SECTION ADP AUTOMATIC DRIVE POSITIONER

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PRECAUTION

PRECAUTIONS

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

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

WARNING:

Service Manual.

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 Battery Terminal

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

NOTE:

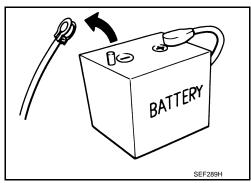
ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.

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

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.

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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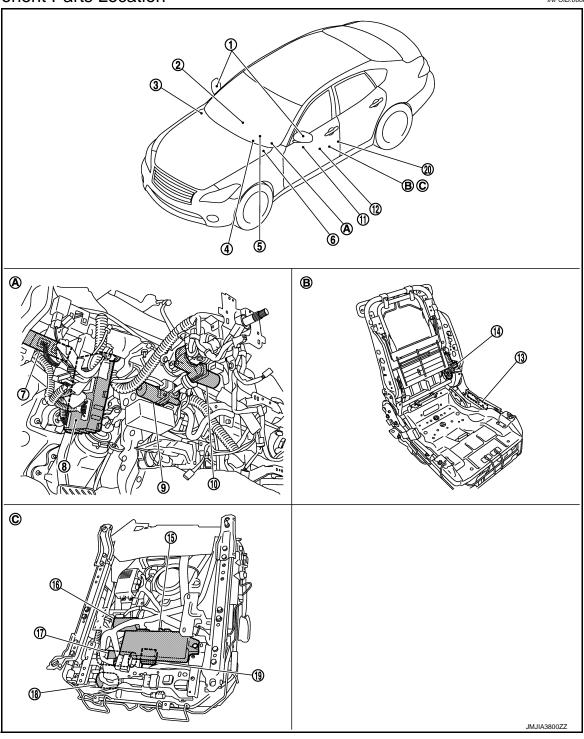
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SYSTEM DESCRIPTION

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	 Main units of automatic drive positioner system. It is connected to the CAN. It communicates with automatic drive positioner control unit via UART communication. It perform memory function after receiving the door unlock signal from BCM. The address of each part is recorded. Operates each motor of seat to the registered position. Requests the operation of steering column and door mirror to automatic drive positioner control unit Operates the specific seat motor with the signal from power seat switch. Transmits the ignition switch signal (ACC/ON) via UART communication to automatic driver positioner control unit.
Automatic drive positioner control unit	 It communicates with driver seat control unit via UART communication. Perform various controls with the instructions of driver seat control unit. Perform the controls of tilt & telescopic, door mirror and seat memory switch. Operates steering column and door mirror with the signal from the driver seat control
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.

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COMPONENT PARTS

< SYSTEM DESCRIPTION >

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

COMPONENT PARTS

< SYSTEM DESCRIPTION >

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

^{*:} With steering lock models

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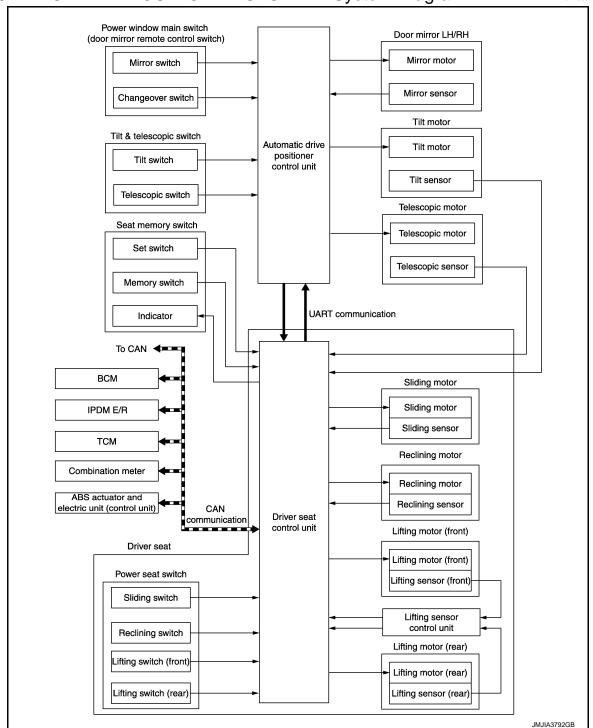
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SYSTEM

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	
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-15. "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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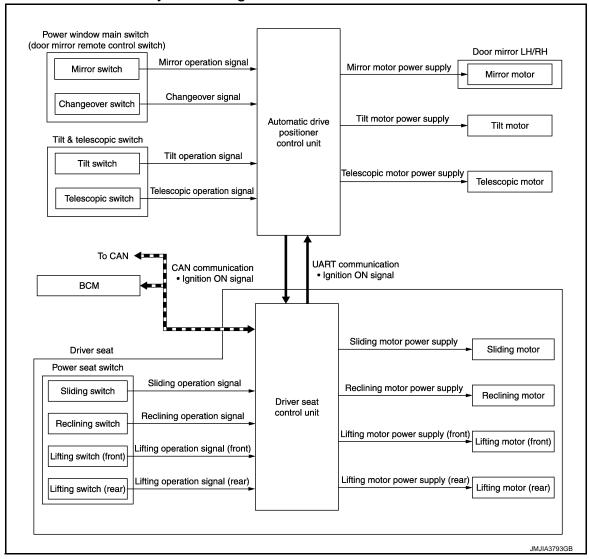
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^{*:} with steering lock models

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

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

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. ${\bf SEAT\ SYNCHRONIZATION\ FUNCTION}$

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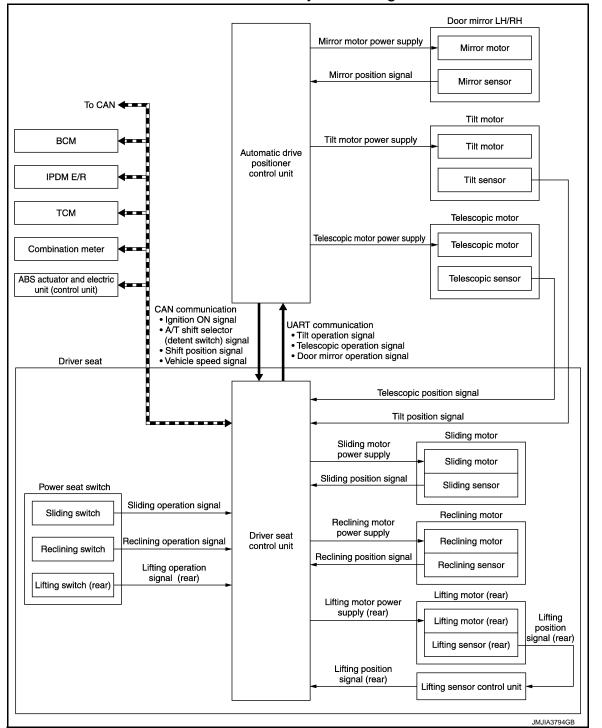
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SEAT SYNCHRONIZATION FUNCTION: System Diagram

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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 <u>ADP-60, "SYSTEM SETTING: Description"</u>.

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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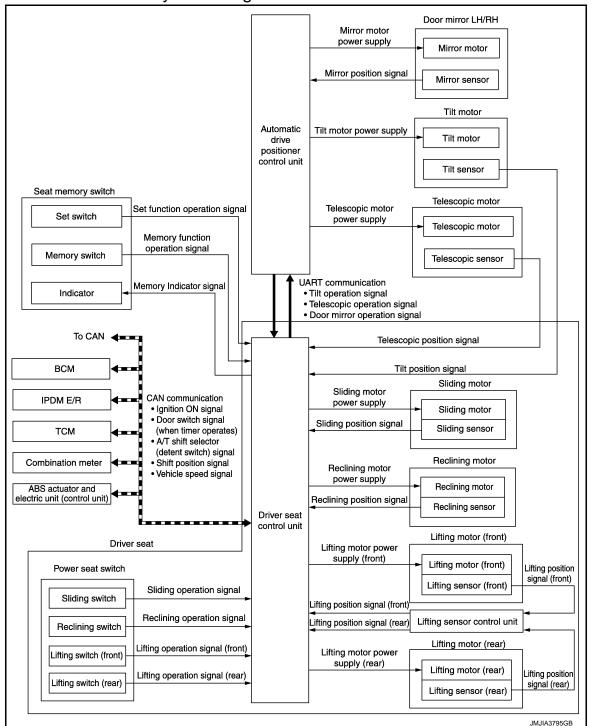
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MEMORY FUNCTION: System Diagram

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MEMORY FUNCTION: System Description

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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-59, "MEMORY STORING: Description".

OPERATION PROCEDURE

- 1. 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

^{*:} 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

^{*:} With steering lock models

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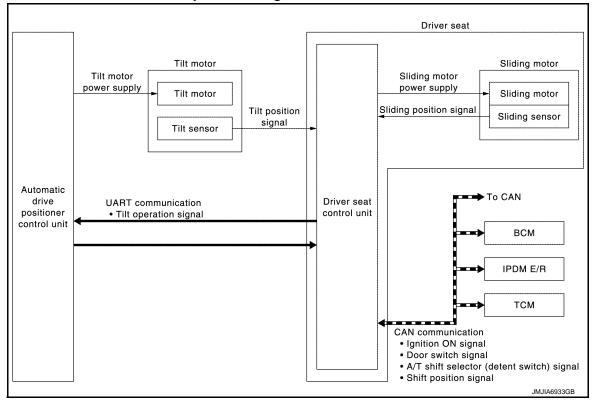
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EXIT ASSIST FUNCTION

EXIT ASSIST FUNCTION: System Diagram

INFOID:0000000011257936



EXIT ASSIST FUNCTION: System Description

INFOID:0000000011257937

- 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-60, "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.

ltem	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 >

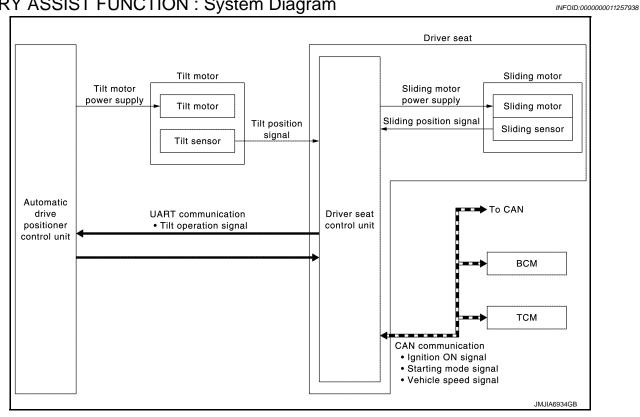
Item	Request status
Transmission	A/T
CUNSULT	Not connected

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

INFOID:0000000011257939

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-60, "SYSTEM SETTING: Description"</u>.

OPERATION PROCEDURE

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

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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

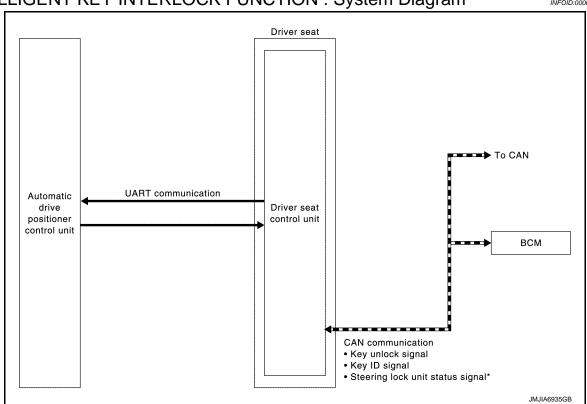
DETAIL FLOW

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:0000000011257940



INTELLIGENT KEY INTERLOCK FUNCTION: System Description

INFOID:0000000011257941

- 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

- 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-59, "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

^{*:} 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	ADP-62
Only manual functions operate normally.	CONTROL UNIT	U1010	ADP-63
	EEPROM	B2130	<u>ADP-72</u>
Only manual functions, except door mirror, operate normally.	UART communication	B2128	ADP-70
Only manual functions, except seat sliding, operate normally.	Seat sliding output	B2112	ADP-64
Only manual functions, except seat reclining, operate normally.	Seat reclining output	B2113	ADP-66
Only manual functions, except steering tilt, operate normally.	Steering column tilt output	B2116	ADP-68

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.

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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	" \ "	_	×	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.

^{*:} 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	ltem
		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
EXIT TILL SETTING	ON (operated) – OFF (not operated)	OFF
EXIT SEAT SLIDE SETTING	Entry/exit assist (seat) can be selected:	ON
EATT SEAT SLIDE SETTING	ON (operated) – OFF (not operated)	OFF

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

List of ECU Reference

INFOID:0000000011257944

ECU	Reference
	BCS-33, "Reference Value"
BCM	BCS-53, "Fail-safe"
BOW	BCS-54, "DTC Inspection Priority Chart"
	BCS-55, "DTC Index"

< 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
MEMODY OWA	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
LIET DD OW DN	Lifting switch rear (down)	Operate	ON
LIFT RR SW-DN		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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Monitor Item	Со	ndition	Value/Status
TELESCO SW-FR	ELESCO SW-FR Telescopic switch		ON
TELESCO SW-FR	relescopic switch	Other than the above	OFF
TELESCO SW-RR	Telescopic switch	Backward	ON
TELEGOO OW KIK	Tologopie switch	Other than the above	OFF
DETENT SW	A/T selector lever	P position	OFF
	7.4.1 00.100.101.101.01	Other than the above	ON
STARTER SW	Ignition position	Cranking	ON
	3 ** ***	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)	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 ^{*1}
		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 ^{*1}
		LOCK	LOCK
STEERING STATUS*2	Steering lock unit	unlock	UNLOCK
VEHICLE SPEED	The condition of vehicle	speed is displayed	km/h
D DANO OW OAY	A/T I I I I I I I	P position	ON
P RANG SW CAN	A/T selector lever	Other than the above	OFF
D DANOE (CAL)	A/T l	R position	ON
R RANGE (CAN)	A/T selector lever	Other than the above	OFF
DOOR SW/ EI	Driver deer	Open	ON
DOOR SW-FL	Driver door	Close	OFF

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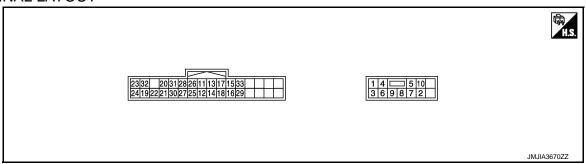
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Monitor Item	Cond	ition	Value/Status
DOOR SW-FR	December door	Open	ON
DOOK SW-FK	Passenger door	Close	OFF
IGN ON SW	Ignition switch	ON position	ON
IGIN ON SW	ignition switch	Other than the above	OFF
ACC ON SW	Ignition switch	ACC or ON position	ON
ACC ON SW	ignition switch	Other than the above	OFF
KEY ON SW	Intelligent Vov	Inserted is key slot	ON
RET ON 3W	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
KIES DIX ONEK		OFF	OFF
VHCL SPEED (ABS)	One simulation ADO	Received	ON
VHCL SPEED (ABS)	Can signal from ABS	Not received	OFF
HANDLE	The BCM for handle position is displayed		LHD
HANDLE	The BCM for Haridie position	ori is displayed	RHD
TRANSMISSION	Transmission type is displa	avod	AT or CVT
HANSIMISSION	Transmission type is displayed		MT

^{*1:} 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	3 Ground Sliding motor Out-		Out-	Operate (forward)	12		
(G)		forward output signal	put	Seat sliding	Other than the above	0	
4	Ground	Sliding motor	Out-	Seat sliding	Operate (backward)	12	
(G/R)	Giodila	backward output signal put		oeat sliuling	Other than the above	0	

^{*2:} With steering lock models.

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5	Ground	Reclining motor	Out-	Soot realining	Operate (forward)	12
(V)	Ground	forward output signal	put	Seat reclining	Other than the above	0
6	Ground	Reclining motor backward output	Out-	O and a self the	Operate (backward)	12
(R/L)	Ground	signal	put	Seat reclining	Other than the above	0
7	Ground	Lifting motor (rear) down out-	Out-	Seat lifting (rear)	Operate (down)	12
(L)	Ground	put signal	put	Seat litting (rear)	Other than the above	0
8	Ground	Lifting motor (rear) up output	Out-	Seat lifting (rear)	Operate (up)	12
(L/W)	Ground	signal	put	Seat litting (rear)	Other than the above	0
9	Ground	Lifting motor (front) up output	Out-	Seat lifting (front)	Operate (up)	12
(L/R)	Ground	signal	put	Seat litting (front)	Other than the above	0
10	Ground	Lifting motor Ground (front) down out-		Seat lifting (front)	Operate (down)	12
(L/B)	Cround	put signal	put	coat mang (mont)	Other than the above	0
11	Ground	Sliding switch	Input	Sliding switch	Operate (backward)	0
(G/B)	(G/B) backward sig	backward signal			Other than the above	12
12	2 Ground Sliding switch		Input	t Sliding switch	Operate (forward)	0
(G/W)	Cround	forward signal	трис	Circuity Switch	Other than the above	12
13	Ground	Reclining switch	Input	Reclining switch	Operate (backward)	0
(R/G)	0.000	backward signal		ricomming officers	Other than the above	12
14	Ground	Reclining switch	Input	Reclining switch	Operate (forward)	0
(R/W)	Ground	forward signal	put	rtooming outlon	Other than the above	12
15	Ground	Lifting switch (rear) down sig-	Input	Lifting switch (rear)	Operate (down)	0
(Y/B)	0.000	nal		(real)	Other than the above	12
16	Ground	Lifting switch	Input	Lifting switch (rear)	Operate (up)	0
(Y/R)		(rear) up signal			Other than the above	12
17	Ground	Ground Lifting switch (front) down signal	Input	Lifting switch (front)	Operate (down)	0
(LG/B)	Ground		mput	Liking owner (north)	Other than the above	12

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< ECU DIAGNOSIS INFORMATION >

18	Ground	Lifting switch	Input	Lifting switch (front)	Operate (up)	0
(LG/R)	Ground	(front) up signal	Input	Litting switch (front)	Other than the above	12
19 (G/Y)	Ground	Sliding sensor signal	Input	Seat sliding	Operate	10mSec/div
					Other than the above	0 or 5
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	_			<u> </u>
24 (P/L)	_	CAN-L			-	
25 (G/O)	Ground	Memory indica- tor 1 signal	Out- put	Memory indicator 1	Illuminate Other than the above	1 12
26	0.54	Memory indica-	Out-	Managaria Pasta 2	Illuminate	1
(L/O)	Ground	Ground tor 2 signal		Memory indicator 2	Other than the above	12

< ECU DIAGNOSIS INFORMATION >

27		Memory switch 1			Press	0
(V)	Ground	signal	Input	Memory switch 1	Other than the 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
					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	ADP-62
Only manual functions operate normally.	CONTROL UNIT	U1010	ADP-63
	EEPROM	B2130	ADP-72
Only manual functions, except door mirror, operate normally.	UART communication	B2128	ADP-70
Only manual functions, except seat sliding, operate normally.	Seat sliding output	B2112	ADP-64
Only manual functions, except seat reclining, operate normally.	Seat reclining output	B2113	ADP-66
Only manual functions, except steering tilt, operate normally.	Steering column tilt output	B2116	ADP-68

< ECU DIAGNOSIS INFORMATION >

DTC Index INFOID:000000011257947

CONSULT	Tim	ing ^{*1}		Reference page	
display	Current mal- function	Previous mal- function	Item		
CAN COMM CIRCUIT [U1000]	0	1-39	CAN communication	ADP-62	
CONTROL UNIT [U1010]	0	1-39	Control unit	ADP-63	
SEAT SLIDE [B2112]	0	1-39	Seat slide motor output	ADP-64	
SEAT RECLINING [B2113]	0	1-39	Seat reclining motor output	ADP-66	
STEERING TILT [B2116]	0	1-39	Tilt motor output	ADP-68	
UART COMM [B2128]	0	1-39	UART communication	ADP-70	
EEPROM [B2130]	0	1-39	EEPROM	ADP-72	

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^{• 0:} Current malfunction is present

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

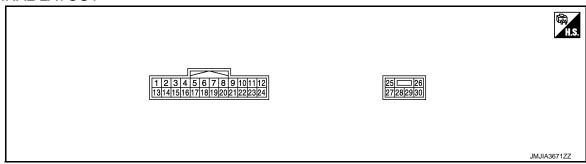
AUTOMATIC DRIVE POSITIONER CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Reference Value

TERMINAL LAYOUT



PHYSICAL VALUES

	nal No. color)	Description		Con	dition	Voltage (V)	
+	-	Signal name	Input/ Output	Condition		(Approx.)	
1	Ground	Tilt switch up signal	Input	Tilt switch	Operate (up)	0	
(Y)	Glound	Till Switch up Signal	iliput		Other than the above	5	
2	Ground	Changeover switch RH	Input	Changeover	RH	0	
(V)		signal		switch position	Neutral or LH	5	
3	Ground	Mirror switch up signal	Input	Mirror switch	Operate (up)	0	
(Y)	Ground	willror switch up signal	input	WIIITOI SWILCII	Other than the above	5	
4	01	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	Cround	Telescopic switch forward	lanus	Talanania 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 5V/div JMJIA1391ZZ	

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

	inal No. e 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	Odipat	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		input		Neutral or RH	5
15	Ground	Mirror switch down signal	Input	Mirror switch	Operate (down)	0
(L)	Ground	WIITOF SWITCH GOWIT SIGNAL	iliput	WIITOI SWILCTI	Other than the above	5
16	6 Ground M	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	Tologoopic 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 Hillion (ELT)	Other than the above	0

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

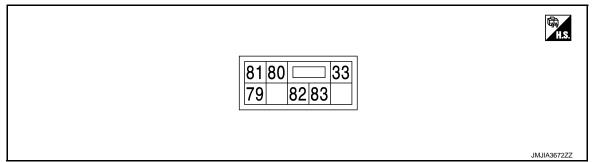
	RECU DIAGNOSIS INFORMATION >							
	nal No. color)	Description		Condition		Voltage (V)		
+	-	Signal name	Input/ Output	Conc	attori	(Approx.)		
24	Ground	Door mirror motor (driver side) down/left output sig-	0	Door mirror (LH)	Operate (down/left)	12		
(GR)	Giodila	nal	Output	Door militor (Erri)	Other 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	tput Steering tilt	Operate (down)	12		
(G)	Ground				Other than the above	0		
		Tilt motor up output signal	Output	Steering tilt	Operate (up)	12		
29	Ground				Other than the above	0		
(LG)	Giouila			Steering telescopic	Operate (forward)	12		
		output signal			Other than the above	0		
30 (B)	Ground	Ground (power)	_	<u>-</u>		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: 2014 November ADP-37 2015 Q70

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LIFTING SENSOR CONTROL UNIT

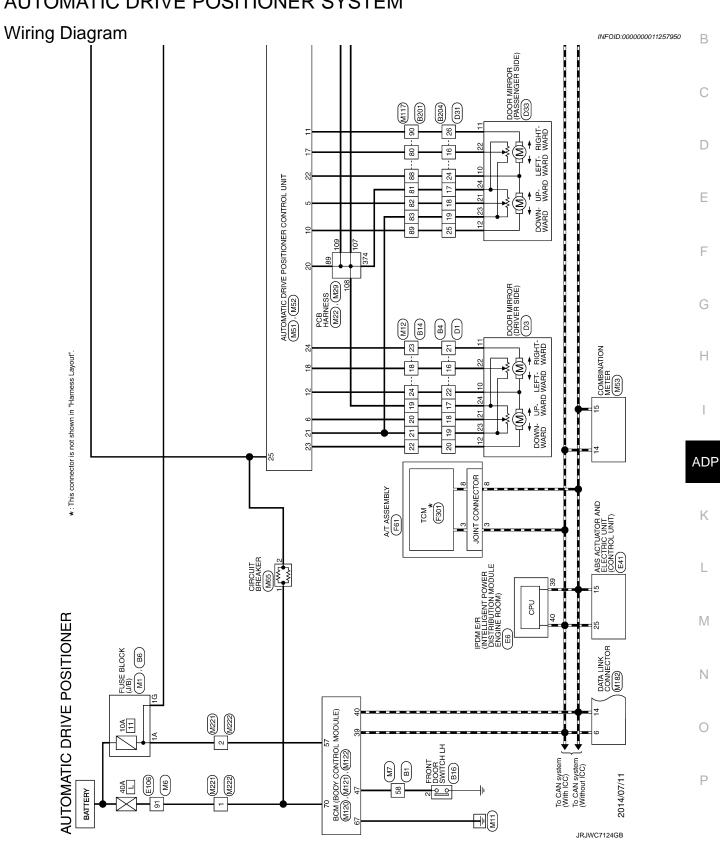
< ECU DIAGNOSIS INFORMATION >

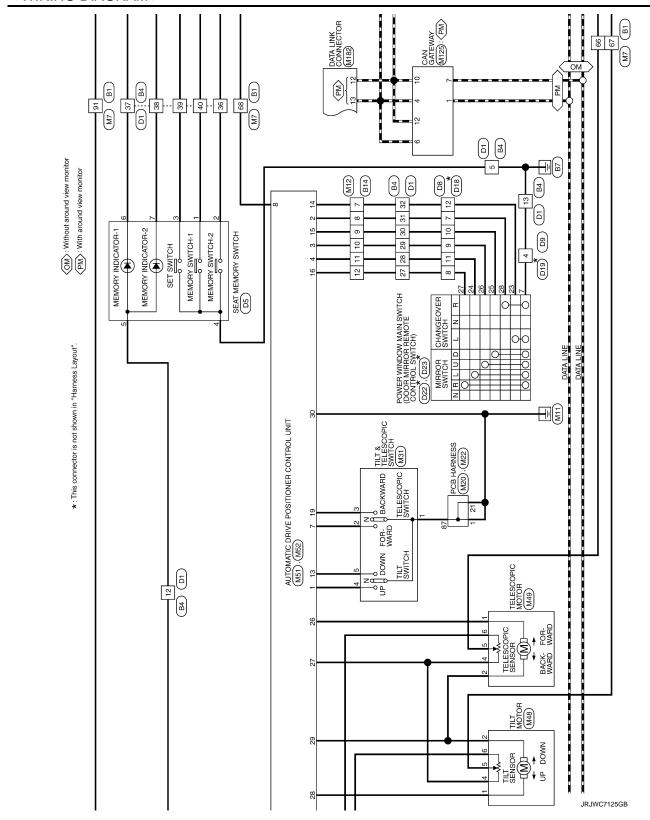
	inal No. e color)	Description		Conditi	on	Voltage (V)
+	-	Signal name	Input/ Output	Conditi	OII	(Approx.)
82 (Y)	Ground	Aftor conversion of lifting sensor (rear) signal	Output	Seat lifting (rear)	Operate Other than the above	10mSec/div 5V/div JMJIA3675ZZ
83 (B)	Ground	Ground	_	_	1	0

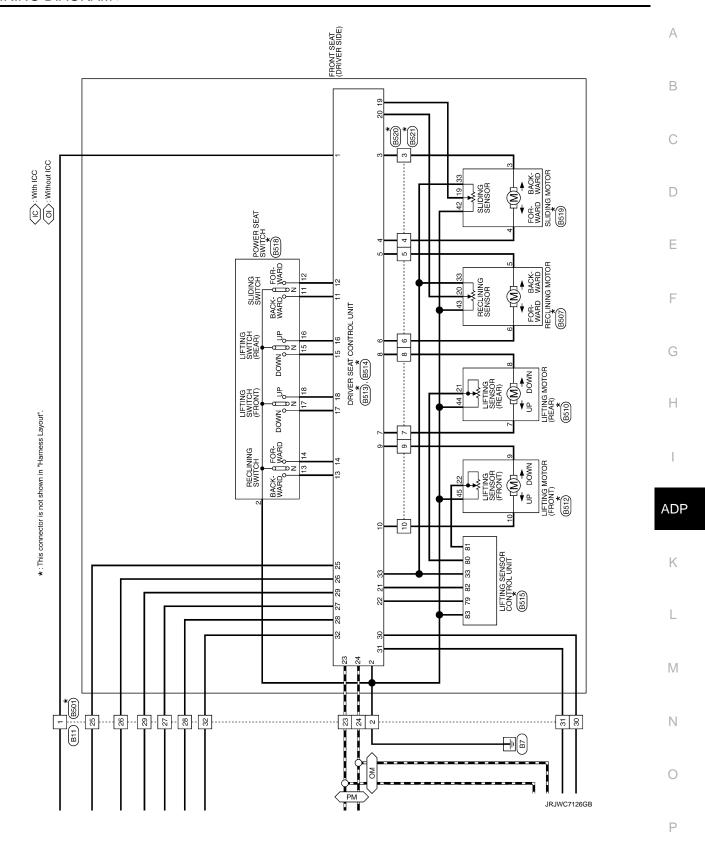
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WIRING DIAGRAM

AUTOMATIC DRIVE POSITIONER SYSTEM







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	Connector No. B514	Connector Name DRIVER SEAT CONTROL UNIT	Т	Connector Type TH3ZFW-NH	Œ	手		20 31 28 26	[24 19 22 21 30 27 25 12 14 18 16 29			nal	. Wire	G/B	W/S	R/G	+	15 T/B REAR LIFTER SW (DOWNWARD)	2 2	900	5	200	2 >	- 00	: 0.	P/L	0/9	0/1	>	V/W	7	88	BRW	32 W/L DOWNTD CLIPPE SCHOOL	٨											
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	26 L/O -	+	28 V/W	+	30 BR -	+	$^{+}$	+	+	ł		Connector No. B507	Connector Name RECLINING MOTOR		Connector Type SUMITOMO_6189-0265	Q		S	0 0	(20 33 43 /			Terminal Color Of	No. Wire Signal Name [Specification]	t	6 RVL	H	┝	43 B/W -			Connector No. B510	Connector Name LIFTING MOTOR (REAR)	Т	Connector Type Tryco Sportoz			- C-	0 2	21 44			Signal Name [Specification]	╁	W7 8	Н
AUTOMATIC DRIVE POSITIONER	Н	+	0 6	+	+	+	2 3	+	╀	H	H	Н		Т	ά	+	9 4	+	+	+	+	+	L S	+	╁		┝			Connector No. B501	Connector Name WIRE TO WIRE	Т	Connector Type NS16MW-CS			.S. 24 23 32 31 30 29	40 41 35 28 2 27 1 26 25				Terminal Color Of Signal Name [Specification]	wire	χ α	╀	╁	. G/O
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Signal Name (Specification)	ADP
YAZAKI WIRE T	ADP
Connector No. Connector Name Connector Type Terminal Color Of No. Wire 19 G/Y 31 G/Y 32 W/I 42 W/I 6 B L/W 6 G R/I 7 L L 8 L/W 8 L/W 9	K
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AUTOMATIC DRING Connector No. B515 Connector Name LIFTING SEP Connector Name LIFTING SEP No. Wire Standard Sept No. Wire No. Wire Standard No. Wire Standard No. Wire Standard No. Wire Standard No. Wire Connector Name Power SEP Connector Name No. Wire Standard No. Wire Tell Gibb Tell Gibb Tell Sept No. Wire Standard No. Wire Tell Gibb Tell Sept No. Wire Tell Sept N	N
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	Cornector Type NS08FW-CS Cornector No. D19	S.		edor Name WIRE TO WIRE 8 COUNTYPE TH2AMW-NH Countedon No.	Name POWER WINDOW MAIN SWI	nal Col	Symbol S	
rail Oolor Of Signal Name [Specification] Wife R	2 V Correction of the corr	ctor No. D8 ctor Name WIRE TO WIRE ctor Type ITP24FW-NH	H.S. (12[11]10] 8 7 6 5 4 3 2 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 3 2 2 2 3 3 2 3	Terminal Color Of Signal Name [Specification] Conner No. Wire Const. Con	8 8 V C C C C C C C C C C C C C C C C C	× × × × × × × × × × × × × × × × × × ×	20 SB	
	H.S. (2423)2227 191817 13	Signal Name Specification		<i>δ</i>	21 BR	Corrector No. D5 Corrector Name SEAT MEMORY SWITCH Corrector Type ITH6FW-NH		2 5 6 7 9 1 4

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nal Color Of Signal Na	Д	7	œ :	>	Y MOTOR FAN	SB	44 GR HORN_RLY [With VK engine]	LG HORN	45 G HORN_SW	46 BR START_CONT			Connector No. E41	THE COMPANY OF STATE	OCINICACIO MALINE	Connector Type SAZ30FB-SJZ4-U		ИΓ	- N	15 16 17 18 19 20	ŀ	5 6 7 8 9 10 113 3 4			<u>a</u>		1 B/W ECU(GND)	n ;	<i>*</i>	D	90	7 W BELLHSEN/SIGNAL)		9 BR Fr-RH SEN(SIGNAL)	10 B Fr-RH SEN(POWER)	PI	۵.	в ;	>	¥	SB	20 O Fr-LH SEN(POWER)	25 L CAN-H	28 V VAC SEN(POWER)	30 R VDC OFF SW	SHIELD	g		
Corrector No. D33 Connector Name IDOOR MIRROR (DASSENGER SIDE)		Connector Type TH24MW-NH		(至)		121111098765 321	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	[24[23[22]21] [19[18[17] [13]			Terminal Color Of Signal Nama (Specifical	No. Wire Signal Name (Specification)	1 1	2 V -	3 6	5 R	- M 9	- M L	8 SB -	. 0	10 Y -	+	4	T	풄	+	+	+	22 6	23 GR			Connector No. E6	PDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE		Connector Type TH08FW-NH	á	B	# ±	42 41 40 39	00 01	46 45 44 43							
9 V	11 L -	+	+	+	+	+	17 P -	\dashv	19 GR -	·	1 LG .	2 SB -	3 6	4 Y -	5 BR -	9	7 w -	8 B		ᇬ	_	2 P	+	5 W -	+	+	+	+	+	8 B/W	+	8 > 3	┨																
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Connector No.	Connector Name WIRE TO WIRE	WIRE	84 64	909		5 5	Connector No.	AT ASSEMBLY	Connector No.		<u> </u>
Connecte	Connector Type TH80FW-C	TH80FW-CS16-TM4	26	2 ~		Con	ector Type	Connector Type RK10FG-DGY	Connector Typ	Connector Type NS06FW-M2	П
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N S	Wire	Signal Name [Specification]	à	7 (2	Wire	Signal Name [Specification]	No. Wire	Signal Name [Specification]	
-	۵		8 8	SHELD	,		t	POWFR SUPPLY (BACK UP)	t		1
7	*		02	≥		~	œ	POWER SUPPLY (BACK UP)	H		Г
က	SB		71	8		m	H	CAN-H	H		
4	97		72	œ		4	>	K-LINE			Г
2	0		73	ŋ		2	в	GND	L		ı
9	W		74	>	-	9	9	POWER SUPPLY (IGN)			
7	GR	-	75	В	-	7	SB	BACK-UP LAMP RELAY	8A)		
8	9		76	SHIELD	-	8	-	CAN-L			
6	>	•	77	0	•	6		P/N SIGNAL			ſ
10	BR		78	SB		10	B	GROUND	Connector No.	. M6	_
1	SB	•	80	>	•				Connector Name	me WIRE TO WIRE	
12	_		82	SB						\neg	_
13	GR		83	GR	•	Son	Connector No.	F301	Connector Type	De TH80MW-CS16-TM4	
14	GR		84	≻	•	S	Connector Name	MOL	ģ		
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27	SHIELD	1	93	. 9				١ ٥	No.	Wire Signal Name [Specification]	
28	97		98	BR					7		I
59	W/L	-	92	Μ	•	Term	Ferminal Color Of	Signal Alamo Conditional	2 v		
31	BR		46	ď	-	-S	. Wire	orginal realite [openitication]	3	SB .	
32	9		86	٨	-			VIGN	4	- 91	_
33	0		66	>	-	2		BATT	2 ^		
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36	ŋ	1				4		K LINE	7 B	BG .	П
37	^					2		GND	8		
41	BR					9		VIGN	6	٠ .	
4	W						4	REV LAMP RLY	\dashv		Т
45	7					80	7	CAN-L	4		Т
46	GR.					თ	7	START RLY	+		Т
47	>					9	-	GND	13		7

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- [With CAN gateway]
147 86 87 87 87 88 87 87 88 87 87
W/Y WIRE TO WIRE THEOMWCS16-THA THEOMWCS16-THA THEOMYCS16-THA THA THEOMYCS16-THA THA THA THA THA THA THA THA THA THA
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No. M117	Name WIRE TO WIRE		٦.	22 9		26 .65	2	10 10 10 10 10 10 10 10				Color Of Signal Nama (Sassification)	Wire Ognal Marie [Specification]	·	· ·		. ·	^	ď	. 0			R - [Without ADAS]	Y - [With ADAS]	GR		BR .	GR .		. Pl		BG .	BG .	M :	^				· ·	SHIELD -		۰ .	SB .	BG - [With heated seat]	L - [With climate controlled seat]	G - [With climate controlled seat]	GR - [With heated seat]	۸ .	. BG
Connector No.	Connector Name	Connector Type		1	T.	Š						Terminal (ģ	1	8	9	7	80	11	12	13	14	15	15	17	18	19	20	21	22	23	24	52	56	88	58	8	31	┪	40	41	42	45	46	46	47	47	48	49
B ILLUMINATION CONTROL SIGNAL	METE	SB ENTER SWITCH SIGNAL	100	+	╁	GROUND		CAN		7	┪	V LED HEADLAMP (LH) WARNING SIGNAL	B GROUND	B FUEL LEVEL SENSOR GROUND	W ALTERNATOR SIGNAL	V PARKING BRAKE SWITCH SIGNAL	V BRAKE FLUID LEVEL SWITCH SIGNAL	G SECURITY SIGNAL	L WASHER LEVEL SWITCH SIGNAL	G PADDLE SHIFTER SHIFT DOWN SIGNAL	BG PADDLE SHIFTER SHIFT UP SIGNAL	G FUEL LEVEL SENSOR SIGNAL	W SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)	G PASSENGER SEAT BELT WARNING SIGNAL	G NON-MANUAL MODE SIGNAL	V MANUAL MODE SHIFT DOWN SIGNAL	L MANUAL MODE SHIFT UP SIGNAL	W MANUAL MODE SIGNAL		-	or No. M65	Connector Name CIRCUIT BREAKER		Connector Type M02FW-LC			<u>]</u>		֚֚֚֚֚֚֓֞֜֜֝֝֓֓֓֓֓֓֓֓֓֓֓֓֓֓֡֓֡֓֡֓֡֓֡֓֓֡֓֡֓֡֓֡֓	7]		U	<u></u>					
2	9	7	0	10	=	12	7	ţ ţ	2 9	16	17	18	23	24	25	56	27	28	58	32	33	34	35	36	37	38	39	40			Connector No.	Connecto		Connecto	ą	厚	Ĕ						Ъ	No	-	2			
17 G MIRROR SENSOR (RH HORIZONTAL)	© W	19 G TELESCOPIC SW (BACKWARD)	- 95	\(\frac{1}{2}\)	0	GR N			Γ	Connector No. M52	Connector Name AUTOMATIC DRIVE POSITIONER CONTROL UNIT		Connector Type NS06FW-CS				[92] [92]	05 06 86 26	000000000000000000000000000000000000000			Terminal Color Of	No. Wire Signal Name [Specification]	25 W BAT (C/B)	26 L TELESCOPIC MOTOR (BACKWARD)	27 P POWER SUPPLY (SENSOR)	28 G TILT MOTOR (DOWNWARD)	LG TILT MOT	30 B GND			Connector No. M53	Connector Name COMBINATION METER	-	Connector Type TH40FW-NH	q		<u> </u>	11234567889101010 1446161718	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2				la D	No. Wire Ognari varie [opeoindatori]	1 W BATTERY POWER SUPPLY	Н		4 R VEHICLE SPEED SIGNAL (8-PULSE)
Connector No. M49	TELESCOPIC MOTOR		Noted Wices					0 2 4				Orang Namo Concidenting	orginal realite [openiication]			,	,				M51	TOO OF STREET	AUTOMIATIC DRIVE POSITIONER CONTROL UNIT	TH24FW-NH				1 2 3 4 5 6 7 8 101112	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	13 14 15 16 17 18 19 20 21 22 23 24			Signal Name [Specification]			MIRROR SELECT SW (RH)			MIRROR SENSOR (RH VERTICAL)	MIRROR SENSOR (LH VERTICAL)	TELESCOPIC SW (FRONTWARD)	Rx/Tx		MIRROR MOTOR (RH HORIZONTAL)	MIRROR MOTOR (LH COMMON)	TILT SW (DOWNWARD)	MIRROR SELECT SW (LH)		MIRROR SW (RIGHTWARD)
Connector No.	Connector Name	for Two	g	•		S.	1					Terminal Color Of	Wire	_	97	۵	œ	æ			Connector No.		Connector Name	Connector Type	,		·	2					Terminal Color Of	wire	>	>	>	>	쑮	BR	Μ	FIG	BR	_	ŋ	SB	14 0	٦	>

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20	Н		Connector No.		M120	Connector No.	M121	99 99	G DR DOOR, FL LID UNLK OUTPUT
51			Connect	Connector Name	BCM (BODY CONTROL MODILLE)	Connector Name	BCM (BODY CONTROL MODILLE)	\Box	
25	4				(0 89	
53	Н		Connector Type		TH40FB-NH	Connector Type	FEA09FB-FHA6-SA	. 69	PW PWR SPLY (BAT)
26	Н	•				4		70 W	V BAT (F/L)
22				_					
28	L		•	ŕ		į.	0, 0, 12, 0, 12, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,		
29				<u>, </u>	1 2 4 5 6 0 64	Ź	84 04 /4 04 64 44	Connector No.	M125
61	L				07 S 0 1 1 0 1 1 1 0 1 1 1 1 1 1 1 1 1 1 1		51 53		
62	L				212212312423120		2	COLLINECTOR NAT	
63	L							Connector Type	De TH12FW-NH
9	SB								
65			Terminal	I Color Of	9	Terminal Color Of		To the state of th	
99	L		Ž	Wire	Signal Name [Specification]	No. Wire	Signal Name [Specification]		_ <u>_</u> / /
49	L		-	O	RR WINDOW DEFG RLY CONT	W 14	TR KEY CYLINDER SW	Ġ.	2 2 4 5
89	L	-	2	BG	COMBI SW INPUT 5	42 R	TRUNK LID OPEN/CLOSE STATUS		0 0
69	В		3	SB	COMBI SW INPUT 4	V V	TR LID OP CANCEL SW		7 9 10 11 12
71	L		4	_	COMBI SW INPUT 3	45 GR	PASSENGER DOOR SW		
72	L		2	O	COMBI SW INPUT 2	46 BR	REAR RH DOOR SW		
73			9	Ь	COMBI SW INPUT 1	47 LG	DRIVER DOOR SW	Terminal Color Of	
74	ω		æ	>	POWER WINDOW SW COMM	48 P	REAR LH DOOR SW	No. Wire	orginal Name [opecinication]
75			6	۵	STOP LAMP SW 1	49 SB	TR ROOM LAMP CONT	-	CAN-H
76	Т	-	=	œ	RAIN SENSOR SERIAL LINK	╀	TR LID OPEN REG SW	3 GR	
11	Т		14	Μ	OPTICAL SENSOR	H	TRI INK I ID OPEN REDI JEST	H	
2/2	02		, 6	g,	DIMMER SIGNAL	+	RR DOOR IN K OUTPIT	+	SNS S
02	Т		17	} >	> Ido divid di Osiaso	1		ŀ	
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3	т		2 5	,	THOMOSO BLIGHT COOKER	- No.	00000	+	
0	т		2	> (TURN SIG RECOIPEL (FRONT)	Confrector No.	M122	+	
85	т	,	02	9	IURN SIG LH CUI PUI (FRONI)	Connector Name	BCM (BODY CONTROL MODULE)	+	
83	Т	-	51	۵	NATS ANT AMP.			+	
8			22	GR	KYLS ENT RECEIVER RSSI	Connector Type	Connector Type FEA09FW-FHA6-SA	12 P	P CAN-L
82		-	23	O	SECURITY IND CONT	4			
98			24		DONGLE LINK	多			
87			25	g	NATS ANT AMP.	Ę	2 ca ca ca ca ca ca ca	Connector No.	M182
88			56	O	I-KEY IDENTIFICATION	5	20 20 10 00 00 00 10 00	Connector Name	TO DATA LINK CONNECTOR
68	æ	,	58	ဖ	HAZARD SW		65 66 67 68 69 70		
06	4	•	30	0	TR LID OPNR SW			Connector Type BD16FW	e BD16FW
91			31	۸	DR DOOR UNLK SENSOR			4	
93		- [With heated seat]	32	BR	COMBI SW OUTPUT 5			厚	
93			33	ď	COMBI SW OUTPUT 4	Terminal Color Of		Ę	14 14 14 14 14 14 14 14 14 14 14 14 14 1
8	>		35	>	COMBI SW OUTPUT 3	No. Wire	orgnar Name [opecinication]	Ċ E	
96	L		35	>	COMBI SW OUTPUT 2	56 R	INT ROOM LAMP PWR SPLY		9 1 8 8 1 8
26	Н	•	36	97	COMBI SW OUTPUT 1	57 R	BAT (FUSE)		000
86	BR	-	37	ď	P POSITION	28 L	SENS CANCEL SW		
66		-	39	7	CAN-H	59 G	PASS DOOR UNLK OUTPUT		
100	Ц	•	40	Ь	CAN-L	9 09	TURN SIG LH OUTPUT (SIDE, REAR)	Sal	r Of Signal Mana (Spanification)
						61 V	TURN SIG RH OUTPUT (SIDE, REAR)	No. Wire	
						62 V	STEP LAMP CONT	3 Γ	
						63 L	ROOM LAMP TIMER CONT	\dashv	
						V 65	ALL DOOR, FL LID LOCK OUTPUT	S.	B EARTH

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< WIRING DIAGRAM >

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AUTOMAT 6	AUTOMATIC DRIVE POSITIONER	CAN-H	KLINE	IGN_SW	M-CAN_H	CAN-L	CAN-H	CAN-L	POWER	
AUTC	OMA	7	^	97	SB	Ь	٦	Ь	M	
	AUT	9	7	80	11	12	13	14	16	

M221	me WIRE TO WIRE	De M03FW-LC	32
Connector No.	Connector Name	Connector Type	E H.S.

Signal Name [Specification]	-		-
Color Of Wire	W	ď	W
Terminal No.	1	2	3

	-			M222	WIRE TO WIRE	M03MW-LC	2 3
Connector Connector	>	œ	Μ	r No.	r Name	r Type	
	-	2	3	Connecto	Connecto	Connecto	Œ H.S

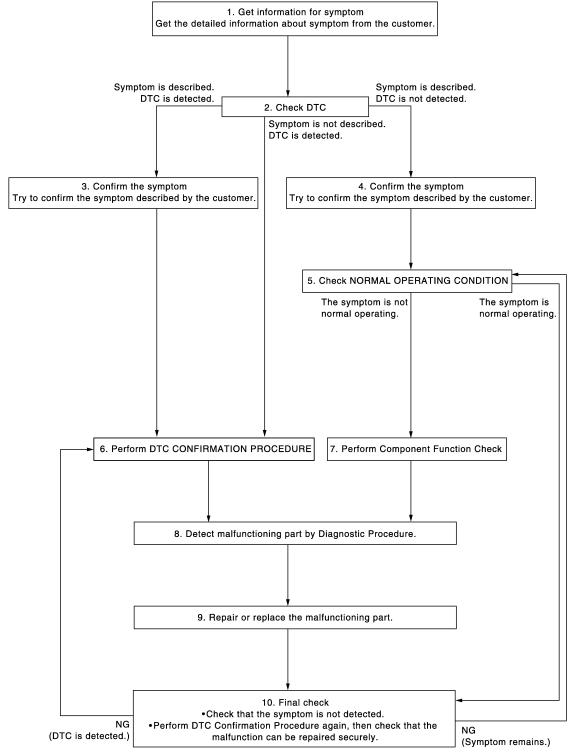
Revision: 2014 November ADP-53 2015 Q70

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 Α Get the detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurred). В >> 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. D Symptom is not described, DTC is displayed.>>GO TO 6. Symptom is described, DTC is not displayed.>>GO TO 4. 3.CONFIRM THE SYMPTOM Е 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 Н Check normal operating condition. Refer to ADP-145, "Description". Is the incident normal operation? >> INSPECTION END YES NO >> GO TO 7. $\mathsf{6}.$ PERFORM DTC CONFIRMATION PROCEDURE ADP Perform the confirmation procedure for the detected DTC. Is the DTC displayed? YES >> GO TO 8. NO >> Check intermittent incident. Refer to GI-44, "Intermittent Incident". 7. PERFORM COMPONENT FUNCTION CHECK Perform the component function check for the isolated malfunctioning point.

8. DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

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

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>> GO TO 9.

>> GO TO 8.

$9.\mathsf{REPARE}$ 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.

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : De-

scription

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

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

^{*1:} Default value is 40mm.

NOTE:

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 <u>ADP-58</u>, "SYSTEM INITIALIZATION: Description".

>> GO TO 2.

2.MEMORY STORAGE

Perform memory storage. Refer to ADP-59, "MEMORY STORING: Description".

>> GO TO 3.

3.INTELLIGENT KEY INTERLOCK STORAGE

Perform memory storage. Refer to ADP-59, "INTELLIGENT KEY INTERLOCK STORING: Description".

>> GO TO 4.

f 4.system setting

Perform system setting. Refer to ADP-60, "SYSTEM SETTING: Description".

>> END

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

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

Function Condition Procedure

Memory (Seat, steering, mirror) Erased Perform storing

Entry/exit assist ON Perform initialization

Set slide amount*1

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INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

Function	Condition	Procedure
Intelligent Key interlock	Erased	Perform initialization
intelligent Key Interlock	Elaseu	Perform storing
Seat synchronization	OFF	_

^{*1:} 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

1.SYSTEM INITIALIZATION

Perform system initialization. Refer to ADP-58, "SYSTEM INITIALIZATION: Description".

>> GO TO 2.

2.MEMORY STORAGE

Perform memory storage. Refer to ADP-59, "MEMORY STORING: Description".

>> GO TO 3.

3.INTELLIGENT KEY INTERLOCK STORAGE

Perform memory storage. Refer to ADP-59, "INTELLIGENT KEY INTERLOCK STORING: Description".

>> GO TO 4.

4.SYSTEM SETTING

Perform system setting. Refer to ADP-60, "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

INFOID:0000000011257957

INFOID:0000000011257956

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).

INSPECTION AND ADJUSTMENT < BASIC INSPECTION > Α >> END **4.** STEP B-1 Drive the vehicle at more than 25 km/h (16 MPH). В >> END MEMORY STORING **MEMORY STORING: Description** INFOID:0000000011257958 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 Е 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. Н **2.**STEP 2 Push set switch. NOTE: Memory indicator for which driver seat position is already retained in memory is illuminated for 5 sec- 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. 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. M ${f 3.}$ STEP ${f 3.}$

Confirm the operation of each part with memory operation.

>> END

INTELLIGENT KEY INTERLOCK STORING

INTELLIGENT KEY INTERLOCK STORING: Description

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.000000011257961

Intelligent Key Interlock Storage Procedure

ADP-59 Revision: 2014 November 2015 Q70

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INSPECTION AND ADJUSTMENT

< 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.

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

NOTE:

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

>> GO TO 3.

3.STEP 3

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

>> 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 disconnect-

ing the battery terminal or replacing driver seat control unit.

Setting Change

×: Applicable

				1 1
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	x	ON
Entry/exit assist (steering column)	Entry/exit assist (steering column) can be selected: ON (operated) – OFF (not operated)	х	*	ON
Seat synchronization	All settings can be set to default (factory setting)	_	х	OFF

SYSTEM SETTING: Special Repair Requirement

INFOID:0000000011257963

1. CHOOSE METHOD

There are two ways of setting method.

Which method do you choose?

With CONSULT>>GO TO 2.

With set switch>>GO TO 5.

2. WITH CONSULT - STEP 1

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION > Select "Work support". Α >> GO TO 3. 3. WITH CONSULT - STEP 2 В Select "EXIT SEAT SLIDE SETTING", or "EXIT TILT SETTING" then touch display to change between ON and OFF. EXIT SEAT SLIDE SETTING: Entry/exit assist (seat) EXIT TILT SETTING: Entry/exit assist (steering column) 2. Select "SEAT SLIDE VOLUME SET" and touch either of "40 mm", "80 mm", or "150 mm". 3. Then touch "OK". D >> GO TO 4. 4. CONFIRM THE OPERATION Е Check the entry/exit assist function setting is changed. Is the setting changed? F YES >> END NO >> GO TO 1. 5. WITH SET SWITCH - STEP 1 Turn ignition switch OFF. Push setting button and hold for more than 10 seconds. Н >> GO TO 6. 6.CONFIRM THE OPERATION Check the entry/exit assist function setting is changed. Is the setting changed? YES >> GO TO 7. ADP NO >> GO TO 1. 7. WITH SET SWITCH - STEP $^{ m 2}$ Turm ignition switch ACC Push setting button and hold for more than 10 seconds. >> GO TO 8. 8.CONFIRM THE OPERATION Check the seat synchronization function setting is changed. M Is the setting changed? YES >> END NO >> GO TO 7. Ν

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DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description INFOID:000000011257964

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	 Driver seat control unit cannot communicate to other control units. When driver seat control unit cannot communicate CAN communication signal continuously for 2 seconds or more. 	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-62, "Diagnosis Procedure".

NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000011257966

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-25, "Trouble Diagnosis Flow Chart".

NO >> Refer to GI-41, "How to Check Terminal".

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:0000000011257968

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1. REPLACE DRIVER SEAT CONTROL UNIT

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

>> Replace driver seat control unit.Refer to <u>ADP-146</u>, "Removal and Installation".

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B2112 SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

B2112 SLIDING MOTOR

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2112	SEAT SLIDE	The driver seat control unit detects the output of sliding motor output terminal for 0.1 second or more even if the sliding switch is not input.	 Driver seat control unit Slide 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 <u>ADP-64, "Diagnosis Procedure"</u>.

NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000011257970

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Check "Self diagnostic result" with CONSULT.
- Erase the DTC.
- 4. Perform DTC confirmation procedure. Refer to ADP-64, "DTC Logic".

Is the DTC displayed again?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to GI-44, "Intermittent Incident".

2.CHECK SLIDING MOTOR CIRCUIT (POWER SHORT)

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

	+)		V-16 0.0
Slidin	g motor	(-)	Voltage (V) (Approx.)
Connector	Terminals		,
B519	3	Ground	0
	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

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

B2112 SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Driver seat	(+) Driver seat control unit		Voltage (V) (Approx.)
Connector	Terminals		(, ipprox.)
B513	3	Ground	0
B313	4	Ground	U

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit. Refer to ADP-146, "Removal and Installation"

4. CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

>> INSPECTION END

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B2113 RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

B2113 RECLINING MOTOR

DTC Logic

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1.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 <u>ADP-66, "Diagnosis Procedure"</u>.

NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000011257972

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Check "Self diagnostic result" with CONSULT.
- Erase the DTC.
- 4. Perform DTC confirmation procedure. Refer to ADP-66, "DTC Logic".

Is the DTC displayed again?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to GI-44, "Intermittent Incident".

2.CHECK RECLINING MOTOR CIRCUIT (POWER SHORT)

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

(+)			
Reclining motor		(-)	Voltage (V) (Approx.)
Connector	Terminals		, , , , , , , , , , , , , , , , , , ,
B507	5	Ground	0
B307	6	Ground	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

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

B2113 RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Driver sea	(+) Driver seat control unit		Voltage (V) (Approx.)
Connector	Terminals		(, (pp. 6x.)
B513	5	Ground	0
D313	6	Ground	U

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace driver seat control unit. Refer to ADP-146, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

>> INSPECTION END

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ADP-67 Revision: 2014 November 2015 Q70

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B2116 TILT MOTOR

DTC Logic

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 <u>ADP-68</u>, "<u>Diagnosis Procedure</u>".

NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000011257974

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- Check "Self diagnostic result" with CONSULT.
- 3. Erase the DTC.
- Perform DTC confirmation procedure. Refer to <u>ADP-68, "DTC Logic"</u>.

Is the DTC displayed again?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to GI-44, "Intermittent Incident".

2.CHECK TILT MOTOR CIRCUIT (POWER SHORT)

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

(+)		(-)	Voltage (V) (Approx.)
Tilt motor			
Connector	Terminals		
	1	Ground	0
IVI40	2	Ground	0

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

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

B2116 TILT MOTOR

< DTC/CIRCUIT DIAGNOSIS >

(+) Automatic drive positioner control unit		(-)	Voltage (V) (Approx.)
Connector	Terminals		(, 41, 21, 1)
M52	28	Ground	0
IVIOZ	29	Giouna	U

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace automatic drive positioner control unit. Refer to ADP-147, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

>> INSPECTION END

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B2128 UART COMMUNICATION LINE

< DTC/CIRCUIT DIAGNOSIS >

B2128 UART COMMUNICATION LINE

Description INFOID:000000011257975

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 INFOID:000000011257976

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-70, "Diagnosis Procedure"</u>.

NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000011257977

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- Check "Self diagnostic result" with CONSULT.
- 3. Erase the DTC.
- 4. Perform DTC confirmation procedure. Refer to ADP-70, "DTC Logic".

Is the DTC displayed again?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to GI-44, "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 seaf	control unit	Automatic drive po	sitioner control unit	Continuity
Connector	Terminal	Connector	Terminal	Continuity
B514	32	M51	8	Existed

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

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-44, "Intermittent Incident".

NO >> Repair or replace harness or connector.

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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-72, "Diagnosis Procedure".

NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000011257979

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Check "Self diagnostic result" with CONSULT.
- 3. Erase the DTC.
- 4. Perform DTC confirmation procedure. Refer to ADP-72, "DTC Logic".

Is the DTC displayed again?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to GI-44, "Intermittent Incident".

2. REPLACE DRIVER SEAT CONTROL UNIT

Replace driver seat control unit. Refer to ADP-146, "Removal and Installation".

>> INSPECTION END

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

POWER SUPPLY AND GROUND CIRCUIT DRIVER SEAT CONTROL UNIT

DRIVER SEAT CONTROL UNIT: Diagnosis Procedure

INFOID:0000000011257980

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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

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

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

Is the inspection result normal?

>> GO TO 3. YES

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?

>> INSPECTION END

NO >> Repair or replace harness.

DRIVER SEAT CONTROL UNIT: Special Repair Requirement

INFOID:0000000011257981

1.PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

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>> Refer to ADP-57, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMI-NAL: Special Repair Requirement".

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

AUTOMATIC DRIVE POSITIONER CONTROL UNIT: Diagnosis Procedure

INFOID:0000000011257982

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.

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ADP

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

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

(+) Automatic drive positioner control unit		(-)	Voltage (V) (Approx.)
Connector Terminals			
M52	25	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 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:0000000011257983

1. PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

>> Refer to <u>ADP-57</u>, "<u>ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Special Repair Requirement"</u>.

LIFTING SENSOR CONTROL UNIT

LIFTING SENSOR CONTROL UNIT : Diagnosis Procedure

INFOID:0000000011257984

1. CHECK LIFTING SENSOR POWER SUPPLY

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

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 sense	or control unit	Driver seat	t 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	Connector Terminal		Continuity
B515	33		Not existed

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-146, "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.

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SLIDING SWITCH

Component Function Check

INFOID:0000000011257985

1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-76, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000011257986

1. CHECK SLIDING SWITCH SIGNAL

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

(+) Power seat switch		(-)	Voltage (V) (Approx.)
Connector	Terminals		(Approx.)
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

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

Driver seat	control unit	Power seat switch		Continuity
Connector	Terminal	Connector Terminal		Continuity
B514	11	B518	11	Existed
	12	B518 -	12	Existed

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

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

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-146, "Removal and Installation"</u>.

SLIDING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace harness or connector.

3. CHECK SLIDING SWITCH

Refer to ADP-77, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace power seat switch. Refer to ADP-150, "Removal and Installation"

4. CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000011257987

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	ninal	Condition		Continuity
	11	Sliding switch (backward)	Operate	Existed
2	11	Siluling Switch (backward)	Release	Not existed
2	12	Sliding switch (forward)	Operate	Existed
	12 510		Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to <u>ADP-150, "Removal and Installation"</u>.

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RECLINING SWITCH

Component Function Check

1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-78</u>, "<u>Diagnosis Procedure</u>".

Diagnosis Procedure

INFOID:0000000011257989

INFOID:0000000011257988

1. CHECK RECLINING SWITCH SIGNAL

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

(+) Power seat switch		(-)	Voltage (V) (Approx.)	
Connector	Terminals		(Арргох.)	
B518	13	Ground	12	
D316	14	Giouna	12	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK RECLINING SWITCH CIRCUIT

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

Driver seat	control unit	Power seat switch		Continuity
Connector	Terminal	Connector Terminal		Continuity
B514	13	R519	13	Existed
D314	14	- B518	14	LXISIEU

4. 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?

YES >> Replace driver seat control unit. Refer to <u>ADP-146, "Removal and Installation"</u>.

RECLINING SWITCH

< DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace harness or connector.

3.CHECK RECLINING SWITCH

Refer to ADP-79, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace power seat switch. Refer to ADP-150, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000011257990

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 (Reclining switch)		Condition		Continuity
Terr	ninal	Condition		Continuity
	13	Reclining switch (backward)	Operate	Existed
2	13	Necining Switch (backward)	Release	Not existed
14	Declining quitab (forward)	Operate	Existed	
	14	Reclining switch (forward)	Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to <u>ADP-150, "Removal and Installation"</u>.

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LIFTING SWITCH (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SWITCH (FRONT)

Component Function Check

1. CHECK FUNCTION

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

Monitor item	Condition		Status
LIFT FR SW-UP	Lifting switch front (up)	Operate	ON
LII I I I X SW-OF	Litting Switch Hont (up)	Release	OFF
LIFT FR SW-DN	Lifting switch front (down)	Operate	ON
LIFT FR SW-DIN		Release	OFF

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-80, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000011257992

INFOID:0000000011257991

1. CHECK LIFTING SWITCH (FRONT) SIGNAL

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK LIFTING SWITCH (FRONT) CIRCUIT

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

Driver seat	control unit	Power seat switch		Continuity
Connector	Terminal	Connector Terminal		Continuity
B514	17	B518	17	Existed
	18	B518 -	18	Existed

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

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

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-146, "Removal and Installation"</u>.

LIFTING SWITCH (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace harness or connector.

3.CHECK LIFTING SWITCH (FRONT)

Refer to ADP-81, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace power seat switch. Refer to ADP-150, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000011257993

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 (lifting switch front)		Condition		Continuity
Terminal				
	17	Lifting switch front (down)	Operate	Existed
2	11		(down) Re	Release
2	18	Lifting switch front (up)	Operate	Existed
	10	Lifting switch front (up)	Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to <u>ADP-150</u>, "Removal and Installation".

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LIFTING SWITCH (REAR)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SWITCH (REAR)

Component Function Check

1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-82, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000011257995

INFOID:0000000011257994

1. CHECK LIFTING SWITCH (REAR) SIGNAL

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

(+) Power seat switch		(-)	Voltage (V) (Approx.)	
Connector			(Approx.)	
B518	15	Ground	12	
D316	16	Ground		

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK LIFTING SWITCH (REAR) CIRCUIT

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

Driver seat	control unit	Power seat switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B514	15	B518	15	Existed
D314	16	B310	16	LAISIEU

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

Driver seat control unit			Continuity
Connector	Terminal	Ground	Continuity
B514	15	Giodila	Not existed
	16		TVOL EXISTED

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-146, "Removal and Installation".

LIFTING SWITCH (REAR)

< DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace harness or connector.

3. CHECK LIFTING SWITCH (REAR)

Refer to ADP-83, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace power seat switch. Refer to ADP-150, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

>> INSPECTION END

Component Inspection

nent Inspection

1. CHECK LIFTING SWITCH (REAR)

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

Power seat switch (lifting switch rear)		Condition		Continuity
Term	inal	Conc	altion	Continuity
	15	Lifting switch rear (down)	Operate	Existed
2	13	Litting Switch real (down)	Release	Not existed
2	16	Lifting quitab room (up)	Operate	Existed
	10	Lifting switch rear (up)	Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power seat switch. Refer to <u>ADP-150, "Removal and Installation"</u>.

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TILT SWITCH

Component Function Check

INFOID:0000000011257997

1. CHECK FUNCTION

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

Monitor item	Condition		Status
TILT SW-UP	Tilt switch (up)	Operate	ON
		Release	OFF
TILT SW-DOWN	Tilt switch (down)	Operate	ON
		Release	OFF

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-84, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000011257998

1. CHECK TILT SWITCH SIGNAL

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

(+) Tilt & telescopic switch		(-)	Voltage (V) (Approx.)	
Connector	Terminals		(, .FP10/ii)	
M31	4	Ground	5	
IVIST	5	Giouna	5	

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	
ICIVI	13	IVIST	5	LAISIEU	

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

Automatic drive positioner control unit			Continuity	
Connector	Terminal	Ground	Continuity	
M51	1	Giodila	Not existed	
IVIO I	13		NOT EXISTED	

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-147, "Removal and Installation".

TILT SWITCH

< DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace harness or connector.

3. CHECK TILT SWITCH

Refer to ADP-85, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace tilt & telescopic switch. Refer to ADP-151, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

>> INSPECTION END

Component Inspection

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	ninal	Condition		Continuity
	4	Tilt switch (upward)	Operate	Existed
1	4	Till Switch (upward)	Release	Not existed
	5 Tilt switch (down	Tilt switch (downward)	Operate	Existed
		Till Switch (downward)	Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace tilt & telescopic switch. Refer to ADP-151, "Removal and Installation".

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TELESCOPIC SWITCH

Component Function Check

1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-86, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000011258001

INFOID:0000000011258000

1. CHECK TELESCOPIC SWITCH SIGNAL

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

(+)		(-)	Voltage (V) (Approx.)
Tilt & telescopic switch			
Connector	Terminals		(11 -)
M31	2	Ground	5
I CIVI	3	Ground	3

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK TELESCOPIC SWITCH CIRCUIT

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

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

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

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-147, "Removal and Installation".

TELESCOPIC SWITCH

< DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace harness or connector.

3. CHECK TELESCOPIC SWITCH

Refer to ADP-87, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace tilt & telescopic switch. Refer to ADP-151, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000011258002

1. CHECK TELESCOPIC SWITCH

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

Telescop	oic switch	Condition		Continuity
Terr	minal			Continuity
	2	Telescopic switch (forward)	Operate	Existed
1	2	relescopic switch (lorward)	Release	Not existed
1	3 Telescopic sv	Telescopic switch (backward)	Operate	Existed
		relescopic switch (backward)	Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace tilt & telescopic switch. Refer to ADP-151, "Removal and Installation".

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SEAT MEMORY SWITCH

< DTC/CIRCUIT DIAGNOSIS >

SEAT MEMORY SWITCH

Component Function Check

1. CHECK FUNCTION

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

Monitor item	Condition		Status
MEMORY SW 1	Memory switch 1	Push	ON
		Release	OFF
MEMORY SW 2 Memory switch 2	Marsar and societate O	Push	ON
	Welliory Switch 2	Release	OFF
SET SW S	Set switch	Push	ON
		Release	OFF

Is the indication normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to ADP-88, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000011258004

INFOID:0000000011258003

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.

(+) Driver seat control unit		(-)	Voltage (V) (Approx.)
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

- 1. 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 seaf	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.

SEAT MEMORY SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Driver seat 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-146, "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 memory 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-89, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

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

5. CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1. CHECK SEAT MEMORY SWITCH

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

Seat mer	nory switch	Condition		Continuity
Ter	minal		onation	Continuity
	1	Memory switch 1	Push	Existed
	1	Memory Switch	Release	Not existed
4	2	Memory switch 2	Push	Existed
4	2		Release	Not existed
	3 Set switch	Sot quitab	Push	Existed
	3	Set switch	Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END

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

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< DTC/CIRCUIT DIAGNOSIS >

POWER WINDOW MAIN SWITCH CHANGEOVER SWITCH

CHANGEOVER SWITCH: Component Function Check

INFOID:0000000011258006

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
WIR CHING SW-R/L	Other than the above.	: OFF

Is the inspection result normal?

YES >> Changeover switch function is OK.

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

CHANGEOVER SWITCH: Diagnosis Procedure

INFOID:0000000011258007

1. CHECK CHANGEOVER 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		
Daa	23	Cround	F
D23	28	- Ground	5

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK CHANGEOVER 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	ositioner control unit	Power window main switch (door mirror remote control switch)		Continuity
Connector	Terminal	Connector	Terminal	
M51	2	D23	28	Existed
IVIOT	14	D23	23	LXISIGU

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

Automatic drive positioner control unit			Continuity
Connector	Terminal	Ground	Continuity
M51	2		Not existed
	14		Not existed

Is the inspection result normal?

< DTC/CIRCUIT DIAGNOSIS >

YES >> Replace automatic drive positioner control unit. Refer to ADP-147, "Removal and Installation".

NO >> Repair or replace harness.

3.check power window main switch (door mirror remote control switch) ground **CIRCUIT**

Turn ignition switch OFF.

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 CHANGEOVER SWITCH

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

Refer to ADP-91, "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 PWC-73, "Removal and Installation".

5. CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to GI-44, "Intermittent Incident".

>> INSPECTION END

CHANGEOVER SWITCH: Component Inspection

1. CHECK CHANGEOVER SWITCH

Turn ignition switch OFF.

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

Check continuity between power window main switch (door mirror remote control switch) terminals.

Power window main switch (door mirror remote control switch) Terminal		Condition		Continuity
23			LEFT	Existed
23	7	Change over awitch	Other than the above	Not existed
20	28	Changeover switch	RIGHT	Existed
20			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 PWC-73. "Removal and Installation".

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.

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

Is the inspection result normal?

YES >> Mirror switch function is OK.

NO >> Refer to ADP-92, "MIRROR SWITCH: Diagnosis Procedure".

MIRROR SWITCH: Diagnosis Procedure

INFOID:0000000011258010

1. CHECK MIRROR 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.
- 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		(11 - 7
	24	Ground	5
D23	25		
DZS	26		
	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.
- 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	
	3	D23	26	Existed
M51	4		24	
I CIVI	15		25	Existed
	16		27	

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

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

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-147, "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 (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-93, "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 PWC-73, "Removal and Installation".

5.CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to GI-44, "Intermittent Incident".

>> INSPECTION END

MIRROR SWITCH: Component Inspection

1.check mirror switch

1. Turn ignition switch OFF.

- 2. Disconnect power window main switch (door mirror remote control switch) connector.
- 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			Other than the above	Not existed
05			DOWN	Existed
25	7	Minney evidel	Other than the above	Not existed
20		Mirror switch	UP	Existed
26			Other than the above	Not existed
07	0.7		RIGHT	Existed
27			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 PWC-73. "Removal and Installation".

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POWER SEAT SWITCH GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

POWER SEAT SWITCH GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000011258012

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-44, "Intermittent Incident".

NO >> Repair or replace harness or connector.

TILT &TELESCOPIC SWITCH GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

TILT &TELESCOPIC SWITCH GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000011258013

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-44, "Intermittent Incident".

NO >> Repair or replace harness.

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SLIDING SENSOR

Component Function Check

INFOID:0000000011258014

1. CHECK FUNCTION

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

Monitor item	Con	Value	
		Operate (forward)	Change (increase)*1
SLIDE PULSE	Seat sliding	Operate (backward)	Change (decrease)*1
		Release	No change ^{*1}

^{*1:} The value at the seat position attained when the battery is connected is considered to be 32768.

Is the indication normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000011258015

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.

	+) control unit	(-)	Condition		Signal (Reference value)
Connector	Terminals				
B514	19	Ground	Seat sliding	Operate Other than the	10mSec/div 2V/div JMJIA0119ZZ
				above	0 or 5

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-146, "Removal and Installation".

NO >> GO TO 2.

2.CHECK SLIDING SENSOR CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect driver seat control unit and sliding sensor connector.
- 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.

SLIDING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Driver seaf	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

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

(+) Sliding motor		(-)	Voltage (V) (Approx.)	
Connector	Terminals		(/ ipprox.)	
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	Driver seat control unit		Sliding motor	
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-146</u>, "Removal and Installation".

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.

Sliding	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.

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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	Con	Value	
		Operate (forward)	Change (increase)*1
RECLN PULSE	Seat reclining	Operate (backward)	Change (decrease)*1
		Release	No change ^{*1}

^{*1:} 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-98</u>, "<u>Diagnosis Procedure</u>".

Diagnosis Procedure

INFOID:0000000011258017

INFOID:0000000011258016

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.

	+) t control unit	(-)	Condition		Signal (Reference value)
Connector	Terminals				(1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
B514	20	Ground	Seat reclining	Operate Other than the above	10mSec/div 2V/div JMJIA0119ZZ

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-146, "Removal and Installation".

NO >> GO TO 2.

2. CHECK RECLINING SENSOR CIRCUIT

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

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

RECLINING SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Driver seat	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

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

	+)		V-16 0.0	
Reclining motor		(-)	Voltage (V) (Approx.)	
Connector	Terminals		(44.5)	
B507	33	Ground	12	

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4. CHECK RECLINING SENSOR POWER SUPPLY CIRCUIT

- 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	Driver seat control unit		Reclining motor		
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 ADP-146, "Removal and Installation".

NO >> Repair or replace harness or connector.

5. CHECK RECLINING SENSOR GROUND

1. Turn ignition switch OFF.

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

 Reclini	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.

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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 ^{*1}

^{*1:} 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-100, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000011258019

INFOID:0000000011258018

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

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

LIFTING SENSOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

Driver seaf	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-146, "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	r control unit	(-)	Condition		(-) Condition		Voltage (V) (Approx.)
Connector	Terminals				(, pp. 6.4.)		
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 ADP-148, "Removal and Installation".

NO >> GO TO 4.

4. CHECK LIFTING SENSOR (FRONT) CIRCUIT

Turn ignition switch OFF.

- 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	Lifting sensor control unit		otor (front)	Continuity
Connector	Terminal	Connector Terminal		Continuity
B515	81	B512	22	Existed

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

Lifting sensor 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

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

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

Is the inspection result normal?

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LIFTING SENSOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

YES >> Replace lifting motor (front). .

NO >> Repair or replace harness or connector.

LIFTING SENSOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING SENSOR (REAR)

Component Function Check

INFOID:0000000011258020

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1. CHECK FUNCTION

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

Monitor item	Cor	Value		
LIFT RR PULSE	Seat lifting (rear)	Operate (up)	Change (increase)*1	
		Operate (down)	Change (decrease)*1	
		Release	No change ^{*1}	

^{*1 :} 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-103, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000011258021

1. CHECK LIFTING SENSOR CONTROL UNIT OUTPUT SIGNAL

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

	+) or control unit	(-) Condition		dition	Voltage (V) (Approx.)
Connector	Terminals				
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	Continuity	
Connector	Terminal	Connector Terminal		Continuity
B514	21	B515	82	Existed

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

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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-146, "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	80	Ground	Seat Lifting (rear)	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-148</u>, "Removal and Installation".

NO >> GO TO 4.

4. CHECK LIFTING SENSOR (REAR) CIRCUIT

- 1. 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	

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

Lifting senso	or control unit		Continuity	
Connector	Connector Terminal		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

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

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

LIFTING SENSOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

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

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TILT SENSOR

Component Function Check

1. CHECK FUNCTION

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

Monitor item	Condition		Value
TILT PULSE	Steering column	Operate (up)	Change (increase)*1
		Operate (down)	Change (decrease)*1
		Release	No change ^{*1}

^{*1:} 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-106, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000011258023

INFOID:0000000011258022

1. CHECK TILT SENSOR SIGNAL

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

.	+) control unit Terminals	(-)	Condition		Condition Vo		Voltage (V) (Approx.)
B514	30	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-146, "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.
- 3. Check continuity between driver seat control unit harness connector and tilt motor harness connector.

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

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

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

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

Turn ignition switch ON.

2. Check voltage between tilt motor harness connector and ground.

(+)			Voltage (V) (Approx.)
Tilt motor		(-)	
Connector	Terminals		(11 -)
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.

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

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-147, "Removal and Installation".

NO >> Repair or replace harness or connector.

5.CHECK TILT SENSOR GROUND CIRCUIT

Turn ignition switch OFF.

2. Disconnect automatic drive positioner control unit connector.

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

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

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

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

Is the inspection result normal?

YES >> Replace tilt motor.

NO >> Repair or replace harness or connector. ADP

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TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

TELESCOPIC SENSOR

Component Function Check

INFOID:0000000011258024

1. CHECK FUNCTION

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

Monitor item	Condition		Value
TELESCO PULSE	Steering column	Operate (forward)	Change (increase)*1
		Operate (backward)	Change (decrease)*1
		Release	No change ^{*1}

^{*1:} 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-108, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000011258025

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		(-) Cond		Voltage (V) (Approx.)	
Connector	Terminals				(, hbioy.)	
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-146, "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		Telesco	Continuity	
Connector	Terminal	Connector Terminal		Continuity
B514	31	M49	5	Existed

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

TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit			Continuity
Connector	Connector Terminal		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.

(+) Telescopic motor		(-)	Voltage (V) (Approx.)
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.
- Check continuity between automatic drive positioner control unit harness connector and telescopic motor harness connector.

Automatic drive po	sitioner control unit	Telesco	pic 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-147, "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	sitioner control unit	Telesco	pic motor	Continuity
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 positioner control unit			Continuity
Connector	Connector Terminal		Continuity
M51	20		Not existed

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TELESCOPIC SENSOR

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> Replace telescopic motor.

NO >> Repair or replace harness or connecter.

< DTC/CIRCUIT DIAGNOSIS >

MIRROR SENSOR

DRIVER SIDE

DRIVER SIDE: Component Function Check

INFOID:0000000011258026

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1. CHECK FUNCTION

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

Monitor item	Condition	Value
MIR/SEN LH U-D	Door mirror (driver side)	Change between 3.4 [V] (close to peak) 0.6 [V] (close to valley)
MIR/SEN LH R-L		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-111, "DRIVER SIDE: Diagnosis Procedure".

DRIVER SIDE: Diagnosis Procedure

INFOID:0000000011258027

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

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

(+) Door mirror (driver side) Connector Terminals		(-)	Voltage (V) (Approx.)
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.

- Disconnect automatic drive positioner control unit connector. 2.
- 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

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-147, "Removal and Installation".

NO >> Repair or replace harness or connector. ADP

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< DTC/CIRCUIT DIAGNOSIS >

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

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

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

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

Automatic drive positioner control unit			Continuity
Connector	Terminal	Ground	Continuity
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 po	sitioner control unit	Door mirror (driver side) Connector Terminal		Continuity
Connector	Terminal			Continuity
M51	6	D3	21	Existed
I CIVI	18	D3	22	LXISIEU

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

Automatic drive positioner control unit			Continuity	
Connector	Terminal	Ground	Continuity	
M51	6	Giodila	Not existed	
I GIVI	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

INFOID:0000000011258028

1. CHECK FUNCTION

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

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

Is the indication normal?

YES >> INSPECTION END

< DTC/CIRCUIT DIAGNOSIS >

NO >> Perform diagnosis procedure. Refer to ADP-113, "PASSENGER SIDE: Diagnosis Procedure"

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000011258029

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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.

Door mirror (p	+) assenger side)	(-)	Voltage (V) (Approx.)
Connector	Terminals		(, 44, 211)
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 po	sitioner control unit	Door mirror (passenger side) Connector Terminal		Continuity	
Connector	Terminal				
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-147, "Removal and Installation".

NO >> Repair or replace harness or connector.

${f 3.}$ 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	drive positioner control unit Door mirror (pass		Door mirror (passenger side)	
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.

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< DTC/CIRCUIT DIAGNOSIS >

4. CHECK DOOR MIRROR (PASSENGER SIDE) SENSOR CIRCUIT

1. 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) Connector Terminal		Continuity
Connector	Terminal			Continuity
M51	5	D33	21	Existed
IVIOI	17	Doo	22	Existed

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

Automatic drive positioner control unit			Continuity	
Connector	Terminal	Ground	Continuity	
M51	5	Ground	Not existed	
I CIVI	17		INOL EXISTED	

Is the inspection result normal?

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

NO >> Repair or replace harness or connector.

SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

SLIDING MOTOR

Component Function Check

INFOID:0000000011258030

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1. CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-115</u>, "<u>Diagnosis Procedure</u>".

Diagnosis Procedure

INFOID:0000000011258031

1. CHECK SLIDING MOTOR POWER SUPPLY

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

(+) Sliding motor		(-)	Condition		Voltage (V) (Approx.)		
Connector	Terminals				(. 44)		
				OFF	0		
	3			FR (forward)	12		
B519		Cround	SEAT SLIDE	RR (backward)	0		
B319		Ground 4		OFF	0		
	4						FR (forward)
				RR (backward)	12		

Is the inspection result normal?

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

NO >> GO TO 2.

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2.CHECK SLIDING MOTOR CIRCUIT

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

Driver sea	Driver seat control unit		g motor	Continuity
Connector	Terminal	Connector	Terminal	Continuity
B513	3	B519	3	Existed
D313	4	5519	4	Existed

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

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SLIDING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit			Continuity	
Connector	Connector Terminal		Continuity	
B513	3	- Ground	Not existed	
D313	4		Not existed	

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-146, "Removal and Installation"</u>.

NO >> Repair or replace harness or connector.

RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

RECLINING MOTOR

Component Function Check

INFOID:0000000011258032

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1. CHECK FUNCTION

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

Tes	t 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 ADP-117, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000011258033

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		Con	dition	Voltage (V) (Approx.)
Connector	Terminals				(44)
		- Ground SEAT RI		OFF	0
	5		SEAT RECLINING	FR (forward)	12
P507				RR (backward)	0
D307	B507			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.

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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 seat control unit		Reclining motor		Continuity
Connector	Terminal Connector		Terminal	Continuity
B513	5	B507	5	Existed
	6	5307	6	LAISIEU

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

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RECLINING MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit			Continuity	
Connector	Connector Terminal		Continuity	
B513	5	- Ground	Not existed	
B313	6	_	Not existed	

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-146, "Removal and Installation"</u>.

NO >> Repair or replace harness or connector.

LIFTING MOTOR (FRONT)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING MOTOR (FRONT)

Component Function Check

1. CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

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

Diagnosis Procedure

1.CHECK LIFTING MOTOR (FRONT) POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Disconnect lifting motor (front) connector.
- 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)		(-) Condi		Voltage (V) (Approx.)
Connector	Terminals				(11 - 7
				OFF	0
	9	— Ground	SEAT LIFTER FR	UP	12
B512				DWN (DOWN)	0
D312	D312			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 seat	at control unit Lifting motor (front)		Continuity	
Connector	Terminal	Connector	Terminal	Continuity
B513	9	B512	9	Existed
	10	B312	10	LXISIEU

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

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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 <u>ADP-146, "Removal and Installation"</u>.

NO >> Repair or replace harness or connector.

LIFTING MOTOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

LIFTING MOTOR (REAR)

Component Function Check

INFOID:0000000011258036

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1. CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to ADP-121, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000011258037

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
- 5. Check voltage between lifting motor (rear) harness connector and ground.

	(+) Lifting motor (rear)		(-) Con		Voltage (V) (Approx.)
Connector	Terminals				
			SEAT LIFTER RR	OFF	0
	7			UP	0
DE40		Ground		DWN (DOWN)	12
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.

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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 seat	control unit	Lifting motor (rear)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B513	7	B510	7	Existed
	8	B310	8	LXISIEU

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

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LIFTING MOTOR (REAR)

< DTC/CIRCUIT DIAGNOSIS >

Driver se	Driver seat control unit		Continuity	
Connector	Terminal	Ground	Continuity	
B513	7	Ground	Not existed	
D313	8		NOT EXISTED	

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to <u>ADP-146, "Removal and Installation"</u>.

NO >> Repair or replace harness or connector.

TILT MOTOR

Component Function Check

1. CHECK FUNCTION

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

Tes	titem	Description	
	OFF		Stop
TILT MOTOR	UP	Steering tilt	Upward
	DWN		Downward

Is the operation of relevant parts normal?

YES >> INSPECTION END

>> Perform diagnosis procedure. Refer to ADP-123, "Diagnosis Procedure". NO

Diagnosis Procedure

1. CHECK TILT MOTOR POWER SUPPLY

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

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

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

Automatic drive p	ositioner control unit	Tilt r	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
M52	28	M48	1	Existed
IVIOZ	29	IVI40	2	Existed

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

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TILT MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive p	Automatic drive positioner control unit		Continuity	
Connector	Connector Terminal		Continuity	
M52	28	- Ground	Not existed	
IVIJZ	29		Not existed	

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-147, "Removal and Installation".

NO >> Repair or replace harness or connector.

TELESCOPIC MOTOR

< DTC/CIRCUIT DIAGNOSIS >

TELESCOPIC MOTOR

Component Function Check

INFOID:0000000011258040

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1. CHECK FUNCTION

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

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

Is the operation of relevant parts normal?

YES >> INSPECTION END

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

Diagnosis Procedure

INFOID:0000000011258041

1. CHECK TELESCOPIC MOTOR POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Disconnect telescopic motor connector.
- 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	Terminals				, , , ,
		Ground TELESCOPIC MO-TOR	OFF	0	
	M49 2			FR (forward)	0
MAO				RR (backward)	12
IVI49				OFF	0
				FR (forward)	12
				RR (backward)	0

Is the inspection result normal?

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

NO >> GO TO 2.

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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		Continuity
Connector	Terminal	Connector	Terminal	Continuity
ME1	26	M49	1	Existed
I CIVI	M51 29	10149	2	Existed

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

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TELESCOPIC MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive positioner control unit			Continuity	
Connector	Terminal	Ground	Continuity	
M51	26	Giouna	Not existed	
I GIVI	29		inot existed	

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-147, "Removal and Installation".

NO >> Repair or replace harness or connector.

DOOR MIRROR MOTOR

< DTC/CIRCUIT DIAGNOSIS >

DOOR MIRROR MOTOR

Component Function Check

INFOID:0000000011258042

1. CHECK DOOR MIRROR MOTOR FUNCTION

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

Refer to ADP-23, "CONSULT Function".

Is the inspection result normal?

>> Door mirror motor function is OK.

>> Refer to ADP-127, "Diagnosis Procedure". NO

Diagnosis Procedure

INFOID:0000000011258043

1. CHECK DOOR MIRROR MOTOR INPUT SIGNAL

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

(+) Door mirror		(-)	Con	Condition	
Connector	Terminals				(Approx.)
				DOWN / RIGHT	12
	10			Other than the above	0
D2 (Driver cide)		Ground	Ground Door mirror remote control switch	LEFT	12
D3 (Driver side) D33 (Passenger side)	11			Other than the above	0
				UP	12
	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

- Turn ignition switch OFF.
- 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 p	Automatic drive positioner control unit Door mirror (driver side)			Continuity
Connector	Terminal	Connector Terminal		Continuity
	12		10	
M51	23	D3	12	Existed
	24		11	

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DOOR MIRROR MOTOR

< DTC/CIRCUIT DIAGNOSIS >

Automatic drive positioner control unit Door mirror (passenger side)		O-atia-it-	
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]

[dilitor oldo]			
Automatic drive p	ositioner control unit		Continuity
Connector	Terminal		Continuity
	12	Ground	
M51	23		Not existed
	24		
[passenger side]			
Automatic drive p	ositioner 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-147, "Removal and Installation".

NO >> Repair or replace harness or connector.

3. CHECK DOOR MIRROR MOTOR

Check door mirror motor.

Refer to ADP-128, "Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident.Refer to <u>GI-44, "Intermittent Incident"</u>.

NO >> Replace door mirror. Refer to MIR-41, "DOOR MIRROR: Removal and Installation".

Component Inspection

INFOID:0000000011258044

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-42, "DOOR MIRROR: Disassembly and Assembly".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace door mirror.Refer to MIR-41, "DOOR MIRROR: Removal and Installation".

2.CHECK DOOR MIRROR MOTOR-II

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

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

DOOR MIRROR MOTOR

	DOOR MIRROR MOTOR	
	/CIRCUIT DIAGNOSIS >	
	nspection result normal?	
YES	>> INSPECTION END	А
NO	>> Replace door mirror. Refer to MIR-41, "DOOR MIRROR: Removal and Installation".	
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SEAT MEMORY INDICATOR

< DTC/CIRCUIT DIAGNOSIS >

SEAT MEMORY INDICATOR

Component Function Check

INFOID:0000000011258045

1. CHECK FUNCTION

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

Test	titem	Desc	ription
	OFF		OFF
MEMORY SW INDCTR	ON-1	Memory switch indicator	Indicator 1: ON
	ON-2		Indicator 2: ON

Is the operation of relevant parts normal?

YES >> INSPECTION END

NO >> Perform diagnosis procedure. Refer to <u>ADP-130, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000011258046

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.
- 2. 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.

	+)	(-)	Voltage (V)	
Connector	nory switch Terminals		(Approx.)	
D5	5	Ground	Battery voltage	

Is the inspection result normal?

YES >> Replace seat memory switch. Refer to <u>ADP-149</u>, "Removal and Installation".

NO >> Repair or replace harness or connector.

4. CHECK MEMORY INDICATOR CIRCUIT

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

SEAT MEMORY INDICATOR

< DTC/CIRCUIT DIAGNOSIS >

Driver seat control unit		Seat memory switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B514	25	D5	6	Existed
D314	26	D5	7	Existed

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

Driver seat	t control unit		Continuity
Connector	Terminal	Ground	Continuity
B514	25	Giodila	Not existed
D314	26		NOT EXISTED

Is the inspection result normal?

YES >> Replace driver seat control unit.Refer to <u>ADP-146, "Removal and Installation"</u>.

NO >> Repair or replace harness or connector.

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SYMPTOM DIAGNOSIS

MANUAL FUNCTION DOES NOT OPERATE

ALL COMPONENT

ALL COMPONENT : Diagnosis Procedure

INFOID:0000000011258047

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

Check driver seat control unit power supply and ground circuit.

Refer to ADP-73, "DRIVER SEAT CONTROL UNIT: Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

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

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

Refer to ADP-73, "AUTOMATIC DRIVE POSITIONER CONTROL UNIT: Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-44, "Intermittent Incident".

NO >> GO TO 1.

POWER SEAT

POWER SEAT : Diagnosis Procedure

INFOID:0000000011258048

1. CHECK POWER SEAT SWITCH GROUND CIRCUIT

Check power seat switch ground circuit.

Refer to ADP-94, "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-44, "Intermittent Incident".

NO >> GO TO 1.

TILT & TELESCOPIC

TILT & TELESCOPIC : Diagnosis Procedure

INFOID:0000000011258049

1. CHECK TILT & TELESCOPIC SWITCH GROUND CIRCUIT

Check tilt & telescopic switch ground circuit.

Refer to ADP-95. "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.

< SYMPTOM DIAGNOSIS >	
Is the result normal?	
YES >> Check intermittent incident. Refer to GI-44, "Intermittent Incident". NO >> GO TO 1.	
SEAT SLIDING	
SEAT SLIDING : Diagnosis Procedure	
	INFOID:0000000011258050
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-76, "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-115, "Component Function Check".	
Is the inspection result normal? YES >> GO TO 4.	
NO >> Repair or replace the malfunction parts.	
4.CONFIRM THE OPERATION	I
Check the operation again.	-
Is the result normal?	
YES >> Check intermittent incident. Refer to GI-44, "Intermittent Incident".	
NO >> GO TO 1. SEAT RECLINING	
SEAT RECLINING	
SEAT RECLINING : Diagnosis Procedure	INFOID:000000011258051
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-78, "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-117, "Component Function Check".	

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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-44, "Intermittent Incident".

NO >> GO TO 1.

SEAT LIFTING (FRONT)

SEAT LIFTING (FRONT): Diagnosis Procedure

INFOID:0000000011258052

1. CHECK LIFTING (FRONT) MECHANISM

Check for the following.

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

2. CHECK LIFTING SWITCH (FRONT)

Check lifting switch (front).

Refer to ADP-80, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

3.CHECK LIFTING MOTOR (FRONT)

Check lifting motor (front).

Refer to ADP-119, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunction parts.

4.CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-44, "Intermittent Incident".

NO >> GO TO 1.

SEAT LIFTING (REAR)

SEAT LIFTING (REAR): Diagnosis Procedure

INFOID:0000000011258053

1. CHECK LIFTING (REAR) MECHANISM

Check for the following.

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

2.CHECK LIFTING SWITCH (REAR)

Check lifting switch (rear).

Refer to ADP-82, "Component Function Check".

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-121, "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.	
<u>Is the result normal?</u>	
YES >> Check intermittent incident. Refer to GI-44, "Intermittent Incident". NO >> GO TO 1. STEERING TILT	
STEERING TILT : Diagnosis Procedure	INFOID:000000011258054
1.CHECK STEERING TILT MECHANISM	
Check for the following.	
Mechanism deformation or pinched foreign materials. Interference with other parts because of peer installation.	
 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-84, "Component Function Check".	
Is the inspection result normal?	A
YES >> GO TO 3.	_
NO >> Repair or replace the malfunction parts.	
3.CHECK TILT MOTOR	
Check tilt motor. Refer to ADP-123, "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-44, "Intermittent Incident". NO >> GO TO 1.	
STEERING TELESCOPIC	
STEERING TELESCOPIC : Diagnosis Procedure	INFOID:000000011258055
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?	
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YES >> GO TO 2.

< SYMPTOM DIAGNOSIS >

NO >> Repair or replace the malfunction parts.

2. CHECK TELESCOPIC SWITCH

Check telescopic switch.

Refer to ADP-84, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

3.CHECK TELESCOPIC MOTOR

Check telescopic motor.

Refer to ADP-123, "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-44, "Intermittent Incident".

NO >> GO TO 1.

DOOR MIRROR

DOOR MIRROR : Diagnosis Procedure

INFOID:0000000011258056

1. CHECK DOOR MIRROR MECHANISM

Check for the following.

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

2.check power window main switch (door mirror remote control switch)

Check mirror switch and change over switch.

Refer to <u>ADP-91</u>, "MIRROR <u>SWITCH</u>: <u>Component Function Check"</u> (mirror switch), <u>ADP-90</u>, "<u>CHANGEOVER SWITCH</u>: <u>Component Function Check"</u> (change over switch).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

3.CHECK DOOR MIRROR MOTOR

Check door mirror motor.

Refer to ADP-127, "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-44, "Intermittent Incident".

NO >> GO TO 1.

< SYMPTOM DIAGNOSIS > MEMORY FUNCTION DOES NOT OPERATE Α ALL COMPONENT ALL COMPONENT : Diagnosis Procedure INFOID:0000000011258057 В 1. CHECK MANUAL OPERATION Check manual operation. Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunction parts. D 2.perform initialization and memory storing procedure Perform initialization procedure. Refer to ADP-58, "SYSTEM INITIALIZATION: Special Repair Requirement". Е Perform memory storing procedure. Refer to ADP-59, "MEMORY STORING: Special Repair Requirement". 3. Check memory function. Refer to ADP-16, "MEMORY FUNCTION: System Description". Is the inspection result normal? >> Memory function is normal. NO >> GO TO 3. 3. CHECK SEAT MEMORY SWITCH Check seat memory switch. Refer to v. Is the inspection result normal? >> GO TO 4. NO >> Replace seat memory switch. 4.CONFIRM THE OPERATION ADP Confirm the operation again. Is the result normal? >> Check intermittent incident. Refer to GI-44, "Intermittent Incident". YES NO >> GO TO 1. SEAT SLIDING SEAT SLIDING: Diagnosis Procedure INFOID:0000000011258058 1. CHECK MANUAL OPERATION Check manual operation. Is the inspection result normal? YES >> GO TO 2. Ν NO >> Refer to ADP-133, "SEAT SLIDING: Diagnosis Procedure" 2.CHECK SLIDING SENSOR Check sliding sensor. Refer to ADP-96, "Component Function Check". Is the inspection result normal? Р YFS >> GO TO 3. NO >> Repair or replace the malfunction parts. 3.CONFIRM THE OPERATION Check the operation again. Is the result normal?

>> Check intermittent incident. Refer to GI-44, "Intermittent Incident".

< SYMPTOM DIAGNOSIS >

NO >> GO TO 1.

SEAT RECLINING

SEAT RECLINING : Diagnosis Procedure

INFOID:0000000011258059

1. CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to ADP-133, "SEAT RECLINING: Diagnosis Procedure"

CHECK RECLINING SENSOR

Check reclining sensor.

Refer to ADP-96, "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-44, "Intermittent Incident".

NO >> GO TO 1.

SEAT LIFTING (FRONT)

SEAT LIFTING (FRONT): Diagnosis Procedure

INFOID:0000000011258060

1. CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to ADP-134, "SEAT LIFTING (FRONT): 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-74, "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 (FRONT)

Check lifting sensor (front).

Refer to ADP-100, "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-44, "Intermittent Incident".

NO >> GO TO 1.

SEAT LIFTING (REAR)

< SYMPTOM DIAGNOSIS >	
SEAT LIFTING (REAR) : Diagnosis Procedure	INFOID:0000000011258061
1.CHECK MANUAL OPERATION	
Check manual operation.	
s the inspection result normal?	
YES >> GO TO 2. NO >> Refer to ADP-134, "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-74, "LIFTING SENSOR CONTROL UNIT: Diagnosis Procedure".	
s 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 <u>ADP-103, "Component_Function_Check"</u> .	
s the inspection result normal?	
YES >> GO TO 4.	
NO >> Repair or replace the malfunction parts. 1. CONFIRM THE OPERATION	
Check the operation again. s the result normal?	
YES >> Check intermittent incident. Refer to GI-44, "Intermittent Incident".	
NO >> GO TO 1.	
STEERING TILT	
STEERING TILT : Diagnosis Procedure	INFOID:0000000011258062
1.CHECK MANUAL OPERATION	
Check manual operation.	
s the inspection result normal?	
YES >> GO TO 2. NO >> Refer to ADP-135. "STEERING TILT : Diagnosis Procedure"	
NO >> Refer to ADP-135, "STEERING TILT: Diagnosis Procedure" 2.CHECK TILT SENSOR	
Check steering tilt sensor. Refer to <u>ADP-106, "Component_Function_Check"</u> .	
s the inspection result normal?	
YES >> GO TO 3.	
NO >> Repair or replace the malfunction parts.	
3.CONFIRM THE OPERATION	
Check the operation again.	
<u>Is the result normal?</u> YES >> Check intermittent incident. Refer to GI-44, "Intermittent Incident".	
NO >> GO TO 1.	
STEERING TELESCOPIC	
STEERING TELESCOPIC : Diagnosis Procedure	INFOID:0000000011258063
1.CHECK MANUAL OPERATION	

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< SYMPTOM DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to ADP-135, "STEERING TELESCOPIC : Diagnosis Procedure"

2. CHECK TELESCOPIC SENSOR

Check steering telescopic sensor.

Refer to ADP-108, "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-44, "Intermittent Incident".

NO >> GO TO 1.

DOOR MIRROR

DOOR MIRROR: Diagnosis Procedure

INFOID:0000000011258064

1. CHECK MANUAL OPERATION

Check manual operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to ADP-136, "DOOR MIRROR : Diagnosis Procedure"

2. CHECK MIRROR SENSOR

Check mirror sensor.

Refer to ADP-111, "DRIVER SIDE: Component Function Check". (Driver side)

Refer to ADP-111, "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-44, "Intermittent Incident".

NO >> GO TO 1.

ENTRY/EXIT ASSIST FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

< SYMPTOM DIAGNOSIS > ENTRY/EXIT ASSIST FUNCTION DOES NOT OPERATE	
Diagnosis Procedure	Α
1.CHECK SYSTEM SETTING	
1. Check system setting.	В
Refer to ADP-60, "SYSTEM SETTING: Special Repair Requirement". 2. Check the operation.	C
Is the inspection result normal?	
YES >> Entry/Exit function is OK. NO >> GO TO 2.	D
2.PERFORM SYSTEM INITIALIZATION	
Perform system initialization. Refer to ADP-58, "SYSTEM INITIALIZATION: Special Repair Requirement".	Е
2. Check the operation.	
Is the inspection result normal? YES >> Entry/Exit function is OK.	F
NO $>>$ GO TO 3. 3.CHECK FRONT DOOR SWITCH (DRIVER SIDE)	
Check front door switch (driver side).	G
Refer to <u>DLK-87, "Component Function Check"</u> . <u>Is the inspection result normal?</u>	Н
YES >> GO TO 4.	
NO \Rightarrow Repair or replace the malfunction parts. 4.CONFIRM THE OPERATION	ı
Confirm the operation again.	
<u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-44, "Intermittent Incident"</u> .	ADP
YES >> Check intermittent incident. Refer to GI-44, "Intermittent Incident". NO >> GO TO 1.	
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SEAT SYNCHRONIZATION FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

SEAT SYNCHRONIZATION FUNCTION DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000011258066

1. CHECK SYSTEM SETTING

Check system setting.

Refer to ADP-60, "SYSTEM SETTING: Special Repair Requirement".

Is the inspection result normal?

YES >> Synchronization function is normal.

NO >> GO TO 2.

2.CONFIRM THE OPERATION

Check the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-44, "Intermittent Incident".

NO >> GO TO 1.

INTELLIGENT KEY INTERLOCK FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS > INTELLIGENT KEY INTERLOCK FUNCTION DOES NOT OPERATE Α **Diagnosis Procedure** INFOID:0000000011258067 1. PERFORM INTELLIGENT KEY INTERLOCK STORING PROCEDURE В Perform Intelligent Key interlock storing procedure. Refer to ADP-59, "INTELLIGENT KEY INTERLOCK STORING: Special Repair Requirement". 2. Check the operation. Is the inspection result normal? >> Intelligent Key interlock function is normal. NO >> GO TO 2. D 2. CHECK DOOR LOCK FUNCTION Check door lock function. Е Refer to DLK-69, "Work Flow". Is the inspection result normal? YES >> GO TO 3. F 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-44, "Intermittent Incident". Н NO >> GO TO 1. ADP K L M

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MEMORY INDICATE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

MEMORY INDICATE DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000011258068

1. CHECK MEMORY INDICATOR

Check memory indicator.

Refer to ADP-130, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunction parts.

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-44, "Intermittent Incident".

NO >> GO TO 1.

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

NORMAL OPERATING CONDITION

Description INFOID:0000000011258069

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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-58
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-60
Telescopic does not operate by entry/exit assist function.	Telescopic is not interlocked with entry/ exit assist function.	_	Exit assist function: <u>ADP-18</u>
			Entry assist function: <u>ADP-19</u>
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
Seat synchronization function does not operate.	Either the entry/exit assist function (seat) or the entry/exit assist function (steering) is disabled.	Enable both functions.	ADP-60
	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-15
Memory function, entry/exit assist function, seat synchronization function, or Intelligent Key interlock function does not operate.	The operating conditions are not fulfilled.	Fulfill the operation conditions.	Seat synchronization function: ADP-14
			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

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DRIVER SEAT CONTROL UNIT

< REMOVAL AND INSTALLATION >

REMOVAL AND INSTALLATION

DRIVER SEAT CONTROL UNIT

Removal and Installation

INFOID:0000000011258070

REMOVAL

CAUTION:

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

- 1. Remove the driver seat. Refer to <u>SE-125, "Removal and Installation"</u>.
- 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 <u>ADP-57, "ADDI-TIONAL SERVICE WHEN REPLACING CONTROL UNIT: Description"</u>.

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

< REMOVAL AND INSTALLATION >

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Removal and Installation

INFOID:0000000011258071

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REMOVAL

CAUTION:

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

- 1. Remove the instrument lower panel LH. Refer to IP-13, "Removal and Installation".
- 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-57</u>, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Description".
- After installing the driver seat, perform additional service when removing battery negative terminal. Refer to <u>ADP-57, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Description".</u>

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LIFTING SENSOR CONTROL UNIT

< REMOVAL AND INSTALLATION >

LIFTING SENSOR CONTROL UNIT

Removal and Installation

INFOID:0000000011258072

REMOVAL

CAUTION:

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

- Remove driver seat control unit. Refer to <u>ADP-146, "Removal and Installation"</u>.
- 2. 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 <u>ADP-57</u>. "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Description".
- After installing the driver seat, perform additional service when removing battery negative terminal. Refer to ADP-57, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Description".

SEAT MEMORY SWITCH

< REMOVAL AND INSTALLATION >

SEAT MEMORY SWITCH

Removal and Installation

INFOID:0000000011258073

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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-57</u>, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Description".

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POWER SEAT SWITCH

< REMOVAL AND INSTALLATION >

POWER SEAT SWITCH

Removal and Installation

INFOID:0000000011258074

REMOVAL

CAUTION:

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

- 1. Remove the front seat (driver side). Refer to <u>SE-125. "Removal and Installation"</u>.
- Remove the seat cushion outer finisher. Refer to <u>SE-128, "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 ADP-57, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Description".

TILT&TELESCOPIC SWITCH

< REMOVAL AND INSTALLATION >

TILT&TELESCOPIC SWITCH

Removal and Installation

INFOID:0000000011258075

REMOVAL

CAUTION:

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

- Remove the steering column lower cover. Refer to <u>IP-13, "Removal and Installation"</u>.
- 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-57</u>, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Description".

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