# SECTION ADP AUTOMATIC DRIVE POSITIONER

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#### **PRECAUTIONS**

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## **PRECAUTION**

## **PRECAUTIONS**

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

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

#### WARNING:

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see "SRS AIR BAG".
- Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

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

#### **WARNING:**

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the
  ignition ON or engine running, never use air or electric power tools or strike near the sensor(s) with
  a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing
  serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

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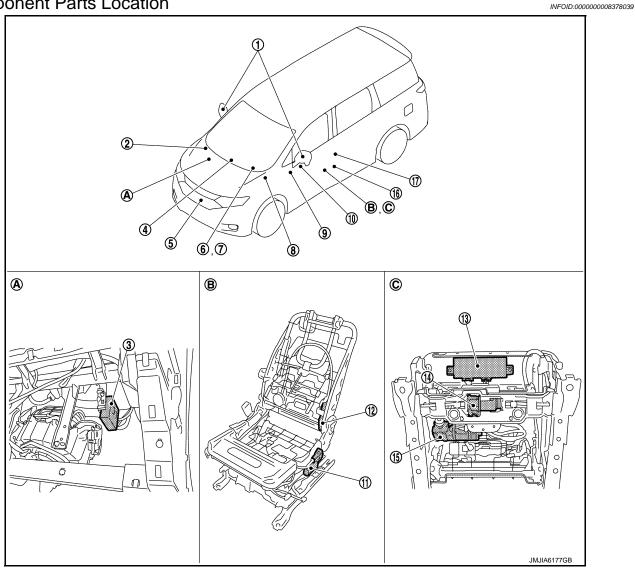
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# SYSTEM DESCRIPTION

## **COMPONENT PARTS**

Component Parts Location



View with instrument lower panel RH B. removed

View with seat cushion pad and seat C. Backside of seat cushion back pad removed

No.	Component parts		Description
		Door mirror motor	It makes mirror face operate from side to side and up and down with the electric power that automatic drive positioner control unit supplies.  Refer to MIR-5, "Component Parts Location" for detailed installation location.
1.	Door mirror (driver side/ passenger side)	Mirror sensor	Mirror sensor is installed to door mirror.     The resistance of 2 sensors (horizontal and vertical) is changed when door mirror is operated.     Automatic drive positioner control unit calculates door mirror position according to the change of the voltage of 2 sensor input terminals.  Refer to MIR-5, "Component Parts Location" for detailed installation location.

# **COMPONENT PARTS**

# < SYSTEM DESCRIPTION >

No.	Compon	ent parts	Description
2.	ABS actuator and electric unit (control unit)		Transmit the vehicle speed signal to driver seat control unit via CAN communication.  Refer to BRC-8, "Component Parts Location" for detailed installation location.
3.	Automatic drive positioner	control unit	Refer to ADP-8, "Automatic Drive Positioner Control Unit".
4.	CVT sift selector (Detention switch)		<ul> <li>Detention switch is installed on CVT shift selector. It is turned OFF when CVT shift selector is in P position.</li> <li>Driver seat control unit judges that CVT shift selector is in P position if continuity does not exist in this circuit.</li> <li>Refer to TM-10, "CVT CONTROL SYSTEM: Component Parts Location" for detailed installation location.</li> </ul>
5.	ТСМ		The following signals are transmitted to driver seat control unit via CAN communication.  • Shift position signal (P range)  • Identification of transmission: CVT Refer to TM-10, "CVT CONTROL SYSTEM: Component Parts Location" for detailed installation location.
6.	Combination meter		Transmit the vehicle speed signal to driver seat control unit via CAN communication.  Refer to MWI-6, "METER SYSTEM: Component Parts Location" for detailed installation location.
7.	. BCM		Recognizes the following status and transmits it to driver seat control unit via CAN communication.  • Handle position: LHD  • Driver door: OPEN/CLOSE  • Ignition switch position: ACC/ON  • Door lock: UNLOCK (with Intelligent key or driver side door request switch operation)  • Key ID  • Starter: CRANKING/OTHER Refer to BCS-4, "BODY CONTROL SYSTEM: Component Parts Location" for detailed installation location.
8.	IPDM E/R		ON/OFF signal of CVT shift selector (detention switch) is transmitted to driver seat control unit via CAN communication.  Refer to PCS-4, "IPDM E/R: Component Parts Location" for detailed installation location.
9. Door mirror remote of trol switch	Door mirror remote con	Mirror switch	<ul> <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 MIR-5, "Component Parts Location" for detailed installation location.</li> </ul>
		Changeover switch	Changeover switch is integrated in door mirror remote control switch. Changeover switch has three positions (L, N and R). It changes operating door mirror motor by transmitting control signal to automatic drive positioner control unit. Refer to MIR-5, "Component Parts Location" for detailed installation location.
10.	Seat memory switch	Set switch	Refer to ADP-8, "Seat Memory Switch".

## **COMPONENT PARTS**

# < SYSTEM DESCRIPTION >

Ю.	Compo	onent parts	Description	
		Lifting motor (rear)	Lifting motor (rear) is installed to seat slide cushion frame. Lifting motor (rear) is activated with driver seat control unit. Seat lifter (rear) is moved upward/downward by changing the rotation direction of lifting motor (rear). Refer to SE-8. "POWER SEAT SYSTEM: Component Parts Location" for detailed installation location.	
11.	Lifting motor (rear)	Lifting sensor (rear)	<ul> <li>Lifting sensor (rear) is installed to seat side cushion frame.</li> <li>The pulse signal is input to driver seat control unit when lifting (rear) is operated.</li> <li>Driver seat control unit counts the pulse and calculates the lifting (rear) amount of the seat.</li> <li>Refer to SE-8, "POWER SEAT SYSTEM: Component Parts Location" for detailed installation location.</li> </ul>	
		Reclining motor	Seat reclining motor is installed to seat back frame.     Seat reclining motor is activated with driver seat control unit.     Seatback is reclined frontward/rearward by changing the rotation direction of reclining motor.  Refer to SE-8. "POWER SEAT SYSTEM: Component Parts Location" for detailed installation location.	
12.		Reclining sensor	<ul> <li>Reclining sensor is integrated in reclining motor.</li> <li>The pulse signal is input to driver seat control unit when the reclining is operated.</li> <li>Driver seat control unit counts the pulse and calculates the reclining amount of the seat.</li> <li>Refer to SE-8, "POWER SEAT SYSTEM: Component Parts Location" for detailed installation location.</li> </ul>	
13.	Driver seat control unit		Refer to ADP-8, "Driver Seat Control Unit".	
		Sliding motor	<ul> <li>Seat sliding motor is installed to the seat cushion frame.</li> <li>Seat sliding motor is activated with driver seat control unit.</li> <li>Slides the seat frontward/ rearward by changing the rotation direction of sliding motor.</li> <li>Refer to <u>SE-8</u>, "<u>POWER SEAT SYSTEM</u>: Component Parts Location" for detailed installation location.</li> </ul>	
14.	Sliding motor	Sliding sensor	<ul> <li>Sliding sensor is integrated in sliding motor.</li> <li>The pulse signal is input to driver seat control unit when sliding is performed.</li> <li>Driver seat control unit counts the pulse and calculates the sliding amount of the seat.</li> <li>Refer to <u>SE-8</u>, "<u>POWER SEAT SYSTEM</u>: Component Parts Location" for detailed installation location.</li> </ul>	
15	Lifting motor (free A)	Lifting motor (front)	<ul> <li>Lifting motor (front) is installed to seat side cushion frame.</li> <li>Lifting motor is activated with driver seat control unit.</li> <li>Seat lifter (front) is moved upward/downward by changing the rotation direction of lifting motor (front).</li> <li>Refer to <u>SE-8</u>, "POWER SEAT SYSTEM: Component Parts Location" for detailed installation location.</li> </ul>	
15.	15. Lifting motor (front)	Lifting sensor (front)	<ul> <li>Lifting sensor (front) is installed in lifting motor (rear).</li> <li>When lifting motor (rear) 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 (rear) of the seat.</li> <li>Refer to SE-8, "POWER SEAT SYSTEM: Component Parts Location" for detailed installation location.</li> </ul>	

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#### **COMPONENT PARTS**

#### < SYSTEM DESCRIPTION >

No.	Compor	nent parts	Description
		Sliding switch	Sliding switch is equipped to power seat switch on seat cushion side surface.     The operation signal is input to driver seat control unit when sliding switch is operated.  Refer to SE-8, "POWER SEAT SYSTEM: Component Parts Location" for detailed installation location.
16	Dower goet quiteb	Reclining switch	<ul> <li>The operation signal is input to driver seat control unit when reclining switch is operated.</li> <li>The operation signal is input to driver seat control unit when reclining switch is operated.</li> <li>Refer to <u>SE-8</u>. "<u>POWER SEAT SYSTEM</u>: Component Parts Location" for detailed installation location.</li> </ul>
16.	6. Power seat switch  Lifting switch (front)	Lifting switch (front)	Lifting switch (front) is equipped to power seat switch on seat cushion side surface.     The operation signal is input to driver seat control unit when lifting switch (front) is operated.  Refer to SE-8. "POWER SEAT SYSTEM: Component Parts Location" for detailed installation location.
		Lifting switch (rear)	Lifting switch (rear) is equipped to power seat switch on seat cushion side surface.     The operation signal is input to driver seat control unit when lifting switch (rear) is operated.  Refer to SE-8. "POWER SEAT SYSTEM: Component Parts Location" for detailed installation location.
17.	17. Front door switch (driver side)		Detects door open/close condition and transmits to BCM.  Refer to DLK-18, "DOOR LOCK SYSTEM: Component Parts Location" for detailed installation location.

#### **Automatic Drive Positioner Control Unit**

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- It communicates with driver seat control unit via UART communication.
- Perform various controls with the instructions of driver seat control unit.
- Perform the controls of door mirror and seat memory switch.
- Operates door mirror with the signal from the driver seat control.

## Seat Memory Switch

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#### **SET SWITCH**

It is used for registration and setting change of driving position and Intelligent Key interlock function.

#### SEAT MEMORY SWITCH

- The maximum 2 driving positions can be registered by memory switch 1 to 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.

#### **Driver Seat Control Unit**

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- Main units of automatic drive positioner system.
- It is connected to the CAN.
- It communicates with automatic drive positioner control unit via UART communication.
- It perform memory function after receiving the door unlock signal from BCM.
- · The address of each part is recorded.
- Operates each motor of seat to the registered position.
- Requests the operation of door mirror to automatic drive positioner control unit.
- Operates the specific seat motor with the signal from power seat switch.
- Transmits the ignition switch signal (ACC/ON) via UART communication to automatic driver positioner control unit.

## **SYSTEM**

## **AUTOMATIC DRIVE POSITIONER SYSTEM**

## AUTOMATIC DRIVE POSITIONER SYSTEM: System Description

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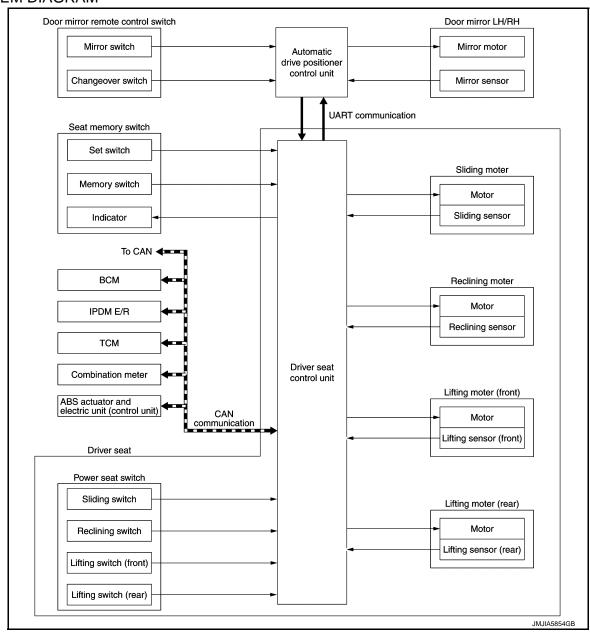
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## SYSTEM DIAGRAM



#### DESCRIPTION

The system automatically moves the driver seat 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 and door mirror position) can be adjusted by using the power seat switch or door mirror remote control switch.
Memory function	The seat and door mirror move to the stored driving position by pressing seat memory switch (1 or 2).

## **SYSTEM**

#### < SYSTEM DESCRIPTION >

Function		Description
Entry/Exit assist function	Exit	On exit, the seat moves backward.
Entry/Exit assist function	Entry	On entry, the seat returns from exiting position to the previous driving position.
Intelligent Key interlock function	on	Perform memory operation, exiting operation and entry operation by Intelligent Key unlock operation or driver side door request switch unlock operation.

#### Sleep Control

Driver seat control unit equips sleep control for reducing power consumption.

The system switches to sleep control when all of the following conditions are satisfied.

- · Ignition switch is OFF.
- All devices of auto driving position system are not operating.
- 45 seconds timer of driver seat control unit is not operating.
- Set switch and memory switch (1 and 2) are OFF.

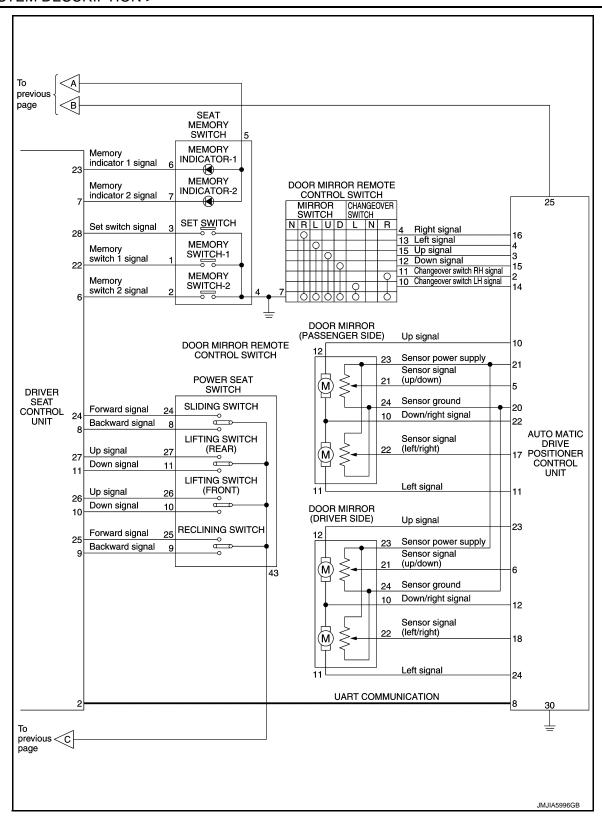
## Wake-up Control

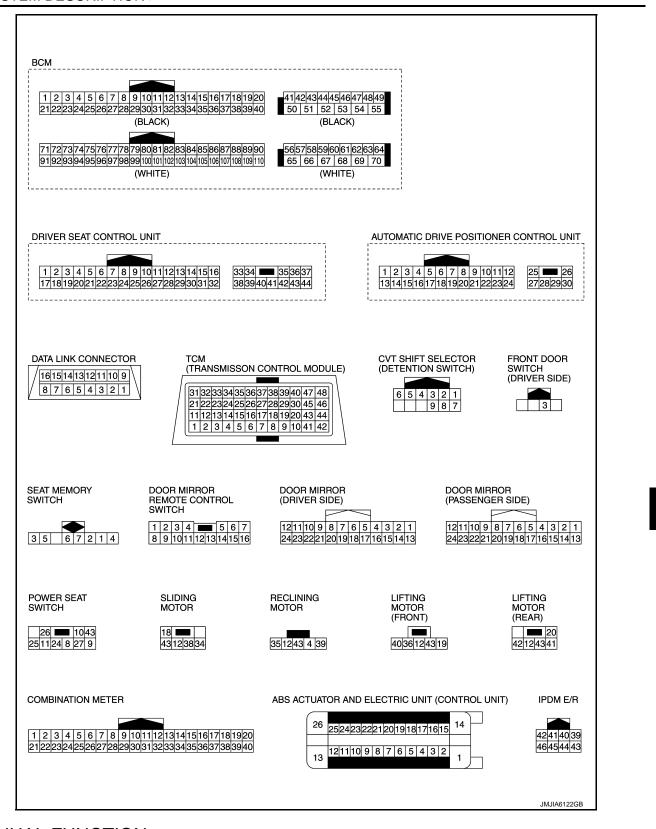
Sleep control releases when detecting status change in either of the following item.

- CAN communication
- Power seat switch
- Set switch and seat memory switch (1 and 2)

#### **AUTOMATIC DRIVE POSITIONER SYSTEM: Schematic** INFOID:0000000008378044 Α BATTERY В 40A 10A L 10 A> То **EW** next В page CIRCUIT BREAKER Forward signal 38 D Detention 38 12 Sensor power supply switch signal 12 SLIDING MOTOR **CVT SHIFT** 18 Sliding sensor signal 18 SELECTOR (DETENTION Е SWITCH) 34 Backward signal 70 34 37 104 67 ВСМ F CAN-H CAN-L Forward signal 35 47 40 35 12 Sensor power supply Door Reclining sensor switch Ø IPDM E/R RECLINING signal signal MOTOR CAN-L FRONT DOOR CAN-H 39 (DRIVER SIDE) Backward signal 39 Н DATA LINK CONNECTOR Up signal DRIVER CAN-L SEAT CONTROL 40 12 Sensor power supply CAN-H UNIT Lifting sensor LIFTING MOTOR 19 (front) signal 19 (FRONT) 36 ADP Down signal 36 COMBINATION Up signal **METER** TCM CAN-L Sensor power supply K CAN-L Lifting sensor 20 (rear) signal LIFTING CAN-H (M) CAN-H MOTOR 20 21 32 (REAR) Down signal 42 To CAN-L M CAN system CAN-H 23 CAN-H CAN-L Ν 43 ABS ACTUATOR AND **ELECTRIC UNIT** То (CONTROL UNIT) next 0 page

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#### MANUAL FUNCTION

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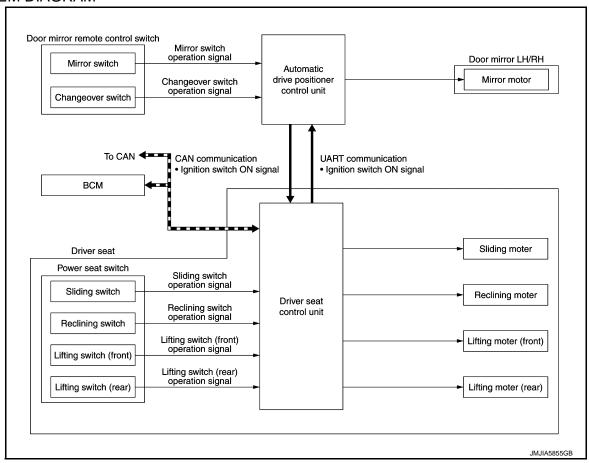
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## MANUAL FUNCTION: System Description

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#### SYSTEM DIAGRAM



#### **DESCRIPTION**

- The driving position (seat and door mirror position) can be adjusted manually with power seat switch and door mirror remote control switch.
- The power seat can be operated manually regardless of the ignition switch position.
- The door mirrors can be operated manually when ignition switch is in either ACC or ON position.
- When power seat switch is operated, operation signal is transmitted to driver seat control unit. Each motor is operated according to operation signal.
- When mirror switch and changeover switch are operated, operation signal is transmitted to automatic drive positioner control unit. Mirror motor is operated according to operation signal.

#### MEMORY FUNCTION

## MEMORY FUNCTION: System Description

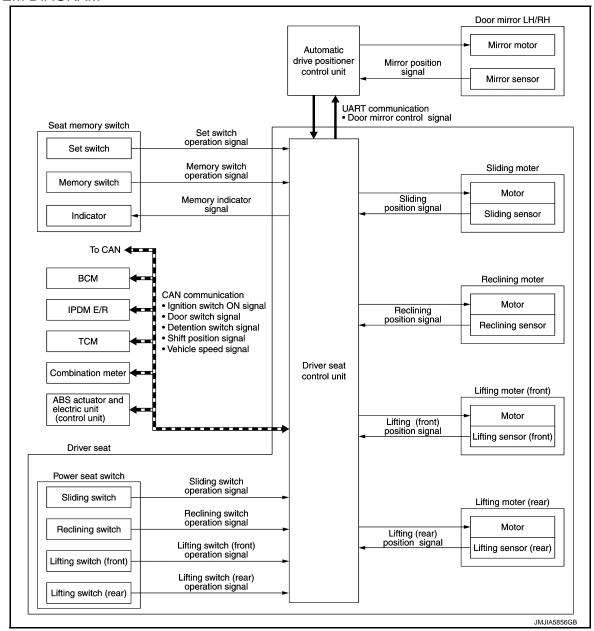
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#### SYSTEM DIAGRAM



#### DESCRIPTION

- The driver seat control unit can store the optimum driving positions (seat 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.
- When memory switch 1 and 2 are operated, operation signal is transmitted to driver seat control unit.
- When driver seat control unit detects that memory switch is pressed for 0.5 seconds or more, driver seat
  control unit operates each motor of driver seat and detects the driver seat position according to signals
  transmitted from each sensor. Driver seat control unit requests the operation of mirror motor to automatic
  drive positioner control unit via UART communication.
- Automatic drive positioner control unit operates mirror motor, detects the door mirror position according to signal transmitted from mirror sensor, and transmits the detected door mirror position to driver seat control unit via UART communication.
- Driver seat control unit stops the operation of each motor when each part reaches the memorized positions.
- Driver seat control unit turns memory indicator lamp OFF that is blinking while each motor operates.

#### NOTE:

Further information for the memory storage procedure. Refer to ADP-41, "Work Procedure".

## **SYSTEM**

#### < SYSTEM DESCRIPTION >

#### **Operation Condition**

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

Item	Request status	
Ignition position	ON <sup>*</sup>	
Switch inputs  Power seat switch  Door mirror control switch  Set switch  Memory switch	OFF (Not operated)	
CVT shift selector	P position	
Memory function	Registered	
Vehicle speed	0 km/h (0 MPH)	
CONSULT	Not connected	

<sup>\*:</sup> When timer function does not operate.

#### Timer Function

- The memory function can be performed for 45 seconds after opening the driver door even if the ignition switch position is in OFF position.
- Satisfy all of the following items. The timer function is not performed if these items are not satisfied.

Item	Request status
Ignition position	OFF
Set switch/memory switch	OFF
Memory function	Registered
CVT shift selector	P position
Front door switch (driver side)	OFF
CUNSULT	Not connected

## **EXIT ASSIST FUNCTION**

## **EXIT ASSIST FUNCTION: System Description**

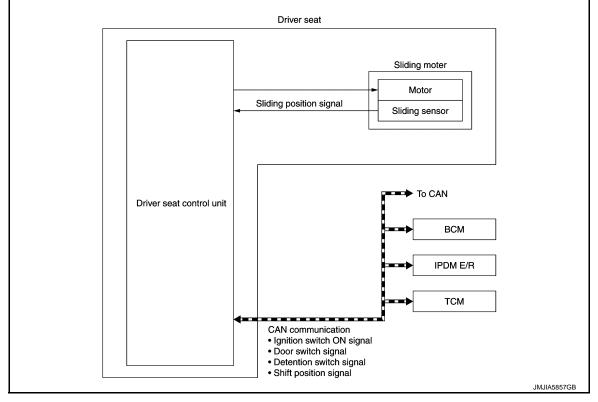
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#### SYSTEM DIAGRAM



#### **DESCRIPTION**

- This function slides driver seat toward vehicle rear and facilitates entry/exit of the vehicle.
- Seat slide set amount of exit assist function is adjustable.
- When driver side door is open while operation conditions are satisfied, driver seat control unit receives front door switch (driver side) signal (open/close) from BCM via CAN communication. Driver seat control unit operates sliding motor and moves driver seat toward vehicle rear to the seat slide set amount when driver seat control unit detects that driver side door is open.
- Driver seat control unit receives sliding sensor position signal from sliding sensor. Driver seat control unit stops the operation of sliding motor when driver seat control unit detects that driver seat is slid to the seat slide set amount.

#### NOTE:

- This function is set to ON before delivery (initial setting).
- Further information for the system setting procedure. Refer to ADP-43, "Description".

#### **Operation Condition**

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

Item	Request status
Ignition position	OFF
System setting (Entry/exit assist function)	ON
Initialization	Done
Switch inputs  Power seat switch  Door mirror remote control switch  Set switch  Memory switch	OFF (Not operated)
CVT shift selector	P position
Handle position	LHD

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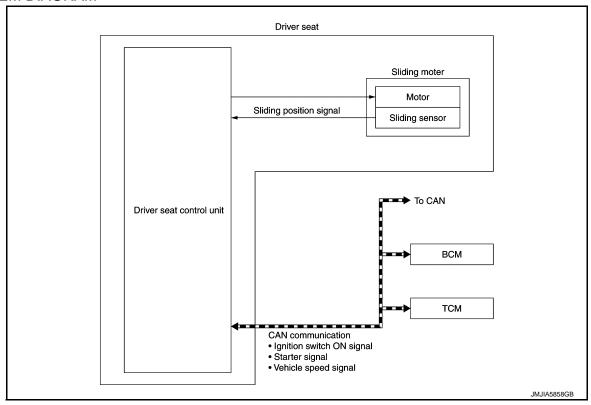
Item	Request status
Transmission	CVT
CUNSULT	Not connected

## ENTRY ASSIST FUNCTION

## **ENTRY ASSIST FUNCTION: System Description**

INFOID:0000000008378048

#### SYSTEM DIAGRAM



#### DESCRIPTION

- This function allows the driver seat control unit to return the driver seat from the exiting position to the previous driving position, when ignition switch is operated from OFF to ACC.
- Entry assist function stops when starter signal is ON while entry assist function is being operated. Entry assist function restarts when starter signal is OFF.
- When ignition switch is operated OFF to ACC while operation conditions are satisfied, driver seat control unit receives ACC signal from BCM via CAN communication. Driver seat control unit operates sliding motor when driver seat control unit detects that ignition switch is changed to ACC.
- Driver seat control unit receives sliding sensor position signal from sliding sensor. Driver seat control unit stops the operation of sliding motor when driver seat control unit detects that driver seat is returned to the previous driving position from the exiting position.

#### NOTE

- This function is set to ON before delivery (initial setting).
- Further information for the system setting procedure. Refer to ADP-43, "Description".

#### **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	The vehicle is not moved after performing the exit assist function.
Switch inputs  Power seat switch  Door mirror control switch  Set switch  Memory switch	OFF (Not operated)

Item	Request status
Vehicle speed	0 km/h (0 MPH)
Starter	OFF
Transmission	CVT
CONSULT	Not connected

## INTELLIGENT KEY INTERLOCK FUNCTION

## INTELLIGENT KEY INTERLOCK FUNCTION: System Description

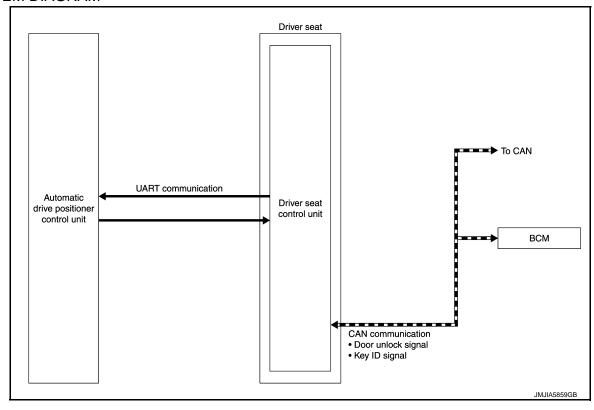
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#### SYSTEM DIAGRAM



#### **DESCRIPTION**

- By associating Intelligent Key and automatic drive positioner system, the unlock operation of Intelligent Key or driver side door request switch performs memory function and entry/exit function.
- Registration of Intelligent Key interlock function can register a different key ID to the driver seat control unit, one by one, for memory switch 1 and 2. A total of 2 key IDs can be registered.
- Driver seat control unit receives door unlock signal and key ID signal from BCM when driver side door is unlocked using Intelligent Key or driver side door request switch.
- Driver seat control unit automatically adjusts driver seat and door mirror to the driving position according to key ID. Driver seat performs turnout position and sets to standby status.
- In standby status, when ignition switch is operated from OFF to ACC, return operation sets driver seat to the registered position.

#### NOTE:

- When another key ID is newly registered to a key switch to which a key ID is already registered, the previously registered key ID is overwritten and becomes unusable.
- When starter signal turns ON during return operation, the operation is interrupted, starter signal turns from ON to OFF, and operation restarts.
- Further information for Intelligent Key interlock function. Refer to ADP-42, "Description".

#### **Operation Condition**

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

## **SYSTEM**

## < SYSTEM DESCRIPTION >

Item	Request status
Ignition position	OFF
Intelligent key interlock function	Registered
Switch inputs  Power seat switch  Door mirror control switch  Set switch  Memory switch	OFF (Not operated)
CVT shift selector	P position

Fail-safe

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

Operating in fail-safe mode	Malfunction Item	Related DTC	Diagnosis
	CAN communication		ADP-44, "DTC Logic"
Only manual functions operate normally.	CONTROL UNIT (CAN)	U1010	ADP-45, "DTC Logic"
	EEPROM	B2130	ADP-49, "DTC Logic"
Only manual functions, except door mirror, operate normally.	UART communication	B2128	ADP-48, "DTC Logic"
Only manual functions, except seat sliding, operate normally.	Seat sliding output	B2112	ADP-46, "DTC Logic"
Only manual functions, except seat reclining, operate normally.	Seat reclining output	B2113	ADP-47, "DTC Logic"

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

#### < SYSTEM DESCRIPTION >

## DIAGNOSIS SYSTEM (DRIVER SEAT CONTROL UNIT)

# CONSULT Function

The automatic drive positioner system can be checked and diagnosed for component operation using CON-SULT.

#### APPLICATION ITEMS

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

#### SELF-DIAGNOSIS RESULTS

Refer to ADP-30, "DTC Index".

#### **DATA MONITOR**

#### NOTE:

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

Monitor Item	Unit	Main Signals	Selection From Menu	Contents
STARTER SW	"ON/OFF"	×	×	Ignition key switch ON (START, ON) /OFF (ACC, OFF) status judged from the ignition switch signal.
SET SW	"ON/OFF"	×	×	ON/OFF status judged from the setting switch signal.
MEMORY SW 1	"ON/OFF"	×	×	ON/OFF status judged from the seat memory switch 1 signal.
MEMORY SW 2	"ON/OFF"	×	×	ON/OFF status judged from the seat memory switch 2 signal.
DETENT SW	"ON/OFF"	×	×	The CVT shift selector position "OFF (P position) / ON (other than P position)" judged from the detention switch signal.
STEERING STATUS	"LOCK/UN- LOCK"	×	×	NOTE: This item is indicated, but not monitored.
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.

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

## < SYSTEM DESCRIPTION >

Monitor Item	Unit	Main Signals	Selection From Menu	Contents
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 mirror switch (right) signal.
MIR CON SW-LH	"ON/OFF"	×	×	ON/OFF status judged from the mirror switch (left) 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.
VEHICLE SPEED	_	×	×	Display the vehicle speed signal received from combination meter by numerical value [km/h].
P RANG SW CAN	"ON/OFF"	×	×	ON/OFF status judged from the P range switch signal.
R RANGE (CAN)	"ON/OFF"	×	×	ON/OFF status judged from the R range switch signal.
DOOR SW-FL	"ON/OFF"	×	×	ON/OFF status judged from the front door switch (driver side) signal.
DOOR SW-FR	"ON/OFF"	×	×	ON/OFF status judged from the door switch (front passenger side) signal.
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.
KEY ON SW	"ON/OFF"	×	×	ON/OFF status judged from the key on switch signal.
KEYLESS ID	_	×	×	Key ID status judged from the key ID signal.
KYLS DR UNLK	"ON/OFF"	×	×	ON/OFF status judged from the driver side door unlock actuator output switch signal.
VHCL SPEED (ABS)	"ON/OFF"	×	×	ON/OFF status judged from vehicle speed signal.
HANDLE	"RHD/LHD"	×	×	RHD/LHD status judged from handle position signal.
TRANSMISSION	"AT or CVT/ MT"	×	×	AT or CVT/MT status judged from transmission.
SLIDE PULSE	_	_	×	Value (32768) when battery connections are standard. If it moves backward, the value increases. If it moves forward, the value decreases.
RECLN PULSE	_	-	×	Value (32768) when battery connections are standard. If it moves backward, the value increases. If it moves forward, the value decreases.
LIFT FR PULSE	_	_	×	Value (32768) when battery connections are standard. If it moves DOWN, the value increases. If it moves UP, the value decreases.
LIFT RR PULSE	_	-	×	Value (32768) when battery connections are standard. If it moves DOWN, the value increases. If it moves UP, the value decreases.
MIR/SEN RH U-D	"V"	-	×	Voltage input from door mirror sensor (passenger side) up/down is displayed.
MIR/SEN RH R-L	"V"	-	×	Voltage input from door mirror sensor (passenger side) left/right is displayed.
MIR/SEN LH U-D	"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.

**ACTIVE TEST** 

**CAUTION:** 

When driving vehicle, do not perform active test.

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

## < SYSTEM DESCRIPTION >

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

## **WORK SUPPORT**

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

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# **BCM (BODY CONTROL MODULE)**

< ECU DIAGNOSIS INFORMATION >

# **ECU DIAGNOSIS INFORMATION**

# BCM (BODY CONTROL MODULE)

List of ECU Reference

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ECU	Reference
	BCS-40, "Reference Value"
BCM	BCS-62, "Fail-safe"
BCIVI	BCS-62, "DTC Inspection Priority Chart"
	BCS-63, "DTC Index"

## < ECU DIAGNOSIS INFORMATION >

## DRIVER SEAT CONTROL UNIT

Reference Value

## VALUES ON THE DIAGNOSIS TOOL

#### NOTE:

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

Monitor Item	Condi	tion	Value/Status
OFT OW	SET SW Set switch		ON
SET SW S	Set switch	Release	OFF
MEMORY OWA	M	Push	ON
MEMORY SW1	Memory switch 1	Release	OFF
MEMORY CWO	Managar avitali 0	Push	ON
MEMORY SW2	Memory switch 2	Release	OFF
01.105.034.50		Operate	ON
SLIDE SW-FR	Sliding switch (forward)	Release	OFF
CLIDE OW DD		Operate	ON
SLIDE SW-RR	Sliding switch (backward)	Release	OFF
DEOLIN OW 5D	5 " " " " " " " " " " " " " " " " " " "	Operate	ON
RECLN SW-FR	Reclining switch (forward)	Release	OFF
DEOLIN OW DD	Reclining switch (back-	Operate	ON
RECLN SW-RR	ward)	Release	OFF
LIET ED OW LID	1.66	Operate	ON
LIFT FR SW-UP	Lifting switch front (up)	Release	OFF
LIET ED OW DN	1.66	Operate	ON
LIFT FR SW-DN	Lifting switch front (down)	Release	OFF
	Lifting quitab room (up)	Operate	ON
LIFT RR SW-UP	Lifting switch rear (up)	Release	OFF
LIFT RR SW-DN	Lifting quitab roor (down)	Operate	ON
LIFT KK SW-DIN	Lifting switch rear (down)	Release	OFF
MIR CON SW-UP	Mirror switch	Up	ON
WIR CON SW-UP	WIIITOI SWILCII	Other than the above	OFF
MIR CON SW-DN	Mirror switch	Down	ON
WIR CON SW-DN	WIIITOI SWILCII	Other than the above	OFF
MIR CON SW-RH	Mirror switch	Right	ON
WIIN CON SW-KIT	WIIITOI SWILCII	Other than the above	OFF
MIR CON SW-LH	Mirror switch	Left	ON
WIR CON SW-LH	WIIITOI SWILCII	Other than the above	OFF
MID CHNC SW D	Changeover switch	Right	ON
MIR CHNG SW-R	Changeover switch	Other than the above	OFF
MIR CHNG SW-L	Changeover switch	Left	ON
WIIN CHING SW-L	Changeover Switch	Other than the above	OFF
DETENT SW	CVT shift selector	P position	OFF
DETENT SW	CA I 2UIII 26I6CIOI	Other than the above	ON

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# < ECU DIAGNOSIS INFORMATION >

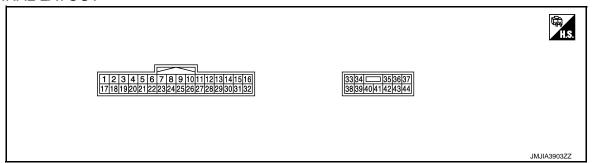
Monitor Item	Condi	ition	Value/Status		
STARTER SW	Ignition position	Cranking	ON		
STARTER SW	ignition position	Other than the above	OFF		
		Forward	The numeral value decreases *		
SLIDE PULSE	Seat sliding	Backward	The numeral value increases*		
		Other than the above	No change to numeral value*		
		Forward	The numeral value decreases*		
RECLN PULSE	Seat reclining	Backward	The numeral value increases *		
		Other than the above	No change to numeral value*		
		Up	The numeral value decreases *		
LIFT FR PULSE	Seat lifter (front)	Down	The numeral value increases *		
		Other than the above	No change to numeral value*		
		Up	The numeral value decreases *		
LIFT RR PULSE	Seat lifter (rear)	Down	The numeral value increases *		
		Other than the above	No change to numeral value*		
MIR/SEN RH U-D	Door mirror (passenger sid	e)	Change between 3.4 (close to peak) 0.6 (close to valley)		
MIR/SEN RH R-L	Door mirror (passenger sid	e)	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)		
STEERING STATUS	Steering lock unit	Unlock	NOTE: This item is indicated, but not monitored.		
VEHICLE SPEED	The condition of vehicle sp	eed is displayed	km/h		
P RANG SW CAN	CVT shift selector	P position	ON		
P RAING SW CAIN	CV I SHIII Selector	Other than the above	OFF		
R RANGE (CAN)	CVT shift selector	R position	ON		
R RANGE (CAN)	CV I SHIII Selector	Other than the above	OFF		
DOOR SW-FL	Driver door	Open	ON		
DOOK SW-FL	Driver door	Close	OFF		
DOOR SW-FR	Passenger door	Open	ON		
DOOK SW-FK	rasseriger door	Close	OFF		
IGN ON SW	Ignition switch	ON position	ON		
	Ignition switch	Other than the above	OFF		
ACC ON SW	Ignition switch	ACC or ON position	ON		
	iginion omiton	Other than the above	OFF		
KEYLESS ID	UNLOCK button of Intellige	ent Key is pressed	1, 2, 3, 4 or 5		
KYLS DR UNLK	Intelligent Key or driver	ON	ON		
	side door request switch	OFF	OFF		
VHCL SPEED (ABS)	Can signal from ABS	Received	ON		
	Can signal nom ADS	Not received	OFF		
HANDLE	The BCM for handle position	on is displayed	LHD		
, 1000	The Bow for Haridie position	ni io diopiayou	RHD		

## < ECU DIAGNOSIS INFORMATION >

Monitor Item Condition		Value/Status
TRANSMISSION	Transmission type is displayed	AT or CVT
	Transmission type is displayed	MT

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

## **TERMINAL LAYOUT**



#### PHYSICAL VALUES

	inal No. e color)	Description		Condition		Voltage (V)
+	-	Signal name	Input/ output	Con	aition	Voltage (V)
1 (R/Y)	_	CAN-H	_	-	_	_
2 (R)	Ground	UART communication (TX/RX)	Input	Ignition switch ON		10msec/div 5V/div JMJIA1391ZZ
4 (R/L)	Ground	Reclining sensor signal	Input	Seat reclining	Operate	10mSec/div = 2V/div JMJIA0119ZZ
					Other than the above	0 - 1 or 4 - 6
6		Memory switch 2 sig-			Press	0 - 1
(R/W)	Ground	nal	Input	Memory switch 2	Other than the above	4 - 6
7		Maman, indicator 2		Mamanindiaatar	Illuminate	0 – 1
7 (R/G)	Ground	Memory indicator 2 signal	Output	Memory indicator 2	Other than the above	9 – 16
8	Sliding switch back-		Sliding switch	Operate (backward)	0 – 1	
(SB)	Ground	ward signal	Input	Sliding switch	Other than the above	9 – 16

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# < ECU DIAGNOSIS INFORMATION >

	inal No. e color)	Description		Condition		Voltage (1)
+	-	Signal name	Input/ output			Voltage (V)
9	Ground	Reclining switch back-	Input	Reclining switch	Operate (backward)	0 - 1
(L)	Cround	ward signal	Прис	rteoming switch	Other than the above	9 – 16
10	Ground	Lifting switch (front)	Input	Lifting switch	Operate (down)	0 – 1
(L/B)		down signal	'	(front)	Other than the above	9 – 16
11 (L/W)	Ground	Lifting switch (rear) down signal	Input	Lifting switch (rear)	Operate (down)	0 - 1
		down signal		(leai)	Other than the above	9 – 16
12 (L/R)	Ground	Sensor power supply	Output	-	_	9 – 16
17 (V)	_	CAN-L	-	-	<del>-</del>	<del>-</del>
18 (B/W)	Ground	Sliding sensor signal	Input	Seat sliding	Operate	10mSec/div
					Other than the above	0 - 1 or 4 - 6
19 (B/R)	Ground	Lifting sensor (front) signal	Input	Seat lifting (front)	Operate	10mSec/div 2V/div JMJIA0119ZZ
					Other than the above	0 – 1 or 4 – 6
20 (B/L)	Ground	Lifting sensor (rear) signal	Input	Seat lifting (rear)	Operate	10mSec/div
					Other than the above	0 - 1 or 4 - 6
22 (W/L)	Ground	Memory switch 1 sig- nal	Input	Memory switch 1	Other than the above	0 - 1 4 - 6
23	Graved	Memory indicator 1	O: 14m : 14	Memory indicator	Illuminate	0 – 1
(W/R)	Ground	signal	Output	1	Other than the above	9 – 16

## < ECU DIAGNOSIS INFORMATION >

	inal No. e color)	Description		Con	dition	Voltage (V)
+	-	Signal name	Input/ output	Con	dition	Voltage (V)
24	Ground	Sliding switch forward	Input	Sliding switch	Operate (forward)	0 – 1
(V/W)	Giodila	signal	mput	Silding Switch	Other than the above	9 – 16
25	Ground	Reclining switch for-	Input	Reclining switch	Operate (forward)	0 – 1
(Y/B)	Ground	ward signal	mpat	reculling switch	Other than the above	9 – 16
26	Ground	Lifting switch (front) up	Input	Lifting switch	Operate (up)	0 - 1
(Y/R)	Ciduia	signal	mpat	(front)	Other than the above	9 – 16
27	Ground	Lifting switch (rear) up	Input	Lifting switch	Operate (up)	0 – 1
(Y/L)	Ciduid	signal	mpat	(rear)	Other than the above	9 – 16
28					Press	0 – 1
(G)	Ground	Set switch signal	Input	Set switch	Other than the above	4 - 6
33 (R)	Ground	Battery power supply	Input	_		9 – 16
34	Ground	Sliding motor back-	Output	Output Seat sliding	Operate (backward)	9 – 16
(B)	Ciodila	ward output signal	Output		Other than the above	0 – 1
35	Ground	Reclining motor for-	Output	Seat reclining	Operate (forward)	9 – 16
(G)	Ground	ward output signal	Output	Geat recilining	Other than the above	0 – 1
36	Ground	Lifting motor (front)	Output	Seat lifting (front)	Operate (down)	9 – 16
(L)	Ciodila	down output signal	Output	Cour many (none)	Other than the above	0 – 1
38	Ground	Sliding motor forward	Output	Seat sliding	Operate (forward)	9 – 16
(GR)		output signal	Output	Ocat Sharing	Other than the above	0 - 1
39	Ground	Reclining motor back-	Output	Seat reclining	Operate (backward)	9 – 16
(Y)	Ground	ward output signal	Output	Ocat recilining	Other than the above	0 – 1
40	Ground	Lifting motor (front) up	Output	Seat lifting (front)	Operate (up)	9 – 16
(W)	Ground	output signal	Output	Seat litting (ITOTIL)	Other than the above	0 – 1
41	Ground	Lifting motor (rear) up	Outnut	Seat lifting (rear)	Operate (up)	9 – 16
(V)			Other than the above	0 – 1		

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## < ECU DIAGNOSIS INFORMATION >

	inal No. e color)	Description		Condition		Voltage (V)
+	-	Signal name	Input/ output	Condition		voltage (v)
42	Ground	Lifting motor (rear)	Lifting motor (rear) Output Seat lifting (re	Seat lifting (rear)	Operate (down)	9 – 16
(P/B)	Ground	down output signal	Output	Seat litting (rear)	Other than the above	0 - 1
43 (LG)	Ground	Ground	_	_		0 – 1

Fail-safe

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

Operating in fail-safe mode	Malfunction Item	Related DTC	Diagnosis
	CAN communication	U1000	ADP-44, "DTC Logic"
Only manual functions operate normally.	CONTROL UNIT (CAN)	U1010	ADP-45, "DTC Logic"
	EEPROM	B2130	ADP-49, "DTC Logic"
Only manual functions, except door mirror, operate normally.	UART communication	B2128	ADP-48, "DTC Logic"
Only manual functions, except seat sliding, operate normally.	Seat sliding output	B2112	ADP-46, "DTC Logic"
Only manual functions, except seat reclining, operate normally.	Seat reclining output	B2113	ADP-47, "DTC Logic"

DTC Index

	Tim	ning <sup>*</sup>			
CONSULT display	Current mal- function	Previous mal- function	Item	Reference page	
CAN COMM CIRCUIT [U1000]	0	1-39	CAN communication	ADP-44, "DTC Logic"	
CONTROL UNIT (CAN) [U1010]	0	1-39	Control unit	ADP-45, "DTC Logic"	
SEAT SLIDE [B2112]	0	1-39	Seat slide motor output	ADP-46, "DTC Logic"	
SEAT RECLINING [B2113]	0	1-39	Seat reclining motor output	ADP-47, "DTC Logic"	
UART COMM [B2128]	0	1-39	UART communication	ADP-48, "DTC Logic"	
EEPROM [B2130]	0	1-39	EEPROM	ADP-49, "DTC Logic"	

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

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

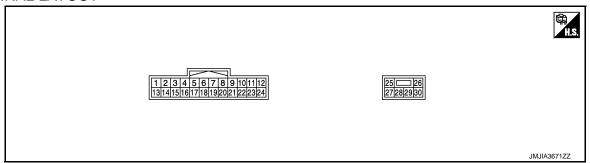
## **AUTOMATIC DRIVE POSITIONER CONTROL UNIT**

< ECU DIAGNOSIS INFORMATION >

## AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Reference Value

## **TERMINAL LAYOUT**



## PHYSICAL VALUES

	inal No. e color)	Description		Condition		Voltage (V)
+	-	Signal name	Input/ Output			vollage (v)
2		Changeover switch RH		Changeover	RH	0 - 1
(Y)	Ground	signal	Input	switch position	Other than the above	4 - 6
3	0	Minor witch on sixual	l	Nai-man annitala	Operated (up)	0 – 1
(V)	Ground	Mirror switch up signal	Input	Mirror switch	Other than the above	4 - 6
4	0	Minney suitable laft sing al	la a cut	N. and a south of	Operated (left)	0 – 1
(LG)	Ground	Mirror switch left signal	Input	Mirror switch	Other than the above	4 - 6
5 (R)	Ground	Door mirror sensor (pas- senger side) up/down signal	Input	Door mirror RH position		Change between 3.4 (close to peak) 0.6 (close to valley)
6 (V)	Ground	Door mirror sensor (driver side) up/down signal	Input	Door mirror LH position		Change between 3.4 (close to peak) 0.6 (close to valley)
8 (GR)	Ground	UART communication (TX/RX)	Output	Ignition switch ON		10msec/div
10	Ground	Door mirror motor (passenger side) up output	Output	Door mirror RH	Operate (up)	9 – 16
(BR)	Giouria	signal	Output	Door millor Kn	Other than the above	0 – 1
11	Ground	Door mirror motor (passenger side) left output		Door mirror RH	Operate (left)	9 – 16
(W)	Giound	signal	Output		Other than the above	0 – 1

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## **AUTOMATIC DRIVE POSITIONER CONTROL UNIT**

## < ECU DIAGNOSIS INFORMATION >

	inal No. e color)	Description		Condition		Voltage (V)
+	-	Signal name	Input/ Output			Voltage (V)
12	Ground	Door mirror motor (driver side) down/right output	Output	Door mirror (LH)	Operate (down/right)	9 – 16
(Y)	Oround	signal	Output	Door Hillion (EIT)	Other than the above	0 – 1
14	Ground	Changeover switch LH	فسيسا	Changeover	LH	0 - 1
(GR)	Giouna	signal	Input	switch position	Other than the above	4 - 6
15	Ground	Mirror switch down sig-	Input	Mirror switch	Operate (down)	0 – 1
(O)	Ground	nal	mpat	WIIITOI SWILOIT	Other than the above	4 - 6
16	Cravinal	Mirror quitab right aireal	la a t	Missos outtob	Operate (right)	0 - 1
(W)	Ground	Mirror switch right signal	Input	Mirror switch Other than the above		4 - 6
17 (BR)	Ground	Door mirror sensor (passenger side) left/right signal	Input	Door mirror RH position		Change between 3.4 (close to left edge) 0.6 (close to right edge)
18 (SB)	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)
20 (P)	Ground	Sensor ground	_		_	0 - 1
21 (Y)	Ground	Door mirror motor sensor power supply	Input		_	4 - 6
22	Ground	Door mirror motor (pas- senger side) down/right	Output	Door mirror (RH)	Operate (down/right)	9 – 16
(V)	Giodila	output signal	Output	Door Hillion (IXII)	Other than the above	0 - 1
23	Ground	Door mirror motor (driver	Output	Door mirror (LH)	Operate (up)	9 – 16
(G)	Giouna	side) up output signal	Output	Door Hillion (EH)	Other than the above	0 – 1
24	Ground	Door mirror motor (driver	Output	Door mirror (LU)	Operate (left)	9 – 16
(W)	Giound	side) left output signal	Output	Door mirror (LH) Other than the above		0 – 1
25 (R)	Ground	Battery power supply	Input	_		9 – 16
30 (B/W)	Ground	Ground			_	0 – 1

# WIRING DIAGRAM

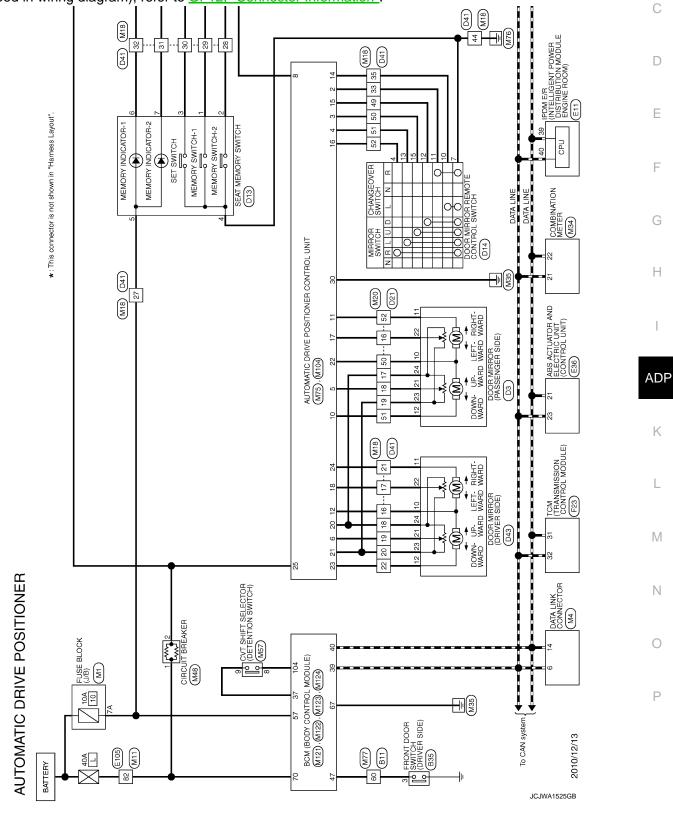
## **AUTOMATIC DRIVE POSITIONER SYSTEM**

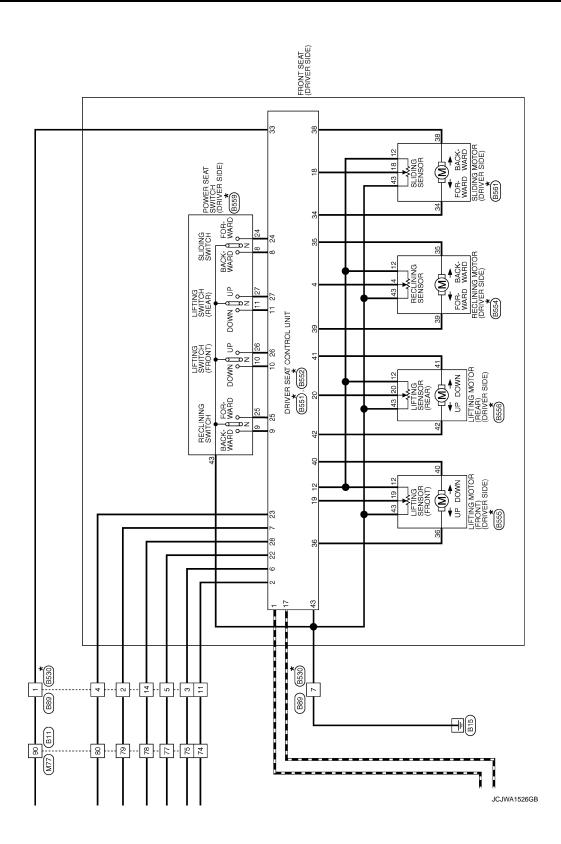
Wiring Diagram

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





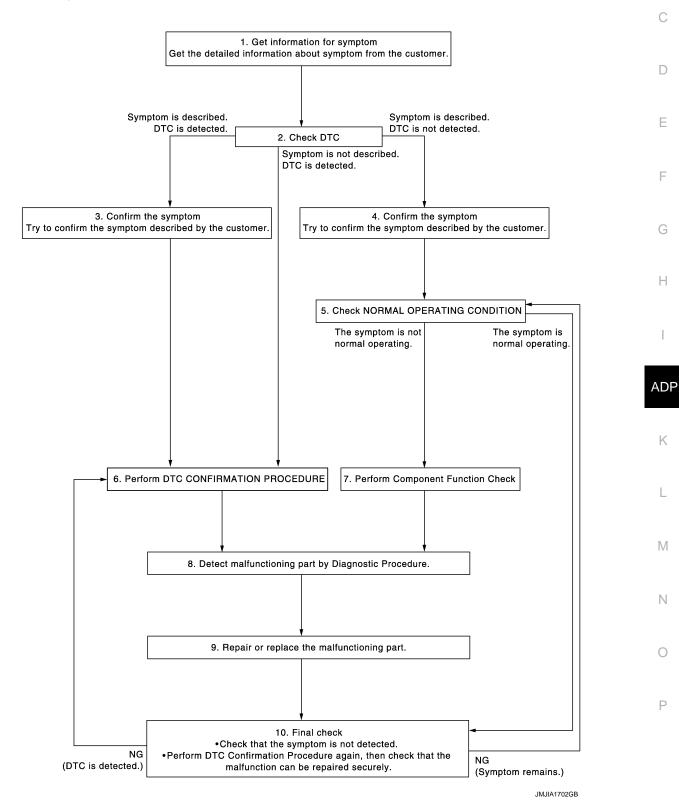
# **BASIC INSPECTION**

## DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

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**OVERALL SEQUENCE** 



**DETAILED FLOW** 

## **DIAGNOSIS AND REPAIR WORK FLOW**

#### < BASIC INSPECTION >

## 1.GET INFORMATION FOR SYMPTOM

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

>> GO TO 2.

## 2.CHECK DTC WITH AUTOMATIC DRIVE POSITIONER SYSTEM

Check "Self Diagnostic Result" with CONSULT. Refer to ADP-30, "DTC Index"

Is any symptom described and any DTC is displayed?

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

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

## 3.CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

>> GO TO 6.

## 4.CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

>> GO TO 5.

## CHECK NORMAL OPERATING CONDITION

Check normal operating condition. Refer to ADP-102, "Description".

Is the incident normal operation?

>> INSPECTION END YES

NO >> GO TO 7.

## 6.PERFORM DTC CONFIRMATION PROCEDURE

Perform the confirmation procedure for the detected DTC.

Is the DTC displayed?

YES >> GO TO 8.

NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

## 7 . PERFORM COMPONENT FUNCTION CHECK

Perform the component function check for the isolated malfunctioning point.

>> GO TO 8.

## 8.DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

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

>> GO TO 9.

## $9.\mathsf{REPARE}$ OR REPLACE THE MALFUNCTIONING PARTS

Repair or replace the malfunctioning part.

>> GO TO 10.

## 10. FINAL CHECK

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

Are all malfunctions corrected?

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

### < BASIC INSPECTION >

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

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#### ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

< BASIC INSPECTION >

# ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

Description

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

Function	Condition	Procedure	
Memory (Seat, mirror)	Erased Perform storing		
Fahrylovit assist	ON	Perform initialization	
Entry/exit assist		Set slide amount*	
Intelligent Key interlock	Erased	Perform initialization	
meligent key menock	Elaseu	Perform storing	

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

#### NOTE:

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

Work Procedure

## 1.SYSTEM INITIALIZATION

Perform system initialization. Refer to ADP-40, "Work Procedure".

>> GO TO 2.

### 2.MEMORY STORAGE

Perform memory storage. Refer to ADP-41, "Work Procedure".

>> GO TO 3.

## 3.INTELLIGENT KEY INTERLOCK STORAGE

Perform Intelligent Key interlock storage. Refer to ADP-42, "Work Procedure".

>> GO TO 4.

#### 4.SYSTEM SETTING

Perform system setting. Refer to ADP-43, "Work Procedure".

>> END

#### ADDITIONAL SERVICE WHEN REMOVING DRIVER SEAT CONTROL UNIT

< BASIC INSPECTION >

## ADDITIONAL SERVICE WHEN REMOVING DRIVER SEAT CONTROL **UNIT**

Description INFOID:0000000008378061

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

Function	Condition	Procedure
Memory (Seat, mirror)	Erased	Perform storing
Forter desired	ON	Perform initialization
Entry/exit assist	ON	Set slide amount*
Intelligent Koy interlege	Franci	Perform initialization
Intelligent Key interlock	Erased	Perform storing

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

#### NOTE:

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

Work Procedure INFOID:0000000008378062

## 1.SYSTEM INITIALIZATION

Perform system initialization. Refer to ADP-40, "Work Procedure".

>> GO TO 2.

## 2.MEMORY STORAGE

Perform memory storage. Refer to ADP-41, "Work Procedure".

>> GO TO 3.

## 3.INTELLIGENT KEY INTERLOCK STORAGE

Perform Intelligent Key interlock storage. Refer to ADP-42, "Work Procedure".

>> GO TO 4.

### 4.SYSTEM SETTING

Perform system setting. Refer to ADP-43, "Work Procedure".

>> END

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#### SYSTEM INITIALIZATION

#### < BASIC INSPECTION >

## SYSTEM INITIALIZATION

Description INFOID:0000000008378063

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.

Work Procedure

### **1.**STEP 1

There are two initialization methods.

Which method do you use?

With door switch>>GO TO 2.

With vehicle speed>>GO TO 3.

2. STEP 2-A (WITH DOOR SWITCH)

- 1. Turn ignition switch from ACC to OFF position.
- 2. Front door switch (driver side) is ON (open)  $\rightarrow$  OFF (close)  $\rightarrow$  ON (open).

>> END

## 3. STEP 2-B (WITH VEHICLE SPEED)

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

>> END

#### **MEMORY STORING**

#### < BASIC INSPECTION >

## MEMORY STORING

Description INFOID.000000008378065

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.

Work Procedure

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

#### NOTE:

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

### **1.**STEP 1

Check the following conditions.

- · Ignition switch: ON
- CVT shift selector: P position

>> GO TO 2.

## 2.STEP 2

- 1. Adjust driver seat and outside mirror position manually.
- 2. Push set switch.

#### NOTE:

- Memory indicator for which driver seat position is already retained in memory is illuminated for 5 seconds
- Memory indicator for which driver seat position is not retained in memory is illuminated for 0.5 second.
- 3. Push the memory switch (1 or 2) for at least 1 second within 5 seconds after pushing the set switch.

#### NOTE:

- To enter driver seat positions into blank memory, memory indicator will be turned on for 5 seconds.
- To modify driver seat positions, memory indicator will be turned OFF for 0.5 second, then turned ON for 5 seconds.
- 4. Confirm the operation of each part with memory operation.

>> END

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#### INTELLIGENT KEY INTERLOCK STORING

< BASIC INSPECTION >

### INTELLIGENT KEY INTERLOCK STORING

Description INFOID:000000008378067

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.

Work 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.

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

>> END

#### SYSTEM SETTING

#### < BASIC INSPECTION >

### SYSTEM SETTING

Description INFOID:0000000008378069

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

SETTING CHANGE

x: Applicable	X:	Apr	olica	ble
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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]	х	_	40 mm
Entry/exit assist (seat)	Entry/exit assist (seat) can be selected: ON (operated) – OFF (not operated)	х	х	ON

Work Procedure

### **1.**STEP 1

There are three way of setting method.

Which method do you choose?

With CONSULT>>GO TO 2.

With set switch>>GO TO 3.

## 2.STEP 2-A (WITH CONSULT)

- 1. Select "Work support".
- 2. Select "EXIT SEAT SLIDE SETTING" then touch display to change between ON and OFF.
- EXIT SEAT SLIDE SETTING: Entry/exit assist (seat)
- 3. Select "SEAT SLIDE VOLUME SET" and touch either of "40 mm", "80 mm", or "150 mm".
- 4. Then touch "OK".

#### >> END

## 3.STEP 2-B (WITH SET SWITCH)

- 1. Turn ignition switch OFF.
- 2. Push set switch and hold for more than 10 seconds, then confirm blinking of the memory switch indicator.
- Entry/exit assist are ON: Memory switch indicator blink two times.
- Entry/exit assist are OFF: Memory switch indicator blink once.

#### >> END

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## DTC/CIRCUIT DIAGNOSIS

### U1000 CAN COMM CIRCUIT

Description INFOID:000000008378071

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

DTC Logic

#### DTC DETECTION LOGIC

DTC No.	CONSULT display description	DTC detecting condition	Possible cause
U1000	CAN COMM CIR- CUIT	<ul> <li>Driver seat control unit cannot communicate to other control units.</li> <li>When driver seat control unit cannot communicate CAN communication signal continuously for 2 seconds or more.</li> </ul>	CAN communication system

#### DTC CONFIRMATION PROCEDURE

**1.**STEP 1

Turn ignition switch ON and wait at least 3 seconds.

>> GO TO 2.

### 2.STEP 2

Check "Self diagnostic result" with CONSULT.

#### Is the DTC detected?

YES >> Refer to ADP-44, "Diagnosis Procedure".

NO >> INSPECTION END

### Diagnosis Procedure

INFOID:0000000008378073

Refer to LAN-17, "Trouble Diagnosis Flow Chart".

### Special Repair Requirement

INFOID:0000000008378074

Refer to ADP-40, "Description".

## **U1010 CONTROL UNIT (CAN)**

## < DTC/CIRCUIT DIAGNOSIS >

## U1010 CONTROL UNIT (CAN)

DTC Logic

#### DTC DETECTION LOGIC

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

## Diagnosis Procedure

INFOID:0000000008378076

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## 1. REPLACE DRIVER SEAT CONTROL UNIT

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

>> Replace driver seat control unit. Refer to <u>ADP-103, "Removal and Installation"</u>.

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### **B2112 SLIDING MOTOR**

DTC Logic

#### DTC DETECTION LOGIC

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

#### DTC CONFIRMATION PROCEDURE

## 1. PERFORM DTC CONFIRMATION PROCEDURE

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

#### Is the DTC detected?

YES >> Refer to ADP-46, "Diagnosis Procedure".

NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000008378078

## 1. CHECK SLIDING MOTOR CIRCUIT (POWER SHORT)

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

(+) Sliding motor		(-)	Voltage (V) (Approx.)	
Connector	Terminals		(Approx.)	
B561	34	Ground	0	
B20.1	38	- Ground		

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connector.

## 2.check driver seat control unit output signal

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

(	+)			
Driver seaf	control unit	(-)	Voltage (V)	
Connector	Terminals			
B551	34	Ground	0 – 1	
D331	38	Ground	0 – 1	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace driver seat control unit. Refer to ADP-103, "Removal and Installation".

## 3. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

#### >> INSPECTION END

#### **B2113 RECLINING MOTOR**

#### < DTC/CIRCUIT DIAGNOSIS >

### **B2113 RECLINING MOTOR**

DTC Logic

#### DTC DETECTION LOGIC

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

#### DTC CONFIRMATION PROCEDURE

## 1. PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.

2. Check "Self diagnostic result" with CONSULT.

#### Is the DTC detected?

YES >> Refer to ADP-47, "Diagnosis Procedure".

NO >> INSPECTION END

## Diagnosis Procedure

## 1. CHECK RECLINING MOTOR CIRCUIT (POWER SHORT)

1. Turn ignition switch OFF.

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

(+)		(-)	Voltage (V) (Approx.)	
Reclining motor				
Connector	Terminals		(11 - )	
B554	35	Ground	0	
B554	39	Orodila	U 	

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connector.

## 2.CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

(+)			
Driver seat control unit		(-)	Voltage (V)
Connector	Terminals		
B551	35	Ground	0 – 1
B33 I	39		

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace driver seat control unit. Refer to ADP-103, "Removal and Installation".

## ${f 3.}$ CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

#### >> INSPECTION END

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#### **B2128 UART COMMUNICATION LINE**

#### < DTC/CIRCUIT DIAGNOSIS >

### **B2128 UART COMMUNICATION LINE**

Description INFOID:000000008378081

Driver seat control unit performs UART communication with the automatic drive positioner control unit using 1 communication lines. Driver seat control unit receives the operation signals of door mirror remote control switch and the position signals of door mirror sensor from the automatic drive positioner control unit and transmits the operation request signal.

DTC Logic

#### DTC DETECTION LOGIC

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

#### DTC CONFIRMATION PROCEDURE

## 1. PERFORM DTC CONFIRMATION PROCEDURE

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

#### Is the DTC detected?

YES >> Refer to ADP-48, "Diagnosis Procedure".

NO >> INSPECTION END

## Diagnosis Procedure

INFOID:0000000008378083

## 1. CHECK UART COMMUNICATION LINE CONTINUITY

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

Driver seat control unit		Automatic drive positioner control unit		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B552	2	M75	8	Existed

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B552	2		Not existed

#### Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> Repair or replace harness or connector.

#### **B2130 EEPROM**

#### < DTC/CIRCUIT DIAGNOSIS >

## B2130 EEPROM

DTC Logic

#### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2130	EEPROM	Driver seat control unit detected CPU malfunction.	Driver seat control unit

#### DTC CONFIRMATION PROCEDURE

## 1. PERFORM DTC CONFIRMATION PROCEDURE

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

#### Is the DTC detected?

YES >> Refer to ADP-49, "Diagnosis Procedure".

NO >> INSPECTION END

## Diagnosis Procedure

1. REPLACE DRIVER SEAT CONTROL UNIT

Replace driver seat control unit. Refer to ADP-103, "Removal and Installation".

>> INSPECTION END

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#### **POWER SUPPLY AND GROUND CIRCUIT**

#### < DTC/CIRCUIT DIAGNOSIS >

# POWER SUPPLY AND GROUND CIRCUIT DRIVER SEAT CONTROL UNIT

## DRIVER SEAT CONTROL UNIT : Diagnosis Procedure

INFOID:0000000008378086

#### NOTE:

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

#### 1. CHECK FUSIBLE LINK

Check that the following fusible link is not fusing.

Signal name	Fusible link No.
Battery power supply	L (40 A)

#### Is the inspection result normal?

YES >> GO TO 2.

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

## 2. CHECK DRIVER SEAT CONTROL UNIT POWER SUPPLY

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

(+)			
Driver seat control unit		(-)	Voltage (V)
Connector	Terminals		
B551	33	Ground	9 – 16

#### Is the inspection result normal?

YES >> GO TO 3.

NO-1 >> Repair or replace harness between driver seat control unit and fusible link L (40 A).

NO-2 >> Check circuit breaker and replace it if necessary.

#### 3.CHECK DRIVER SEAT CONTROL UNIT GROUND CIRCUIT

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

Driver seat	control unit		Continuity
Connector	Terminal	Ground	Continuity
B551	43		Existed

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace harness.

#### AUTOMATIC DRIVE POSITIONER CONTROL UNIT

## AUTOMATIC DRIVE POSITIONER CONTROL UNIT : Diagnosis Procedure

NFOID:0000000008378087

#### NOTE:

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

#### 1.CHECK FUSIBLE LINK

Check that the following fusible link is not fusing.

Signal name	Fusible link No.	
Battery power supply	L (40 A)	

#### POWER SUPPLY AND GROUND CIRCUIT

#### < DTC/CIRCUIT DIAGNOSIS >

#### Is the inspection result normal?

YES >> GO TO 2.

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

## 2.check automatic drive positioner control unit power supply

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

(+)			
Automatic drive positioner control unit		(-)	Voltage (V)
Connector	Terminals		
M104	25	Ground	9 – 16

#### Is the inspection result normal?

YES >> GO TO 3.

NO-1 >> Repair or replace harness between driver seat control unit and fusible link L (40 A).

NO-2 >> Check circuit breaker and replace it if necessary.

### 3.CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT GROUND CIRCUIT

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

Automatic drive p	ositioner control unit		Continuity
Connector Terminal		Ground	Continuity
M104	30		Existed

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace harness.

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### SLIDING SWITCH

## Component Function Check

#### INFOID:0000000008378088

## 1. CHECK FUNCTION

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

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

#### Is the indication normal?

YES >> INSPECTION END

NO >> Refer to ADP-52, "Diagnosis Procedure".

### Diagnosis Procedure

INFOID:0000000008378089

## 1. CHECK SLIDING SWITCH INPUT SIGNAL

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

(+)		(-)	Voltage (V)
Power seat switch			
Connector	Terminals		
B559	8	Ground	9 – 16
<b>B</b> 339	24	Ground	9 – 10

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

## 2.check sliding switch circuit

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

Driver seat	control unit	Power seat switch		Continuity
Connector	Terminal	Connector Terminal		Continuity
B552	8	B559	8	Existed
D332	24	B009	24	LXISIEU

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B552	8	Giodila	Not existed
	24		Not existed

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <a href="ADP-103">ADP-103</a>, "Removal and Installation".

#### SLIDING SWITCH

#### < DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace harness or connector.

## 3. CHECK SLIDING SWITCH

Refer to ADP-53, "Component Inspection".

#### Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> Replace power seat switch. Refer to <u>ADP-106, "Removal and Installation"</u>.

### Component Inspection

## 1. CHECK SLIDING SWITCH

Turn ignition switch OFF.

2. Disconnect power seat switch (sliding switch) connector.

3. Check continuity between power seat switch (sliding switch) terminals under the following conditions.

Power seat switch (Sliding switch)		Condition		Continuity
Terr	ninal	Condition		Continuity
8		Sliding switch (backward)	Operate	Existed
0	43		Release	Not existed
24	43	Sliding switch (forward)	Operate	Existed
24		Silding Switch (lorward)	Release	Not existed

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to <u>ADP-106</u>, "Removal and Installation".

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#### < DTC/CIRCUIT DIAGNOSIS >

### **RECLINING SWITCH**

## Component Function Check

## 1. CHECK FUNCTION

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

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

#### Is the indication normal?

YES >> INSPECTION END

NO >> Refer to ADP-54, "Diagnosis Procedure".

### Diagnosis Procedure

INFOID:0000000008378092

INFOID:0000000008378091

## 1. CHECK RECLINING SWITCH INPUT SIGNAL

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

(+)			
Power s	Power seat switch		Voltage (V)
Connector	Terminals		
B559	9	Ground	9 – 16
B339	25	Ground	9 – 10

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

## 2. CHECK RECLINING SWITCH CIRCUIT

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

Driver seat	control unit	Power seat switch		Continuity
Connector	Terminal	Connector Terminal		Continuity
B552	9	B559	9	Existed
D332	25	B359	25	LXISIEU

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

Driver sea	Driver seat control unit		Continuity
Connector	Terminal	Ground	Continuity
B552	9	Giodila	Not existed
D332	25	Not e	Not existed

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-103, "Removal and Installation"</u>.

#### **RECLINING SWITCH**

#### < DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace harness or connector.

## 3.CHECK RECLINING SWITCH

Refer to ADP-55, "Component Inspection".

#### Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> Replace power seat switch. Refer to ADP-106, "Removal and Installation".

### Component Inspection

## 1. CHECK RECLINING SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect power seat switch (reclining switch) connector.
- 3. Check continuity between power seat switch (reclining switch) terminals under the following conditions.

Power seat switch (Reclining switch)		Condition		Continuity
Terr	minal	Condition		Continuity
9		Reclining switch (backward)	Operate	Existed
9	43		Release	Not existed
25	45	Reclining switch (forward)	Operate	Existed
23	23	Recilling Switch (lorward)	Release	Not existed

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to <u>ADP-106</u>, "Removal and Installation".

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## **LIFTING SWITCH (FRONT)**

#### < DTC/CIRCUIT DIAGNOSIS >

## LIFTING SWITCH (FRONT)

## Component Function Check

## 1. CHECK FUNCTION

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

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

#### Is the indication normal?

YES >> INSPECTION END

NO >> Refer to ADP-56, "Diagnosis Procedure".

### Diagnosis Procedure

INFOID:0000000008378095

INFOID:0000000008378094

## 1. CHECK LIFTING SWITCH (FRONT) INPUT SIGNAL

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

(+)			
Power seat switch		(-)	Voltage (V)
Connector	Terminals		
B559	10	Ground	9 – 16
B339	26	Ground	9-16

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

## 2.CHECK LIFTING SWITCH (FRONT) CIRCUIT

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

Driver seat	control unit	Power seat switch		Continuity
Connector	Terminal	Connector Terminal		Continuity
B552	10	B559	10	Existed
	26	B359	26	Existed

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B552	10	Giodila	Not existed
	26		Not existed

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <a href="ADP-103">ADP-103</a>, "Removal and Installation".

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

#### < DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace harness or connector.

## 3.CHECK LIFTING SWITCH (FRONT)

Refer to ADP-57, "Component Inspection".

#### Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> Replace power seat switch. Refer to <u>ADP-106, "Removal and Installation"</u>.

### Component Inspection

## 1. CHECK LIFTING SWITCH (FRONT)

- Turn ignition switch OFF.
- 2. Disconnect power seat switch (lifting switch front) connector.
- 3. Check continuity between power seat switch (lifting switch front) terminals under the following conditions.

Power seat switch	Power seat switch (lifting switch front)		Condition		
Terr	Terminal				
10	10	Lifting switch front (down)	Operate	Existed	
10	43		Release	Not existed	
26	26		Lifting switch front (up)	Operate	Existed
20		Litting Switch from (up)	Release	Not existed	

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to <u>ADP-106</u>, "Removal and Installation".

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

#### < DTC/CIRCUIT DIAGNOSIS >

## LIFTING SWITCH (REAR)

## Component Function Check

## 1. CHECK FUNCTION

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

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

#### Is the indication normal?

YES >> INSPECTION END

NO >> Refer to ADP-58, "Diagnosis Procedure".

### Diagnosis Procedure

INFOID:0000000008378098

INFOID:0000000008378097

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

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

(+)				
Power s	Power seat switch		Voltage (V)	
Connector	Terminals			
B559	11	Ground	9 – 16	
D009	27	Giouna	9-10	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

## 2. CHECK LIFTING SWITCH (REAR) CIRCUIT

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

Driver seat	control unit	Power seat switch		Continuity
Connector	Terminal	Connector Terminal		Continuity
B552	11	B559	11	Existed
	27	B359	27	LXISIEU

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

Driver seat control unit			Continuity	
Connector	Terminal	Ground	Continuity	
B552	11	Giodila	Not existed	
	27		Not existed	

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <a href="ADP-103">ADP-103</a>, "Removal and Installation".

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

#### < DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace harness or connector.

## 3.CHECK LIFTING SWITCH (REAR)

Refer to ADP-59, "Component Inspection".

#### Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> Replace power seat switch. Refer to <u>ADP-106, "Removal and Installation"</u>.

### Component Inspection

## 1. CHECK LIFTING SWITCH (REAR)

- 1. Turn ignition switch OFF.
- 2. Disconnect power seat switch (lifting switch rear) connector.
- 3. Check continuity between power seat switch (lifting switch rear) terminals under the following conditions.

Power seat switch (lifting switch rear)		Condition		Continuity
Terminal				
11		Lifting switch rear (down)	Operate	Existed
11	43	Litting Switch Tear (down)	Release	Not existed
27	43	Lifting switch rear (up)	Operate	Existed
21		Litting Switch real (up)	Release	Not existed

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to <u>ADP-106</u>, "Removal and Installation".

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#### **SEAT MEMORY SWITCH**

#### < DTC/CIRCUIT DIAGNOSIS >

### SEAT MEMORY SWITCH

## Component Function Check

## 1. CHECK FUNCTION

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

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

#### Is the indication normal?

YES >> INSPECTION END

NO >> Refer to ADP-60, "Diagnosis Procedure".

### Diagnosis Procedure

INFOID:0000000008378101

INFOID:0000000008378100

## 1. CHECK SEAT MEMORY SWITCH INPUT SIGNAL

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

	(+)		
Seat mer	Seat memory switch		Voltage (V)
Connector	Terminals		
	1		
D13	2	Ground	4 – 6
	3		

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

## 2. CHECK SEAT MEMORY SWITCH CIRCUIT

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

Driver seat	control unit	Seat memory switch		Continuity
Connector	Terminal	Connector Terminal		
	6		2	
B552	22	D13	1	Existed
	28		3	

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

#### **SEAT MEMORY SWITCH**

#### < DTC/CIRCUIT DIAGNOSIS >

Driver sea	Driver seat control unit		Continuity
Connector	Terminal		Continuity
	6	Ground	
B552	22		Not existed
	28		

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-103</u>, "Removal and Installation".

NO >> Repair or replace harness or connector.

## ${f 3.}$ CHECK SEAT MEMORY SWITCH GROUND CIRCUIT

Check continuity between seat memory switch harness connector and ground.

Seat memory switch			Continuity
Connector	Connector Terminal		Continuity
D13	4		Existed

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness or connector.

## 4. CHECK SEAT MEMORY SWITCH

Refer to ADP-61, "Component Inspection".

#### Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> Replace seat memory switch. Refer to <u>ADP-105</u>. "Removal and Installation".

### Component Inspection

INFOID:0000000008378102

## 1. CHECK SEAT MEMORY SWITCH

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

Seat memory switch		Condition		Continuity
Terminal				
1		Memory switch 1	Push	Existed
ı		Welliory Switch 1	Release	Not existed
2	4	Memory switch 2	Push	Existed
2	4		Release	Not existed
3		Set switch	Push	Existed
3			Release	Not existed

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace seat memory switch. Refer to ADP-105, "Removal and Installation".

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#### < DTC/CIRCUIT DIAGNOSIS >

# DOOR MIRROR REMOTE CONTROL SWITCH MIRROR SWITCH

## MIRROR SWITCH: Component Function Check

INFOID:0000000008378103

### 1. CHECK MIRROR SWITCH FUNCTION

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

Monitor item	Condition		
MID CON SWILID/DN	When operating the mirror switch toward the up or down side.	: ON	
MIR CON SW-UP/DN	Other than the above.	: OFF	
MIR CON SW-RH/LH	When operating the mirror switch toward the right or left side.	: ON	
WIR CON SW-RH/LH	Other than the above.	: OFF	

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Refer to ADP-62, "MIRROR SWITCH: Diagnosis Procedure".

### MIRROR SWITCH: Diagnosis Procedure

INFOID:0000000008378104

## 1. CHECK MIRROR SWITCH INPUT SIGNAL

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

	(+)			
Door mirror re	Door mirror remote control switch		Voltage (V)	
Connector	Terminal			
	4	Ground		
D14	12		4 – 6	
D14	13		4-0	
	15			

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

## 2. CHECK MIRROR SWITCH CIRCUIT

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

Automatic drive po	Automatic drive positioner control unit Door mirror remote control switch		Continuity	
Connector	Terminal	Connector	Terminal	Continuity
	3	D14	15	
M75	4		13	Existed
IVI73	15		12	LXISIGU
	16		4	

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

#### < DTC/CIRCUIT DIAGNOSIS >

Automatic drive	Automatic drive positioner control unit		Continuity
Connector	Terminal		Continuity
	3	Ground	
M75	4	Giodria	Not existed
IVI75	15		Not existed
	16		

#### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-104, "Removal and Installation".

NO >> Repair or replace harness.

## 3.check door mirror remote control switch ground circuit

1. Turn ignition switch OFF.

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

Door mirror remote control switch			Continuity
Connector	Connector Terminal		Continuity
D14	7		Existed

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

### 4. CHECK MIRROR SWITCH

Check door mirror remote control switch.

Refer to ADP-63, "MIRROR SWITCH: Component Inspection".

#### Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> Replace door mirror remote control switch.

## MIRROR SWITCH: Component Inspection

## 1. CHECK MIRROR SWITCH

- Turn ignition switch OFF.
- 2. Disconnect door mirror remote control switch connector.
- 3. Check continuity between door mirror remote control switch terminals under the following conditions.

Door mirror remo	Door mirror remote control switch		- Condition	
Terr	Terminal			
4			RIGHT	Existed
4			Other than the above	Not existed
12			DOWN	Existed
12		Mirror switch	Other than the above	Not existed
42		WIITOI SWILCTI	LEFT	Existed
13			Other than the above	Not existed
15			UP	Existed
15			Other than the above	Not existed

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace door mirror remote control switch.

#### CHANGEOVER SWITCH

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#### < DTC/CIRCUIT DIAGNOSIS >

### CHANGEOVER SWITCH: Component Function Check

INFOID:0000000008378106

## 1. CHECK CHANGEOVER SWITCH FUNCTION

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

Monitor item	Condition		
MIR CHNG SW-R/L	When operating the changeover toward the right or left side.	: ON	
WIII OI IINO OVV-IVL	Other than the above.	: OFF	

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Refer to ADP-64, "CHANGEOVER SWITCH: Diagnosis Procedure".

## CHANGEOVER SWITCH: Diagnosis Procedure

INFOID:0000000008378107

## 1. CHECK CHANGEOVER SWITCH INPUT SIGNAL

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

(	+)			
Door mirror remote control switch		(-)	Voltage (V)	
Connector	Terminal			
D14	10	Ground	4 – 6	
D14	11	Ground	4-0	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

## 2.check changeover switch circuit

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

Automatic drive positioner control unit Door mirror remote control switch		Continuity		
Connector	Terminal	Connector Terminal		Continuity
M75	2	D14	11	Existed
IVI73	14	014	10	LAISIGU

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

Automatic drive positioner control unit			Continuity
Connector	Terminal	Ground	Continuity
M75	2	Ground	Not existed
	14	Not exis	NOT EXISTED

#### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-104, "Removal and Installation".

NO >> Repair or replace harness.

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

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

#### < DTC/CIRCUIT DIAGNOSIS >

Door mirror remote control switch			Continuity
Connector	Terminal	Ground	Continuity
D14	7		Existed

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

### 4. CHECK CHANGEOVER SWITCH

Check door mirror remote control switch.

Refer to ADP-65, "CHANGEOVER SWITCH: Component Inspection".

#### Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> Replace door mirror remote control switch.

## CHANGEOVER SWITCH: Component Inspection

## 1. CHECK CHANGEOVER SWITCH

1. Turn ignition switch OFF.

2. Disconnect door mirror remote control switch connector.

3. Check continuity between door mirror remote control switch terminals under the following conditions.

Door mirror remote control switch		Condition		Continuity
Terminal				
10		7 Changeover switch	LEFT	Existed
10	7		Other than the above	Not existed
11			RIGHT	Existed
			Other than the above	Not existed

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace door mirror remote control switch.

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#### POWER SEAT SWITCH GROUND CIRCUIT

#### < DTC/CIRCUIT DIAGNOSIS >

## POWER SEAT SWITCH GROUND CIRCUIT

## Diagnosis Procedure

INFOID:0000000008378109

## 1. CHECK POWER SEAT SWITCH GROUND CIRCUIT

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

Power se	eat switch		Continuity
Connector	Terminal	Ground	Continuity
B559	43		Existed

#### Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> Repair or replace harness or connector.

#### **SLIDING SENSOR**

#### < DTC/CIRCUIT DIAGNOSIS >

### SLIDING SENSOR

## Component Function Check

#### INFOID:0000000008378110

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### 1. CHECK FUNCTION

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

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

<sup>\*:</sup> The value at the seat position attained when the battery is connected is considered to be 32768.

#### Is the indication normal?

YES >> INSPECTION END

NO >> Refer to ADP-67, "Diagnosis Procedure".

## Diagnosis Procedure

INFOID:0000000008378111

## 1. CHECK SLIDING SENSOR SIGNAL

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

(+) Driver seat control unit		(-)	(-) Condition		Signal (V) (Reference value)	
Connector	Terminals				(Indicition value)	
B552	18	Ground	Seat sliding	Operate  Other than the above	10mSec/div 2V/div JMJIA0119ZZ 0 - 1 or 4 - 6	

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-103, "Removal and Installation".

NO >> GO TO 2.

## 2.CHECK SLIDING SENSOR CIRCUIT

Turn ignition switch OFF.

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

Driver seat	control unit	Sliding motor  Connector Terminal		Continuity
Connector	Terminal			Continuity
B552	18	B561	18	Existed

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

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#### **SLIDING SENSOR**

#### < DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B552	18		Not existed

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

## 3.CHECK SLIDING SENSOR POWER SUPPLY

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

(	+)			
Sliding	g motor	(-)	Voltage (V)	
Connector	Terminals			
B561	12	Ground	9 – 16	

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

## 4.CHECK SLIDING SENSOR POWER SUPPLY CIRCUIT

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

Driver seat	Driver seat control unit		Sliding motor		
Connector	Terminal	Connector Terminal		Continuity	
B552	12	B561	12	Existed	

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

Driver seat control unit			Continuity	
Connector Terminal		Ground	Continuity	
B552	12		Not existed	

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-103, "Removal and Installation"</u>.

NO >> Repair or replace harness or connector.

## 5. CHECK SLIDING SENSOR GROUND CIRCUIT

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

Slidin	g motor		Continuity
Connector	Terminal	Ground	Continuity
B561	43		Existed

#### Is the inspection result normal?

YES >> Replace sliding motor.

NO >> Repair or replace harness or connector.

#### **RECLINING SENSOR**

#### < DTC/CIRCUIT DIAGNOSIS >

### **RECLINING SENSOR**

## Component Function Check

#### INFOID:0000000008378112

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### 1. CHECK FUNCTION

- 1. Select "RECLN PULSE" in "Data monitor" mode with CONSULT.
- Check reclining sensor signal under the following conditions.

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

<sup>\*:</sup> The value at the seat position attained when the battery is connected is considered to be 32768.

#### Is the indication normal?

YES >> INSPECTION END

NO >> Refer to ADP-69, "Diagnosis Procedure".

## Diagnosis Procedure

INFOID:0000000008378113

### 1. CHECK RECLINING SENSOR SIGNAL

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

Oriver seat	control unit	(-) Cond		dition	Signal (V) (Reference value)
Connector	Terminals				(rtolololloo valuo)
B552	4	Ground	Seat reclining	Operate	10mSec/div
				Other than the above	0 – 1 or 4 – 6

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-103, "Removal and Installation".

NO >> GO TO 2.

## 2.CHECK RECLINING SENSOR CIRCUIT

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

Driver seat	Driver seat control unit		Reclining motor		
Connector	Terminal	Connector Terminal		Continuity	
B552	4	B554	4	Existed	

**ADP-69** 

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

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#### **RECLINING SENSOR**

#### < DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B552	4		Not existed

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

## 3.CHECK RECLINING SENSOR POWER SUPPLY

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

(	+)		
Reclining motor		(-)	Voltage (V)
Connector	Terminals		
B554	12	Ground	9 – 16

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

## 4.CHECK RECLINING SENSOR POWER SUPPLY CIRCUIT

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

Driver seat	control unit	Reclinii	ng motor	Continuity
Connector	Terminal	Connector	Terminal	Continuity
B552	12	B554	12	Existed

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B552	12		Not existed

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-103</u>, "Removal and Installation".

NO >> Repair or replace harness or connector.

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

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

Reclining motor			Continuity
Connector	Terminal	Ground	Continuity
B554	43		Existed

### Is the inspection result normal?

YES >> Replace reclining motor.

NO >> Repair or replace harness or connector.

## LIFTING SENSOR (FRONT)

#### < DTC/CIRCUIT DIAGNOSIS >

## LIFTING SENSOR (FRONT)

## Component Function Check

#### INFOID:0000000008378114

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### 1. CHECK FUNCTION

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

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

<sup>\*:</sup> The value at the seat position attained when the battery is connected is considered to be 32768.

#### Is the indication normal?

YES >> INSPECTION END

NO >> Refer to ADP-71, "Diagnosis Procedure".

## Diagnosis Procedure

INFOID:0000000008378115

## 1. CHECK LIFTING SENSOR (FRONT) SIGNAL

- Turn ignition switch ON.
- Check signal between driver seat control unit harness connector and ground using an oscilloscope.

	+) control unit	(-)	Condition		Signal (V) (Reference value)
Connector	Terminals				(((0.010100 (0.00)
B552	19	Ground	Seat Lifting (front)	Operate  Other than the above	10mSec/div 2V/div JMJIA0119ZZ 0 - 1 or 4 - 6

#### Is the inspection result normal?

>> Replace driver seat control unit. Refer to ADP-103, "Removal and Installation".

NO >> GO TO 2.

## 2.check lifting sensor (front) circuit

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

Driver seat	control unit	Lifting mo	otor (front)	Continuity
Connector	Terminal	Connector	Terminal	Continuity
B552	19	B555	19	Existed

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

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### LIFTING SENSOR (FRONT)

#### < DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B552	19		Not existed

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

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

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

(	+)		
Lifting motor (front)		(-)	Voltage (V)
Connector	Terminals		
B555	12	Ground	9 – 16

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

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

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

Driver sea	t control unit	Lifting mo	otor (front)	Continuity
Connector	Terminal	Connector	Terminal	Continuity
B552	12	B555	12	Existed

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B552	12		Not existed

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-103</u>, "Removal and Installation".

NO >> Repair or replace harness or connector.

## 5.CHECK LIFTING SENSOR (FRONT) GROUND CIRCUIT

Turn ignition switch OFF.

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

Lifting motor (front)			Continuity
Connector	Terminal	Ground	Continuity
B555	43		Existed

#### Is the inspection result normal?

YES >> Replace lifting motor (front).

NO >> Repair or replace harness or connector.

### LIFTING SENSOR (REAR)

#### < DTC/CIRCUIT DIAGNOSIS >

## LIFTING SENSOR (REAR)

## Component Function Check

#### INFOID:0000000008378116

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## 1. CHECK FUNCTION

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

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

<sup>\*:</sup> The value at the seat position attained when the battery is connected is considered to be 32768.

#### Is the indication normal?

YES >> INSPECTION END

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

## Diagnosis Procedure

INFOID:0000000008378117

## 1. CHECK LIFTING SENSOR (REAR) SIGNAL

- Turn ignition switch ON.
- Check signal between driver seat control unit harness connector and ground using an oscilloscope.

(+)					Signal (V)
Driver seat	control unit	(-)	Condition		(Reference value)
Connector	Terminals				, ,
B552	20	Ground	Seat Lifting (rear)	Operate	10mSec/div 2V/div JMJIA0119ZZ
				Other than the above	0 – 1 or 4 – 6

#### Is the inspection result normal?

>> Replace driver seat control unit. Refer to ADP-103, "Removal and Installation". YES

NO >> GO TO 2.

## 2.CHECK LIFTING SENSOR (REAR) CIRCUIT

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

Driver seat control unit		Lifting motor (rear)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B552	20	B556	20	Existed

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

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## LIFTING SENSOR (REAR)

#### < DTC/CIRCUIT DIAGNOSIS >

Driver seat	Driver seat control unit		Continuity
Connector	Terminal	Ground	Continuity
B552	20		Not existed

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

# 3.check lifting sensor (rear) power supply

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

(+)			
Lifting motor (rear)		(-)	Voltage (V)
Connector	Terminals		
B556	12	Ground	9 – 16

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

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

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

Driver seat	Driver seat control unit		Lifting motor (rear)	
Connector	Terminal	Connector	Terminal	Continuity
B552	12	B556	12	Existed

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

Driver seat	Driver seat control unit		Continuity
Connector	Connector Terminal		Continuity
B552	12		Not existed

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-103, "Removal and Installation"</u>.

NO >> Repair or replace harness or connector.

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

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

Lifting motor (rear)			Continuity
Connector	Terminal	Ground	Continuity
B556	43		Existed

#### Is the inspection result normal?

YES >> Replace lifting motor (rear).

NO >> Repair or replace harness or connector.

#### < DTC/CIRCUIT DIAGNOSIS >

# MIRROR SENSOR

### **DRIVER SIDE**

## DRIVER SIDE : Component Function Check

#### INFOID:0000000008378118

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## 1. CHECK FUNCTION

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

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

#### Is the indication normal?

YES >> INSPECTION END

NO >> Refer to ADP-75, "DRIVER SIDE : Diagnosis Procedure".

### DRIVER SIDE: Diagnosis Procedure

#### INFOID:0000000008378119

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

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

(+) Door mirror (driver side)		Voltage (V)	
Terminals			
23	Ground	4-6	
	Terminals	Terminals	

## Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

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

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

Automatic drive positioner control unit		Door mirror (driver side)		Continuity
Connector	Terminal	Connector Terminal		Continuity
M75	21	D43	23	Existed

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

Automatic drive positioner control unit			Continuity	
Connector Terminal		Ground	Continuity	
M75	21		Not existed	

#### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-104. "Removal and Installation"</u>.

NO >> Repair or replace harness or connector.

#### < DTC/CIRCUIT DIAGNOSIS >

# ${f 3.}$ CHECK DOOR MIRROR (DRIVER SIDE) SENSOR GROUND CIRCUIT

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

Automatic drive po	Automatic drive positioner control unit		Door mirror (driver side)	
Connector	Terminal	Connector	Terminal	Continuity
M75	20	D43	24	Existed

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

Automatic drive positioner control unit			Continuity
Connector	Terminal	Ground	Continuity
M75	20		Not existed

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness or connector.

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

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

Automatic drive po	ositioner control unit	Door mirror (driver side)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M75	6	D43	21	Existed
IVI75	18	D43	22	Existed

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

Automatic drive positioner control unit			Continuity
Connector	Terminal	Ground	Continuity
M75	6	Giodila	Not existed
IVI 7 O	18		Not existed

#### Is the inspection result normal?

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

NO >> Repair or replace harness or connector.

#### PASSENGER SIDE

## PASSENGER SIDE: Component Function Check

INFOID:0000000008378120

### 1. CHECK FUNCTION

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

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

#### Is the indication normal?

YES >> INSPECTION END

#### < DTC/CIRCUIT DIAGNOSIS >

NO >> Refer to ADP-77, "PASSENGER SIDE: Diagnosis Procedure".

### PASSENGER SIDE : Diagnosis Procedure

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

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

(	(+)		
Door mirror (passenger side)		(-)	Voltage (V)
Connector	Terminals		
D3	23	Ground	4 – 6

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

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

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

Automatic drive po	sitioner control unit	Door mirror (p	assenger side)	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M75	21	D3	23	Existed

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

Automatic drive positioner control unit			Continuity
Connector	Terminal	Ground	Continuity
M75	21		Not existed

#### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-104, "Removal and Installation".

NO >> Repair or replace harness or connector.

# ${f 3.}$ CHECK DOOR MIRROR (PASSENGER SIDE) SENSOR GROUND CIRCUIT

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

Automatic drive po	ositioner control unit	Door mirror (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M75	20	D3	24	Existed

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

Automatic drive positioner control unit			Continuity
Connector	Terminal	Ground	Continuity
M75	20		Not existed

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness or connector.

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#### < DTC/CIRCUIT DIAGNOSIS >

## 4. CHECK DOOR MIRROR (PASSENGER SIDE) SENSOR CIRCUIT

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

Automatic drive po	ositioner control unit	Door mirror (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M75	5	D3	21	Existed
IVI75	17	D3	22	Existed

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

Automatic drive positioner control unit			Continuity
Connector	Terminal	Ground	Continuity
M75	5	Ground	Not existed
WI7 S	17		Not existed

#### Is the inspection result normal?

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

NO >> Repair or replace harness or connector.

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## **SLIDING MOTOR**

## Component Function Check

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## 1. CHECK FUNCTION

- 1. Select "SEAT SLIDE" in "Active test" mode with CONSULT.
- 2. Check the sliding motor operation.

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

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

YES >> INSPECTION END

NO >> Refer to ADP-79, "Diagnosis Procedure".

## Diagnosis Procedure

## 1. CHECK SLIDING MOTOR INPUT SIGNAL

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

(+)			Condition		Voltage (V)
Sliding	Sliding motor				
Connector	Terminals				
	B561 38	Ground		OFF	0 – 1
DEC1			SEAT SLIDE	Backward	9 – 16
D301			SEAT SLIDE	OFF	0 – 1
				Forward	9 – 16

#### Is the inspection result normal?

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

NO >> GO TO 2.

## 2.CHECK SLIDING MOTOR CIRCUIT

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

Driver sea	at control unit	Sliding motor		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B551	34	B561	34	Existed
D331	38	5001	38	LAISIEU

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

Driver seat control unit			Continuity	
Connector	Connector Terminal		Continuity	
B551	34	Ground	Not existed	
B001	38		Not existed	

#### Is the inspection result normal?

### **SLIDING MOTOR**

### < DTC/CIRCUIT DIAGNOSIS >

YES >> Replace driver seat control unit. Refer to <u>ADP-103, "Removal and Installation"</u>.

NO >> Repair or replace harness or connector.

#### **RECLINING MOTOR**

#### < DTC/CIRCUIT DIAGNOSIS >

### RECLINING MOTOR

## Component Function Check

## 1. CHECK FUNCTION

- Select "SEAT RECLINING" in "Active test" mode with CONSULT.
- Check the reclining motor operation.

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

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

YES >> INSPECTION END

>> Refer to ADP-81, "Diagnosis Procedure". NO

## Diagnosis Procedure

## 1. CHECK RECLINING MOTOR INPUT SIGNAL

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

(+)						
Reclinir	Reclining motor		Con	Condition		
Connector	Terminals					
	25	35 Ground 39	SEAT RECLINING	OFF	0 – 1	
B554	33			Forward	9 – 16	
B334				OFF	0 – 1	
	39			Backward	9 – 16	

#### Is the inspection result normal?

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

NO >> GO TO 2.

## 2.CHECK RECLINING MOTOR CIRCUIT

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

Driver sea	t control unit	Reclining motor		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B551	35	B554	35	Existed
D001	39	D334	39	LXISIEU

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B551	35	Ground	Not existed
B33 I	39		Not existed

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### **RECLINING MOTOR**

### < DTC/CIRCUIT DIAGNOSIS >

#### Is the inspection result normal?

- YES >> Replace driver seat control unit. Refer to <u>ADP-103, "Removal and Installation"</u>.
- NO >> Repair or replace harness or connector.

## **LIFTING MOTOR (FRONT)**

#### < DTC/CIRCUIT DIAGNOSIS >

## LIFTING MOTOR (FRONT)

## Component Function Check

## 1. CHECK FUNCTION

- Select "SEAT LIFTER FR" in "Active test" mode with CONSULT.
- Check the lifting motor (front) operation.

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

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

YES >> INSPECTION END

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

## Diagnosis Procedure

# 1. CHECK LIFTING MOTOR (FRONT) INPUT SIGNAL

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

(	(+)						
Lifting motor (front)		(-)		dition	Voltage (V)		
Connector	Terminals						
	26	26	36			OFF	0 – 1
B555	30	Ground	SEAT LIFTER FR	Downward	9 – 16		
В333	40	Ground	SEAT LIFTER FR	OFF	0 – 1		
				Upward	9 – 16		

#### Is the inspection result normal?

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

NO >> GO TO 2.

## 2.check lifting motor (front) circuit

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

Driver sea	t control unit	Lifting motor (front)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B551	36	B555	36	Existed
D001	40	B333	40	LAISIEU

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B551	36	Ground	Not existed
B00 I	40		NOT EXISTED

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**ADP-83** 

## **LIFTING MOTOR (FRONT)**

### < DTC/CIRCUIT DIAGNOSIS >

#### Is the inspection result normal?

- YES >> Replace driver seat control unit. Refer to <u>ADP-103, "Removal and Installation"</u>.
- NO >> Repair or replace harness or connector.

## **LIFTING MOTOR (REAR)**

#### < DTC/CIRCUIT DIAGNOSIS >

## LIFTING MOTOR (REAR)

## Component Function Check

#### INFOID:0000000008378128

## 1. CHECK FUNCTION

- Select "SEAT LIFTER RR" in "Active test" mode with CONSULT.
- 2. Check the lifting motor (rear) operation.

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

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

YES >> INSPECTION END

NO >> Refer to ADP-85, "Diagnosis Procedure".

## Diagnosis Procedure

### INFOID:0000000008378129

# 1. CHECK LIFTING MOTOR (REAR) INPUT SIGNAL

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

(+) Lifting motor (rear)		(-)	Con	dition	Voltage (V)
Connector	Terminals				
	41	Ground	SEAT LIFTER RR	OFF	0 – 1
B556	41			Upward	9 – 16
B330	42	Giodila	SEAT LIFTER KK	OFF	0 – 1
	42			Downward	9 – 16

#### Is the inspection result normal?

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

NO >> GO TO 2.

## 2.CHECK LIFTING MOTOR (REAR) CIRCUIT

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

Driver seat	control unit	Lifting motor (rear)		Continuity
Connector	Terminal	Connector Terminal		Continuity
B551	B551 41 B55		41	Existed
D001	42	D330	42	LAISIEU

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B551	41	Ground	Not existed
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## **LIFTING MOTOR (REAR)**

### < DTC/CIRCUIT DIAGNOSIS >

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-103, "Removal and Installation"</u>.

NO >> Repair or replace harness or connector.

#### **DOOR MIRROR MOTOR**

#### < DTC/CIRCUIT DIAGNOSIS >

### DOOR MIRROR MOTOR

## Component Function Check

# 1. CHECK DOOR MIRROR MOTOR FUNCTION

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

Refer to ADP-21, "CONSULT Function".

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Refer to ADP-87, "Diagnosis Procedure".

## Diagnosis Procedure

## 1. CHECK DOOR MIRROR MOTOR INPUT SIGNAL

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

#### [Driver side]

(-	(+)				
Door	mirror	(-)	Condition		Voltage (V)
Connector	Terminals				
40	10			DOWN / RIGHT	9 – 16
	10		Door mirror remote control switch	Other than the above	0 – 1
D43	11	Ground		LEFT	9 – 16
D43	11	Giouria		Other than the above	0 – 1
	10			UP	9 – 16
	12			Other than the above	0 – 1

#### [Passenger side]

(-	+)				
Door mirror		(-)	Condition		Voltage (V)
Connector	Terminals				
	10			DOWN / RIGHT	9 – 16
	10		Door mirror remote control switch -	Other than the above	0 – 1
D3	11	Ground		LEFT	9 – 16
DS	11	Giouria		Other than the above	0 – 1
40			UP	9 – 16	
	12			Other than the above	0 – 1

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

## 2. CHECK DOOR MIRROR MOTOR CIRCUIT

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

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#### DOOR MIRROR MOTOR

#### < DTC/CIRCUIT DIAGNOSIS >

river side] Automatic drive pos	sitioner control unit	Door r	mirror		
Connector	Terminal	Connector	Terminal	Continuity	
	12		10		
M75	23	D43	12	Existed	
	24		11		
Passenger side]		1			
Automatic drive pos	sitioner control unit	Door r	mirror	O antinuit.	

Automatic drive po	Automatic drive positioner control unit Door mirror		Continuity	
Connector	Terminal	Connector	Terminal	Continuity
	10		12	
M75	11	D3	11	Existed
	22		10	

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

[Driver	SIMPL

Automatic drive p	Automatic drive positioner control unit		Continuity
Connector	Terminal		Continuity
	12	Ground	
M75	23		Not existed
	24		
[Passenger side]			
Automatic drive p	oositioner control unit		Continuity
Connector	Terminal		Continuity
	10	Ground	
M75	11		Not existed
	22		

#### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-104, "Removal and Installation"</u>.

NO >> Repair or replace harness or connector.

## 3. CHECK DOOR MIRROR MOTOR

Check door mirror motor.

Refer to ADP-88, "Component Inspection".

#### Is the inspection result normal?

YES >> Check intermittent incident.Refer to GI-42, "Intermittent Incident".

NO >> Replace door mirror motor.

## Component Inspection

INFOID:0000000008378132

## 1. CHECK DOOR MIRROR MOTOR 1

Check that door mirror motor does not trap foreign objects and does not have any damage. Refer to MIR-25, "Exploded View".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace door mirror.

## 2. CHECK DOOR MIRROR MOTOR 2

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

### **DOOR MIRROR MOTOR**

### < DTC/CIRCUIT DIAGNOSIS >

Door mirror		
Termin	Terminal Operations	
(+)	(-)	
10	11	RIGHT
11	10	LEFT
12	10	UP
10	12	DOWN

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace door mirror motor.

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#### **SEAT MEMORY INDICATOR**

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#### < DTC/CIRCUIT DIAGNOSIS >

## SEAT MEMORY INDICATOR

## Component Function Check

## 1. CHECK FUNCTION

- Select "MEMORY SW INDCTR" in "Active test" mode with CONSULT.
- 2. Check the memory indicator operation.

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

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

YES >> INSPECTION END

NO >> Refer to ADP-90, "Diagnosis Procedure".

## Diagnosis Procedure

## 1. CHECK SEAT MEMORY SWITCH INDICATOR OPERATION

Check seat memory switch indicator operation.

#### Which is the malfunctioning indicator?

All indicators are NG>>GO TO 2.

An indicator is NG>>GO TO 4.

## 2. CHECK FUSE

- 1. Turn ignition switch OFF.
- Check that the following fuse is not fusing.

Signal name	Fuse No.	
Battery power supply	10 (10 A)	

#### Is the inspection result normal?

YES >> GO TO 3.

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

## 3. CHECK SEAT MEMORY SWITCH INDICATOR POWER SUPPLY

Check voltage between seat memory switch harness connector and ground.

	(+)		
Seat mer	nory switch	(-)	Voltage (V)
Connector	Terminals		
D13	5	Ground	Battery voltage

#### Is the inspection result normal?

YES >> Replace seat memory switch. Refer to <u>ADP-105, "Removal and Installation"</u>.

NO >> Repair or replace harness between seat memory switch and 10 A fuse [No.10, located in fuse block (J/B)].

### 4. CHECK SEAT MEMORY SWITCH INDICATOR CIRCUIT

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

### **SEAT MEMORY INDICATOR**

#### < DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit		Seat memory switch		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
B552	7	D13	7	Existed	
D332	23	טוט	6	Existed	

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B552	7		Not existed
B332	23		Not existed

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-103, "Removal and Installation"</u>.

NO >> Repair or replace harness or connector.

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#### < SYMPTOM DIAGNOSIS >

## SYMPTOM DIAGNOSIS

# MANUAL FUNCTION DOES NOT OPERATE

#### ALL COMPONENT

## ALL COMPONENT : Diagnosis Procedure

INFOID:0000000008378135

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

Check driver seat control unit power supply and ground circuit.

Refer to ADP-50, "DRIVER SEAT CONTROL UNIT: Diagnosis Procedure".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

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

Check automatic drive positioner control unit power supply and ground circuit.

Refer to ADP-50, "AUTOMATIC DRIVE POSITIONER CONTROL UNIT: Diagnosis Procedure".

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

## 3.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 1.

POWER SEAT

## POWER SEAT : Diagnosis Procedure

INFOID:0000000008378136

## 1. CHECK POWER SEAT SWITCH GROUND CIRCUIT

Check power seat switch ground circuit.

Refer to ADP-66, "Diagnosis Procedure".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness or connector.

## 2 . CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 1.

SEAT SLIDING

## SEAT SLIDING: Diagnosis Procedure

INFOID:0000000008378137

## 1. CHECK SLIDING MECHANISM

Check for the following.

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

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

## 2.CHECK SLIDING SWITCH

< SYMPTOM DIAGNOSIS >	
Check sliding switch.  Refer to ADP-52, "Component Function Check".	^
Is the inspection result normal?	Α
YES >> GO TO 3.	
NO >> Repair or replace the malfunction parts.  3.CHECK SLIDING MOTOR	В
Check sliding motor.	
Refer to ADP-79, "Component Function Check".	С
Is the inspection result normal?	
YES >> GO TO 4.  NO >> Repair or replace the malfunction parts.	D
4.CONFIRM THE OPERATION	
Check the operation again.	Е
Is the result normal?	
YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".  NO >> GO TO 1.	F
SEAT RECLINING	
SEAT RECLINING : Diagnosis Procedure	G
1.CHECK RECLINING MECHANISM	
<ul><li>Check for the following.</li><li>Mechanism deformation or pinched foreign materials.</li></ul>	Н
Interference with other parts because of poor installation.	
Is the inspection result normal?	
\/FO	
YES >> GO TO 2.  NO >> Repair or replace the malfunction parts.	
	ADP
NO >> Repair or replace the malfunction parts.	ADP
NO >> Repair or replace the malfunction parts.  2.CHECK RECLINING SWITCH  Check reclining switch.  Refer to ADP-54, "Component Function Check".	ADP K
NO >> Repair or replace the malfunction parts.  2.CHECK RECLINING SWITCH  Check reclining switch. Refer to ADP-54, "Component Function Check".  Is the inspection result normal?  YES >> GO TO 3.	
NO >> Repair or replace the malfunction parts.  2.CHECK RECLINING SWITCH  Check reclining switch.  Refer to ADP-54, "Component Function Check".  Is the inspection result normal?  YES >> GO TO 3.  NO >> Repair or replace the malfunction parts.	
NO >> Repair or replace the malfunction parts.  2.CHECK RECLINING SWITCH  Check reclining switch. Refer to ADP-54, "Component Function Check".  Is the inspection result normal?  YES >> GO TO 3.  NO >> Repair or replace the malfunction parts.  3.CHECK RECLINING MOTOR	
NO >> Repair or replace the malfunction parts.  2.CHECK RECLINING SWITCH  Check reclining switch.  Refer to ADP-54, "Component Function Check".  Is the inspection result normal?  YES >> GO TO 3.  NO >> Repair or replace the malfunction parts.	
NO >> Repair or replace the malfunction parts.  2.CHECK RECLINING SWITCH  Check reclining switch. Refer to ADP-54, "Component Function Check".  Is the inspection result normal?  YES >> GO TO 3.  NO >> Repair or replace the malfunction parts.  3.CHECK RECLINING MOTOR  Check reclining motor.  Refer to ADP-81, "Component Function Check".  Is the inspection result normal?	K
2.CHECK RECLINING SWITCH  Check reclining switch. Refer to ADP-54, "Component Function Check".  Is the inspection result normal?  YES >> GO TO 3.  NO >> Repair or replace the malfunction parts.  3.CHECK RECLINING MOTOR  Check reclining motor.  Refer to ADP-81, "Component Function Check".  Is the inspection result normal?  YES >> GO TO 4.	K L M
NO >> Repair or replace the malfunction parts.  2.CHECK RECLINING SWITCH  Check reclining switch. Refer to ADP-54, "Component Function Check".  Is the inspection result normal?  YES >> GO TO 3.  NO >> Repair or replace the malfunction parts.  3.CHECK RECLINING MOTOR  Check reclining motor.  Refer to ADP-81, "Component Function Check".  Is the inspection result normal?	K
NO >> Repair or replace the malfunction parts.  2.CHECK RECLINING SWITCH  Check reclining switch. Refer to ADP-54, "Component Function Check".  Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunction parts.  3.CHECK RECLINING MOTOR  Check reclining motor. Refer to ADP-81, "Component Function Check".  Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunction parts.	K L M
NO >> Repair or replace the malfunction parts.  2.CHECK RECLINING SWITCH  Check reclining switch. Refer to ADP-54, "Component Function Check".  Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunction parts.  3.CHECK RECLINING MOTOR  Check reclining motor. Refer to ADP-81, "Component Function Check".  Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunction parts.  4.CONFIRM THE OPERATION  Check the operation again. Is the result normal?	K L M
NO >> Repair or replace the malfunction parts.  2.CHECK RECLINING SWITCH  Check reclining switch. Refer to ADP-54, "Component Function Check".  Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunction parts.  3.CHECK RECLINING MOTOR  Check reclining motor. Refer to ADP-81, "Component Function Check".  Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunction parts.  4.CONFIRM THE OPERATION  Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".	K L M
NO >> Repair or replace the malfunction parts.  2.CHECK RECLINING SWITCH  Check reclining switch. Refer to ADP-54, "Component Function Check".  Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunction parts.  3.CHECK RECLINING MOTOR  Check reclining motor. Refer to ADP-81, "Component Function Check".  Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunction parts.  4.CONFIRM THE OPERATION  Check the operation again. Is the result normal?	K L M
NO >> Repair or replace the malfunction parts.  2. CHECK RECLINING SWITCH  Check reclining switch. Refer to ADP-54, "Component Function Check".  Is the inspection result normal?  YES >> GO TO 3. NO >> Repair or replace the malfunction parts.  3. CHECK RECLINING MOTOR  Check reclining motor. Refer to ADP-81, "Component Function Check".  Is the inspection result normal?  YES >> GO TO 4. NO >> Repair or replace the malfunction parts.  4. CONFIRM THE OPERATION  Check the operation again.  Is the result normal?  YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".  NO >> GO TO 1.	K L M N
NO >> Repair or replace the malfunction parts.  2.CHECK RECLINING SWITCH  Check reclining switch. Refer to ADP-54, "Component Function Check".  Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunction parts.  3.CHECK RECLINING MOTOR  Check reclining motor. Refer to ADP-81, "Component Function Check".  Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunction parts.  4.CONFIRM THE OPERATION  Check the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO >> GO TO 1.  SEAT LIFTING (FRONT)	K L M N

Revision: 2012 August ADP-93 2013 QUEST

#### < SYMPTOM DIAGNOSIS >

• Interference with other parts because of poor installation.

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

## 2.CHECK LIFTING SWITCH (FRONT)

Check lifting switch (front).

Refer to ADP-56, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

## 3.CHECK LIFTING MOTOR (FRONT)

Check lifting motor (front).

Refer to ADP-83, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunction parts.

### 4.CONFIRM THE OPERATION

Check the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 1.

SEAT LIFTING (REAR)

## SEAT LIFTING (REAR) : Diagnosis Procedure

INFOID:0000000008378140

## 1. CHECK LIFTING (REAR) MECHANISM

Check for the following.

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

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

## 2. CHECK LIFTING SWITCH (REAR)

Check lifting switch (rear).

Refer to ADP-58, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

## 3.CHECK LIFTING MOTOR (REAR)

Check lifting motor (rear).

Refer to ADP-85, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunction parts.

### 4.CONFIRM THE OPERATION

Check the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 1.

#### DOOR MIRROR

#### < SYMPTOM DIAGNOSIS >

< SYMPTOM DIAGNOSIS >	
DOOR MIRROR : Diagnosis Procedure	0000008378141 A
1. CHECK DOOR MIRROR MECHANISM	A
Check for the following.  • Mechanism deformation or pinched foreign materials.  • Interference with other parts because of poor installation.  Is the inspection result normal?	В
YES >> GO TO 2.  NO >> Repair or replace the malfunction parts.  2.CHECK DOOR MIRROR REMOTE CONTROL SWITCH	С
Check door mirror remote control switch. Refer to following.  • Mirror switch: Refer to ADP-62, "MIRROR SWITCH: Component Function Check".  • Changeover switch: Refer to ADP-64, "CHANGEOVER SWITCH: Component Function Check".  Is the inspection result normal?	D
YES >> GO TO 3. NO >> Repair or replace the malfunction parts.  3. CHECK DOOR MIRROR MOTOR	F
Check door mirror motor. Refer to ADP-87, "Component Function Check".  Is the inspection result normal?  YES >> GO TO 4.	G
NO >> Repair or replace the malfunction parts.  4.CONFIRM THE OPERATION	Н
Check the operation again.  Is the result normal?  YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".  NO >> GO TO 1.	ADP
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Revision: 2012 August ADP-95 2013 QUEST

#### **MEMORY FUNCTION DOES NOT OPERATE**

#### < SYMPTOM DIAGNOSIS >

## MEMORY FUNCTION DOES NOT OPERATE

### ALL COMPONENT

## ALL COMPONENT : Diagnosis Procedure

INFOID:0000000008378142

## 1. CHECK MANUAL OPERATION

Check manual operation.

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

# $2.\mathsf{PERFORM}$ INITIALIZATION AND MEMORY STORING PROCEDURE

1. Perform initialization procedure.

Refer to ADP-40, "Work Procedure".

2. Perform memory storing procedure.

Refer to ADP-41, "Work Procedure".

3. Check memory function.

Refer to ADP-15, "MEMORY FUNCTION: System Description".

#### Is the inspection result normal?

YES >> Memory function is normal.

NO >> GO TO 3.

## 3. CHECK SEAT MEMORY SWITCH

#### Check seat memory switch.

Refer to ADP-60, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace seat memory switch.

#### 4.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 1.

SEAT SLIDING

## SEAT SLIDING : Diagnosis Procedure

INFOID:0000000008378143

## 1. CHECK MANUAL OPERATION

Check manual operation.

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to ADP-92, "SEAT SLIDING : Diagnosis Procedure"

## 2.CHECK SLIDING SENSOR

Check sliding sensor.

Refer to ADP-67, "Component Function Check".

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

## 3.CONFIRM THE OPERATION

Check the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

Revision: 2012 August ADP-96 2013 QUEST

## **MEMORY FUNCTION DOES NOT OPERATE**

< SYMPTOM DIAGNOSIS >		
NO >> GO TO 1. SEAT RECLINING		Α
SEAT RECLINING : Diagnosis Procedure	INFOID:0000000008378144	
1. CHECK MANUAL OPERATION		В
Check manual operation.		
Is the inspection result normal?		С
YES >> GO TO 2. NO >> Refer to ADP-93, "SEAT RECLINING : Diagnosis Procedure"		
2.CHECK RECLINING SENSOR		D
Check reclining sensor.		
Refer to ADP-69, "Component Function Check".		Е
Is the inspection result normal?  YES >> GO TO 3.		
YES >> GO TO 3. NO >> Repair or replace the malfunction parts.		_
3.CONFIRM THE OPERATION		F
Check the operation again.		
Is the result normal?		G
YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".  NO >> GO TO 1.		
SEAT LIFTING (FRONT)		Н
SEAT LIFTING (FRONT) : Diagnosis Procedure	INFOID:000000008378145	
1.CHECK MANUAL OPERATION		ı
Check manual operation.		
Is the inspection result normal?		ADP
YES >> GO TO 2.	-	
NO >> Refer to <u>ADP-93, "SEAT LIFTING (FRONT): Diagnosis Procedure"</u> 2.CHECK LIFTING SENSOR (FRONT)		Κ
Check lifting sensor (front).		
Refer to ADP-71, "Component Function Check".		ı
Is the inspection result normal?		_
YES >> GO TO 3.		
NO >> Repair or replace the malfunction parts.		M
3.CONFIRM THE OPERATION		
Check the operation again.		N
Is the result normal?		N
Is the result normal?  YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".		N O
Is the result normal?  YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".  NO >> GO TO 1.	INFOID:0000000008378146	
Is the result normal?  YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".  NO >> GO TO 1.  SEAT LIFTING (REAR)	INFOID:0000000008378146	
Is the result normal?  YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".  NO >> GO TO 1.  SEAT LIFTING (REAR)  SEAT LIFTING (REAR): Diagnosis Procedure  1.CHECK MANUAL OPERATION  Check manual operation.	INFOID:000000008378146	
Is the result normal?  YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".  NO >> GO TO 1.  SEAT LIFTING (REAR)  SEAT LIFTING (REAR): Diagnosis Procedure  1.CHECK MANUAL OPERATION  Check manual operation.  Is the inspection result normal?	INFOID:0000000008378146	
Is the result normal?  YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".  NO >> GO TO 1.  SEAT LIFTING (REAR)  SEAT LIFTING (REAR): Diagnosis Procedure  1.CHECK MANUAL OPERATION  Check manual operation.	INFOID:0000000008378146	

#### **MEMORY FUNCTION DOES NOT OPERATE**

#### < SYMPTOM DIAGNOSIS >

# 2.CHECK LIFTING SENSOR (REAR)

Check lifting sensor (rear).

Refer to ADP-73, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

## 3.CONFIRM THE OPERATION

Check the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 1.

#### DOOR MIRROR

## DOOR MIRROR: Diagnosis Procedure

INFOID:0000000008378147

## 1. CHECK MANUAL OPERATION

Check manual operation.

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to ADP-95, "DOOR MIRROR: Diagnosis Procedure"

## 2. CHECK MIRROR SENSOR

#### Check mirror sensor. Refer to following.

Driver side : ADP-75, "DRIVER SIDE : Component Function Check".

Passenger side: <u>ADP-76, "PASSENGER SIDE: Component Function Check"</u>.

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

### 3.CONFIRM THE OPERATION

Check the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 1.

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

< SYMPTOM DIAGNOSIS >

Diagnosis Procedure	INFOID:000000008378148
1.CHECK SYSTEM SETTING	
<ol> <li>Check system setting.         Refer to <u>ADP-43, "Work Procedure"</u>.     </li> <li>Check the operation.</li> </ol>	
Is the inspection result normal?  YES >> INSPECTION END NO >> GO TO 2.	
2.PERFORM SYSTEM INITIALIZATION	
<ol> <li>Perform system initialization.     Refer to ADP-40, "Work Procedure".</li> <li>Check the operation.</li> </ol>	
Is the inspection result normal?  YES >> INSPECTION END NO >> GO TO 3.	
3.CHECK FRONT DOOR SWITCH (DRIVER SIDE)	
Check front door switch (driver side).  Refer to <u>DLK-210, "Component Function Check"</u> .  Is the inspection result normal?  YES >> GO TO 4.	
NO >> Repair or replace the malfunction parts.  4.CONFIRM THE OPERATION	
Confirm the operation again.  Is the result normal?  YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".  NO >> GO TO 1.	

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#### INTELLIGENT KEY INTERLOCK FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

## INTELLIGENT KEY INTERLOCK FUNCTION DOES NOT OPERATE

## Diagnosis Procedure

#### INFOID:0000000008378149

## 1. PERFORM INTELLIGENT KEY INTERLOCK STORING PROCEDURE

- Perform Intelligent Key interlock storing procedure. Refer to ADP-42, "Work Procedure".
- 2. Check the operation.

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 2.

## 2. CHECK DOOR LOCK FUNCTION

#### Check door lock function.

Refer to DLK-134, "Work Flow".

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

## 3. CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check the intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 1.

## **MEMORY INDICATE DOES NOT OPERATE**

< SYMPTOM DIAGNOSIS >		
MEMORY INDICATE DOES NOT OPERATE		А
Diagnosis Procedure	INFOID:000000008378150	
1. CHECK SEAT MEMORY SWITCH INDICATOR		В
Check seat memory switch indicator.  Refer to ADP-90, "Component Function Check".		
Is the inspection result normal?		С
YES >> GO TO 2. NO >> Repair or replace the malfunction parts.		
2.CONFIRM THE OPERATION		D
Confirm the operation again.		
<u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u> .		Е
NO >> GO TO 1.		
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### **NORMAL OPERATING CONDITION**

# NORMAL OPERATING CONDITION

Description INFOID:0000000008378151

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

Symptom	Cause	Action to take	Reference page
	No initialization has been performed.	Perform initialization.	ADP-40, "Description"
Entry/exit assist function do not operate.	Entry/exit assist function is disabled.  NOTE: Entry/exit assist function is set to ON before delivery (initial setting).	Change the settings.	ADP-43, "Description"
Entry assist function does not operate.	Manual operation with power seat switch was performed after exit assist function execution.	Perform the entry assist function.	ADP-18, "ENTRY AS- SIST FUNCTION : Sys- tem Description"
Lumbar support does not perform memory operation.	The lumbar support system are controlled independently with no link to the automatic drive positioner system.	_	SE-13, "POWER SEAT SYSTEM : System De- scription"
Memory function, entry/exit assist function, or Intelligent Key interlock function does not operate.	The operating conditions are not fulfilled.	Fulfill the operation conditions.	Memory function : ADP-15, "MEMORY FUNCTION : System Description"
			Entry assist function : ADP-18, "ENTRY AS- SIST FUNCTION : Sys- tem Description"
			Exit assist function : ADP-17, "EXIT ASSIST FUNCTION : System Description"
			Intelligent Key interlock function : ADP-19, "IN- TELLIGENT KEY IN- TERLOCK FUNCTION : System Description"

#### **DRIVER SEAT CONTROL UNIT**

< REMOVAL AND INSTALLATION >

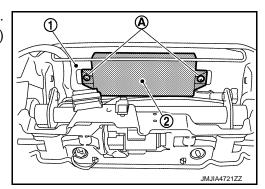
## **REMOVAL AND INSTALLATION**

## DRIVER SEAT CONTROL UNIT

#### Removal and Installation

#### **REMOVAL**

- 1. Remove driver seat. Refer to <u>SE-84. "Removal and Installation"</u>.
- 2. Remove screws (A), and then remove driver seat control unit (2) from seat cushion frame (1)



#### **INSTALLATION**

Install in the reverse order of removal.

#### NOTE:

After installing the driver seat, perform additional service when replacing control unit. Refer to <u>ADP-39</u>, <u>"Description"</u>.

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

< REMOVAL AND INSTALLATION >

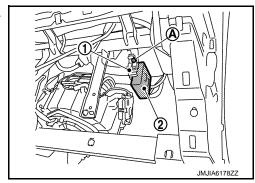
## **AUTOMATIC DRIVE POSITIONER CONTROL UNIT**

#### Removal and Installation

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#### **REMOVAL**

- 1. Remove instrument lower panel RH. Refer to <u>IP-13, "Removal and Installation"</u>.
- 2. Remove screw (A), and then remove automatic drive positioner control unit (2) from bracket (1).



#### **INSTALLATION**

Install in the reverse order of removal.

#### NOTE:

After installing the driver seat, perform additional service when replacing control unit. Refer to <u>ADP-39</u>. "<u>Description"</u>.

#### **SEAT MEMORY SWITCH**

#### < REMOVAL AND INSTALLATION >

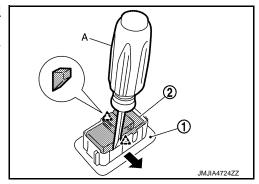
## **SEAT MEMORY SWITCH**

## Removal and Installation

#### **REMOVAL**

- Remove front door finisher. Refer to INT-13, "Removal and Installation".
- 2. Press pawls and remove seat memory switch (1) from switch finisher (1) using remover tool (A).





#### **INSTALLATION**

Install in the reverse order of removal.

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#### **POWER SEAT SWITCH**

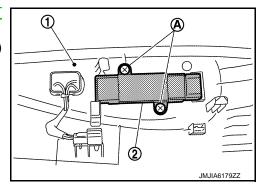
### < REMOVAL AND INSTALLATION >

## **POWER SEAT SWITCH**

## Removal and Installation

#### **REMOVAL**

- 1. Remove seat cushion outer finisher. Refer to <u>SE-90, "SEAT CUSHION: Disassembly and Assembly"</u>.
- 2. Remove screws (A), and then remove power seat switch (2) from seat cushion outer finisher (1).



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#### **INSTALLATION**

Install in the reverse order of removal.