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**CONTENTS** 

PRECAUTION5	ENTRY ASSIST FUNCTION: System Description	F
PRECAUTIONS	INTELLIGENT KEY INTERLOCK FUNCTION20 INTELLIGENT KEY INTERLOCK FUNCTION: System Diagram	) )    -
COMPONENT PARTS       6         Component Parts Location       6         Component Description       7	DIAGNOSIS SYSTEM (DRIVER SEAT CONTROL UNIT)23  CONSULT Function23	3
SYSTEM10	ECU DIAGNOSIS INFORMATION26	3 AE
AUTOMATIC DRIVE POSITIONER SYSTEM	BCM (BODY CONTROL MODULE)       26         List of ECU Reference       26         DRIVER SEAT CONTROL UNIT       27         Reference Value       27         Fail Safe       32         DTC Index       33         AUTOMATIC DRIVE POSITIONER CONTROL UNIT       34         Reference Value       34         LIFTING SENSOR CONTROL UNIT       37         Reference Value       37	2 L 3 M
tem Description	WIRING DIAGRAM39  AUTOMATIC DRIVE POSITIONER SYSTEM39  Wiring Diagram39	)
EXIT ASSIST FUNCTION	BASIC INSPECTION53  DIAGNOSIS AND REPAIR WORK FLOW53  Work Flow53  INSPECTION AND ADJUSTMENT56	<b>3</b> <b>3</b> 3

ADDITIONAL SERVICE WHEN REMOVING BAT-		Diagnosis Procedure	69
TERY NEGATIVE TERMINAL	. 56	DO400 FEDDOM	
ADDITIONAL SERVICE WHEN REMOVING		B2130 EEPROM	
BATTERY NEGATIVE TERMINAL : Description	. 56	DTC Logic	
ADDITIONAL SERVICE WHEN REMOVING		Diagnosis Procedure	71
BATTERY NEGATIVE TERMINAL : Special Repair Requirement	. 56	POWER SUPPLY AND GROUND CIRCUIT	72
ADDITIONAL SERVICE WHEN REPLACING		DRIVER SEAT CONTROL UNIT	72
CONTROL UNIT	56	DRIVER SEAT CONTROL UNIT :	
ADDITIONAL SERVICE WHEN REPLACING		Diagnosis Procedure	
CONTROL UNIT : Description	. 56	DRIVER SEAT CONTROL UNIT : Special Repair	
ADDITIONAL SERVICE WHEN REPLACING		Requirement	72
CONTROL UNIT : Special Repair Requirement	. 57	AUTOMATIC DRIVE POSITIONER CONTROL UNIT	72
SYSTEM INITIALIZATION	. 57	AUTOMATIC DRIVE POSITIONER CONTROL	12
SYSTEM INITIALIZATION : Description	. 57	UNIT : Diagnosis Procedure	72
SYSTEM INITIALIZATION : Special Repair Re-		AUTOMATIC DRIVE POSITIONER CONTROL	12
quirement	. 57	UNIT : Special Repair Requirement	73
MEMORY STORING	EO	ONT : Opecial Nepall Nequilement	73
MEMORY STORING : Description		LIFTING SENSOR CONTROL UNIT	73
MEMORY STORING : Description	. 56	LIFTING SENSOR CONTROL UNIT:	
ment	58	Diagnosis Procedure	73
mont	. 50	SLIDING SWITCH	75
INTELLIGENT KEY INTERLOCK STORING	. 58	Component Function Check	
INTELLIGENT KEY INTERLOCK STORING : De-		Diagnosis Procedure	
scription	. 58	Component Inspection	
INTELLIGENT KEY INTERLOCK STORING:		Component inspection	70
Special Repair Requirement	. 58	RECLINING SWITCH	77
SYSTEM SETTING	<b>5</b> 0	Component Function Check	77
SYSTEM SETTINGSYSTEM SETTING : Description		Diagnosis Procedure	
SYSTEM SETTING: Description	. 59	Component Inspection	
· · · · · · · · · · · · · · · · · · ·	. 59	LIETING CWITCH (FRONT)	
		LIFTING SWITCH (FRONT)	
DTC/CIRCUIT DIAGNOSIS	61	Component Function Check	
HARRA CAN COMM CIRCUIT		Diagnosis Procedure	
U1000 CAN COMM CIRCUIT		Component Inspection	60
Description		LIFTING SWITCH (REAR)	81
DTC Logic		Component Function Check	
Diagnosis Procedure	. 61	Diagnosis Procedure	
U1010 CONTROL UNIT (CAN)	. 62	Component Inspection	82
DTC Logic		TII T 014/1T011	
Diagnosis Procedure		TILT SWITCH	
_		Component Function Check	
B2112 SLIDING MOTOR		Diagnosis Procedure	
DTC Logic		Component Inspection	84
Diagnosis Procedure	. 63	TELESCOPIC SWITCH	85
B2113 RECLINING MOTOR	65	Component Function Check	
DTC Logic		Diagnosis Procedure	
Diagnosis Procedure		Component Inspection	
Diagnosis Flocedule	. ບວ	·	
B2116 TILT MOTOR	. 67	SEAT MEMORY SWITCH	
DTC Logic		Component Function Check	
Diagnosis Procedure	. 67	Diagnosis Procedure	
DOLOG HADT COMMUNICATION LINE		Component Inspection	88
B2128 UART COMMUNICATION LINE		POWER WINDOW MAIN SWITCH	90
Description		I OTTER THEODY WANT STILL	09
DTC Logic	. 69	CHANGEOVER SWITCH	89

CHANGEOVER SWITCH : Component Function	Diagnosis Procedure118
Check	LIFTING MOTOR (REAR)120
CHANGEOVER SWITCH: Diagnosis Procedure89 CHANGEOVER SWITCH: Component Inspec-	Component Function Check120
tion90	Diagnosis Procedure120
MIRROR SWITCH90	TILT MOTOR122
MIRROR SWITCH : Component Function Check90	Component Function Check122
MIRROR SWITCH : Diagnosis Procedure91	Diagnosis Procedure122
MIRROR SWITCH : Component Inspection92	TELESCOPIC MOTOR124
POWER SEAT SWITCH GROUND CIRCUIT93	Component Function Check124
Diagnosis Procedure93	Diagnosis Procedure124
TILT &TELESCOPIC SWITCH GROUND CIR-	DOOR MIRROR MOTOR126
CUIT94	Component Function Check126
Diagnosis Procedure94	Diagnosis Procedure126
•	Component Inspection127
SLIDING SENSOR95	SEAT MEMORY INDICATOR129
Component Function Check	Component Function Check129
Diagnosis Procedure95	Diagnosis Procedure129
RECLINING SENSOR97	
Component Function Check97	SYMPTOM DIAGNOSIS131
Diagnosis Procedure97	MANUAL FUNCTION DOES NOT OPERATE. 131
LIFTING SENSOR (FRONT)99	H
Component Function Check99	ALL COMPONENT
Diagnosis Procedure99	ALL COMPONENT : Diagnosis Procedure131
LIETING SENSOD (DEAD)	POWER SEAT131
LIFTING SENSOR (REAR)102 Component Function Check	POWER SEAT : Diagnosis Procedure131
Diagnosis Procedure102	TILT & TELESCOPIC131
	TILT & TELESCOPIC : Diagnosis Procedure131
TILT SENSOR105	
Component Function Check105	SEAT SLIDING132
Diagnosis Procedure105	SEAT SLIDING : Diagnosis Procedure132
TELESCOPIC SENSOR107	SEAT RECLINING132
Component Function Check	SEAT RECLINING: Diagnosis Procedure132
Diagnosis Procedure107	OF AT LIFTING (FDONT)
MIDDOD CENCOD	SEAT LIFTING (FRONT)133 SEAT LIFTING (FRONT) : Diagnosis Procedure 133
MIRROR SENSOR110	
DRIVER SIDE110	SEAT LIFTING (REAR)
DRIVER SIDE : Component Function Check 110	SEAT LIFTING (REAR) : Diagnosis Procedure133
DRIVER SIDE : Diagnosis Procedure110	STEERING TILT134
PASSENGER SIDE111	STEERING TILT : Diagnosis Procedure134
PASSENGER SIDE :	STEERING TELESCOPIC134
Component Function Check111	STEERING TELESCOPIC : Diagnosis Procedure 134
PASSENGER SIDE : Diagnosis Procedure 112	· ·
SLIDING MOTOR114	DOOR MIRROR135
Component Function Check114	DOOR MIRROR : Diagnosis Procedure135
Diagnosis Procedure114	MEMORY FUNCTION DOES NOT OPERATE. 136
RECLINING MOTOR116	ALL COMPONENT136
Component Function Check116	ALL COMPONENT : Diagnosis Procedure136
Diagnosis Procedure116	ALL COMIT CIVETY : Diagnosis Flocedule
-	SEAT SLIDING136
LIFTING MOTOR (FRONT)118	SEAT SLIDING : Diagnosis Procedure136
Component Function Check118	

SEAT RECLINING137	Diagnosis Procedure142
SEAT RECLINING : Diagnosis Procedure137	MEMORY INDICATE DOES NOT OPERATE143
SEAT LIFTING (FRONT)137	Diagnosis Procedure143
SEAT LIFTING (FRONT) : Diagnosis Procedure137	NORMAL OPERATING CONDITION144
SEAT LIFTING (REAR)137 SEAT LIFTING (REAR) : Diagnosis Procedure138	Description
· · · · ·	REMOVAL AND INSTALLATION145
STEERING TILT	DRIVER SEAT CONTROL UNIT145
STEERING TELESCOPIC	Removal and Installation145
STEERING TELESCOPIC : Diagnosis Procedure.138	AUTOMATIC DRIVE POSITIONER CON-
DOOR MIRROR139 DOOR MIRROR : Diagnosis Procedure139	TROL UNIT146 Removal and Installation146
ENTRY/EXIT ASSIST FUNCTION DOES NOT OPERATE140	LIFTING SENSOR CONTROL UNIT147 Removal and Installation147
Diagnosis Procedure140	SEAT MEMORY SWITCH148
SEAT SYNCHRONIZATION FUNCTION	Removal and Installation148
DOES NOT OPERATE141	POWER SEAT SWITCH149
Diagnosis Procedure141	Removal and Installation149
INTELLIGENT KEY INTERLOCK FUNCTION DOES NOT OPERATE142	TILT&TELESCOPIC SWITCH150 Removal and Installation

# **PRECAUTION**

## **PRECAUTIONS**

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

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

#### **WARNING:**

Always observe the following items for preventing accidental activation.

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

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

#### **WARNING:**

Always observe the following items for preventing accidental activation.

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

# Precautions for Removing of Battery Terminal

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

#### NOTE:

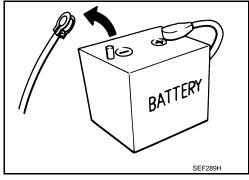
ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.

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

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

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

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



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# SYSTEM DESCRIPTION

# **COMPONENT PARTS**

**Component Parts Location** 

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Door mirror

- Refer to TM-11, "A/T CONTROL SYSTEM: Component Parts Loca-
- Combination meter Refer to MWI-6, "METER SYSTEM Component Parts Location"
- Tilt & telescopic switch
- IPDM E/R Refer to PCS-5, "IPDM E/R : Component Parts Location"
- ABS actuator and electric unit (control unit) Refer to BRC-10, "Component Parts Location"

# **COMPONENT PARTS**

## < SYSTEM DESCRIPTION >

7.	Automatic drive positioner control unit	8.	BCM Refer to BCS-4, "BODY CONTROL SYSTEM: Component Parts Location"	9.	Telescopic motor
10.	Tilt motor	11.	Reclining switch	12.	Power window main switch (door mirror remote control switch)
13.	Power seat switch	14.	Reclining motor	15.	Diver seat control unit
16.	Lifting motor (rear)	17.	Lifting motor (front)	18.	Sliding motor
19.	Lifting sensor control unit	20.	Driver side door switch		
A.	View with steering column cover low- er and instrument driver lower panel removed	B.	View with seat cushion pad and seat back pad removed	C.	Backside of the seat cushion

# Component Description

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Component parts	Description
Driver seat control unit	<ul> <li>Main units of automatic drive positioner system.</li> <li>It is connected to the CAN.</li> <li>It communicates with automatic drive positioner control unit via UART communication.</li> <li>It perform memory function after receiving the door unlock signal from BCM.</li> <li>The address of each part is recorded.</li> <li>Operates each motor of seat to the registered position.</li> <li>Requests the operation of steering column and door mirror to automatic drive positioner control unit</li> <li>Operates the specific seat motor with the signal from power seat switch.</li> <li>Transmits the ignition switch signal (ACC/ON) via UART communication to automatic driver positioner control unit.</li> </ul>
Automatic drive positioner control unit	<ul> <li>It communicates with driver seat control unit via UART communication.</li> <li>Perform various controls with the instructions of driver seat control unit.</li> <li>Perform the controls of tilt &amp; telescopic, door mirror and seat memory switch.</li> <li>Operates steering column and door mirror with the signal from the driver seat control</li> </ul>
Lifting sensor control unit	Lifting position signal from lifter sensor (front) and lifter sensor (rear) is converted and transmitted to driver seat control unit.
ВСМ	Recognizes the following status and transmits it to driver seat control unit via CAN communication.  Handle position: LHD  Driver door: OPEN/CLOSE  Ignition switch position: ACC/ON  Steering lock unit status*: LOCK/UNLOCK  Door lock: UNLOCK (with Intelligent key or driver side door request switch operation)  Key ID  Starter: CRANKING/OTHER
IPDM E/R	ON/OFF signal of A/T shift selector (detent switch) is transmitted to driver seat control unit via CAN communication.
ТСМ	The following signals are transmitted to driver seat control unit via CAN communication.  • Shift position signal (P range)  • Identification of transmission: A/T
Combination meter	Transmit the vehicle speed signal to driver seat control unit via CAN communication.
ABS actuator and electric unit (control unit)	Transmit the vehicle speed signal to driver seat control unit via CAN communication.

ADP-7 2014 Q70 Revision: 2013 November

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# **COMPONENT PARTS**

# < SYSTEM DESCRIPTION >

Comp	oonent parts	Description		
A/T sift selector (Detention switch)		<ul> <li>Detention switch is installed on A/T shift selector. It is turned OFF when A/T selector lever is in P position.</li> <li>Driver seat control unit judges that A/T selector lever is in P position if continuity does not exist in this circuit.</li> </ul>		
	Mirror switch	<ul> <li>Mirror switch is integrated in mirror remote control switch.</li> <li>It operates angle of door mirror face.</li> <li>It transmits mirror face adjust operation to automatic drive positioner control unit.</li> </ul>		
Power window main switch (door mirror re- mote control switch)	Changeover switch	<ul> <li>Changeover switch is integrated in mirror remote control switch</li> <li>Changeover switch has three positions (L, N and R).</li> <li>It changes operating door mirror motor by transmitting control signal to automatic drive positioner control unit.</li> </ul>		
	Open/close switch	<ul> <li>Open/close switch is integrated in mirror remote control switch.</li> <li>Power is supplied to folding mirror from door mirror remote con trol switch when operating switch.</li> </ul>		
Tilt 9 talogogaja gyvitah	Tilt switch	<ul> <li>Tilt switch is equipped to steering column.</li> <li>The operation signal is input to automatic drive positioner contro unit when tilt switch is operated.</li> </ul>		
Tilt & telescopic switch	Telescopic switch	<ul> <li>Telescopic switch is equipped to steering column.</li> <li>The operation signal is input to automatic drive positioner contro unit when telescopic switch is operated.</li> </ul>		
	Set switch	It is used for registration and setting change of driving position and Intelligent Key interlock function.		
Seat memory switch	Seat memory switch	<ul> <li>The maximum 2 driving positions can be registered by memory switch 1 to 2.</li> <li>Driving position is set to the registered driving position when memory switch is pressed while operation conditions are satisfied.</li> </ul>		
	Seat memory indicator	Memory indicator indicates the status of auto driving position system by turning ON or blinking.		
	Sliding switch	<ul> <li>Sliding switch is equipped to power seat switch on seat cushion side surface.</li> <li>The operation signal is input to driver seat control unit when sliding switch is operated.</li> </ul>		
Davis and suite	Reclining switch	<ul> <li>The operation signal is input to driver seat control unit when re clining switch is operated.</li> <li>The operation signal is input to driver seat control unit when re clining switch is operated.</li> </ul>		
Power seat switch	Lifting switch (front)	<ul> <li>Lifting switch (front) is equipped to power seat switch on seat cushion side surface.</li> <li>The operation signal is input to driver seat control unit when lifting switch (front) is operated.</li> </ul>		
	Lifting switch (rear)	<ul> <li>Lifting switch (rear) is equipped to power seat switch on seat cushion side surface.</li> <li>The operation signal is input to driver seat control unit when lift ing switch (rear) is operated.</li> </ul>		
	Door mirror 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.		
Door mirror (driver side/ passenger side)	Mirror sensor	<ul> <li>Mirror sensor is installed to door mirror.</li> <li>The resistance of 2 sensors (horizontal and vertical) is changed when door mirror is operated.</li> <li>Automatic drive positioner control unit calculates door mirror position according to the change of the voltage of 2 sensor input terminals.</li> </ul>		

## **COMPONENT PARTS**

## < SYSTEM DESCRIPTION >

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

<sup>\*:</sup> With steering lock models

ADP-9 2014 Q70 Revision: 2013 November

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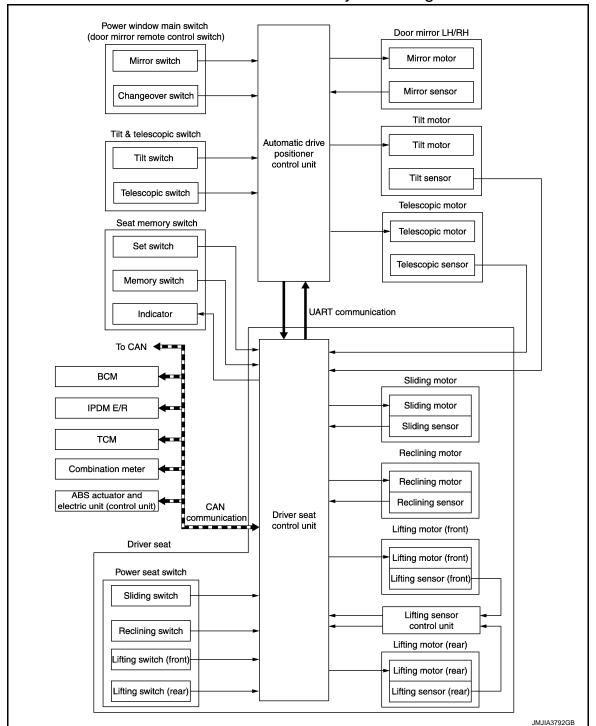
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## **SYSTEM**

## **AUTOMATIC DRIVE POSITIONER SYSTEM**

# AUTOMATIC DRIVE POSITIONER SYSTEM: System Diagram

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# AUTOMATIC DRIVE POSITIONER SYSTEM : System Description

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

Function Description		Description	
Manual function		The driving position (seat, steering column and door mirror position) can be adjusted by using the power seat switch, tilt & telescopic switch or door mirror remote control switch.	
Seat synchronization function		The positions of the steering column and door mirror are adjusted to the proper position automatically while linking with manual operation [seat sliding, seat lifting (rear) or seat reclining].	
Memory function		The seat, steering column and door mirror move to the stored driving position by pressing seat memory switch (1 or 2).	
	Exit	On exit, the seat moves backward and the steering column moves upward.	
Entry/Exit assist function Entry		On entry, the seat and steering column returns from exiting position to the previous driving position.	
Intelligent Key interlock function		Perform memory operation, exiting operation and entry operation by Intelligent Key unlock operation or driver side door request switch unlock operation.	

#### NOTE:

The lumbar support system are controlled independently with no link to the automatic drive positioner system. Refer to SE-13. "LUMBAR SUPPORT SYSTEM: System Description".

## 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 (steering lock status)\*.
- 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)
- Tilt & telescopic switch

#### MANUAL FUNCTION

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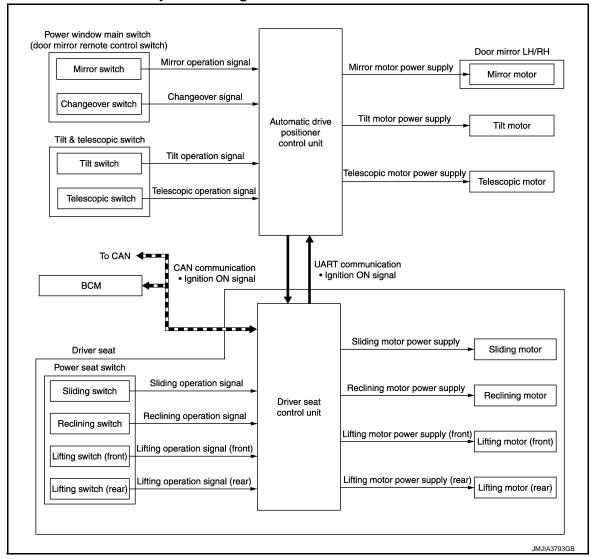
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<sup>\*:</sup> with steering lock models

# MANUAL FUNCTION: System Diagram

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# MANUAL FUNCTION: System Description

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

#### **OPERATION PROCEDURE**

- Turn ignition switch ON.
- 2. Operate power seat switch, tilt & telescopic switch or door mirror remote control switch.
- The driver seat, steering column or door mirror operates according to the operation of each switch.

#### NOTE

Seat operates only up to two places at the same time.

#### **DETAIL FLOW**

#### Seat

Order	Input	Output	Control unit condition
1	Power seat switch (sliding, lifting, reclining)	_	The power seat switch signal is inputted to the driver seat control unit when the power seat switch is operated.
2	_	Motors (sliding, lifting, reclining)	The driver seat control unit outputs signals to each motor according to the power seat switch input signal.

## **SYSTEM**

## < SYSTEM DESCRIPTION >

#### NOTE:

The power seat can be operated manually regardless of the ignition switch position.

Tilt & Telescopic

Order	Input	Output	Control unit condition
1	Tilt & telescopic switch	_	The tilt & telescopic switch signal is inputted to the automatic drive positioner control unit when the tilt & telescopic switch is operated.
2	_	Motors (Tilt, telescopic)	The automatic drive positioner control unit actuates each motor according to the operation of the tilt & telescopic switch.

### **Door Mirror**

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

## NOTE:

The door mirrors can be operated manually when ignition switch is in either ACC or ON position. SEAT SYNCHRONIZATION FUNCTION

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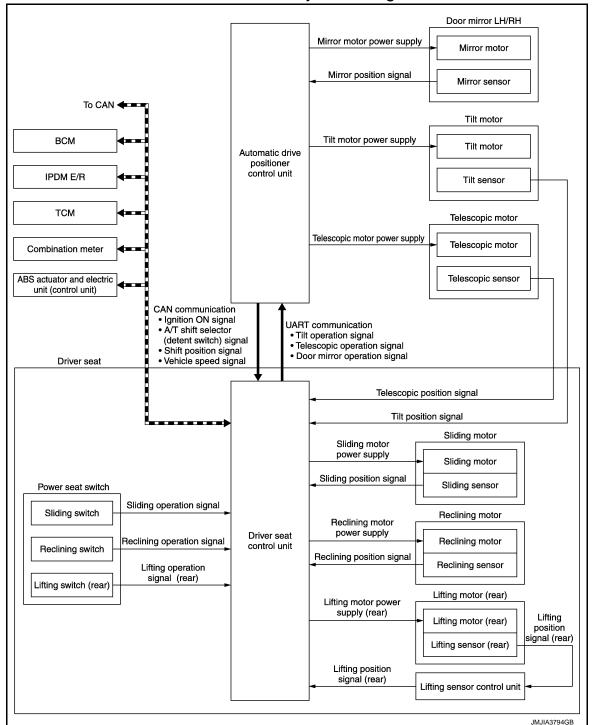
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# SEAT SYNCHRONIZATION FUNCTION: System Diagram

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# SEAT SYNCHRONIZATION FUNCTION: System Description

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The steering column position and door mirror position is adjusted to the position automatically according to the direction and distance of seat movement when performing the manual operation of sliding, reclining or lifting (rear). This function saves adjusting the mirror and steering column when adjusting the seat.

- This function is set to OFF before delivery (initial setting).
- For the system setting procedure. Refer to ADP-59, "SYSTEM SETTING: Description".

#### **OPERATION PROCEDURE**

1. Turn ignition switch ON.

### **SYSTEM**

#### < SYSTEM DESCRIPTION >

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

#### NOTE:

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

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

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

#### **OPERATION CONDITION**

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

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

### **DETAIL FLOW**

Order	Input	Output	Control unit condition
1	_	_	Perform Manual operation [Sliding, reclining or lifting (rear)].
2	Sensors [Sliding, reclining, lifting (rear)]	_	The driver seat control unit judges the direction and distance of seat movement according to the signal input from each seat sensor during manual operation.
3	_	Motors (Tilt, telescopic, outside mirror)	Driver seat control unit requests the operation to position according to the direction and distance of seat movement to the automatic drive positioner control unit via UART communication. The automatic drive positioner control unit operates each motor.
	Sensors (Tilt, telescopic, outside mirror)	_	Driver seat control unit stops the operation of each motor when the value of each sensor that is input to automatic drive positioner control unit via UART communication reaches the target address.

## **MEMORY FUNCTION**

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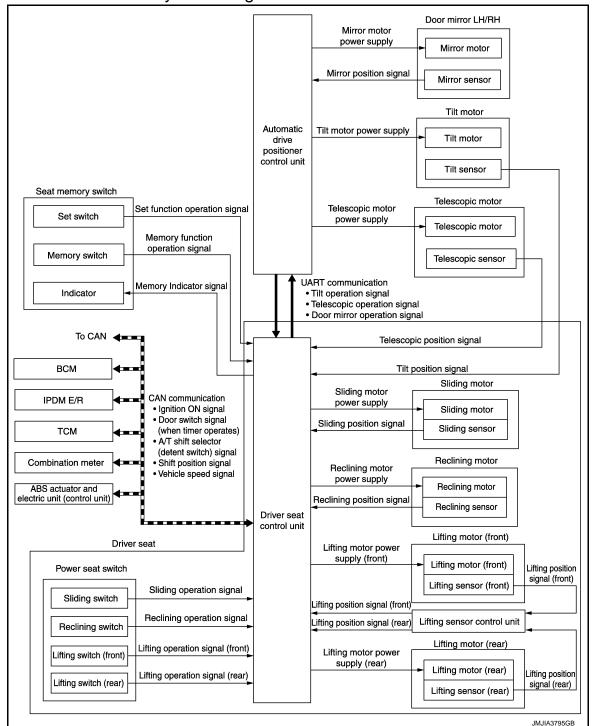
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# MEMORY FUNCTION: System Diagram

INFOID:0000000010099556



# MEMORY FUNCTION: System Description

INFOID:0000000010099557

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

#### NOTE:

Further information for the memory storage procedure. Refer to ADP-58, "MEMORY STORING: Description".

#### **OPERATION PROCEDURE**

- Turn ignition switch ON.
- Shift position P position.

### < SYSTEM DESCRIPTION >

- 3. Push desired memory switch.
- 4. Driver seat, steering and door mirror will move to the memorized position.

#### **OPERATION CONDITION**

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

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

### **DETAIL FLOW**

Order	Input	Output	Control unit condition
1	Memory switch	_	The memory switch signal is inputted to the driver seat control unit when memory switch 1 or 2 is operated.
2	_	Motors (Seat, Steering, door mirror)	Driver seat control unit operates each motor of seat when it recognizes the memory switch pressed for 0.5 second or more and requests each motor operation to automatic drive positioner control unit via UART communication. The automatic drive positioner control unit operates each motor.
	Memory switch Indicator	Driver seat control unit requests the flashing of memory indicator while either of the motors is operating. The driver seat control unit illuminates the memory indicator.	
3	Sensors (Seat, steering col- umn, door mirror)	_	Driver seat control unit judges the operating seat position with each seat sensor input. The positions of the steering column and outside mirror are monitored with each sensor signal. Driver seat control unit stops the operation of each motor when each part reaches the recorded address.
4	_	Memory switch Indicator	Driver seat control unit requests the illumination of memory indicator after all motors stop. The driver seat control unit illuminates the memory indicator for 5 seconds.

## 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
A/T shift selector	P position
Steering lock unit status*	LOCK
Handle position	LHD
CUNSULT	Not connected

<sup>\*:</sup> With steering lock models

Revision: 2013 November ADP-17 2014 Q70

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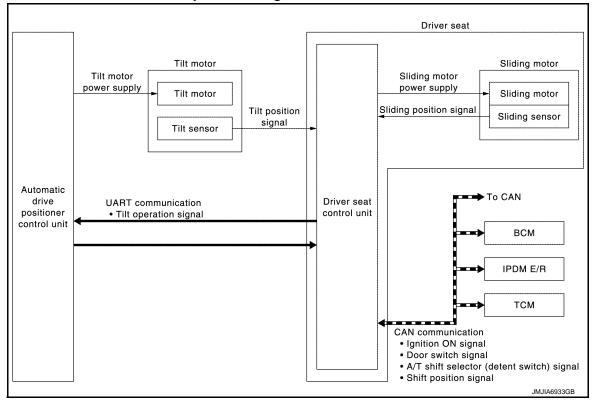
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## **EXIT ASSIST FUNCTION**

## EXIT ASSIST FUNCTION: System Diagram

INFOID:0000000010099558



# **EXIT ASSIST FUNCTION: System Description**

INFOID:0000000010099559

- When exiting, the condition is satisfied, the seat is moved backward 40 mm (1.57 in) from normal sitting position and the steering is moved to the most upper position.
- The seat slide amount and the steering operation at entry/exit operation can be changed.

#### NOTE:

- This function is set to ON before delivery (initial setting).
- Further information for the system setting procedure. Refer to ADP-59, "SYSTEM SETTING: Description".

#### **OPERATION PROCEDURE**

- 1. Shift position P position.
- 2. Open the driver door with ignition switch in OFF position.
- 3. Driver seat and steering column will move to the exiting position.

#### OPERATION CONDITION

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

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

#### < SYSTEM DESCRIPTION >

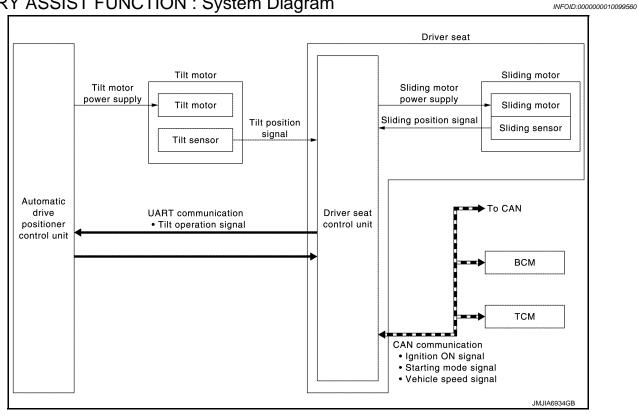
Item	Request status
Transmission	A/T
CUNSULT	Not connected

### **DETAIL FLOW**

Order	Input	Output	Control unit condition
1	Door switch (Driver side)	Driver seat control unit receives door switch signal (driver side/ open) from BCM via CAN communication.	
2	_	Motors (Sliding, tilt)	Driver seat control unit operates the seat sliding motor, which recognizes that the driver side door is opened with ignition switch OFF. Driver seat control unit then requests the operations of tilt motor to auto drive positioner control unit via UART communication. The automatic drive positioner control unit operates each motor for a constant amount.
3	Sensor (Sliding, tilt)	_	Each sensor monitors the operating positions of seat and steering, and then stops the operation of each motor when steering reaches to the tilt top position and seat reaches to the rearmost position.

# **ENTRY ASSIST FUNCTION**

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



# **ENTRY ASSIST FUNCTION: System Description**

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

#### NOTE:

- This function is set to ON before delivery (initial setting).
- Further information for the system setting procedure. Refer to <u>ADP-59, "SYSTEM SETTING: Description"</u>.

## **OPERATION PROCEDURE**

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

**ADP-19** Revision: 2013 November 2014 Q70

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INFOID:0000000010099561

### **OPERATION CONDITION**

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

Item	Request status
Seat, steering column	The vehicle is not moved after performing the exit assist function.
Switch inputs  Power seat switch  Tilt & telescopic switch  Door mirror control switch  Set switch  Memory switch	OFF (Not operated)
Vehicle speed	0 Km/h (0 MPH)
Starter	OFF
Transmission	A/T
CONSULT	Not connected

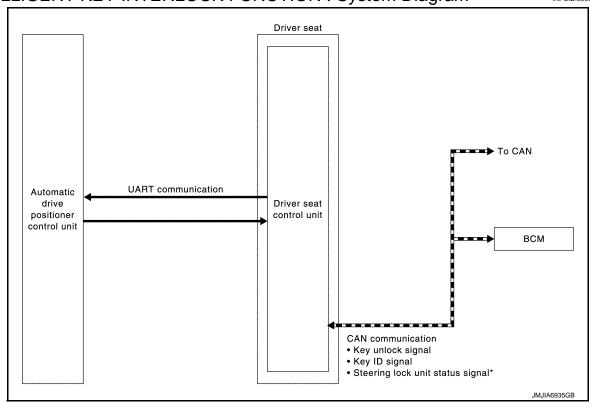
### **DETAIL FLOW**

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

# INTELLIGENT KEY INTERLOCK FUNCTION

# INTELLIGENT KEY INTERLOCK FUNCTION: System Diagram

INFOID:0000000010099562



## INTELLIGENT KEY INTERLOCK FUNCTION: System Description

INFOID:000000001009956

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

#### NOTE:

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

#### **OPERATION PROCEDURE**

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

#### NOTE:

Further information for Intelligent Key interlock function. Refer to <u>ADP-58, "INTELLIGENT KEY INTERLOCK STORING: Description"</u>.

## **OPERATION CONDITION**

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

Item	Request status
Ignition position	OFF
Intelligent key interlock function	Registered
Steering lock unit status*	LOCK
Switch inputs  Power seat switch  Tilt & telescopic switch  Door mirror control switch  Set switch  Memory switch	OFF (Not operated)
CONSULT	Not connected

<sup>\*:</sup> With steering lock models

#### DETAIL FLOW

Order	Input	Output	Control unit condition
1	Door unlock signal (CAN)     Key ID signal (CAN)	_	Driver seat control unit receives unlock signal and key ID signal from BCM, when driver seat control unit is unlocked by Intelligent Key or driver side door request switch.
2	_	_	Driver seat control unit performs the seat slide and steering tilt move directly to the exit assist function. Other loads move to the exit assist function after performing memory function.
3	_	_	Driver seat control unit performs the entry assist function.

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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	<u>ADP-61</u>
Only manual functions operate normally.	CONTROL UNIT	U1010	ADP-62
	EEPROM	B2130	ADP-71
Only manual functions, except door mirror, operate normally.	UART communication	B2128	ADP-69
Only manual functions, except seat sliding, operate normally.	Seat sliding output	B2112	ADP-63
Only manual functions, except seat reclining, operate normally.	Seat reclining output	B2113	ADP-65
Only manual functions, except steering tilt, operate normally.	Steering column tilt output	B2116	ADP-67

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

< SYSTEM DESCRIPTION >

# DIAGNOSIS SYSTEM (DRIVER SEAT CONTROL UNIT)

CONSULT Function

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

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

### **SELF-DIAGNOSIS RESULTS**

Refer to ADP-33, "DTC Index".

### **DATA MONITOR**

Monitor Item	Unit	Main Signals	Selection From Menu	Contents
SET SW	"ON/OFF"	×	×	ON/OFF status judged from the setting switch signal.
MEMORY SW 1	"ON/OFF"	×	×	ON/OFF status judged from the seat memory switch 1 signal.
MEMORY SW 2	"ON/OFF"	×	×	ON/OFF status judged from the seat memory switch 2 signal.
SLIDE SW-FR	"ON/OFF"	×	×	ON/OFF status judged from the sliding switch (forward) signal.
SLIDE SW-RR	"ON/OFF"	×	×	ON/OFF status judged from the sliding switch (backward) signal.
RECLN SW-FR	"ON/OFF"	×	×	ON/OFF status judged from the reclining switch (forward) signal.
RECLN SW-RR	"ON/OFF"	×	×	ON/OFF status judged from the reclining switch (backward) signal.
LIFT FR SW-UP	"ON/OFF"	×	×	ON/OFF status judged from the lifting switch front (up) signal.
LIFT FR SW-DN	"ON/OFF"	×	×	ON/OFF status judged from the lifting switch front (down) signal.
LIFT RR SW-UP	"ON/OFF"	×	×	ON/OFF status judged from the lifting switch rear (up) signal.
LIFT RR SW-DN	"ON/OFF"	×	×	ON/OFF status judged from the lifting switch rear (down) signal.
MIR CON SW-UP	"ON/OFF"	×	×	ON/OFF status judged from the mirror switch (up) signal.
MIR CON SW-DN	"ON/OFF"	×	×	ON/OFF status judged from the mirror switch (down) signal.
MIR CON SW-RH	"ON/OFF"	×	×	ON/OFF status judged from the door mirror remote control switch (passenger side) signal.
MIR CON SW-LH	"ON/OFF"	×	×	ON/OFF status judged from the door mirror remote control switch (driver side) signal.
MIR CHNG SW-R	"ON/OFF"	×	×	ON/OFF status judged from the door mirror remote control switch (switching to right) signal.

Revision: 2013 November ADP-23 2014 Q70

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

# < SYSTEM DESCRIPTION >

Monitor Item	Unit	Main Signals	Selection From Menu	Contents
MIR CHNG SW-L	"ON/OFF"	×	×	ON/OFF status judged from the door mirror remote control switch (switching to left) signal.
TILT SW-UP	"ON/OFF"	×	×	ON/OFF status judged from the tilt switch (up) signal.
TILT SW-DOWN	"ON/OFF"	×	×	ON/OFF status judged from the tilt switch (down) signal.
TELESCO SW-FR	"ON/OFF"	×	×	ON/OFF status judged from the telescoping switch (forward) signal.
TELESCO SW-RR	"ON/OFF"	×	×	ON/OFF status judged from the telescoping switch (backward) signal.
DETENT SW	"ON/OFF"	×	×	The selector lever position "OFF (P position) / ON (other than P position)" judged from the detention switch signal.
STARTER SW	"ON/OFF"	×	×	Ignition key switch ON (START, ON) /OFF (ACC, OFF) status judged from the ignition switch signal.
SLIDE PULSE	_	-	×	Value (32768) when battery connections are standard. If it moves backward, the value increases. If it moves forward, the value decreases.
RECLN PULSE	_	_	×	Value (32768) when battery connections are standard. If it moves backward, the value increases. If it moves forward, the value decreases.
LIFT FR PULSE		-	×	Value (32768) when battery connections are standard. If it moves DOWN, the value increases. If it moves UP, the value decreases.
LIFT RR PULSE		1	×	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	" <b>\</b> "	_	×	Voltage input from door mirror sensor (passenger side) left/right is displayed.
MIR/SEN LH U-D	"V"	_	×	Voltage input from door mirror sensor (driver side) up/down is displayed.
MIR/SEN LH R-L	"V"	_	×	Voltage input from door mirror sensor (driver side) left/right is displayed.
TILT PULSE	_	-	×	Value (32768) when battery connections are standard. If it moves DOWN, the value increases. If it moves UP, the value decreases.
TELESCO PULSE	_	-	×	Value (32768) when battery connections are standard. If it moves backward, the value increases. If it moves forward, the value decreases.
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 door switch (front 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.

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

# < SYSTEM DESCRIPTION >

Monitor Item	Unit	Main Signals	Selection From Menu	Contents
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.
STEERING STATUS*	"LOCK/UN- LOCK"	×	×	LOCK/UNLOCK status judged from steering lock unit.

<sup>\*:</sup> With steering lock models

## **ACTIVE TEST**

### **CAUTION:**

When driving vehicle, do not perform active test.

Test item	Description
SEAT SLIDE	Activates/deactivates the sliding motor.
SEAT RECLINING	Activates/deactivates the reclining motor.
SEAT LIFTER FR	Activates/deactivates the lifting motor (front).
SEAT LIFTER RR	Activates/deactivates the lifting motor (rear).
TILT MOTOR	Activates/deactivates the tilt motor.
TELESCO MOTOR	Activates/deactivates the telescopic motor.
MIRROR MOTOR RH	Activates/deactivates the mirror motor (passenger side).
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 TILT SETTING	Entry/exit assist (steering column) can be selected:	ON
LAIT TIET SETTING	ON (operated) – OFF (not operated)	OFF
EXIT SEAT SLIDE SETTING	Entry/exit assist (seat) can be selected:	ON
LAN SEAN SEIDE 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

ECU	Reference
	BCS-33, "Reference Value"
BCM	BCS-53, "Fail-safe"
DCIVI	BCS-54, "DTC Inspection Priority Chart"
	BCS-54, "DTC Index"

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## < ECU DIAGNOSIS INFORMATION >

# **DRIVER SEAT CONTROL UNIT**

Reference Value

## VALUES ON THE DIAGNOSIS TOOL

CONSULT MONITOR ITEM

Monitor Item	Condi	tion	Value/Status
CET CW	Cot owitch	Push	ON
SET SW	Set switch	Release	OFF
MEMORY CWA	Maman avitale 4	Push	ON
MEMORY SW1	Memory switch 1	Release	OFF
MEMORY OWO	M	Push	ON
MEMORY SW2	Memory switch 2	Release	OFF
CLIDE CW ED	Oliding quitab (formerd)	Operate	ON
SLIDE SW-FR	Sliding switch (forward)	Release	OFF
CLIDE OW DD	Olistica conitate (baselona del)	Operate	ON
SLIDE SW-RR	Sliding switch (backward)	Release	OFF
DECLN OW ED	Declining a socital (femoral)	Operate	ON
RECLN SW-FR	Reclining switch (forward)	Release	OFF
DECLN OW DD	Reclining switch (back-	Operate	ON
RECLN SW-RR	ward)	Release	OFF
LIET ED OW LID	Lifting switch front (up)	Operate	ON
LIFT FR SW-UP		Release	OFF
LIFT FR SW-DN	Lifting switch front (down)	Operate	ON
		Release	OFF
LIFT RR SW-UP	Lifting switch rear (up)	Operate	ON
		Release	OFF
LIFT RR SW-DN	Lifting switch rear (down)	Operate	ON
		Release	OFF
MID CON CW LID	Mirror owitch	Up	ON
MIR CON SW-UP	Mirror switch	Other than the above	OFF
MID CON CW DN	Mirror owitch	Down	ON
MIR CON SW-DN	Mirror switch	Other than the above	OFF
MIR CON SW-RH	Mirror owitch	Right	ON
WIIN CON SW-KH	Mirror switch	Other than the above	OFF
MIR CON SW-LH	Mirror switch	Left	ON
IVIIIX COIN SVV-LIT	WILLIAM SWILCH	Other than the above	OFF
MIR CHNG SW-R	Changeover switch	Right	ON
WIIN CHING SW-N	Changeover Switch	Other than the above	OFF
MIR CHNG SW-L	Changoover switch	Left	ON
WIIN CHING SW-L	Changeover switch	Other than the above	OFF
TILT SW/LID	Tilt switch	Upward	ON
TILT SW-UP	THE SWILCH	Other than the above	OFF
TILT SW-DOWN	Tilt switch	Downward	ON
TILI SVV-DUVVN	THE SWILCH	Other than the above	OFF

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## < ECU DIAGNOSIS INFORMATION >

Monitor Item	Condi	tion	Value/Status
TELECOO OW ED	Talaaania awitah	Forward	ON
TELESCO SW-FR	Telescopic switch	Other than the above	OFF
TELECCO CW DD	Talanania awitah	Backward	ON
TELESCO SW-RR	Telescopic switch	Other than the above	OFF
DETENT SW	A/T selector lever	P position	OFF
DETENT SW	A/ I Selector level	Other than the above	ON
STARTER SW	Ignition position	Cranking	ON
OTAICTER OV	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*
	Seat lifter (rear)	Up	The numeral value decreases *
LIFT RR PULSE		Down	The numeral value increases *
		Other than the above	No change to numeral value*
MIR/SEN RH U-D	Door mirror (passenger side)		Change between 3.4 (close to peak) 0.6 (close to valley)
MIR/SEN RH R-L	Door mirror (passenger side	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)
		Upward	The numeral value decreases *1
TILT PULSE	Tilt position	Downward	The numeral value increases *1
		Other than the above	No change to numeral value <sup>*1</sup>
		Forward	The numeral value decreases *1
TELESCO PULSE	Telescopic position	Backward	The numeral value increases *1
		Other than the above	No change to numeral value <sup>*1</sup>
	Ota anima la alcumit	LOCK	LOCK
STEERING STATUS*2	Steering lock unit	unlock	UNLOCK
VEHICLE SPEED	The condition of vehicle spe	eed is displayed	km/h
P RANG SW CAN	A/T selector lever	P position	ON
	7 1 36160101 16761	Other than the above	OFF
R RANGE (CAN)	A/T selector lever	R position	ON
		Other than the above	OFF
DOOR SW-FL	Driver door	Open	ON
	- 1	Close	OFF

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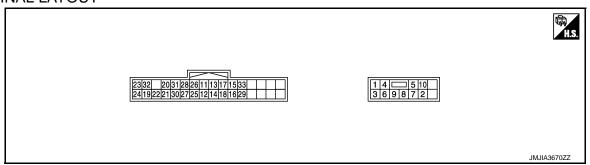
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## < ECU DIAGNOSIS INFORMATION >

Monitor Item	Cond	ition	Value/Status
DOOR SW-FR	Daggar door	Open	ON
DOOK SW-FK	Passenger door	Close	OFF
IGN ON SW	Ignition switch	ON position	ON
IGIN ON SW	Igrillion Switch	Other than the above	OFF
ACC ON SW	lanition quitch	ACC or ON position	ON
ACC ON SW	Ignition switch	Other than the above	OFF
KEY ON SW	Intelligent Koy	Inserted is key slot	ON
KEY ON SW	Intelligent Key	Inserted is not key slot	OFF
KEYLESS ID	UNLOCK button of Intellige	ent Key is pressed	1,2,3,4or5
KYLS DR UNLK	Intelligent Key or driver side door request switch	ON	ON
KILS DK UNLK		OFF	OFF
VHCL SPEED (ARS)	Can aignal from ABC	Received	ON
VHCL SPEED (ABS)	Can signal from ABS	Not received	OFF
HANDLE	The BCM for handle position	on in diaplayed	LHD
HANDLE	The BCM for handle position is displayed		RHD
TRANSMISSION	Transmission type is displa	wod	AT or CVT
I MANONIOOIUN	Transmission type is displayed		MT

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

## **TERMINAL LAYOUT**



## PHYSICAL VALUES

	nal No. color)	Description		Condition		Voltage (V)	
+	-	Signal name	Input/ output	Condition		(Approx.)	
1 (R)	Ground	Battery power supply	Input	_		Battery voltage	
2 (B)	Ground	Ground	_	_		0	
3	Ground	Sliding motor	Out-	Seat sliding	Operate (forward)	12	
(G)		forward output signal	put	Seat sliding	Other than the above	0	
4	Ground	Sliding motor backward output	Out-	Seat sliding	Operate (backward)	12	
(G/R)	signal	-	put	oeat sliuling	Other than the above	0	

<sup>\*2:</sup> With steering lock models.

# < ECU DIAGNOSIS INFORMATION >

< ECO DIA	GNOSIS	NFORMATIO	/IN >			
5			Out-	Seat reclining	Operate (forward)	12
(V)	Ground	forward output signal	put	Seat reciling -	Other than the above	0
6	Ground	Reclining motor backward output	Out-	Seat reclining	Operate (backward)	12
(R/L)	Ground	signal	put	Geat recilining	Other than the above	0
7	Ground	Lifting motor (rear) down out-	Out-	Seat lifting (rear)	Operate (down)	12
(L)		put signal	put		Other than the above	0
8	Ground	Lifting motor (rear) up output	Out-	Seat lifting (rear)	Operate (up)	12
(L/W)		signal	put		Other than the above	0
9	Ground	Lifting motor (front) up output	Out-	Seat lifting (front)	Operate (up)	12
(L/R)		signal	put		Other than the above	0
10	Ground	Lifting motor (front) down out-	Out-	Seat lifting (front)	Operate (down)	12
(L/B)	O. Gana	put signal	put	3 ( )	Other than the above	0
11	Ground	Sliding switch	Input	Sliding switch	Operate (backward)	0
(G/B)		backward signal		3	Other than the above	12
12	Ground	Sliding switch	Input	Sliding switch	Operate (forward)	0
(G/W)		forward signal			Other than the above	12
13	Ground	Reclining switch	Input	Reclining switch	Operate (backward)	0
(R/G)		backward signal		3	Other than the above	12
14	Ground	Reclining switch	Input	Reclining switch	Operate (forward)	0
(R/W)		forward signal		3	Other than the above	12
15	Ground	Lifting switch (rear) down sig-	Input	Lifting switch (rear)	Operate (down)	0
(Y/B)		nal		3 ( )	Other than the above	12
16	Ground	Lifting switch (rear) up signal	Input	Lifting switch (rear)	Operate (up)	0
(Y/R)			į, <del>-</del>	3 (. 3	Other than the above	12
17	Ground	Lifting switch (front) down sig-	Input	Lifting switch (front)	Operate (down)	0
(LG/B)	Ground	nal	put	(Holl)	Other than the above	12

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## < ECU DIAGNOSIS INFORMATION >

18	Ground	Lifting switch	la a cut	Lifting quitab (front)	Operate (up)	0
(LG/R)	Ground	(front) up signal	Input	Lifting switch (front)	Other than the above	12
19 (G/Y)	Ground	Sliding sensor signal	Input	Seat sliding	Operate  Other than the above	10mSec/div 2V/div JMJIA0119ZZ
20 (R/Y)	Ground	Reclining sensor signal	Input	Seat reclining	Operate	10mSec/div 2V/div JMJIA0119ZZ
					Other than the above	0 or 5
21 (Y)	Ground	Lifting sensor (rear) signal	Input	Seat lifting (rear)	Operate	10mSec/div 5V/div JMJIA3675ZZ
					Other than the above	0 or 12
22 (R)	Ground	Lifting sensor (front) signal	Input	Seat lifting (front)	Operate	10mSec/div 5V/div JMJIA3675ZZ
					Other than the above	0 or 12
23 (P)	_	CAN-H	_	_	-	_
24 (P/L)	_	CAN-L	_	_		_
25 (G/O)	Ground	Memory indica- tor 1 signal	Out- put	Memory indicator 1 Other than the above		1 12
26 (L/O)	Ground	Memory indica- tor 2 signal	Out- put	Memory indicator 2	Illuminate Other than the above	1 12

## < ECU DIAGNOSIS INFORMATION >

					Press	0
27 (V)	Ground	Memory switch 1 signal	Input	Memory switch 1	Other than the	
(*)		oignai			above	5
28		Memory switch 2			Press	0
(V/W)	Ground	signal	Input	Memory switch 2	Other than the above	5
29					Press	0
(L)	Ground	Set switch signal	Input	Set switch	Other than the above	5
30 (BR)	Ground	Tilt sensor signal	Input	Steering tilt	Operate	10mSec/div 2V/div JMJIA0119ZZ
					Other than the above	0 or 5
31 (BR/W)	Ground	Telescopic sensor signal	Input	Steering telescopic	Operate	10mSec/div 2V/div JMJIA0119ZZ
					Other than the above	0 or 5
32 (W/L)	Ground	UART communication (TX/RX)	Input	Ignition switch ON		10msec/div 5V/div JMJIA1391ZZ
33 (W)	Ground	Sensor power supply	Out- put	_	_	12

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	<u>ADP-61</u>
Only manual functions operate normally.	CONTROL UNIT	U1010	ADP-62
	EEPROM	B2130	ADP-71
Only manual functions, except door mirror, operate normally.	UART communication	B2128	ADP-69
Only manual functions, except seat sliding, operate normally.	Seat sliding output	B2112	<u>ADP-63</u>
Only manual functions, except seat reclining, operate normally.	Seat reclining output	B2113	<u>ADP-65</u>
Only manual functions, except steering tilt, operate normally.	Steering column tilt output	B2116	ADP-67

## < ECU DIAGNOSIS INFORMATION >

DTC Index

CONSULT	Tim	ing <sup>*1</sup>			
display	Current mal- function Previous mal- function		Item	Reference page	
CAN COMM CIRCUIT [U1000]	0	1-39	CAN communication	ADP-61	
CONTROL UNIT [U1010]	0	1-39	Control unit	ADP-62	
SEAT SLIDE [B2112]	0	1-39	Seat slide motor output	ADP-63	
SEAT RECLINING [B2113]	0	1-39	Seat reclining motor output	ADP-65	
STEERING TILT [B2116]	0	1-39	Tilt motor output	ADP-67	
UART COMM [B2128]	0	1-39	UART communication	ADP-69	
EEPROM [B2130]	0	1-39	EEPROM	ADP-71	

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

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

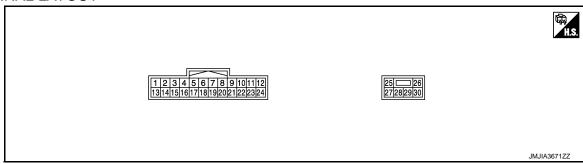
## **AUTOMATIC DRIVE POSITIONER CONTROL UNIT**

< ECU DIAGNOSIS INFORMATION >

# **AUTOMATIC DRIVE POSITIONER CONTROL UNIT**

Reference Value

## **TERMINAL LAYOUT**



## PHYSICAL VALUES

	nal No. color)	Description		Con	dition	Voltage (V)	
+	-	Signal name	Input/ Output			(Approx.)	
1	Ground	Tilt quitab un aignal	lanut	Tilt quitab	Operate (up)	0	
(Y)	(Y) Ground	Tilt switch up signal	Input	Tilt switch	Other than the above	5	
2	Ground	Changeover switch RH	Input	Changeover	RH	0	
(V)	Ground	signal	iliput	switch position	Neutral or LH	5	
3	Ground	Mirror switch up signal	Input	Mirror switch	Operate (up)	0	
(Y)	Ground	Mirror switch up signal	Input	Mirror Switch	Other than the above	5	
4	0 1	Mirror switch left signal	Input	Mirror switch	Operate (left)	0	
(V)	Ground				Other than the above	5	
5 (BR)	Ground	Door mirror sensor (passenger side) up/down signal	Input	Door mirror RH position		Change between 3.4 (close to peak) 0.6 (close to valley)	
6 (BR)	Ground	Door mirror sensor (driver side) up/down signal	Input	Door mirror LH pos	sition	Change between 3.4 (close to peak) 0.6 (close to valley)	
7	Ground	Telescopic switch forward	lanut	Talagagaia awitah	Operate (forward)	0	
(W)	Ground	signal	Input	Telescopic switch Other than the above		5	
8 (LG)	Ground	UART communication (TX/RX)	Output	Ignition switch ON		10msec/div	

# **AUTOMATIC DRIVE POSITIONER CONTROL UNIT**

## < ECU DIAGNOSIS INFORMATION >

Terminal No. (wire color) Description			Conc	Nition .	Voltage (V)	
+	-	Signal name	Input/ Output	Condition		(Approx.)
10			Output	Door mirror RH	Operate (up/right)	12
(BR)	Greana	put signal	Odipat	Door million to	Other than the above	0
11	Ground	Door mirror motor (passenger side) down/left	Output	Door mirror RH	Operate (down/left)	12
(L)	Greana	output signal	Gatpat	Door million to t	Other than the above	0
12	Ground	Door mirror motor (driver side) down/right output	Output	Door mirror (LH)	Operate (down/right)	12
(G)	Greana	signal	Gaipai	Door million (Erry	Other than the above	0
13	Ground	Tilt switch down signal	Input	Tilt switch	Operate (down)	0
(SB)	Croana	oe domi digital	put		Other than the above	5
14	Ground	Changeover switch LH signal	Input	Changeover switch position	LH	0
(O)	Ciound		iriput		Neutral or RH	5
15	Ground	Mirror switch down signal	Input	Mirror switch	Operate (down)	0
(L)	Ground	WIITOI SWILCTI GOWTI SIGNAI	iliput	WIIITOI SWIICH	Other than the above	5
16	16 Ground	Mirror switch right signal	Input	Mirror switch	Operate (right)	0
(V)	Ground	Will of Switch right Signal	iliput	WIII OF SWILCH	Other than the above	5
17 (G)	Ground	Door mirror sensor (passenger side) left/right signal	Input	Door mirror RH pos	sition	Change between 3.4 (close to left edge) 0.6 (close to right edge)
18 (G)	Ground	Door mirror sensor (driver side) left/right signal	Input	Door mirror LH pos	ition	Change between 0.6 (close to left edge) 3.4 (close to right edge)
19	Ground	Telescopic switch back-	Input	Telescopic switch	Operate (backward)	0
(G)	Cround	ward signal	put	Tologoopio Switch	Other than the above	5
20 (Y)	Ground	Ground (sensor)	_	_	-	0
21 (GR)	Ground	Door mirror motor sensor power supply	Input	_		5
22	Ground	Door mirror motor (passenger side) down/right	Output	Door mirror (RH)	Operate (down/right)	12
(Y)	Cround	output signal	Jaipai	200	Other than the above	0
23	Ground	Door mirror motor (driver side) up/right output sig-	Output	Door mirror (LH)	Operate (up/right)	12
(O)	Ground	nal	Guipui	Door mintor (ELT)	Other than the above	0

# **AUTOMATIC DRIVE POSITIONER CONTROL UNIT**

## < ECU DIAGNOSIS INFORMATION >

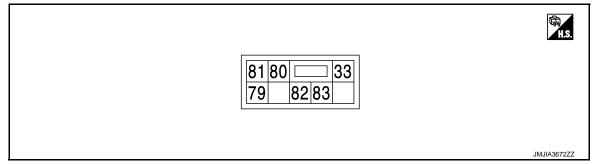
100	DIAGING	2313 INFORMATION:		1			
	nal No. color)	Description		Condition		Voltage (V)	
+	-	Signal name	Input/ Output	Conc	attori	(Approx.)	
24	Ground	Door mirror motor (driver side) down/left output sig-	•	Door mirror (LH)	Operate (down/left)	12	
(GR)	Ground	nal	Output	Door million (Em)	Other than the above	0	
25 (W)	Ground	Battery power supply	Input	_	_	Battery voltage	
26	Ground	Telescopic motor back- ward output signal	Output	Steering telescopic	Operate (backward)	12	
(L)	Ground				Other than the above	0	
27 (P)	Ground	Tilt&telescopic sensor power supply	Output	_		12	
28	Ground	Tilt motor down output signal	Output	stput Steering tilt	Operate (down)	12	
(G)	Ground				Other than the above	0	
		Tilt motor up output signal		Steering tilt	Operate (up)	12	
29	0		Output		Other than the above	0	
(LG)	Ground	Telescopic motor forward output signal		Steering telescopic	Operate (forward)	12	
					Other than the above	0	
30 (B)	Ground	Ground (power)	_	_		0	

### LIFTING SENSOR CONTROL UNIT

### LIFTING SENSOR CONTROL UNIT

Reference Value

### **TERMINAL LAYOUT**



### PHYSICAL VALUES

	nal No. color)	Description		0		Voltage (V)
+	-	Signal name	Input/ Output	Condition	on	(Approx.)
33 (W)	Ground	sensor power supply	Output	_		Battery voltage
79 (R)	Ground	Aftor conversion of lifting sensor (front) signal	Output	Seat lifting (front)	Operate	10mSec/div 5V/div JMJIA3675ZZ
					Other than the above	0 or 12
80 (L/Y)	Ground	Before conversion of lifting sensor (rear) signal	Input	Seat lifting (rear)	Operate	10mSec/div 5V/div JMJIA3674ZZ
					Other than the above	7 or 12
81 (BR/Y)	Ground	Before conversion of lifting sensor (front) signal	Input	Seat lifting (front)	Operate	10mSec/div  5V/div  JMJIA3674ZZ
					Other than the above	7 or 12

Revision: 2013 November ADP-37 2014 Q70

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### LIFTING SENSOR CONTROL UNIT

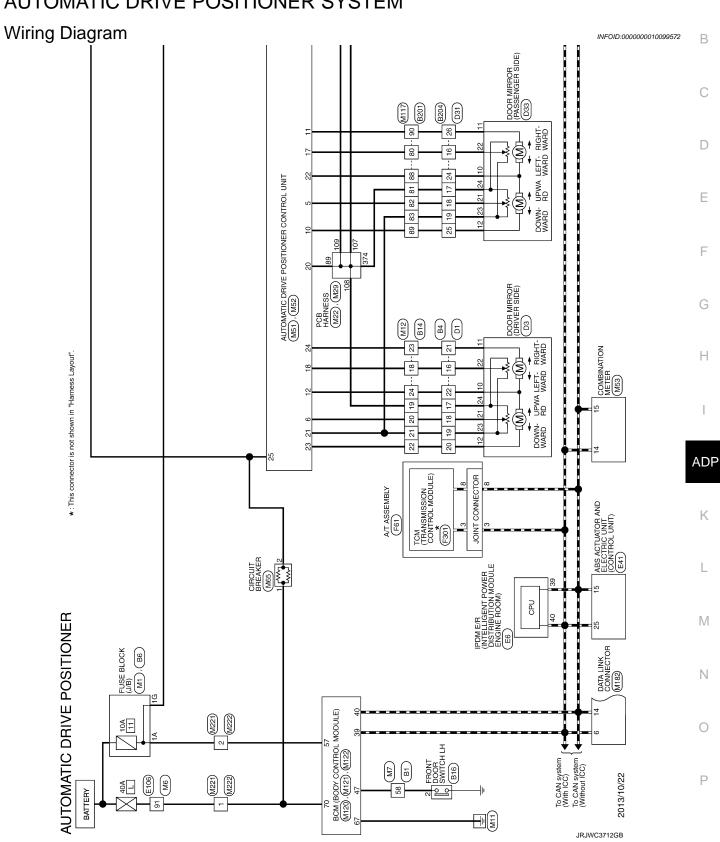
### < ECU DIAGNOSIS INFORMATION >

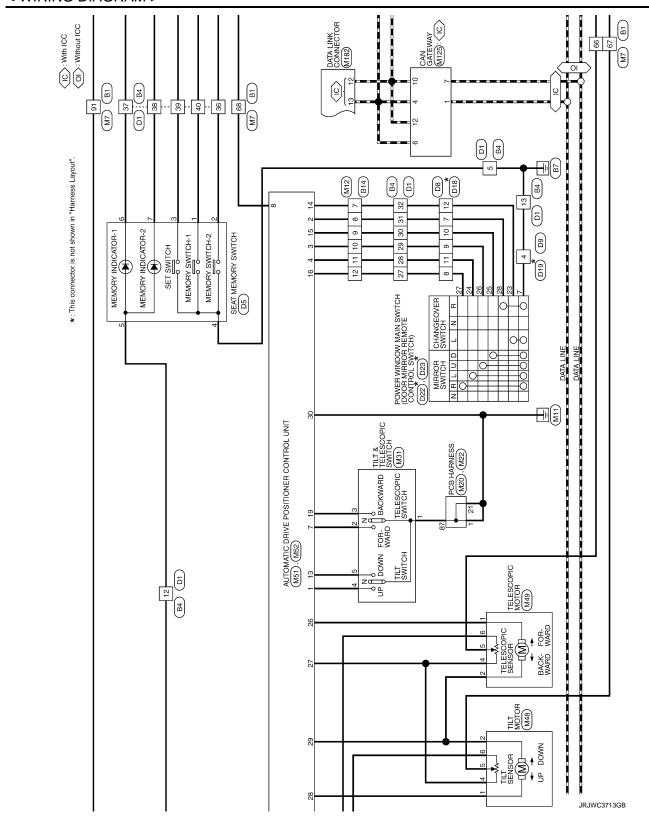
	inal No. e color)	Description		Conditi	on	Voltage (V)
+	-	Signal name	Input/ Output	Conditi	OII	(Approx.)
82 (Y)	Ground	Aftor conversion of lifting sensor (rear) signal	Output	Seat lifting (rear)	Operate Other than	10mSec/div 5V/div JMJIA3675ZZ
					the above	0 or 12
83 (B)	Ground	Ground	_	_		0

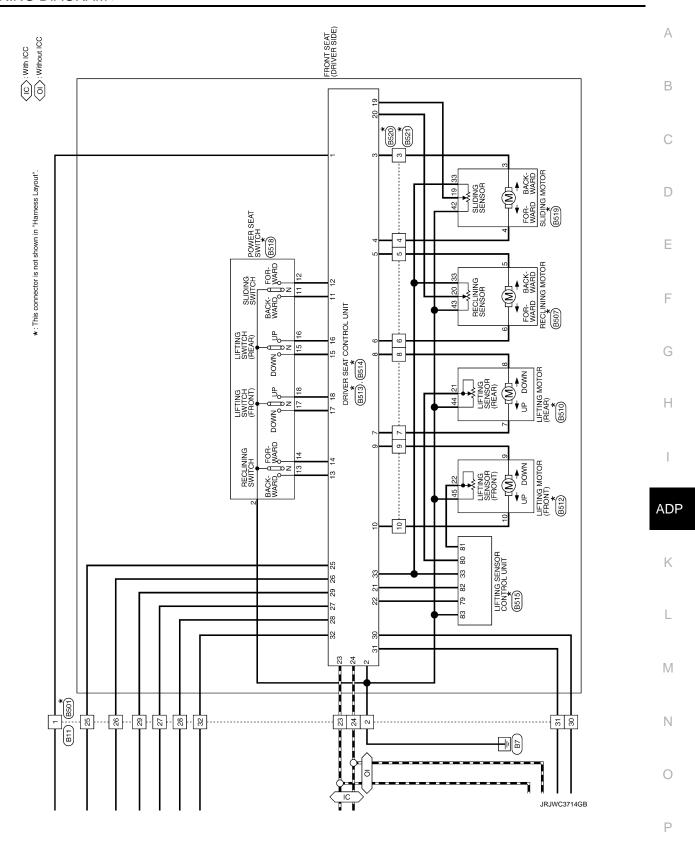
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# **WIRING DIAGRAM**

### **AUTOMATIC DRIVE POSITIONER SYSTEM**







	- 35 E	- 36	LG = 37 BR = -	+	84 40	WIRE TO WIRE	42	TH40MW-CS15 43 1	+		2 5 6 7 8 9 10 11 12 13 14 15 40	+	4714849505050505050	┞	- 20 19	1. Tof St. 1. Mar. 10-11-11-11-11-11-11-11-11-11-11-11-11-1	olgran ivame Lopecincation	-	- N SS W -	- AV		Connector No.	Connector Name FUSE BLOCK (J/B)	G - Connector Type NS12FBR-CS		LE - U		B 56 46 16 26 16	124114104   66			- Terminal C	- No. Wire	- 100 W LO	- 110	B - 12G GR	1G GR -	- 20				- 10		
}	+	+	07 66		Connector No.	Connector Name		Connector Type		T∓	Ų					erminal Color Of	No. Wire	1 B	2 L	5 B/W	9	V 0	+	+	11 P	Н	7	+	9 2	╀	18 BR	19 GR	20 0	Н	Н	23 SB	24 V	27 V	28 W	29 SB	H	H	32 0	
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Ĺ	98	37	04 5	Ŧ \$	43	44	45	47	20 5	64	8 2	52	23	26	22	28	29	09	61	62	63	92	67	89	69	70	72	73	75	76	77	78	79	80	81	82	83	8	85	98	87	88	91	
AUTOMATIC DRIVE POSITIONER			THOOLING STREET			- 0 0 0 0 - 0 - 0 - 0 - 0 -						Signal Name [Specification]	1	1	1	ı		-	-	1		- [With climate controlled seat]	- [With heated seat]	- [With climate controlled seat]	-	-	1			1	1	-	-	-	-	-	=	-	1	1		1	1	

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### **AUTOMATIC DRIVE POSITIONER SYSTEM**

ŀ	- × × ×	2 4	- 0 28	- × 88			BR	O - [With heated seat]	<u>√</u>	GR	ı	:: 0	a	LG	ı	<b>*</b>			ſ	Connector No. B204	Connector Name WIRE TO WIRE	┪	Connector Type TH40MW-CS15	[			2 3 5 9 10 11 12 13 14 15	16171819202122233333	22 33 35 33				I erminal   Color Of   Signal Name [Specification]	Wire	2 B/W -	3 B/W -	- 1	- L	۵	_	12 Y =	88	20 2	יו נפ	GR	- 1	0		GR	ı	ΓC	1	23 0 23	- 1
	> 5	i ac	24 V –		M	- 0	^	- d	- 0	B/R -	· >		-	W/R -	^		- 0	8	R - [With climate controlled seat]	Y - [Wrth heated seat]	G - [With climate controlled seat]	GR - [With heated seat]	۰ -	- 0	oc.	,	57		+	. 3	= (			- SB	-	+	- T 99	$\dashv$	SB	-	70 R	ł	2 0	m .		SHIELD -	- 9	- 2	- d	- 9	- 0	- 88		GR
ł	- SB	::>		-	BR	GR	-	_	-			Connection No. D16	Connector No. B1b	Connector Name EDONT DOOD SMITCH I H		Connector Tyne A03EW	1		<b>B</b>	ç	E C	c	7]			Color Of	No. Wire Signal Name [Specification]	- U	1		1000	Т	Connector Name WIRE TO WIRE		Connector Type TH80MW-CS16-TM4		100		2.5	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			. 0	Terminal Color Of Signal Name [Specification]		3 R		<b>*</b>	GR		۰	20 GR	1
AUTOMATIC DRIVE POSITIONER	Connector No. B11	Connector Name WIRE TO WIRE	Connector Type NS16FW-CS	ģ			7	25 26 1 27 2 28 35 41 40	2				Signal Name [Specification]		- 88	- B			P - [Without C	r	25 BR -	26 W -	27 L –			30 v	31 BR				2	- 1			Connector No. B14	Connector Name WIRE TO WIRE		Connector Type TH24FW-NH	4				12 14 14 10 9 8 7 8		24 23 22 21 20 19 18			Terminal Color Of Simul Name [Same 18]		^ 9	- 0 1	- 0	2 -	

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AUTO	AUTOMATIC DRIVE POSITIONER						
24	· -	Connector No. B507	Connector No.	B512	Connector No.		B514
22	BR -	Connector Name RECLINING MOTOR	Connector Name	LIFTING MOTOR (FRONT)	Connector Name		DRIVER SEAT CONTROL UNIT
26	1	- 1		╗			
32	- 5	Connector Type SUMITOMO_6189-0265	Connector Type	Tyco_968182	Connector Type		TH32FW-NH
┪		4	4		4		
7	SHIELD -		[B	[	E		
┪	١ -	Ę	ŧ	file.	· ·		
$\dashv$	B/R -	2	1.8	0 10	1.3		
37	BR -			•			23 32 20 31 28 26 11 13 17 15 33
38	SB -	20 33 43		22 45			24 19 22 21 30 27 25 12 14 18 16 29
39		)				•	
44	SB -						
45	R -	e O	E O	Of Simul Nama [Specification]	Terminal	O	Simul Mama [Specification]
46	B	No. Wire Olginal realite Expeditionation	No. Wire		No.	Wire	Olgisti Marine Copedingstoria
23		2 ^ 2	9 L/R		11	g/B	SLIDE SW (BACKWARD)
24	B -	6 R/L -	10 L/B		12	M/S	SLIDE SW (FORWARD)
		20 R/Y -	22 BR/Y	- ·	13	B/G	RECLINER SW (BACKWARD)
		33 W	45 P/B		14	R/W	RECLINER SW (FORWARD)
Connector No.	No. B501	43 B/W -			15	Y/B	REAR LIFTER SW (DOWNWARD)
	Total OF Total				16	Y/R	REAR LIFTER SW (UPWARD)
Connector Name			Connector No.	B513	17	LG/B	FRONT LIFTER SW (DOWNWARD)
Connector Type	Type NS16MW-CS	Connector No. B510			18	LG/R	FRONT LIFTER SW (UPWARD)
	ı	Γ	Connector Name	DRIVER SEAT CONTROL UNIT	19	<u>≻</u> 9	PULSE (SLIDE)
Œ		Connector Name   LIFTING MOTOR (REAR)	Connector Type	NS12FW-CS	20	Rγ	PULSE (RECLINER)
至		Connector Type Tyco 968182		1	21	>	PULSE (REAR LIFTER)
	22 24 20 20	1	Œ		22	œ	PULSE (FRONT LIFTER)
	24 29	<u>[</u>	季		23	۵	CAN-H
	40 41 35 28 2 27 1 26 25		\ \ \ \	1 4 5 10	24	P/L	CAN-L
		\(\frac{1}{2}\)		0 0 0 0	25	0/9	IND 1
		× ×		7 1 0 6 0 6	26	0/7	IND 2
Terminal C	Color Of	24 44			27	>	ADDRESS 1
Š	Wire Signal Ivame Lopecinication	]			28	M/A	ADDRESS 2
-			lal C	. Of	29	7	SET SW
2	- 8	Terminal Color Of Size   Name [Sazation]	No. Wire		30	BR	PULSE(TILT)
23		No. Wire olgriei vanie Lapecincation	1.	BAT (PTC)	31	BR/W	PULSE(TELESCOPIC)
24	D/T	7 F	2 B	GND	32	M/L	UART (TX/RX)
25	- 0/5	8 F/W	3	SLIDE MOTOR (FORWARD)	33	×	POWER SUPPLY (ENCODER)
56	0/7	21 L/Y -	4 G/R	R SLIDE MOTOR (BACKWARD)			
27	^		2	RECLINER MOTOR (FORWARD)			
28	- M/A		6 R/L	L RECLINER MOTOR (BACKWARD)			
59			1 L	REAR LIFTER MOTOR (DOWNWARD)			
30	BR -		8 F/W				
31	BR/W -		9 L/R	Ц			
32	//M		10 L/B	н			
Н	W/Y -						
40	M/G						
41	D						

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### **AUTOMATIC DRIVE POSITIONER SYSTEM**

13 B.W 15 O O 16 O O 20 O O 21 O O 22 O O 23 O O 24 O O 25 O O 26 O O 27 O O 28 O O 28 O O 29 O O 29 O O 20	(
Signal Name   Signal Name   Specification   Specific	
Connector No.   B519	A
August   Connector No.   Bits   Connector Type   VAZMA1183-6096   Connector No.   Connector Type   Connector T	ı
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21 R	$\vdash$	Connector No. D19		H.S. 415 6 7 18	Terminal Color Of Signal Name (Specification)	2 LG -	4 ro	9 \		7	Connector No.	23 24 Connector type INSTONMEDS	H.S. 3 4 5 6 7 9 10 11 12 13 15 16 16		lal	No. Wire caponication		5 G MOTOR DN DR	6 L MOTOR UP DR		ENS
Connector No. D9	e e	Connector Type INSOBFW-CS	H.S. 3 - 2   8 7 6 5 4	Terminal Color Of   Signal Name [Specification]   Name   Specification     2   LG	3 0	${\mathbb H}$		П		Connector Type TH24MW-NH	H.S.	13 14 15 16 19 20 21 23	Terminal Color Of Signal Name [Specification]	H	V/B	10 V/W		Н	1 4	╀	H
- × 8	9 B/W -	Commettor No. D8 Commettor Name WIRE TO WIRE	Connector Type TH24FW-NH	1.2 11 10 9 8 7 4 4 24 22 24 23 21 20 19 16 15 14 13	Terminal Color Of Signal Name [Specification] No. Wire 4 P -	7 Y = -	9 GR -	${\mathbb H}$	0		R BS S	23 B 24 SB									
AUTOMATIC DRIVE POSITIONER Connector No. 103	9	Connector Type TH24MW-NH	1247110987 2423227 19 13	Terminal Golor Of Signal Name [Specification] No. Wire Signal Name [Specification]	7 P	Н	Н	H	c >	24 Y -	Gonnector No. D5  Connector Name SEAT MEMORY SWITCH	Connector Type TH16FW-NH	H.S.	5 6 7 9		Terminal Color Of Signal Name [Specification]	+	2 V -	A 0	- PT 2	┞

JRJWC3719GB

### **AUTOMATIC DRIVE POSITIONER SYSTEM**

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### < WIRING DIAGRAM >

EE FO CHICKS (1907)	В
SAZ30F B-5,274-U  SAZ30F B-5,274-U  Signal Name (Specification)  ECUCIOND  Signal Name (Specification)  ECUCIOND  SOLENDIDOWERD  SOLENDIDOWERD  SOLENDIDOWERD  SOLENDIDOWERD  SOLENDIDOWERD  FI-H SEN/FOWERD  CAMMED	С
Clor No.	D
To marrie 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Е
E6  THORSTWANH  Signal Name [Swedfratton]  AOTOR FAN RU, CONT (Mish. We capina)  MOTOR FAN RU, CONT (Mish. We capina)  MOTOR FAN RU, CONT (Mish. We capina)  HORNA SIN  SI NRT CONT	F
	G
1   1   1   1   1   1   1   1   1   1	Н
D03  D00R MIRROR (PASSENGER SIDE)  TH24MW-184  [12] 11 [10] 9   8   7	ADP
10	K
SMTTONER  SMTCH  SWTCH  SWTCH  SWEEL  SWEEL	L
C DRIVE POSITIONE	M
AUTOMATIC DRIVE POSITIONER   12	N
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JRJWC37200	GB

**ADP-47** 2014 Q70 Revision: 2013 November

AUTOMATIC DRIVE P	C DRIVE POSITIONER									
Connector No.	E106	9	≥	1	2	<u>-</u>	GND	Terminal	0	Signal Name [Specification]
Connector Name	WIRE TO WIRE	61	o	1	9	g	POWER SUPPLY (IGN)	Š	Wire	Disconnection of the state of the
_		62	>	-	7	SB	BACK-UP LAMP RELAY	14	α	
Connector Type	TH80FW-CS16-TM4	63	BR	_	80	۵	HEV SYSTEM CAN-L	2A	W	_
		64	В	-	6	BR	P/N SIGNAL [Without paddle shifter]	3A	٨	-
E		65	<b>&gt;</b>	-	6	57	P/N SIGNAL [With paddle shifter]	44	W	-
		99	œ	-	10	В	GROUND	5A	^	-
2		67	SB	1				6A	<b>&gt;</b>	1
		77	0	1				8A	>	
	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	78	SB	1	Connector No.	or No.	F301			
	b b	8	9							
		18	œ	1	Connect	Connector Name	TCM (TRANSMISSION CONTROL MODULE)	Connector No.		M6
Terminal Color Of	3 3 3	82	SB	1	Connect	Connector Type	SP10FG			and the second second second
No. Wire	Signal Name [Specification]	8	g			   	4	Connect	Connector Name V	WIRE TO WIRE
-	1	25	>		Œ	•	<	Connect	Connector Type	TH80MW-CS16-TM4
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~	1	8	3							
+		ā	3		Terminal	Color Of				
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9 >		3 3	3 8		- (	ŀ	NOV.	N N		Signal Name [Specification]
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+		S !	× 1	1	n .	'	CAN-H	-	Α:	,
4 GR	1	6	¥		4	1	K LINE	2	*	1
+	ı	88	-	1	ω.	<u>.</u>	GND	m	gg R	
$\dashv$	1	66	>	-	9	'	VIGN	4	Pl	1
17 GR	-	100	>	_	7	-	REV LAMP RLY	2	W	_
18 ^					89	-	CAN-L	7	BG	_
20 BR					6	-	START RLY	89	g	-
H	-	Connector No.	tor No.	F61	10	-	GND	6	<b>*</b>	-
22 L	-		The state of the s	× T ASSEMBLY				10	W	-
23 P	-	2000	allie in	AV I ASSEMBLI				11	В	-
27 SHIELD	-	Connec	Connector Type	RK10FG-DGY	Connector No.	or No.	M1	12	>	
	1	0		*	-	Connector Name	FIRE BLOCK (1/B)	13	ΡΠ	-
-	-		_	<b>«</b>		200	(0,0)	14	٦	_
_	-				Connector Type	or Type	NS06FW-M2	15	>	_
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Н	-		ı	c +	E	_		17	GR	
34	-			10 9 8 7 8	İ		[	18	^	1
H	ı				S.	r)	3A 3A 1A	20	SB	1
44 W	1					1	] ]-	21	BR	
45 L		Terminal	al Color Of				8A 6A 5A 4A	22	_	
46 GR	1	No.	Wire	Signal Name [Specification]				23	۵	1
H	1	-	>	POWER SUPPLY (BACK UP)				27	SHIELD	1
╀	1	2	œ	POWER SUPPLY (BACK UP)				28	>	1
┞		m	_	HEV SYSTEM CAN-H				59	SB	
20 FG		4	>	K-LINE				5	BB	1
1			1							

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### **AUTOMATIC DRIVE POSITIONER SYSTEM**

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### < WIRING DIAGRAM >

NHTE  Signal Name (Specification)  Signal Name (Specification)  Signal Name (Specification)	В
Connector No. MIZ Connector No. MIZ Connector Type Tri24MH-NH MIZ TO WIRE BE TO WIRE T	D
	E
27 S.B. S.B. S.B. S.B. S.B. S.B. S.B. S.B	G H
Signal Mann (Specification)    Viver heard seat	ı
Connector No.   M7	ADP
VE POSITIONER	L
AUTOMATIC DRIVE POSITIONER  22	N
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**ADP-49** 2014 Q70 Revision: 2013 November

Connector No. M31 Connector No. M49	Comparator Name TTLT & TELECODIO SMITCH		Connector Type   TK06FGY   Connector Type   NS06FW-CS				H.S. H.S.	3 4 1 5 2	1			Terminal Color Of	Signal Name [Specification] No.	1 B GND 1 L -	TELESCOPIC_FR 2	3 G TELESCOPIC,RR 4 P -	9			med TILT MOTOR Connector Name	NODEMICO	Insuor-w-Us			6 5 4			al Color Of Signal Name [Specification] Terminal C	No. Wire	1 G	>-	- >	6 Y - 5 BR MIRROR SENSOR (RH VERTICAL)	6 BR MIRROR SENSOR (LH VERTICAL)	7 W TELESCOPIC SW (FRONTWARD)		8 LG Rx/Tx	+	LG BR	BR LG	BR G G SB	S 8 G L BR
1	_	_			1	1		1	1	- [With VK opains]	- [With VQ engine]			1		M29	DCB HABNESS	TUADED-NIU	IN40FD-NO			286(378(378)78/378/378/378/378/378/378/378/378/378/3			Signal Name [Specification]	1			1	1 1	1	1	1	-	-	-						
Щ	5 R	7 Y	У .	9 BR	<u>-</u>	8 8	3		9	a	╁	8	ŋ	>		on actor No	١,	- 1	7	_	Į.	2		0000	inal Color Of	*	Н	Н	+	2 E	╀	╀	^	8 B	B R	) R		5	Н	Н	++++	++++
104	105	107	108	109	110	112	113	114	116	117	117	118	119	120		Some	J.		Config	Ø	7				No.	361	363	367	388	373	375	376	377	378	379	380		381	381	384	382	384 384 395 396
	-	-	1		1	1	-	1	1		1	1			M22	PCB HARNESS	TH40FB-NH			2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	120 119 113 117 116 114 113 112 113 109 103 107 105 109 103 102 101		Signal Name [Specification]			ı	1	ı	1	1 1	1	1	1	-	1	-				1 1 1	1 1 1	
19 W	20 R	21 B	22 R	23 L	24 L	27 P	31 V	33	32 F	g 92	+	40 Y		١	Connector No.	Connector Name	Connector Type	qI	重	H.S.			Terminal Color Of	+	8 8 8	84 B	85 B	$\dashv$	+	a >	> 16	92 \	93 B	94 B	95 LG	Qa 90	+	Н	Н	нн	++++	++++++

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### **AUTOMATIC DRIVE POSITIONER SYSTEM**

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	Е
Sign al Name (Specification)  - [With climate controlled seet]	F
WIRE TO WIRE  WIRE TO WIRE  THEODRY-CSS16  OF  Signal  Living	G
Commetter Name   Comm	Н
HILLIMINATION CONTROL SIGNAL  ENTER SURTER SIGNAL  ELLIMINATION CONTROL SIGNAL  ILLIMINATION CONTROL SWITCH SIGNAL  ILLIMINATION CONTROL SWITCH SIGNAL  ILLIMINATION CONTROL SWITCH SIGNAL  ILLIMINATION CONTROL SWITCH SIGNAL  INTERNATOR SIGNAL  FUEL LEVEL SWITCH SIGNAL  PARAGINE SWITCH SIGNAL  FUEL LEVEL SWITCH SIGNAL  PARAGINE SWITCH SIGNAL  PARAGINE SWITCH SIGNAL  SALVI BELL BUILD EVELS SWITCH SIGNAL  SALVI BELL BUILD EVELS SWITCH SIGNAL  PRODLE SWITCH SWITCH SIGNAL  WASHER LEVEL SWITCH SIGNAL  SALVI BELL BUILD SWITCH SWITCH SIGNAL  WASHER LEVEL SWITCH SWITCH  SECHET CHARLE SWITCH SWITCH  MANUAL MODE SHIFT UP SIGNAL  MANUAL MODE SHIFT UP SIGNAL  MANUAL MODE SHIFT UP SIGNAL  MANUAL MODE SWITCH SIGNAL  MANUAL MODE SWITCH PSIGNAL   MANUAL MODE SWITCH PSIGNAL  MANUAL MODE SWITCH PSIGNAL  MANUAL MODE SWITCH PSIGNAL  MANUAL MODE SWITCH PSIGNAL   MANUAL MANUAL MODE SWITCH PSIGNAL   MANUAL MODE SWITCH PSIGNAL  MANUAL MODE SWITCH PSIGNAL   MANUAL MODE SWITCH PSIGNAL  MANUAL MODE SWITCH PSIGNAL   MANUAL MODE SWITCH PSIGNAL   MANUAL MODE SWITCH PSIGNAL   MANUAL MODE SWITCH PSIGNAL   MANUAL MODE SWITCH PSIGNAL   MANUAL MODE SWITCH PSIGNAL   MANUAL MODE SWITCH PSIGNAL   MANUAL MODE SWITCH PSIGNAL   MANUAL MODE SWITCH PSIGNAL   MANUAL MODE SWITCH PSIGNAL   MANUAL MODE SWITCH PSIGNAL   MANUAL MODE SWITCH PSIGNAL   MANUAL MODE SWITCH PSIGNAL   MANUAL MODE SWITCH PSIGNAL   MANUAL MODE SWITCH PSIGNAL   MANUAL MODE SWITCH PSIGNAL   MANUAL MODE SWITCH PSIGNAL   MANUAL MODE SWITCH P	I
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TIONER HORIZONTAL) HORIZONTAL HORIZ	L
IC DRIVE POSITIONER  MIRROR SENSOR RIH HORIZONTAL)  MIRROR SENSOR RIH HORIZONTAL)  MIRROR SUBDLY CENSORY  POWER SUBDLY CENSORY  MIRROR MOTOR (LA HORIZONTAL)  MIRROR SUBPLY SENSORY)  TILT MOTOR (LA HORIZONTAL)  MASS  ALTOMATO REPRESENCE TOWNWARD)  TILT MOTOR (LA HORIZONTAL)  MASS  COMBINATION METER  THERSORY SUBMLY SENSORY  TILT MOTOR (LA HORIZONTAL)  MASS  COMBINATION METER  THERSORY SUBMLY SENSORY  THERSORY SUBMLY SENSORY  TILT MOTOR (LA HORIZONTAL)  MASS  COMBINATION METER  THERSORY SUBMLY SENSORY  THERSORY SUBMLY SENSORY  THERSORY SUBMLY SENSORY  WENCLE SPEED SIGNAL (3-PILISE)  VEHICLE SPEED SIGNAL (3-PILISE)	M
AUTOMATIC DRIVE POSITIONER   17	N
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**ADP-51** 2014 Q70 Revision: 2013 November

AUT	OMA	AUTOMATIC DRIVE POSITIONER				ŀ				Г
Connector No	or No.	M120	Connector No.	١	M121	$\dashv$	DR DOOR, FL LID UNLK OUTPUT	9	CAN-H	_
Connect	Connector Name	BCM (BODY CONTROL MODULE)	Connector Name		BCM (BODY CONTROL MODULE)	67 B	GND × ids dwd wd	> 0	KLINE	_
Connector Type	or Type	TH40FB-NH	Connector Type	Т	FEA09FB-FHA6-SA	+	PW PWR SPLY (BAT)	= = SB	M-CAN.H	_
Į (			[			70 W	BAT (F/L)	12 P	CAN-L	
售	_		修					Н	CAN-H	П
H S	œ		SH		11 12 14 14 14 14 14 14 14	Connector No.	M125	14 N	POWER	_
		71 2 3 4 2 5 8 9 111 84 10 17 18 19 20 27 22 22 24 25 25 25 29 30 31 32 33 34 35 38 37 39 40			51 53 4	Connector Name	CAN GATEWAY			1
						Connector Type	TH12FW-NH	Connector No. M221	1	П
Termina	Terminal Color Of		Terminal	Color Of		<b>1</b>		Connector Name WIR	WIRE TO WIRE	
No	Wire				Signal Name [Specification]	主		Connector Type M03	M03FW-LC	П
-	<sub>C</sub>	RR WINDO	41	>	TR KEY CYLINDER SW	Š	1 3 4 5 6	4		
2	8		45	α:	TRUNK LID OPEN/CLOSE STATUS		)	彦		
m =	BS -	1	44	> 8	TR LID OP CANCEL SW		7 11 11 12	Ě	Ī	
r io	0	COMBI SW INPUT 2	46	88 g	REAR RH DOOR SW					
9	Ь	COMBI SW INPUT 1	47	PT	DRIVER DOOR SW	Terminal Color Of	F Simul Nama [Snasification]		3 2	
00	>	POWER WINDOW SW COMM	48	а	REAR LH DOOR SW	No. Wire	Dispersional allest tel Bio		]	
6	۵	STOP LAMP SW 1	49	g	TR ROOM LAMP CONT	-	CAN-H			Г
11	œ	RAIN SENSOR SERIAL LINK	51	BG	TR LID OPEN REG SW	3 GR	BATTERY	E C	Signal Name [Specification]	
14	>	OPTICAL SENSOR	23	P.	TRUNK LID OPEN REQUEST	4	CAN-H	No. Wire	,	_
91	SB	DIMMER SIGNAL	22	æ	RR DOOR UNLK OUTPUT	en Lo	GND	×		_
17	>   ·	SENSOR PWR SPLY				9 1	CAN-H	2 ·		_
200	2	RECEIVER / SENSOR GND		١		+	CAN-L	> m	1	7
S 0	× 8	KECEIVER PWR SPLY	Connector No.	Τ	M122	æ ç	IGNITION			
07	6	VIES EIN	Connector Name		BCM (BODY CONTROL MODULE)	$^{+}$	CAIR	ı		Г
21	7 5	1	F	Т	V3-9VFIJ-7VG00VJJ	= \$	GND	Т	2	_
77	5 0	ATES ENT RECEIVER RSSI	Connecto	1	EAUSTW-THA0-5A	-	CANT	Connector Name WIR	WIRE TO WIRE	
24	5 _		Œ.					Connector Type M03	M03MW-LC	_
25	g	NATS ANT AMP.	主			Connector No.	M182	1		1
26	9	I-KEY IDENTIFICATION	S		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Connector Name	DATA LINK CONNECTOR	13		
29	g	HAZARD SW		1	25 00 00 00 00	all by the second				
30	0	TR LID OPNR SW			00 0/ 00 00	Connector Type	BD16FW	H.V	_	
31	>					þ			6	
32	æ					ほ			2 3	
33	œ	COMBI SW OUTPUT 4	je.	0	Signal Name [Specification]	\\				
34	>	COMBI SW OUTPUT 3	Š	Wire		ė E	11 12 13 14 16			г
32	>	COMBI SW OUTPUT 2	26	œ	INT ROOM LAMP PWR SPLY		I	la C	Signal Name [Specification]	
36	9		21	œ	BAT (FUSE)		3 4 5 6 7 8	No. Wire		_
37	œ	P POSITION	28	_	SENS CANCEL SW			M	1	_
39	-	CAN-H	29	ŋ	PASS DOOR UNLK OUTPUT			2 R	ſ	_
40	۵	CAN-L	9	9 :	TURN SIG LH OUTPUT	E E	f Signal Name [Specification]	3	ı	_
			19	>	TURN SIG RH OUTPUT	No.				
			83	•	BOOM I AMB TIMED CONT	2 0	CADTH			
			92	, >	ALL DOOR, FL LID LOCK OUTPUT	- 10	EARTH			
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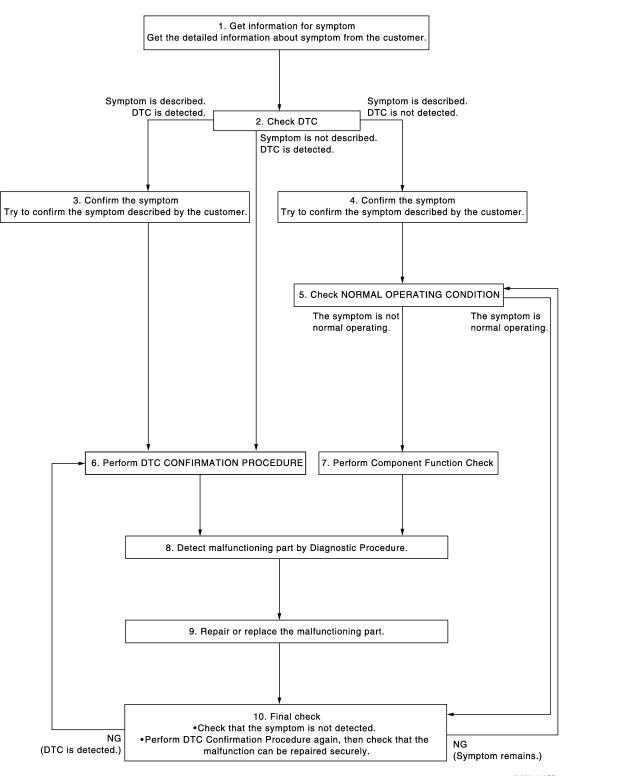
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# **BASIC INSPECTION**

### DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

**OVERALL SEQUENCE** 



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

#### < BASIC INSPECTION >

### 1.GET INFORMATION FOR SYMPTOM

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

>> GO TO 2.

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

Check "Self Diagnostic Result" with CONSULT. Refer to ADP-33, "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-144, "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-47, "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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#### < BASIC INSPECTION >

### INSPECTION AND ADJUSTMENT

### ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

# ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description

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

Function	Condition	Procedure
Memory (Seat, steering, mirror)	Erased	Perform storing
Finday devide assist	ON	Perform initialization
Entry/exit assist	ON	Set slide amount*1
Intelligent Key interlock	Erased	Perform initialization
intelligent Key Interlock	Liaseu	Perform storing
Seat synchronization	OFF	_

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

#### NOTF:

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

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

### 1.SYSTEM INITIALIZATION

Perform system initialization. Refer to ADP-57, "SYSTEM INITIALIZATION: Description".

>> GO TO 2.

### 2.MEMORY STORAGE

Perform memory storage. Refer to ADP-58, "MEMORY STORING: Description".

>> GO TO 3.

### 3.INTELLIGENT KEY INTERLOCK STORAGE

Perform memory storage. Refer to ADP-58, "INTELLIGENT KEY INTERLOCK STORING: Description".

>> GO TO 4.

### 4. SYSTEM SETTING

Perform system setting. Refer to ADP-59, "SYSTEM SETTING: Description".

#### >> END

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

INFOID:0000000010099576

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

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

#### < BASIC INSPECTION >

Function	Condition	Procedure
Intelligent Key interlock	Erased	Perform initialization
intelligent Key Intellock	Liaseu	Perform storing
Seat synchronization	OFF	_

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

#### NOTE:

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

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement INFOID:0000000010099577

### 1.SYSTEM INITIALIZATION

Perform system initialization. Refer to ADP-57, "SYSTEM INITIALIZATION: Description".

>> GO TO 2.

### 2.MEMORY STORAGE

Perform memory storage. Refer to ADP-58, "MEMORY STORING: Description".

>> GO TO 3.

### 3.intelligent key interlock storage

Perform memory storage. Refer to ADP-58, "INTELLIGENT KEY INTERLOCK STORING: Description".

>> GO TO 4.

### 4.SYSTEM SETTING

Perform system setting. Refer to ADP-59, "SYSTEM SETTING: Description".

>> END

#### SYSTEM INITIALIZATION

SYSTEM INITIALIZATION: Description

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

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

### SYSTEM INITIALIZATION: Special Repair Requirement

INITIALIZATION PROCEDURE

1. CHOOSE METHOD

There are two initialization methods.

Which method do you use?

With door switch>>GO TO 2.

With vehicle speed>>GO TO 4.

2. STEP A-1

Turn ignition switch from ACC to OFF position.

>> GO TO 3.

### 3. STEP A-2

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

**ADP-57** Revision: 2013 November 2014 Q70

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#### < BASIC INSPECTION >

>> END

### 4. STEP B-1

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

>> END

#### MEMORY STORING

### **MEMORY STORING: Description**

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

### MEMORY STORING: Special Repair Requirement

INFOID:0000000010099581

INFOID:0000000010099580

#### Memory Storage Procedure

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

**1.**STEP 1

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

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

#### NOTE:

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

#### NOTE:

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

>> GO TO 3.

### **3.**STEP 3

Confirm the operation of each part with memory operation.

>> END

#### INTELLIGENT KEY INTERLOCK STORING

### INTELLIGENT KEY INTERLOCK STORING: Description

NEOID-000000001000059

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.

INTELLIGENT KEY INTERLOCK STORING: Special Repair Requirement INFOID-000000010099583

Intelligent Key Interlock Storage Procedure

#### < BASIC INSPECTION >

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

### **1.**STEP 1

Check the following conditions.

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

>> GO TO 2.

### 2.STEP 2

1. Push set switch.

#### NOTE:

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

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

#### NOTE:

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

>> GO TO 3.

### **3.**STEP 3

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

>> END

# SYSTEM SETTING

SYSTEM SETTING : Description

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

#### **Setting Change**

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

### SYSTEM SETTING: Special Repair Requirement

### 1. CHOOSE METHOD

There are three way of setting method.

Which method do you choose?

With CONSULT>>GO TO 2.

With set switch>>GO TO 4.

2 . WITH CONSULT - STEP 1

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#### < BASIC INSPECTION >

Select "Work support".

>> GO TO 3.

# 3. WITH CONSULT - STEP 2

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

>> END

## 4. WITH SET SWITCH - STEP 1

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

>> GO TO 5.

### 5. WITH SET SWITCH - STEP 2

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

>> END

### **U1000 CAN COMM CIRCUIT**

< DTC/CIRCUIT DIAGNOSIS >

### DTC/CIRCUIT DIAGNOSIS

### U1000 CAN COMM CIRCUIT

**Description** 

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

DTC Logic

#### DTC DETECTION LOGIC

DTC 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 >> Perform diagnosis procedure. Refer to ADP-61, "Diagnosis Procedure".

NO >> INSPECTION END

### Diagnosis Procedure

### 1.PERFORM SELF DIAGNOSTIC

- 1. Turn ignition switch ON and wait for 2 seconds or more.
- 2. Check "Self Diagnostic Result".

### Is DTC "U1000" displayed?

YES >> Refer to LAN-24, "Trouble Diagnosis Flow Chart".

NO >> Refer to GI-44, "How to Check Terminal".

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### **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:0000000010099590

# 1. REPLACE DRIVER SEAT CONTROL UNIT

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

>> Replace driver seat control unit.Refer to ADP-145, "Removal and Installation".

#### **B2112 SLIDING MOTOR**

#### < DTC/CIRCUIT DIAGNOSIS >

### **B2112 SLIDING MOTOR**

**DTC** Logic INFOID:0000000010099591

#### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause	С
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.	Driver seat control unit     Slide motor harness is shorted	D

### DTC CONFIRMATION PROCEDURE

### **1.**STEP 1

Turn ignition switch ON.

>> GO TO 2.

### 2.STEP 2

Check "Self diagnostic result" with CONSULT.

#### Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-63, "Diagnosis Procedure".

>> INSPECTION END NO

### Diagnosis Procedure

### 1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON.
- Check "Self diagnostic result" with CONSULT.
- Erase the DTC.
- Perform DTC confirmation procedure. Refer to ADP-63, "DTC Logic".

#### Is the DTC displayed again?

YES >> GO TO 2.

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

# 2.check sliding motor circuit (power short)

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

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Sliding motor		(-)	Voltage (V) (Approx.)	
Connector	Terminals		,	
B519	3	Ground	0	
D319	4	Giodila	U	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

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

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

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Revision: 2013 November

### **B2112 SLIDING MOTOR**

### < DTC/CIRCUIT DIAGNOSIS >

	(+) Driver seat control unit		Voltage (V) (Approx.)	
Connector	Terminals		(/ .pp. 0/)	
B513	3	Ground	0	
513	4	Ground	U	

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit. Refer to <u>ADP-145</u>, "Removal and Installation"

4. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> INSPECTION END

#### **B2113 RECLINING MOTOR**

#### < DTC/CIRCUIT DIAGNOSIS >

### **B2113 RECLINING MOTOR**

**DTC** Logic INFOID:0000000010099593

#### DTC DETECTION LOGIC

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

#### DTC CONFIRMATION PROCEDURE

### **1.**STEP 1

Turn ignition switch ON.

>> GO TO 2.

### 2.STEP 2

Check "Self diagnostic result" with CONSULT.

#### Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-65, "Diagnosis Procedure".

>> INSPECTION END NO

## Diagnosis Procedure

### 1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON.
- Check "Self diagnostic result" with CONSULT.
- Erase the DTC.
- Perform DTC confirmation procedure. Refer to ADP-65, "DTC Logic".

#### Is the DTC displayed again?

YES >> GO TO 2.

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

# 2.CHECK RECLINING MOTOR CIRCUIT (POWER SHORT)

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

(	+)			
Reclinii	ng motor	(-)	Voltage (V) (Approx.)	
Connector	Terminals		(11 - /	
B507	5	Ground	0	
D307	6	Ground	U	

ADP-65

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

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

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

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### **B2113 RECLINING MOTOR**

### < DTC/CIRCUIT DIAGNOSIS >

(+) Driver seat control unit		(-)	Voltage (V) (Approx.)
Connector	Terminals		( ++)
B513	5	Ground	0
D313	6	- Ground	0

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit. Refer to ADP-145, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> INSPECTION END

#### **B2116 TILT MOTOR**

#### < DTC/CIRCUIT DIAGNOSIS >

### **B2116 TILT MOTOR**

**DTC** Logic INFOID:0000000010099595

#### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2116	STEERING TILT	The automatic drive positioner control unit detects the output of tilt motor output terminal for 0.1 second or more even if the tilt switch is not input.	Automatic drive positioner control unit     Tilt motor harness is shorted

#### DTC CONFIRMATION PROCEDURE

### **1.**STEP 1

Turn ignition switch ON.

>> GO TO 2.

### 2.STEP 2

Check "Self diagnostic result" with CONSULT.

#### Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-67, "Diagnosis Procedure".

>> INSPECTION END NO

## Diagnosis Procedure

### 1. PERFORM DTC CONFIRMATION PROCEDURE

Turn ignition switch ON.

- Check "Self diagnostic result" with CONSULT.
- Erase the DTC.
- Perform DTC confirmation procedure. Refer to ADP-67, "DTC Logic".

#### Is the DTC displayed again?

YES >> GO TO 2.

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

# 2.CHECK TILT MOTOR CIRCUIT (POWER SHORT)

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

(+)		(-)	Voltage (V) (Approx.)
Tilt motor			
Connector	Terminals		(11 /
M48	1	Ground	0
IVI40	2	Giouna	U

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

# 3.check automatic driver positioner conrol unit output signal

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

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### **B2116 TILT MOTOR**

### < DTC/CIRCUIT DIAGNOSIS >

(+) Automatic drive positioner control unit		(-)	Voltage (V) (Approx.)
Connector	Terminals		(11 - /
M52	28	Ground	0
SCIVI	29	Ground	U

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace automatic drive positioner control unit. Refer to ADP-146, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> INSPECTION END

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

#### < DTC/CIRCUIT DIAGNOSIS >

### **B2128 UART COMMUNICATION LINE**

**Description** 

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 tilt & telescopic switch, 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.**STEP 1

Turn ignition switch ON.

>> GO TO 2.

### 2.PROCEDURE

Check "Self diagnostic result" with CONSULT.

#### Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to <u>ADP-69</u>, "<u>Diagnosis Procedure</u>".

NO >> INSPECTION END

# Diagnosis Procedure

# 1. PERFORM DTC CONFIRMATION PROCEDURE

Turn ignition switch ON.

- 2. Check "Self diagnostic result" with CONSULT.
- Erase the DTC.
- Perform DTC confirmation procedure. Refer to <u>ADP-69, "DTC Logic"</u>.

#### Is the DTC displayed again?

YES >> GO TO 2.

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

### 2.CHECK UART COMMUNICATION LINE CONTINUITY

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

Driver seat	Driver seat control unit		Automatic drive positioner control unit	
Connector	Terminal	Connector Terminal		Continuity
B514	32	M51	8	Existed

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

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### **B2128 UART COMMUNICATION LINE**

### < DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit			Continuity
Connector Terminal		Ground	Continuity
B514	32		Not existed

#### Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "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.**STEP 1

Turn ignition switch ON.

>> GO TO 2.

### **2.**STEP 2

Check "Self diagnostic result" with CONSULT.

#### Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-71, "Diagnosis Procedure".

NO >> INSPECTION END

### Diagnosis Procedure

# 1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON.
- 2. Check "Self diagnostic result" with CONSULT.
- Erase the DTC.
- 4. Perform DTC confirmation procedure. Refer to ADP-71, "DTC Logic".

#### Is the DTC displayed again?

YES >> GO TO 2.

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

### 2.replace driver seat control unit

Replace driver seat control unit. Refer to ADP-145, "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:0000000010099602

### 1.CHECK FUSE

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

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

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the blown fuse after repairing the affected circuit if a fuse are blown.

# 2. CHECK POWER SUPPLY CIRCUIT

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

(+) Driver seat control unit		(-)	Voltage (V) (Approx.)
Connector Terminals			
B513	1	Ground	Battery voltage

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

### 3.CHECK GROUND CIRCUIT

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

Driver seat control unit			Continuity
Connector Terminal		Ground	Continuity
B513	2		Existed

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace harness.

### DRIVER SEAT CONTROL UNIT : Special Repair Requirement

INFOID:0000000010099603

### 1.PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

>> Refer to <u>ADP-56</u>, "<u>ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Special Repair Requirement"</u>.

### AUTOMATIC DRIVE POSITIONER CONTROL UNIT

### AUTOMATIC DRIVE POSITIONER CONTROL UNIT: Diagnosis Procedure

INFOID:0000000010099604

#### NOTE:

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

### 1.CHECK FUSE

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

### POWER SUPPLY AND GROUND CIRCUIT

### < DTC/CIRCUIT DIAGNOSIS >

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

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the blown fuse after repairing the affected circuit if a fuse are blown.

### 2.CHECK POWER SUPPLY CIRCUIT

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

(+)			V-16 (A.A.)	
Automatic drive positioner control unit		(-)	Voltage (V) (Approx.)	
Connector	Terminals		(11 - 7	
M52	25	Ground	Battery voltage	

#### Is the inspection result normal?

>> GO TO 3.

NO >> Repair or replace harness.

### 3.CHECK GROUND CIRCUIT

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

Automatic drive positioner control unit			Continuity
Connector Terminal		Ground	Continuity
M52 30			Existed

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace harness.

# AUTOMATIC DRIVE POSITIONER CONTROL UNIT: Special Repair Requirement

INFOID:0000000010099605

INFOID:0000000010099606

# 1.PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

>> Refer to ADP-56, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMI-NAL: Special Repair Requirement".

### LIFTING SENSOR CONTROL UNIT

# LIFTING SENSOR CONTROL UNIT: Diagnosis Procedure

# 1. CHECK LIFTING SENSOR POWER SUPPLY

- Turn ignition switch ON.
- Check voltage between lifting sensor control unit harness connector and ground.

(+) Lifting sensor control unit		(-)	Voltage (V) (Approx.)	
Connector	Terminals		(пррюх.)	
B515	33	Ground	12	

### Is the inspection result normal?

>> GO TO 3. YES

NO >> GO TO 2. ADP

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**ADP-73** Revision: 2013 November 2014 Q70

### POWER SUPPLY AND GROUND CIRCUIT

### < DTC/CIRCUIT DIAGNOSIS >

# $\overline{2}$ .check power supply circuit

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

Lifting sensor control unit		Driver seat control unit		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
B515	33	B514	33	Existed	

4. Check continuity between lifting sensor control unit harness connector and ground.

Lifting sensor control unit			Continuity
Connector	Terminal	Ground	Continuity
B515	33		Not existed

### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-145</u>, "Removal and Installation".

NO >> Repair or replace harness or connector.

# 3. CHECK GROUND CIRCUIT

Check continuity between the lifting sensor control unit harness connector and ground.

Lifting sensor control unit			Continuity
Connector	Connector Terminal		Continuity
B515	83		Existed

### Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace harness.

### SLIDING SWITCH

# Component Function Check

# 1. CHECK FUNCTION

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

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

### Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to ADP-75, "Diagnosis Procedure".

### Diagnosis Procedure

# 1. CHECK SLIDING SWITCH SIGNAL

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

(+) Power seat switch		(-)	Voltage (V) (Approx.)	
Connector	Terminals		(, , , , , , )	
B518	11	Ground	12	
D310	12	Giodila	12	

### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.CHECK SLIDING SWITCH CIRCUIT

- Turn ignition switch OFF.
- 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  Connector Terminal				Continuity
Connector	Terminal			Continuity		
B514	11	B518	11	Existed		
12		D310	12	LAISteu		

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

Driver seat control unit			Continuity	
Connector	Terminal	Ground	Continuity	
B514	11	Giouna	Not existed	
	12	_	Not existed	

### Is the inspection result normal?

>> Replace driver seat control unit. Refer to ADP-145, "Removal and Installation".

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### **SLIDING SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace harness or connector.

# 3. CHECK SLIDING SWITCH

Refer to ADP-76, "Component Inspection".

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace power seat switch. Refer to ADP-149, "Removal and Installation"

### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

### >> INSPECTION END

# Component Inspection

INFOID:0000000010099609

# 1. CHECK SLIDING SWITCH

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

Power seat switch (Sliding switch)		Condition		Continuity
Terr	minal			
	11	Sliding switch (backward)	Operate	Existed
2			Release	Not existed
2	12	Sliding switch (forward)	Operate	Existed
'	12	Silding Switch (lorward)	Release	Not existed

### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to <u>ADP-149</u>, "Removal and Installation".

### **RECLINING SWITCH**

# Component Function Check

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# 1. CHECK FUNCTION

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

Monitor item	Condition		Status
RECLINE SW-FR Reclining switch (forward)	Reclining switch (forward)	Operate	ON
	recilling switch (lorward)	Release	OFF
RECLINE SW-RR Reclining switch (backward)	Poolining quitob (bookward)	Operate	ON
	Recilling Switch (backward)	Release	OFF

### Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to ADP-77, "Diagnosis Procedure".

# Diagnosis Procedure

#### INFOID:0000000010099611

# 1. CHECK RECLINING SWITCH SIGNAL

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

(+) Power seat switch		(-)	Voltage (V) (Approx.)	
Connector	Terminals		(/ (pprox.)	
B518	13	Ground	12	
D310	14	Ground		

### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.CHECK RECLINING SWITCH CIRCUIT

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

Driver seat	control unit	Power seat switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B514	13	B518	13	Existed
D314	14	5510	14	LAIGIGU

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B514	13	Ground	Not existed
	14		Not existed

### Is the inspection result normal?

>> Replace driver seat control unit. Refer to ADP-145, "Removal and Installation".

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### **RECLINING SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace harness or connector.

# 3. CHECK RECLINING SWITCH

Refer to ADP-78, "Component Inspection".

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace power seat switch. Refer to ADP-149, "Removal and Installation".

### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

#### >> INSPECTION END

# Component Inspection

INFOID:0000000010099612

# 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.

Power seat switch	Power seat switch (Reclining switch)		Condition	
Terr	ninal	Condition		Continuity
	13	Reclining switch (forward)	Operate	Existed
2	13		Release	Not existed
2	14		Operate	Existed
	14		Release	Not existed

### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to <u>ADP-149</u>, "Removal and Installation".

### LIFTING SWITCH (FRONT)

### < DTC/CIRCUIT DIAGNOSIS >

# LIFTING SWITCH (FRONT)

# Component Function Check

#### INFOID:0000000010099613

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# 1. CHECK FUNCTION

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

Monitor item	Condition		Status
LIFT FR SW-UP	Lifting switch front (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 >> Perform diagnosis procedure. Refer to ADP-79, "Diagnosis Procedure".

# Diagnosis Procedure

#### INFOID:0000000010099614

# 1. CHECK LIFTING SWITCH (FRONT) SIGNAL

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

(+) Power seat switch		(-)	Voltage (V) (Approx.)
Connector	Terminals	( )	(Approx.)
B518	17	Ground	12
D310	18	Ground	12

### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.check lifting switch (front) circuit

- Turn ignition switch OFF.
- 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
B514	17	B518	17	Existed
5514	18	5510	18	LAIGIGU

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B514	17	Giouna	Not existed
	18		Not existed

### Is the inspection result normal?

>> Replace driver seat control unit. Refer to ADP-145, "Removal and Installation".

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

### < DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace harness or connector.

# 3.CHECK LIFTING SWITCH (FRONT)

Refer to ADP-80, "Component Inspection".

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace power seat switch. Refer to <u>ADP-149</u>, "Removal and Installation".

### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

#### >> INSPECTION END

# Component Inspection

INFOID:0000000010099615

# 1. CHECK LIFTING SWITCH (FRONT)

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

Power seat switch	Power seat switch (lifting switch front)  Terminal		Condition	
Terr				
	17	Litting Switch Horit	Operate	Existed
2	17		Release	Not existed
2	18 Lifting	Lifting switch front (up)	Operate	Existed
	18 L		Release	Not existed

### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to <u>ADP-149</u>, "Removal and Installation".

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

### < DTC/CIRCUIT DIAGNOSIS >

# LIFTING SWITCH (REAR)

# Component Function Check

# 1. CHECK FUNCTION

- Select "LIFT RR SW-UP", "LIFT RR SW-DN" in "Data monitor" mode with CONSULT.
- 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

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

# Diagnosis Procedure

# 1. CHECK LIFTING SWITCH (REAR) SIGNAL

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

(+) Power seat switch		(-)	Voltage (V) (Approx.)	
Connector	Terminals		(πρρίολ.)	
B518	15	Ground	12	
D310	16	- Giouna	12	

### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.CHECK LIFTING SWITCH (REAR) CIRCUIT

- Turn ignition switch OFF.
- 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
B514	15	B518	15	Existed
D314	16	D310	16	LAISteu

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

Driver seat control unit			Continuity
Connector	Connector Terminal		Continuity
B514	15	Ground	Not existed
D314	16	-	Not existed

### Is the inspection result normal?

>> Replace driver seat control unit. Refer to ADP-145, "Removal and Installation".

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

### < DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace harness or connector.

# 3.CHECK LIFTING SWITCH (REAR)

Refer to ADP-82, "Component Inspection".

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace power seat switch. Refer to ADP-149, "Removal and Installation".

### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

#### >> INSPECTION END

# Component Inspection

INFOID:0000000010099618

# 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.

Power seat switch	Power seat switch (lifting switch rear)		Condition	
Term	Terminal			
	15	Lifting switch rear (down)	Operate	Existed
2	15	Litting Switch real (down) =	Release	Not existed
2	16	Lifting switch rear (up)	Operate	Existed
	16		Release	Not existed

### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to <u>ADP-149</u>, "Removal and Installation".

Condition

Operate

Release Operate

Release

### TILT SWITCH

# Component Function Check

### INFOID:0000000010099619

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# 1. CHECK FUNCTION

- Select "TILT SW-UP", "TILT SW-DOWN" in "Data monitor" mode with CONSULT.
- Check tilt switch signal under the following conditions.

Tilt switch (up)

Tilt switch (down)

Status	_
ON	_
OFF	_ [
ON	_

**OFF** 

### Is the indication normal?

**TILT SW-UP** 

**TILT SW-DOWN** 

YES >> INSPECTION END

Monitor item

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

### Diagnosis Procedure

#### INFOID:0000000010099620

# 1. CHECK TILT SWITCH SIGNAL

- Turn ignition switch OFF.
- Disconnect tilt & telescopic switch connector. 2.
- 3. Turn ignition switch ON.
- Check voltage between tilt & telescopic switch harness connector and ground.

(+) Tilt & telescopic switch		(-)	Voltage (V) (Approx.)	
Connector	Terminals		(, , , , , )	
M31	4	Ground	5	
I CIVI	5	Giodila	3	

### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2. CHECK TILT SWITCH CIRCUIT

Turn ignition switch OFF.

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

Automatic drive po	sitioner control unit	Tilt & telescopic switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M51	1	M31	4	Existed
IVIOI	13	IVIOI	5	LAIGIGU

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

Automatic drive positioner control unit			Continuity	
Connector Terminal		Ground	Continuity	
M51	1	Ground	Not existed	
I CIVI	13		INOL EXISTED	

### Is the inspection result normal?

>> Replace automatic drive positioner control unit. Refer to ADP-146, "Removal and Installation".

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### **TILT SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace harness or connector.

# 3. CHECK TILT SWITCH

Refer to ADP-84, "Component Inspection".

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace tilt & telescopic switch. Refer to ADP-150, "Removal and Installation".

### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

### >> INSPECTION END

# Component Inspection

INFOID:0000000010099621

# 1. CHECK TILT SWITCH

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

Tilt switch		Condition		Continuity
Terr	Terminal		dition	Continuity
	4	Tilt switch (upward)	Operate	Existed
1	7	Till Switch (upward)	Release	Not existed
ı	5	Tilt switch (downward)	Operate	Existed
	3		Release	Not existed

### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace tilt & telescopic switch. Refer to ADP-150, "Removal and Installation".

### TELESCOPIC SWITCH

### < DTC/CIRCUIT DIAGNOSIS >

### TELESCOPIC SWITCH

# Component Function Check

#### INFOID:0000000010099622

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### 1. CHECK FUNCTION

- Select "TELESCO SW-FR", "TELESCO SW-RR" in "Data monitor" mode with CONSULT.
- Check telescopic switch signal under the following conditions.

Monitor item	Condition		Status
TELESCO SW-FR	Telescopic switch (forward)	Operate	ON
TELESCO SW-FR Tele		Release	OFF
TELESCO SW-RR	Telescopic switch (backward)	Operate	ON
TELESCO SW-RK		Release	OFF

### Is the indication normal?

YES >> INSPECTION END

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

### Diagnosis Procedure

#### INFOID:0000000010099623

# 1. CHECK TELESCOPIC SWITCH SIGNAL

- Turn ignition switch OFF.
- Disconnect tilt & telescopic switch connector. 2.
- 3. Turn ignition switch ON.
- Check voltage between tilt & telescopic switch harness connector and ground.

(+) Tilt & telescopic switch		(-)	Voltage (V) (Approx.)	
Connector	Terminals		(, 45, 21, 1)	
M31	2	Ground	5	
IVIST	3	Ground	ວ 	

### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.CHECK TELESCOPIC SWITCH CIRCUIT

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

Automatic drive po	sitioner control unit	Tilt & telescopic switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M51	7	M31	2	Existed
IVIOT	19	WIOT	3	LXISICU

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

Automatic drive positioner control unit			Continuity	
Connector Terminal		Ground	Continuity	
M51	7	Ground	Not existed	
I CIVI	19		inol existed	

### Is the inspection result normal?

>> Replace automatic drive positioner control unit. Refer to ADP-146, "Removal and Installation".

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### **TELESCOPIC SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace harness or connector.

# 3. CHECK TELESCOPIC SWITCH

Refer to ADP-86, "Component Inspection".

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace tilt & telescopic switch. Refer to ADP-150, "Removal and Installation".

### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

### >> INSPECTION END

### Component Inspection

INFOID:0000000010099624

# 1. CHECK TELESCOPIC SWITCH

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

Telescopic switch		Condition		Continuity
Terminal				
	2	Telescopic switch (forward)	Operate	Existed
1	4	relescopic switch (lorward)	Release	Not existed
'	2	3 Telescopic switch (backward)	Operate	Existed
	3		Release	Not existed

### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace tilt & telescopic switch. Refer to ADP-150, "Removal and Installation".

### **SEAT MEMORY SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

### SEAT MEMORY SWITCH

# Component Function Check

#### INFOID:0000000010099625

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### 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
IVIEWORT SW I		Release	OFF
MEMORY SW 2	Memory switch 2	Push	ON
WEWORT SW 2	Wemory Switch 2	Release	OFF
SET SW	Set switch	Push	ON
JE 1 300	Set switch	Release	OFF

### Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-87</u>, "<u>Diagnosis Procedure</u>".

# Diagnosis Procedure

INFOID:0000000010099626

# 1. CHECK SEAT MEMORY SWITCH SIGNAL

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

(	+)	(-)	Voltage (V) (Approx.)
Driver seat	control unit		
Connector	Terminals		,
	1		
D5	2	Ground	5
	3		

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2. CHECK MEMORY SWITCH CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect seat memory switch 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	Continuity
	27		1	
B514	28	D5	2	Existed
	29		3	

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

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### **SEAT MEMORY SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

Driver sea	t control unit		Continuity
Connector	Terminal	_	Continuity
	27	Ground	
B514	28		Not existed
	29		

### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-145, "Removal and Installation".

NO >> Repair or replace harness or connector.

# 3.check memory switch ground circuit

Check continuity between seat memory switch harness connector and ground.

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

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness or connector.

### 4. CHECK SEAT MEMORY SWITCH

Refer to ADP-88, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace seat memory switch. Refer to <u>ADP-148</u>, "Removal and Installation".

### 5. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

#### >> INSPECTION END

# Component Inspection

INFOID:0000000010099627

### 1. CHECK SEAT MEMORY SWITCH

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

Seat memory switch Terminal		Condition		Continuity
	ı	Memory Switch i	Release	Not existed
4	2 Memory switch 2	Marra are a suitale O	Push	Existed
4		Memory Switch 2	Release	Not existed
		Sot switch	Push	Existed
	3	3 Set switch	Release	Not existed

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace seat memory switch. Refer to <u>ADP-148</u>, "Removal and Installation".

### < DTC/CIRCUIT DIAGNOSIS >

# POWER WINDOW MAIN SWITCH CHANGEOVER SWITCH

#### INEO/D-0000000010000638

# CHANGEOVER SWITCH: Component Function Check

#### INFOID:0000000010099628

### 1. CHECK CHANGEOVER SWITCH FUNCTION

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

Monitor item	Condition		
MIR CHNG SW-R/L	When operating the changeover toward the right or left side.	: ON	
WIIN OF ING SW-R/L	Other than the above.	: OFF	

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### Is the inspection result normal?

YES >> Changeover switch function is OK.

NO >> Refer to ADP-89, "CHANGEOVER SWITCH: Diagnosis Procedure".

# CHANGEOVER SWITCH: Diagnosis Procedure

### INFOID:0000000010099629

# 1. CHECK CHANGEOVER SWITCH INPUT SIGNAL

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

(	+)	(-)	Voltage (V) (Approx.)
Power window main switch (do	oor mirror remote control switch)		
Connector	Terminal		
D23	23	Ground	5
	28	Giodila	3

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### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.check changeover switch circuit

Turn ignition switch OFF.

- 2. Disconnect automatic drive positioner control unit connector.
- Check continuity between automatic drive positioner control unit harness connector and power window main switch (door mirror remote control switch) harness connector.

Automatic drive positioner control unit		Power window main switch (door mirror remote control switch)		Continuity
Connector	Terminal	Connector Terminal		
M51	2	D23	28	Existed
I CIVI	14	D23	23	LAISIEU

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

Automatic drive po	sitioner control unit	Ground	Continuity
Connector	Terminal		
M51	2		Not existed
I CIVI	14		Not existed

#### Is the inspection result normal?

### < DTC/CIRCUIT DIAGNOSIS >

YES >> Replace automatic drive positioner control unit. Refer to ADP-146. "Removal and Installation".

NO >> Repair or replace harness.

# 3.check power window main switch (door mirror remote control switch) ground circuit

- 1. Turn ignition switch OFF.
- 2. Check continuity between power window main switch (door mirror remote control switch) harness connector and ground.

Power window main switch (do	or mirror remote control switch)		Continuity
Connector	Connector Terminal		Continuity
D22	7		Existed

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

### 4. CHECK CHANGEOVER SWITCH

Check changeover switch on power window main switch (door mirror remote control switch).

Refer to ADP-90, "CHANGEOVER SWITCH: Component Inspection".

### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace power window main switch (door mirror remote control switch). Refer to <a href="PWC-73">PWC-73</a>, <a href="mailto:"Removal and Installation"</a>.

# 5. CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to GI-47, "Intermittent Incident".

>> INSPECTION END

# **CHANGEOVER SWITCH: Component Inspection**

INFOID:0000000010099630

INFOID:0000000010099631

# 1. CHECK CHANGEOVER SWITCH

- Turn ignition switch OFF.
- Disconnect power window main switch (door mirror remote control switch) connector.
- 3. Check continuity between power window main switch (door mirror remote control switch) terminals.

Power window main switch (door mirror remote control switch)		Condition		Continuity	
lerr	ninal				
23	00		LEFT	Existed	
23	7	Change aver avitab	Other than the above	Not existed	
28	7	Changeover switch	RIGHT	Existed	
			Other than the above	Not existed	

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power window main switch (door mirror remote control switch). Refer to <a href="PWC-73">PWC-73</a>. <a href=""PWC-73">"Removal and Installation"</a>.

### MIRROR SWITCH

# MIRROR SWITCH: Component Function Check

# 1. CHECK MIRROR SWITCH FUNCTION

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

Revision: 2013 November ADP-90 2014 Q70

### < DTC/CIRCUIT DIAGNOSIS >

Monitor item	Condition				
MIR CON SW-UP/DN	When operating the mirror switch toward the up or down side.	: ON			
MIR CON SW-OP/DIN	Other than the above.	: OFF			
MIR CON SW-RH/I H	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 >> Mirror switch function is OK.

NO >> Refer to ADP-91, "MIRROR SWITCH: Diagnosis Procedure".

### MIRROR SWITCH: Diagnosis Procedure

# 1. CHECK MIRROR SWITCH INPUT SIGNAL

- Turn ignition switch OFF.
- 2. Disconnect power window main switch (door mirror remote control switch) connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between power window main switch (door mirror remote control switch) harness connector and ground.

(+)			Voltage (V) (Approx.)	
Power window main switch (door mirror remote control switch)		(-)		
Connector	Terminal		(* <b>.</b> pp1-67)	
	24		_	
D23	25	Ground		
D23	26	Ground	5	
	27			

### 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 power window main switch (door mirror remote control switch) harness connector.

Automatic drive po	Automatic drive positioner control unit		Power window main switch (door mirror remote control switch)	
Connector	Terminal	Connector Terminal		
	3	D23	26	
M51	4		24	Existed
I GIVI	15		25	Existed
	16		27	

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

Automatic drive positioner control unit			Continuity	
Connector	Terminal		Continuity	
	3	Ground		
M51	4	Ground	Not existed	
	15			
	16	_		

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#### < DTC/CIRCUIT DIAGNOSIS >

#### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-146, "Removal and Installation"</u>.

NO >> Repair or replace harness.

# 3.check power window main switch (door mirror remote control switch) ground circuit

- 1. Turn ignition switch OFF.
- 2. Check continuity between power window main switch (door mirror remote control switch) harness connector and ground.

Power window main switch (door mirror remote control switch)			Continuity
Connector Terminal		Ground	Continuity
D22	7		Existed

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

### 4. CHECK MIRROR SWITCH

Check mirror swtich on power window main switch (door mirror remote control switch).

Refer to ADP-92, "MIRROR SWITCH: Component Inspection".

### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace power window main switch (door mirror remote control switch). Refer to <a href="PWC-73">PWC-73</a>. "Removal and Installation".

# 5. CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to GI-47, "Intermittent Incident".

### >> INSPECTION END

# MIRROR SWITCH: Component Inspection

INFOID:0000000010099633

# 1. CHECK MIRROR SWITCH

- Turn ignition switch OFF.
- 2. Disconnect power window main switch (door mirror remote control switch) connector.
- 3. Check continuity between power window main switch (door mirror remote control switch) terminals.

Power window main switch (door mirror remote control switch)		Condition		Continuity
Terr	Terminal			
24			LEFT	Existed
24	24		Other than the above	Not existed
25			DOWN	Existed
25		Mirror switch	Other than the above	Not existed
26			UP	Existed
26			Other than the above	Not existed
			RIGHT	Existed
			Other than the above	Not existed

### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power window main switch (door mirror remote control switch). Refer to <a href="PWC-73">PWC-73</a>, <a href="#">"Removal and Installation"</a>.

### POWER SEAT SWITCH GROUND CIRCUIT

### < DTC/CIRCUIT DIAGNOSIS >

# POWER SEAT SWITCH GROUND CIRCUIT

# Diagnosis Procedure

### INFOID:0000000010099634

# 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 seat switch			Continuity
Connector	Terminal	Ground	Continuity
B518	2		Existed

### Is the inspection result normal?

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

NO >> Repair or replace harness or connector.

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### TILT &TELESCOPIC SWITCH GROUND CIRCUIT

### < DTC/CIRCUIT DIAGNOSIS >

# TILT &TELESCOPIC SWITCH GROUND CIRCUIT

# Diagnosis Procedure

#### INFOID:0000000010099635

# 1. CHECK TILT & TELESCOPIC SWITCH GROUND CIRCUIT

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

Tilt & telescopic switch			Continuity
Connector	Terminal	Ground	Continuity
M31	1		Existed

### Is the inspection result normal?

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

NO >> Repair or replace harness.

### **SLIDING SENSOR**

### < DTC/CIRCUIT DIAGNOSIS >

### SLIDING SENSOR

# Component Function Check

# 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)*1
SLIDE PULSE		Operate (backward)	Change (decrease)*1
		Release	No change <sup>*1</sup>

<sup>\*1:</sup> The value at the seat position attained when the battery is connected is considered to be 32768.

### Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-95, "Diagnosis Procedure"</u>.

# Diagnosis Procedure

1. CHECK SLIDING SENSOR SIGNAL

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

(+) Driver seat control unit		(-)	Condition		Signal	
Connector	Terminals	(-)	Condition		(Reference value)	
B514	19	Ground	Seat sliding	Operate  Other than the above	10mSec/div 2V/div JMJIA0119ZZ	

### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-145, "Removal and Installation".

NO >> GO TO 2.

# 2.check sliding sensor circuit

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

Driver seat	Driver seat control unit		Sliding motor		
Connector	Terminal	Connector Terminal		Continuity	
B514	19	B519	19	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
B514	19		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.
- Turn ignition switch ON.
- 3. Check voltage between sliding motor harness connector and ground.

(+) Sliding motor		(-)	Voltage (V) (Approx.)	
Connector	Terminals		(/,ppiox.)	
B519	33	Ground	12	

### 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	control unit	Sliding motor		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B514	33	B519	33	Existed

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B514	33		Not existed

### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-145, "Removal and Installation"</u>.

NO >> Repair or replace harness or connector.

### 5. CHECK SLIDING SENSOR GROUND

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

Slidin	g motor		Continuity
Connector	Terminal	Ground	Continuity
B519	42		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

# .

### 1. CHECK FUNCTION

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

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

<sup>\*1:</sup> The value at the seat position attained when the battery is connected is considered to be 32768.

### Is the indication normal?

YES >> INSPECTION END

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

# Diagnosis Procedure

# 1. CHECK RECLINING SENSOR SIGNAL

1. Turn ignition switch ON.

2. Read voltage signal between driver seat control unit harness connector and ground with oscilloscope.

Oriver seat	control unit	(-)	Condition		Signal (Reference value)
Connector	Terminals				(Neierence value)
B514	20	Ground	Seat reclining	Operate	10mSec/div 2V/div JMJIA0119ZZ
				Other than the above	0 or 5

### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-145, "Removal and Installation".

NO >> GO TO 2.

# 2.CHECK RECLINING SENSOR CIRCUIT

Turn ignition switch OFF.

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

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

Driver seat	Driver seat control unit		Reclining motor	
Connector	Terminal	Connector	Terminal	Continuity
B514	20	B507	20	Existed

<sup>4.</sup> 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
B514	20		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) (Approx.)	
Connector	Terminals		(дриох.)	
B507	33	Ground	12	

### 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	Reclinir	ng motor	Continuity
Connector	Terminal	Connector	Terminal	Continuity
B514	33	B507	33	Existed

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B514	33		Not existed

### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-145, "Removal and Installation"</u>.

NO >> Repair or replace harness or connector.

### 5. CHECK RECLINING SENSOR GROUND

Turn ignition switch OFF.

2. Check continuity between reclining motor harness connector and ground.

Reclinii	ng motor		Continuity
Connector	Terminal	Ground	Continuity
B507	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

# 1. CHECK FUNCTION

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

Monitor item	Condition		Value
		Operate (up)	Change (increase)*1
LIFT FR PULSE	Seat lifting (front)	Operate (down)	Change (decrease)*1
		Release	No change <sup>*1</sup>

<sup>\*1:</sup> The value at the seat position attained when the battery is connected is considered to be 32768.

### Is the indication normal?

YES >> INSPECTION END

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

# Diagnosis Procedure

1. CHECK LIFTING SENSOR CONTROL UNIT OUTPUT SIGNAL

- 1. Turn ignition switch ON.
- 2. Read the voltage signal lifting sensor control unit harness connector and ground with an oscilloscope.

	+) or control unit	(-)	Condition		Voltage (V) (Approx.)
Connector	Terminals				
B515	79	Ground	Seat Lifting (front)	Operate  Other than the above	10mSec/div 5V/div JMJIA3675ZZ

### Is the inspection result normal?

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

# 2. CHECK LIFTING SENSOR CONTROL UNIT CIRCUIT

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

Driver seat	Driver seat control unit		Lifting sensor control unit		
Connector	Terminal	Connector Terminal		Continuity	
B514	22	B515	79	Existed	

<sup>4.</sup> 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
B514	22		Not existed

#### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-145, "Removal and Installation".

NO >> Repair or replace harness or connector.

# 3.CHECK LIFTING SENSOR CONTROL UNIT INPUT SIGNAL

Read the voltage signal lifting sensor control unit harness connector and ground with an oscilloscope.

	or control unit  Terminals	(-)	Condition		Voltage (V) (Approx.)
B515	81	Ground	Seat Lifting (front)	Operate  Other than the above	10mSec/div 5V/div JMJIA3674ZZ

#### Is the inspection result normal?

YES >> Replace lifting sensor control unit. Refer to <u>ADP-147</u>, "Removal and Installation".

NO >> GO TO 4.

# 4. CHECK LIFTING SENSOR (FRONT) CIRCUIT

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

Lifting sense	or control unit	Lifting mo	Lifting motor (front)		
Connector	Terminal	Connector Terminal		Continuity	
B515	81	B512	22	Existed	

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

Lifting sensor	or control unit		Continuity
Connector	Terminal	Ground	Continuity
B515	81		Not existed

### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness or connector.

# 5. CHECK LIFTING SENSOR (FRONT) GROUND

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

Lifting mo	otor (front)		Continuity
Connector	Terminal	Ground	Continuity
B512	45	-	Existed

# LIFTING SENSOR (FRONT)

### < DTC/CIRCUIT DIAGNOSIS >

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

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### LIFTING SENSOR (REAR)

### < DTC/CIRCUIT DIAGNOSIS >

# LIFTING SENSOR (REAR)

# Component Function Check

# 1. CHECK FUNCTION

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

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

<sup>\*1:</sup> The value at the seat position attained when the battery is connected is considered to be 32768.

### Is the indication normal?

YES >> INSPECTION END

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

### Diagnosis Procedure

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# 1. CHECK LIFTING SENSOR CONTROL UNIT OUTPUT SIGNAL

- 1. Turn ignition switch ON.
- 2. Read the voltage signal lifting sensor control unit harness connector and ground with an oscilloscope.

	+) or control unit Terminals	(-)	Condition		Voltage (V) (Approx.)
B515	82	Ground	Seat Lifting (rear)	Operate  Other than the above	10mSec/div 5V/div JMJIA3675ZZ

### Is the inspection result normal?

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

# 2. CHECK LIFTING SENSOR CONTROL UNIT CIRCUIT

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

Driver seat	control unit	Lifting sense	or control unit	Continuity	
Connector	Terminal	Connector Terminal		Continuity	
B514	21	B515	82	Existed	

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

# LIFTING SENSOR (REAR)

### < DTC/CIRCUIT DIAGNOSIS >

Driver seat	control unit		Continuity	
Connector	Terminal	Ground	Continuity	
B514	21		Not existed	

### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-145, "Removal and Installation".

NO >> Repair or replace harness or connector.

# 3.check lifting sensor control unit input signal

Read the voltage signal lifting sensor control unit harness connector and ground with an oscilloscope.

Lifting sensed	or control unit	(-)	Condition		Condition		Voltage (V) (Approx.)
Connector	Terminals						
B515	80	Ground	Seat Lifting (rear)	Operate Other than the	10mSec/div 5V/div JMJIA3674ZZ		
				Other than the above	7 or 12		

#### Is the inspection result normal?

YES >> Replace lifting sensor control unit. Refer to ADP-147, "Removal and Installation".

NO >> GO TO 4.

# 4. CHECK LIFTING SENSOR (REAR) CIRCUIT

Turn ignition switch OFF.

- Disconnect lifting sensor control unit connector and lifting motor (rear) connector.
- Check continuity between lifting sensor control unit harness connector and lifting motor (rear) harness connector.

Lifting sense	Lifting sensor control unit		Lifting motor (rear)	
Connector	Terminal	Connector	Terminal	Continuity
B515	80	B510	21	Existed

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

Lifting sensor	or control unit		Continuity
Connector	Terminal	Ground	Continuity
B515	80		Not existed

### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness or connector.

# 5. CHECK LIFTING SENSOR (REAR) GROUND

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

Lifting mo	otor (rear)		Continuity
Connector	Terminal	Ground	Continuity
B510	44		Existed

#### Is the inspection result normal?

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# LIFTING SENSOR (REAR)

### < DTC/CIRCUIT DIAGNOSIS >

YES >> Replace lifting motor (rear).

NO >> Repair or replace harness or connector.

### **TILT SENSOR**

# Component Function Check

# 1. CHECK FUNCTION

- Select "TILT PULSE" in "Data monitor" mode with CONSULT.
- Check tilt sensor signal under the following conditions.

Monitor item	Condition		Value
	Steering column	Operate (up)	Change (increase)*1
TILT PULSE		Operate (down)	Change (decrease)*1
		Release	No change <sup>*1</sup>

<sup>\*1 :</sup> The value at the seat position attained when the battery is connected is considered to be 32768.

### Is the indication normal?

YES >> INSPECTION END

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

# Diagnosis Procedure

# 1. CHECK TILT SENSOR SIGNAL

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

	+) control unit	(-)	Condition		Voltage (V) (Approx.)
Connector	Terminals				
B514	30	Ground	Steering col- umn	Operate Other than the above	10mSec/div 2V/div JMJIA0119ZZ

### Is the inspection result normal?

>> Replace driver seat control unit. Refer to ADP-145, "Removal and Installation".

NO >> GO TO 2.

# 2.CHECK TILT SENSOR CIRCUIT

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

Driver seat	control unit	Tilt motor		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B514	30	M48	5	Existed

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

Driver seat	control unit		Continuity
Connector	Terminal	Ground	Continuity
B514	30		Not existed

**ADP-105** Revision: 2013 November 2014 Q70

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### **TILT SENSOR**

#### < DTC/CIRCUIT DIAGNOSIS >

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

# 3.check tilt sensor power supply

- 1. Turn ignition switch ON.
- Check voltage between tilt motor harness connector and ground.

(+) Tilt motor		(-)	Voltage (V) (Approx.)	
Connector			(Approx.)	
M48	4	Ground	12	

### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

# 4. CHECK TILT SENSOR POWER SUPPLY CIRCUIT

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

Automatic drive positioner control unit		Tilt motor		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M52	27	M48	4	Existed

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

Automatic drive po	sitioner control unit		Continuity
Connector	Terminal	Ground	Continuity
M52	27		Not existed

#### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-146, "Removal and Installation".

NO >> Repair or replace harness or connector.

### 5. CHECK TILT 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 tilt motor harness connector.

Automatic drive positioner control unit		Tilt motor		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M51	20	M48	6	Existed

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

Automatic drive positioner control unit			Continuity
Connector	Terminal	Ground	Continuity
M51	20		Not existed

#### Is the inspection result normal?

YES >> Replace tilt motor.

NO >> Repair or replace harness or connector.

### **TELESCOPIC SENSOR**

### < DTC/CIRCUIT DIAGNOSIS >

### **TELESCOPIC SENSOR**

# Component Function Check

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### 1. CHECK FUNCTION

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

Monitor item	Con	Value	
	Steering column	Operate (forward)	Change (increase)*1
TELESCO PULSE		Operate (backward)	Change (decrease)*1
		Release	No change <sup>*1</sup>

<sup>\*1:</sup> The value at the seat position attained when the battery is connected is considered to be 32768.

### Is the indication normal?

YES >> INSPECTION END

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

# Diagnosis Procedure

#### INFOID:0000000010099647

# 1. CHECK TELESCOPIC SENSOR SIGNAL

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

(+) Driver seat control unit		(-)	(-) Condition		Voltage (V) (Approx.)	
Connector	Terminals					
B514	31	Ground	Steering col- umn	Operate  Other than the above	10mSec/div 2V/div JMJIA0119ZZ	

### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-145, "Removal and Installation".

NO >> GO TO 2.

# 2.CHECK TELESCOPIC SENSOR CIRCUIT

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

Driver seat control unit		Telescopic motor		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B514	31	M49	5	Existed

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

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### TELESCOPIC SENSOR

### < DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B514	31		Not existed

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

# 3.CHECK TELESCOPIC SENSOR POWER SUPPLY

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

	(+)		V-16 0.0	
Telescopic motor		(-)	Voltage (V) (Approx.)	
Connector	Connector Terminals		,	
M49	4	Ground	12	

### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

# 4.CHECK TELESCOPIC SENSOR POWER SUPPLY CIRCUIT

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

Automatic drive positioner control unit		Telescopic motor		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M52	27	M49	4	Existed

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

Automatic drive positioner control unit			Continuity
Connector Terminal		Ground	Continuity
M52	27		Not existed

### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-146, "Removal and Installation".

NO >> Repair or replace harness or connecter.

# 5. CHECK TELESCOPIC 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 telescopic motor harness connector.

Automatic drive po	Automatic drive positioner control unit		Telescopic motor	
Connector	Terminal	Connector Terminal		Continuity
M51	20	M49	6	Existed

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

Automatic drive po	sitioner control unit		Continuity
Connector	Terminal	Ground	Continuity
M51	20		Not existed

## **TELESCOPIC SENSOR**

### < DTC/CIRCUIT DIAGNOSIS >

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is the	inspection	result	normal?

YES >> Replace telescopic motor.

NO >> Repair or replace harness or connecter.

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#### < DTC/CIRCUIT DIAGNOSIS >

# MIRROR SENSOR

### **DRIVER SIDE**

DRIVER SIDE : Component Function Check

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# 1. CHECK FUNCTION

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

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

#### Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to ADP-110, "DRIVER SIDE : Diagnosis Procedure".

### DRIVER SIDE : Diagnosis Procedure

INFOID:0000000010099649

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

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

(+) Door mirror (driver side)		(-)	Voltage (V) (Approx.)	
Connector	Terminals		(11 - )	
D3	23	Ground	5	

#### Is the inspection result normal?

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

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

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

Automatic drive positioner control unit		Door mirror (driver side)		Continuity
Connector	Terminal	Connector Terminal		Continuity
M51	21	D3	23	Existed

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

Automatic drive po	sitioner control unit		Continuity	
Connector	Terminal	Ground	Continuity	
M51	21		Not existed	

#### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-146. "Removal and Installation"</u>.

NO >> Repair or replace harness or connector.

#### < DTC/CIRCUIT DIAGNOSIS >

# ${f 3.}$ CHECK DOOR MIRROR (DRIVER SIDE) SENSOR GROUND 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 (driver side) harness connector.

Automatic drive positioner control unit		Door mirror (driver side)		Continuity
Connector	Terminal	Connector Terminal		Continuity
M51	20	D3	24	Existed

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

Automatic drive po	ositioner control unit		Continuity
Connector	Terminal	Ground	
M51	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 p	ositioner control unit	Door mirror (driver side)		Continuity
Connector	Terminal	Connector Terminal		Continuity
M51	6 D3		21	Existed
ICIVI	18	Ъ	22	Existed

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

Automatic drive po	sitioner control unit		Continuity	
Connector	Terminal	Ground	Continuity	
M51	6	Ground	Not existed	
	18		Not existed	

#### Is the inspection result normal?

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

NO >> Repair or replace harness or connector.

#### PASSENGER SIDE

## PASSENGER SIDE: Component Function Check

# 1. CHECK FUNCTION

- 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 minor (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

**ADP-111** Revision: 2013 November 2014 Q70

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#### < DTC/CIRCUIT DIAGNOSIS >

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

### PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000010099651

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

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

(+)			\/_\tag{\chi}	
Door mirror (passenger side)		(-)	Voltage (V) (Approx.)	
Connector	Terminals			
D33	23	Ground	5	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

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

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

Automatic drive positioner control unit		Door mirror (passenger side)		Continuity
Connector	Terminal	Connector Terminal		Continuity
M51	21	D33	23	Existed

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

Automatic drive positioner control unit			Continuity	
Connector	Terminal	Ground	Continuity	
M51	21		Not existed	

#### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-146, "Removal and Installation".

NO >> Repair or replace harness or connector.

# 3.check door mirror (passenger 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 (passenger side) connector.

Automatic drive po	sitioner control unit	Door mirror (passenger side)		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
M51	20	D33	24	Existed	

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

Automatic drive po	sitioner control unit		Continuity	
Connector	Terminal	Ground	Continuity	
M51	20		Not existed	

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness or connector.

#### < 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
M51	5	D33	21	Existed
IVIOT	17	D33	22	LAISIEU

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

Automatic drive po	Automatic drive positioner control unit		
Connector	Terminal	Ground	Continuity
M51	5	Ground	Not existed
IVIOI	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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**ADP-113** Revision: 2013 November 2014 Q70

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### **SLIDING MOTOR**

#### < DTC/CIRCUIT DIAGNOSIS >

## SLIDING MOTOR

# Component Function Check

#### INFOID:0000000010099652

# 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 >> Perform diagnosis procedure. Refer to <u>ADP-114, "Diagnosis Procedure"</u>.

## Diagnosis Procedure

NFOID:0000000010099653

# 1. CHECK SLIDING MOTOR POWER SUPPLY

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

	(+) Sliding motor		Condition		Voltage (V) (Approx.)	
Connector	Terminals				(* (ÞÞ: 5/11)	
				OFF	0	
	B519 4	Ground	SEAT SLIDE	FR (forward)	12	
DE40				RR (backward)	0	
D019			Ground	SEAT SLIDE	OFF	0
				FR (forward)	0	
				RR (backward)	12	

#### Is the inspection result normal?

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

NO >> GO TO 2.

# 2. CHECK SLIDING MOTOR CIRCUIT

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

Driver sea	t control unit	Sliding motor		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B513	3	B519	3	Existed
D313	4	5019	4	Existed

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

### **SLIDING MOTOR**

### < DTC/CIRCUIT DIAGNOSIS >

Driver se	at control unit		Continuity	
Connector	Terminal	Ground	Continuity	
B513	3		Not existed	
D313	4		Not existed	

### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-145, "Removal and Installation"</u>.

NO >> Repair or replace harness or connector.

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### **RECLINING MOTOR**

#### < DTC/CIRCUIT DIAGNOSIS >

## **RECLINING MOTOR**

# Component Function Check

# 1. CHECK FUNCTION

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

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

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

YES >> INSPECTION END

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

## Diagnosis Procedure

INFOID:0000000010099655

INFOID:0000000010099654

# 1. CHECK RECLINING MOTOR POWER SUPPLY

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

	(+) Reclining motor		(-) Condi		Voltage (V) (Approx.)
Connector	Terminals				(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
				OFF	0
	5	Ground SEAT RECLINING		FR (forward)	12
B507			SEAT DECLINING	RR (backward)	0
D307			OFF	0	
	6		FR (forward)	0	
				RR (backward)	12

#### Is the inspection result normal?

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

NO >> GO TO 2.

# 2. CHECK RECLINING MOTOR CIRCUIT

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

Driver sea	t control unit	Reclining motor		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B513	5	B507	5	Existed
D313	6	6307	6	Existed

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

### **RECLINING MOTOR**

### < DTC/CIRCUIT DIAGNOSIS >

Driver sea	Driver seat control unit		Continuity	
Connector	Terminal	Ground	Continuity	
B513	5		Not existed	
D313	6		NOT EXISTED	

### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-145, "Removal and Installation".

NO >> Repair or replace harness or connector.

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## **LIFTING MOTOR (FRONT)**

#### < DTC/CIRCUIT DIAGNOSIS >

# LIFTING MOTOR (FRONT)

# Component Function Check

# 1. CHECK FUNCTION

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

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

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

YES >> INSPECTION END

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

## Diagnosis Procedure

INFOID:0000000010099657

INFOID:0000000010099656

# 1. CHECK LIFTING MOTOR (FRONT) POWER SUPPLY

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

(+) Lifting motor (front)		(-) Cond		ndition	Voltage (V) (Approx.)
Connector	Connector Terminals				(лрыох.)
	9 B512 — Gr			OFF	0
		Ground	SEAT LIFTER FR	UP	12
DE40				DWN (DOWN)	0
B312				OFF	0
10			UP	0	
				DWN (DOWN)	12

#### 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

- 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	Driver seat control unit		Lifting motor (front)	
Connector	Terminal	Connector	Terminal	Continuity
B513	9	B512	9	Existed
DUIS	10	D312	10	EXISIEU

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

# **LIFTING MOTOR (FRONT)**

### < DTC/CIRCUIT DIAGNOSIS >

Driver se	Driver seat control unit		Continuity	
Connector	Terminal	Ground	Continuity	
B513	9	Ground	Not existed	
D313	10		Not existed	

### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-145, "Removal and Installation".

NO >> Repair or replace harness or connector.

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# **LIFTING MOTOR (REAR)**

#### < DTC/CIRCUIT DIAGNOSIS >

# LIFTING MOTOR (REAR)

# Component Function Check

# 1. CHECK FUNCTION

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

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

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

YES >> INSPECTION END

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

## Diagnosis Procedure

INFOID:0000000010099659

INFOID:0000000010099658

# 1. CHECK LIFTING MOTOR (REAR) POWER SUPPLY

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

	(+) Lifting motor (rear)		Con	dition	Voltage (V) (Approx.)
Connector	Connector Terminals				( 44)
		Ground SEAT LIFTER RR	OFF	0	
	7		SEAT LIFTER RR	UP	0
B510				DWN (DOWN)	12
B310	B510			OFF	0
	8			UP	12
				DWN (DOWN)	0

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

Driver sea	t control unit	Lifting motor (rear)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B513	7	B510	7	Existed
D013	8	<b>D</b> 310	8	Existed

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

# **LIFTING MOTOR (REAR)**

### < DTC/CIRCUIT DIAGNOSIS >

Driver se	Driver seat control unit		Continuity
Connector	Terminal	Ground	Continuity
B513	7	Ground	Not existed
סוט	8		INOL EXISTED

### Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-145</u>, "Removal and Installation".

NO >> Repair or replace harness or connector.

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## **TILT MOTOR**

# Component Function Check

#### INFOID:0000000010099660

# 1. CHECK FUNCTION

- 1. Select "TILT MOTOR" in "Active test" mode with CONSULT.
- 2. Check the tilt motor operation.

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

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

YES >> INSPECTION END

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

## Diagnosis Procedure

INFOID:0000000010099661

# 1. CHECK TILT MOTOR POWER SUPPLY

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

	(+) Tilt motor		(-) Cond		Voltage (V) (Approx.)
Connector	Terminals				( 44)
		1 Ground		OFF	0
	1		TILT MOTOR	UP	0
MAO				DWN (down)	12
IVI40	M48 2			OFF	0
				UP	12
				DWN (down)	0

#### Is the inspection result normal?

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

NO >> GO TO 2.

# 2. CHECK TILT MOTOR CIRCUIT

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

Automatic drive po	ositioner control unit	Tilt motor		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M52	28	M48	1	Existed
VCIVI	29	10140	2	EXISIEU

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

### **TILT MOTOR**

### < DTC/CIRCUIT DIAGNOSIS >

Automatic drive	Automatic drive positioner control unit		Continuity
Connector	Terminal	Ground	Continuity
M52	28	Ground	Not existed
IVIOZ	29		Not existed

### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-146. "Removal and Installation".

NO >> Repair or replace harness or connector.

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### **TELESCOPIC MOTOR**

### < DTC/CIRCUIT DIAGNOSIS >

## TELESCOPIC MOTOR

# Component Function Check

# 1. CHECK FUNCTION

- Select "TELESCO MOTOR" in "Active test" mode with CONSULT.
- Check the telescopic motor operation.

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

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

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to ADP-124, "Diagnosis Procedure".

## Diagnosis Procedure

INFOID:0000000010099663

INFOID:0000000010099662

# 1. CHECK TELESCOPIC MOTOR POWER SUPPLY

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

	(+) Telescopic motor		(-) Condition		Voltage (V) (Approx.)		
Connector	Connector Terminals				(. 44)		
						OFF	0
	1	Ground	Ground TELESCOPIC MO- TOR	FR (forward)	0		
M49				RR (backward)	12		
IVI49	W49			OFF	0		
	2			FR (forward)	12		
				RR (backward)	0		

#### Is the inspection result normal?

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

NO >> GO TO 2.

# 2. CHECK TELESCOPIC MOTOR CIRCUIT

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

Automatic drive p	ositioner control unit	Telescopic motor  Connector Terminal		Continuity
Connector	Terminal			Continuity
M51	26	M49	1	Existed
I CIVI	29	10149	2	Existed

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

### **TELESCOPIC MOTOR**

### < DTC/CIRCUIT DIAGNOSIS >

Automatic drive p	Automatic drive positioner control unit		Continuity
Connector	Terminal	Ground	Continuity
M51	26	Ground	Not existed
I CIVI	29		Not existed

### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to <u>ADP-146</u>. "Removal and Installation".

NO >> Repair or replace harness or connector.

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#### 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

INFOID:0000000010099664

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Refer to ADP-23, "CONSULT Function".

#### Is the inspection result normal?

YES >> Door mirror motor function is OK.

NO >> Refer to ADP-126, "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.

(+) Door mirror		(-)	Con	Condition			
Connector	Terminals				(Approx.)		
				DOWN / RIGHT	12		
D3 (Driver side) D33 (Passenger side)	10	Ground	Door mirror remote	Other than the above	0		
				LEFT	12		
	11		control switch	Other than the above	0		
							UP
	12			Other than the above	0		

### 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.

[driver side]

Automatic drive po	ositioner control unit	Door mirror (driver side)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
	12		10	
M51	23	D3	12	Existed
	24		11	

#### DOOR MIRROR MOTOR

#### < DTC/CIRCUIT DIAGNOSIS >

ssenger side] Automatic drive positioner control unit Door mirror (passenger side)				
Terminal	Connector Terminal		Continuity	
22		10		
10	D33	12	Existed	
11		11		
	Terminal 22	Terminal Connector 22	Terminal Connector Terminal 22 10	

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

[driver side]

Automatic drive positioner control unit		Continuity
Terminal		Continuity
12	Ground	
23		Not existed
24		
	Terminal 12 23	Terminal 12 Ground 23

Automatic drive positioner control unit			Continuity
Connector	Terminal		Continuity
	22	Ground	
M51	10		Not existed
	11		

#### Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-146, "Removal and Installation".

NO >> Repair or replace harness or connector.

# 3.CHECK DOOR MIRROR MOTOR

Check door mirror motor.

Refer to ADP-127, "Component Inspection".

### Is the inspection result normal?

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

NO >> Replace door mirror. Refer to MIR-39, "DOOR MIRROR ASSEMBLY: Removal and Installation".

# Component Inspection

# 1. CHECK DOOR MIRROR MOTOR-I

Check that door mirror motor does not trap foreign objects and does not have any damage.

Refer to MIR-40, "DOOR MIRROR ASSEMBLY: Disassembly and Assembly".

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace door mirror.Refer to MIR-39, "DOOR MIRROR ASSEMBLY: Removal and Installation".

## 2.CHECK DOOR MIRROR MOTOR-II

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

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

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2014 Q70

### **DOOR MIRROR MOTOR**

### < DTC/CIRCUIT DIAGNOSIS >

### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace door mirror. Refer to MIR-39, "DOOR MIRROR ASSEMBLY: Removal and Installation".

### **SEAT MEMORY INDICATOR**

#### < DTC/CIRCUIT DIAGNOSIS >

### SEAT MEMORY INDICATOR

# Component Function Check

# 1. CHECK FUNCTION

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

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

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

YES >> INSPECTION END

>> Perform diagnosis procedure. Refer to ADP-129, "Diagnosis Procedure". NO

# Diagnosis Procedure

# 1. CHECK SEAT MEMORY INDICATOR OPERATION

Check seat memory indicator operation.

Which is the malfunctioning indicator?

All indicators are NG>>GO TO 2.

An indicator is NG>>GO TO 4.

# 2.CHECK FUSE

- Turn ignition switch OFF.
- Check that the blown fuse after repairing the affected circuit if a fuse is blown.

Signal name	Fuse No.	
Battery power supply	11 (10 A)	

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.

# 3.CHECK MEMORY INDICATOR POWER SUPPLY

Check voltage between seat memory switch harness connector and ground.

(	(+)		Valta es (V)	
Seat memory switch		(-)	Voltage (V) (Approx.)	
Connector	ctor Terminals	, , ,		
D5	5	Ground	Battery voltage	

#### Is the inspection result normal?

YES >> Replace seat memory switch.Refer to ADP-148, "Removal and Installation".

NO >> Repair or replace harness or connector.

### 4. CHECK MEMORY INDICATOR CIRCUIT

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

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### **SEAT MEMORY INDICATOR**

### < DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit		Seat memory switch		Continuity			
Termi	al	Conne	ector	٦	Terminal	Continuity	
25		Di	=		6	Existed	
26		D5 -			7	Existed	

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

Driver sea	Driver seat control unit		Continuity
Connector	Terminal	Ground	Continuity
B514	25	- Ground	Not existed
D314	26		Not existed

### Is the inspection result normal?

YES >> Replace driver seat control unit.Refer to ADP-145, "Removal and Installation".

NO >> Repair or replace harness or connector.

< SYMPTOM DIAGNOSIS >

#### SYMPTOM DIAGNOSIS Α MANUAL FUNCTION DOES NOT OPERATE ALL COMPONENT В ALL COMPONENT : Diagnosis Procedure INFOID:0000000010099669 ${f 1}$ .CHECK DRIVER SEAT CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT Check driver seat control unit power supply and ground circuit. Refer to ADP-72, "DRIVER SEAT CONTROL UNIT: Diagnosis Procedure". D Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunction parts. Е 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-72. "AUTOMATIC DRIVE POSITIONER CONTROL UNIT: Diagnosis Procedure". F Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunction parts. 3.CONFIRM THE OPERATION Confirm the operation again. Н Is the result normal? YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident". >> GO TO 1. NO POWER SEAT POWER SEAT: Diagnosis Procedure INFOID:0000000010099670 ADP 1. CHECK POWER SEAT SWITCH GROUND CIRCUIT Check power seat switch ground circuit. Refer to ADP-93, "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-47, "Intermittent Incident". NO >> GO TO 1. N TILT & TELESCOPIC TILT & TELESCOPIC: Diagnosis Procedure INFOID:000000001009967 1. CHECK TILT & TELESCOPIC SWITCH GROUND CIRCUIT Check tilt & telescopic switch ground circuit. Refer to ADP-94. "Diagnosis Procedure". Is the inspection result normal? >> GO TO 2. YES NO >> Repair or replace harness or connector. 2.CONFIRM THE OPERATION Confirm the operation again.

Revision: 2013 November ADP-131 2014 Q70

#### < SYMPTOM DIAGNOSIS >

#### Is the result normal?

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

NO >> GO TO 1.

SEAT SLIDING

# SEAT SLIDING: Diagnosis Procedure

INFOID:0000000010099672

# 1. CHECK SLIDING MECHANISM

Check for the following.

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

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

# 2.check sliding switch

Check sliding switch.

Refer to ADP-75, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

# 3.check sliding motor

Check sliding motor.

Refer to ADP-114, "Component Function Check".

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunction parts.

## 4.CONFIRM THE OPERATION

Check the operation again.

#### Is the result normal?

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

NO >> GO TO 1.

#### SEAT RECLINING

# SEAT RECLINING: Diagnosis Procedure

INFOID:0000000010099673

# 1. CHECK RECLINING MECHANISM

Check for the following.

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

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

# 2.check reclining switch

Check reclining switch.

Refer to ADP-77, "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-116, "Component Function Check".

SYMPTOM DIAGNOSIS >	
Is the inspection result normal?	
YES >> GO TO 4.	
NO >> Repair or replace the malfunction parts.	
4.CONFIRM THE OPERATION	
Check the operation again.	
Is the result normal?	
YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".  NO >> GO TO 1.	
SEAT LIFTING (FRONT)	
SEAT LIFTING (FRONT): Diagnosis Procedure	INFOID:0000000110099674
1. CHECK LIFTING (FRONT) MECHANISM	
Check for the following.	
<ul> <li>Mechanism deformation or pinched foreign materials.</li> <li>Interference with other parts because of poor installation.</li> </ul>	
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-79, "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 <u>ADP-118</u> , "Component Function Check". <u>Is the inspection result normal?</u>	
YES >> GO TO 4.	
NO >> Repair or replace the malfunction parts.	
4.CONFIRM THE OPERATION	
Check the operation again.	
Is the result normal?	
YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".  NO >> GO TO 1.	
SEAT LIFTING (REAR)	
SEAT LIFTING (REAR) : Diagnosis Procedure	INFOID:0000000110099675
1. CHECK LIFTING (REAR) MECHANISM	
Check for the following.	
<ul> <li>Mechanism deformation or pinched foreign materials.</li> <li>Interference with other parts because of poor installation.</li> </ul>	
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-81, "Component Function Check".	

Revision: 2013 November ADP-133 2014 Q70

Is the inspection result normal?

#### < SYMPTOM DIAGNOSIS >

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

# 3.CHECK LIFTING MOTOR (REAR)

Check lifting motor (rear).

Refer to ADP-120, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunction parts.

## 4.CONFIRM THE OPERATION

Check the operation again.

#### Is the result normal?

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

NO >> GO TO 1.

#### STEERING TILT

# STEERING TILT: Diagnosis Procedure

INFOID:0000000010099676

# 1. CHECK STEERING TILT 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 TILT SWITCH

Check tilt switch.

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

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

## 3.CHECK TILT MOTOR

Check tilt motor.

Refer to ADP-122, "Component Function Check".

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunction parts.

### 4. CONFIRM THE OPERATION

Check the operation again.

#### Is the result normal?

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

NO >> GO TO 1.

#### STEERING TELESCOPIC

## STEERING TELESCOPIC: Diagnosis Procedure

INFOID:0000000010099677

# 1. CHECK STEERING TELESCOPIC MECHANISM

Check for the following.

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

#### Is the inspection result normal?

YES >> GO TO 2.

< SYMPTOM DIAGNOSIS >	
NO >> Repair or replace the malfunction parts.	А
2.CHECK TELESCOPIC SWITCH	$\wedge$
Check telescopic switch.  Refer to ADP-83, "Component Function Check".	
Is the inspection result normal?	В
YES >> GO TO 3.	
NO >> Repair or replace the malfunction parts.  3. CHECK TELESCOPIC MOTOR	С
Check telescopic motor.  Refer to ADP-122, "Component Function Check".	D
Is the inspection result normal?	
YES >> GO TO 4. NO >> Repair or replace the malfunction parts.	Е
4. CONFIRM THE OPERATION	_
Check the operation again.	_
Is the result normal?	F
YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".	
NO >> GO TO 1.  DOOR MIRROR	G
DOOR MIRROR: Diagnosis Procedure	Н
1. CHECK DOOR MIRROR MECHANISM	
Check for the following.	I
<ul> <li>Mechanism deformation or pinched foreign materials.</li> <li>Interference with other parts because of poor installation.</li> </ul>	
Is the inspection result normal?	ADP
YES >> GO TO 2.  NO >> Repair or replace the malfunction parts.	7.51
NO >> Repair or replace the malfunction parts.  2.CHECK POWER WINDOW MAIN SWITCH (DOOR MIRROR REMOTE CONTROL SWITCH)	1.6
Check mirror switch and change over switch.	K
Refer to ADP-90. "MIRROR SWITCH: Component Function Check" (mirror switch), ADP-89.	
"CHANGEOVER SWITCH: Component Function Check" (change over switch).	L
Is the inspection result normal? YES >> GO TO 3.	
NO >> Repair or replace the malfunction parts.	$\mathbb{M}$
3. CHECK DOOR MIRROR MOTOR	
Check door mirror motor. Refer to ADP-126, "Component Function Check".	Ν
Is the inspection result normal?	
YES >> GO TO 4. NO >> Repair or replace the malfunction parts.	$\circ$
4.CONFIRM THE OPERATION	
Check the operation again.	Р
<u>Is the result normal?</u>	
YES >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u> . NO >> GO TO 1.	

#### < SYMPTOM DIAGNOSIS >

# MEMORY FUNCTION DOES NOT OPERATE

### **ALL COMPONENT**

# ALL COMPONENT : Diagnosis Procedure

INFOID:0000000010099679

## 1. CHECK MANUAL OPERATION

Check manual operation.

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

# 2.PERFORM INITIALIZATION AND MEMORY STORING PROCEDURE

1. Perform initialization procedure.

Refer to ADP-57, "SYSTEM INITIALIZATION: Special Repair Requirement".

2. Perform memory storing procedure.

Refer to ADP-58, "MEMORY STORING: Special Repair Requirement".

3. Check memory function.

Refer to ADP-16, "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 y.

#### 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-47, "Intermittent Incident".

NO >> GO TO 1.

SEAT SLIDING

# SEAT SLIDING : Diagnosis Procedure

INFOID:0000000010099680

# 1. CHECK MANUAL OPERATION

Check manual operation.

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to ADP-132, "SEAT SLIDING : Diagnosis Procedure"

## 2. CHECK SLIDING SENSOR

Check sliding sensor.

Refer to ADP-95, "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-47, "Intermittent Incident".

CYMPTOM DIACNOSIS	
< SYMPTOM DIAGNOSIS >	
NO >> GO TO 1. SEAT RECLINING	А
SEAT RECLINING : Diagnosis Procedure	INFOID:0000000010099681
1.CHECK MANUAL OPERATION	В
Check manual operation.	_
Is the inspection result normal?	С
YES >> GO TO 2. NO >> Refer to ADP-132, "SEAT RECLINING : Diagnosis Procedure"	
2.CHECK RECLINING SENSOR	D
Check reclining sensor.  Refer to ADP-95, "Component Function Check".	_
Is the inspection result normal?	Е
YES >> GO TO 3.	
NO >> Repair or replace the malfunction parts.	F
3.CONFIRM THE OPERATION	
Check the operation again.	
Is the result normal?	G
YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".  NO >> GO TO 1.	
SEAT LIFTING (FRONT)	Н
SEAT LIFTING (FRONT) : Diagnosis Procedure	INFOID:0000000010099682
1.CHECK MANUAL OPERATION	
Check manual operation.	ADI
Is the inspection result normal?	ADI
YES >> GO TO 2. NO >> Refer to <u>ADP-133, "SEAT LIFTING (FRONT) : Diagnosis Procedure"</u>	
2. CHECK LIFTING SENSOR CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT	K
Check lifting sensor control unit power supply and ground circuit.	
Refer to ADP-73, "LIFTING SENSOR CONTROL UNIT : Diagnosis Procedure".	L
Is the inspection result normal? YES >> GO TO 3.	
NO >> Repair or replace the malfunction parts.	M
3.CHECK LIFTING SENSOR (FRONT)	141
Check lifting sensor (front).	
Refer to ADP-99, "Component Function Check".	N
Is the inspection result normal?	
YES >> GO TO 4. NO >> Repair or replace the malfunction parts.	0
4. CONFIRM THE OPERATION	
Check the operation again.  Is the result normal?	Р
YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".	
NO >> GO TO 1.	
SEAT LIFTING (REAR)	

#### < SYMPTOM DIAGNOSIS >

# SEAT LIFTING (REAR): Diagnosis Procedure

INFOID:0000000010099683

## 1. CHECK MANUAL OPERATION

Check manual operation.

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to ADP-133, "SEAT LIFTING (REAR) : Diagnosis Procedure"

# 2.CHECK LIFTING SENSOR CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT

Check lifting sensor control unit power supply and ground circuit.

Refer to ADP-73, "LIFTING SENSOR CONTROL UNIT: Diagnosis Procedure".

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

# 3.CHECK LIFTING SENSOR (REAR)

Check lifting sensor (rear).

Refer to ADP-102, "Component Function Check".

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunction parts.

### 4. CONFIRM THE OPERATION

Check the operation again.

#### Is the result normal?

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

NO >> GO TO 1.

#### STEERING TILT

# STEERING TILT : Diagnosis Procedure

INFOID:0000000010099684

## 1. CHECK MANUAL OPERATION

Check manual operation.

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to ADP-134, "STEERING TILT : Diagnosis Procedure"

# 2. CHECK TILT SENSOR

Check steering tilt sensor.

Refer to ADP-105, "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-47, "Intermittent Incident".

NO >> GO TO 1.

#### STEERING TELESCOPIC

# STEERING TELESCOPIC: Diagnosis Procedure

INFOID:0000000010099685

# 1. CHECK MANUAL OPERATION

Check manual operation.

MEMORY FUNCTION DOES NOT OPERATE	
< SYMPTOM DIAGNOSIS >	
Is the inspection result normal?	
YES >> GO TO 2.  NO >> Refer to <u>ADP-134, "STEERING TELESCOPIC : Diagnosis Procedure"</u>	
2.check telescopic sensor	
Check steering telescopic sensor.	
Refer to ADP-107, "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.  3.CONFIRM THE OPERATION	
Check the operation again.  Is the result normal?	
YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".	
NO >> GO TO 1.	
DOOR MIRROR	
DOOR MIRROR : Diagnosis Procedure	OID:0000000010099686
1. CHECK MANUAL OPERATION	
Check manual operation.	
Is the inspection result normal?	
YES >> GO TO 2.	
NO >> Refer to ADP-135, "DOOR MIRROR : Diagnosis Procedure"	
2.CHECK MIRROR SENSOR	
Check mirror sensor.  Refer to <u>ADP-110</u> , "DRIVER SIDE : Component Function Check". (Driver side)	
Refer to ADP-110, "DRIVER SIDE: Component Function Check". (Passenger side)	
Is the inspection result normal?	
YES >> GO TO 3. NO >> Repair or replace the malfunction parts.	
3.confirm the operation	
Check the operation again.	
Is the result normal?	
YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".	
NO >> GO TO 1.	

### ENTRY/EXIT ASSIST FUNCTION DOES NOT OPERATE

#### < SYMPTOM DIAGNOSIS >

### ENTRY/EXIT ASSIST FUNCTION DOES NOT OPERATE

## Diagnosis Procedure

#### INFOID:0000000010099687

# 1. CHECK SYSTEM SETTING

1. Check system setting.

Refer to ADP-59, "SYSTEM SETTING: Special Repair Requirement".

2. Check the operation.

#### Is the inspection result normal?

YES >> Entry/Exit function is OK.

NO >> GO TO 2.

# 2. PERFORM SYSTEM INITIALIZATION

1. Perform system initialization.

Refer to ADP-57, "SYSTEM INITIALIZATION: Special Repair Requirement".

2. Check the operation.

#### Is the inspection result normal?

YES >> Entry/Exit function is OK.

NO >> GO TO 3.

# 3.CHECK FRONT DOOR SWITCH (DRIVER SIDE)

Check front door switch (driver side).

Refer to DLK-77, "Component Function Check".

#### 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-47, "Intermittent Incident".

NO >> GO TO 1.

### SEAT SYNCHRONIZATION FUNCTION DOES NOT OPERATE

# < SYMPTOM DIAGNOSIS > SEAT SYNCHRONIZATION FUNCTION DOES NOT OPERATE Α Diagnosis Procedure INFOID:0000000010099688 1. CHECK SYSTEM SETTING В Check system setting. Refer to ADP-59, "SYSTEM SETTING: Special Repair Requirement". C Is the inspection result normal? YES >> Synchronization function is normal. NO >> GO TO 2. 2.CONFIRM THE OPERATION D Check the operation again. Is the result normal? Е YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident". NO >> GO TO 1. F Н ADP K L M Ν 0

**ADP-141** Revision: 2013 November 2014 Q70 Р

### INTELLIGENT KEY INTERLOCK FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

# INTELLIGENT KEY INTERLOCK FUNCTION DOES NOT OPERATE

## Diagnosis Procedure

#### INFOID:0000000010099689

# 1. PERFORM INTELLIGENT KEY INTERLOCK STORING PROCEDURE

Perform Intelligent Key interlock storing procedure.
 Refer to ADP-58, "INTELLIGENT KEY INTERLOCK STORING: Special Repair Requirement".

2. Check the operation.

#### Is the inspection result normal?

YES >> Intelligent Key interlock function is normal.

NO >> GO TO 2.

# 2.CHECK DOOR LOCK FUNCTION

Check door lock function.

Refer to DLK-60, "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-47, "Intermittent Incident".

NO >> GO TO 1.

# **MEMORY INDICATE DOES NOT OPERATE**

< SYMPTOM DIAGNOSIS >	
MEMORY INDICATE DOES NOT OPERATE	А
Diagnosis Procedure	
1. CHECK MEMORY INDICATOR	В
Check memory indicator. Refer to ADP-129, "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.  Is the result normal?  YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".	Е
NO >> GO TO 1.	F
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**ADP-143** 2014 Q70 Revision: 2013 November

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# NORMAL OPERATING CONDITION

Description INFOID:000000010099691

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-57
Entry/exit assist function and seat synchronization do not operate.	Entry/exit assist function is disabled.  NOTE: The entry/exit assist function and seat synchronization function are disabled before delivery (initial setting).	Change the settings.	ADP-59
Telescopic does not operate by	Telescopic is not interlocked with entry/	_	Exit assist function: <u>ADP-18</u>
entry/exit assist function.	exit assist function.		Entry assist function: ADP-19
Entry assist function does not operate.	Manual operation with power seat switch was performed after exit assist function execution.	Perform the memory function.	ADP-14
	Either the entry/exit assist function (seat) or the entry/exit assist function (steering) is disabled.	Enable both functions.	<u>ADP-59</u>
Seat synchronization function does not operate.	The synchronization function will not operate if the steering (tilt, telescopic) or the door mirror moves to the operating end while the seat synchronization function is operating.	Perform the memory function or drive the vehicle at more than 7 km/h (4 MPH).	ADP-14
	Seat adjustment load has exceed any of the volumes below.  Seat sliding: 76 mm Seat reclining: 9.1 degrees Seat lifting (rear): 20 mm	_	_
Lumbar support does not perform memory operation.	The lumbar support system are controlled independently with no link to the automatic drive positioner system.	_	Lumbar support system: SE-13
	The operating conditions are not fulfilled.	Fulfill the operation conditions.	Seat synchronization function: ADP-14
Memory function, entry/exit assist function, seat synchronization function, or Intelligent Key interlock function does not operate.			Memory function: ADP-16
			Exit assist function: <u>ADP-18</u>
			Entry assist function: ADP-19
			Seat synchronization function: ADP-14
			Intelligent Key interlock function: ADP-21

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

#### < REMOVAL AND INSTALLATION >

# REMOVAL AND INSTALLATION

# DRIVER SEAT CONTROL UNIT

#### Removal and Installation

#### **REMOVAL**

#### **CAUTION:**

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

- Remove the driver seat. Refer to SE-108, "Removal and Installation".
- 2. Remove the screws.
- 3. Remove driver seat control unit.

#### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

Be sure to clump the harness to the right place.

#### NOTE:

After installing the driver seat, perform additional service when replacing control unit. Refer to ADP-56, "ADDI-TIONAL SERVICE WHEN REPLACING CONTROL UNIT: Description".

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**ADP-145** Revision: 2013 November 2014 Q70 Α

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

#### < REMOVAL AND INSTALLATION >

## AUTOMATIC DRIVE POSITIONER CONTROL UNIT

### Removal and Installation

#### INFOID:0000000010099693

#### **REMOVAL**

#### **CAUTION:**

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

- 1. Remove the instrument lower panel LH. Refer to <a href="IP-13">IP-13</a>, "Removal and Installation".</a>
- 2. Remove the screws.
- 3. Remove automatic drive positioner control unit.

#### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

Be sure to clump the harness to the right place.

#### NOTE:

- After installing the driver seat, perform additional service when replacing control unit. Refer to <u>ADP-56</u>, "<u>ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT</u>: <u>Description</u>".
- After installing the driver seat, perform additional service when removing battery negative terminal. Refer to ADP-56, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Description".

### LIFTING SENSOR CONTROL UNIT

< REMOVAL AND INSTALLATION >

### LIFTING SENSOR CONTROL UNIT

#### Removal and Installation

INFOID:0000000010099694

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#### **REMOVAL**

#### **CAUTION:**

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

- Remove driver seat control unit. Refer to ADP-145, "Removal and Installation".
- Slide lifting sensor control unit and remove it from bracket.

#### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

Be sure to clump the harness to the right place.

#### NOTE:

• After installing the driver seat, perform additional service when replacing control unit. Refer to ADP-56. "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Description".

 After installing the driver seat, perform additional service when removing battery negative terminal. Refer to ADP-56, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Description".

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**ADP-147** Revision: 2013 November 2014 Q70

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#### **SEAT MEMORY SWITCH**

#### < REMOVAL AND INSTALLATION >

## SEAT MEMORY SWITCH

### Removal and Installation

INFOID:0000000010099695

#### **REMOVAL**

#### **CAUTION:**

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

- 1. Remove the front door finisher. Refer to INT-31, "FRONT DOOR FINISHER: Removal and Installation".
- 2. Press pawls and remove seat memory switch from front door finisher, with flat-bladed screw driver.

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

Be sure to clump the harness to the right place.

#### NOTE:

After installing the driver seat, perform additional service when removing battery negative terminal. Refer to <u>ADP-56</u>, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Description".

### **POWER SEAT SWITCH**

#### < REMOVAL AND INSTALLATION >

## POWER SEAT SWITCH

### Removal and Installation

INFOID:0000000010099696

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#### **REMOVAL**

#### **CAUTION:**

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

- Remove the front seat (driver side). Refer to <u>SE-108, "Removal and Installation".</u>
- 2. Remove the seat cushion outer finisher. Refer to <u>SE-111, "SEAT CUSHION: Disassembly and Assembly"</u>.
- 3. Remove the screws.
- 4. Remove power seat switch from the seat cushion outer finisher.

#### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

Be sure to clump the harness to the right place.

#### NOTE

After installing the driver seat, perform additional service when removing battery negative terminal. Refer to <u>ADP-56, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Description"</u>.

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Revision: 2013 November ADP-149 2014 Q70

#### TILT&TELESCOPIC SWITCH

#### < REMOVAL AND INSTALLATION >

## TILT&TELESCOPIC SWITCH

### Removal and Installation

#### INFOID:0000000010099697

#### **REMOVAL**

#### **CAUTION:**

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

- 1. Remove the steering column lower cover. Refer to IP-13, "Removal and Installation".
- 2. Press pawls and remove tilt & telescopic switch from the steering column lower cover.

#### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

Be sure to clump the harness to the right place.

#### NOTE:

After installing the driver seat, perform additional service when removing battery negative terminal. Refer to <u>ADP-56</u>, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Description".