

# SECTION ADP

## AUTOMATIC DRIVE POSITIONER

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# PRECAUTION

## PRECAUTIONS

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

INFOID:0000000014391870

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:0000000014391871

- 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.

## PREPARATION

< PREPARATION >

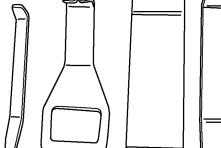
# PREPARATION

## PREPARATION

### Special Service Tool

INFOID:000000014391872

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

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

### Commercial Service Tools

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Tool name	Description
Power tool	 PIIB1407E

ADP

## COMPONENT PARTS

< SYSTEM DESCRIPTION >

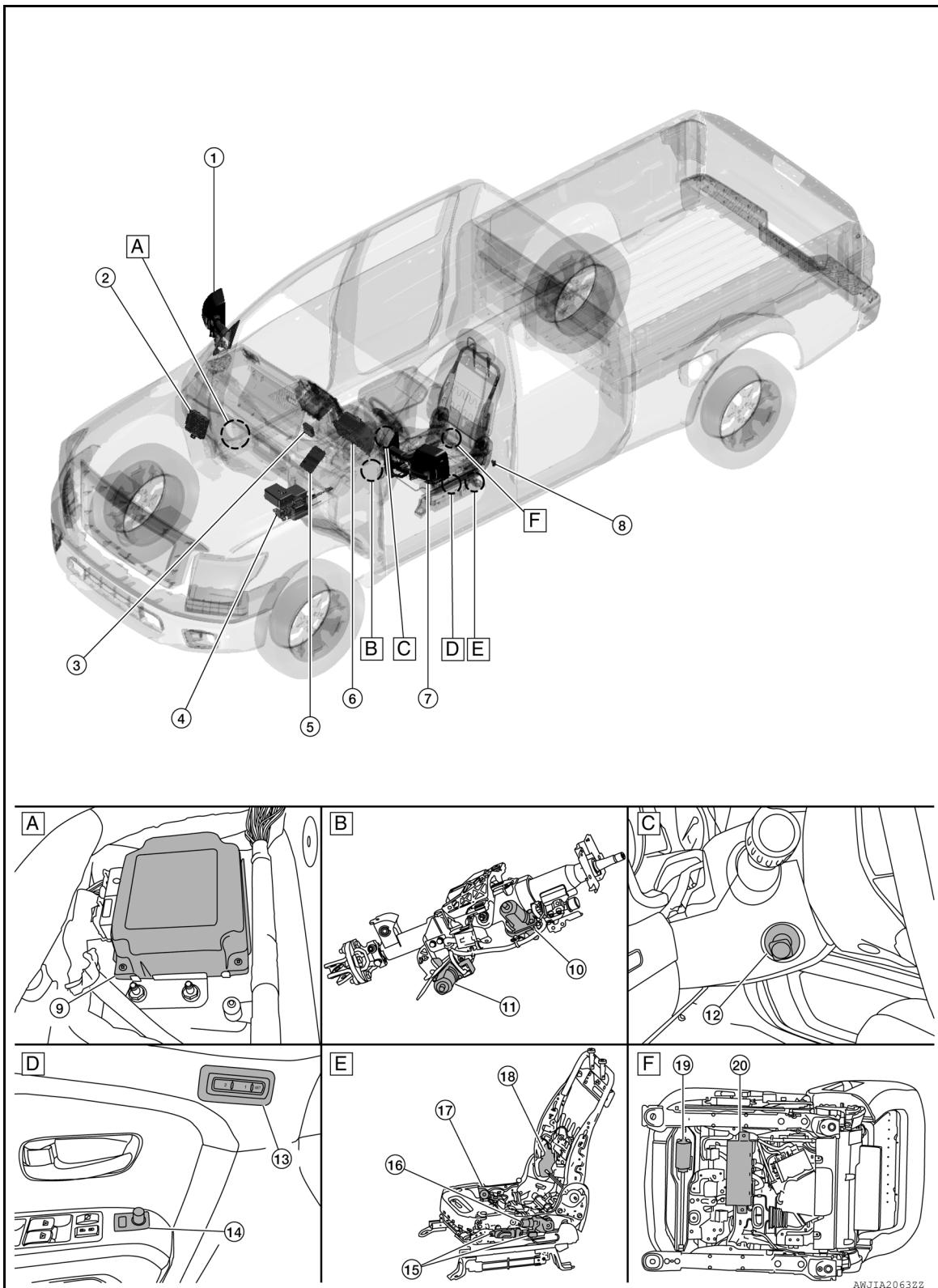
# SYSTEM DESCRIPTION

## COMPONENT PARTS

### Component Parts Location

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WITH CUMMINS 5.0L



# COMPONENT PARTS

## < SYSTEM DESCRIPTION >

A. RH front floor (view with carpet removed)	B. Steering column (view with steering column removed)	C. Left hand side of steering column
D. View of left front door finisher	E. LH side of driver seat (view with seat disassembled)	F. Driver seat bottom (view with seat removed)

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No.	Component		Function
1.	Door mirror (LH)	Door mirror motor	<ul style="list-style-type: none"> <li>Makes mirror face operate from side to side and up and down with the electric power that automatic drive positioner control unit supplies.</li> <li>Refer to <a href="#">MIR-5, "Component Parts Location"</a> for detailed installation location.</li> </ul>
		Mirror sensor	<ul style="list-style-type: none"> <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> <li>Refer to <a href="#">MIR-5, "Component Parts Location"</a> for detailed installation location.</li> </ul>
2.	IPDM E/R		<ul style="list-style-type: none"> <li>Transmits the detention switch signal to driver seat control unit via CAN communication.</li> <li>Refer to <a href="#">PCS-5, "Component Parts Location"</a> for detailed installation location.</li> </ul>
3.	Automatic drive positioner control unit		<ul style="list-style-type: none"> <li>Refer to <a href="#">ADP-13, "Automatic Drive Positioner Control Unit"</a>.</li> </ul>
4.	ABS actuator and electric unit (control unit)		<ul style="list-style-type: none"> <li>Transmits the vehicle speed signal to driver seat control unit via CAN communication.</li> <li>Refer to <a href="#">BRC-9, "Component Parts Location"</a> for detailed installation location.</li> </ul>
5.	BCM		<ul style="list-style-type: none"> <li>Recognizes the following statuses and transmits them to driver seat control unit via CAN communication:           <ul style="list-style-type: none"> <li>Handle position: LHD</li> <li>Driver door: OPEN/CLOSE</li> <li>Ignition switch position: ACC/ON</li> <li>Door lock: UNLOCK (with Intelligent Key or driver side door request switch operation)</li> <li>Key ID</li> <li>Starter: CRANKING/OTHER</li> </ul> </li> <li>Refer to <a href="#">BCS-5, "BODY CONTROL SYSTEM : Component Parts Location"</a> for detailed installation location.</li> </ul>
6.	Combination meter		<ul style="list-style-type: none"> <li>Transmits the vehicle speed signal to driver seat control unit via CAN communication.</li> </ul>
7.	Door mirror (RH)	Door mirror motor	<ul style="list-style-type: none"> <li>Makes mirror face operate from side to side and up and down with the electric power that automatic drive positioner control unit supplies.</li> <li>Refer to <a href="#">MIR-5, "Component Parts Location"</a> for detailed installation location.</li> </ul>
		Mirror sensor	<ul style="list-style-type: none"> <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> <li>Refer to <a href="#">MIR-5, "Component Parts Location"</a> for detailed installation location.</li> </ul>
8.	Front door switch (LH)		<ul style="list-style-type: none"> <li>Detects door open/close condition and transmits it to BCM. Refer to <a href="#">DLK-9, "POWER DOOR LOCK SYSTEM : Component Parts Location"</a> for detailed installation location.</li> </ul>
4.	A/T assembly		<ul style="list-style-type: none"> <li>Refer to <a href="#">TM-266, "A/T CONTROL SYSTEM : Component Parts Location"</a>.</li> </ul>

# COMPONENT PARTS

## < SYSTEM DESCRIPTION >

No.	Component		Function
10.	Telescopic motor	Tilt motor	• Refer to <a href="#">ADP-14, "Tilt &amp; Telescopic Motor".</a>
		Tilt sensor	
11.	Tilt motor	Tilt motor	• Refer to <a href="#">ADP-14, "Tilt &amp; Telescopic Motor".</a>
		Tilt sensor	
12.	ADP steering switch		• Refer to <a href="#">ADP-14, "ADP Steering Switch".</a>
13.	Seat memory switch		• Refer to <a href="#">ADP-13, "Seat Memory Switch".</a>
14.	Door mirror remote control switch	Mirror switch	<ul style="list-style-type: none"> <li>Mirror switch is integrated in door 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> <li>Refer to <a href="#">MIR-5, "Component Parts Location"</a> for detailed installation location.</li> </ul>
		Select switch	<ul style="list-style-type: none"> <li>Select switch is integrated in door mirror remote control switch.</li> <li>Select 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> <li>Refer to <a href="#">MIR-5, "Component Parts Location"</a> for detailed installation location.</li> </ul>
15.	Power seat switch LH	Sliding switch	<ul style="list-style-type: none"> <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>
16.	Lifting motor LH (rear)	Lifting motor	<ul style="list-style-type: none"> <li>Lifting motor (rear) is installed to seat frame assembly (driver side).</li> <li>Lifting motor (rear) is activated with driver seat control unit.</li> <li>Lifting motor (rear) is moved upward/downward by changing the rotation direction of lifting motor (rear).</li> </ul>
		Lifting sensor	<ul style="list-style-type: none"> <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>
17.	Lifting motor LH (front)	Lifting motor	<ul style="list-style-type: none"> <li>Lifting motor (front) is installed to seat frame assembly (driver side).</li> <li>Lifting motor is activated with driver seat control unit.</li> <li>Lifting motor (front) is moved upward/downward by changing the rotation direction of lifting motor (front).</li> </ul>
		Lifting sensor	<ul style="list-style-type: none"> <li>Lifting sensor (front) is installed in lifting motor (front).</li> <li>When lifting motor (front) operates, pulse signal is transmitted to driver seat control unit from lifting sensor. Driver seat control unit counts the pulse and calculates the lift position (front) of the seat.</li> </ul>
18.	Reclining motor LH	Reclining motor	<ul style="list-style-type: none"> <li>Reclining motor is installed to seat back frame.</li> <li>Reclining motor 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 style="list-style-type: none"> <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>

## COMPONENT PARTS

### < SYSTEM DESCRIPTION >

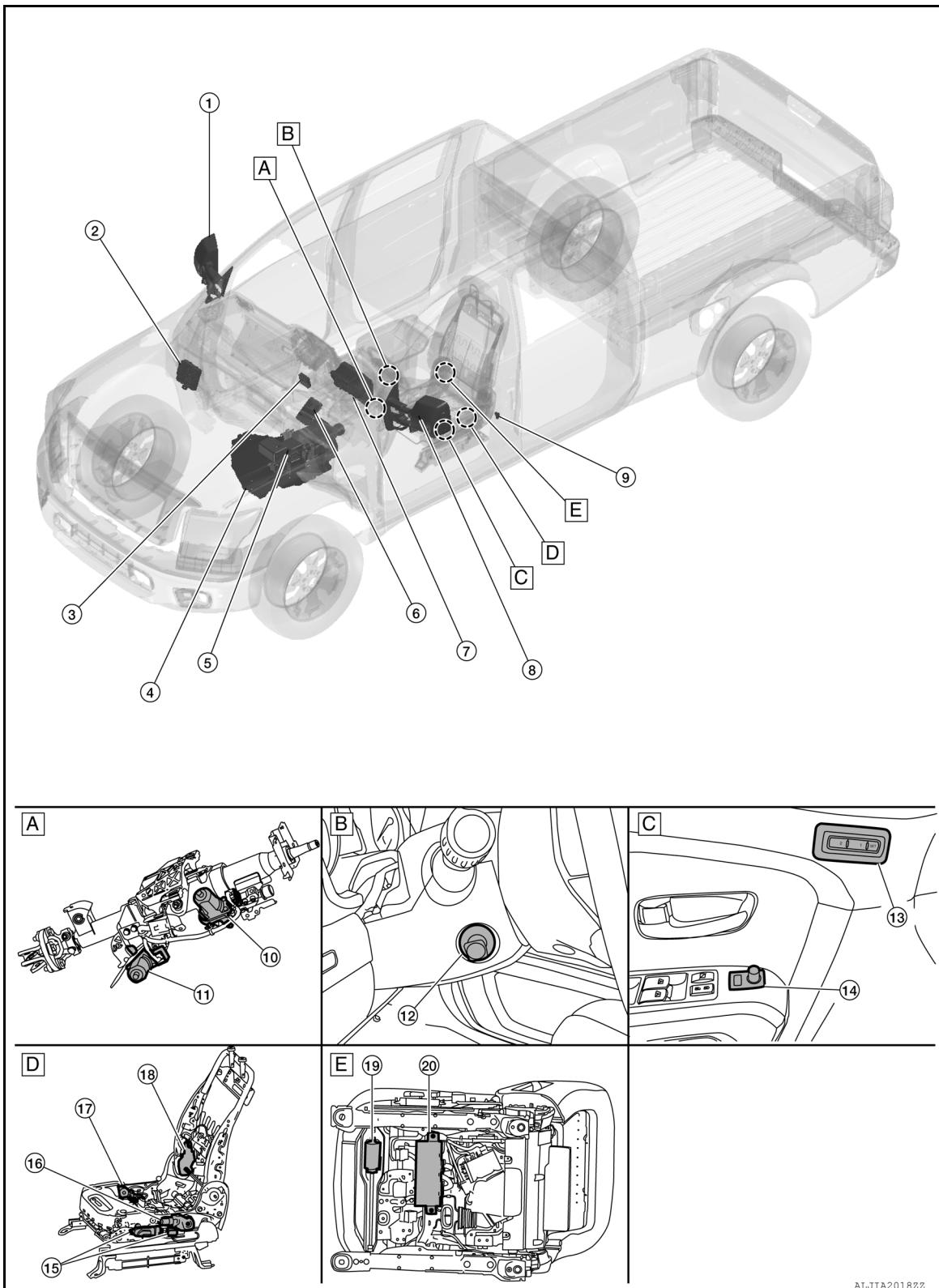
No.	Component		Function
19.	Sliding motor LH	Sliding motor	<ul style="list-style-type: none"><li>• Sliding motor is installed to the seat cushion frame.</li><li>• Sliding motor is activated with driver seat control unit.</li><li>• Slides the seat forward/backward by changing the rotation direction of sliding motor.</li></ul>
		Sliding sensor	<ul style="list-style-type: none"><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>
20.	Driver seat control unit		<ul style="list-style-type: none"><li>• Refer to <a href="#">ADP-13, "Driver Seat Control Unit".</a></li></ul>

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# COMPONENT PARTS

## < SYSTEM DESCRIPTION >



- A. Steering column (view with steering column removed)
- B. Left hand side of steering column
- C. View of left front door finisher
- D. LH side of driver seat (view with seat disassembled)
- E. Driver seat bottom (view with seat removed)

# COMPONENT PARTS

## < SYSTEM DESCRIPTION >

No.	Component		Function
1.	Door mirror (LH)	Door mirror motor	<ul style="list-style-type: none"> <li>Makes mirror face operate from side to side and up and down with the electric power that automatic drive positioner control unit supplies.</li> <li>Refer to <a href="#">MIR-5, "Component Parts Location"</a> for detailed installation location.</li> </ul>
		Mirror sensor	<ul style="list-style-type: none"> <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> <li>Refer to <a href="#">MIR-5, "Component Parts Location"</a> for detailed installation location.</li> </ul>
2.	IPDM E/R		<ul style="list-style-type: none"> <li>Transmits the detention switch signal to driver seat control unit via CAN communication.</li> <li>Refer to <a href="#">PCS-5, "Component Parts Location"</a> for detailed installation location.</li> </ul>
3.	Automatic drive positioner control unit		<ul style="list-style-type: none"> <li>Refer to <a href="#">ADP-13, "Automatic Drive Positioner Control Unit"</a>.</li> </ul>
4.	A/T assembly		<ul style="list-style-type: none"> <li>Refer to <a href="#">TM-266, "A/T CONTROL SYSTEM : Component Parts Location"</a>.</li> </ul>
5.	ABS actuator and electric unit (control unit)		<ul style="list-style-type: none"> <li>Transmits the vehicle speed signal to driver seat control unit via CAN communication.</li> <li>Refer to <a href="#">BRC-9, "Component Parts Location"</a> for detailed installation location.</li> </ul>
6.	BCM		<ul style="list-style-type: none"> <li>Recognizes the following statuses and transmits them to driver seat control unit via CAN communication:           <ul style="list-style-type: none"> <li>Handle position: LHD</li> <li>Driver door: OPEN/CLOSE</li> <li>Ignition switch position: ACC/ON</li> <li>Door lock: UNLOCK (with Intelligent Key or driver side door request switch operation)</li> <li>Key ID</li> <li>Starter: CRANKING/OTHER</li> </ul> </li> <li>Refer to <a href="#">BCS-5, "BODY CONTROL SYSTEM : Component Parts Location"</a> for detailed installation location.</li> </ul>
7.	Combination meter		<ul style="list-style-type: none"> <li>Transmits the vehicle speed signal to driver seat control unit via CAN communication.</li> </ul>
8.	Door mirror (RH)	Door mirror motor	<ul style="list-style-type: none"> <li>Makes mirror face operate from side to side and up and down with the electric power that automatic drive positioner control unit supplies.</li> <li>Refer to <a href="#">MIR-5, "Component Parts Location"</a> for detailed installation location.</li> </ul>
		Mirror sensor	<ul style="list-style-type: none"> <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> <li>Refer to <a href="#">MIR-5, "Component Parts Location"</a> for detailed installation location.</li> </ul>
9.	Front door switch (LH)		<ul style="list-style-type: none"> <li>Detects door open/close condition and transmits it to BCM. Refer to <a href="#">DLK-9, "POWER DOOR LOCK SYSTEM : Component Parts Location"</a> for detailed installation location.</li> </ul>
10.	Telescopic motor	Tilt motor	<ul style="list-style-type: none"> <li>Refer to <a href="#">ADP-14, "Tilt &amp; Telescopic Motor"</a>.</li> </ul>
		Tilt sensor	<ul style="list-style-type: none"> <li>Refer to <a href="#">ADP-14, "Tilt &amp; Telescopic Motor"</a>.</li> </ul>
11.	Tilt motor	Tilt motor	<ul style="list-style-type: none"> <li>Refer to <a href="#">ADP-14, "Tilt &amp; Telescopic Motor"</a>.</li> </ul>
		Tilt sensor	<ul style="list-style-type: none"> <li>Refer to <a href="#">ADP-14, "Tilt &amp; Telescopic Motor"</a>.</li> </ul>

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# COMPONENT PARTS

## < SYSTEM DESCRIPTION >

No.	Component		Function
12.	ADP steering switch		<ul style="list-style-type: none"> <li>Refer to <a href="#">ADP-14, "ADP Steering Switch".</a></li> </ul>
13.	Seat memory switch		<ul style="list-style-type: none"> <li>Refer to <a href="#">ADP-13, "Seat Memory Switch".</a></li> </ul>
14.	Door mirror remote control switch	Mirror switch	<ul style="list-style-type: none"> <li>Mirror switch is integrated in door 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> <li>Refer to <a href="#">MIR-5, "Component Parts Location"</a> for detailed installation location.</li> </ul>
		Select switch	<ul style="list-style-type: none"> <li>Select switch is integrated in door mirror remote control switch.</li> <li>Select 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> <li>Refer to <a href="#">MIR-5, "Component Parts Location"</a> for detailed installation location.</li> </ul>
15.	Power seat switch LH	Sliding switch	<ul style="list-style-type: none"> <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>
16.	Lifting motor LH (rear)	Lifting motor	<ul style="list-style-type: none"> <li>Lifting motor (rear) is installed to seat frame assembly (driver side).</li> <li>Lifting motor (rear) is activated with driver seat control unit.</li> <li>Lifting motor (rear) is moved upward/downward by changing the rotation direction of lifting motor (rear).</li> </ul>
		Lifting sensor	<ul style="list-style-type: none"> <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>
17.	Lifting motor LH (front)	Lifting motor	<ul style="list-style-type: none"> <li>Lifting motor (front) is installed to seat frame assembly (driver side).</li> <li>Lifting motor is activated with driver seat control unit.</li> <li>Lifting motor (front) is moved upward/downward by changing the rotation direction of lifting motor (front).</li> </ul>
		Lifting sensor	<ul style="list-style-type: none"> <li>Lifting sensor (front) is installed in lifting motor (front).</li> <li>When lifting motor (front) operates, pulse signal is transmitted to driver seat control unit from lifting sensor. Driver seat control unit counts the pulse and calculates the lift position (front) of the seat.</li> </ul>
18.	Reclining motor LH	Reclining motor	<ul style="list-style-type: none"> <li>Reclining motor is installed to seat back frame.</li> <li>Reclining motor 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 style="list-style-type: none"> <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>
19.	Sliding motor LH	Sliding motor	<ul style="list-style-type: none"> <li>Sliding motor is installed to the seat cushion frame.</li> <li>Sliding motor 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 style="list-style-type: none"> <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>
20.	Driver seat control unit		<ul style="list-style-type: none"> <li>Refer to <a href="#">ADP-13, "Driver Seat Control Unit".</a></li> </ul>

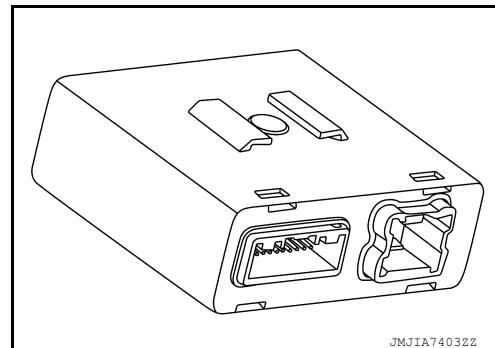
# COMPONENT PARTS

## < SYSTEM DESCRIPTION >

### Automatic Drive Positioner Control Unit

INFOID:000000014391875

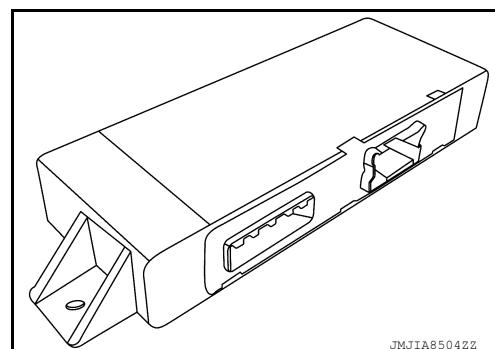
- It communicates with driver seat control unit via UART communication.
- Performs various controls with the instructions of driver seat control unit.
- Performs the controls of tilt & telescopic and door mirror.
- Operates steering column and door mirror with the signal from the driver seat control.



### Driver Seat Control Unit

INFOID:000000014391876

- Main unit of automatic drive positioner system.
- It is connected to the CAN communication system.
- It communicates with automatic drive positioner control unit via UART communication.
- The address of each part is recorded.
- Operates each motor of seat to the registered position.
- Requests the operation of steering column and door mirror to automatic drive positioner control unit.
- Performs the control of seat memory switch.
- Operates the specific seat motor with the signal from power seat switch.

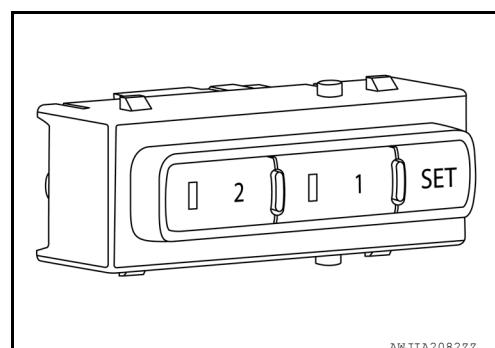


### Seat Memory Switch

INFOID:000000014391877

#### SET SWITCH

It is used for registration and setting change of driving position.



#### SEAT MEMORY SWITCH

- The maximum 2 driving positions can be registered by memory switch 1 and 2.
- Driving position is set to the registered driving position when memory switch is pressed while operation conditions are satisfied.

#### SEAT MEMORY INDICATOR

Memory indicator indicates the status of auto driving position system by turning ON or blinking.

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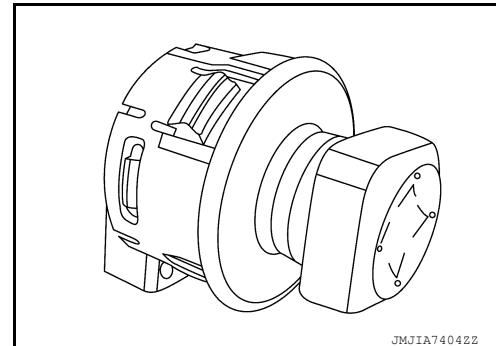
# COMPONENT PARTS

## < SYSTEM DESCRIPTION >

### ADP Steering Switch

INFOID:0000000014391878

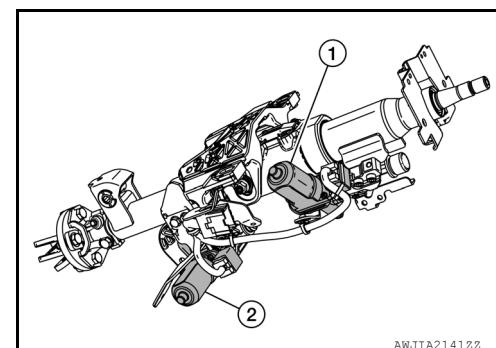
- ADP steering switch is equipped to steering column.
- The operation signal is input to automatic drive positioner control unit when switch is operated.



### Tilt & Telescopic Motor

INFOID:0000000014391879

#### TILT MOTOR



- Tilt motor (2) is installed to steering column assembly.
- Tilt motor is activated with automatic drive positioner control unit.
- Steering column is tilted upward/downward by changing the rotation direction of tilt motor.

#### TILT SENSOR

- Tilt sensor is integrated in tilt motor (2).
- The resistance of tilt sensor is changed according to the up/down position of steering column.
- The terminal voltage of automatic drive positioner control unit will be changed according to a change of tilt sensor resistance.
- Automatic drive positioner control unit calculates the tilt position from the voltage.

#### TELESCOPIC MOTOR

- Telescopic motor (1) is installed to steering column assembly.
- Telescopic motor is activated with automatic drive positioner control unit.
- Compresses steering column by changing the rotation direction of telescopic motor.

#### TELESCOPIC SENSOR

- Telescopic sensor is integrated in telescopic motor (1).
- The resistance of telescopic sensor is changed according to the forward/backward position of steering column.
- The terminal voltage of automatic drive positioner control unit will be changed according to a change of telescopic sensor resistance.
- Automatic drive positioner control unit calculates the telescopic position from the voltage.

# SYSTEM

< SYSTEM DESCRIPTION >

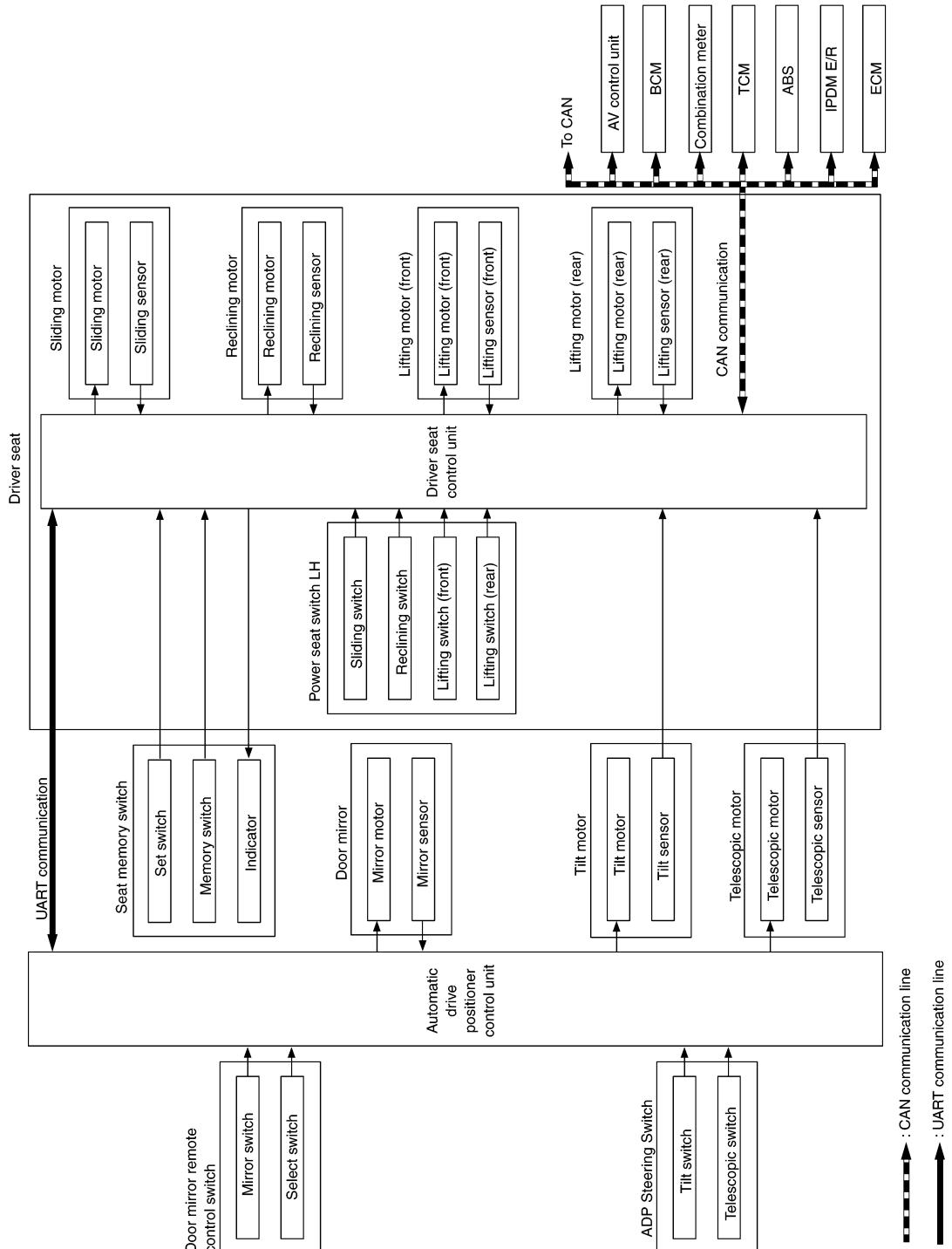
## SYSTEM

### AUTOMATIC DRIVE POSITIONER SYSTEM

#### AUTOMATIC DRIVE POSITIONER SYSTEM : System Description

INFOID:000000014391880

#### SYSTEM DIAGRAM



#### OUTLINE

# SYSTEM

## < SYSTEM DESCRIPTION >

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

Function		Description
Manual function		The driving position (seat, steering column and door mirror position) can be adjusted by using the power seat switch, 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).
Entry/Exit assist function	Exit	On exit, the seat moves backward and the steering column moves upward.
	Entry	On entry, the seat and steering column return from exiting position to the previous driving position.
Linking key fob to meter display		Performs 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

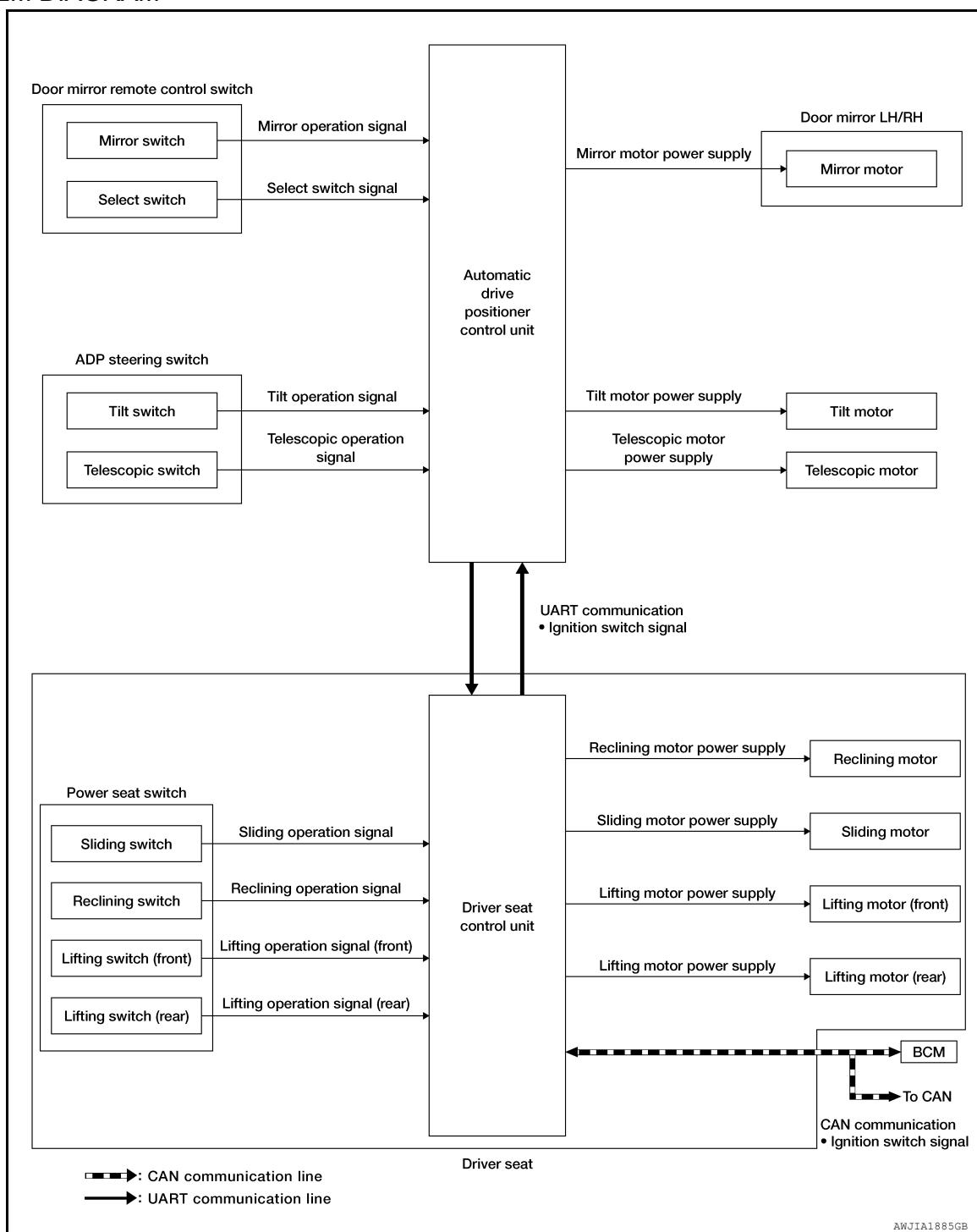
# SYSTEM

< SYSTEM DESCRIPTION >

## MANUAL FUNCTION : System Description

INFO ID: 000000014391881

### SYSTEM DIAGRAM



### DESCRIPTION

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

#### Operation procedure

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

### DETAIL FLOW

# SYSTEM

## < SYSTEM DESCRIPTION >

### Seat

Order	Input	Output	Control unit condition
1	Power seat switch (sliding, lifting, reclining)	—	The power seat switch signal is inputted into 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

Order	Input	Output	Control unit condition
1	ADP steering switch	—	The ADP steering switch signal is inputted into 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 into 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

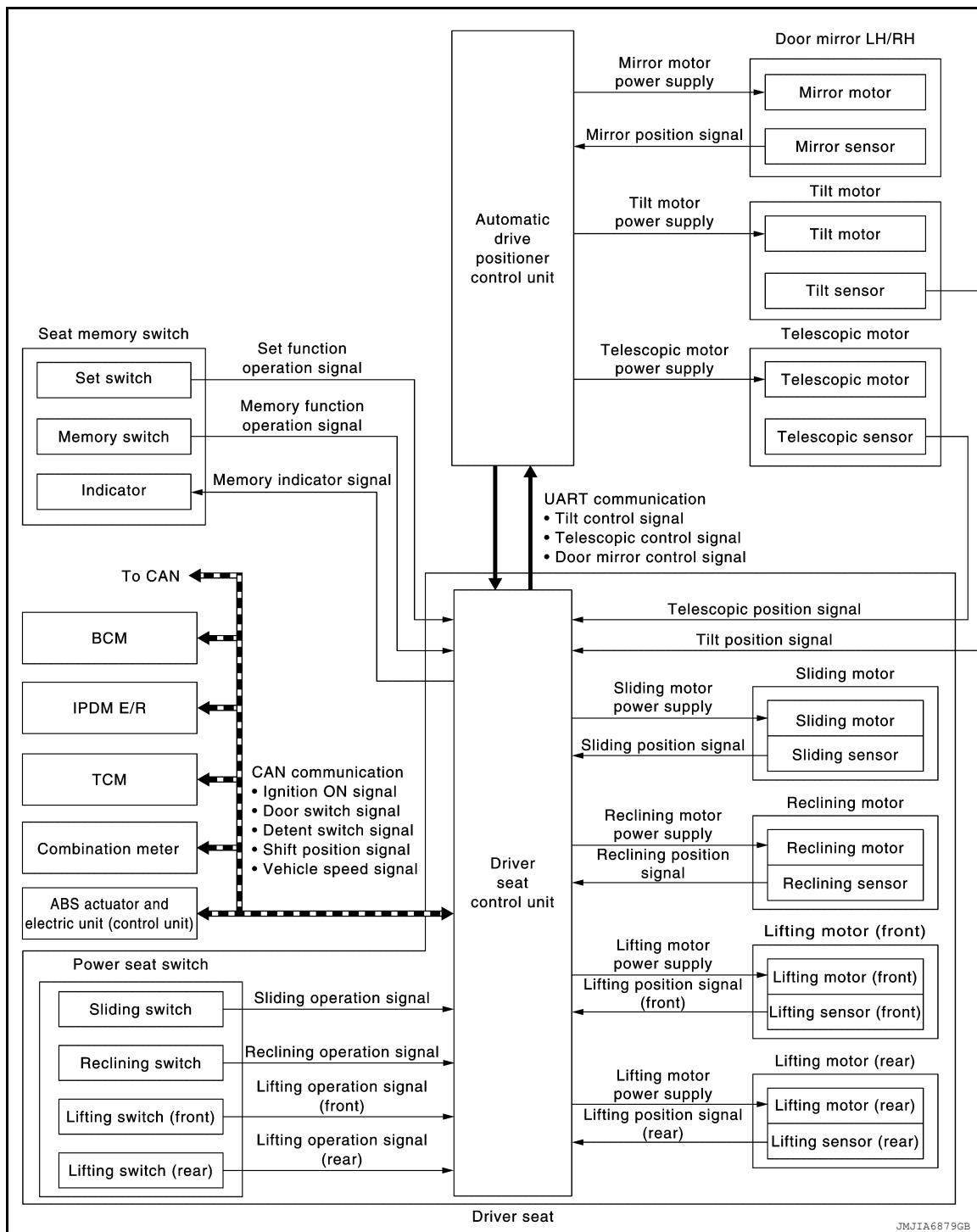
# SYSTEM

< SYSTEM DESCRIPTION >

## MEMORY FUNCTION : System Description

INFOID:000000014391882

### SYSTEM DIAGRAM



### INPUT SIGNAL AND OUTPUT SIGNAL

Several types of signals are transmitted from the following units to the driver seat control unit via CAN communication.

Component	Signal
ABS actuator and electric unit (control unit)	Vehicle speed signal
Combination meter	Vehicle speed signal
IPDM E/R	Detention switch signal

# SYSTEM

## < SYSTEM DESCRIPTION >

Component	Signal
BCM	Ignition switch signal
ECM	Shift position signal

### DESCRIPTION

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

#### NOTE:

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

#### Operation Procedure

1. Turn ignition switch ON/ACC.
2. Press desired memory switch.
3. Front seat LH, steering column and door mirror will move to the memorized position.

#### Operation Condition

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

Item	Request status
Switch inputs <ul style="list-style-type: none"> <li>• Power seat switch</li> <li>• ADP steering switch</li> <li>• Door mirror control switch</li> <li>• Set switch</li> <li>• Seat memory switch</li> </ul>	OFF (Not operated)
A/T shift selector	P position

#### Detail Flow

Order	Input	Output	Control unit condition
1	Memory switch	—	The memory switch signal is inputted into the automatic drive positioner control unit when memory switch 1 or 2 is operated.
2	—	Motors (seat, steering, door mirror)	Driver seat control unit operates each motor of seat when it recognizes the memory switch that is pressed and requests each motor operation to automatic drive positioner control unit via UART communication. The automatic drive positioner control unit operates each motor.
		Memory switch indicator	Driver seat control unit requests the flashing of memory indicator while either of the motors is operating. The automatic drive positioner control unit illuminates the memory indicator.
3	Sensors (seat, steering column, door mirrors)	—	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 automatic 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 after all motors stop. The automatic drive positioner control unit illuminates the memory indicator for 5 seconds.

## EXIT ASSIST FUNCTION

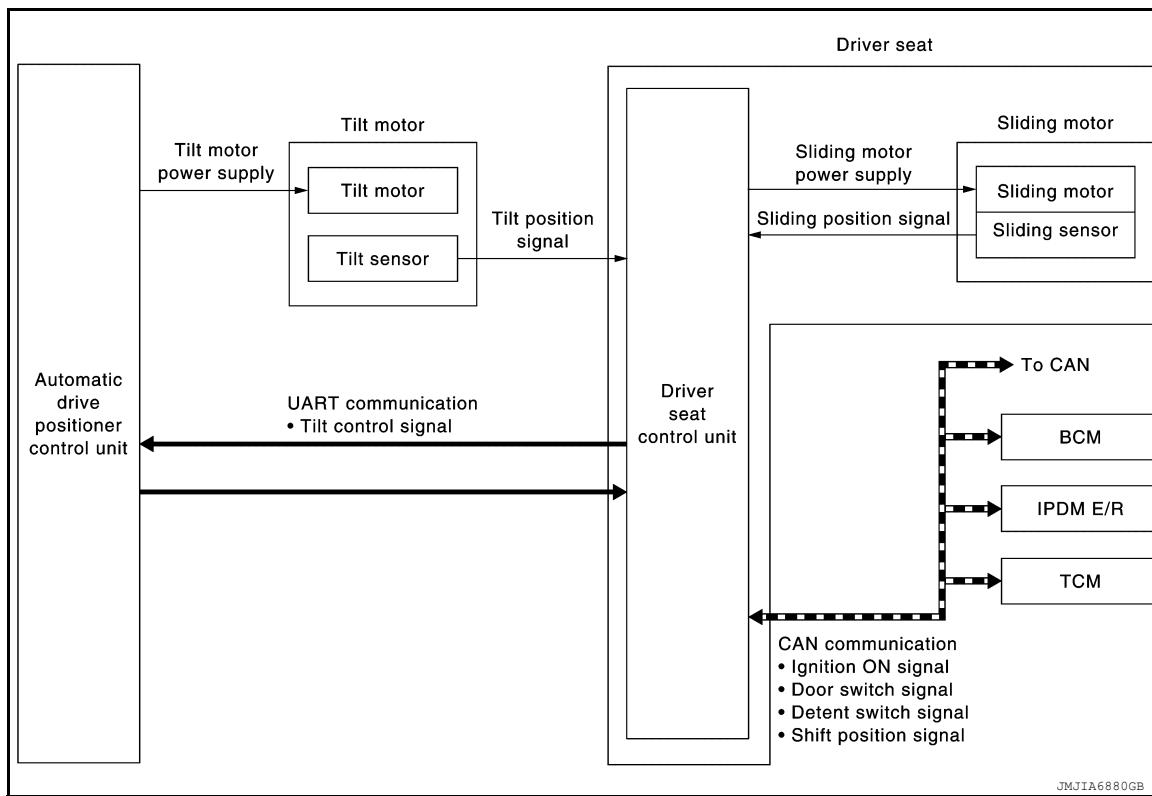
# SYSTEM

< SYSTEM DESCRIPTION >

## EXIT ASSIST FUNCTION : System Description

INFOID:000000014391883

### SYSTEM DIAGRAM



### INPUT SIGNAL AND OUTPUT SIGNAL

Several types of signals are transmitted from the following units to the driver seat control unit via CAN communication.

ADP

Component	Signal
ABS actuator and electric unit (control unit)	Vehicle speed signal
Combination meter	Vehicle speed signal
BCM	<ul style="list-style-type: none"><li>Ignition switch signal</li><li>Door switch signal</li></ul>
ECM	Shift position signal
IPDM E/R	Detention switch signal

### 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 on the system setting procedure, refer to Owner's Manual.

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#### Operation Procedure

- Open the front door LH with ignition switch in OFF position.
- 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.

# SYSTEM

## < SYSTEM DESCRIPTION >

Item	Request status
Ignition switch	OFF
System setting [entry/exit assist function]	ON
Initialization	Done
Switch inputs <ul style="list-style-type: none"> <li>• Power seat switch</li> <li>• ADP steering switch</li> <li>• Door mirror remote control switch</li> <li>• Set switch</li> <li>• Seat memory switch</li> </ul>	OFF (Not operated)
A/T shift selector	P position

### Detail Flow

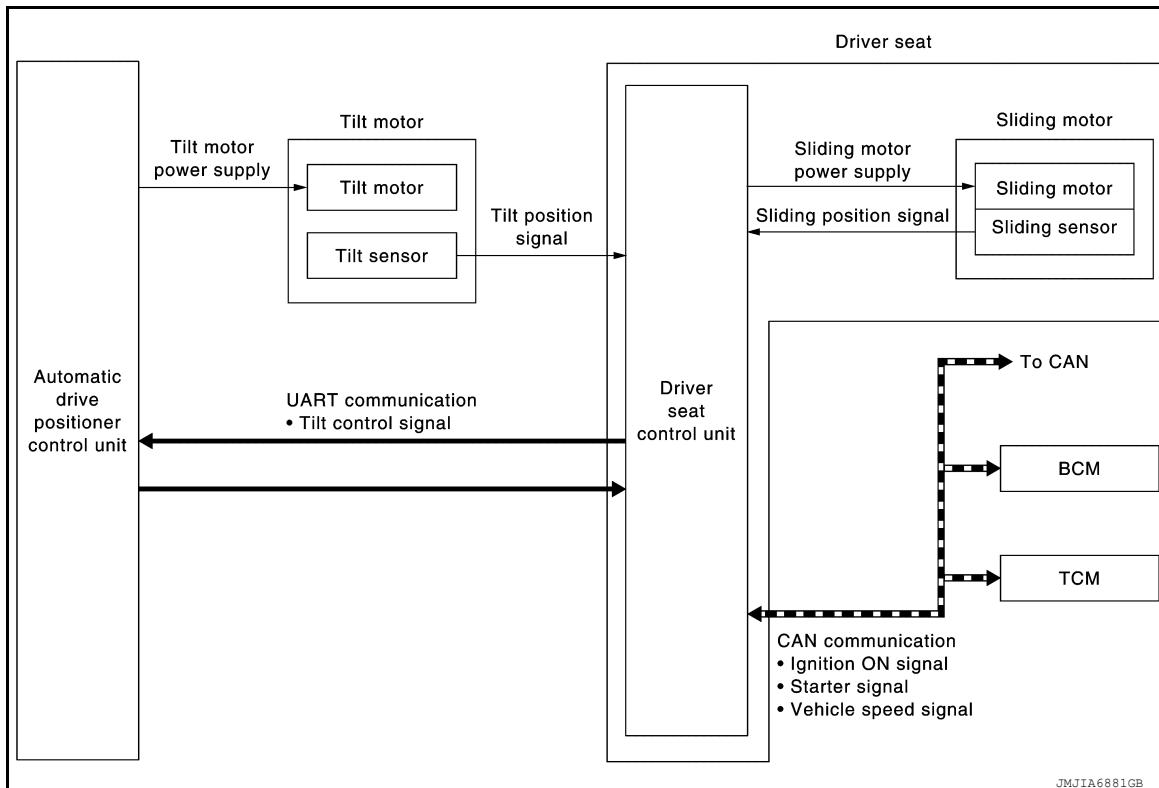
Order	Input	Output	Control unit condition
1	Front door switch LH	—	Driver seat control unit receives front door switch LH signal (open) from BCM via CAN communication.
2	—	Motors (seat sliding LH, tilt)	Driver seat control unit operates the seat sliding motor LH, which recognizes that the driver side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

## ENTRY ASSIST FUNCTION

### ENTRY ASSIST FUNCTION : System Description

INFOID:0000000014391884

### SYSTEM DIAGRAM



### INPUT SIGNAL AND OUTPUT SIGNAL

Several types of signals are transmitted from the following units to the driver seat control unit via CAN communication.

# SYSTEM

## < SYSTEM DESCRIPTION >

Component	Signal
ABS actuator and electric unit (control unit)	Vehicle speed signal
Combination meter	Vehicle speed signal
BCM	<ul style="list-style-type: none"> <li>• Ignition switch signal</li> <li>• Key ID signal</li> </ul>
IPDM E/R	Detention switch signal

### DESCRIPTION

The seat is in the exiting position when either of the following conditions are 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 on the system setting procedure, refer to Owner's Manual.

### Operation Procedure

1. Turn the ignition switch to ACC.
2. 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 <ul style="list-style-type: none"> <li>• Power seat switch</li> <li>• ADP steering switch</li> <li>• Door mirror control switch</li> <li>• Set switch</li> <li>• Memory switch</li> </ul>	OFF (Not operated)
A/T shift selector	P position

### Detail Flow

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

### LINKING KEY FOB TO THE METER DISPLAY

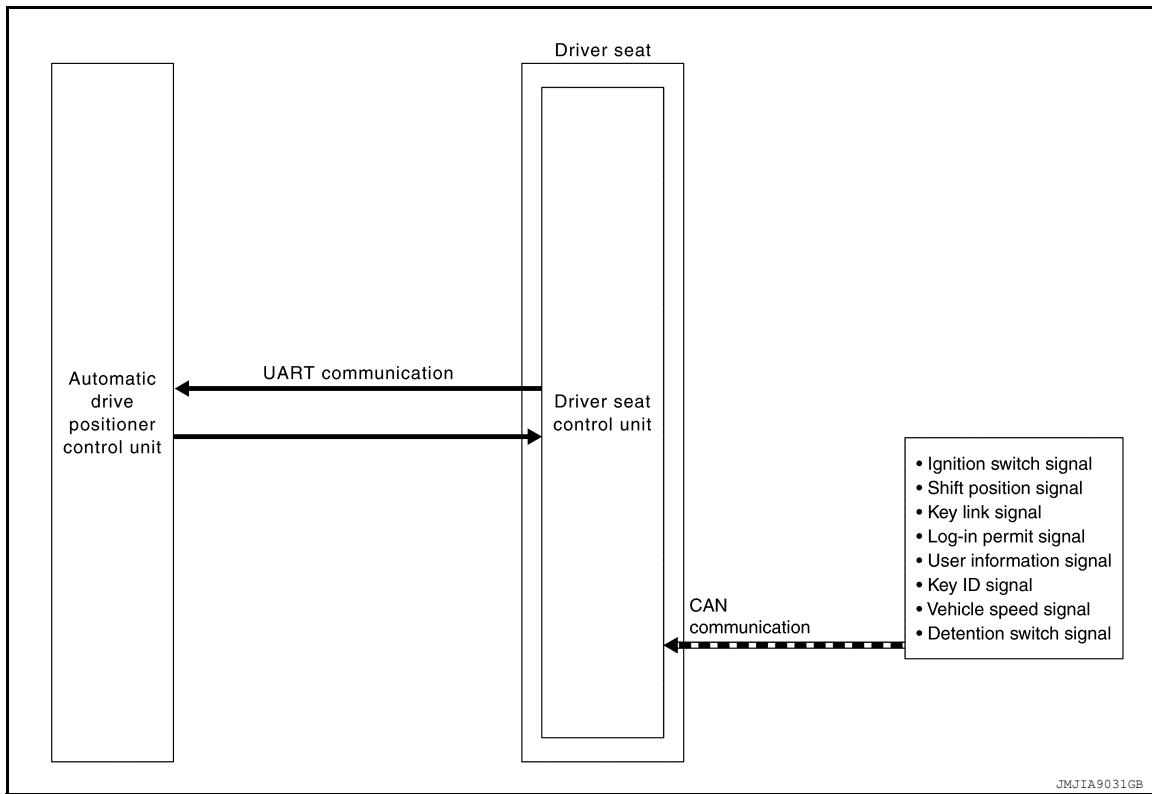
# SYSTEM

< SYSTEM DESCRIPTION >

## LINKING KEY FOB TO THE METER DISPLAY : System Description

INFOID:000000014391885

### SYSTEM DIAGRAM



### INPUT SIGNAL AND OUTPUT SIGNAL

Several types of signals are transmitted from the following units to the driver seat control unit via CAN communication.

Component	Signal
ABS actuator and electric unit (control unit)	Vehicle speed signal
Combination meter	Vehicle speed signal
BCM	<ul style="list-style-type: none"><li>Ignition switch signal</li><li>Key ID signal</li></ul>
ECM	Shift position signal
Chassis control module	<ul style="list-style-type: none"><li>Key link signal</li><li>Log-in permit signal</li></ul>
Display control unit	User information signal
IPDM E/R	Detention switch signal

### DESCRIPTION

Log-in function is the function that registers the setting status of various systems and retrieves the status for each Intelligent Key as desired.

Registered information is automatically adjusted to the driving position (seat, steering column, and door mirror position) registered by unlocking the driver side door with the Intelligent Key or by operating the user selection function on the display.

When user selection is performed by display operation, the user information registered with another Intelligent Key can also be retrieved.

#### NOTE:

For the registration of the log-in function, the status is automatically registered as one of the following vehicle statuses when the ignition switch is turned to OFF. For details on registration, refer to [ADP-60, "INTELLIGENT KEY INTERLOCK STORING : Description"](#).

# SYSTEM

## < SYSTEM DESCRIPTION >

Item	Request status
Ignition position	ON
Driver side door	Closed
Navigation system	Activated
CONSULT	Not connected

### Operation Procedure

1. Turn ignition switch ON.
2. Push desired user change switch on display.
3. Driver seat, steering column and door mirror will move to the memorized position.

### Operation Condition

All of the following conditions must be satisfied in order to retrieve the registration information of the log-in function.

If one of the following conditions is not satisfied, the interlocked operation of the driving position for log-in function is interrupted.

Item	Request status
Ignition position	ON
Navigation system	Activated
Initialization	Done
Switch inputs	OFF (Not operated)
• Power seat switch	
• Tilt & telescopic switch	
• Door mirror remote control switch	
• Set switch	
• Memory switch	
A/T shift selector	P position
Log-in function memory	Registered
Vehicle speed	0 km/h (0 MPH)
CONSULT	Not connected

### Detail Flow

Order	Input	Output	Control unit condition
1	• Door unlock signal (CAN) • Key ID signal (CAN)	—	When the following function is performed, the driver seat control unit transmits the unlock signal from BCM via CAN communication and receives the Key ID signal. • Unlock door: Intelligent Key • Unlock door: front request switch (driver side) • Unlock door: one touch unlock sensor
2	—	—	Driver seat control unit performs the seat slide and steering tilt directly to the exit assist function. Other loads move to the exit assist function after performing log-in function.
3	—	—	Driver seat control unit performs the entry assist function.

### Fail Safe

INFOID:000000014391886

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

Operating in fail-safe mode	Malfunction Item	Related DTC	Diagnosis
Only manual functions operate normally.	CAN communication	U1000	<a href="#">ADP-65</a>
	CONTROL UNIT	U1010	<a href="#">ADP-66</a>
	EEPROM	B2130	<a href="#">ADP-75</a>

# SYSTEM

## < SYSTEM DESCRIPTION >

Operating in fail-safe mode	Malfunction Item	Related DTC	Diagnosis
Only manual functions, except door mirror, operate normally.	UART communication	B2128	<a href="#">ADP-73</a>
Only manual functions, except seat sliding, operate normally.	Seat sliding output	B2112	<a href="#">ADP-67</a>
Only manual functions, except seat reclining, operate normally.	Seat reclining output	B2113	<a href="#">ADP-69</a>
Only manual functions, except steering tilt, operate normally.	Steering column tilt output	B2116	<a href="#">ADP-71</a>

# DIAGNOSIS SYSTEM (DRIVER SEAT CONTROL UNIT)

< SYSTEM DESCRIPTION >

## DIAGNOSIS SYSTEM (DRIVER SEAT CONTROL UNIT)

### CONSULT Function (AUTO DRIVE POS)

INFOID:000000014391887

#### CAUTION:

After disconnecting the CONSULT vehicle interface (VI) from the data link connector, the ignition must be cycled OFF → ON (for at least 5 seconds) → 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-25, "Fail\\_Safe".](#)

#### 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"	×	×	A/T 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 (up) signal.
LIFT FR SW-DN	"ON/OFF"	×	×	ON/OFF status judged from the lifting switch front (down) signal.
LIFT RR SW-UP	"ON/OFF"	×	×	ON/OFF status judged from the lifting switch rear (up) signal.
LIFT RR SW-DN	"ON/OFF"	×	×	ON/OFF status judged from the lifting switch rear (down) signal.
MIR CON SW-UP	"ON/OFF"	×	×	ON/OFF status judged from the mirror switch (up) signal.
MIR CON SW-DN	"ON/OFF"	×	×	ON/OFF status judged from the mirror switch (down) signal.
MIR CON SW-RH	"ON/OFF"	×	×	ON/OFF status judged from the door mirror remote control switch (passenger side) signal.
MIR CON SW-LH	"ON/OFF"	×	×	ON/OFF status judged from the door mirror remote control switch (driver side) signal.
MIR CHNG SW-R	"ON/OFF"	×	×	ON/OFF status judged from the door mirror remote control switch (switching to right) signal.
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 (up) signal.
TILT SW-DOWN	"ON/OFF"	—	×	ON/OFF status judged from the ADP steering switch (down) 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.

# 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 DOWN, the value increases. If it moves UP, the value decreases.
LIFT RR PULSE	—	—	×	Value (32768) when battery connections are standard. If it moves DOWN, the value increases. If it moves UP, the value decreases.
MIR/SEN RH U-D	“V”	—	×	Voltage input from door mirror sensor (passenger side) up/down is displayed.
MIR/SEN RH R-L	“V”	—	×	Voltage input from door mirror sensor (passenger side) left/right is displayed.
MIR/SEN LH U-D	“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 (operated) – OFF (not operated)	ON
		OFF
EXIT TILT SETTING	Entry/exit assist (steering column) can be selected: ON (operated) – OFF (not operated)	ON
		OFF
SEAT SLIDE VOLUME SET	The amount of seat sliding for entry/exit assist can be selected from 3 items.	40 mm (1.6 in)
		80 mm (3.1 in)
		150 mm (6 in)

# DRIVER SEAT CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

## ECU DIAGNOSIS INFORMATION

### DRIVER SEAT CONTROL UNIT

Reference Value

INFOID:000000014391888

#### VALUES ON THE DIAGNOSIS TOOL

CONSULT MONITOR ITEM

Monitor Item	Condition		Value/Status
DETENT SW	A/T shift selector	P position	OFF
		Other than above	ON
P RANG SW CAN	A/T shift selector	P position	ON
		Other than above	OFF
STARTER SW	Ignition position	Cranking	ON
		Other than above	OFF
R RANGE (CAN)	A/T shift selector	R position	ON
		Other than above	OFF
VEHICLE SPEED	The condition of vehicle speed is displayed		km/h
DOOR SW-FL	Driver door	Open	OPEN
		Close	CLOSED
DOOR SW-FR	Passenger door	Open	OPEN
		Close	CLOSED
IGN ON SW	Ignition switch	ON position	ON
		Other than above	OFF
ACC ON SW	Ignition switch	ACC or ON position	ON
		Other than above	OFF
KYLS DR UNLK	Intelligent Key or driver side door request switch	ON	ON
		OFF	OFF
KEYLESS ID	UNLOCK button of Intelligent Key is pressed		1, 2, 3, 4 or 5
VHCL SPEED (ABS)	CAN signal from ABS	Received	ON
		Not received	OFF
HANDLE	Driving position		LHD
			RHD
TRANSMISSION	Transmission type		A/T
SET SW	Set switch	Push	ON
		Release	OFF
MEMORY SW1	Memory switch 1	Push	ON
		Release	OFF
MEMORY SW2	Memory switch 2	Push	ON
		Release	OFF
SLIDE SW-FR	Sliding switch (forward)	Operate	ON
		Release	OFF
SLIDE SW-RR	Sliding switch (backward)	Operate	ON
		Release	OFF
RECLN SW-FR	Reclining switch (forward)	Operate	ON
		Release	OFF

# DRIVER SEAT CONTROL UNIT

## < ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status	
RECLN SW-RR	Reclining switch (backward)	Operate	ON
		Release	OFF
LIFT FR SW-UP	Lifting switch front (up)	Operate	ON
		Release	OFF
LIFT FR SW-DN	Lifting switch front (down)	Operate	ON
		Release	OFF
LIFT RR SW-UP	Lifting switch rear (up)	Operate	ON
		Release	OFF
LIFT RR SW-DN	Lifting switch rear (down)	Operate	ON
		Release	OFF
MIR CON SW-UP	Mirror switch	Up	ON
		Other than above	OFF
MIR CON SW-DN	Mirror switch	Down	ON
		Other than above	OFF
MIR CON SW-RH	Mirror switch	Right	ON
		Other than above	OFF
MIR CON SW-LH	Mirror switch	Left	ON
		Other than above	OFF
MIR CHNG SW-R	Changeover switch	Right	ON
		Other than above	OFF
MIR CHNG SW-L	Changeover switch	Left	ON
		Other than above	OFF
TILT SW-UP	Tilt switch	Upward	ON
		Other than above	OFF
TILT SW-DOWN	Tilt switch	Downward	ON
		Other than above	OFF
TELESCO SW-FR	Telescopic switch	Forward	ON
		Other than above	OFF
TELESCO SW-RR	Telescopic switch	Backward	ON
		Other than above	OFF
SLIDE PULSE	Seat sliding	Forward	The numeral value decreases *
		Backward	The numeral value increases*
		Other than above	No change to numeral value*
RECLN PULSE	Seat reclining	Forward	The numeral value decreases*
		Backward	The numeral value increases *
		Other than above	No change to numeral value *
LIFT FR PULSE	Seat lifter (front)	Up	The numeral value decreases *
		Down	The numeral value increases *
		Other than above	No change to numeral value *
LIFT RR PULSE	Seat lifter (rear)	Up	The numeral value decreases *
		Down	The numeral value increases *
		Other than above	No change to numeral value *

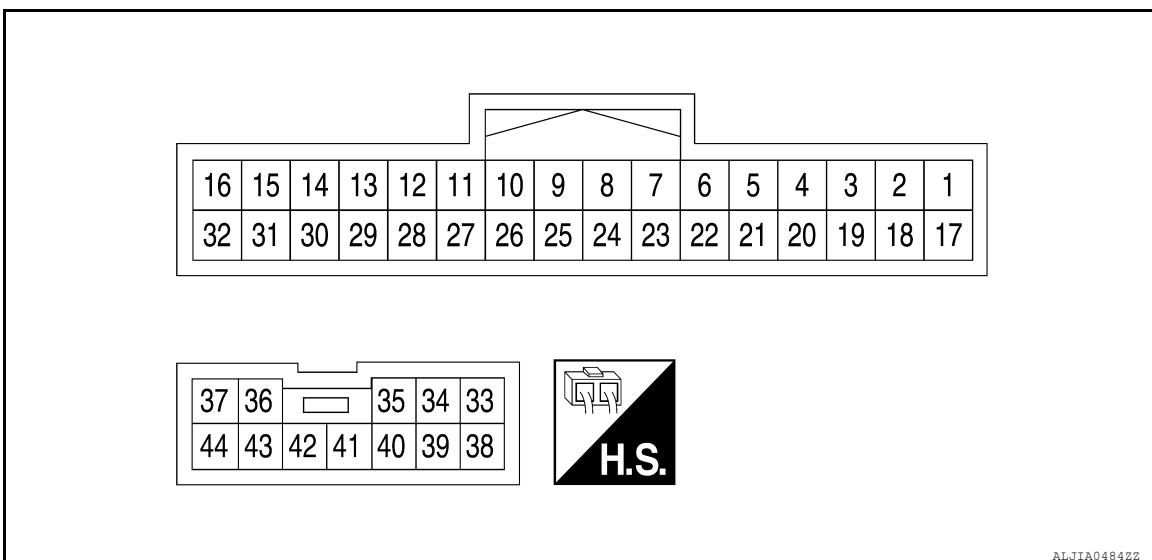
# DRIVER SEAT CONTROL UNIT

## < ECU DIAGNOSIS INFORMATION >

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

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

## TERMINAL LAYOUT



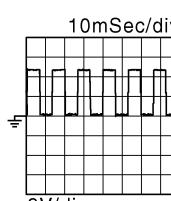
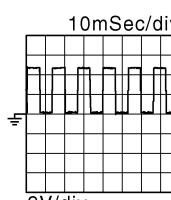
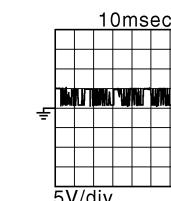
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## PHYSICAL VALUES

Terminal No. (wire color)		Description		Condition		Voltage (Approx)
+	-	Signal name	Input/ Output			
5 (W)	Ground	Sensor power supply	Output	—		Battery voltage
6 (R)	Ground	Lifting switch (rear) down signal	Input	Lifting switch (rear)	Operate (down)	0 V
					Release	Battery voltage
7 (Y)	Ground	Lifting switch (front) down signal	Input	Lifting switch (front)	Operate (down)	0 V
					Release	Battery voltage
8 (BR)	Ground	Reclining switch backward signal	Input	Reclining switch	Operate (backward)	0 V
					Release	Battery voltage

# DRIVER SEAT CONTROL UNIT

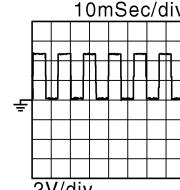
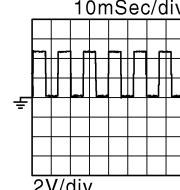
## < ECU DIAGNOSIS INFORMATION >

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

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# DRIVER SEAT CONTROL UNIT

## < ECU DIAGNOSIS INFORMATION >

Terminal No. (wire color)		Description		Condition		Voltage (Approx)
+	-	Signal name	Input/ Output			Voltage (Approx)
26 (Y)	Ground	Memory indicator 1 signal	Output	Memory indicator 1	Illuminate	1 V
					Other than above	Battery voltage
27 (V)	Ground	Memory switch 1 signal	Input	Memory switch 1	Press	0 V
					Other than above	5 V
28 (BR)	Ground	Tilt sensor signal	Input	Tilt	Operate	 10mSec/div 2V/div
					Other than above	0 V or 5 V
29 (R)	Ground	Lifting sensor (rear) signal	Input	Seat lifting (rear)	Operate	 10mSec/div 2V/div
					Stop	0 V or 5 V
30 (Y)	Ground	Lifting sensor (front) signal	Input	Seat lifting (front)	Operate	 10mSec/div 2V/div
					Stop	0 V or 5 V
31 (LG)	Ground	Sliding sensor signal	Input	Seat sliding	Operate	 10mSec/div 2V/div
					Stop	0 V or 5 V
32 (W)	—	CAN low	—	—		—
34 (SB)	Ground	Lifting motor LH (front) up output signal	Output	Seat lifting (front)	Operate (up)	Battery voltage
					Stop	0 V
35 (V)	Ground	Reclining motor LH forward output signal	Output	Seat reclining	Operate (forward)	Battery voltage
					Release	0 V
36 (W)	Ground	Sliding motor LH backward output signal	Output	Seat sliding	Operate (backward)	Battery voltage
					Stop	0 V

# DRIVER SEAT CONTROL UNIT

## < ECU DIAGNOSIS INFORMATION >

Terminal No. (wire color)		Description		Condition		Voltage (Approx)
+	-	Signal name	Input/ Output			
37 (R)	Ground	Power source	Input	—		Battery voltage
39 (B)	Ground	Ground (power)	—	—		0 V
40 (L)	Ground	Lifting motor LH (rear) down output signal	Output	Seat lifting (rear)	Operate (down)	Battery voltage
					Stop	0 V
41 (Y)	Ground	Lifting motor LH (rear) up output signal	Output	Seat lifting (rear)	Operate (up)	Battery voltage
					Stop	0 V
42 (GR)	Ground	Lifting motor LH (front) down signal	Output	Seat lifting (front)	Operate (down)	Battery voltage
					Stop	0 V
43 (BR)	Ground	Reclining motor LH back- ward output signal	Output	Seat reclining	Operate (backward)	Battery voltage
					Stop	0 V
44 (G)	Ground	Sliding motor LH forward output signal	Output	Seat sliding	Operate (forward)	Battery voltage
					Release	0 V

## Fail Safe

INFOID:000000014391889

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

Operating in fail-safe mode	Malfunction Item	Related DTC	Diagnosis
Only manual functions operate normally.	CAN communication	U1000	<a href="#">ADP-65</a>
	CONTROL UNIT	U1010	<a href="#">ADP-66</a>
	EEPROM	B2130	<a href="#">ADP-75</a>
Only manual functions, except door mirror, operate normally.	UART communication	B2128	<a href="#">ADP-73</a>
Only manual functions, except seat sliding, operate normally.	Seat sliding output	B2112	<a href="#">ADP-67</a>
Only manual functions, except seat reclining, operate normally.	Seat reclining output	B2113	<a href="#">ADP-69</a>
Only manual functions, except steering tilt, operate normally.	Steering column tilt output	B2116	<a href="#">ADP-71</a>

## DTC Index

INFOID:000000014391890

CONSULT display	Timing <sup>*1</sup>		Item	Reference page
	Current mal- function	Previous mal- function		
CAN COMM CIRCUIT [U1000]	0	1-39	CAN communication	<a href="#">ADP-65</a>
CONTROL UNIT [U1010]	0	1-39	Control unit	<a href="#">ADP-66</a>
SEAT SLIDE [B2112]	0	1-39	Seat slide motor output	<a href="#">ADP-67</a>
SEAT RECLINING [B2113]	0	1-39	Seat reclining motor output	<a href="#">ADP-69</a>

# DRIVER SEAT CONTROL UNIT

## < ECU DIAGNOSIS INFORMATION >

CONSULT display	Timing <sup>*1</sup>		Item	Reference page
	Current mal-function	Previous mal-function		
STEERING TILT [B2116]	0	1-39	Tilt motor output	<a href="#">ADP-71</a>
UART COMM [B2128]	0	1-39	UART communication	<a href="#">ADP-73</a>
EEPROM [B2130]	0	1-39	EEPROM	<a href="#">ADP-75</a>

\*1:

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

# AUTOMATIC DRIVE POSITIONER CONTROL UNIT

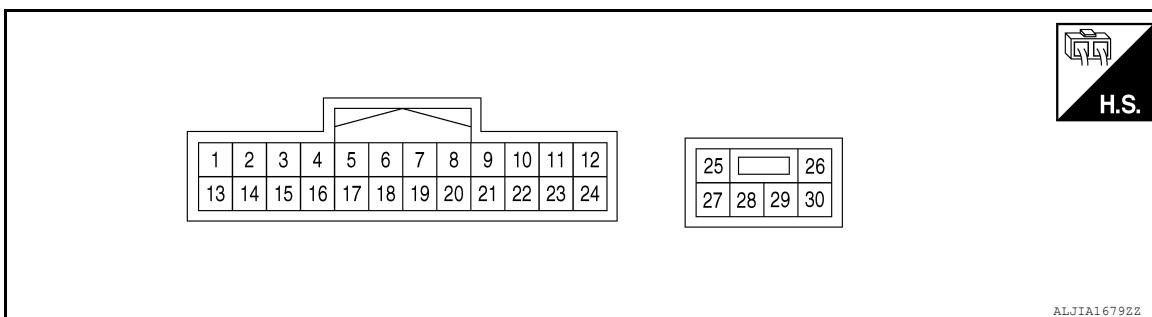
< ECU DIAGNOSIS INFORMATION >

## AUTOMATIC DRIVE POSITIONER CONTROL UNIT

### Reference Value

INFOID:000000014391891

### TERMINAL LAYOUT



### PHYSICAL VALUES

Terminal No. (wire color)		Description		Condition		Voltage (Approx.)
+	-	Signal name	Input/ Output			
1 (LG)	Ground	Tilt switch up signal	Input	Tilt switch	Operate (up)	0 V
					Other than above	5 V
2 (GR)	Ground	Changeover switch RH signal	Input	Changeover switch position	RH	0 V
					Neutral or LH	5 V
3 (G)	Ground	Mirror switch up signal	Input	Mirror switch	Operated (up)	0 V
					Other than above	5 V
4 (P)	Ground	Mirror switch left signal	Input	Mirror switch	Operated (left)	0 V
					Other than above	5 V
5 (BR)	Ground	Door mirror sensor (pas- senger side) up/down signal	Input	Door mirror RH position		Change between 3.4 V (close to peak) 0.6 V (close to valley)
6 (B)	Ground	Door mirror sensor (driv- er side) up/down signal	Input	Door mirror LH position		Change between 3.4 V (close to peak) 0.6 V (close to valley)
7 (BR)	Ground	Telescopic switch for- ward signal	Input	Telescopic switch	Operate (forward)	0 V
					Other than above	5 V
8 (O)	Ground	UART communication (TX/RX)	Output	Ignition switch ON		<p>10msec/div 5V/div JMJA13912Z</p>

# AUTOMATIC DRIVE POSITIONER CONTROL UNIT

## < ECU DIAGNOSIS INFORMATION >

Terminal No. (wire color)		Description		Condition		Voltage (Approx.)		
+	-	Signal name	Input/ Output					
10 (BR)	Ground	Door mirror motor (passenger side) up output signal	Output	Door mirror RH	Operate (up)	Battery voltage		
					Other than above	0 V		
11 (G)	Ground	Door mirror motor (passenger side) left output signal	Output	Door mirror RH	Operate (left)	Battery voltage		
					Other than above	0 V		
12 (O)	Ground	Door mirror motor (driver side) down output signal	Output	Door mirror (LH)	Operate (down)	Battery voltage		
					Other than above	0 V		
		Door mirror motor (driver side) right output signal			Operate (right)	Battery voltage		
					Other than above	0 V		
13 (Y)	Ground	Tilt switch down signal	Input	Tilt switch	Operate (down)	0 V		
					Other than above	5 V		
14 (P)	Ground	Changeover switch LH signal	Input	Changeover switch position	LH	0 V		
					Neutral or RH	5 V		
15 (R)	Ground	Mirror switch down signal	Input	Mirror switch	Operate (down)	0 V		
					Other than above	5 V		
16 (W)	Ground	Mirror switch right signal	Input	Mirror switch	Operate (right)	0 V		
					Other than above	5 V		
17 (Y)	Ground	Door mirror sensor (passenger side) left/right signal	Input	Door mirror RH position		Change between 3.4 V (close to left edge) 0.6 V (close to right edge)		
18 (BG)	Ground	Door mirror sensor (driver side) left/right signal	Input	Door mirror LH position		Change between 0.6 (close to left edge) 3.4 (close to right edge)		
19 (L)	Ground	Telescopic switch backward signal	Input	Telescopic switch	Operate (backward)	0 V		
					Other than above	5 V		
20 (Y)	Ground	Ground	—	—		0 V		
21 (SB)	Ground	Door mirror motor sensor power supply	Input	—		5 V		

# AUTOMATIC DRIVE POSITIONER CONTROL UNIT

## < ECU DIAGNOSIS INFORMATION >

Terminal No. (wire color)		Description		Condition		Voltage (Approx.)	
+	-	Signal name	Input/ Output				
22 (SB)	Ground	Door mirror motor (passenger side) down output signal	Output	Door mirror (RH)	Operate (down)	Battery voltage	
		Door mirror motor (passenger side) right output signal			Other than above	0 V	
					Operate (right)	Battery voltage	
					Other than above	0 V	
23 (LG)	Ground	Door mirror motor (driver side) up output signal	Output	Door mirror (LH)	Operate (up)	Battery voltage	
					Other than above	0 V	
24 (L)	Ground	Door mirror motor (driver side) left output signal	Output	Door mirror (LH)	Operate (left)	Battery voltage	
					Other than above	0 V	
25 (L/B)	Ground	Power source	Input	—		Battery voltage	
26 (V)	Ground	Telescopic motor backward output signal	Output	Steering telescopic	Operate (backward)	Battery voltage	
					Other than above	0 V	
27 (LG)	Ground	Tilt and telescopic motor power source	—		—		Battery voltage
28 (SB)	Ground	Tilt motor down output signal	Output	Steering tilt	Operate (down)	Battery voltage	
					Other than above	0 V	
29 (BR)	Ground	Tilt motor up output signal	Output	Steering tilt	Operate (up)	Battery voltage	
					Other than above	0 V	
		Telescopic motor forward output signal		Steering telescopic	Operate (forward)	Battery voltage	
					Other than above	0 V	
30 (B)	Ground	Ground	—	—		0 V	

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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

## BCM (BODY CONTROL MODULE)

### List of ECU Reference

INFOID:0000000014391892

ECU	Reference
BCM	<a href="#">BCS-32, "Reference Value"</a>
	<a href="#">BCS-51, "Fail_Safe"</a>
	<a href="#">BCS-51, "DTC_Inspection_Priority_Chart"</a>
	<a href="#">BCS-52, "DTC_Index"</a>

# AUTOMATIC DRIVE POSITIONER

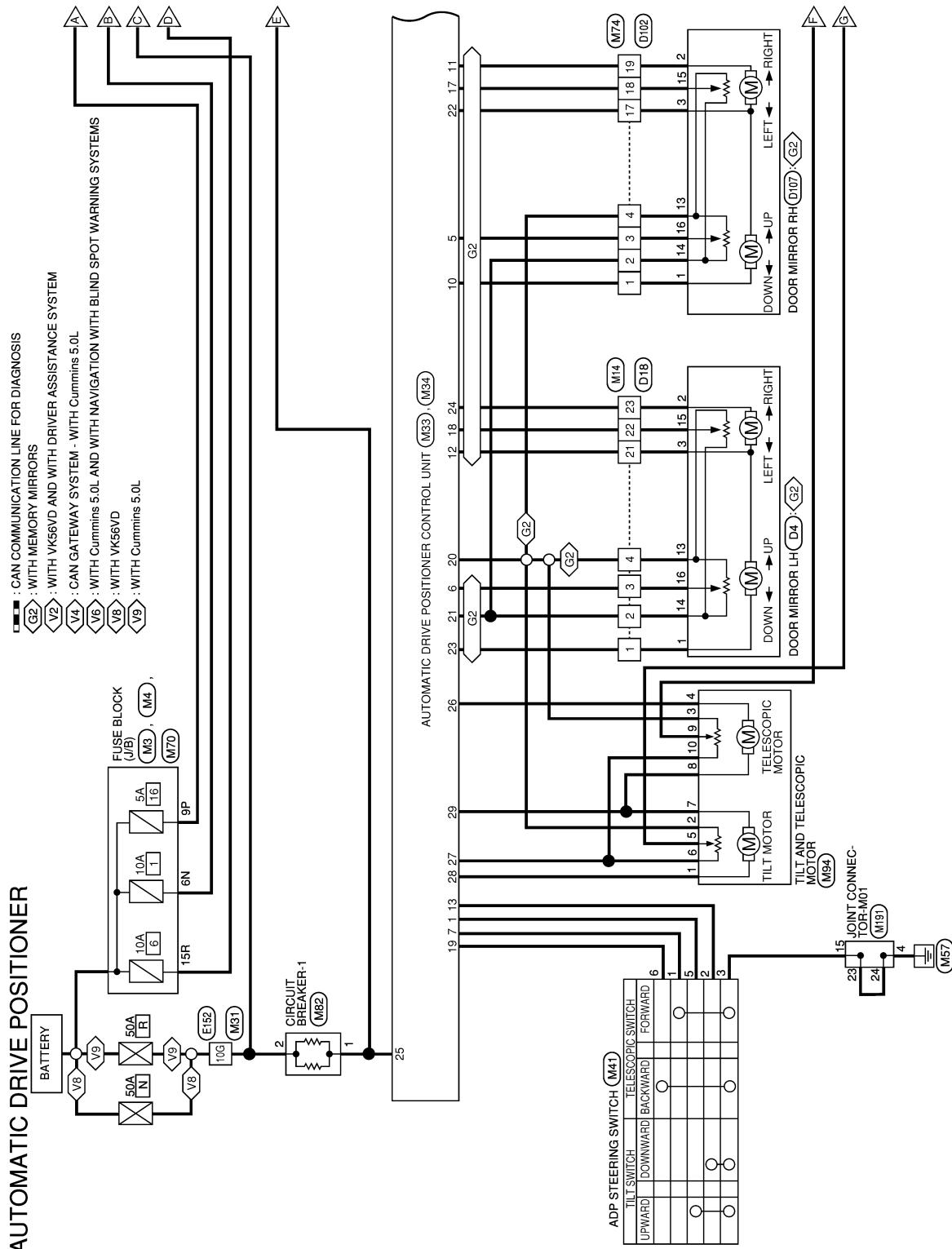
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## WIRING DIAGRAM

### AUTOMATIC DRIVE POSITIONER

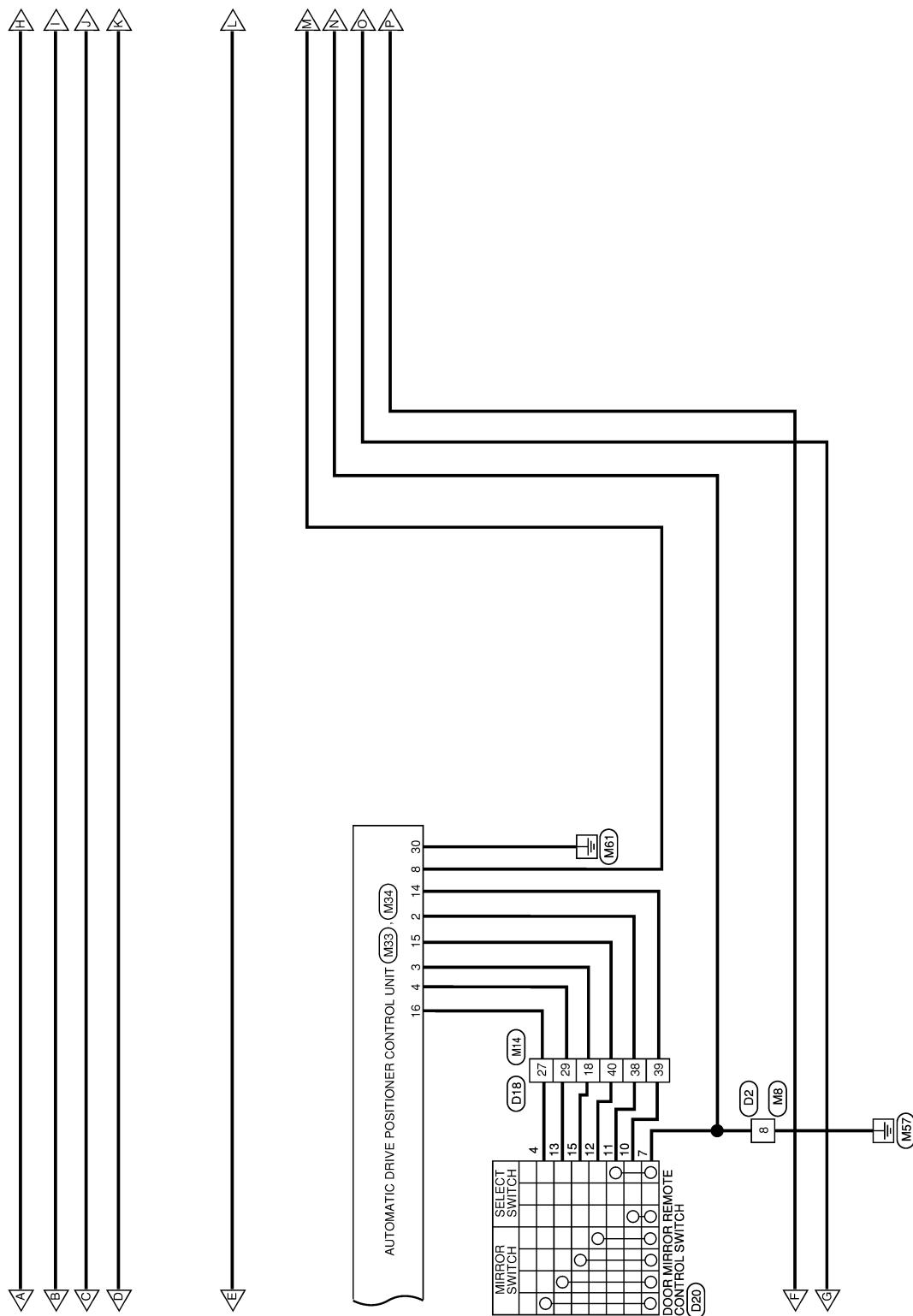
#### Wiring Diagram

INFOID:000000014391893



# AUTOMATIC DRIVE POSITIONER

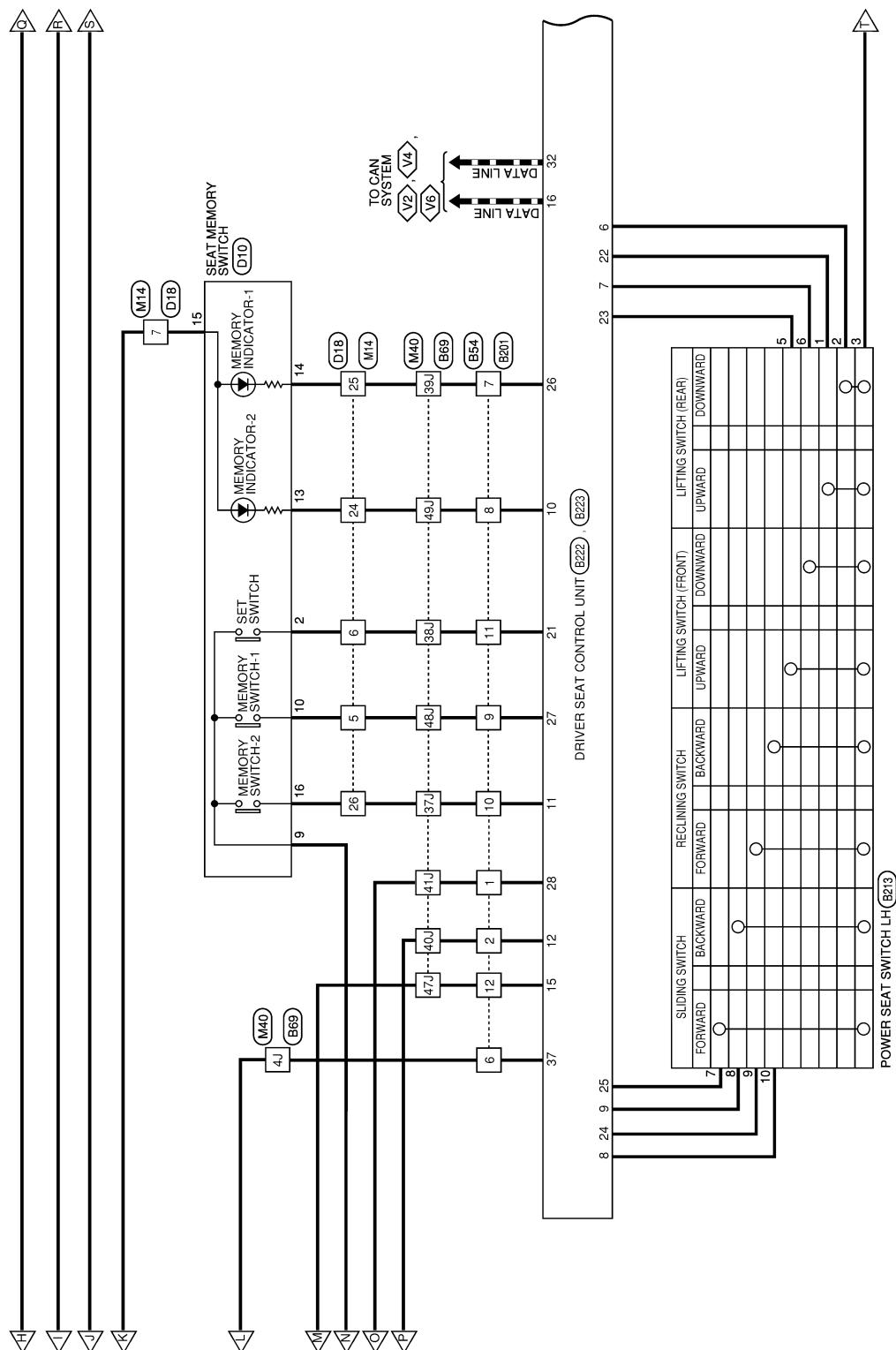
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# AUTOMATIC DRIVE POSITIONER

< WIRING DIAGRAM >



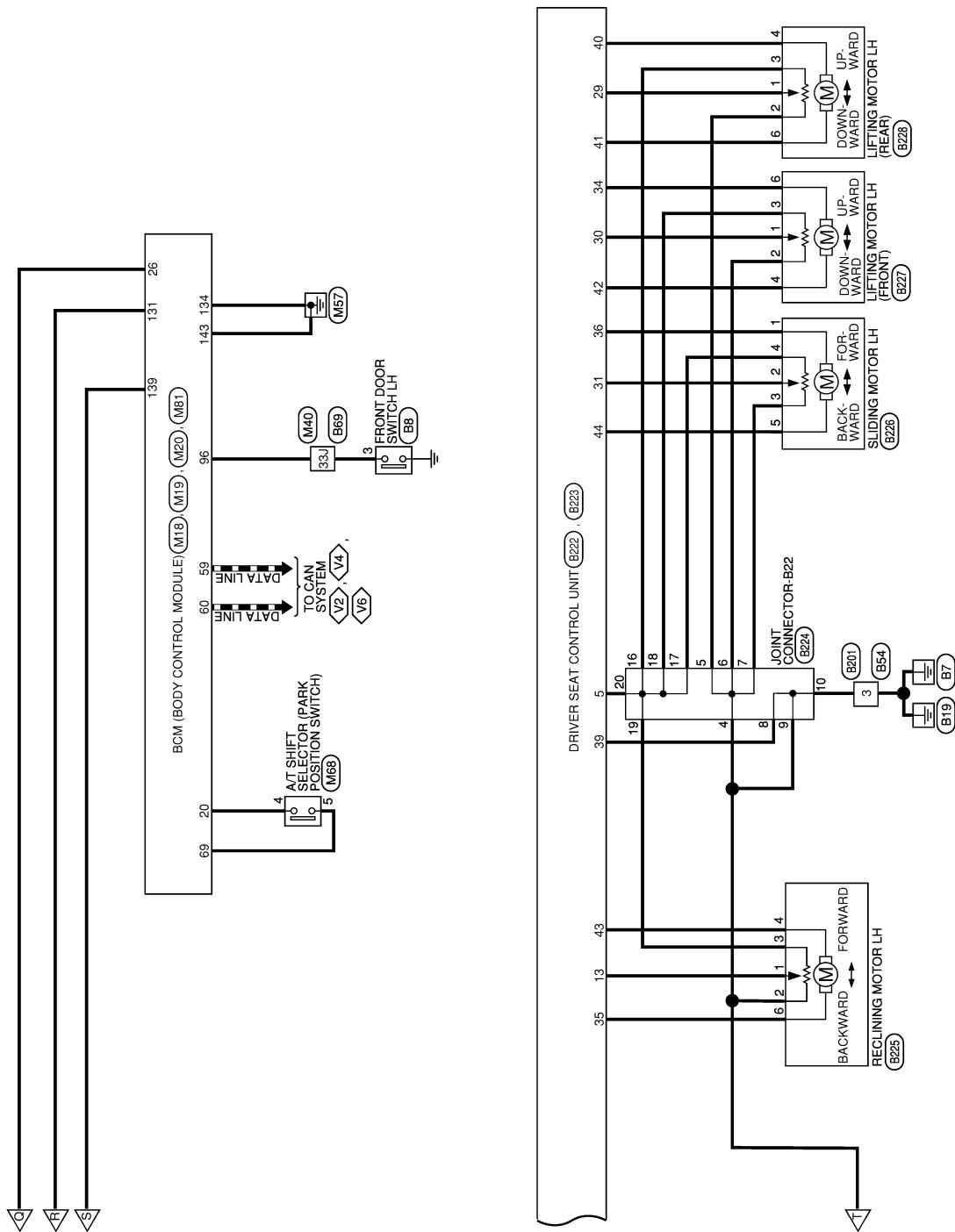
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# AUTOMATIC DRIVE POSITIONER

< WIRING DIAGRAM >



AAJWA0480GB

## AUTOMATIC DRIVE POSITIONER

## < WIRING DIAGRAM >

AUTOMATIC DRIVE POSITIONER CONNECTORS

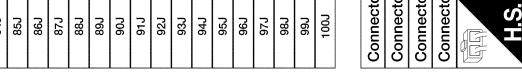
Connector No.	B8
Connector Name	FRONT DOOR SWITCH LH
Connector Type	TH04FW-NH
Connector Color	WHITE



Connector No.	B69
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4
Connector Color	WHITE



Connector No.	B69	28L	L	TO MAIN HARNESS
Connector Name	WIRE TO WIRE	29L	G/O	TO MAIN HARNESS
Connector Type	TH80MW-CT16-TM4	30L	SB	TO MAIN HARNESS
Connector Color	WHITE	31L	LG	TO MAIN HARNESS
		32L	R	TO MAIN HARNESS
		33L	L	TO MAIN HARNESS
		34L	Y	TO MAIN HARNESS
		35L	P	TO MAIN HARNESS
		36L	GR	TO MAIN HARNESS
		37L	LG/B	TO MAIN HARNESS
		38L	SB	TO MAIN HARNESS
		39L	V/L	TO MAIN HARNESS
		40L	BR	TO MAIN HARNESS
		41L	L	TO MAIN HARNESS
		42L	L	TO MAIN HARNESS
		43L	SB	TO MAIN HARNESS
		44L	BR	TO MAIN HARNESS
		45L	BG	TO MAIN HARNESS
		46L	P/V	TO MAIN HARNESS
		47L	Y/G/R	TO MAIN HARNESS
		48L	V	TO MAIN HARNESS
		49L	BR/V	TO MAIN HARNESS
		50L	GN	TO MAIN HARNESS
		51L	-	TO MAIN HARNESS
		52L	SHIELD	TO MAIN HARNESS
		53L	R	TO MAIN HARNESS
		54L	L	TO MAIN HARNESS
		55L	R	TO MAIN HARNESS
		56L	W	TO MAIN HARNESS
		57L	L/G	TO MAIN HARNESS
		58L	O	TO MAIN HARNESS
		59L	-	TO MAIN HARNESS
		60L	SHIELD	TO MAIN HARNESS
		61L	G	TO MAIN HARNESS
		62L	-	TO MAIN HARNESS
		63L	R/W	TO MAIN HARNESS
		64L	L/W	TO MAIN HARNESS
		65L	SHIELD	TO MAIN HARNESS
		66L	B	TO MAIN HARNESS
		67L	SHIELD	TO MAIN HARNESS
		68L	OL	TO MAIN HARNESS
		69L	SHIELD	TO MAIN HARNESS
		70L	BR	TO MAIN HARNESS
		71L	L/W	TO MAIN HARNESS
		72L	-	TO MAIN HARNESS
		73L	-	TO MAIN HARNESS
		74L	SHIELD	TO MAIN HARNESS
		75L	LG/B	TO MAIN HARNESS
		76L	R	TO MAIN HARNESS
		77L	SHIELD	TO MAIN HARNESS
		78L	GR/B	TO MAIN HARNESS
		79L	B	TO MAIN HARNESS



Connector No.	B201	
Connector Name	WIRE TO WIRE	
Connector Type	NS12MMBR-CS	
Connector Color	BROWN	
		
Terminal No.	Color of Wire	Signal Name
1	BR	TO BODY HARNESS
2	W	TO BODY HARNESS
3	B	TO BODY HARNESS
4	W	TO BODY HARNESS
5	P	TO BODY HARNESS
6	R	TO BODY HARNESS
7	Y	TO BODY HARNESS
8	G	TO BODY HARNESS
9	V	TO BODY HARNESS
10	GR	TO BODY HARNESS
11	L	TO BODY HARNESS
12	SB	TO BODY HARNESS

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# AUTOMATIC DRIVE POSITIONER

< WIRING DIAGRAM >

## AUTOMATIC DRIVE POSITIONER CONNECTORS

Connector No.	B213	11	GR	ADDRESS 2
Connector Name	POWER SEAT SWITCH LH (WITH AUTOMATIC DRIVE POSITIONER)	12	W	PULSE (TELESCOPIC)
		13	G	PULSE (RECLINER)
Connector Type	-	14	-	-
Connector Color	NS10FW-CS	15	SB	UART (TX/R)
	WHITE	16	P	CAN-H



Terminal No.	Color of Wire	Signal Name	Signal Name
1	V	REAR LIFTER (UPWARD)	IND 1
2	R	REAR LIFTER (DOWNWARD)	V
3	B	GNB	ADDRESS 1
4	-	-	PULSE (LIFT)
5	G	FRONT LIFTER (UPWARD)	28
6	Y	FRONT LIFTER (DOWNWARD)	29
7	L	SLIDE (FORWARD)	R
8	SB	SLIDE (BACKWARD)	PULSE (FRONT LIFTER)
9	P	RECL (FORWARD)	30
10	BR	RECL (BACKWARD)	Y

Terminal No.	Color of Wire	Signal Name	Signal Name
37	36	35	34
32	31	30	33
29	28	27	39
26	25	24	38
23	22	21	40
20	19	20	41
17	16	15	42
14	13	12	43
11	10	9	44
8	7	6	45
5	4	3	46
2	-	-	47
1	-	-	48

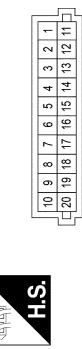
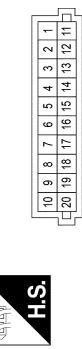
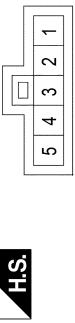
Connector No.	B222	Driver SEAT CONTROL UNIT
Connector Name	DRIVER SEAT CONTROL UNIT	
Connector Type	TH32FW-NH	
Connector Color	WHITE	

Terminal No.	Color of Wire	Signal Name	Signal Name
16	15	13	12
31	30	29	28
28	27	26	25
25	24	23	22
22	21	20	19
19	18	17	16
17	16	15	14
14	13	12	11
11	10	9	8
8	7	6	5
5	4	3	2
2	-	-	1

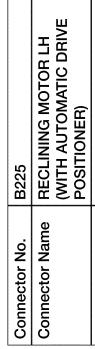
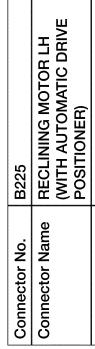
Terminal No.	Color of Wire	Signal Name	Signal Name
1	-	-	PULSE
2	-	-	GROUND
3	-	-	POWER SUPPLY
4	-	-	FRONT LIFTING MOTOR (UPWARD)
5	-	-	FRONT LIFTER MOTOR (DOWNWARD)
6	-	-	FRONT LIFTING MOTOR (DOWNWARD)

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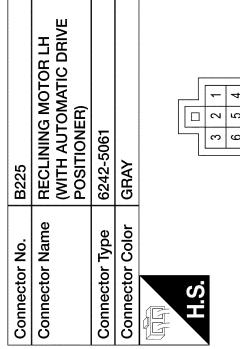
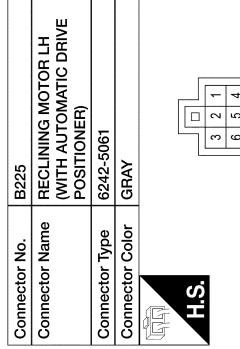
Connector No.	B224	JOINT CONNECTOR-B22
Connector Name	POWER SEAT SWITCH LH (WITH AUTOMATIC DRIVE POSITIONER)	ADDRESS 2
Connector Type	-	PULSE (TELESCOPIC)
Connector Color	PINK	PULSE (RECLINER)



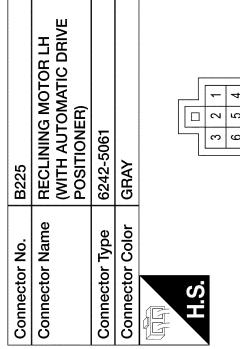
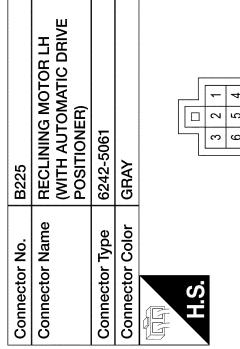
Connector No.	B226	SLIDING MOTOR LH(WITH AUTOMATIC DRIVE POSITIONER)
Connector Name	SLIDING MOTOR LH(WITH AUTOMATIC DRIVE POSITIONER)	IND 0-0344
Connector Type	6038-0344	CONNECTOR COLOR
Connector Color	GRAY	



Connector No.	B227	LIFTING MOTOR LH (FRONT) (WITH AUTOMATIC DRIVE POSITIONER)
Connector Name	LIFTING MOTOR LH (FRONT) (WITH AUTOMATIC DRIVE POSITIONER)	IND 0-0501
Connector Type	6242-5061	CONNECTOR COLOR
Connector Color	GRAY	



Connector No.	B228	RECLINING MOTOR (BACKWARD)
Connector Name	RECLINING MOTOR (BACKWARD)	IND 0-0344
Connector Type	6242-5061	CONNECTOR COLOR
Connector Color	GRAY	



# AUTOMATIC DRIVE POSITIONER

< WIRING DIAGRAM >

## AUTOMATIC DRIVE POSITIONER CONNECTORS

Connector No.	B228	16	LG	TO MAIN HARNESS	
Connector Name	LIFTING MOTOR LH (REAR) (WITH AUTOMATIC DRIVE POSITIONER)	Connector No.	D4	Connector Name	SEAT MEMORY SWITCH
Connector Type	6242-3061	Connector Name	TH16FW-NH	Connector Type	TH16FW-NH
Connector Color	GRAY	Connector Color	WHITE	Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	R	PULSE
2	B	GROUND
3	W	POWER SUPPLY
4	L	REAR LIFTING MOTOR (UPWARD)
5	-	-
6	Y	REAR LIFTING MOTOR (DOWNWARD)



Terminal No.	Color of Wire	Signal Name
1	LG	SWITCH MTR UP
2	L	SWITCH MOTOR LT (WITH MEMORY MIRRORS)
3	Y	SWITCH MOTOR LT (WITHOUT MEMORY MIRRORS)
4	BG	MOTOR COMMON
5	G/L	POWER FOLD UNFOLD- (WITH MEMORY MIRRORS)
6	GR	POWERFOLD FOLD+ (WITH MEMORY MIRRORS)
7	B/W	HEATED MIRROR +
8	W	VCC
9	R	VIDEO +
10	G/B	FRONT TURN LH
11	GND	GND
12	LG/B	EC FEED
13	Y	EC RETURN
14	SB	MEMORY GND
15	V	MEMORY FEED
16	BG	HOR SENSOR
17	-	-
18	B	HEATED MIRROR -
19	B	VER SENSOR
20	SHIELD	VIDEO -



Terminal No.	Color of Wire	Signal Name
1	-	-
2	SB	TO MAIN HARNESS
3	GR	TO MAIN HARNESS
4	L	TO MAIN HARNESS
5	W	TO MAIN HARNESS
6	B	TO MAIN HARNESS
7	R/G	TO MAIN HARNESS
8	Y	TO MAIN HARNESS
9	1	TO MAIN HARNESS
10	2	TO MAIN HARNESS
11	3	TO MAIN HARNESS
12	4	TO MAIN HARNESS
13	5	TO MAIN HARNESS
14	6	TO MAIN HARNESS
15	7	TO MAIN HARNESS
16	8	TO MAIN HARNESS
17	9	TO MAIN HARNESS
18	10	TO MAIN HARNESS
19	11	TO MAIN HARNESS
20	12	TO MAIN HARNESS
21	13	TO MAIN HARNESS
22	14	TO MAIN HARNESS
23	15	TO MAIN HARNESS
24	16	TO MAIN HARNESS
25	17	TO MAIN HARNESS
26	18	TO MAIN HARNESS
27	19	TO MAIN HARNESS
28	20	TO MAIN HARNESS
29	21	TO MAIN HARNESS
30	22	TO MAIN HARNESS
31	23	TO MAIN HARNESS
32	24	TO MAIN HARNESS
33	25	TO MAIN HARNESS
34	26	TO MAIN HARNESS
35	27	TO MAIN HARNESS
36	28	TO MAIN HARNESS
37	29	TO MAIN HARNESS
38	30	TO MAIN HARNESS
39	31	TO MAIN HARNESS
40	32	TO MAIN HARNESS



Terminal No.	Color of Wire	Signal Name
1	SB	TO MAIN HARNESS - (WITHOUT MEMORY MIRRORS)
2	LG	TO MAIN HARNESS - (WITH AROUND VIEW MONITOR)
3	SB	TO MAIN HARNESS
4	Y	TO MAIN HARNESS
5	BR	TO MAIN HARNESS

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# AUTOMATIC DRIVE POSITIONER

< WIRING DIAGRAM >

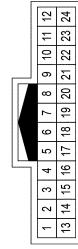
## AUTOMATIC DRIVE POSITIONER CONNECTORS

Connector No.	D20
Connector Name	DOOR MIRROR REMOTE CONTROL SWITCH (WITH MEMORY MIRRORS)
Connector Type	TK16FBR
Connector Color	BROWN
	

Terminal No.	Color of Wire	Signal Name
1	-	-
2	L/R	POWERFOLD UNFOLD+
3	GR/L	POWERFOLD UNFOLD-
4	Y	MIRROR SW RIGHTWARD
5	L	POWERFOLD FOLD+
6	GR	POWERFOLD FOLD-
7	B	GROUND
8	GR	ILLUMINATION -
9	L	ILLUMINATION +
10	SB	MIRROR SELECT SW LH
11	LG	MIRROR SELECT SW RH
12	L	MIRROR SW DOWNWARD
13	V	MIRROR SW LEFTWARD
14	-	-
15	BR	MIRROR SW UPWARD
16	-	-

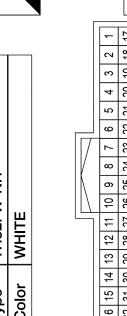
6	L	TO MAIN HARNESS
7	R/G	TO MAIN HARNESS
8	B	TO MAIN HARNESS
9	W	TO MAIN HARNESS
10	Y	TO MAIN HARNESS
11	LG	TO MAIN HARNESS
12	L	TO MAIN HARNESS
13	VV	TO MAIN HARNESS
14	W/L	TO MAIN HARNESS
15	V/R	TO MAIN HARNESS
16	L/W	TO MAIN HARNESS
17	SB	TO MAIN HARNESS
18	Y	TO MAIN HARNESS
19	G	TO MAIN HARNESS
20	V/W	TO MAIN HARNESS (WITHOUT AUTOMATIC DRIVE POSITIONER)
21	-	TO MAIN HARNESS
22	-	TO MAIN HARNESS
23	R	LED RH
24	B	GND

Connector No.	D107
Connector Name	DOOR MIRROR RH
Connector Type	TH24MW-NH
Connector Color	WHITE



1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	BR	SWITCH MTR UP
2	G	SWITCH MTR LT
3	SB	MTR COMMON
4	L/R	POWERFOLD UNFOLD+
5	L	POWERFOLD FOLD+
6	B/W	HEATED MIRROR +
7	B	VCC
8	R	VIDEO +

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# AUTOMATIC DRIVE POSITIONER

## < WIRING DIAGRAM >

### AUTOMATIC DRIVE POSITIONER CONNECTORS

Connector No.	ET152	Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name
Connector Name	WIRE TO WIRE	G/B	TO MAIN HARNESS	72G	L/W	TO MAIN HARNESS
Connector Type	TH80MW-CS16-TM4	R/W	TO MAIN HARNESS	73G	SHIELD	TO MAIN HARNESS
Connector Color	WHITE	R	TO MAIN HARNESS	74G	W	TO MAIN HARNESS
		LG	TO MAIN HARNESS	75G	R	TO MAIN HARNESS
		G/B	TO MAIN HARNESS	76G	R/G	TO MAIN HARNESS
		G/B	TO MAIN HARNESS	77G	G	TO MAIN HARNESS
		BR/Y	TO MAIN HARNESS	78G	W	TO MAIN HARNESS
		P	TO MAIN HARNESS - (WITH CUMMINS 5.0L)	79G	-	TO MAIN HARNESS
		R	TO MAIN HARNESS - (WITH V8610)	80G	R	TO MAIN HARNESS
		P	TO MAIN HARNESS	81G	L	TO MAIN HARNESS
		Y/L	TO MAIN HARNESS	82G	R	TO MAIN HARNESS
		L	TO MAIN HARNESS	83G	L	TO MAIN HARNESS
		G/R	TO MAIN HARNESS	84G	L	TO MAIN HARNESS
		G/R	TO MAIN HARNESS	85G	W/B	TO MAIN HARNESS
		SB	TO MAIN HARNESS	86G	BR	TO MAIN HARNESS
		R/W	TO MAIN HARNESS	87G	W/B	TO MAIN HARNESS
		BR	TO MAIN HARNESS	88G	P	TO MAIN HARNESS
		BR	TO MAIN HARNESS	89G	L	TO MAIN HARNESS
		-	TO MAIN HARNESS	90G	G	TO MAIN HARNESS
		R/G	TO MAIN HARNESS	91G	G	TO MAIN HARNESS
		O	TO MAIN HARNESS	92G	V/W	TO MAIN HARNESS
		B	TO MAIN HARNESS - (WITH CUMMINS 5.0L)	93G	BR	TO MAIN HARNESS
		G	TO MAIN HARNESS - (WITH V8610)	94G	G	TO MAIN HARNESS
		R/Y	TO MAIN HARNESS	95G	G	TO MAIN HARNESS
		G	TO MAIN HARNESS	96G	W	TO MAIN HARNESS
		LG	TO MAIN HARNESS	97G	R	TO MAIN HARNESS
		R	TO MAIN HARNESS	98G	W/B	TO MAIN HARNESS
		W	TO MAIN HARNESS	99G	BR	TO MAIN HARNESS
		W	TO MAIN HARNESS	100G	GR/W	TO MAIN HARNESS
		Y	TO MAIN HARNESS	101G	-	-
		BR/W	TO MAIN HARNESS	102G	BR	TO MAIN HARNESS
		BR	TO MAIN HARNESS	103G	R	TO MAIN HARNESS
		P	TO MAIN HARNESS - (WITH V8610)	104G	G	TO MAIN HARNESS
		W/B	TO MAIN HARNESS	105G	Y	TO MAIN HARNESS
		Y/R	TO MAIN HARNESS	106G	Y/G	TO MAIN HARNESS
		Y/R	TO MAIN HARNESS	107G	W	TO MAIN HARNESS
		Y/R	TO MAIN HARNESS	108G	W	TO MAIN HARNESS
		Y/R	TO MAIN HARNESS	109G	W	TO MAIN HARNESS
		Y/R	TO MAIN HARNESS	110G	W	TO MAIN HARNESS
		Y/R	TO MAIN HARNESS	111G	W	TO MAIN HARNESS
		W/B	TO MAIN HARNESS	112G	W	TO MAIN HARNESS
		BR	TO MAIN HARNESS	113G	G	TO MAIN HARNESS
		Y/B	TO MAIN HARNESS	114G	W	TO MAIN HARNESS
		LG/W	TO MAIN HARNESS	115G	R	TO MAIN HARNESS
		W	TO MAIN HARNESS	116G	W/L	TO MAIN HARNESS
		R/G	TO MAIN HARNESS	117G	W/R	TO MAIN HARNESS
		W/B	TO MAIN HARNESS	118G	BR	TO MAIN HARNESS
		Y/N	TO MAIN HARNESS	119G	BR	TO MAIN HARNESS
		Y/R	TO MAIN HARNESS	202G	Y	TO MAIN HARNESS
		BR	TO MAIN HARNESS	21G	Y	TO MAIN HARNESS
		Y/R	TO MAIN HARNESS	22G	Y	TO MAIN HARNESS
		Y/R	TO MAIN HARNESS	23G	Y	TO MAIN HARNESS

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## AUTOMATIC DRIVE POSITIONER

## < WIRING DIAGRAM >

## AUTOMATIC DRIVE POSITIONER CONNECTORS

Connector No.	M8
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS
Connector Color	WHITE



6	SB	TO FRONT DOOR LH HARNESS
7	Y	TO FRONT DOOR LH HARNESS
8	GR	TO FRONT DOOR LH HARNESS
9	L	TO FRONT DOOR LH HARNESS
10	W	TO FRONT DOOR LH HARNESS
11	B	TO FRONT DOOR LH HARNESS
12	R/G	TO FRONT DOOR LH HARNESS
13	G	TO FRONT DOOR LH HARNESS
14	R	TO FRONT DOOR LH HARNESS
15	O	TO FRONT DOOR LH HARNESS
16	V	TO FRONT DOOR LH HARNESS
17	D	TO FRONT DOOR LH HARNESS



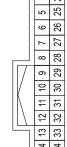
Terminal No.	Color of Wire	Signal Name
1	B/N	TO FRONT DOOR LH HARNESS
2	G/B	TO FRONT DOOR LH HARNESS
3	L	TO FRONT DOOR LH HARNESS
4	R	TO FRONT DOOR LH HARNESS
5	W/R	TO FRONT DOOR LH HARNESS
6	W/L	TO FRONT DOOR LH HARNESS
7	V	TO FRONT DOOR LH HARNESS
8	B	TO FRONT DOOR LH HARNESS
9	L/W	TO FRONT DOOR LH HARNESS
10	U/R	TO FRONT DOOR LH HARNESS
11	L/W	TO FRONT DOOR LH HARNESS
12	L	TO FRONT DOOR LH HARNESS
13	Y	TO FRONT DOOR LH HARNESS
14	SB	TO FRONT DOOR LH HARNESS
15	V	TO FRONT DOOR LH HARNESS
16	U/C	TO REAR DOOR LH HARNESS



Connector No.	M14
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH
Connector Color	WHITE



Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH
Connector Color	GREEN



	39	B/R	SHIFT N/P
	40	-	-

Terminal No.	Color of Wire	Signal Name
1	G	ENG START SW/NO ESCL
2	—	—
3	R	ALL POWER SUPPLY SW
4	W/R	A/L SIGNAL
5	—	—
6	—	—
7	—	—
8	—	—
9	—	—
10	SB	COMBISW IN 5
11	G/Y	COMBISW IN 4
12	Y	COMBISW IN 3
13	G/B	COMBISW IN 2
14	V	COMBISW IN 1
15	—	—
16	—	—
17	P	GND RF A/L
18	V	SECURITY INDICATOR
19	—	—
20	R	SHIFT P
21	R/W	STEP LAMP CONT
22	—	—
23	Y	AIRCON SW
24	—	—
25	W	BRAKE SW/FUSE
26	L	SHORT PIN INPUT
27	R/G	BRAKE SW/LAMP
28	—	—
29	W	BLOWER FAN SW
30	P	DR DOOR LOCK STATUS
31	—	—
32	Y	REAR DEFROGER SW
33	—	—
34	—	—
35	R/G	REVERSE SW
36	W/B	HAZARD SW
37	—	—
38	—	—

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# AUTOMATIC DRIVE POSITIONER

< WIRING DIAGRAM >

## AUTOMATIC DRIVE POSITIONER CONNECTORS

Terminal	Color of Wire	Signal Name	Signal Name
41	Y/L	TRAILER LIGHT CHECK RELAY OUT	
42	R/Y	CARGO LAMP OUT	
43	-	-	
44	-	-	
45	-	-	
46	-	-	
47	-	-	
48	R	HIGH SIDE START SW LED	
49	-	-	
50	-	-	
51	-	-	
52	W	AUDIO DONGLE	
53	-	-	
54	W/L	PW JKT	
55	W/B	L&R SENSOR X-LINE	
56	-	-	
57	-	-	
58	-	-	
59	P	CAN L	
60	L	CAN-H	
61	O	REAR DEFOGGER RELAY OUT	
62	W	STARTER RELAY OUT	
63	-	-	
64	P	BUZZER OUT	
65	-	-	
66	W	FLOWER FAN RELAY OUT	
67	G	IGN ELEC RELAY OUT 2	
68	L	MR OUTPUT	
69	RB	AT DEVICE OUT	
70	P	IGN USM OUT 1	
71	O	DR REQUEST SW	
72	G	AS REQUEST SW	
73	-	-	
74	-	-	
75	L/W	COMBI SW OUT 5	
76	P	COMBI SW OUT 4	
77	L	COMBI SW OUT 3	

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## AUTOMATIC DRIVE POSITIONER

## < WIRING DIAGRAM >

## AUTOMATIC DRIVE POSITIONER CONNECTORS

Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4
Connector Color	WHITE

No.	M31
Name	WIRE TO WIRE
Type	TH80FW-CS16-TM4
Color	WHITE
27G	LG TO ENGINE ROOM HARNESS
28G	GB TO ENGINE ROOM HARNESS
29G	GB TO ENGINE ROOM HARNESS
30G	BR/Y TO ENGINE ROOM HARNESS
31G	R TO ENGINE ROOM HARNESS
32G	R TO ENGINE ROOM HARNESS
33G	YL TO ENGINE ROOM HARNESS
34G	GR TO ENGINE ROOM HARNESS
35G	GR/Y TO ENGINE ROOM HARNESS
36G	SB/W TO ENGINE ROOM HARNESS
37G	R/W TO ENGINE ROOM HARNESS
38G	BR TO ENGINE ROOM HARNESS
39G	BR TO ENGINE ROOM HARNESS
40G	- TO ENGINE ROOM HARNESS
41G	R/G TO ENGINE ROOM HARNESS
42G	O TO ENGINE ROOM HARNESS
43G	G TO ENGINE ROOM HARNESS
44G	R/Y TO ENGINE ROOM HARNESS
45G	G TO ENGINE ROOM HARNESS
46G	LG TO ENGINE ROOM HARNESS
47G	R TO ENGINE ROOM HARNESS
48G	W TO ENGINE ROOM HARNESS
49G	- TO ENGINE ROOM HARNESS

80G	R	TO ENGINE ROOM HARNESS
81G	L	TO ENGINE ROOM HARNESS
82G	R	TO ENGINE ROOM HARNESS
83G	L	TO ENGINE ROOM HARNESS
84G	L	TO ENGINE ROOM HARNESS
85G	W	TO ENGINE ROOM HARNESS
86G	BR	TO ENGINE ROOM HARNESS
87G	W	TO ENGINE ROOM HARNESS
88G	G	TO ENGINE ROOM HARNESS
89G	P	TO ENGINE ROOM HARNESS
90G	G	TO ENGINE ROOM HARNESS
91G	P	TO ENGINE ROOM HARNESS
92G	VW	TO ENGINE ROOM HARNESS
93G	BR	TO ENGINE ROOM HARNESS
94G	B	TO ENGINE ROOM HARNESS
95G	G	TO ENGINE ROOM HARNESS
96G	R	TO ENGINE ROOM HARNESS
97G	R	TO ENGINE ROOM HARNESS
98G	WB	TO ENGINE ROOM HARNESS
99G	R	TO ENGINE ROOM HARNESS
100G	CB/W	TO ENGINE ROOM HARNESS

14	P	MIRROR SELECT SW (LH)
15	R	MIRROR SW (DOWNWARD)
16	W	MIRROR SW (RIGHTWARD)
17	Y	MIRROR SENSOR RH (HORIZONTAL)
18	BG	MIRROR SENSOR (LH HORIZONTAL)
19	L	TELESCOPIC SW (BACKWARD)
20	Y	GND SENSOR (GND)
21	SB	POWER SUPPLY (SENSOR FOR 5V)
22	SB	MIRROR MOTOR RH COMMON (DOWN/UP/HORIZONTAL)
23	LG	MIRROR MOTOR LH (VERTICAL (UP))
24	L	MIRROR MOTOR LH (HORIZONTAL (LEFT))

Terminal No.	Color of Wire	Signal Name
1G	G	TO ENGINE ROOM HARNESS
2G	B/R	TO ENGINE ROOM HARNESS
3G	W	TO ENGINE ROOM HARNESS
4G	B/R/W	TO ENGINE ROOM HARNESS
5G	-	TO ENGINE ROOM HARNESS
6G	R/W	TO ENGINE ROOM HARNESS
7G	Y	TO ENGINE ROOM HARNESS
8G	G	TO ENGINE ROOM HARNESS
9G	R	TO ENGINE ROOM HARNESS
10G	W	TO ENGINE ROOM HARNESS
11G	R/G	TO ENGINE ROOM HARNESS
12G	W/B	TO ENGINE ROOM HARNESS
13G	BR	TO ENGINE ROOM HARNESS
14G	Y/B	TO ENGINE ROOM HARNESS
15G	G/W	TO ENGINE ROOM HARNESS
16G	G	TO ENGINE ROOM HARNESS
17G	O	TO ENGINE ROOM HARNESS
18G	G/Y	TO ENGINE ROOM HARNESS
19G	Y/W	TO ENGINE ROOM HARNESS
20G	G/Y	TO ENGINE ROOM HARNESS
21G	B/Y	TO ENGINE ROOM HARNESS
22G	G/R	TO ENGINE ROOM HARNESS
23G	Y/R	TO ENGINE ROOM HARNESS
24G	G/R	TO ENGINE ROOM HARNESS
25G	R	TO ENGINE ROOM HARNESS
26G	R	TO ENGINE ROOM HARNESS

POSITIONER CONTROL UNIT	TH24FW-NH WHITE	
Connector Type	TH24FW-NH	
Connector Color	WHITE	

Terminal No.	Color of Wire	Signal Name
25	L/B	BAT (PTC)
26	V	TELESCOPIC MOTOR (BACKWARD)
27	LG	POWER SUPPLY (SENSOR FOR 16V)
28	SB	TIPT MOTOR (DOWNWARD)
29	BR	STRG MOTOR COMMON (UPWARD/FORWARD)
30	B	GND (POWER)

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# AUTOMATIC DRIVE POSITIONER

< WIRING DIAGRAM >

## AUTOMATIC DRIVE POSITIONER CONNECTORS

Connector No.	M40	Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name
Connector Name	WIRE TO WIRE	L	TO BODY HARNESS	81J	SHIELD	TO BODY HARNESS
Connector Type	·TH80FW-CS16-TM4	G/O	TO BODY HARNESS	82J	L/R	TO BODY HARNESS
Connector Color	WHITE	SB	TO BODY HARNESS	83J	-	TO BODY HARNESS
		L/G	TO BODY HARNESS	84J	-	TO BODY HARNESS
		R	TO BODY HARNESS	85J	W	TO BODY HARNESS
		BG	TO BODY HARNESS	86J	G	TO BODY HARNESS
		Y	TO BODY HARNESS	87J	W	TO BODY HARNESS
		P	TO BODY HARNESS	88J	SHIELD	TO BODY HARNESS
		G/R	TO BODY HARNESS	89J	R	TO BODY HARNESS
		LG	TO BODY HARNESS	90J	L	TO BODY HARNESS
		SB	TO BODY HARNESS	91J	L/R	TO BODY HARNESS
		Y	TO BODY HARNESS	92J	SB	TO BODY HARNESS
		SB	TO BODY HARNESS	93J	B	TO BODY HARNESS
		L	TO BODY HARNESS	94J	LG	TO BODY HARNESS
		L	TO BODY HARNESS	95J	L	TO BODY HARNESS
		W	TO BODY HARNESS	96J	G	TO BODY HARNESS
		BR	TO BODY HARNESS	97J	BY	TO BODY HARNESS
		BG	TO BODY HARNESS	98J	L/R	SHIFT LOCK SOL OUT
		P	TO BODY HARNESS	99J	W/L	SHIFT P
		O	TO BODY HARNESS	100J	Y	TO BODY HARNESS
		V	TO BODY HARNESS	101J	W/L	AT DEVICE OUT
		BR	TO BODY HARNESS	102J	LG	TOW MODE SW
		G/W	TO BODY HARNESS	103J	BR	SHIFT UP
		-	TO BODY HARNESS	104J	V/W	SHIFT DOWN
		SHIELD	TO BODY HARNESS			
		R	TO BODY HARNESS			
		L	TO BODY HARNESS			
		R	TO BODY HARNESS			
		W	TO BODY HARNESS			
		R	TO BODY HARNESS			
		B	TO BODY HARNESS			
		BR	TO BODY HARNESS			
		SB	TO BODY HARNESS			
		Y	TO BODY HARNESS			
		BR	TO BODY HARNESS			
		-	TO BODY HARNESS			
		63J	TO BODY HARNESS			
		64J	TO BODY HARNESS			
		65J	TO BODY HARNESS			
		66J	TO BODY HARNESS			
		67J	TO BODY HARNESS			
		58J	TO BODY HARNESS			
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		60J	TO BODY HARNESS			
		61J	TO BODY HARNESS			
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		76J	TO BODY HARNESS			
		77J	TO BODY HARNESS			
		78J	TO BODY HARNESS			
		79J	TO BODY HARNESS			
		80J	TO BODY HARNESS			

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# AUTOMATIC DRIVE POSITIONER

< WIRING DIAGRAM >

## AUTOMATIC DRIVE POSITIONER CONNECTORS

Connector No.	M70	Color of Wire	Signal Name
Connector Name	FUSE BLOCK (L/B)	8	B
Connector Type	NS16FBR-CS	9	W
Connector Color	BROWN	10	Y
		11	LG
		12	L
		13	YV
		14	WL
		15	VR
		16	LW
		17	SB
		18	Y
		19	G
		20	V/W
		21	-
		22	-
		23	O
		24	R
		25	SHIELD
		26	W
		27	BG
		28	G
		29	LGB
		30	-
		31	-
		32	-
		33	-
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		135	-
		136	-

Connector No.	M74	Color of Wire	Signal Name
Connector Name	WIRE TO WIRE	1	BR
Connector Type	TH32NW-NH	2	V
Connector Color	WHITE	3	BR
		4	L
		5	Y
		6	LG
		7	BR
		8	BR
		9	SB
		10	LG
		11	POWER SUPPLY SENSOR 16V+
		12	UPWARD
		13	FORWARD
		14	STRG TELESCOPIC SENSOR
		15	POWER SUPPLY SENSOR 16V+
		16	POWER SUPPLY SENSOR 16V+
		17	POWER SUPPLY SENSOR 16V+
		18	POWER SUPPLY SENSOR 16V+
		19	POWER SUPPLY SENSOR 16V+
		20	POWER SUPPLY SENSOR 16V+
		21	POWER SUPPLY SENSOR 16V+
		22	POWER SUPPLY SENSOR 16V+
		23	POWER SUPPLY SENSOR 16V+
		24	POWER SUPPLY SENSOR 16V+

# DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

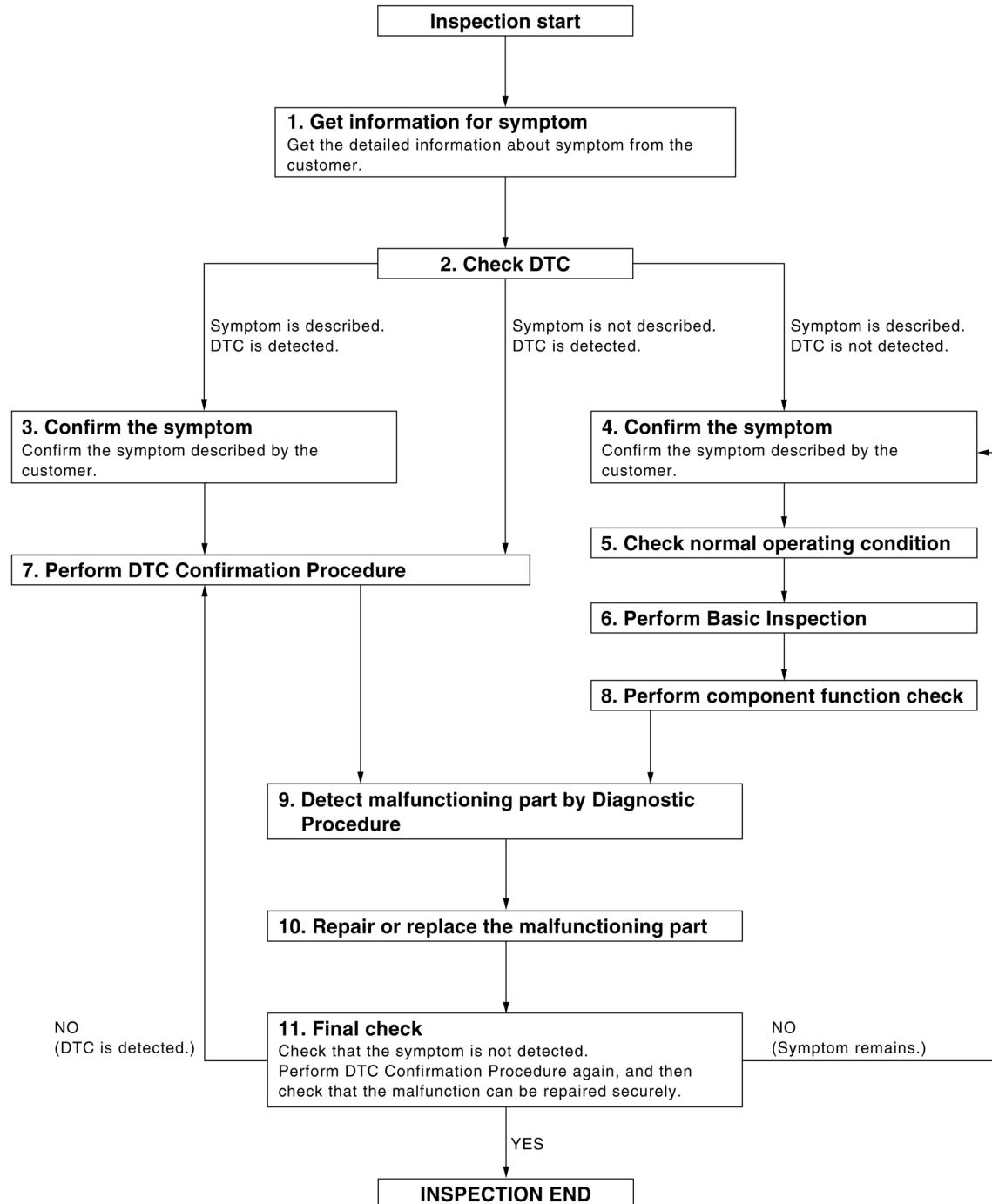
## BASIC INSPECTION

### DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000014391894

WORK FLOW



DETAILED FLOW

# DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

## 1. GET INFORMATION FOR SYMPTOM

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

>> GO TO 2.

## 2. CHECK DTC WITH AUTOMATIC DRIVE POSITIONER SYSTEM

### CONSULT

Check "Self Diagnostic Result" mode of "AUTO DRIVE POS."

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-139, "Description"](#).

Is the incident normal operation?

YES >> Inspection End.

NO >> GO TO 6.

## 6. PERFORM BASIC INSPECTION

Isolate the malfunctioning point with the basic inspection. Refer to [ADP-63, "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 WORKFLOW

< BASIC INSPECTION >

>> GO TO 11.

### 11. FINAL CHECK

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

Are all malfunctions corrected?

YES >> Inspection End.

Symptom is detected.>> GO TO 4.

DTC is detected.>> GO TO 7.

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# INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

## INSPECTION AND ADJUSTMENT

### ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

#### ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description

INFOID:000000014391895

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

Function	Condition	Procedure
Memory (Seat, steering, mirror)	Erased	Perform storing
Entry/exit assist	ON	Perform initialization
		Set slide amount <sup>*1</sup>
Intelligent Key interlock	Erased	Perform initialization
		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

INFOID:000000014391896

#### 1. SYSTEM INITIALIZATION

Perform system initialization. Refer to [ADP-59, "SYSTEM INITIALIZATION : Work Procedure"](#).

>> GO TO 2.

#### 2. MEMORY STORAGE

Perform memory storage. Refer to [ADP-60, "MEMORY STORING : Work Procedure"](#).

>> GO TO 3.

#### 3. INTELLIGENT KEY INTERLOCK STORAGE

Perform Intelligent Key interlock storage. Refer to [ADP-61, "INTELLIGENT KEY INTERLOCK STORING : Work Procedure"](#).

>> GO TO 4.

#### 4. SYSTEM SETTING

Perform system setting. Refer to [ADP-61, "SYSTEM SETTING : Work Procedure"](#).

>> Inspection End.

### ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

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

INFOID:000000014391897

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

Function	Condition	Procedure
Memory (Seat, steering, mirror)	Erased	Perform storing
Entry/exit assist	ON	Perform initialization
		Set slide amount <sup>*1</sup>

# INSPECTION AND ADJUSTMENT

## < BASIC INSPECTION >

Function	Condition	Procedure
Intelligent Key interlock	Erased	Perform initialization
		Perform storing

\*1: Default value is 40 mm.

### NOTE:

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

## ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Work Procedure

INFOID:0000000014391898

### 1. SYSTEM INITIALIZATION

Perform system initialization. Refer to [ADP-59, "SYSTEM INITIALIZATION : Work Procedure".](#)

>> GO TO 2.

### 2. MEMORY STORAGE

Perform memory storage. Refer to [ADP-60, "MEMORY STORING : Work Procedure".](#)

>> GO TO 3.

### 3. INTELLIGENT KEY INTERLOCK STORAGE

Perform Intelligent Key interlock storage. Refer to [ADP-61, "INTELLIGENT KEY INTERLOCK STORING : Work Procedure".](#)

>> GO TO 4.

### 4. SYSTEM SETTING

Perform system setting. Refer to [ADP-61, "SYSTEM SETTING : Work Procedure".](#)

>> Inspection End.

## SYSTEM INITIALIZATION

### SYSTEM INITIALIZATION : Description

INFOID:0000000014391899

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

INFOID:0000000014391900

#### 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.

##### 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) → OFF (close) → ON (open).

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# INSPECTION AND ADJUSTMENT

## < 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

INFOID:0000000014391901

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

INFOID:0000000014391902

#### 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
- A/T shift selector: P (Park) position

>> GO TO 2.

#### 2. STEP 2

Adjust driver seat, steering column 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

INFOID:0000000014391903

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.

# INSPECTION AND ADJUSTMENT

## < BASIC INSPECTION >

### INTELLIGENT KEY INTERLOCK STORING : Work Procedure

INFOID:0000000014391904

#### 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: OFF
- Initialization: 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.

2. 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:0000000014391905

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)	x	x	ON
Entry/exit assist (steering column)	Entry/exit assist (steering column) can be selected: ON (operated) – OFF (not operated)	x		ON

### SYSTEM SETTING : Work Procedure

INFOID:0000000014391906

#### 1. CHOOSE METHOD

There are three setting methods.

Which method do you choose?

With CONSULT>>GO TO 2.

# INSPECTION AND ADJUSTMENT

## < 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.

# PRE-INSPECTION FOR DIAGNOSTIC

< BASIC INSPECTION >

## PRE-INSPECTION FOR DIAGNOSTIC

### Basic Inspection

INFOID:0000000014391907

#### 1. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and ground circuit as shown below.

- Driver seat control unit: Refer to [ADP-76, "DRIVER SEAT CONTROL UNIT : Diagnosis Procedure"](#).
- Automatic drive positioner control unit: Refer to [ADP-77, "AUTOMATIC DRIVE POSITIONER CONTROL UNIT : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

#### 2. CHECK MANUAL FUNCTION

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

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

Do all manual functions operate normally?

YES >> GO TO 3.

NO (Seat, pedal, door mirror)>> Go to SYMPTOM 1, refer to [ADP-138, "Symptom Table"](#). And, GO TO 4 if the result of SYMPTOM 1 is OK.

#### 3. CHECK MEMORY FUNCTION 1

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

Are the operations normal?

YES >> Check each malfunction according to the instruction of the SYMPTOM 4, refer to [ADP-138, "Symptom Table"](#).

No (memory indicator operates normally)>> Go to SYMPTOM 2, refer to [ADP-138, "Symptom Table"](#).

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

#### 4. CHECK MEMORY FUNCTION 2

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

Are the operations normal?

YES >> Check intermittent incident. Refer to [GI-47, "Intermittent Incident"](#).

NO >> GO TO 7.

#### 5. CHECK SEAT MEMORY SWITCH/MEMORY INDICATOR

Check the seat memory switch/memory switch indicator of the SYMPTOM 5, refer to [ADP-138, "Symptom Table"](#).

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace the malfunctioning part.

#### 6. CHECK OPERATION CONDITION

Check the memory operation conditions (refer to [ADP-19, "MEMORY FUNCTION : System Description"](#)).

Are all operation conditions fulfilled?

YES >> Go to SYMPTOM 6, refer to [ADP-138, "Symptom Table"](#).

NO >> Fulfill the operation conditions. Refer to [ADP-19, "MEMORY FUNCTION : System Description"](#).

#### 7. CHECK MECHANISM

Check for the following.

- Mechanism deformation or pinched foreign materials.
- Interference with other parts because of poor installation.

Is any malfunction present in the relevant parts?

## PRE-INSPECTION FOR DIAGNOSTIC

### < BASIC INSPECTION >

YES    >> Go to SYMPTOM 3, refer to [ADP-138, "Symptom Table"](#).

NO    >> Repair or replace the malfunctioning part.

< DTC/CIRCUIT DIAGNOSIS >

## DTC/CIRCUIT DIAGNOSIS

### U1000 CAN COMM CIRCUIT

#### DTC Description

INFOID:000000014391908

#### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
U1000	CAN COMM CIRCUIT (CAN communication circuit)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	—
		Diagnosis delay time	2 seconds or more

#### POSSIBLE CAUSE

CAN communication system

#### FAIL-SAFE

—

#### DTC CONFIRMATION PROCEDURE

##### 1. STEP 1

Turn ignition switch ON and wait at least 2 seconds.

>> GO TO 2.

##### 2. STEP 2

###### CONSULT

Check "Self Diagnostic Result" mode of "AUTO DRIVE POS.".

###### Is the DTC detected?

ADP

YES >> Perform diagnosis procedure. Refer to [ADP-65, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-47, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: Inspection End.

#### Diagnosis Procedure

INFOID:000000014391909

##### 1. SELF DIAGNOSTIC RESULT

###### CONSULT

1. Turn ignition switch ON and wait for 2 seconds or more.
2. Check "Self Diagnostic Result" mode of "AUTO DRIVE POS.".
3. Check DTC.

###### Is DTC "U1000" displayed?

YES >> Refer to [LAN-53, "Trouble Diagnosis Flow Chart"](#).

NO >> GO TO 2.

##### 2. CHECK INTERMITTENT INCIDENT

Refer to [GI-47, "Intermittent Incident"](#).

>> Inspection End.

# U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

## U1010 CONTROL UNIT (CAN)

### DTC Description

INFOID:0000000014391910

### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
U1010	CONTROL UNIT (Control unit)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	—
		Diagnosis delay time	2 seconds or more

### POSSIBLE CAUSE

Driver seat control unit

### FAIL-SAFE

—

### Diagnosis Procedure

INFOID:0000000014391911

#### 1. REPLACE DRIVER SEAT CONTROL UNIT

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

>> Replace driver seat control unit. Refer to [ADP-140, "Removal and Installation"](#).

## B2112 SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

### B2112 SLIDING MOTOR

#### DTC Description

INFOID:000000014391912

#### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B2112	SEAT SLIDE (Seat slide)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	Sliding motor LH circuit (terminals 1 and 5)
		Threshold	Approx. 0 V
		Diagnosis delay time	0.1 seconds or more

#### POSSIBLE CAUSE

- Driver seat control unit
- Slide motor harness is shorted

#### FAIL-SAFE

Only manual functions, except seat sliding, operate normally.

#### DTC CONFIRMATION PROCEDURE

##### 1. SELF-DIAGNOSIS WITH AUTOMATIC DRIVE POSITIONER CONTROL UNIT

###### CONSULT

1. Turn ignition switch ON.
2. Check "Self Diagnostic Result" mode of "AUTO DRIVE POS.".
3. Check DTC.

###### Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to [ADP-67, "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-47, "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: Inspection End.

#### Diagnosis Procedure

INFOID:000000014391913

Regarding Wiring Diagram information, refer to [ADP-41, "Wiring Diagram"](#).

##### 1. SELF DIAGNOSTIC RESULT

###### CONSULT

1. Turn ignition switch ON.
2. Check "Self Diagnostic Result" of "AUTO DRIVE POS.".
3. Erase the DTC.
4. Perform DTC confirmation procedure. Refer to [ADP-67, "DTC Description"](#).

###### 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)

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

## B2112 SLIDING MOTOR

### < DTC/CIRCUIT DIAGNOSIS >

(+) Sliding motor LH		(-)	Voltage (Approx.)
Connector	Terminals		
B226	1	Ground	0 V
	5		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

### 3. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

(+) Driver seat control unit		(-)	Voltage (Approx.)
Connector	Terminals		
B223	36	Ground	0 V
	44		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit. Refer to [ADP-140, "Removal and Installation"](#).

### 4. CHECK INTERMITTENT INCIDENT

Refer to [GI-47, "Intermittent Incident"](#).

>> Inspection End.

# B2113 RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

## B2113 RECLINING MOTOR

### DTC Description

INFOID:000000014391914

### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B2113	SEAT RECLINING (Seat reclining)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	Reclining motor LH circuit (terminals 4 and 6)
		Threshold	Approx. 0V
		Diagnosis delay time	0.1 seconds or more

### POSSIBLE CAUSE

- Driver seat control unit
- Reclining motor harness is shorted

### FAIL-SAFE

Only manual functions, except seat reclining, operate normally.

### DTC CONFIRMATION PROCEDURE

#### 1. SELF-DIAGNOSIS WITH AUTOMATIC DRIVE POSITIONER CONTROL UNIT

##### ① CONSULT

1. Turn ignition switch ON.
2. Check "Self Diagnostic Result" mode of "AUTO DRIVE POS.".
3. Check DTC.

##### Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to [ADP-69, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-47, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: Inspection End.

### Diagnosis Procedure

INFOID:000000014391915

Regarding Wiring Diagram information, refer to [ADP-41, "Wiring Diagram"](#).

#### 1. PERFORM DTC CONFIRMATION PROCEDURE

##### ① CONSULT

1. Turn ignition switch ON.
2. Check "Self Diagnostic Result" mode of "AUTO DRIVE POS.".
3. Erase the DTC.
4. Perform DTC confirmation procedure. Refer to [ADP-69, "DTC Description"](#).

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

## B2113 RECLINING MOTOR

### < DTC/CIRCUIT DIAGNOSIS >

(+)		(-)	Voltage (Approx.)
Reclining motor LH			
Connector	Terminals		
B225	4	Ground	0 V
	6		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

### 3. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

(+)		(-)	Voltage (Approx.)
Driver seat control unit			
Connector	Terminals		
B223	35	Ground	0 V
	43		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit. Refer to [ADP-140, "Removal and Installation"](#).

### 4. CHECK INTERMITTENT INCIDENT

Refer to [GI-47, "Intermittent Incident"](#).

>> Inspection End.

< DTC/CIRCUIT DIAGNOSIS >

## B2116 TILT MOTOR

### DTC Description

INFOID:000000014391916

### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B2116	STEERING TILT (Steering tilt)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	Steering tilt motor circuit (terminals 1 and 7)
		Threshold	Approx. 0V
		Diagnosis delay time	0.1 seconds or more

### POSSIBLE CAUSE

- Automatic drive positioner control unit
- Tilt motor harness is shorted

### FAIL-SAFE

Only manual functions, except steering tilt, operate normally.

### DTC CONFIRMATION PROCEDURE

#### 1. SELF DIAGNOSIS WITH AUTOMATIC DRIVE POSITIONER CONTROL UNIT

##### CONSULT

- Turn ignition switch ON.
- Check "Self Diagnostic Result" mode of "AUTO DRIVE POS.".
- Check DTC.

##### Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to [ADP-71, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-47, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: Inspection End.

ADP

### Diagnosis Procedure

INFOID:000000014391917

Regarding Wiring Diagram information, refer to [ADP-41, "Wiring Diagram"](#).

#### 1. PERFORM DTC CONFIRMATION PROCEDURE

##### CONSULT

- Turn ignition switch ON.
- Check "Self Diagnostic Result" mode of "AUTO DRIVE POS.".
- Erase the DTC.
- Perform DTC confirmation procedure. Refer to [ADP-71, "DTC Description"](#).

##### 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)

- Turn ignition switch OFF.
- Disconnect automatic drive positioner control unit and tilt motor connector.
- Check voltage between tilt motor harness connector M94 and ground.

## B2116 TILT MOTOR

### < DTC/CIRCUIT DIAGNOSIS >

(+) Tilt motor		(-)	Voltage (Approx.)
Connector	Terminals		
M94	1	Ground	0 V
	7		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

### 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 M34 and ground.

(+) Automatic drive positioner control unit		(-)	Voltage (Approx.)
Connector	Terminals		
M34	28	Ground	0 V
	29		

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-141, "Removal and Installation"](#).

# B2128 UART COMMUNICATION LINE

< DTC/CIRCUIT DIAGNOSIS >

## B2128 UART COMMUNICATION LINE

### DTC Description

INFOID:0000000014391918

### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B2128	UART COMM (Universal asynchronous receiver transmitter communication)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	—
		Diagnosis delay time	—

### POSSIBLE CAUSE

- UART communication line  
(UART communication line is open or shorted)
- Driver seat control unit
- Automatic drive positioner control unit

### FAIL-SAFE

Only manual functions, except door mirror, operate normally.

### DTC CONFIRMATION PROCEDURE

#### 1. SELF-DIAGNOSIS WITH AUTOMATIC DRIVE POSITIONER CONTROL UNIT

##### CONSULT

1. Turn ignition switch ON.
2. Check "Self Diagnostic Result" mode of "AUTO DRIVE POS.".
3. Check DTC.

##### Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to [ADP-73, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-47, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: Inspection End.

ADP

### Diagnosis Procedure

INFOID:0000000014391919

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Regarding Wiring Diagram information, refer to [ADP-41, "Wiring Diagram"](#).

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#### 1. PERFORM DTC CONFIRMATION PROCEDURE

##### CONSULT

1. Turn ignition switch ON.
2. Check "Self Diagnostic Result" mode of "AUTO DRIVE POS.".
3. Erase the DTC.
4. Perform DTC confirmation procedure. Refer to [ADP-73, "DTC Description"](#).

##### Is the DTC displayed again?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to [GI-47, "Intermittent Incident"](#).

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#### 2. CHECK UART COMMUNICATION LINE CONTINUITY

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1. Turn ignition switch OFF.
2. Disconnect driver seat control unit and automatic drive positioner control unit.
3. Check continuity between driver seat control unit harness connector B222 and automatic drive positioner control unit harness connector M33.

## B2128 UART COMMUNICATION LINE

### < DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit		Automatic drive positioner control unit		Continuity
Connector	Terminal	Connector	Terminal	
B222	15	M33	8	Yes

4. Check continuity between driver seat control unit harness connector B222 and ground.

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B222	15		No

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-47, "Intermittent Incident"](#).

NO >> Repair or replace harness.

< DTC/CIRCUIT DIAGNOSIS >

## B2130 EEPROM

### DTC Description

INFOID:000000014391920

### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B2130	EEPROM (EEPROM malfunction)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	—
		Diagnosis delay time	—

### POSSIBLE CAUSE

Driver seat control unit

### FAIL-SAFE

Only manual functions operate normally.

### DTC CONFIRMATION PROCEDURE

#### 1. SELF-DIAGNOSIS WITH AUTOMATIC DRIVE POSITIONER CONTROL UNIT

##### CONSULT

1. Turn ignition switch ON.
2. Check "Self Diagnostic Result" mode of "AUTO DRIVE POS.".
3. Check DTC.

##### Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to [ADP-75, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-47, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: Inspection End.

### Diagnosis Procedure

INFOID:000000014391921

ADP

#### 1. PERFORM DTC CONFIRMATION PROCEDURE

##### CONSULT

1. Turn ignition switch ON.
2. Check "Self Diagnostic Result" mode of "AUTO DRIVE POS.".
3. Erase the DTC.
4. Perform DTC confirmation procedure. Refer to [ADP-75, "DTC Description"](#).

##### Is the DTC displayed again?

YES >> Replace driver seat control unit. Refer to [ADP-140, "Removal and Installation"](#).

NO >> GO TO 2.

#### 2. CHECK INTERMITTENT INCIDENT

Refer to [GI-47, "Intermittent Incident"](#).

>> Inspection End.

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## POWER SUPPLY AND GROUND CIRCUIT BCM

### BCM : Diagnosis Procedure

INFOID:000000014666076

Regarding Wiring Diagram information, refer to [BCS-54, "Wiring Diagram"](#).

#### 1. CHECK FUSE AND FUSIBLE LINK

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

Signal name	Fuse and fusible link No.	
	Cummins 5.0L	VK56VD
Fusible link battery power	R (50A)	N (50A)
BCM battery fuse	1 (10A)	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

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

BCM		Ground	Voltage (Approx.)
Connector	Terminal		
M81	131	(-)	Battery voltage
	139		

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.

BCM		Ground	Continuity
Connector	Terminal		
M81	134	—	Yes
	143		

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:000000014391923

#### 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-41, "Wiring Diagram"](#).

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## 1. CHECK FUSE

Check that the following fusible link is not blown:

Signal name	Fusible link No.
Battery power supply	R (50 A)

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the blown fusible link after repairing the affected circuit.

## 2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect driver seat control unit.
3. Check voltage between driver seat control unit harness connector B223 and ground.

(+)		(-)	Power source	Condition	Voltage (Approx.)
Driver seat control unit	Connector				
B223	37	Ground	Battery power supply	Ignition switch OFF	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Check the following:

- Repair or replace harness.
- Circuit breaker.

## 3. CHECK GROUND CIRCUIT

Check continuity between the driver seat control unit harness connector B223 and ground.

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B223	39		

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness.

## DRIVER SEAT CONTROL UNIT : Special Repair Requirement

INFOID:0000000014391924

### 1. PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

>> Refer to [PG-178, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement"](#).

## AUTOMATIC DRIVE POSITIONER CONTROL UNIT

## AUTOMATIC DRIVE POSITIONER CONTROL UNIT : Diagnosis Procedure

INFOID:0000000014391925

### 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-41, "Wiring Diagram"](#).

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## 1. CHECK FUSE

Check that the following fusible link is not blown:

Signal name	Fusible link No.
Battery power supply (with Cummins 5.0L)	R (50 A)
Battery power supply (with VK56VD)	N (50 A)

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the blown fusible after repairing the affected circuit.

## 2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect automatic drive positioner control unit.
3. Check voltage between automatic drive positioner control unit harness connector M34 and ground.

( + )		(-)	Voltage (Approx.)
Automatic drive positioner control unit	Connector		
Connector	Terminal		
M34	25	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Check the following:

- Repair or replace harness.
- Circuit breaker.

## 3. CHECK GROUND CIRCUIT

Check continuity between the automatic drive positioner control unit harness connector M34 and ground.

Automatic drive positioner control unit		Ground	Continuity
Connector	Terminal		
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:000000014391926

## 1. PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

>> Refer to [PG-178, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement".](#)

# SLIDING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

## SLIDING SWITCH

### Component Function Check

INFOID:0000000014391927

#### 1. DATA MONITOR

##### CONSULT

1. Select "Data Monitor" mode of "AUTO DRIVE POS.".
2. Select "SLIDE SW-FR", "SLIDE SW-RR".
3. Check that the function operates normally according to the following conditions:

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

Is the inspection result normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-79, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:0000000014391928

Regarding Wiring Diagram information, refer to [ADP-41, "Wiring Diagram"](#).

#### 1. CHECK SLIDING SWITCH SIGNAL

1. Turn ignition switch OFF.
2. Check voltage between driver seat control unit harness connector B222 and ground.

ADP

(+) Driver seat control unit		(-)	Condition		Voltage (Approx.)	
Connector	Terminals		Sliding switch			
B222	9	Ground	Operate (backward)	0 V		
				Battery voltage		
	25		Operate (forward)	0 V		
				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.
3. Check continuity between driver seat control unit harness connector B222 and power seat switch LH harness connector B213.

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Driver seat control unit		Power seat switch LH		Continuity
Connector	Terminal	Connector	Terminal	
B222	9	B213	8	Yes
	25		7	

4. Check continuity between driver seat control unit harness connector B222 and ground.

# SLIDING SWITCH

## < DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B222	9		
	25		No

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

## 3. CHECK DRIVER SEAT CONTROL UNIT OUTPUT

1. Connect the driver seat control unit.
2. Turn ignition switch ON.
3. Check voltage between driver seat control unit harness connector B222 and ground.

(+)		(-)	Voltage (Approx.)		
Driver seat control unit					
Connector	Terminal				
B222	9	Ground	Battery voltage		
	25				

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit. Refer to [ADP-140, "Removal and Installation"](#).

## 4. CHECK SLIDING SWITCH

Refer to [ADP-80, "Component Inspection"](#).

### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace power seat switch LH. Refer to [ADP-143, "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-140, "Removal and Installation"](#).

NO >> Repair or replace malfunctioning part.

## Component Inspection

INFOID:0000000014391929

### 1. CHECK SLIDING SWITCH

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

Power seat switch LH		Condition	Continuity
Terminals			
3	8	Sliding switch (backward)	Operate
			Release
	7	Sliding switch (forward)	Operate
			Release

### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace power seat switch LH. Refer to [ADP-143, "Removal and Installation"](#).

# RECLINING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

## RECLINING SWITCH

### Component Function Check

INFOID:0000000014391930

#### 1. DATA MONITOR

##### CONSULT

1. Select "Data Monitor" mode of "AUTO DRIVE POS".
2. Select "RECLN SW-FR", "RECLN SW-RR".
3. Check that the function operates normally according to the following conditions:

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

Is the inspection result normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-81, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:0000000014391931

Regarding Wiring Diagram information, refer to [ADP-41, "Wiring Diagram"](#).

#### 1. CHECK RECLINING SWITCH SIGNAL

1. Turn ignition switch OFF.
2. Check voltage between driver seat control unit harness connector B222 and ground.

ADP

(+)		(-)	Condition	Voltage (Approx.)	
Driver seat control unit	Connector				
B222	24	Ground	Operate (forward)	0 V	
			Release	Battery voltage	
	8		Operate (backward)	0 V	
			Release	Battery voltage	

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 2.

#### 2. CHECK RECLINING SWITCH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect driver seat control unit and power seat switch LH.
3. Check continuity between driver seat control unit harness connector B222 and power seat switch LH harness connector B213.

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Driver seat control unit		Power seat switch LH		Continuity
Connector	Terminal	Connector	Terminal	
B222	24	B213	9	Yes
	8		10	

4. Check continuity between driver seat control unit harness connector B222 and ground.

# RECLINING SWITCH

## < DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B222	24		
	8		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

## 3. CHECK DRIVER SEAT CONTROL UNIT OUTPUT

1. Connect the driver seat control unit.
2. Turn ignition switch ON.
3. Check voltage between driver seat control unit harness connector B222 and ground.

(+)		(-)	Voltage (Approx.)		
Driver seat control unit					
Connector	Terminal				
B222	8		Ground		
	24				

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit. Refer to [ADP-140, "Removal and Installation"](#).

## 4. CHECK RECLINING SWITCH

Refer to [ADP-82, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace power seat switch LH. Refer to [ADP-143, "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-140, "Removal and Installation"](#).

NO >> Repair or replace the malfunctioning part.

## Component Inspection

INFOID:0000000014391932

### 1. CHECK RECLINING SWITCH

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

Power seat switch LH		Condition	Continuity
Terminals			
3	10	Reclining switch (backward)	Operate Yes
		Release	No
	9	Reclining switch (forward)	Operate Yes
		Release	No

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace power seat switch LH. Refer to [ADP-143, "Removal and Installation"](#).

# LIFTING SWITCH (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

## LIFTING SWITCH (FRONT)

### Component Function Check

INFOID:0000000014391933

#### 1. DATA MONITOR

##### CONSULT

1. Select "Data Monitor" mode of "AUTO DRIVE POS.".
2. Select "LIFT FR SW-UP", "LIFT FR SW-DN".
3. Check that the function operates normally according to the following conditions:

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

Is the inspection result normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-83, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:0000000014391934

Regarding Wiring Diagram information, refer to [ADP-41, "Wiring Diagram"](#).

#### 1. CHECK LIFTING SWITCH SIGNAL

1. Turn ignition switch OFF.
2. Check voltage between driver seat control unit harness connector B222 and ground.

(+)		(-)	Condition	Voltage (Approx.)	
Driver seat control unit	Connector				
B222	7	Ground	Operate (down)	0 V	
			Release	Battery voltage	
	23		Operate (up)	0 V	
			Release	Battery voltage	

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 2.

#### 2. CHECK LIFTING SWITCH (FRONT) CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect driver seat control unit and power seat switch LH.
3. Check continuity between driver seat control unit harness connector B222 and power seat switch LH harness connector B213.

Driver seat control unit		Power seat switch LH		Continuity
Connector	Terminal	Connector	Terminal	
B222	7	B213	6	Yes
	23		5	

4. Check continuity between driver seat control unit harness connector B222 and ground.

# LIFTING SWITCH (FRONT)

## < DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B222	7		
	23		

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

## 3. CHECK DRIVER SEAT CONTROL UNIT OUTPUT

1. Connect the driver seat control unit.
2. Turn ignition switch ON.
3. Check voltage between driver seat control unit harness connector B222 and ground.

(+)	Driver seat control unit	(-)	Voltage (Approx.)
Driver seat control unit			
Connector			
B222			

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit. Refer to [ADP-140, "Removal and Installation"](#).

## 4. CHECK LIFTING SWITCH (FRONT)

Refer to [ADP-84, "Component Inspection"](#).

### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace power seat switch LH. Refer to [ADP-143, "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-41, "Wiring Diagram"](#).

NO >> Repair or replace the malfunctioning part.

## Component Inspection

INFOID:0000000014391935

### 1. CHECK LIFTING SWITCH (FRONT)

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

Power seat switch LH		Condition	Continuity
Terminals			
3	6	Lifting switch front (down)	Operate
			Release
	5	Lifting switch front (up)	Operate
			Release

### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace power seat switch LH. Refer to [ADP-143, "Removal and Installation"](#).

# LIFTING SWITCH (REAR)

< DTC/CIRCUIT DIAGNOSIS >

## LIFTING SWITCH (REAR)

### Component Function Check

INFOID:0000000014391936

#### 1. DATA MONITOR

##### CONSULT

1. Select "Data Monitor" mode of "AUTO DRIVE POS.".
2. Select "LIFT RR SW-UP", "LIFT RR SW-DN".
3. Check that the function operates normally according to the following conditions:

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

Is the inspection result normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-85, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:0000000014391937

Regarding Wiring Diagram information, refer to [ADP-41, "Wiring Diagram"](#).

#### 1. CHECK LIFTING SWITCH (REAR) SIGNAL

1. Turn ignition switch OFF.
2. Check voltage between driver seat control unit harness connector B222 and ground.

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(+)		(-)	Condition	Voltage (Approx.)	
Connector	Terminal			Operate (down)	0 V
B222	6	Ground	Lifting switch (rear)	Release	Battery voltage
				Operate (up)	0 V
	22			Release	Battery voltage

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 2.

#### 2. CHECK LIFTING SWITCH (REAR) CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect driver seat control unit and power seat switch LH.
3. Check continuity between driver seat control unit harness connector B222 and power seat switch LH harness connector B213.

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Driver seat control unit		Power seat switch LH		Continuity
Connector	Terminal	Connector	Terminal	
B222	6	B213	2	Yes
	22		1	

4. Check continuity between driver seat control unit harness connector B222 and ground.

# LIFTING SWITCH (REAR)

## < DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B222	6		
	22		

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

## 3. CHECK DRIVER SEAT CONTROL UNIT OUTPUT

1. Connect the driver seat control unit.
2. Turn ignition switch ON.
3. Check voltage between driver seat control unit harness connector B222 and ground.

(+) Driver seat control unit		(-)	Voltage (Approx.)
Connector	Terminal		
B222	6		
	22		

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit. Refer to [ADP-140, "Removal and Installation"](#).

## 4. CHECK LIFTING SWITCH (REAR)

Refer to [ADP-86, "Component Inspection"](#).

### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace power seat switch LH. Refer to [ADP-143, "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-140, "Removal and Installation"](#).

NO >> Repair or replace the malfunctioning part.

## Component Inspection

INFOID:0000000014391938

### 1. CHECK LIFTING SWITCH (REAR)

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

Power seat switch LH		Condition	Continuity
Terminals			
3	1	Lifting switch rear (up)	Operate Yes
	1	Release	No
	2	Lifting switch rear (down)	Operate Yes
	2	Release	No

### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace power seat switch LH. Refer to [ADP-143, "Removal and Installation"](#).

# TI LT SWITCH

< DTC/CIRCUIT DIAGNOSIS >

## TI LT SWITCH

### Component Function Check

INFOID:0000000014391939

#### 1. DATA MONITOR

##### CONSULT

1. Select "Data Monitor" mode of "AUTO DRIVE POS.".
2. Select "TI LT SW-UP", "TI LT SW-DOWN".
3. Check that the function operates normally according to the following conditions:

Monitor item	Condition	Status
TI LT SW-UP	Operate	ON
	Release	OFF
TI LT SW-DOWN	Operate	ON
	Release	OFF

Is the inspection result normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-87, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:0000000014391940

Regarding Wiring Diagram information, refer to [ADP-41, "Wiring Diagram"](#).

#### 1. CHECK TI LT SWITCH SIGNAL

1. Disconnect ADP steering switch (tilt switch).
2. Check voltage between ADP steering switch harness connector M41 and ground.

(+)		(-)	Voltage (Approx.)
ADP steering switch (tilt switch)			
Connector	Terminal		
M41	2	Ground	Battery voltage
	5		

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

#### 2. CHECK TI LT SWITCH CIRCUIT

1. Disconnect automatic drive positioner control unit.
2. Check continuity between automatic drive positioner control unit harness connector M33 and ADP steering switch harness connector M41.

Automatic drive positioner control unit		ADP steering switch (tilt switch)		Continuity
Connector	Terminal	Connector	Terminal	
M33	1	M39	5	Yes
	13		2	

3. Check continuity between automatic drive positioner control unit harness connector M33 and ground.

# TIlt SWiCH

## < DTC/CiRCuiT DiAGNOSiS >

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

Is the inspection result normal?

YES >> Replace automatic drive positioner unit. Refer to [ADP-141, "Removal and Installation"](#).  
NO >> Repair or replace harness.

## 3. CHECK TiLT SWiCH

Refer to [ADP-88, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 4.  
NO >> Replace ADP steering switch (tilt switch). Refer to [ADP-144, "Removal and Installation"](#).

## 4. CHECK iNTERRuPTENT iNCiDENT

Refer to [GI-47, "Intermittent Incident"](#).

>> Inspection End.

## Component Inspection

INFOID:0000000014391941

### 1. CHECK TiLT SWiCH

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

ADP steering switch (tilt switch)		Condition	Continuity
Terminals			
1	5	Tilt switch (up)	Operate
			Release
	2	Tilt switch (down)	Operate
			Release

Is the inspection result normal?

YES >> Inspection End.  
NO >> Replace ADP steering switch (tilt switch). Refer to [ADP-144, "Removal and Installation"](#).

# TELESCOPIC SWITCH

< DTC/CIRCUIT DIAGNOSIS >

## TELESCOPIC SWITCH

### Component Function Check

INFOID:0000000014391942

#### 1. DATA MONITOR

##### CONSULT

1. Select "Data Monitor" mode of "AUTO DRIVE POS".
2. Select "TELESCO SW-FR", "TELESCO SW-RR".
3. Check that the function operates normally according to the following conditions:

Monitor item	Condition	Status
TELESCO SW-FR	Operate	ON
	Release	OFF
TELESCO SW-RR	Operate	ON
	Release	OFF

Is the inspection result normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-89, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:0000000014391943

Regarding Wiring Diagram information, refer to [ADP-41, "Wiring Diagram"](#).

#### 1. CHECK TELESCOPIC SWITCH SIGNAL

1. Disconnect ADP steering switch (telescopic switch).
2. Check voltage between ADP steering switch harness connector M41 and ground.

(+) ADP steering switch (telescopic switch)		(-)	Voltage (Approx.)
Connector	Terminal		
M41	1	Ground	Battery voltage
	6		

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.
2. Check continuity between automatic drive positioner control unit harness connector M33 and ADP steering switch harness connector M41.

Automatic drive positioner control unit		ADP steering switch (telescopic switch)		Continuity
Connector	Terminal	Connector	Terminal	
M33	7	M41	1	Yes
	19		6	

3. Check continuity between automatic drive positioner control unit harness connector M33 and ground.

# TELESCOPIC SWITCH

## < DTC/CIRCUIT DIAGNOSIS >

Automatic drive positioner control unit		Ground	Continuity
Connector	Terminal		
M33	7		
	19		

Is the inspection result normal?

YES >> Replace automatic drive positioner unit. Refer to [ADP-141, "Removal and Installation"](#).  
NO >> Repair or replace harness.

## 3. CHECK TELESCOPIC SWITCH

Refer to [ADP-90, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 4.  
NO >> Replace ADP steering switch (telescopic switch). Refer to [ADP-144, "Removal and Installation"](#).

## 4. CHECK INTERMITTENT INCIDENT

Refer to [GI-47, "Intermittent Incident"](#).

>> Inspection End.

## Component Inspection

INFOID:0000000014391944

### 1. CHECK TELESCOPIC SWITCH

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

ADP steering switch (telescopic switch)		Condition	Continuity	
Terminals			Operate	Release
1	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-144, "Removal and Installation"](#).

# SEAT MEMORY SWITCH

< DTC/CIRCUIT DIAGNOSIS >

## SEAT MEMORY SWITCH

### Component Function Check

INFOID:0000000014391945

#### 1. DATA MONITOR

##### CONSULT

1. Select "Data Monitor" mode of "AUTO DRIVE POS".
2. Select "MEMORY SW 1", "MEMORY SW 2", "SET SW".
3. Check that the function operates normally according to the following conditions:

Monitor item	Condition	Status
MEMORY SW 1	Memory switch 1	Push
		Release
MEMORY SW 2	Memory switch 2	Push
		Release
SET SW	Set switch	Push
		Release

Is the inspection result normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-91, "Diagnosis Procedure".](#)

### Diagnosis Procedure

INFOID:0000000014391946

Regarding Wiring Diagram information, refer to [ADP-41, "Wiring Diagram".](#)

#### 1. CHECK SEAT MEMORY SWITCH SIGNAL

1. Turn ignition switch OFF.
2. Disconnect seat memory switch.
3. Turn ignition switch ON.
4. Check voltage between seat memory switch harness connector D10 and ground.

(+) Seat memory switch		(-)	Voltage (Approx.)
Connector	Terminal		
D10	2	Ground	5 V
	10		
	16		

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

#### 2. CHECK MEMORY SWITCH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect driver seat control unit.
3. Check continuity between driver seat control unit harness connector B222 and seat memory switch harness connector D10.

## SEAT MEMORY SWITCH

### < DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit		Seat memory switch		Continuity
Connector	Terminal	Connector	Terminal	
B222	11	D10	16	Yes
	21		2	
	27		10	

4. Check continuity between driver seat control unit harness connector B222 and ground.

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B222	11		No
	21		
	27		

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-140, "Removal and Installation"](#).

NO >> Repair or replace harness.

### 3. CHECK MEMORY SWITCH GROUND CIRCUIT

Check continuity between seat memory switch harness connector D10 and ground.

Seat memory switch		Ground	Continuity
Connector	Terminal		
D10	9		Yes

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

### 4. CHECK SEAT MEMORY SWITCH

Refer to [ADP-92, "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-142, "Removal and Installation"](#).

### Component Inspection

INFOID:000000014391947

#### 1. CHECK SEAT MEMORY SWITCH

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

Seat memory switch		Condition	Continuity	
Terminals				
9	10	Memory switch 1	Push	Yes
			Release	No
	16	Memory switch 2	Push	Yes
			Release	No
	2	Set switch	Push	Yes
			Release	No

Is the inspection result normal?

YES >> Inspection End.

## SEAT MEMORY SWITCH

< DTC/CIRCUIT DIAGNOSIS >

NO    >> Replace seat memory switch. Refer to [ADP-142, "Removal and Installation".](#)

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# DOOR MIRROR REMOTE CONTROL SWITCH

< DTC/CIRCUIT DIAGNOSIS >

## DOOR MIRROR REMOTE CONTROL SWITCH SELECT SWITCH

### SELECT SWITCH : Component Function Check

INFOID:000000014391948

#### 1. DATA MONITOR

##### CONSULT

1. Select "Data Monitor" mode of "AUTO DRIVE POS.".
2. Select "MIR CHNG SW-R", "MIR CHNG SW-L".
3. Check that the function operates normally according to the following conditions:

Monitor item	Condition	Status
MIR CHNG SW-R	Operate	ON
	Release	OFF
MIR CHNG SW-L	Operate	ON
	Release	OFF

Is the inspection result normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-94, "SELECT SWITCH : Diagnosis Procedure".](#)

### SELECT SWITCH : Diagnosis Procedure

INFOID:000000014391949

Regarding Wiring Diagram information, refer to [ADP-41, "Wiring Diagram".](#)

#### 1. CHECK SELECT SWITCH SIGNAL

1. Turn ignition switch ON.
2. Check voltage between automatic drive positioner control unit connector M33 and ground.

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

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 2.

#### 2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect automatic drive positioner control unit and door mirror remote control switch.
3. Check continuity between automatic drive positioner control unit connector M33 and door mirror remote control switch connector D20.

Automatic drive positioner control unit		Door mirror remote control switch		Continuity
Connector	Terminal	Connector	Terminal	
M33	2	D20	11	Yes
	14		10	

# DOOR MIRROR REMOTE CONTROL SWITCH

## < DTC/CIRCUIT DIAGNOSIS >

4. Check continuity between automatic drive positioner control unit connector M33 and ground.

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

### 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 D20 and ground.

Door mirror remote control switch		Ground	Continuity
Connector	Terminal		
D20	7		Yes

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 4. CHECK SELECT SWITCH

Check select switch.

Refer to [ADP-95, "SELECT 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-38, "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-141, "Removal and Installation"](#).

NO >> Repair or replace the malfunctioning parts.

## SELECT SWITCH : Component Inspection

INFOID:000000014391950

### 1. CHECK SELECT SWITCH

Check door mirror remote control switch.

Door mirror remote control switch		Select switch condition	Continuity
Terminals			
10	7	LEFT	Yes
		Other than above	No
		RIGHT	Yes
		Other than above	No

### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace door mirror remote control switch. Refer to [MIR-38, "Removal and Installation"](#).

## MIRROR SWITCH

# DOOR MIRROR REMOTE CONTROL SWITCH

< DTC/CIRCUIT DIAGNOSIS >

## MIRROR SWITCH : Component Function Check

INFOID:0000000014391951

### 1. DATA MONITOR

#### CONSULT

1. Select "Data Monitor" mode of "AUTO DRIVE POS.".
2. Select "MIR CON SW-UP/DN", "MIR CON SW-RH/LH".
3. Check that the function operates normally according to the following conditions:

Monitor item	Condition	Status
MIR CON SW-UP/DN	Operate	ON
	Release	OFF
MIR CON SW-RH/LH	Operate	ON
	Release	OFF

Is the inspection result normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-96, "MIRROR SWITCH : Diagnosis Procedure".](#)

## MIRROR SWITCH : Diagnosis Procedure

INFOID:0000000014391952

Regarding Wiring Diagram information, refer to [ADP-41, "Wiring Diagram".](#)

### 1. CHECK MIRROR SWITCH FUNCTION

1. Turn ignition switch ON.
2. Check voltage between automatic drive positioner control unit connector M33 and ground.

(+)		(-)	Mirror switch condition	Voltage (Approx.)
Automatic drive positioner control unit				
Connector	Terminal			
M33	3	Ground	UP	0 V
			Other than above	5 V
	4		LEFT	0 V
			Other than above	5 V
	15		DOWN	0 V
			Other than above	5 V
	16		RIGHT	0 V
			Other than above	5 V

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 2.

### 2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect automatic drive positioner control unit and door mirror remote control switch.
3. Check continuity between automatic drive positioner control unit connector M33 and door mirror remote control switch connector D19.

# DOOR MIRROR REMOTE CONTROL SWITCH

## < DTC/CIRCUIT DIAGNOSIS >

Automatic drive positioner control unit		Door mirror remote control switch		Continuity
Connector	Terminal	Connector	Terminal	
M33	3	D19	15	Yes
	4		13	
	15		12	
	16		4	

4. Check continuity between automatic drive positioner control unit connector M33 and ground.

Automatic drive positioner control unit		Ground	Continuity
Connector	Terminal		
M33	3		No
	4		
	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 D20 and ground.

Door mirror remote control switch		Ground	Continuity
Connector	Terminal		
D20	7		Yes

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 4. CHECK MIRROR SWITCH

Check mirror switch.

Refer to [ADP-97, "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-38, "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-141, "Removal and Installation"](#).

NO >> Repair or replace the malfunctioning parts.

## MIRROR SWITCH : Component Inspection

INFOID:000000014391953

### 1. CHECK MIRROR SWITCH

Check door mirror remote control switch.

Door mirror remote control switch	Mirror switch condition	Continuity
Terminals		

## DOOR MIRROR REMOTE CONTROL SWITCH

### < DTC/CIRCUIT DIAGNOSIS >

4	7	RIGHT	Yes
		Other than above	No
13		LEFT	Yes
		Other than above	No
15		UP	Yes
		Other than above	No
12		DOWN	Yes
		Other than above	No

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace door mirror remote control switch. Refer to [MIR-38, "Removal and Installation".](#)

# POWER SEAT SWITCH GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## POWER SEAT SWITCH GROUND CIRCUIT

### Diagnosis Procedure

INFOID:000000014391954

Regarding Wiring Diagram information, refer to [ADP-41, "Wiring Diagram"](#).

#### 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 B213 and ground.

Power seat switch LH		Ground	Continuity
Connector	Terminal		
B213	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:0000000014391955

Regarding Wiring Diagram information, refer to [ADP-41, "Wiring Diagram"](#).

#### 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) connector M41 and ground.

ADP steering switch (tilt & telescopic switch)		Ground	Continuity
Connector	Terminal		
M41	7		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

### Component Function Check

INFOID:0000000014391956

#### 1. DATA MONITOR

##### CONSULT

1. Select "Data Monitor" mode of "AUTO DRIVE POS.".
2. Select "SLIDE PULSE".
3. Check that the function operates normally according to the following conditions:

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

Is the inspection result normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-101, "Diagnosis Procedure".](#)

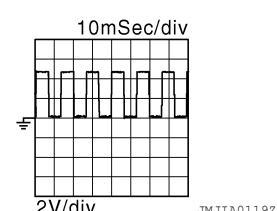
### Diagnosis Procedure

INFOID:0000000014391957

Regarding Wiring Diagram information, refer to [ADP-41, "Wiring Diagram".](#)

#### 1. CHECK SLIDING SENSOR SIGNAL

1. Turn ignition switch ON.
2. Read voltage signal between driver seat control unit harness connector B222 and ground with oscilloscope.

(+) Driver's seat control unit		(-)	Condition		Voltage signal
Connector	Terminal				
B222	31	Ground	Seat sliding	Operate	
				Other than above	0 V or 5 V

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-140, "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.
3. Check continuity between driver seat control unit harness connector B222 and sliding motor LH harness connector B226.

# SLIDING SENSOR

## < DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit		Sliding motor LH		Continuity
Connector	Terminal	Connector	Terminal	
B222	31	B226	2	Yes

4. Check continuity between driver seat control unit harness connector B222 and ground.

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B222	31		No

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

## 3. CHECK SLIDING SENSOR POWER SUPPLY

1. Connect driver seat control unit.
2. Turn ignition switch ON.
3. Check voltage between sliding motor LH harness connector B226 and ground.

(+)		(-)	Voltage (Approx.)		
Sliding motor LH					
Connector	Terminal				
B226	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.
3. Check continuity between driver seat control unit harness connector B222 and sliding motor LH harness connector B226.

Driver seat control unit		Sliding motor LH		Continuity
Connector	Terminal	Connector	Terminal	
B222	5	B226	4	Yes

4. Check continuity between driver seat control unit harness connector B222 and ground.

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B222	5		No

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-140, "Removal and Installation"](#).

NO >> Repair or replace harness.

## 5. CHECK SLIDING SENSOR GROUND

1. Turn ignition switch OFF.
2. Check continuity between sliding motor LH harness connector B226 and ground.

Sliding motor LH		Ground	Continuity
Connector	Terminal		
B226	3		Yes

## SLIDING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES    >> Replace sliding motor LH. Refer to [SE-100, "Removal and Installation - Captain Seats"](#), or [SE-101, "Removal and Installation - Center Seat"](#).

NO    >> Repair or replace harness.

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# RECLINING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

## RECLINING SENSOR

### Component Function Check

INFOID:0000000014391958

#### 1. DATA MONITOR

##### CONSULT

1. Select "Data Monitor" mode of "AUTO DRIVE POS.".
2. Select "RECLN PULSE".
3. Check that the function operates normally according to the following conditions:

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

Is the inspection result normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-104, "Diagnosis Procedure"](#).

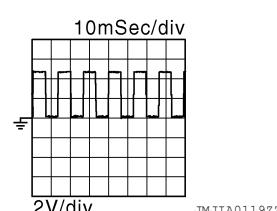
### Diagnosis Procedure

INFOID:0000000014391959

Regarding Wiring Diagram information, refer to [ADP-41, "Wiring Diagram"](#).

#### 1. CHECK RECLINING SENSOR SIGNAL

1. Turn ignition switch ON.
2. Read voltage signal between driver seat control unit harness connector B222 and ground with oscilloscope.

(+)		(-)	Condition	Voltage signal
Driver seat control unit	Connector			
B222	13	Ground	Seat reclining	Operate
				Other than above
				 JMJA01192Z
				0 V or 5 V

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-140, "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.
3. Check continuity between driver seat control unit harness connector B222 and reclining motor LH harness connector B225.

# RECLINING SENSOR

## < DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit		Reclining motor LH		Continuity
Connector	Terminal	Connector	Terminal	
B222	13	B225	1	Yes

4. Check continuity between driver seat control unit harness connector B222 and ground.

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B222	13		No

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

## 3. CHECK RECLINING SENSOR POWER SUPPLY

1. Connect driver seat control unit.
2. Turn ignition switch ON.
3. Check voltage between reclining motor LH harness connector B225 and ground.

(+) Reclining motor LH		(-)	Voltage (Approx.)
Connector	Terminal		
B225	3	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

## 4. CHECK RECLINING SENSOR POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect driver seat control unit.
3. Check continuity between driver seat control unit harness connector B222 and reclining motor LH harness connector B225.

Driver seat control unit		Reclining motor LH		Continuity
Connector	Terminal	Connector	Terminal	
B222	5	B225	3	Yes

4. Check continuity between driver seat control unit harness connector B222 and ground.

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B222	5		No

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-140, "Removal and Installation"](#).

NO >> Repair or replace harness.

## 5. CHECK RECLINING SENSOR GROUND

1. Turn ignition switch OFF.
2. Check continuity between reclining motor LH harness connector B225 and ground.

Reclining motor LH		Ground	Continuity
Connector	Terminal		
B225	2		Yes

## RECLINING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES    >> Replace reclining motor LH. Refer to [SE-100, "Removal and Installation - Captain Seats"](#), or [SE-101, "Removal and Installation - Center Seat"](#).

NO    >> Repair or replace harness.

# LIFTING SENSOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

## LIFTING SENSOR (FRONT)

### Component Function Check

INFOID:0000000014391960

#### 1. DATA MONITOR

##### CONSULT

1. Select "Data Monitor" mode of "AUTO DRIVE POS.".
2. Select "LIFT FR PULSE".
3. Check that the function operates normally according to the following conditions:

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

Is the inspection result normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-107, "Diagnosis Procedure".](#)

### Diagnosis Procedure

INFOID:0000000014391961

Regarding Wiring Diagram information, refer to [ADP-41, "Wiring Diagram".](#)

#### 1. CHECK LIFTING SENSOR (FRONT) SIGNAL

1. Turn ignition switch ON.
2. Read the voltage signal between driver seat control unit harness connector B222 and ground with an oscilloscope.

(+)		(-)	Condition	Voltage signal
Driver seat control unit	Connector			
B222	30	Ground	Seat lifting (front)	Operate
				Other than above

10mSec/div  
2V/div  
JMJI01192Z

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

#### 2. CHECK LIFTING SENSOR (FRONT) CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect driver seat control unit and lifting motor LH (front).
3. Check continuity between driver seat control unit harness connector B222 and lifting motor LH (front) harness connector B227.

# LIFTING SENSOR (FRONT)

## < DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit		Lifting motor LH (front)		Continuity
Connector	Terminal	Connector	Terminal	
B222	30	B227	1	Yes

4. Check continuity between driver seat control unit harness connector B222 and ground.

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B222	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.
2. Turn ignition switch ON.
3. Check voltage between lifting motor LH (front) harness connector B227 and ground.

(+) Lifting motor LH (front)		(-)	Voltage (Approx.)
Connector	Terminal		
B227	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.
3. Check continuity between driver seat control unit harness connector B222 and lifting motor LH (front) harness connector B227.

Driver seat control unit		Lifting motor LH (front)		Continuity
Connector	Terminal	Connector	Terminal	
B222	5	B227	3	Yes

4. Check continuity between driver seat control unit harness connector B222 and ground.

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B222	5		No

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-140, "Removal and Installation"](#).

NO >> Repair or replace harness.

## 5. CHECK LIFTING SENSOR (FRONT) GROUND

1. Turn ignition switch OFF.
2. Check continuity between lifting motor LH (front) harness connector B227 and ground.

Lifting motor LH (front)		Ground	Continuity
Connector	Terminal		
B227	2		Yes

## LIFTING SENSOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES    >> Replace lifting motor LH (front). Refer to [SE-100, "Removal and Installation - Captain Seats"](#), or [SE-101, "Removal and Installation - Center Seat"](#).

NO    >> Repair or replace harness.

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# LIFTING SENSOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

## LIFTING SENSOR (REAR)

### Component Function Check

INFOID:0000000014391962

#### 1. DATA MONITOR

##### CONSULT

1. Select "Data Monitor" mode of "AUTO DRIVE POS.".
2. Select "LIFT RR PULSE".
3. Check lifting sensor (rear) signal under the following conditions:

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

Is the inspection result normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-110, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:0000000014391963

Regarding Wiring Diagram information, refer to [ADP-41, "Wiring Diagram"](#).

#### 1. CHECK LIFTING SENSOR (REAR) SIGNAL

1. Turn ignition switch ON.
2. Read voltage signal between driver seat control unit harness connector B222 and ground with oscilloscope.

(+)		(-)	Condition	Voltage signal
Driver seat control unit	Connector			
B222	29	Ground	Seat lifting (rear)	Operate
				Other than above

10mSec/div  
2V/div  
JMJIA0119Z2

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-140, "Removal and Installation"](#).

NO >> GO TO 2.

#### 2. CHECK LIFTING SENSOR (REAR) CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect driver seat control unit and lifting motor LH (rear).
3. Check the continuity between driver seat control unit harness connector B222 and lifting motor LH (rear) harness connector B228.

## LIFTING SENSOR (REAR)

### < DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit		Lifting motor LH (rear)		Continuity
Connector	Terminal	Connector	Terminal	
B222	29	B228	1	Yes

4. Check the continuity between driver seat control unit harness connector B222 and ground.

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B222	29		No

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

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

1. Connect driver seat control unit.
2. Turn ignition switch ON.
3. Check the voltage between lifting motor LH (rear) harness connector B228 and ground.

(+)		(-)	Voltage (Approx.)
Lifting motor LH (rear)			
Connector	Terminal	Ground	Battery voltage
B228	3		

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

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

1. Turn ignition switch OFF.
2. Disconnect driver seat control unit.
3. Check the continuity between driver seat control unit harness connector B222 and lifting motor LH (rear) harness connector B228.

Driver seat control unit		Lifting motor LH (rear)		Continuity
Connector	Terminal	Connector	Terminal	
B222	5	B228	3	Yes

4. Check the continuity between driver seat control unit harness connector B222 and ground.

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B222	5		No

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-41, "Wiring Diagram"](#).

NO >> Repair or replace harness.

### 5. CHECK LIFTING SENSOR (REAR) GROUND

1. Turn ignition switch OFF.
2. Check the continuity between lifting motor LH (rear) harness connector B228 and ground.

Lifting motor LH (rear)		Ground	Continuity
Connector	Terminal		
B228	2		Yes

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## LIFTING SENSOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES    >> Replace lifting motor LH (rear). Refer to [SE-100, "Removal and Installation - Captain Seats"](#), or [SE-101, "Removal and Installation - Center Seat"](#).

NO    >> Repair or replace harness.

# TIlt Sensor

< DTC/CIRCUIT DIAGNOSIS >

## TIlt Sensor

### Component Function Check

INFOID:0000000014391964

#### 1. DATA MONITOR

##### CONSULT

1. Select "Data Monitor" mode of "AUTO DRIVE POS.".
2. Select "TIlt PULSE".
3. Check that the function operates normally according to the following conditions:

Monitor item	Condition	Value
TIlt PULSE	Operate (UP-WARD)	Change (decrease)
	Operate (DOWN-WARD)	Change (increase)
	Release	No change

Is the inspection result normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-113, "Diagnosis Procedure"](#).

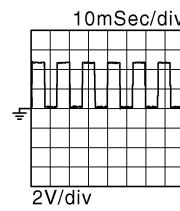
### Diagnosis Procedure

INFOID:0000000014391965

Regarding Wiring Diagram information, refer to [ADP-41, "Wiring Diagram"](#).

#### 1. CHECK TIlt SENSOR SIGNAL

1. Turn ignition switch ON.
2. Check voltage signal between driver seat control unit connector B222 and ground with oscilloscope.

(+)		(-)	Condition	Voltage (Approx.)	ADP
Driver seat control unit	Connector				
B222	28	Ground	Steering column	Operate	 JMJIA01192Z
				Other than above	0 V or 5 V

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-140, "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.
3. Check continuity between driver seat control unit harness connector B222 and tilt motor harness connector M94.

Driver seat control unit		Tilt motor		Continuity
Connector	Terminal	Connector	Terminal	
B222	28	M94	5	Yes

# TIlt Sensor

## < DTC/CIRCUIT DIAGNOSIS >

- Check continuity between driver seat control unit harness connector B222 and ground.

Driver seat control unit		Ground	Continuity
Connector	Terminal		No
B222	28		

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

## 3. CHECK TIlt SENSOR POWER SUPPLY

- Connect driver seat control unit.
- Turn ignition switch ON.
- Check voltage between tilt motor harness connector M94 and ground.

(+)		(-)	Voltage (V) (Approx.)		
Tilt motor					
Connector	Terminal				
M94	6	Ground	Battery voltage		

### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

## 4. CHECK TIlt SENSOR POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- Disconnect automatic drive positioner control unit.
- Check continuity between automatic drive positioner control unit harness connector M34 and tilt motor harness connector M94.

Automatic drive positioner control unit		Tilt motor		Continuity
Connector	Terminal	Connector	Terminal	
M34	27	M94	6	Yes

- Check continuity between automatic drive positioner control unit harness connector M34 and ground.

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

### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to [ADP-141, "Removal and Installation"](#).

NO >> Repair or replace harness or connector.

## 5. CHECK TIlt SENSOR GROUND CIRCUIT

- Turn ignition switch OFF.
- Disconnect automatic drive positioner control unit.
- Check continuity between automatic drive positioner control unit harness connector M33 and tilt motor harness connector M94.

Automatic drive positioner control unit		Tilt motor		Continuity
Connector	Terminal	Connector	Terminal	
M33	20	M94	2	Yes

### Is the inspection result normal?

YES >> Replace tilt motor. Refer to [ST-39, "Removal and Installation"](#).

NO >> Repair or replace harness.

# TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

## TELESCOPIC SENSOR

### Component Function Check

INFOID:0000000014391966

#### 1. DATA MONITOR

##### CONSULT

1. Select "Data Monitor" mode of "AUTO DRIVE POS.".
2. Select "TELESCO PULSE".
3. Check that the function operates normally according to the following conditions:

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

Is the inspection result normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-115, "Diagnosis Procedure"](#).

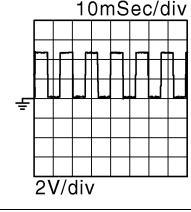
### Diagnosis Procedure

INFOID:0000000014391967

Regarding Wiring Diagram information, refer to [ADP-41, "Wiring Diagram"](#).

#### 1. CHECK TELESCOPIC SENSOR SIGNAL

1. Turn ignition switch ON.
2. Check voltage signal between driver seat control unit connector B222 and ground with oscilloscope.

( + )		(-)	Condition	Voltage (Approx.)	ADP
Driver seat control unit	Connector				
B222	12	Ground	Steering column	Operate	 JMJIA01192Z
				Other than above	0 V or 5 V

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to [ADP-140, "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.
3. Check continuity between driver seat control unit harness connector B222 and telescopic motor harness connector M94.

Driver seat control unit		Telescopic motor		Continuity
Connector	Terminal	Connector	Terminal	
B222	12	M94	9	Yes

# TELESCOPIC SENSOR

## < DTC/CIRCUIT DIAGNOSIS >

- Check continuity between driver seat control unit harness connector B222 and ground.

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B222	12		No

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

## 3. CHECK TELESCOPIC SENSOR POWER SUPPLY

- Connect driver seat control unit.
- Turn ignition switch ON.
- Check voltage between telescopic motor harness connector M94 and ground.

(+)		(-)	Voltage (Approx.)		
Telescopic motor					
Connector	Terminal				
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.
- Disconnect automatic drive positioner control unit.
- Check continuity between automatic drive positioner control unit harness connector M34 and telescopic motor harness connector M94.

Automatic drive positioner control unit		Telescopic motor		Continuity
Connector	Terminal	Connector	Terminal	
M34	27	M94	10	Yes

- Check continuity between automatic drive positioner control unit harness connector M34 and ground.

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

### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to [ADP-141, "Removal and Installation"](#).  
NO >> Repair or replace harness.

## 5. CHECK TELESCOPIC SENSOR GROUND CIRCUIT

- Turn ignition switch OFF.
- Disconnect automatic drive positioner control unit.
- Check continuity between automatic drive positioner control unit harness connector M33 and telescopic motor harness connector M94.

Automatic drive positioner control unit		Telescopic motor		Continuity
Connector	Terminal	Connector	Terminal	
M33	20	M94	3	Yes

### Is the inspection result normal?

YES >> Replace telescopic motor. Refer to [ST-38, "Exploded View"](#).  
NO >> Repair or replace harness.

# MIRROR SENSOR

< DTC/CIRCUIT DIAGNOSIS >

## MIRROR SENSOR

### DRIVER SIDE

#### DRIVER SIDE : Component Function Check

INFOID:000000014391968

##### 1. DATA MONITOR

###### CONSULT

1. Select "Data Monitor" mode of "AUTO DRIVE POS.".
2. Select "MIR/SEN LH U-D", "MIR/SEN LH R-L".
3. Check that the function operates normally according to the following conditions:

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

Is the inspection result normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-117, "DRIVER SIDE : Diagnosis Procedure".](#)

#### DRIVER SIDE : Diagnosis Procedure

INFOID:000000014391969

Regarding Wiring Diagram information, refer to [ADP-41, "Wiring Diagram".](#)

##### 1. CHECK DOOR MIRROR LH SENSOR SIGNAL

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

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(+)	Door mirror LH	(-)	Condition	Voltage (Approx.)	
Connector					
D4	16	Ground	Close to peak	3.4 V	
			Close to valley	0.6 V	
	15		Close to right edge	3.4 V	
			Close to left edge	0.6 V	

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.
2. Disconnect automatic drive positioner control unit and door mirror LH connector D4.
3. Check continuity between automatic drive positioner control unit harness connector M33 and door mirror LH harness connector D4.

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Automatic drive positioner control unit		Door mirror LH		Continuity
Connector	Terminal	Connector	Terminal	
M33	6	D4	16	Yes
	18		15	

# MIRROR SENSOR

## < DTC/CIRCUIT DIAGNOSIS >

- Check continuity between automatic drive positioner control unit harness connector M33 and ground.

Automatic drive positioner control unit		Ground	Continuity
Connector	Terminal		
M33	6		No
	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 M33 and door mirror LH harness connector D4.

Automatic drive positioner control unit		Door mirror LH		Continuity
Connector	Terminal	Connector	Terminal	
M33	20	D4	13	
	21		14	

- Check continuity between automatic drive positioner control unit harness connector M33 and ground.

Automatic drive positioner control unit		Ground	Continuity
Connector	Terminal		
M33	20		Yes
	21		

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 4. CHECK TILT MOTOR ADJUSTING OPERATION

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

### Is the operation normal?

YES >> Replace door mirror actuator (built into door mirror LH). Refer to [MIR-36, "Removal and Installation".](#)

NO >> Replace automatic drive positioner control unit. Refer to [ADP-141, "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-141, "Removal and Installation".](#)

NO >> Repair or replace the malfunctioning part.

## PASSENGER SIDE

### PASSENGER SIDE : Component Function Check

INFOID:0000000014391970

#### 1. CHECK FUNCTION

##### CONSULT

- Select "Data Monitor" mode of "AUTO DRIVE POS.".
- Select "MIR/SEN RH U-D", "MIR/SEN RH R-L".
- Check that the function operates normally according to the following conditions:

# MIRROR SENSOR

## < DTC/CIRCUIT DIAGNOSIS >

Monitor item	Condition	Value
MIR/SEN RH U-D MIR/SEN RH R-L	Door mirror RH	Close to peak
		Close to valley
		Close to right edge
		Close to left edge

### Is the inspection result normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-119, "PASSENGER SIDE : Diagnosis Procedure".](#)

## PASSENGER SIDE : Diagnosis Procedure

INFOID:000000014391971

Regarding Wiring Diagram information, refer to [ADP-41, "Wiring Diagram".](#)

### 1. CHECK DOOR MIRROR RH SENSOR SIGNAL

1. Turn ignition switch to ACC.
2. Check voltage between door mirror RH harness connector D107 and ground.

(+) Door mirror RH		(-)	Condition	Voltage (Approx.)
Connector	Terminal			
D107	16	Ground	Close to peak	3.4 V
	15		Close to valley	0.6 V
			Close to right edge	3.4 V
			Close to left edge	0.6 V

### 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 M33 and door mirror RH harness connector D107.

Automatic drive positioner control unit		Door mirror RH		Continuity
Connector	Terminal	Connector	Terminal	
M33	5	D107	16	Yes
	17		15	

4. Check continuity between automatic drive positioner control unit harness connector M33 and ground.

Automatic drive positioner control unit		Ground	Continuity
Connector	Terminal		
M33	5		No
	17		

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# MIRROR SENSOR

< DTC/CIRCUIT DIAGNOSIS >

## 3. CHECK DOOR MIRROR RH SENSOR CIRCUIT 2

1. Check continuity between automatic drive positioner control unit harness connector M33 and door mirror RH harness connector D107.

Automatic drive positioner control unit		Door mirror LH		Continuity
Connector	Terminal	Connector	Terminal	
M33	20	D107	13	Yes
	21		14	

2. Check continuity between automatic drive positioner control unit harness connector M33 and ground.

Automatic drive positioner control unit		Ground	Continuity
Connector	Terminal		
M33	20		
	21		

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 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 into door mirror RH). Refer to [MIR-36, "Removal and Installation"](#).

NO >> Replace automatic drive positioner control unit. Refer to [ADP-141, "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-141, "Removal and Installation"](#).

NO >> Repair or replace the malfunctioning part.

# SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

## SLIDING MOTOR

### Component Function Check

INFOID:0000000014391972

#### 1. ACTIVE TEST

##### CONSULT

1. Select "Active Test" mode of "AUTO DRIVE POS.".
2. Select "SEAT SLIDE".
3. Check that the function operates normally.

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

Is the operation of relevant parts normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-121, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:0000000014391973

Regarding Wiring Diagram information, refer to [ADP-41, "Wiring Diagram"](#).

#### 1. CHECK SLIDING MOTOR LH POWER SUPPLY

##### CONSULT

1. Turn the ignition switch to ACC.
2. Perform "SEAT SLIDE" in "Active Test" mode of "AUTO DRIVE POS.".
3. Check voltage between driver seat control unit harness connector B223 and ground.

(+)		(-)	Condition	Voltage (Approx.)	
Driver seat control unit	Connector				
B223	36	Ground	SEAT SLIDE	OFF	
			FR (forward)	0 V	
			RR (backward)	Battery voltage	
	44		OFF	0 V	
			FR (forward)	Battery voltage	
			RR (backward)	0 V	

Is the inspection result normal?

YES >> Replace sliding motor LH. Refer to [SE-100, "Removal and Installation - Captain Seats"](#), or [SE-101, "Removal and Installation - Center Seat"](#).

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.
3. Check continuity between driver seat control unit harness connector B223 and sliding motor LH harness connector B226.

## SLIDING MOTOR

### < DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit		Sliding motor LH		Continuity
Connector	Terminal	Connector	Terminal	
B223	36	B226	1	Yes
	44		5	

4. Check continuity between driver seat control unit harness connector B223 and ground.

Driver seat control unit connector		Ground	Continuity
Connector	Terminal		
B223	36		No
	44		

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-140, "Removal and Installation"](#).

NO >> Repair or replace the malfunctioning part.

# RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

## RECLINING MOTOR

### Component Function Check

INFOID:0000000014391974

#### 1. ACTIVE TEST

##### CONSULT

1. Select "Active Test" mode of "AUTO DRIVE POS.".
2. Select "SEAT RECLINING".
3. Check that the function operates normally.

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 [ADP-123, "Diagnosis Procedure".](#)

### Diagnosis Procedure

INFOID:0000000014391975

Regarding Wiring Diagram information, refer to [ADP-41, "Wiring Diagram".](#)

#### 1. CHECK RECLINING MOTOR LH POWER SUPPLY

##### CONSULT

1. Turn the ignition switch to ACC.
2. Perform "SEAT RECLINING" in "Active Test" mode of "AUTO DRIVE POS.".
3. Check voltage between driver seat control unit harness connector B223 and ground.

(+)		(-)	Condition	Voltage (Approx.)	
Connector	Terminal				
B223	35	Ground	OFF	0 V	
			FR (forward)	0 V	
			RR (backward)	Battery voltage	
	43		OFF	0 V	
			FR (forward)	Battery voltage	
			RR (backward)	0 V	

Is the inspection result normal?

YES >> Replace reclining motor LH. Refer to [SE-100, "Removal and Installation - Captain Seats",](#) or [SE-101, "Removal and Installation - Center Seat".](#)

NO >> GO TO 2.

#### 2. CHECK RECLINING MOTOR LH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect driver seat control unit and reclining motor LH.
3. Check continuity between driver seat control unit harness connector B223 and reclining motor LH harness connector B225.

## RECLINING MOTOR

### < DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit		Reclining motor LH		Continuity
Connector	Terminal	Connector	Terminal	
B223	35	B225	6	Yes
	43		4	

4. Check continuity between driver seat control unit harness connector B223 and ground.

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B223	35		No
	43		

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-140, "Removal and Installation"](#).

NO >> Repair or replace the malfunctioning part.

# LIFTING MOTOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

## LIFTING MOTOR (FRONT)

### Component Function Check

INFOID:0000000014391976

#### 1. ACTIVE TEST

##### CONSULT

1. Select "Active Test" mode of "AUTO DRIVE POS".
2. Select "SEAT LIFTER FR".
3. Check that the function operates normally.

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

Is the operation of relevant parts normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-125, "Diagnosis Procedure".](#)

### Diagnosis Procedure

INFOID:0000000014391977

Regarding Wiring Diagram information, refer to [ADP-41, "Wiring Diagram".](#)

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

##### CONSULT

1. Turn the ignition switch to ACC.
2. Perform "SEAT LIFTER FR" in "Active Test" mode of "AUTO DRIVE POS".
3. Check voltage between driver seat control unit harness connector B223 and ground.

(+)		(-)	Condition	Voltage (Approx.)	
Driver seat control unit	Connector				
B223	34	Ground	OFF	0 V	
			UP	0 V	
			DWN (down)	Battery voltage	
	42		OFF	0 V	
			UP	Battery voltage	
			DWN (down)	0 V	

Is the inspection result normal?

YES >> Replace lifting motor LH (front). Refer to [SE-100, "Removal and Installation - Captain Seats", SE-101, "Removal and Installation - Center Seat".](#)

NO >> GO TO 2.

#### 2. CHECK LIFTING MOTOR LH (FRONT) CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect driver seat control unit and lifting motor LH (front).
3. Check continuity between driver seat control unit harness connector B223 and lifting motor LH (front) harness connector B227.

## LIFTING MOTOR (FRONT)

### < DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit		Lifting motor LH (front)		Continuity
Connector	Terminal	Connector	Terminal	
B223	34	B227	6	Yes
	42		4	

4. Check continuity between driver seat control unit harness connector B223 and ground.

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B223	34		
	42		

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-140, "Removal and Installation"](#).

NO >> Repair or replace the malfunctioning part.

# LIFTING MOTOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

## LIFTING MOTOR (REAR)

### Component Function Check

INFOID:0000000014391978

#### 1. ACTIVE TEST

##### CONSULT

1. Select "Active Test" mode of "AUTO DRIVE POS.".
2. Select "SEAT LIFTER RR".
3. Check that the function operates normally.

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

Is the operation of relevant parts normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-127, "Diagnosis Procedure".](#)

### Diagnosis Procedure

INFOID:0000000014391979

Regarding Wiring Diagram information, refer to [ADP-41, "Wiring Diagram".](#)

#### 1. CHECK LIFTING MOTOR LH (REAR) POWER SUPPLY

##### CONSULT

1. Turn the ignition switch to ACC.
2. Perform "SEAT LIFTER RR" in "Active Test" mode of "AUTO DRIVE POS.".
3. Check voltage between driver seat control unit harness connector B223 and ground.

(+)		(-)	Condition	Voltage (Approx.)	
Driver seat control unit	Terminal				
Connector	Terminal				
B223	40	Ground	SEAT LIFTER RR	OFF	
			UP	0 V	
			DWN (down)	Battery voltage	
	41		OFF	0 V	
			UP	Battery voltage	
			DWN (down)	0 V	

Is the inspection result normal?

YES >> Replace lifting motor LH (rear). Refer to [SE-100, "Removal and Installation - Captain Seats", SE-101, "Removal and Installation - Center Seat".](#)

NO >> GO TO 2.

#### 2. CHECK LIFTING MOTOR (REAR) CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect driver seat control unit and lifting motor LH (rear).
3. Check continuity between driver seat control unit harness connector B223 and lifting motor LH (rear) harness connector B228.

## LIFTING MOTOR (REAR)

### < DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit		Lifting motor LH (rear)		Continuity
Connector	Terminal	Connector	Terminal	
B223	41	B228	6	Yes
	40		4	

4. Check continuity between driver seat control unit harness connector B223 and ground.

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B223	41		No
	40		

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-140, "Removal and Installation"](#).

NO >> Repair or replace the malfunctioning part.

# TILT MOTOR

< DTC/CIRCUIT DIAGNOSIS >

## TILT MOTOR

### Component Function Check

INFOID:0000000014391980

#### 1. ACTIVE TEST

##### CONSULT

1. Select "Active Test" mode of "AUTO DRIVE POS".
2. Select "TILT MOTOR".
3. Check that the function operates normally.

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

Is the operation of relevant parts normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-129, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:0000000014391981

Regarding Wiring Diagram information, refer to [ADP-41, "Wiring Diagram"](#).

#### 1. CHECK TILT MOTOR POWER SUPPLY

##### CONSULT

1. Turn ignition switch OFF.
2. Disconnect tilt motor.
3. Turn the ignition switch ON.
4. Select "TILT MOTOR" in "Active Test" mode of "AUTO DRIVE POS".
5. Check voltage between tilt motor harness connector M94 and ground.

(+)		(-)	Condition	Voltage (Approx.)	
Connector	Terminal				
M94	1	Ground	OFF	0 V	
			UP	0 V	
			DWN (down)	Battery voltage	
	7		OFF	0 V	
			UP	Battery voltage	
			DWN (down)	0 V	

Is the inspection result normal?

YES >> Replace tilt motor. Refer to [ST-38, "Exploded View"](#).

NO >> GO TO 2.

#### 2. CHECK TILT MOTOR CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect automatic drive positioner control unit.
3. Check continuity between automatic drive positioner control unit harness connector M34 and tilt motor harness connector M94.

## TILT MOTOR

### < DTC/CIRCUIT DIAGNOSIS >

Automatic drive positioner control unit		Tilt motor		Continuity
Connector	Terminal	Connector	Terminal	
M34	28	M94	1	Yes
	29		7	

4. Check continuity between automatic drive positioner control unit harness connector M34 and ground.

Automatic drive positioner control unit		Ground	Continuity
Connector	Terminal		
M34	28		No
	29		

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to [ADP-141, "Removal and Installation"](#).  
NO >> Repair or replace harness.

# TELESCOPIC MOTOR

< DTC/CIRCUIT DIAGNOSIS >

## TELESCOPIC MOTOR

### Component Function Check

INFOID:0000000014391982

#### 1. ACTIVE TEST

##### CONSULT

1. Select "Active Test" mode of "AUTO DRIVE POS.".
2. Select "TELESCO MOTOR".
3. Check that the function operates normally.

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

Is the operation of relevant parts normal?

YES >> Inspection End.

NO >> Perform diagnosis procedure. Refer to [ADP-131, "Diagnosis Procedure".](#)

### Diagnosis Procedure

INFOID:0000000014391983

Regarding Wiring Diagram information, refer to [ADP-41, "Wiring Diagram".](#)

#### 1. CHECK TELESCOPIC MOTOR POWER SUPPLY

##### CONSULT

1. Turn ignition switch OFF.
2. Disconnect telescopic motor.
3. Turn the ignition switch ON.
4. Perform "TELESCO MOTOR" in "Active Test" mode of "AUTO DRIVE POS".
5. Check voltage between telescopic motor harness connector M94 and ground.

ADP

(+)		(-)	Condition	Voltage (Approx.)	
Connector	Terminal				
M94	4	Ground	TELESCOPIC MOTOR	OFF	
			FR (forward)	0 V	
			RR (backward)	Battery voltage	
	8		OFF	0 V	
			FR (forward)	Battery voltage	
			RR (backward)	0 V	

Is the inspection result normal?

YES >> Replace telescopic motor. Refer to [ST-38, "Exploded View".](#)

NO >> GO TO 2.

#### 2. CHECK TELESCOPIC MOTOR CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect automatic drive positioner control unit.
3. Check continuity between automatic drive positioner control unit harness connector M34 and telescopic motor harness connector M94.

## TELESCOPIC MOTOR

### < DTC/CIRCUIT DIAGNOSIS >

Automatic drive positioner control unit		Telescopic motor		Continuity
Connector	Terminal	Connector	Terminal	
M34	29	M94	8	Yes
	26		4	

4. Check continuity between automatic drive positioner control unit harness connector M34 and ground.

Automatic drive positioner control unit		Ground	Continuity
Connector	Terminal		
M34	29		No
	26		

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to [ADP-141, "Removal and Installation"](#).  
NO >> Repair or replace harness.

# DOOR MIRROR MOTOR

< DTC/CIRCUIT DIAGNOSIS >

## DOOR MIRROR MOTOR

### Component Function Check

INFOID:0000000014391984

#### 1. ACTIVE TEST

##### CONSULT

1. Select "Active Test" mode of "AUTO DRIVE POS".
2. Select "MIRROR MOTOR RH" and "MIRROR MOTOR LH".
3. Check that the function operates normally.

Test item		Description	
MIRROR MOTOR LH	UP	Door mirror (driver side)	Upward
	DN		Downward
	LH		Leftward
	RH		Rightward
	OFF		Stop
MIRROR MOTOR RH	UP	Door mirror (passenger side)	Upward
	DN		Downward
	LH		Leftward
	RH		Rightward
	OFF		Stop

Is the inspection result normal?

YES >> Door mirror motor function is OK.  
NO >> Refer to [ADP-133, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:0000000014391985

ADP

Regarding Wiring Diagram information, refer to [ADP-41, "Wiring Diagram"](#).

#### 1. CHECK DOOR MIRROR MOTOR INPUT SIGNAL

1. Turn ignition switch ON.
2. Check voltage between door mirror connector D4, D107, and ground.

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

Is the inspection result normal?

YES >> Refer to [ADP-135, "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.

# DOOR MIRROR MOTOR

## < DTC/CIRCUIT DIAGNOSIS >

3. Check continuity between automatic drive positioner control unit connector M33 and door mirror connector D4, or D107.

Door mirror LH

Automatic drive positioner control unit		Door mirror LH			Continuity
Connector	Terminal	Connector	Terminal		
M33	12	D4	3	Yes	
	23		1		
	24		2		

Door mirror RH

Automatic drive positioner control unit		Door mirror RH			Continuity
Connector	Terminal	Connector	Terminal		
M33	10	D107	1	Yes	
	11		2		
	22		3		

4. Check continuity between automatic drive positioner control unit connector M33 and ground.

Door mirror LH

Automatic drive positioner control unit		Ground	Continuity
Connector	Terminal		
M33	12		
	23		
	24		

Door mirror RH

Automatic drive positioner control unit		Ground	Continuity
Connector	Terminal		
M33	10		
	11		
	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 M33 and ground.

Door mirror LH

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

# DOOR MIRROR MOTOR

## < DTC/CIRCUIT DIAGNOSIS >

Door mirror RH		(-)	Mirror switch condition	Voltage (Approx.)	
Connector	Terminal				
M33	10	Ground	UP	Battery voltage	
			Other than above	0 V	
	11		LEFT	Battery voltage	
			Other than above	0 V	
	22		DOWN / RIGHT	Battery voltage	
			Other than above	0 V	

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace automatic drive positioner control unit. Refer to [ADP-141, "Removal and Installation"](#).

## 4. CHECK DOOR MIRROR MOTOR

Check door mirror motor.

Refer to [ADP-135, "Component Inspection"](#).

### Is the inspection result normal?

YES >> Refer to [GI-47, "Intermittent Incident"](#).

NO >> Replace door mirror actuator. Refer to [MIR-36, "Removal and Installation"](#).

## Component Inspection

INFOID:000000014391986

### 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-30, "Exploded View"](#).

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace door mirror actuator. Refer to [MIR-36, "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.

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

### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace door mirror actuator. Refer to [MIR-36, "Removal and Installation"](#).

# SEAT MEMORY INDICATOR

< DTC/CIRCUIT DIAGNOSIS >

## SEAT MEMORY INDICATOR

### Component Function Check

INFOID:0000000014391987

#### 1. ACTIVE TEST

##### CONSULT

1. Select "Active Test" mode of "AUTO DRIVE POS.".
2. Select "MEMORY SW INDCTR".
3. Check that the function operates normally.

Test item		Description	
MEMORY SW INDCTR	OFF	Memory switch indicator	OFF
	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 [ADP-136, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:0000000014391988

Regarding Wiring Diagram information, refer to [ADP-41, "Wiring Diagram"](#).

#### 1. CHECK SEAT MEMORY INDICATOR CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect driver seat control unit and seat memory switch.
3. Check continuity between driver seat control unit harness connector B222 and seat memory switch harness connector D10.

Driver seat control unit		Seat memory switch		Continuity
Connector	Terminal	Connector	Terminal	
B222	10	D10	13	Yes
	26		14	

4. Check continuity between driver seat control unit harness connector B222 and ground.

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B222	10		Yes
	26		

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

#### 2. CHECK MEMORY INDICATOR POWER SUPPLY

Check voltage between seat memory switch harness connector D10 and ground.

(+)		(-)	Voltage (Approx.)
Seat memory switch			
Connector	Terminal		
D10	15	Ground	Battery voltage

# SEAT MEMORY INDICATOR

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 3.

NO >> Check the following:

- 10A fuse No.9.
- Harness for open or short between memory indicator and fuse.

A

## 3. CHECK MEMORY INDICATOR

Refer to [ADP-137, "Component Inspection"](#).

B

Is the inspection result normal?

C

YES >> GO TO 4.

D

NO >> Replace seat memory switch. Refer to [ADP-142, "Removal and Installation"](#).

E

## 4. CHECK INTERMITTENT INCIDENT

Refer to [GI-47, "Intermittent Incident"](#).

F

Is the inspection result normal?

G

YES >> Replace driver seat control unit. Refer to [ADP-140, "Removal and Installation"](#).

H

NO >> Repair or replace the malfunctioning part.

I

### Component Inspection

INFOID:0000000014391989

J

#### 1. CHECK SEAT MEMORY INDICATOR

K

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

L

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

ADP

Is the inspection result normal?

M

YES >> Inspection End.

N

NO >> Replace seat memory switch. Refer to [ADP-142, "Removal and Installation"](#).

O

P

&lt; SYMPTOM DIAGNOSIS &gt;

**SYMPTOM DIAGNOSIS****ADP SYSTEM SYMPTOMS****Symptom Table**

INFOID:0000000014391990

**NOTE:**

Always perform the "Basic Inspection" before performing diagnosis in the following table. Refer to [ADP-55, "Work Flow"](#).

Symptom	Diagnosis procedure	Reference page
Manual functions (for specific part) do not operate.	Sliding operation	<a href="#">ADP-79</a>
	Reclining operation	<a href="#">ADP-81</a>
	Lifting operation (front)	<a href="#">ADP-83</a>
	Lifting operation (rear)	<a href="#">ADP-85</a>
	Tilt operation	<a href="#">ADP-87</a>
	Telescopic sensor	<a href="#">ADP-89</a>
	Door mirror operation	1. Select switch
		<a href="#">ADP-94</a>
	All parts of seat	<a href="#">ADP-99</a>
Memory functions (for specific part) do not operate.	Sliding operation	<a href="#">ADP-101</a>
	Reclining operation	<a href="#">ADP-104</a>
	Lifting operation (front)	<a href="#">ADP-107</a>
	Lifting operation (rear)	<a href="#">ADP-110</a>
	Tilt operation	<a href="#">ADP-113</a>
	Telescopic operation	<a href="#">ADP-115</a>
	Door mirror operation	Driver side: <a href="#">ADP-117</a> Passenger side: <a href="#">ADP-119</a>
Memory functions and manual functions (for specific part) do not operate.	Sliding operation	<a href="#">ADP-121</a>
	Reclining operation	<a href="#">ADP-123</a>
	Lifting operation (front)	<a href="#">ADP-125</a>
	Lifting operation (rear)	<a href="#">ADP-127</a>
	Tilt operation	<a href="#">ADP-129</a>
	Telescopic operation	<a href="#">ADP-131</a>
	Door mirror operation	<a href="#">ADP-133</a>
Entry/Exit assist function does not operate.	1. Check system setting.	<a href="#">ADP-15</a>
	2. Perform initialization.	<a href="#">ADP-59</a>
	3. Check front door switch (driver side).	<a href="#">DLK-98</a>
Linking key fob to meter display.	1. Check door lock function.	<a href="#">DLK-102</a>
	2. Perform memory storing.	<a href="#">ADP-19</a>

# NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

## NORMAL OPERATING CONDITION

### Description

INFOID:0000000014391991

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

Symptom	Cause	Action to take	Reference page
Entry/exit assist function does not operate.	No initialization has been performed.	Perform initialization.	<a href="#">ADP-59</a>
	<b>NOTE:</b> Entry/exit assist function is set to ON before delivery (initial setting).	Change the settings.	<a href="#">ADP-60</a>
Entry assist function does not operate.	Manual operation with power seat switch was performed after exit assist function execution.	Perform the entry assist function.	<a href="#">ADP-22</a>
Memory function, entry/exit assist function or linking a key fob to meter display function does not operate.	The operating conditions are not fulfilled.	Fulfill the operation conditions.	 Memory function: <a href="#">ADP-19</a>  Entry assist function: <a href="#">ADP-22</a>  Exit assist function: <a href="#">ADP-21</a>  Linking a key fob to meter display: <a href="#">ADP-24</a>

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## DRIVER SEAT CONTROL UNIT

< REMOVAL AND INSTALLATION >

# REMOVAL AND INSTALLATION

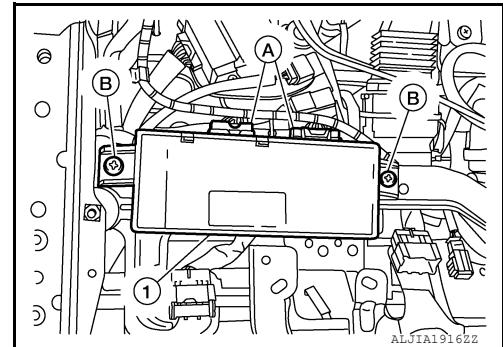
## DRIVER SEAT CONTROL UNIT

### Removal and Installation

INFOID:0000000014391992

#### REMOVAL

1. Remove front seat (LH). Refer to [SE-100, "Removal and Installation - Captain Seats"](#).
2. Disconnect harness connectors (A) from driver seat control unit (1).
3. Remove screws (B) and driver seat control unit.



#### INSTALLATION

Installation is in the reverse order of removal.

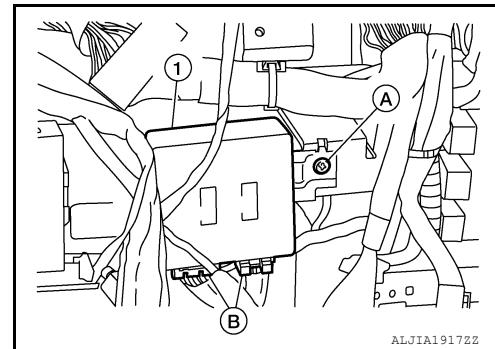
## AUTOMATIC DRIVE POSITIONER CONTROL UNIT

### Removal and Installation

INFOID:000000014391993

#### REMOVAL

1. Remove audio unit or AV control unit. Refer to [AV-66, "Removal and Installation" \(DISPLAY AUDIO\)](#), [AV-157, "Removal and Installation" \(NAVIGATION WITHOUT AMPLIFIER\)](#), [AV-277, "Removal and Installation" \(NAVIGATION WITH AMPLIFIER\)](#), [AV-359, "Removal and Installation" \(AROUND VIEW MONITOR SYSTEM\)](#), [AV-390, "Removal and Installation" \(REAR VIEW MONITOR SYSTEM\)](#), [AV-438, "Removal and Installation" \(TELEMATICS SYSTEM\)](#), or [AV-461, "Removal and Installation" \[REAR SEAT ENTERTAINMENT \(RSE\) SYSTEM\]](#).
2. Disconnect harness connectors (B) from automatic drive positioner control unit.
3. Remove automatic drive positioner control unit screw (A) and automatic drive positioner control unit (1).



#### INSTALLATION

Installation is in the reverse order of removal.

**CAUTION:**

Perform additional services when replacing control unit. Refer to [ADP-58, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description"](#).

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ADP

## SEAT MEMORY SWITCH

< REMOVAL AND INSTALLATION >

### SEAT MEMORY SWITCH

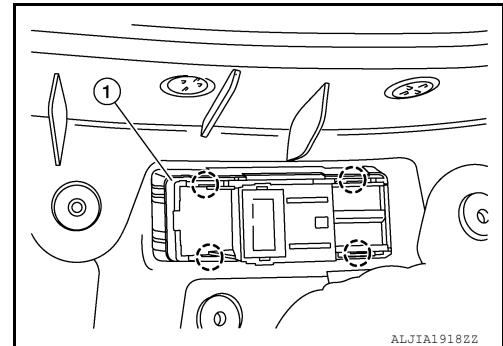
#### Removal and Installation

INFOID:0000000014391994

##### REMOVAL

1. Using suitable tool, remove seat memory switch finisher.
2. Disconnect the harness connector from the seat memory switch.
3. Release pawls using suitable tool and remove seat memory switch (1).

(○) : Pawl



##### INSTALLATION

Installation is in the reverse order of removal.

# POWER SEAT SWITCH

< REMOVAL AND INSTALLATION >

## POWER SEAT SWITCH

### Removal and Installation

INFOID:0000000014391995

#### REMOVAL

For the removal and installation of the power seat switch (LH), refer to [SE-109, "Removal and Installation".](#)

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## ADP STEERING SWITCH

< REMOVAL AND INSTALLATION >

### ADP STEERING SWITCH

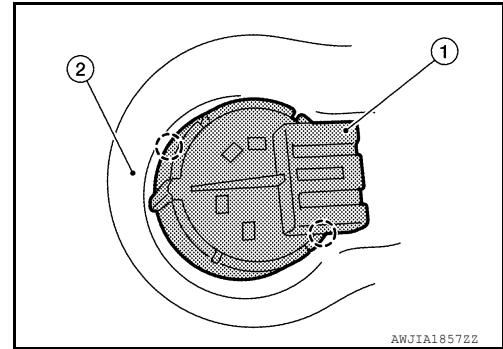
#### Removal and Installation

INFOID:0000000014391996

##### REMOVAL

1. Remove steering column covers. Refer to [IP-18, "Removal and Installation"](#).
2. Release pawls using suitable tool and remove ADP steering switch (1) from the steering column lower cover (2).

○ : Pawl



##### INSTALLATION

Installation is in the reverse order of removal.