Terminal  Door mirror remote control switch		Change over switch	Continuity
		condition	
Δ	4 15	LEFT	Yes
		Other than above	No
3		RIGHT	Yes
· ·	Other than above	No	

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#### < DTC/CIRCUIT DIAGNOSIS >

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace door mirror remote control switch. Refer to MIR-23, "Removal and Installation".

### MIRROR SWITCH

## MIRROR SWITCH: Description

INFOID:0000000012551149

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:0000000012551150

## 1. CHECK FUNCTION

- 1. Select "MIR CON SW-UP", "MIR CON SW-DN", "MIR CON SW-RH", "MIR CON SW-LH" in "DATA MONITOR" mode with CONSULT.
- 2. Check mirror switch signal under the following conditions.

Monitor item	Con	Condition	
MID CON OWLID		Operate	ON
MIR CON SW-UP	Mirror switch (up)	Release	OFF
MID CON SW DN	Mirror quitab (down)	Operate	ON
MIR CON SW-DN	Mirror switch (down)	Release	OFF
MIR CON SW-RH Mirror switch (right)	Mirror quitob (right)	Operate	ON
	Will of Switch (right)	Release	OFF
MIR CON SW-LH	Mirror switch (left)	Operate	ON
	Will of Switch (left)	Release	OFF

#### Is the inspection result normal?

YES >> Inspection End.

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

## MIRROR SWITCH: Diagnosis Procedure

INFOID:0000000012551151

Regarding Wiring Diagram information, refer to <u>ADP-56</u>, "WITH AROUND VIEW MONITOR: Wiring Diagram" or <u>ADP-40</u>, "WITHOUT AROUND VIEW MONITOR: Wiring Diagram".

## 1. CHECK MIRROR SWITCH FUNCTION

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

### < DTC/CIRCUIT DIAGNOSIS >

(+) Automatic drive positioner control unit		(–)	Mirror switch	Voltage (V)	
troi unit		, ,	Condition	(Approx.)	
Connector	Terminal				
	3		UP	0	
	9	3		Other than above	5
	4		LEFT	0	
M33		-	Ground	Other than above	5
IVIOO		15	Giodila	DOWN	0
	13	Other than above		5	
	16		RIGHT	0	
	10		Other than above	5	

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 2.

## 2. CHECK HARNESS CONTINUITY

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

Automatic drive po		Door mirror remote control switch		Continuity
Connector	Terminal	Connector Terminal		
	3		12	
M33	4	D22	1	Yes
	15	DZZ	16	162
	16		9	

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

Automatic drive positioner control unit			Continuity	
Connector	Connector Terminal			
M33	3	Ground		
	4		No	
	15			
	16			

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

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

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

Door mirror remote cont		Continuity	
Connector Terminal		Ground	Continuity
D22	15		Yes

#### Is the inspection result normal?

YES >> GO TO 4.

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#### < DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace harness.

## 4. CHECK MIRROR SWITCH

Check mirror switch.

Refer to ADP-116, "MIRROR SWITCH: Component Inspection".

## Is the inspection result normal?

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

NO >> Replace door mirror remote control switch. Refer to MIR-23, "Removal and Installation".

## 5. CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to GI-47, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-164. "Removal and Installation"</u>.

NO >> Repair or replace the malfunctioning parts.

## MIRROR SWITCH: Component Inspection

INFOID:0000000012551152

## 1. CHECK MIRROR SWITCH

Check door mirror remote control switch.

Termir	nal			
Door mirror remote control switch		Mirror switch condition	Continuity	
9		RIGHT	Yes	
9		Other than above	No	
1		LEFT	Yes	
ı	15	Other than above	No	
12		UP	Yes	
12		Other than above	No	
16		DOWN	Yes	
10		Other than above	No	

### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace door mirror remote control switch. Refer to MIR-23, "Removal and Installation".

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## **POWER SEAT SWITCH GROUND CIRCUIT**

### < DTC/CIRCUIT DIAGNOSIS >

## POWER SEAT SWITCH GROUND CIRCUIT

## Diagnosis Procedure

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Regarding Wiring Diagram information, refer to <u>ADP-56, "WITH AROUND VIEW MONITOR: Wiring Diagram"</u> or <u>ADP-40, "WITHOUT AROUND VIEW MONITOR: Wiring Diagram"</u>.

## 1. CHECK POWER SEAT SWITCH LH GROUND CIRCUIT

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

Power seat switch LH			Continuity
Connector	Terminal	Ground	Continuity
B208	3		Yes

## Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "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:0000000012551154

Regarding Wiring Diagram information, refer to <u>ADP-56, "WITH AROUND VIEW MONITOR: Wiring Diagram"</u>.

## 1. CHECK ADP STEERING SWITCH (TILT & TELESCOPIC SWITCH) GROUND CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect ADP steering switch (tilt & telescopic switch).
- 3. Check continuity between ADP steering switch (tilt & telescopic switch) and ground.

ADP steering switch (til	It & telescopic switch)		Continuity
Connector	Terminal	Ground	Continuity
M16	3		Yes

### Is the inspection result normal?

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

NO >> Repair or replace harness.

## **SLIDING SENSOR**

#### < DTC/CIRCUIT DIAGNOSIS >

## **SLIDING SENSOR**

**Description** 

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

## Component Function Check

## 1. CHECK FUNCTION

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

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

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-119</u>, "<u>Diagnosis Procedure</u>".

## Diagnosis Procedure

Regarding Wiring Diagram information, refer to <u>ADP-56, "WITH AROUND VIEW MONITOR: Wiring Diagram"</u> or <u>ADP-40, "WITHOUT AROUND VIEW MONITOR: Wiring Diagram"</u>.

## 1. CHECK SLIDING SENSOR SIGNAL

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

Driver's s	eat con-	(–)	) Condition		Voltage signal
Connec- tor	Termi- nal				
B209	31	Ground	Seat sliding	Operate	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-163, "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 motor LH.

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## **SLIDING SENSOR**

### < DTC/CIRCUIT DIAGNOSIS >

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

Driver seat control unit		Sliding motor LH		Continuity
Connector	Terminal	Connector Terminal		Continuity
B209	31	B211	2	Yes

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

Driver seat	control unit		Continuity
Connector	Terminal	Ground	Continuity
B209	31		No

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

## $\bf 3.$ Check sliding sensor power supply

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

(+)			V-11 0.0	
Sliding i	Sliding motor LH		Voltage (V) (Approx.)	
Connector	Terminals		, , ,	
B211	4	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.
- Check continuity between driver seat control unit harness connector and sliding motor LH harness connector.

Driver seat	control unit	Sliding motor LH		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B209	5	B211	4	Yes

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

Driver seat	control unit		Continuity
Connector	Terminal Ground		Continuity
B209	5		No

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".

NO >> Repair or replace harness.

## 5. CHECK SLIDING SENSOR GROUND

- Turn ignition switch OFF.
- 2. Check continuity between sliding motor LH harness connector and ground.

## **SLIDING SENSOR**

## < DTC/CIRCUIT DIAGNOSIS >

Sliding mo	otor LH		Continuity
Connector	Terminal	Ground	Continuity
B211	3		Yes

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### Is the inspection result normal?

YES >> Replace sliding motor LH. Refer to <u>SE-86. "Removal and Installation"</u>.

NO >> Repair or replace harness.

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### RECLINING SENSOR

#### < DTC/CIRCUIT DIAGNOSIS >

## RECLINING SENSOR

**Description** 

- The reclining motor LH is installed to the seatback assembly.
- The pulse signal is input 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:0000000012551159

## 1. CHECK FUNCTION

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

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

#### Is the inspection result normal?

YES >> Inspection End.

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

## Diagnosis Procedure

INFOID:0000000012551160

Regarding Wiring Diagram information, refer to <u>ADP-56, "WITH AROUND VIEW MONITOR: Wiring Diagram"</u> or <u>ADP-40, "WITHOUT AROUND VIEW MONITOR: Wiring Diagram"</u>.

## 1. CHECK RECLINING SENSOR SIGNAL

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

Driver sea	t control	(–)	Condition		Voltage signal
Connec- tor	Termi- nal				
B209	13	Ground	Seat reclin- ing	Operate	10mSec/div 2V/div JMJIA0119ZZ
				Other than above	0 or 5

### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-163</u>, "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 LH.

## **RECLINING SENSOR**

#### < DTC/CIRCUIT DIAGNOSIS >

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

Driver seat of	Driver seat control unit		Reclining motor LH	
Connector	Terminal	Connector	Terminal	Continuity
B209	13	B217	1	Yes

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

Driver seat	control unit		Continuity
Connector	Terminal	Ground	Continuity
B209	13		No

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

## ${f 3}.$ CHECK RECLINING SENSOR POWER SUPPLY

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

(+)				
Reclining motor LH		(–)	Voltage (V) (Approx.)	
Connector	Terminals		(	
B217	3	Ground	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

## f 4 . CHECK RECLINING SENSOR POWER SUPPLY CIRCUIT

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

Driver seat	Driver seat control unit		Reclining motor LH	
Connector	Terminal	Connector Terminal		Continuity
B209	5	B217	3	Yes

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B209	5		No

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".

NO >> Repair or replace harness.

## 5. CHECK RECLINING SENSOR GROUND

- Turn ignition switch OFF.
- Check continuity between reclining motor LH harness connector and ground.

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## **RECLINING SENSOR**

## < DTC/CIRCUIT DIAGNOSIS >

Reclining r	notor LH		Continuity
Connector	Terminal	Ground	Continuity
B217	2		Yes

### Is the inspection result normal?

YES >> Replace reclining motor LH. Refer to <u>SE-86. "Removal and Installation"</u>.

NO >> Repair or replace harness.

## LIFTING SENSOR (FRONT)

#### < DTC/CIRCUIT DIAGNOSIS >

## LIFTING SENSOR (FRONT)

Description INFOID:0000000012551161

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

## Component Function Check

## CHECK FUNCTION

- Select "LIFT FR PULSE" in "DATA MONITOR" mode with CONSULT.
- Check the lifting sensor (front) signal under the following conditions.

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

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to ADP-125, "Diagnosis Procedure".

## Diagnosis Procedure

Regarding Wiring Diagram information, refer to ADP-56, "WITH AROUND VIEW MONITOR: Wiring Diagram" or ADP-40, "WITHOUT AROUND VIEW MONITOR: Wiring Diagram".

## 1. CHECK LIFTING SENSOR (FRONT) SIGNAL

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

Driver seat of	control unit	(–)	Condition		Voltage signal
Connector	Terminal				
B209	30	Ground	Seat lifting (front)	Operate Other than above	10mSec/div 2V/div JMJIA0119ZZ

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".

NO >> GO TO 2.

## ${f 2}.$ CHECK LIFTING SENSOR (FRONT) CIRCUIT

- Turn ignition switch OFF.
- Disconnect driver seat control unit and lifting motor LH (front).

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**ADP-125** Revision: November 2015 2016 Pathfinder

## LIFTING SENSOR (FRONT)

#### < DTC/CIRCUIT DIAGNOSIS >

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

Driver seat control unit		Lifting motor LH (front)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B209	30	B218	1	Yes

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

Driver seat	control unit		Continuity
Connector	Terminal	Ground	Continuity
B209	30		No

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

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

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

(+	-)		V-11 (A.)	
Lifting moto	Lifting motor LH (front)		Voltage (V) (Approx.)	
Connector	Terminals		,	
B218	3	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.
- Check continuity between driver seat control unit harness connector and lifting motor LH (front) harness connector.

Driver seat	Driver seat control unit		Lifting motor LH (front)	
Connector	Terminal	Connector	Terminal	Continuity
B209	5	B218	3	Yes

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

Driver seat of	control unit		Continuity
Connector	Terminal	Ground	Continuity
B209	5		No

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".

NO >> Repair or replace harness.

## 5. CHECK LIFTING SENSOR (FRONT) GROUND

- Turn ignition switch OFF.
- 2. Check continuity between lifting motor LH (front) harness connector and ground.

## **LIFTING SENSOR (FRONT)**

### < DTC/CIRCUIT DIAGNOSIS >

Lifting moto	Lifting motor LH (front)		Continuity
Connector	Terminal	Ground	Continuity
B218	2		Yes

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### Is the inspection result normal?

YES >> Replace lifting motor LH (front). Refer to <u>SE-86, "Removal and Installation"</u>.

NO >> Repair or replace harness.

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## LIFTING SENSOR (REAR)

#### < DTC/CIRCUIT DIAGNOSIS >

## LIFTING SENSOR (REAR)

Description INFOID:000000012551164

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

## Component Function Check

INFOID:0000000012551165

## 1. CHECK FUNCTION

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

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

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-128. "Diagnosis Procedure"</u>.

## Diagnosis Procedure

INFOID:0000000012551166

Regarding Wiring Diagram information, refer to <u>ADP-56, "WITH AROUND VIEW MONITOR: Wiring Diagram"</u> or <u>ADP-40, "WITHOUT AROUND VIEW MONITOR: Wiring Diagram"</u>.

## 1. CHECK LIFTING SENSOR (REAR) SIGNAL

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

(+)	)				
Driver seat control unit		(-)	(–) Condition		Voltage signal
Connec- tor	Termi- nal				
B209	29	Ground	Seat lifting (rear)	Oper- ate	10mSec/div 2V/div JMJIA0119ZZ
				Other than above	0 or 5

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-163</u>, "Removal and Installation".

NO >> GO TO 2.

## 2. CHECK LIFTING SENSOR (REAR) CIRCUIT

## LIFTING SENSOR (REAR)

## < DTC/CIRCUIT DIAGNOSIS >

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

Driver seat	control unit	Lifting motor LH (rear)		Continuity
Connector	Terminal	Connector Terminal		Continuity
B209	29	B207	1	Yes

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

Driver se	at control unit		Continuity
Connector	Terminal	Ground	Continuity
B209	29		No

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

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

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

(-	+)		V-11 0.0	
Lifting motor LH (rear)		(–)	Voltage (V) (Approx.)	
Connector Terminals			,	
B207	3	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.
- Check the continuity between driver seat control unit harness connector and lifting motor LH (rear) harness connector.

Driver seat control unit		Lifting motor LH (rear)		Continuity
Connector	Terminal	Connector Terminal		Continuity
B209	5	B207	3	Yes

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

Driver seat	control unit		Continuity
Connector	Terminal	Ground	Continuity
B209	5		No

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-163</u>, "Removal and Installation".

NO >> Repair or replace harness.

## 5. CHECK LIFTING SENSOR (REAR) GROUND

- Turn ignition switch OFF.
- 2. Check the continuity between lifting motor LH (rear) harness connector and ground.

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## **LIFTING SENSOR (REAR)**

### < DTC/CIRCUIT DIAGNOSIS >

Lifting mot	or LH (rear)		Continuity
Connector	Terminal	Ground	Continuity
B207	2		Yes

### Is the inspection result normal?

YES >> Replace lifting motor LH (rear). Refer to <u>SE-86, "Removal and Installation"</u>.

NO >> Repair or replace harness.

### **TILT SENSOR**

#### < DTC/CIRCUIT DIAGNOSIS >

## **TILT SENSOR**

Description INFOID:0000000012551167

- The tilt sensor is installed to the steering column assembly.
- The pulse signal is input to the driver seat control unit when the tilt is operated.
- The driver seat control unit counts the pulse and calculates the tilt amount of the steering column.

## Component Function Check

## 1. CHECK FUNCTION

- 1. Select "TILT PULSE" in "DATA MONITOR" mode with CONSULT.
- Check tilt sensor signal under the following conditions.

Monitor item	Condition		Value
		Operate (upward)	Change (decrease)
TILT PULSE	Steering column	Operate (downward)	Change (increase)
		Release	No change

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-131, "Diagnosis Procedure"</u>.

## Diagnosis Procedure

Regarding Wiring Diagram information, refer to <u>ADP-56, "WITH AROUND VIEW MONITOR: Wiring Diagram"</u>.

## 1. CHECK TILT SENSOR SIGNAL

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

Driver s	+) eat con- unit	(–)	Condition		Voltage (V) (Approx.)
Con- nector	Termi- nals				( PF - /
B209	28	Ground	Steer- ing col- umn	Oper- ate	10mSec/div 2V/div JMJIA0119ZZ
				Other than above	0 or 5

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-163</u>, "Removal and Installation".

NO >> GO TO 2.

## 2. CHECK TILT SENSOR CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit and tilt motor.

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Revision: November 2015 ADP-131 2016 Pathfinder

## **TILT SENSOR**

#### < DTC/CIRCUIT DIAGNOSIS >

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

Driver seat	control unit	Tilt r	notor	Continuity
Connector	Terminal	Connector	Terminal	Continuity
B209	28	M85	4	Yes

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

Driver seat control unit			Continuity	
Connector Terminal		Ground	Continuity	
B209	28		No	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

## 3. CHECK TILT SENSOR POWER SUPPLY

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

	(+) Tilt motor (-) Connector Terminals		Voltage (V)	
			(Approx.)	
M85	5	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.
- 3. Check continuity between automatic drive positioner control unit harness connector and tilt motor harness connector.

Automatic drive positioner con- trol unit		Tilt motor		Continuity
Connector	Terminal	Connector Terminal		
M34	27	M85	5	Yes

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

Automatic drive pos	itioner control unit		Continuity	
Connector Terminal		Ground	Continuity	
M34	27		No	

#### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-164, "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.
- Check continuity between automatic drive positioner control unit harness connector and tilt motor harness connector.

## **TILT SENSOR**

## < DTC/CIRCUIT DIAGNOSIS >

Automatic drive trol	•	Tilt motor		Continuity
Connector	Terminal	Connector Terminal		
M33	20	M85	3	Yes

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Is the inspection result normal?

YES >> Replace tilt motor. Refer to <u>ST-47</u>, "Exploded View".

NO >> Repair or replace harness.

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#### TELESCOPIC SENSOR

### < DTC/CIRCUIT DIAGNOSIS >

## TELESCOPIC SENSOR

Description INFOID:000000012551170

- · The telescopic sensor is installed to the steering column assembly.
- The pulse signal is input to the driver seat control unit when telescopic is performed.
- The driver seat control unit counts the pulse and calculates the telescopic amount of the steering column.

## Component Function Check

INFOID:0000000012551171

## 1. CHECK FUNCTION

- 1. Select "TELESCO PULSE" in "DATA MONITOR" mode with CONSULT.
- 2. Check telescopic sensor signal under the following conditions.

Monitor item	Con	Valve	
		Operate (forward)	Change (decrease)
TELESCO PULSE	Steering column	Operate (backward)	Change (increase)
		Release	No change

### Is the inspection result normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-134, "Diagnosis Procedure"</u>.

## Diagnosis Procedure

INFOID:0000000012551172

Regarding Wiring Diagram information, refer to <u>ADP-56, "WITH AROUND VIEW MONITOR: Wiring Diagram"</u>.

## 1. CHECK TELESCOPIC SENSOR SIGNAL

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

Driver s	+) eat con- unit	(–)	Condition		Voltage (V) (Approx.)
Con- nector	Termi- nals				( FF - 7
B209	12	Ground	Steer- ing col- umn	Oper- ate	10mSec/div 2V/div JMJIA0119ZZ
				Other than above	0 or 5

### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-163</u>, "Removal and Installation".

NO >> GO TO 2.

## 2. CHECK TELESCOPIC SENSOR CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect driver seat control unit and telescopic motor.

#### TELESCOPIC SENSOR

#### < DTC/CIRCUIT DIAGNOSIS >

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

Driver seat	control unit	Telescopic motor		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B209	12	M94	4	Yes

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

Driver seat of	control unit		Continuity
Connector	Terminal	Ground	Continuity
B209	12		No

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

## 3. CHECK TELESCOPIC SENSOR POWER SUPPLY

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

(+	)		V 14 0.0
Telescopic motor		(–)	Voltage (V) (Approx.)
Connector	Terminals		( 1-1 7
M94	5	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.
- Check continuity between automatic drive positioner control unit harness connector and telescopic motor harness connector.

Automatic drive p ur		Telescopic motor		Continuity
Connector	Terminal	Connector Terminal		
M34	27	M94	5	Yes

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

Automatic drive	oositioner control unit		Continuity
Connector	Terminal	Ground	Continuity
M34	27		No

#### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-164, "Removal and Installation"</u>.

NO >> Repair or replace harness.

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

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

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## **TELESCOPIC SENSOR**

## < DTC/CIRCUIT DIAGNOSIS >

	positioner con- unit	Telescopic motor		Continuity
Connector	Terminal	Connector Terminal		
M33	20	M94	3	Yes

## Is the inspection result normal?

YES >> Replace telescopic motor. Refer to <u>ST-47</u>, "Exploded View".

NO >> Repair or replace harness.

#### < DTC/CIRCUIT DIAGNOSIS >

## MIRROR SENSOR DRIVER SIDE

#### INFOID:0000000012551173

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

## DRIVER SIDE: Component Function Check

#### INFOID:0000000012551174

## 1. CHECK FUNCTION

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

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

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to ADP-137, "DRIVER SIDE : Diagnosis Procedure".

## DRIVER SIDE: Diagnosis Procedure

INFOID:000000012551175

Regarding Wiring Diagram information, refer to <u>ADP-56, "WITH AROUND VIEW MONITOR: Wiring Diagram"</u> or <u>ADP-40, "WITHOUT AROUND VIEW MONITOR: Wiring Diagram"</u>.

## 1. CHECK DOOR MIRROR LH SENSOR SIGNAL

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

(+)  Door mirror LH  Connector Terminal		(–)		Condition	Voltage (V) (Approx.)
				Close to peak	3.4
D28 (with around view monitor system)	21	Ground	Door mirror LH	Close to valley	0.6
	22			Close to right edge	3.4
	22			Close to left edge	0.6
	4	Ground		Close to peak	3.4
D4 (without around view monitor system)	4		Door mirror LH	Close to valley	0.6
	6			Close to right edge	3.4
	<u> </u>			Close to left edge	0.6

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 2.

## 2. CHECK DOOR MIRROR LH SENSOR CIRCUIT 1

1. Turn ignition switch OFF.

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#### < DTC/CIRCUIT DIAGNOSIS >

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

Automatic drive position	ner control unit	Door mirror LH		Continuity
Connector	Terminal	Connector	Terminal	Continuity
	6	D28 (with around view monitor system)	21	
M33	Ü	D4 (without around view monitor system)	4	Yes
WISS	18	D28 (with around view monitor system)	22	163
			6	

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

Automatic drive positione	r control unit		Continuity	
Connector	Terminal	Ground	Continuity	
M33	6	Giouna	No	
IVIOO	18			

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

## 3. CHECK DOOR MIRROR LH SENSOR CIRCUIT 2

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

Automatic drive position	ner control unit	Door mirror LH		Continuity
Connector	Terminal	Connector	Terminal	Continuity
	20	D28 (with around view monitor system)	24	
M33	20	D4 (without around view monitor system)	5	Yes
IVIOO	21	D28 (with around view monitor system)	23	163
		D4 (without around view monitor system)	3	

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

Automatic drive positione	r control unit		Continuity
Connector	Terminal	Ground	Continuity
M33	20	Ground	No
WISS	21		110

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 4. CHECK TILT MOTOR ADJUSTING OPERATION

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

#### < DTC/CIRCUIT DIAGNOSIS >

#### Is the operation normal?

YES >> Replace door mirror actuator. (Built in door mirror LH). Refer to MIR-21, "Removal and Installation".

NO >> Replace automatic drive positioner control unit. Refer to <u>ADP-164, "Removal and Installation"</u>.

### CHECK INTERMITTENT INCIDENT

## Refer to GI-47, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-164, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

#### PASSENGER SIDE

## PASSENGER SIDE : Description

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

## PASSENGER SIDE: Component Function Check

INFOID:0000000012551177

## 1. CHECK FUNCTION

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

Monitor item	Condition		Value
MIR/SEN RH U-D		Close to peak	3.4V
	Door mirror RH	Close to valley	0.6V
MIR/SEN RH R-L	DOOL HIIITOL KH	Close to right edge	0.6V
		Close to left edge	3.4V

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to ADP-139, "PASSENGER SIDE : Diagnosis Procedure".

## PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000012551178

Regarding Wiring Diagram information, refer to <u>ADP-56, "WITH AROUND VIEW MONITOR: Wiring Diagram"</u> or <u>ADP-40, "WITHOUT AROUND VIEW MONITOR: Wiring Diagram"</u>.

## 1. CHECK DOOR MIRROR RH SENSOR SIGNAL

1. Turn ignition switch to ACC.

Check voltage between door mirror RH harness connector and ground.

(+)						
Door mirror RH		(-)		Condition	Voltage (V) (Approx.)	
Connector	Terminal				(-45.6%)	
	21	Ground		Close to peak	3.4	
D128 (with around view mon-	21		Door mirror	Close to valley	0.6	
itor system)	00		RH	Close to right edge	0.6	
	22			Close to left edge	3.4	

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### < DTC/CIRCUIT DIAGNOSIS >

(+) Door mirror RH		(-)		Condition	Voltage (V) (Approx.)	
Connector	Terminal				(трргох.)	
	4			Close to peak	3.4	
D107 (without around view	4	Ground	Door (	Close to valley	0.6	
monitor system)	6		RH	Close to right edge	0.6	
				Close to left edge	3.4	

#### Is the inspection result normal?

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

## 2. CHECK DOOR MIRROR RH SENSOR CIRCUIT 1

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

Automatic drive position	ner control unit	Door mirror RH		Continuity
Connector	Terminal	Connector	Terminal	Continuity
	5	D128 (with around view monitor system)		
M33	3	D107 (without around view monitor system)	4	Yes
WSS	17	D128 (with around view monitor system)	22	163
		D107 (without around view monitor system)	6	

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

Automatic drive position	ner control unit		Continuity
Connector	Terminal	Ground	Continuity
Maa	5	Giodila	No
M33	17		No

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

## 3. CHECK DOOR MIRROR RH SENSOR CIRCUIT 2

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

Automatic drive position	ner control unit	Door mirror RH		Continuity
Connector	Terminal	Connector	Terminal	Continuity
	20	D128 (with around view monitor system)	24	
M33		D107 (without around view monitor system)	5	Yes
Wiss	21	D128 (with around view monitor system)	23	163
		D107 (without around view monitor system)	3	

#### < DTC/CIRCUIT DIAGNOSIS >

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

Automatic drive positioner	Continuity		
Connector	Terminal	Ground	Continuity
M33	20	Giodila	No
IVIOO	21		NO

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## f 4 . CHECK TILT MOTOR ADJUSTING OPERATION

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

#### Is the operation normal?

- YES >> Replace door mirror actuator. (Built in door mirror RH). Refer to MIR-21, "Removal and Installation".
- NO >> Replace automatic drive positioner control unit. Refer to ADP-164, "Removal and Installation".

## 5. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-164, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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### **SLIDING MOTOR**

#### < DTC/CIRCUIT DIAGNOSIS >

## SLIDING MOTOR

Description INFOID:000000001255117S

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

## Component Function Check

INFOID:0000000012551180

## 1. CHECK FUNCTION

- Select "SEAT SLIDE" in "ACTIVE TEST" mode with CONSULT.
- 2. Check the sliding motor LH operation.

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

### Is the operation of relevant parts normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-142, "Diagnosis Procedure"</u>.

## Diagnosis Procedure

INFOID:0000000012551181

Regarding Wiring Diagram information, refer to <u>ADP-56, "WITH AROUND VIEW MONITOR: Wiring Diagram"</u> or <u>ADP-40, "WITHOUT AROUND VIEW MONITOR: Wiring Diagram"</u>.

## 1. CHECK SLIDING MOTOR LH POWER SUPPLY

- 1. Turn the ignition switch to ACC.
- Perform "ACTIVE TEST" ("SEAT SLIDE") with CONSULT.
- 3. Check voltage between driver seat control unit harness connector and ground.

Driver seat of		(-)	Condition		Voltage (V) (Approx.)						
Connector	Terminal				( .pp. 0/)						
				OFF	0						
	36			FR (forward)	0						
B210		Ground	Ground	Ground	Ground	Cround	Cround	Cround	SEAT	RR (backward)	Battery voltage
D210	B210					SLIDE	OFF	0			
	44				FR (forward)	Battery voltage					
				RR (backward)	0						

#### Is the inspection result normal?

YES >> Replace sliding motor LH. Refer to <u>SE-86, "Removal and Installation"</u>.

NO >> GO TO 2.

## 2. CHECK SLIDING MOTOR LH CIRCUIT

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

## **SLIDING MOTOR**

### < DTC/CIRCUIT DIAGNOSIS >

Driver seat co	ntrol unit	Sliding motor LH		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B210	36	B211	1	Yes
D2 10	44	DZII	5	165

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

Driver seat control unit connector			Continuity	
Connector	Terminal	Ground	Continuity	
B210	36	Giodila	No	
	44		INO	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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#### **RECLINING MOTOR**

#### < DTC/CIRCUIT DIAGNOSIS >

## RECLINING MOTOR

Description INFOID:000000012551182

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

## Component Function Check

INFOID:0000000012551183

## 1. CHECK FUNCTION

- Select "SEAT RECLINING" in "ACTIVE TEST" mode with CONSULT.
- 2. Check the reclining motor LH operation.

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

### Is the operation of relevant parts normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-144, "Diagnosis Procedure"</u>.

## Diagnosis Procedure

INFOID:0000000012551184

Regarding Wiring Diagram information, refer to <u>ADP-56, "WITH AROUND VIEW MONITOR: Wiring Diagram"</u> or <u>ADP-40, "WITHOUT AROUND VIEW MONITOR: Wiring Diagram"</u>.

## 1. CHECK RECLINING MOTOR LH POWER SUPPLY

- 1. Turn the ignition switch to ACC.
- Perform "ACTIVE TEST" ("SEAT RECLINING") with CONSULT.
- 3. Check voltage between driver seat control unit harness connector and ground.

(+) Driver seat control unit		(-)	Condition		Voltage (V) (Approx.)
Connec- tor	Terminal				
B210 -	43	Ground	SEAT RE- CLINING	OFF	0
				FR (forward)	0
				RR (backward)	Battery voltage
	35			OFF	0
				FR (forward)	Battery voltage
				RR (backward)	0

#### Is the inspection result normal?

YES >> Replace reclining motor LH. Refer to SE-86, "Removal and Installation".

NO >> GO TO 2.

## 2. CHECK RECLINING MOTOR LH CIRCUIT

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

## **RECLINING MOTOR**

## < DTC/CIRCUIT DIAGNOSIS >

Driver seat con	trol unit	Reclining motor LH		Continuity
Connector	Terminal	Connector Terminal		Continuity
B210	35	B217	6	Yes
5210	43	5217	4	163

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

Driver seat control		Continuity	
Connector	Terminal	Ground	Continuity
B210	35	Giodila	No
DZ 10	43		INO

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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## LIFTING MOTOR (FRONT)

#### < DTC/CIRCUIT DIAGNOSIS >

## LIFTING MOTOR (FRONT)

Description INFOID:000000012551185

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

## Component Function Check

INFOID:0000000012551186

## 1. CHECK FUNCTION

- Select "SEAT LIFTER FR" in "ACTIVE TEST" mode with CONSULT.
- 2. Check the lifting motor LH (front) operation.

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

## Is the operation of relevant parts normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-146, "Diagnosis Procedure"</u>.

## Diagnosis Procedure

INFOID:0000000012551187

Regarding Wiring Diagram information, refer to <u>ADP-56</u>, "WITH AROUND VIEW MONITOR: Wiring Diagram" or <u>ADP-40</u>, "WITHOUT AROUND VIEW MONITOR: Wiring Diagram".

# $1. \ \mathsf{CHECK} \ \mathsf{LIFTING} \ \mathsf{MOTOR} \ \mathsf{LH} \ (\mathsf{FRONT}) \ \mathsf{POWER} \ \mathsf{SUPPLY}$

- 1. Turn the ignition switch to ACC.
- Perform "ACTIVE TEST" ("SEAT LIFTER FR") with CONSULT.
- 3. Check voltage between driver seat control unit harness connector and ground.

(+) Driver seat control unit		(-)	Co	ondition	Voltage (V) (Approx.)	
Connector	Terminal				( 44.0)	
				OFF	0	
	34	Ground			UP	Battery voltage
B210			SEAT LIFTER	DWN (down)	0	
D2 10		Giodila	FR	OFF	0	
42			UP	0		
			DWN (down)	Battery voltage		

#### Is the inspection result normal?

YES >> Replace lifting motor LH (front). Refer to <u>SE-86, "Removal and Installation"</u>.

NO >> GO TO 2.

# 2. CHECK LIFTING MOTOR LH (FRONT) CIRCUIT

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

## **LIFTING MOTOR (FRONT)**

## < DTC/CIRCUIT DIAGNOSIS >

Driver seat co	ntrol unit	Lifting motor LF	l (front)	Continuity
Connector	Terminal	Connector	Terminal	
B210	34	B218	6	Yes
D210	42	5210	4	163

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

Driver seat cont		Continuity	
Connector	Terminal	Ground	Continuity
B210	34	Giouna	No
D210	42		NO

<u>Is the inspection result normal?</u>

YES >> GO TO 3.

NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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## **LIFTING MOTOR (REAR)**

#### < DTC/CIRCUIT DIAGNOSIS >

## LIFTING MOTOR (REAR)

Description INFOID:000000012551188

- The lifting motor LH (rear) is installed to the seat frame.
- The lifting motor LH (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 LH (rear).

## Component Function Check

INFOID:0000000012551189

## 1. CHECK FUNCTION

- Select "SEAT LIFTER RR" in "ACTIVE TEST" mode with CONSULT.
- 2. Check the lifting motor LH (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-148, "Diagnosis Procedure"</u>.

## Diagnosis Procedure

INFOID:0000000012551190

Regarding Wiring Diagram information, refer to <u>ADP-56</u>, "WITH AROUND VIEW MONITOR: Wiring Diagram" or <u>ADP-40</u>, "WITHOUT AROUND VIEW MONITOR: Wiring Diagram".

# $1. \ \mathsf{CHECK} \ \mathsf{LIFTING} \ \mathsf{MOTOR} \ \mathsf{LH} \ (\mathsf{REAR}) \ \mathsf{POWER} \ \mathsf{SUPPLY}$

- 1. Turn the ignition switch to ACC.
- 2. Perform "ACTIVE TEST" ("SEAT LIFTER RR") with CONSULT.
- 3. Check voltage between driver seat control unit harness connector and ground.

(+) Driver seat control unit		(-)	Condition		Voltage (V) (Approx.)									
Connector	Terminal				(									
				OFF	0									
	40	40 Ground		UP	0									
B210			Cround	Cround	Cround	Cround	Cround	Cround	Cround	Cround	Cround	ound LIFTER	DWN (down)	Battery voltage
D210			RR	OFF	0									
41	41			UP	Battery voltage									
				DWN (down)	0									

#### Is the inspection result normal?

YES >> Replace lifting motor LH (rear). Refer to <u>SE-86, "Removal and Installation"</u>.

NO >> GO TO 2.

# 2. CHECK LIFTING MOTOR (REAR) CIRCUIT

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

## **LIFTING MOTOR (REAR)**

## < DTC/CIRCUIT DIAGNOSIS >

Driver seat co	ntrol unit	Lifting motor LH (rear)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B210	41	B207	6	Yes
5210	40	5207	4	163

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

Driver seat contr	ol unit		Continuity
Connector	Terminal	Ground	Continuity
B210	41	Ground	No
6210	40		INO

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Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

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3. CHECK INTERMITTENT INCIDENT Refer to GI-47, "Intermittent Incident".

Is the inspection result normal?

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YES >> Replace driver seat control unit. Refer to ADP-163, "Removal and Installation".

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NO >> Repair or replace the malfunctioning part.

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## **TILT MOTOR**

#### < DTC/CIRCUIT DIAGNOSIS >

## **TILT MOTOR**

Description INFOID:000000012551191

- 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

INFOID:0000000012551192

# 1. CHECK FUNCTION

- 1. Select "TILT MOTOR" in "ACTIVE TEST" mode with CONSULT.
- Check the tilt motor operation.

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

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

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-150, "Diagnosis Procedure"</u>.

## Diagnosis Procedure

INFOID:0000000012551193

Regarding Wiring Diagram information, refer to <u>ADP-56, "WITH AROUND VIEW MONITOR: Wiring Diagram"</u>.

# 1. CHECK TILT MOTOR POWER SUPPLY

- Turn ignition switch OFF.
- 2. Disconnect tilt motor.
- 3. Turn the ignition switch ON.
- 4. Perform "ACTIVE TEST" ("TILT MOTOR") with CONSULT.
- Check voltage between tilt motor harness connector and ground.

(+	hotor	(–)	Co	ondition	Voltage (V) (Approx.)
Connector	Terminals				, , ,
				OFF	0
	2	Ground	TILT	UP	0
M85				DWN (down)	Battery voltage
IVIOS			MOTOR	OFF	0
	1			UP	Battery voltage
				DWN (down)	0

#### Is the inspection result normal?

YES >> Replace tilt motor. Refer to <u>ST-47</u>, "Exploded View".

NO >> GO TO 2.

# 2. CHECK TILT MOTOR CIRCUIT

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

## **TILT MOTOR**

## < DTC/CIRCUIT DIAGNOSIS >

Automatic drive positioner control unit		Tilt motor		Continuity
Connector	Terminal	Connector Terminal		
M34	28	M85	2	Yes
IVI34	29	IVIOS	1	165

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

Automatic drive pos	itioner control unit		Continuity
Connector	Connector Terminal		Continuity
M34	28	Ground	No
	29		INO

## Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-164. "Removal and Installation"</u>.

NO >> Repair or replace harness.

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## **TELESCOPIC MOTOR**

#### < DTC/CIRCUIT DIAGNOSIS >

## TELESCOPIC MOTOR

Description INFOID:0000000012551194

- 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

INFOID:0000000012551195

## 1. CHECK FUNCTION

- Select "TELESCO MOTOR" in "ACTIVE TEST" mode with CONSULT.
- 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 <u>ADP-152, "Diagnosis Procedure"</u>.

## Diagnosis Procedure

INFOID:0000000012551196

Regarding Wiring Diagram information, refer to <u>ADP-56, "WITH AROUND VIEW MONITOR: Wiring Diagram"</u>.

# 1. CHECK TELESCOPIC MOTOR POWER SUPPLY

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

Telescop	ic motor	(–)	Condition		Voltage (V) (Approx.)
Connector	Terminals				
				OFF	0
	2			FR (forward)	0
M94		Ground TELE- SCOPIC MOTOR		RR (backward)	Battery voltage
IVIOT			MOTOR	OFF	0
1	1			FR (forward)	Battery voltage
				RR (backward)	0

#### Is the inspection result normal?

YES >> Replace telescopic motor. Refer to ST-47, "Exploded View".

NO >> GO TO 2.

# 2.CHECK TELESCOPIC MOTOR CIRCUIT

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

## **TELESCOPIC MOTOR**

## < DTC/CIRCUIT DIAGNOSIS >

Automatic drive positioner control unit		Telescopic motor		Continuity
Connector	Terminal	Connector Terminal		
M34	29	M94	1	Yes
10134	26	10194	2	162

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

Automatic drive pos	sitioner control unit		Continuity
Connector	Connector Terminal		Continuity
M34	29	Ground	No
IVI34	26		INO

## Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-164. "Removal and Installation"</u>.

NO >> Repair or replace harness.

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#### < DTC/CIRCUIT DIAGNOSIS >

## DOOR MIRROR MOTOR

Description INFOID:000000012551197

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:0000000012551198

## 1. CHECK DOOR MIRROR MOTOR FUNCTION

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

Refer to ADP-26, "CONSULT Function (AUTO DRIVE POS.)".

#### Is the inspection result normal?

YES >> Door mirror motor function is OK.

NO >> Refer to <u>ADP-154, "Diagnosis Procedure"</u>.

## Diagnosis Procedure

INFOID:0000000012551199

Regarding Wiring Diagram information, refer to <u>ADP-56, "WITH AROUND VIEW MONITOR: Wiring Diagram"</u> or <u>ADP-40, "WITHOUT AROUND VIEW MONITOR</u>: Wiring Diagram".

## WITH AROUND VIEW MONITOR SYSTEM

# 1. CHECK DOOR MIRROR MOTOR INPUT SIGNAL

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

(+) Door mirror		(–)	Door mirror re- mote control	Voltage (V) (Approx.)
Connector	Terminal		switch condition	( 17 - )
	12		UP	Battery voltage
	12	Ground	Other than above	0
D28 (LH)	11		LEFT	Battery voltage
D128 (RH)			Other than above	0
			DOWN / RIGHT	Battery voltage
	.0		Other than above	0

## Is the inspection result normal?

YES >> Refer to ADP-158, "Component Inspection".

NO >> GO TO 2.

# 2. CHECK HARNESS CONTINUITY

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

  Door mirror LH

Automatic drive positioner control unit		Door mirror LH connector		Continuity
Connector	Terminal	Connector	Terminal	
	12		10	
M33	23	D28	12	Yes
	24		11	

## < DTC/CIRCUIT DIAGNOSIS >

Door mirror RH

Automatic drive positione	Door mir	Continuity			
Connector	Terminal	Connector	Terminal	Continuity	
	10		12		
M33	11	D128	11	Yes	
	22		10		

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

Door mirror LH

Automatic drive position		Continuity	
Connector	Connector Terminal		Continuity
	12	Ground	No
M33	23		
	24	-	
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Door mirror RH

Automatic drive positio		Continuity		
Connector Terminal			Continuity	
	10	Ground		
M33	11		No	
	22			

## Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

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

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

  Door mirror LH

(+) Automatic drive positioner control unit		(-)	Mirror switch condition	Voltage (V) (Approx.)
Connector	Terminal			
	12	Ground	DOWN / RIGHT	Battery voltage
	12		Other than above	0
M33	23		UP	Battery voltage
WISS	24		Other than above	0
			LEFT	Battery voltage
24		ı	Other than above	0

Door mirror RH

(+)				
Automatic drive positioner control unit		(-)	Mirror switch con- dition	Voltage (V) (Approx.)
Connector Terminal				

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#### < DTC/CIRCUIT DIAGNOSIS >

	10		UP	Battery voltage
			Other than above	0
M33	11	Ground	LEFT	Battery voltage
IVISS	22	Glound	Other than above	0
			DOWN / RIGHT	Battery voltage
			Other than above	0

## Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace automatic drive positioner control unit. Refer to ADP-164, "Removal and Installation".

## 4. CHECK DOOR MIRROR MOTOR

Check door mirror motor.

Refer to ADP-158, "Component Inspection".

#### Is the inspection result normal?

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

NO >> Replace door mirror actuator. Refer to MIR-21, "Removal and Installation".

#### WITHOUT AROUND VIEW MONITOR SYSTEM

# 1. CHECK DOOR MIRROR MOTOR INPUT SIGNAL

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

(+) Door m	Door mirror		Door mirror re- mote control	Voltage (V) (Approx.)
Connector	Terminal		switch condition	( 44.0)
	8		UP	Battery voltage
	D4 (LH) D107 (RH) 9		Other than above	0
D4 (LH)			LEFT	Battery voltage
D107 (RH)			Other than above	0
10	10		DOWN / RIGHT	Battery voltage
	10		Other than above	0

#### Is the inspection result normal?

YES >> Refer to ADP-158, "Component Inspection".

NO >> GO TO 2.

# 2. CHECK HARNESS CONTINUITY

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

  Door mirror LH

Automatic drive positioner control unit		Door mirror LH connector		Continuity
Connector	Terminal	Connector	Terminal	
	12		10	
M33	23	D4	8	Yes
	24		9	

## < DTC/CIRCUIT DIAGNOSIS >

Door mirror RH

Automatic drive positione	Door mir	Continuity		
Connector	Terminal	Connector	Terminal	Continuity
	10		8	
M33	11	D107	9	Yes
	22		10	

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

Door mirror LH

Automatic drive position		Continuity		
Connector	Terminal		Continuity	
	12	Ground		
M33	23		No	
	24			
			-	

Door mirror RH

Automatic drive positio		Continuity		
Connector	Terminal		Continuity	
	10	Ground		
M33	11		No	
	22	-		

## Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# ${\bf 3.}$ Check automatic drive positioner control unit output signal

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

  Door mirror LH

(+)	(+)			
Automatic drive positioner control unit		(-)	Mirror switch condition	Voltage (V) (Approx.)
Connector	Terminal			
	12		DOWN / RIGHT	Battery voltage
	12	Ground	Other than above	0
M33	23		UP	Battery voltage
WISS	23		Other than above	0
	24		LEFT	Battery voltage
	24		Other than above	0

#### Door mirror RH

(+)				
Automatic drive positioner control unit		(-)	Mirror switch con- dition	Voltage (V) (Approx.)
Connector Terminal				

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#### < DTC/CIRCUIT DIAGNOSIS >

	M33 11 22		UP	Battery voltage
			Other than above	0
M33		Ground	LEFT	Battery voltage
WISS		Ground	Other than above	0
			DOWN / RIGHT	Battery voltage
			Other than above	0

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace automatic drive positioner control unit. Refer to ADP-164, "Removal and Installation".

## 4. CHECK DOOR MIRROR MOTOR

#### Check door mirror motor.

Refer to ADP-158, "Component Inspection".

#### Is the inspection result normal?

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

NO >> Replace door mirror actuator. Refer to MIR-21, "Removal and Installation".

## Component Inspection

INFOID:0000000012551200

# 1. CHECK DOOR MIRROR MOTOR-I

Check that door mirror motor does not trap foreign objects and does not have any damage. Refer to MIR-18, "Exploded View".

## Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace door mirror actuator. Refer to MIR-21, "Removal and Installation".

# 2. CHECK DOOR MIRROR MOTOR-II

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

## With around view monitor system

Door mirror connector	Tern	ninal	Operational direction
Door militor connector	(+)	(-)	Operational direction
	10	11	RIGHT
D28 (LH) D128 (RH)	11	10	LEFT
	12	10	UP
	10	12	DOWN

#### Without around view monitor system

Door mirror connector	Terminal		Operational direction	
	(+)	(-)	Operational direction	
D4 (LH) D107 (RH)	10	9	RIGHT	
	9	10	LEFT	
	8	10	UP	
	10	8	DOWN	

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace door mirror actuator. Refer to GI-47, "Intermittent Incident".

## SEAT MEMORY INDICATOR

#### < DTC/CIRCUIT DIAGNOSIS >

## SEAT MEMORY INDICATOR

Description INFOID:0000000012551201

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

## Component Function Check

## 1. CHECK FUNCTION

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

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

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

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to <u>ADP-159</u>, "<u>Diagnosis Procedure</u>".

## Diagnosis Procedure

INFOID:0000000012551203

INFOID:0000000012551202

Regarding Wiring Diagram information, refer to <u>ADP-56</u>, "WITH AROUND VIEW MONITOR: Wiring Diagram" or <u>ADP-40</u>, "WITHOUT AROUND VIEW MONITOR: Wiring Diagram".

# 1. CHECK SEAT MEMORY INDICATOR CIRCUIT

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

Driver seat control unit		Seat memory switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B209	10	D60	13	Yes
B209	26	Боо	14	165

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

Driver seat control unit			Continuity	
Connector	Connector Terminal		Continuity	
B209	10	Ground	No	
D209	26	-	No	

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

## $oldsymbol{2}.$ CHECK MEMORY INDICATOR POWER SUPPLY

Check voltage between seat memory switch harness connector and ground.

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## **SEAT MEMORY INDICATOR**

#### < DTC/CIRCUIT DIAGNOSIS >

(+)				
Seat memory switch		(–)	Voltage (V)	
Connector	Terminals		(Approx.)	
D60	15	Ground	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Check the following:

- 10A fuse No. 1.
- · Harness for open or short between memory indicator and fuse.

# $3.\,$ CHECK MEMORY INDICATOR

Refer to ADP-160, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace seat memory switch. Refer to <u>ADP-165</u>. "Removal and Installation".

## 4. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-163</u>, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

## Component Inspection

INFOID:0000000012551204

# 1. CHECK SEAT MEMORY INDICATOR

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

Terminal				
Seat memory switch		Continuity		
(+)	(-)			
15	13	Yes		
13	14	165		

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace seat memory switch. Refer to <u>ADP-165</u>. "Removal and Installation".

## **ADP SYSTEM SYMPTOMS**

# SYMPTOM DIAGNOSIS

# ADP SYSTEM SYMPTOMS

Symptom Table

#### INFOID:0000000012551205

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## NOTE:

Always perform the "Basic Inspection" before performing diagnosis in the following table. Refer to <u>ADP-71.</u> "Work Flow".

Symptom		Diagnosis procedure	Reference page
	Sliding operation	Check sliding switch.	ADP-93
Manual functions (for specific part) do not operate.	Reclining operation	Check reclining switch.	ADP-96
	Lifting operation (front)	Check lifting switch (front).	ADP-99
	Lifting operation (rear)	Check lifting switch (rear).	ADP-102
	Tilt operation (if equipped)	Check tilt switch.	ADP-105
	Telescopic sensor (if equipped)	Check telescopic switch.	ADP-107
	Door mirror on oration	1. Changeover switch.	ADP-112
	Door mirror operation	2. Mirror switch	ADP-114
	All parts of seat	Check power seat switch ground circuit.	ADP-117
	Sliding operation	Check sliding sensor.	ADP-119
	Reclining operation	Check reclining sensor.	ADP-122
	Lifting operation (front)	Check lifting sensor (front).	ADP-125
	Lifting operation (rear)	Check lifting sensor (rear).	ADP-128
Memory functions (for specific part) do	Tilt operation (if equipped)	Check tilt sensor.	ADP-131
not operate.	Telescopic operation (if equipped)	Check telescopic sensor.	ADP-134
	Door mirror operation	Check door mirror sensor.	Driver side: <u>ADP-137</u> Passenger side <u>ADP-139</u>
	Sliding operation	Check sliding motor LH.	ADP-142
	Reclining operation	Check reclining motor LH.	ADP-144
	Lifting operation (front)	Check lifting motor LH (front).	ADP-146
Memory functions and manual functions	Lifting operation (rear)	Check lifting motor LH (rear).	ADP-148
(for specific part) do not operate.	Tilt operation (if equipped)	Check tilt motor.	<u>ADP-150</u>
	Telescopic operation (if equipped)	Check telescopic motor.	ADP-152
	Door mirror operation	Check door mirror motor.	<u>ADP-154</u>
Entry/Exit assist function does not operate.		1. Check system setting.	ADP-12
		2. Perform initialization.	ADP-75
		3. Check front door switch (driver side).	DLK-168
Intelligent Key interlock function does not operate. (Other automatic operations and Intelligent Key system are normal)		1. Check door lock function.	DLK-19
		2. Perform memory storing.	ADP-76

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## **NORMAL OPERATING CONDITION**

## < SYMPTOM DIAGNOSIS >

# NORMAL OPERATING CONDITION

Description INFOID:000000012551206

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-75
Entry/exit assist function do not operate.	Entry/exit assist function is disabled.  NOTE: Entry/exit assist function is set to ON before delivery (initial setting).	Change the settings.	ADP-77
Entry assist function does not operate.	Manual operation with power seat switch was performed after exit assist function execution.	Perform the entry assist function.	ADP-22
		Fulfill the operation conditions.	Memory function: ADP-18
Memory function, entry/exit assist function, or Intelligent Key interlock function does not operate.	The operating conditions are not fulfilled.		Entry assist function: ADP-22
			Exit assist function: ADP-20
			Intelligent Key interlock function: ADP-24

## **DRIVER SEAT CONTROL UNIT**

< REMOVAL AND INSTALLATION >

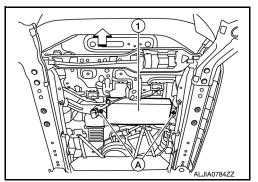
# REMOVAL AND INSTALLATION

## DRIVER SEAT CONTROL UNIT

## Removal and Installation

#### **REMOVAL**

- 1. Remove the driver seat. Refer to SE-86, "Removal and Installation".
- 2. Remove the two driver seat control unit screws (A). <□: Front
- 3. Disconnect the two harness connectors from driver seat control unit (1).
- 4. Remove the driver seat control unit (1).



#### **INSTALLATION**

Installation is in the reverse order of removal.

#### NOTE:

After installing the driver seat, perform additional service when replacing control unit. Refer to <u>ADP-74, "ADDI-TIONAL SERVICE WHEN REPLACING CONTROL UNIT: Description"</u>.

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## **AUTOMATIC DRIVE POSITIONER CONTROL UNIT**

< REMOVAL AND INSTALLATION >

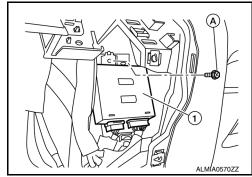
# **AUTOMATIC DRIVE POSITIONER CONTROL UNIT**

## Removal and Installation

INFOID:0000000012551208

#### **REMOVAL**

- 1. Disconnect the negative battery terminal. Refer to PG-96, "Removal and Installation".
- 2. Remove the A/C assembly switch. Refer to <u>HAC-154</u>, "Removal and Installation With Navigation" or <u>HAC-153</u>, "Removal and Installation Without Navigation".
- 3. Remove the automatic drive positioner control unit screw (A).
- 4. Disconnect the two harness connectors from the automatic drive positioner control unit (1).
- 5. Remove automatic drive positioner control unit (1).



#### INSTALLATION

Installation is in the reverse order of removal.

#### NOTE:

After installing the automatic drive positioner control unit, perform additional service. Refer to <u>ADP-74, "ADDI-TIONAL SERVICE WHEN REPLACING CONTROL UNIT</u>: Description".

## **SEAT MEMORY SWITCH**

## < REMOVAL AND INSTALLATION >

## **SEAT MEMORY SWITCH**

## Removal and Installation

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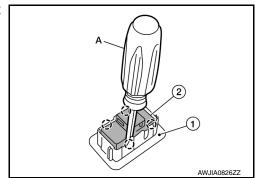
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## **REMOVAL**

- 1. Remove front door finisher LH. Refer to <a href="INT-15">INT-15</a>, "Removal and Installation".
- Release the pawls using a suitable tool (A) and remove seat memory switch (2) from switch finisher (1).
   Pawl



## **INSTALLATION**

Installation is in the reverse order of removal.

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## **POWER SEAT SWITCH**

## < REMOVAL AND INSTALLATION >

## **POWER SEAT SWITCH**

## Removal and Installation

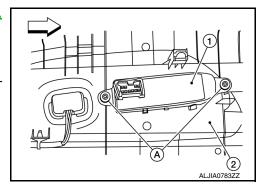
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## **REMOVAL**

1. Remove seat cushion outer finisher LH (2). Refer to <u>SE-125</u>, <u>"Seat Cushion"</u>.

<>: Front

- 2. Remove the power seat switch screws (A).
- 3. Remove power seat switch (1) from seat cushion outer finisher LH (2).



## **INSTALLATION**

Installation is in the reverse order of removal.

## **ADP STEERING SWITCH**

## < REMOVAL AND INSTALLATION >

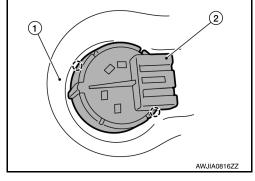
## ADP STEERING SWITCH

## Removal and Installation

## **REMOVAL**

- 1. Remove steering column lower cover (1). Refer to <u>IP-17.</u> "Removal and Installation".
- 2. Release the pawls and remove ADP steering switch (2) from the steering column lower cover (1).

( ): Pawl



## **INSTALLATION**

Installation is in the reverse order of removal.

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