SECTION ADP
AUTOMATIC DRIVE POSITIONER

CONTENTS

PRECAUTION

PRECAUTIONS

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

INFOID:0000000013465608

The Supplemental Restraint System such as “AIR BAG” and “SEAT BELT PRE-TENSIONER”, used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

WARNING:

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

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

WARNING:

- **When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.**
- **When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery or batteries, and wait at least three minutes before performing any service.**

Precaution for Work

INFOID:0000000013057194

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with a new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components:

- Water soluble dirt:

- Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area.
- Then rub with a soft, dry cloth.

- Oily dirt:

- Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%) and wipe the dirty area.
- Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off.
- Then rub with a soft, dry cloth.

- Do not use organic solvent such as thinner, benzene, alcohol or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

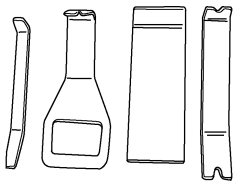
PREPARATION

PREPARATION

Special Service Tool

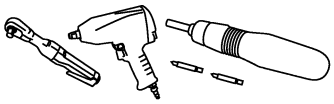
INFOID:0000000012545783

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

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

Commercial Service Tools

INFOID:0000000012545784

Tool name	Description
Power tool  PIIB1407E	Loosening nuts, screws and bolts

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

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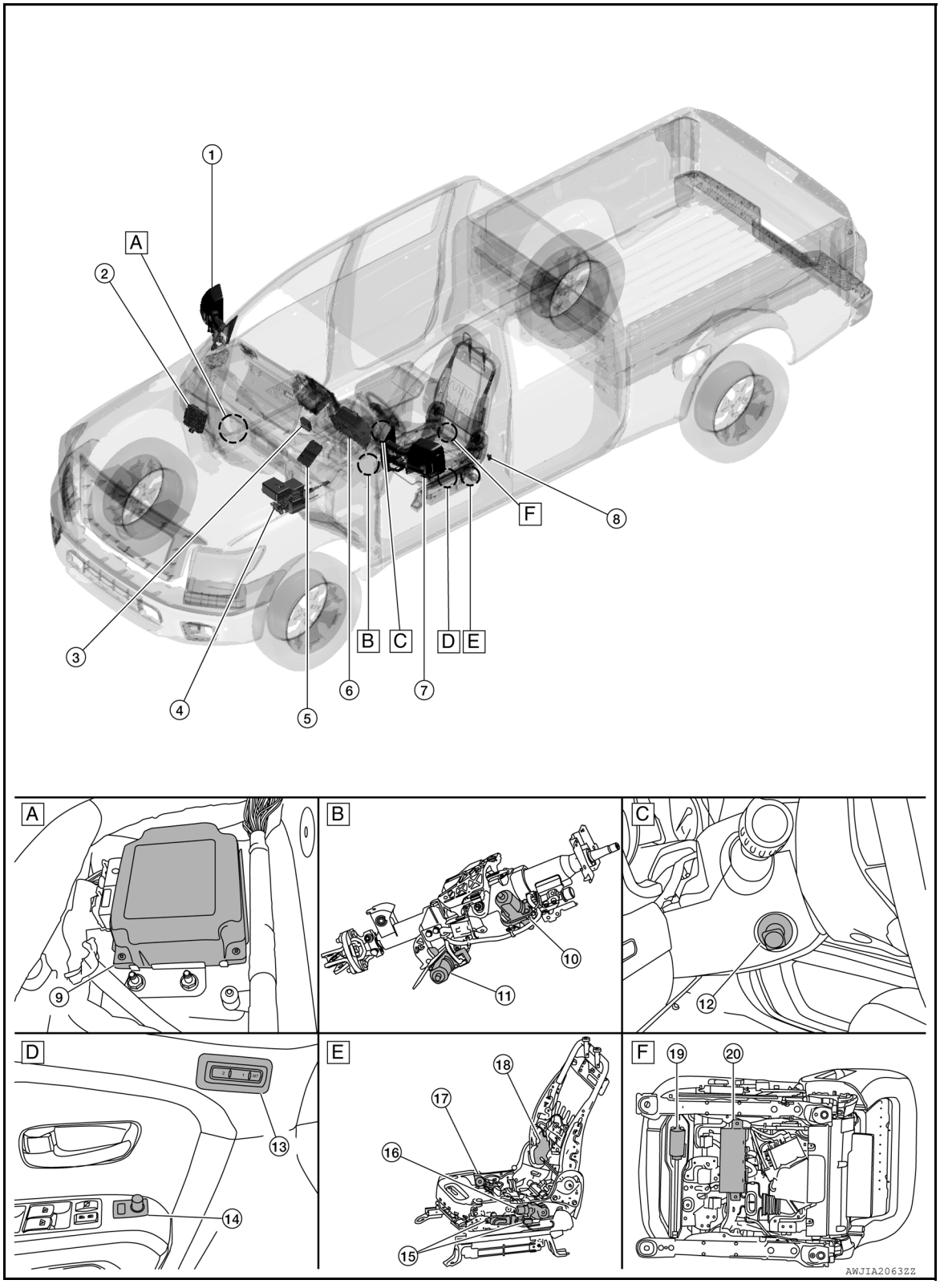

A. RH front floor (view with carpet removed)
B. Steering column (view with steering column removed)
C. Left hand side of steering column
D. View of left front door finisher
E. LH side of driver seat (view with seat disassembled)
F. Driver seat bottom (view with seat removed)

No.	Component		Function
1.	Door mirror (LH)	Door mirror motor	• Makes mirror face operate from side to side and up and down with the electric power that automatic drive positioner control unit supplies. • Refer to MIR-5, "Component Parts Location" for detailed installation location.
		Mirror sensor	• Mirror sensor is installed to door mirror. • The resistance of 2 sensors (horizontal and vertical) is changed when door mirror is operated. • Automatic drive positioner control unit calculates door mirror position according to the change of the voltage of 2 sensor input terminals. • Refer to MIR-5, "Component Parts Location" for detailed installation location.
2.	IPDM E/R		• Transmits the detention switch signal to driver seat control unit via CAN communication. • Refer to PCS-5, "Component Parts Location" for detailed installation location.
3.	Automatic drive positioner control unit		• Refer to ADP-13, "Automatic Drive Positioner Control Unit".
4.	ABS actuator and electric unit (control unit)		• Transmits the vehicle speed signal to driver seat control unit via CAN communication. • Refer to BRC-9, "Component Parts Location" for detailed installation location.
5.	BCM		• Recognizes the following statuses and transmits them to driver seat control unit via CAN communication: • Handle position: LHD • Driver door: OPEN/CLOSE • Ignition switch position: ACC/ON • Door lock: UNLOCK (with Intelligent Key or driver side door request switch operation) • Key ID • Starter: CRANKING/OTHER • Refer to BCS-5, "BODY CONTROL SYSTEM : Component Parts Location" for detailed installation location.
6.	Combination meter		• Transmits the vehicle speed signal to driver seat control unit via CAN communication.
7.	Door mirror (RH)	Door mirror motor	• Makes mirror face operate from side to side and up and down with the electric power that automatic drive positioner control unit supplies. • Refer to MIR-5, "Component Parts Location" for detailed installation location.
		Mirror sensor	• Mirror sensor is installed to door mirror. • The resistance of 2 sensors (horizontal and vertical) is changed when door mirror is operated. • Automatic drive positioner control unit calculates door mirror position according to the change of the voltage of 2 sensor input terminals. • Refer to MIR-5, "Component Parts Location" for detailed installation location.
8.	Front door switch (LH)		• Detects door open/close condition and transmits it to BCM. Refer to DLK-9, "POWER DOOR LOCK SYSTEM : Component Parts Location" for detailed installation location.
4.	A/T assembly		• Refer to TM-265, "A/T CONTROL SYSTEM : Component Parts Location".

No.	Component		Function
10.	Telescopic motor	Tilt motor	• Refer to ADP-14, "Tilt & Telescopic Motor".
		Tilt sensor	
11.	Tilt motor	Tilt motor	• Refer to ADP-14, "Tilt & Telescopic Motor".
		Tilt sensor	
12.	ADP steering switch		• Refer to ADP-14, "ADP Steering Switch".
13.	Seat memory switch		• Refer to ADP-13, "Seat Memory Switch".
14.	Door mirror remote control switch	Mirror switch	• Mirror switch is integrated in door mirror remote control switch. • It operates angle of door mirror face. • It transmits mirror face adjust operation to automatic drive positioner control unit. • Refer to MIR-5, "Component Parts Location" for detailed installation location.
		Select switch	• Select switch is integrated in door mirror remote control switch. • Select switch has three positions (L, N and R). • It changes operating door mirror motor by transmitting control signal to automatic drive positioner control unit. • Refer to MIR-5, "Component Parts Location" for detailed installation location.
15.	Power seat switch LH	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.
16.	Lifting motor LH (rear)	Lifting motor	• Lifting motor (rear) is installed to seat frame assembly (driver side). • Lifting motor (rear) is activated with driver seat control unit. • Lifting motor (rear) is moved upward/downward by changing the rotation direction of lifting motor (rear).
		Lifting sensor	• 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.
17.	Lifting motor LH (front)	Lifting motor	• Lifting motor (front) is installed to seat frame assembly (driver side). • Lifting motor is activated with driver seat control unit. • Lifting motor (front) is moved upward/downward by changing the rotation direction of lifting motor (front).
		Lifting sensor	• Lifting sensor (front) is installed in lifting motor (front). • When lifting motor (front) operates, pulse signal is transmitted to driver seat control unit from lifting sensor. Driver seat control unit counts the pulse and calculates the lift position (front) of the seat.
18.	Reclining motor LH	Reclining motor	• Reclining motor is installed to seat back frame. • Reclining motor is activated with driver seat control unit. • Seatback is reclined forward/backward 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.

No.	Component		Function
19.	Sliding motor LH	Sliding motor	• Sliding motor is installed to the seat cushion frame. • Sliding motor is activated with driver seat control unit. • Slides the seat forward/backward 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.
20.	Driver seat control unit		• Refer to ADP-13, "Driver Seat Control Unit".

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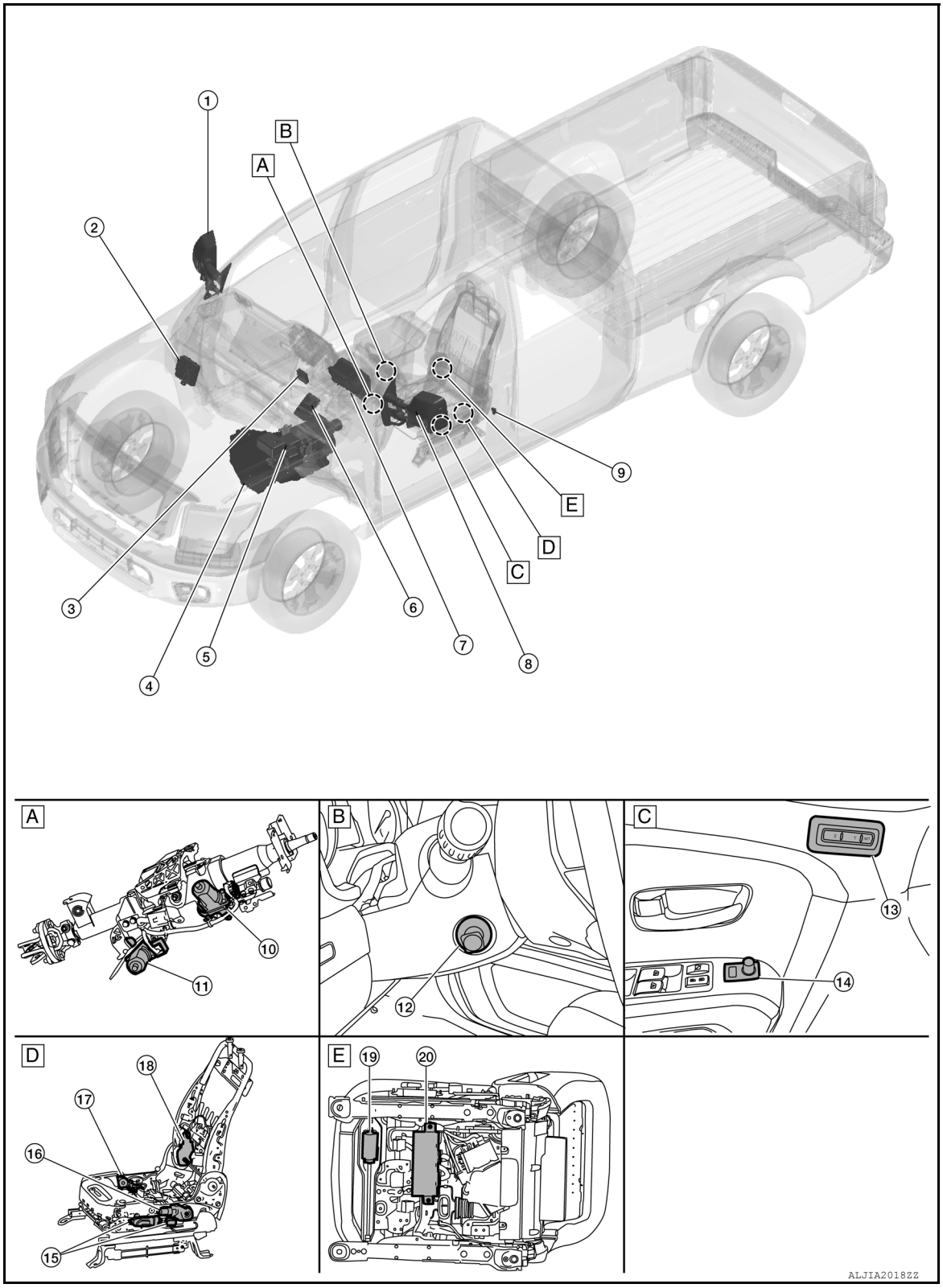


A. Steering column (view with steering column removed)
B. Left hand side of steering column
C. View of left front door finisher
D. LH side of driver seat (view with seat disassembled)
E. Driver seat bottom (view with seat removed)

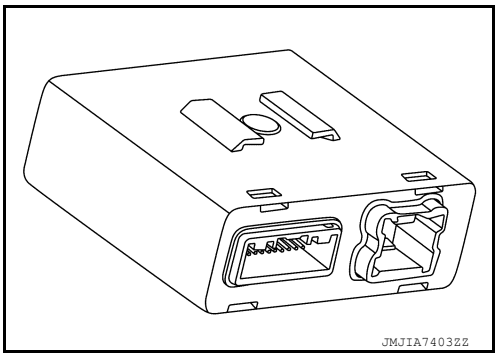
No.	Component		Function
1.	Door mirror (LH)	Door mirror motor	• Makes mirror face operate from side to side and up and down with the electric power that automatic drive positioner control unit supplies. • Refer to MIR-5, "Component Parts Location" for detailed installation location.
		Mirror sensor	• Mirror sensor is installed to door mirror. • The resistance of 2 sensors (horizontal and vertical) is changed when door mirror is operated. • Automatic drive positioner control unit calculates door mirror position according to the change of the voltage of 2 sensor input terminals. • Refer to MIR-5, "Component Parts Location" for detailed installation location.
2.	IPDM E/R		• Transmits the detention switch signal to driver seat control unit via CAN communication. • Refer to PCS-5, "Component Parts Location" for detailed installation location.
3.	Automatic drive positioner control unit		• Refer to ADP-13, "Automatic Drive Positioner Control Unit".
4.	A/T assembly		• Refer to TM-265, "A/T CONTROL SYSTEM : Component Parts Location".
5.	ABS actuator and electric unit (control unit)		• Transmits the vehicle speed signal to driver seat control unit via CAN communication. • Refer to BRC-9, "Component Parts Location" for detailed installation location.
6.	BCM		• Recognizes the following statuses and transmits them to driver seat control unit via CAN communication: • Handle position: LHD • Driver door: OPEN/CLOSE • Ignition switch position: ACC/ON • Door lock: UNLOCK (with Intelligent Key or driver side door request switch operation) • Key ID • Starter: CRANKING/OTHER • Refer to BCS-5, "BODY CONTROL SYSTEM : Component Parts Location" for detailed installation location.
7.	Combination meter		• Transmits the vehicle speed signal to driver seat control unit via CAN communication.
8.	Door mirror (RH)	Door mirror motor	• Makes mirror face operate from side to side and up and down with the electric power that automatic drive positioner control unit supplies. • Refer to MIR-5, "Component Parts Location" for detailed installation location.
		Mirror sensor	• Mirror sensor is installed to door mirror. • The resistance of 2 sensors (horizontal and vertical) is changed when door mirror is operated. • Automatic drive positioner control unit calculates door mirror position according to the change of the voltage of 2 sensor input terminals. • Refer to MIR-5, "Component Parts Location" for detailed installation location.
9.	Front door switch (LH)		• Detects door open/close condition and transmits it to BCM. Refer to DLK-9, "POWER DOOR LOCK SYSTEM : Component Parts Location" for detailed installation location.
10.	Telescopic motor	Tilt motor	• Refer to ADP-14, "Tilt & Telescopic Motor".
		Tilt sensor	
11.	Tilt motor	Tilt motor	• Refer to ADP-14, "Tilt & Telescopic Motor".
		Tilt sensor	

No.	Component		Function
12.	ADP steering switch		• Refer to ADP-14, "ADP Steering Switch".
13.	Seat memory switch		• Refer to ADP-13, "Seat Memory Switch".
14.	Door mirror remote control switch	Mirror switch	• Mirror switch is integrated in door mirror remote control switch. • It operates angle of door mirror face. • It transmits mirror face adjust operation to automatic drive positioner control unit. • Refer to MIR-5, "Component Parts Location" for detailed installation location.
		Select switch	• Select switch is integrated in door mirror remote control switch. • Select switch has three positions (L, N and R). • It changes operating door mirror motor by transmitting control signal to automatic drive positioner control unit. • Refer to MIR-5, "Component Parts Location" for detailed installation location.
15.	Power seat switch LH	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.
16.	Lifting motor LH (rear)	Lifting motor	• Lifting motor (rear) is installed to seat frame assembly (driver side). • Lifting motor (rear) is activated with driver seat control unit. • Lifting motor (rear) is moved upward/downward by changing the rotation direction of lifting motor (rear).
		Lifting sensor	• 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.
17.	Lifting motor LH (front)	Lifting motor	• Lifting motor (front) is installed to seat frame assembly (driver side). • Lifting motor is activated with driver seat control unit. • Lifting motor (front) is moved upward/downward by changing the rotation direction of lifting motor (front).
		Lifting sensor	• Lifting sensor (front) is installed in lifting motor (front). • When lifting motor (front) operates, pulse signal is transmitted to driver seat control unit from lifting sensor. Driver seat control unit counts the pulse and calculates the lift position (front) of the seat.
18.	Reclining motor LH	Reclining motor	• Reclining motor is installed to seat back frame. • Reclining motor is activated with driver seat control unit. • Seatback is reclined forward/backward 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.
19.	Sliding motor LH	Sliding motor	• Sliding motor is installed to the seat cushion frame. • Sliding motor is activated with driver seat control unit. • Slides the seat forward/backward 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.
20.	Driver seat control unit		• Refer to ADP-13, "Driver Seat Control Unit".

Automatic Drive Positioner Control Unit

INFOID:0000000013037718

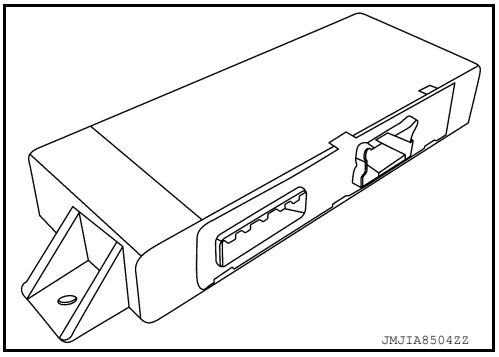
- It communicates with driver seat control unit via UART communication.
- Performs various controls with the instructions of driver seat control unit.
- Performs the controls of tilt & telescopic and door mirror.
- Operates steering column and door mirror with the signal from the driver seat control.



Driver Seat Control Unit

INFOID:0000000013037719

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

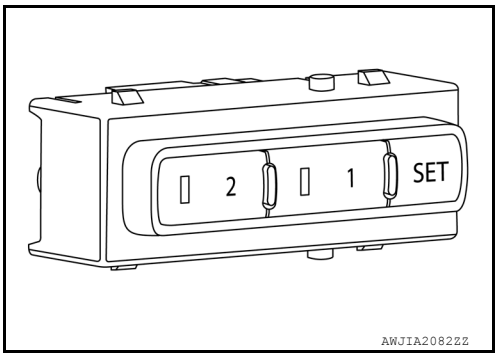


Seat Memory Switch

INFOID:0000000013037720

SET SWITCH

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



SEAT MEMORY SWITCH

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

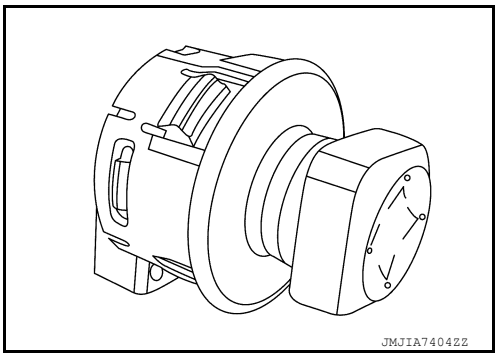
SEAT MEMORY INDICATOR

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

ADP Steering Switch

INFOID:0000000013037721

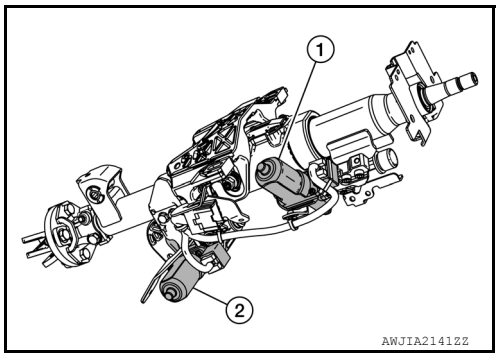
- ADP steering switch is equipped to steering column.
- The operation signal is input to automatic drive positioner control unit when switch is operated.



Tilt & Telescopic Motor

INFOID:0000000013037722

TILT MOTOR



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

TILT SENSOR

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

TELESCOPIC MOTOR

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

TELESCOPIC SENSOR

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

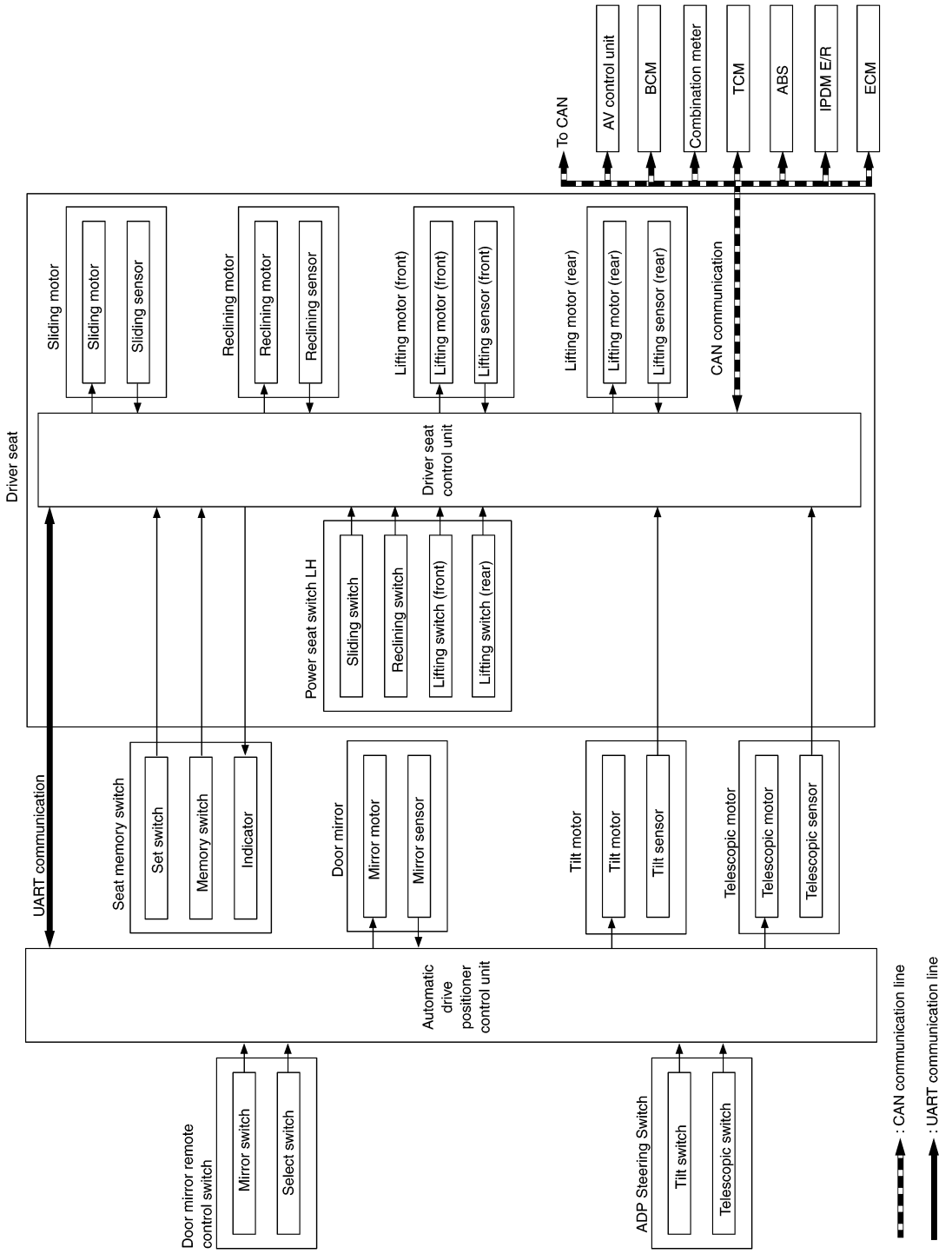
SYSTEM

AUTOMATIC DRIVE POSITIONER SYSTEM

AUTOMATIC DRIVE POSITIONER SYSTEM : System Description

INFOID:0000000013037723

SYSTEM DIAGRAM



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OUTLINE

< SYSTEM DESCRIPTION >

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

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

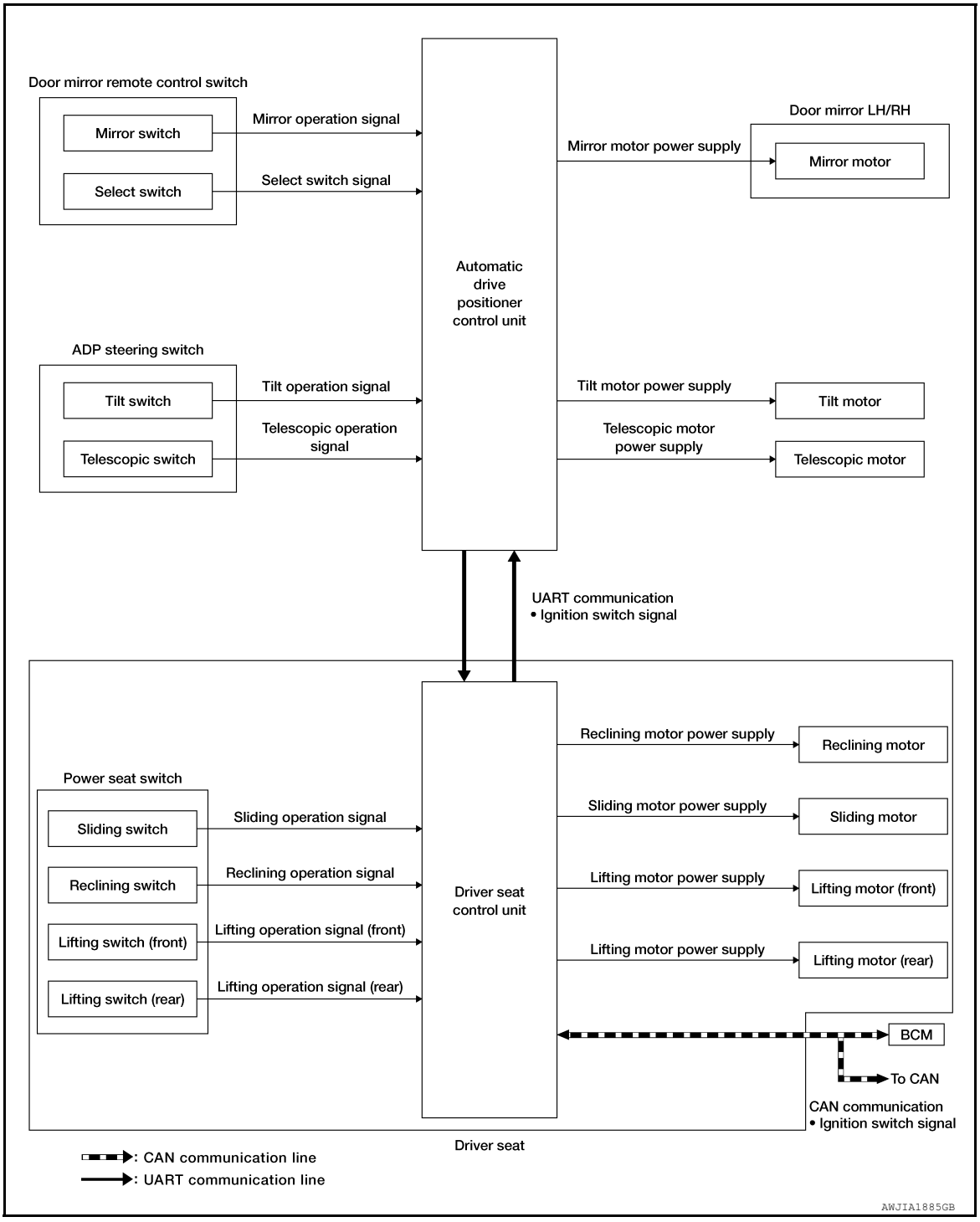
NOTE:
The lumbar support system is controlled independently with no link to the automatic drive positioner system.

MANUAL FUNCTION

MANUAL FUNCTION : System Description

INFOID:0000000013037724

SYSTEM DIAGRAM



DESCRIPTION

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

Operation procedure

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

DETAIL FLOW

Seat

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

Tilt and Telescopic

Order	Input	Output	Control unit condition
1	ADP steering switch	—	The ADP steering switch signal is inputted into the automatic drive positioner control unit when the ADP steering switch is operated.
2	—	Motors (tilt, telescopic)	The automatic drive positioner control unit actuates the motors according to the operation of the ADP steering switch signal.
3	Sensors (tilt, telescopic)	—	The automatic drive positioner control unit recognizes any operation limit of each actuator via each sensor and will not operate the motors anymore at that time.

Door Mirror

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

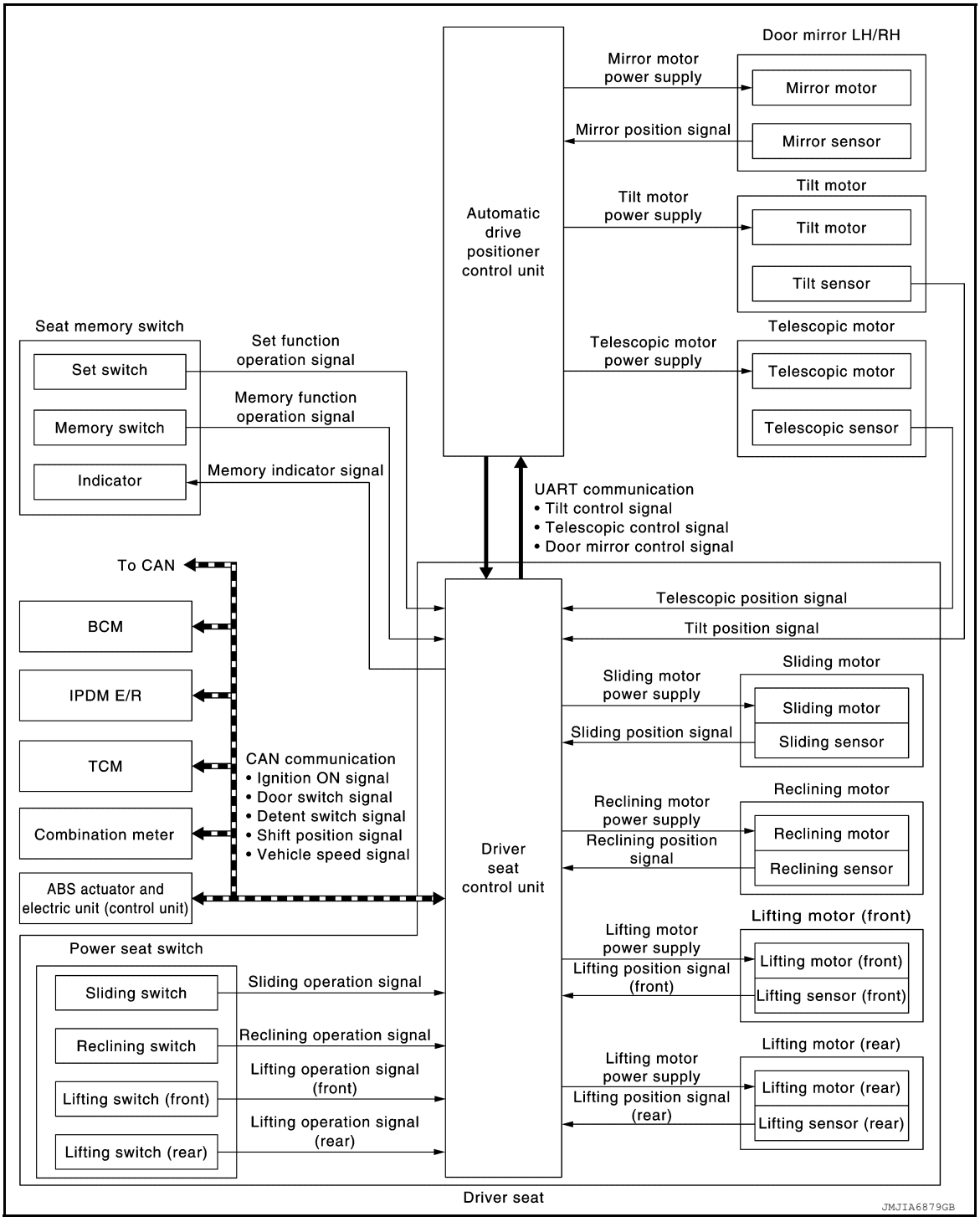
NOTE:
The door mirrors can be operated manually when ignition switch is in either ACC or ON position. The ignition switch signal (ACC/ON) is transmitted from BCM to the driver seat control unit via CAN communication and from the driver seat control unit to the automatic drive positioner control unit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

MEMORY FUNCTION

MEMORY FUNCTION : System Description

INFOID:0000000013037725

SYSTEM DIAGRAM



INPUT SIGNAL AND OUTPUT SIGNAL

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

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

Component	Signal
BCM	Ignition switch signal
ECM	Shift position signal

DESCRIPTION

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

NOTE:

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

Operation Procedure

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

Operation Condition

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

Item	Request status
Switch inputs • Power seat switch • ADP steering switch • Door mirror control switch • Set switch • Seat memory switch	OFF (Not operated)
A/T shift selector	P position

Detail Flow

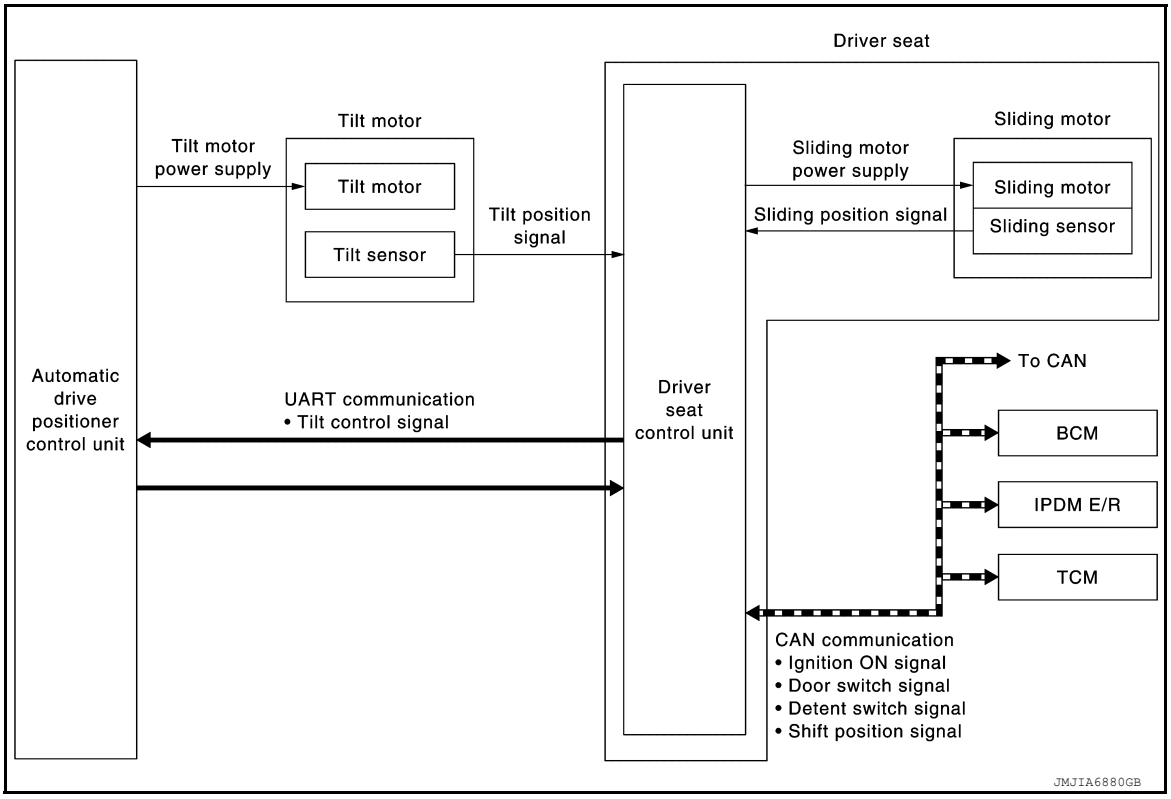
Order	Input	Output	Control unit condition
1	Memory switch	—	The memory switch signal is inputted into the automatic drive positioner control unit when memory switch 1 or 2 is operated.
2	—	Motors (seat, steering, door mirror)	Driver seat control unit operates each motor of seat when it recognizes the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

EXIT ASSIST FUNCTION

EXIT ASSIST FUNCTION : System Description

INFOID:0000000013037726

SYSTEM DIAGRAM



INPUT SIGNAL AND OUTPUT SIGNAL

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

Component	Signal
ABS actuator and electric unit (control unit)	Vehicle speed signal
Combination meter	Vehicle speed signal
BCM	• Ignition switch signal • Door switch signal
ECM	Shift position signal
IPDM E/R	Detention switch signal

DESCRIPTION

When exiting, if the conditions are satisfied, the seat is moved backward from normal sitting position and the steering column is moved up.
The seat slide amount at entry/exit operation can be changed.

NOTE:

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

Operation Procedure

1. Open the front door LH with ignition switch in OFF position.
2. Front seat LH and steering column will move to the exiting position.

Operation Condition

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

Item	Request status
Ignition switch	OFF
System setting [entry/exit assist function]	ON
Initialization	Done
Switch inputs • Power seat switch • ADP steering switch • Door mirror remote control switch • Set switch • Seat memory switch	OFF (Not operated)
A/T shift selector	P position

Detail Flow

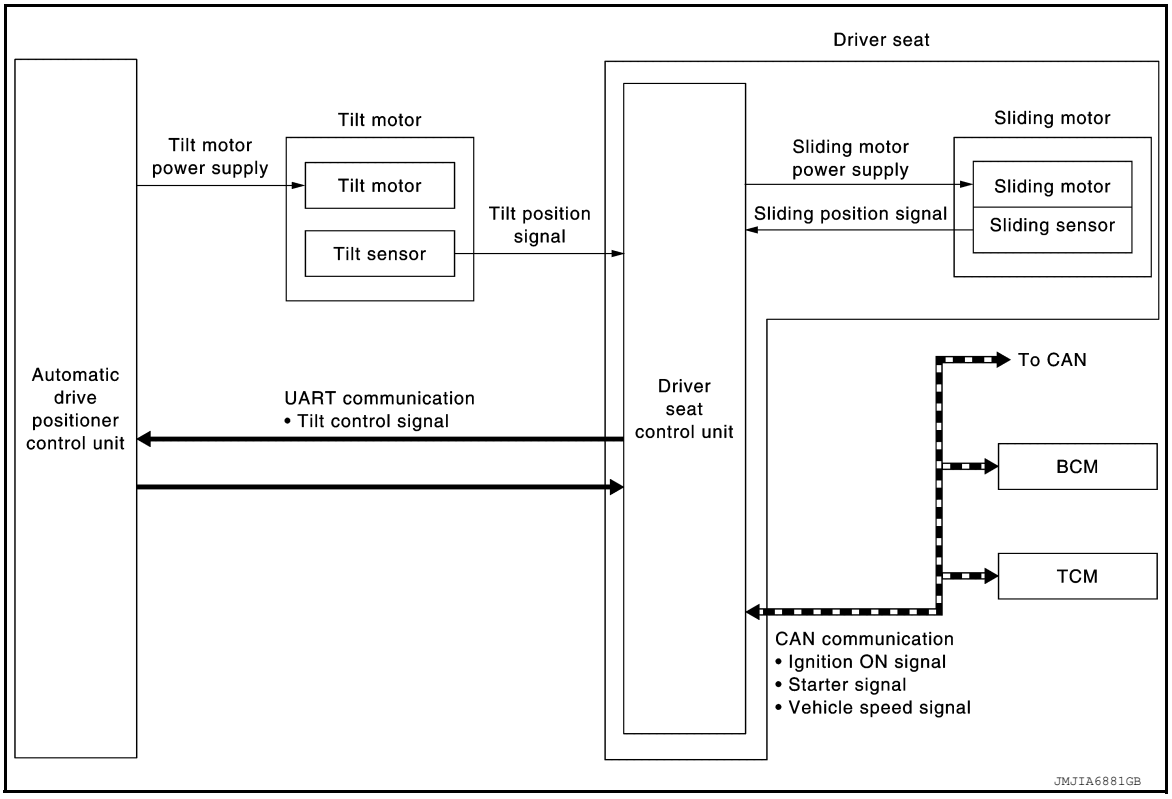
Order	Input	Output	Control unit condition
1	Front door switch LH	—	Driver seat control unit receives front door switch LH signal (open) from BCM via CAN communication.
2	—	Motors (seat sliding LH, tilt)	Driver seat control unit operates the seat sliding motor LH, which recognizes that the driver side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

ENTRY ASSIST FUNCTION

ENTRY ASSIST FUNCTION : System Description

INFOID:0000000013037727

SYSTEM DIAGRAM



INPUT SIGNAL AND OUTPUT SIGNAL

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

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

DESCRIPTION

The seat is in the exiting position when either of the following conditions are satisfied; the seat returns from exiting position to the previous driving position.

NOTE:

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

Operation Procedure

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

Operation Condition

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

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

Detail Flow

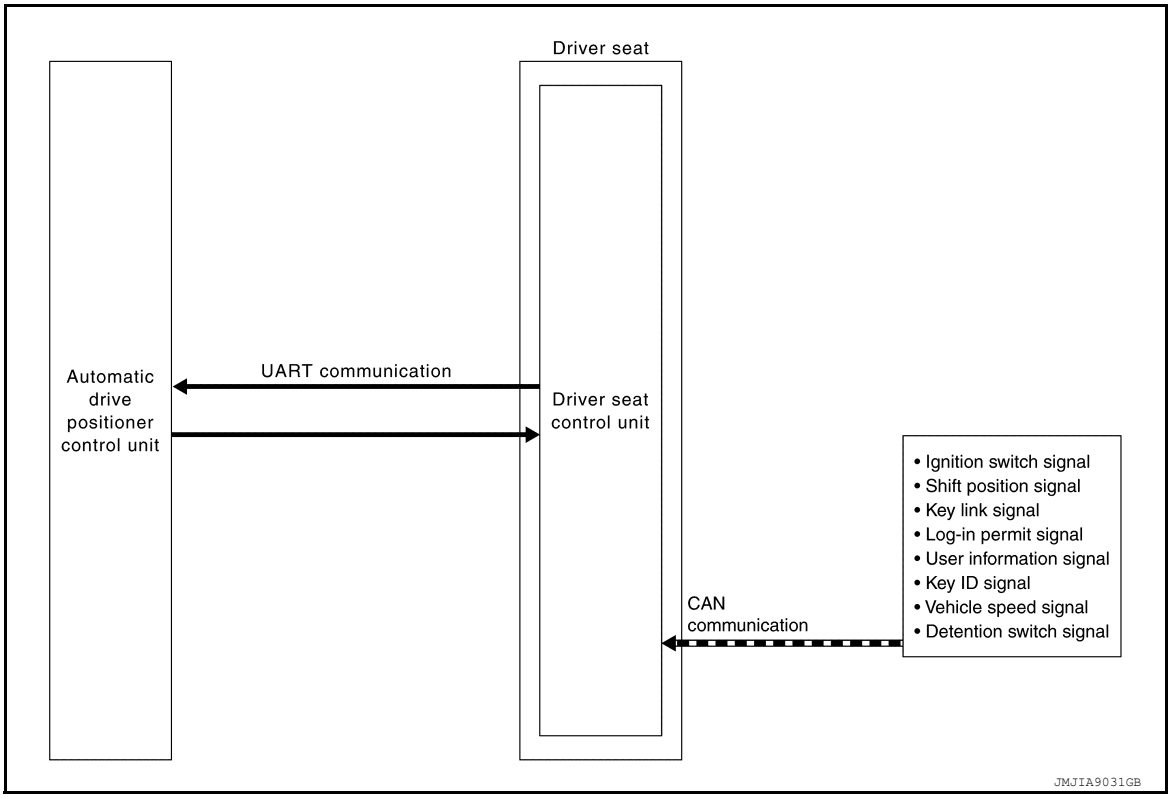
Order	Input	Output	Control unit condition
1	Door switch/Ignition switch	—	Driver seat control unit receives the signals of ignition switch signal and front door switch from BCM via CAN communication.
2	—	Motors (sliding LH, tilt)	Driver seat control unit operates the sliding motor LH when the operating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

LINKING KEY FOB TO THE METER DISPLAY

LINKING KEY FOB TO THE METER DISPLAY : System Description

INFOID:0000000013037728

SYSTEM DIAGRAM



INPUT SIGNAL AND OUTPUT SIGNAL

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

Component	Signal
ABS actuator and electric unit (control unit)	Vehicle speed signal
Combination meter	Vehicle speed signal
BCM	• Ignition switch signal • Key ID signal
ECM	Shift position signal
Chassis control module	• Key link signal • Log-in permit signal
Display control unit	User information signal
IPDM E/R	Detention switch signal

DESCRIPTION

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

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

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

NOTE:

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

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

Operation Procedure

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

Operation Condition

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

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

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

Detail Flow

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

Fail Safe

INFOID:0000000013037729

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

Operating in fail-safe mode	Malfunction Item	Related DTC	Diagnosis
Only manual functions operate normally.	CAN communication	U1000	ADP-65
	CONTROL UNIT	U1010	ADP-66
	EEPROM	B2130	ADP-75

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

DIAGNOSIS SYSTEM (DRIVER SEAT CONTROL UNIT)

CONSULT Function (AUTO DRIVE POS)

INFOID:0000000013051194

CAUTION:
After disconnecting the CONSULT vehicle interface (VI) from the data link connector, the ignition must be cycled OFF → ON (for at least 5 seconds) → OFF. If this step is not performed, the BCM may not go to "sleep mode", potentially causing a discharged battery and a no-start condition.
The auto drive positioner system can be checked and diagnosed for component operation with CONSULT.

APPLICATION ITEMS

Diagnostic mode	Description
ECU IDENTIFICATION	Displays part numbers of driver seat control unit parts.
SELF DIAGNOSTIC RESULT	Performs self-diagnosis for the auto drive positioner system and displays the results.
ACTIVE TEST	Drive each output device.
DATA MONITOR	Displays input signals transmitted from various switches and sensors to driver seat control unit in real time.
WORK SUPPORT	Changes the setting of each function.

SELF-DIAGNOSIS RESULTS

Refer to ADP-25, "Fail Safe".

ACTIVE TEST

CAUTION:
When driving vehicle, do not perform active test.

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

DATA MONITOR

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

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

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

WORK SUPPORT

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

ECU DIAGNOSIS INFORMATION

DRIVER SEAT CONTROL UNIT

Reference Value

INFOID:0000000013051195

VALUES ON THE DIAGNOSIS TOOL

CONSULT MONITOR ITEM

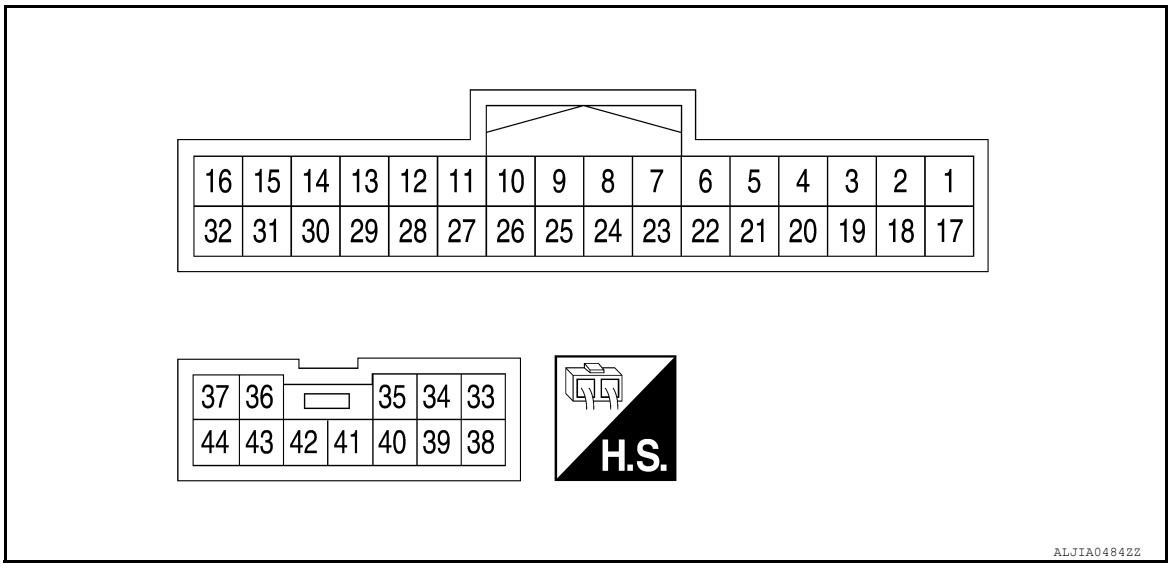
Monitor Item	Condition		Value/Status
DETENT SW	A/T shift selector	P position	OFF
		Other than above	ON
P RANG SW CAN	A/T shift selector	P position	ON
		Other than above	OFF
STARTER SW	Ignition position	Cranking	ON
		Other than above	OFF
R RANGE (CAN)	A/T shift selector	R position	ON
		Other than above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

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

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

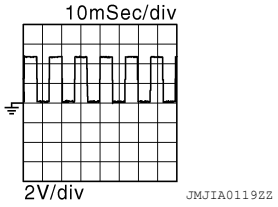
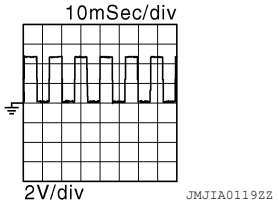
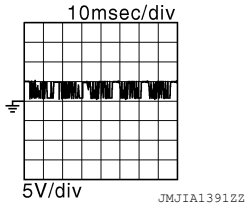
*: The value at the position attained when the battery is connected is regarded as 32768.

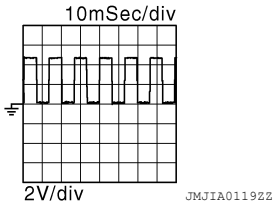
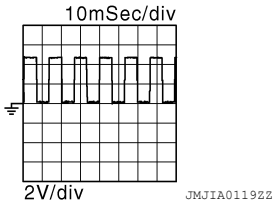
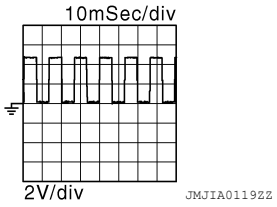
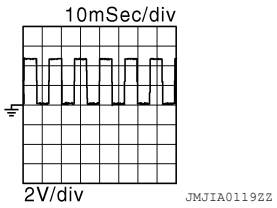
TERMINAL LAYOUT



PHYSICAL VALUES

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

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

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

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

Fail Safe

INFOID:0000000013051196

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

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

DTC Index

INFOID:0000000013051197

CONSULT display	Timing*1		Item	Reference page
	Current malfunction	Previous malfunction		
CAN COMM CIRCUIT [U1000]	0	1-39	CAN communication	ADP-65
CONTROL UNIT [U1010]	0	1-39	Control unit	ADP-66
SEAT SLIDE [B2112]	0	1-39	Seat slide motor output	ADP-67
SEAT RECLINING [B2113]	0	1-39	Seat reclining motor output	ADP-69

CONSULT display	Timing[*1]		Item	Reference page
	Current malfunction	Previous malfunction		
STEERING TILT [B2116]	0	1-39	Tilt motor output	ADP-71
UART COMM [B2128]	0	1-39	UART communication	ADP-73
EEPROM [B2130]	0	1-39	EEPROM	ADP-75

*1:

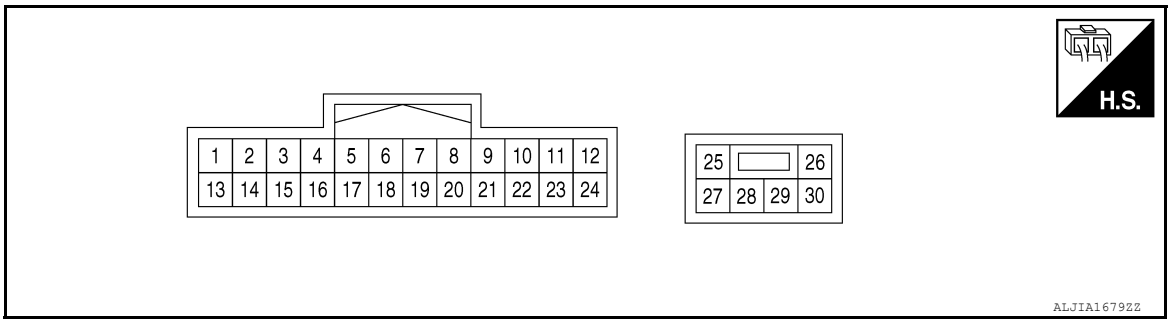
- 0: Current malfunction is present
- 1-39: Displayed if any previous malfunction is present when current condition is normal. The numeral value increases by one at each IGN ON to OFF cycle from 1 to 39. The counter remains at 39 even if the number of cycles exceeds it. However, the counter is reset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

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

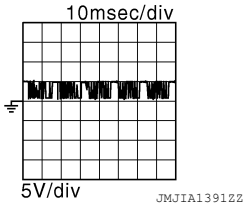
Reference Value

INFOID:0000000013051198

TERMINAL LAYOUT



PHYSICAL VALUES

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

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

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

BCM (BODY CONTROL MODULE)

List of ECU Reference

INFOID:0000000013051199

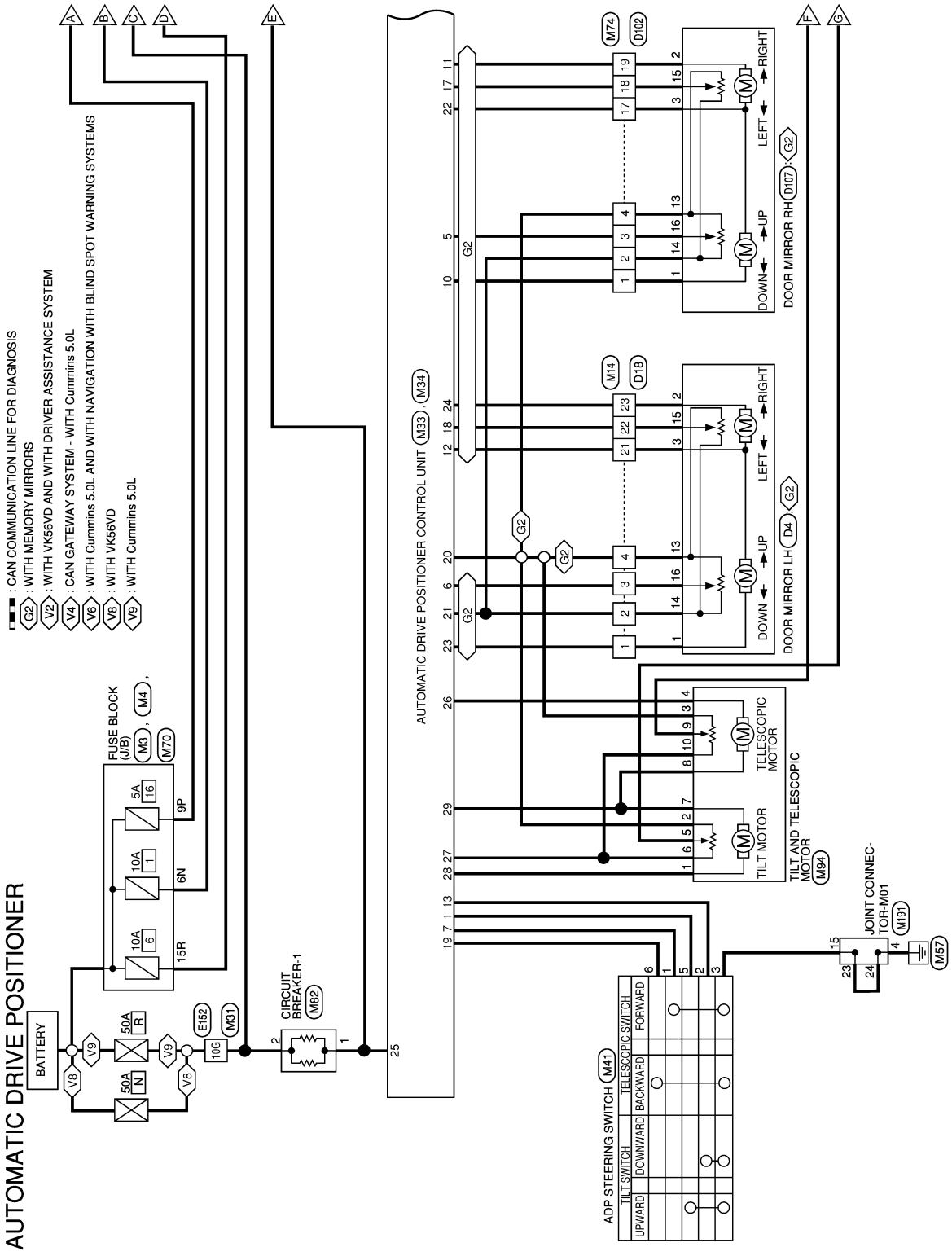
ECU	Reference
BCM	BCS-32, "Reference Value"
	BCS-51, "Fail Safe"
	BCS-51, "DTC Inspection Priority Chart"
	BCS-52, "DTC Index"

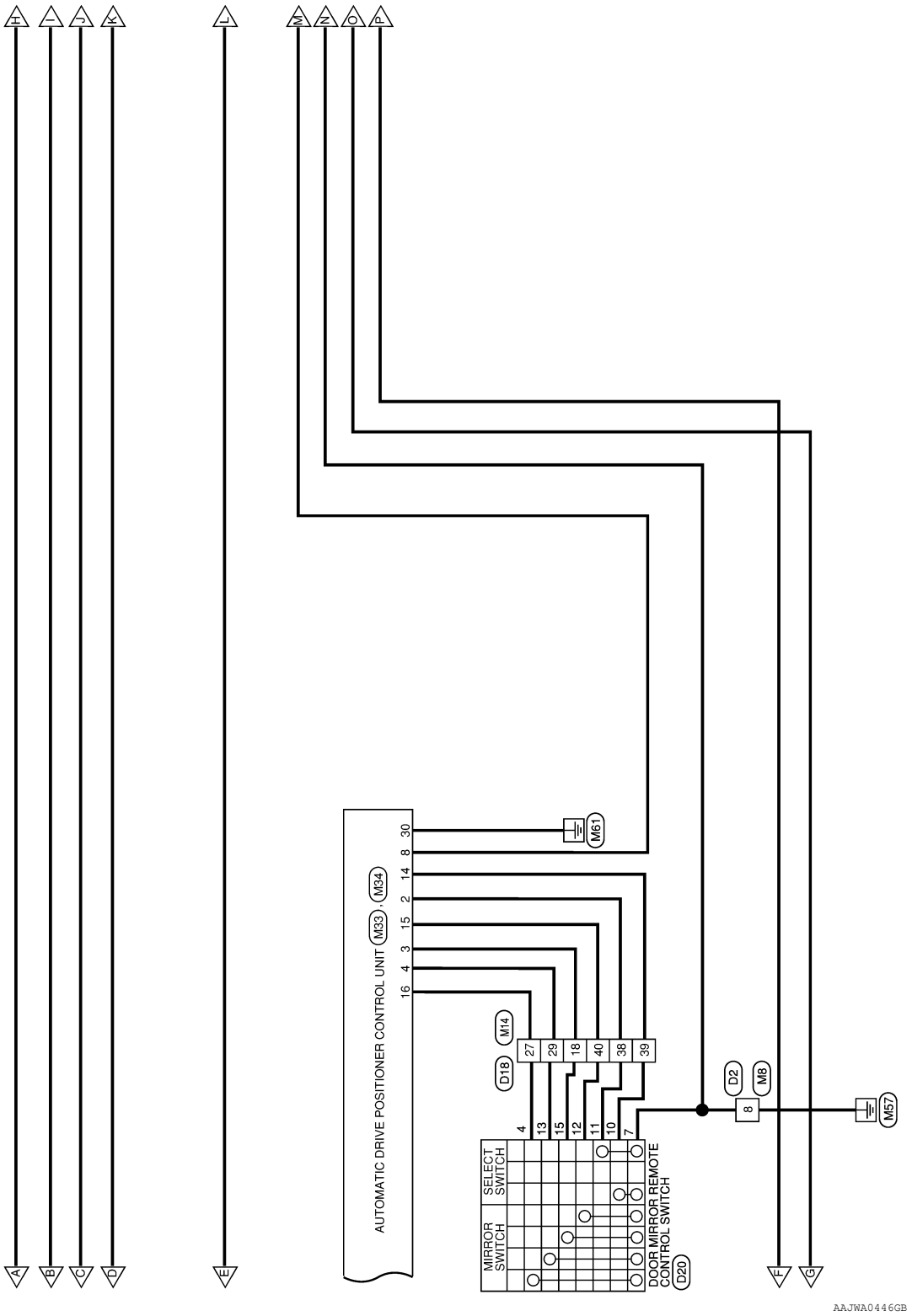
WIRING DIAGRAM

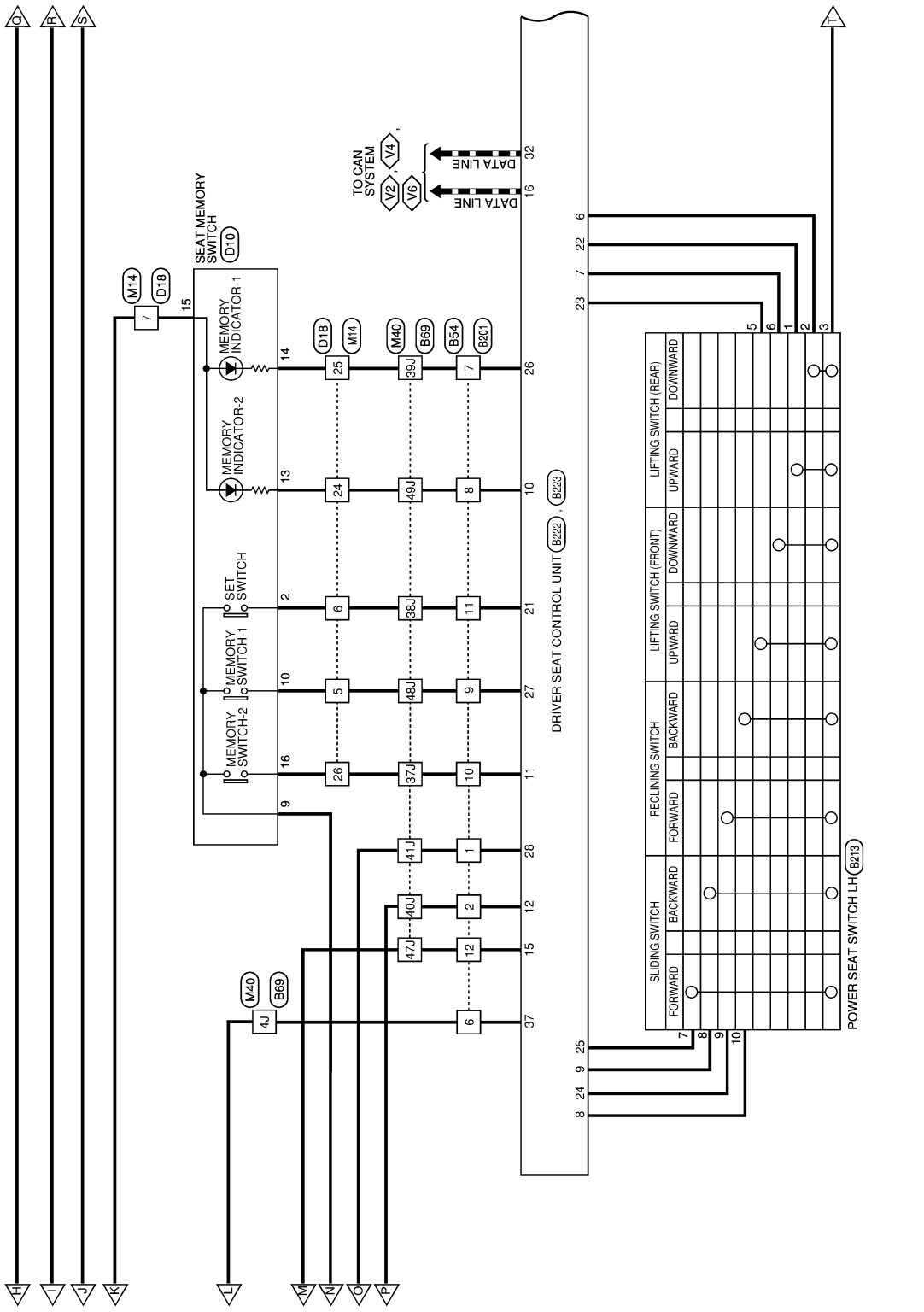
AUTOMATIC DRIVE POSITIONER

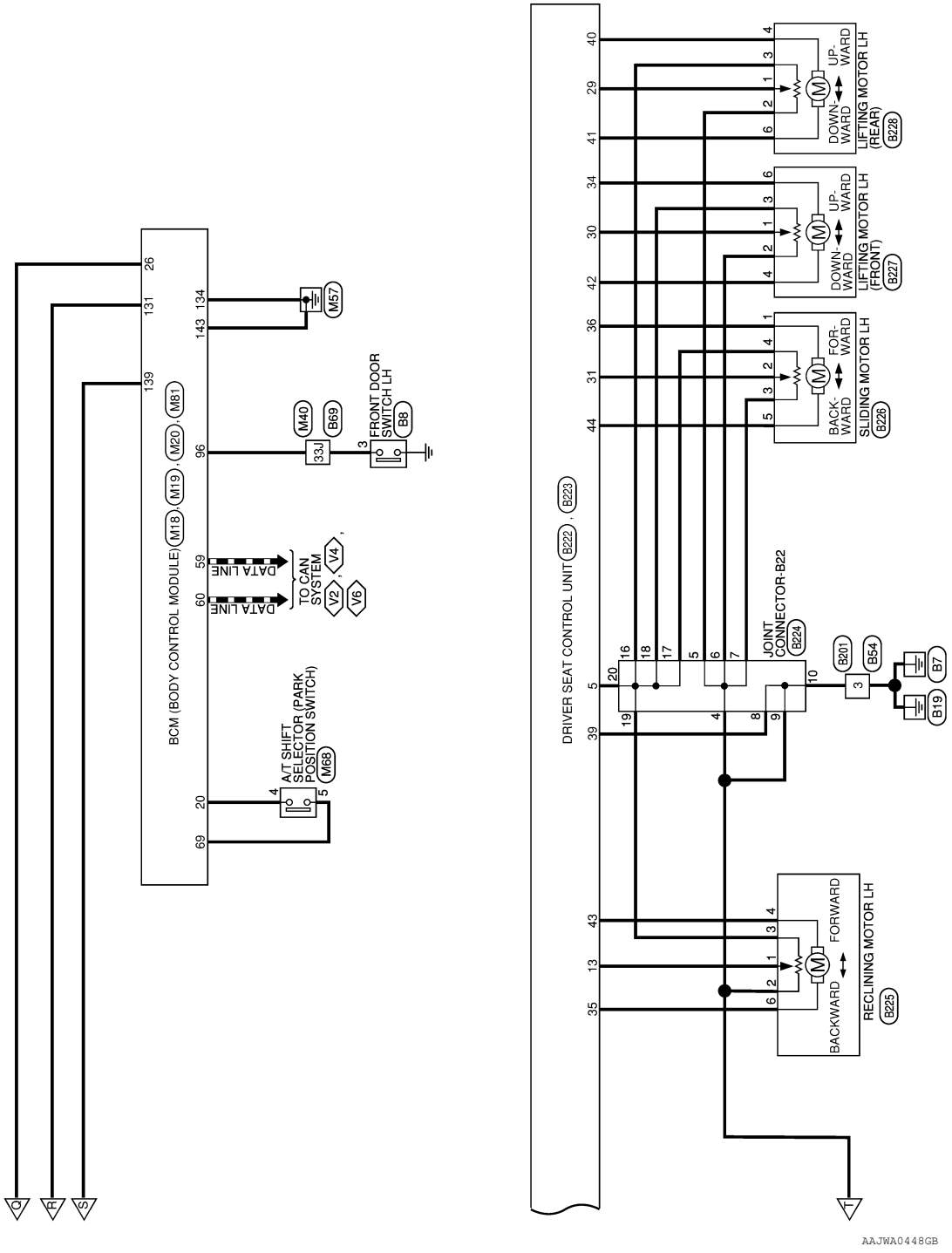
Wiring Diagram

INFOID:0000000012545778




AUTOMATIC DRIVE POSITIONER CONTROL UNIT
M33
M34
30
8
14
2
15
3
4
16
M61
M14
D18
27
29
18
40
38
39
D2
M8
8
M57
4
13
15
12
11
10
7
SELECT SWITCH
MIRROR SWITCH
DOOR MIRROR REMOTE CONTROL SWITCH
D20
A
B
C
D
E
F
G
AAJWA0446GB


TO CAN SYSTEM
V4, V2, V6
DATA LINE
DATA LINE
SEAT MEMORY SWITCH D10
MEMORY INDICATOR-1
MEMORY INDICATOR-2
SET SWITCH
MEMORY SWITCH-1
MEMORY SWITCH-2
DRIVER SEAT CONTROL UNIT B222, B223
LIFTING SWITCH (REAR)
DOWNWARD
UPWARD
LIFTING SWITCH (FRONT)
DOWNWARD
UPWARD
RECLINING SWITCH
BACKWARD
FORWARD
SLIDING SWITCH
BACKWARD
FORWARD
POWER SEAT SWITCH LH B213
AAJWA0447GB


BCM (BODY CONTROL MODULE)
M18
M19
M20
M81
26
131
139
134
143
96
59
60
20
69
M57
M40
33J
B69
FRONT DOOR SWITCH LH
B8
DATA LINE
DATA LINE
TO CAN SYSTEM
V2
V4
V6
A/T SHIFT SELECTOR (PARK POSITION SWITCH)
M68
D
R
S
DRIVER SEAT CONTROL UNIT
B222
B223
JOINT CONNECTOR-B22
B224
B201
B54
B7
B19
UP-WARD
DOWN-WARD
LIFTING MOTOR LH (REAR)
B228
LIFTING MOTOR LH (FRONT)
B227
FOR-WARD
BACK-WARD
SLIDING MOTOR LH
B226
FORWARD
BACKWARD
RECLINING MOTOR LH
B225
T
AAJWA0448GB

AUTOMATIC DRIVE POSITIONER CONNECTORS

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

H.S.

Terminal No.	Color of Wire	Signal Name
1	–	–
2	–	–
3	L	DR DOOR SW
4	–	–

Connector No.	B54
Connector Name	WIRE TO WIRE
Connector Type	NS12FBR-CS
Connector Color	BROWN

H.S.

Terminal No.	Color of Wire	Signal Name
1	L	TO FRONT SEAT LH HARNESS
2	BR	TO FRONT SEAT LH HARNESS
3	B	TO FRONT SEAT LH HARNESS
4	P	TO FRONT SEAT LH HARNESS
5	L	TO FRONT SEAT LH HARNESS
6	L/B	TO FRONT SEAT LH HARNESS
7	Y/L	TO FRONT SEAT LH HARNESS
8	BR/Y	TO FRONT SEAT LH HARNESS
9	V	TO FRONT SEAT LH HARNESS
10	LG/B	TO FRONT SEAT LH HARNESS
11	SB	TO FRONT SEAT LH HARNESS
12	Y/GR	TO FRONT SEAT LH HARNESS

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

H.S.

Terminal No.	Color of Wire	Signal Name
1J	P	TO MAIN HARNESS
2J	R/Y	TO MAIN HARNESS
3J	L	TO MAIN HARNESS
4J	L/B	TO MAIN HARNESS
5J	G/W	TO MAIN HARNESS
6J	LG/Y	TO MAIN HARNESS
7J	BR/LG	TO MAIN HARNESS
8J	SB/BR	TO MAIN HARNESS
9J	BR	TO MAIN HARNESS
10J	BR	TO MAIN HARNESS
11J	O/B	TO MAIN HARNESS
12J	L	TO MAIN HARNESS
13J	SB/O	TO MAIN HARNESS
14J	Y	TO MAIN HARNESS
15J	–	TO MAIN HARNESS
16J	R	TO MAIN HARNESS
17J	G	TO MAIN HARNESS
18J	SB	TO MAIN HARNESS
19J	O	TO MAIN HARNESS
20J	O/B	TO MAIN HARNESS
21J	Y/R	TO MAIN HARNESS
22J	P	TO MAIN HARNESS
23J	W	TO MAIN HARNESS
24J	W/R	TO MAIN HARNESS
25J	V	TO MAIN HARNESS
26J	L	TO MAIN HARNESS
27J	R	TO MAIN HARNESS
28J	L	TO MAIN HARNESS
29J	G/O	TO MAIN HARNESS
30J	SB	TO MAIN HARNESS
31J	LG	TO MAIN HARNESS
32J	R	TO MAIN HARNESS
33J	L	TO MAIN HARNESS
34J	Y	TO MAIN HARNESS
35J	P	TO MAIN HARNESS
36J	G/R	TO MAIN HARNESS
37J	LG/B	TO MAIN HARNESS
38J	SB	TO MAIN HARNESS
39J	Y/L	TO MAIN HARNESS
40J	BR	TO MAIN HARNESS
41J	L	TO MAIN HARNESS
42J	L	TO MAIN HARNESS
43J	SB	TO MAIN HARNESS
44J	BR	TO MAIN HARNESS
45J	BG	TO MAIN HARNESS
46J	P/Y	TO MAIN HARNESS
47J	Y/GR	TO MAIN HARNESS
48J	V	TO MAIN HARNESS
49J	BR/Y	TO MAIN HARNESS
50J	G/W	TO MAIN HARNESS
51J	–	TO MAIN HARNESS
52J	SHIELD	TO MAIN HARNESS
53J	R	TO MAIN HARNESS
54J	L	TO MAIN HARNESS
55J	R	TO MAIN HARNESS
56J	W	TO MAIN HARNESS
57J	L/G	TO MAIN HARNESS
58J	O	TO MAIN HARNESS
59J	–	TO MAIN HARNESS
60J	SHIELD	TO MAIN HARNESS
61J	G	TO MAIN HARNESS
62J	–	TO MAIN HARNESS
63J	R/W	TO MAIN HARNESS
64J	L/W	TO MAIN HARNESS
65J	SHIELD	TO MAIN HARNESS
66J	B	TO MAIN HARNESS
67J	SHIELD	TO MAIN HARNESS
68J	O/L	TO MAIN HARNESS
69J	SHIELD	TO MAIN HARNESS
70J	BR	TO MAIN HARNESS
71J	L/W	TO MAIN HARNESS
72J	–	TO MAIN HARNESS
73J	–	TO MAIN HARNESS
74J	SHIELD	TO MAIN HARNESS
75J	LG/B	TO MAIN HARNESS
76J	R	TO MAIN HARNESS
77J	SHIELD	TO MAIN HARNESS
78J	GR/B	TO MAIN HARNESS
79J	B	TO MAIN HARNESS
80J	W	TO MAIN HARNESS
81J	SHIELD	TO MAIN HARNESS
82J	L/R	TO MAIN HARNESS
83J	–	TO MAIN HARNESS
84J	–	TO MAIN HARNESS
85J	Y/B	TO MAIN HARNESS
86J	G	TO MAIN HARNESS
87J	B/R	TO MAIN HARNESS
88J	SHIELD	TO MAIN HARNESS
89J	GR/R	TO MAIN HARNESS
90J	L	TO MAIN HARNESS
91J	L/B	TO MAIN HARNESS
92J	SB	TO MAIN HARNESS
93J	B	TO MAIN HARNESS
94J	L	TO MAIN HARNESS
95J	LG	TO MAIN HARNESS
96J	R	TO MAIN HARNESS
97J	B/Y	TO MAIN HARNESS
98J	L/B	TO MAIN HARNESS
99J	W/L	TO MAIN HARNESS
100J	SB	TO MAIN HARNESS

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	NS12MBR-CS
Connector Color	BROWN

H.S.

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

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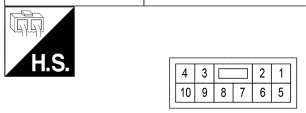
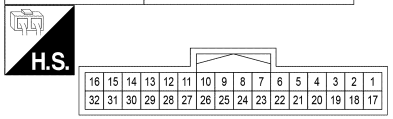
AUTOMATIC DRIVE POSITIONER CONNECTORS

Connector No.	B213
Connector Name	POWER SEAT SWITCH LH (WITH AUTOMATIC DRIVE POSITIONER)
Connector Type	NS10FW-CS
Connector Color	WHITE



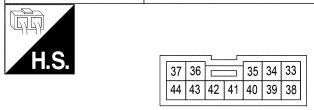
Terminal No.	Color of Wire	Signal Name
1	V	LIFTER (REAR) (UPWARD)
2	R	LIFTER (REAR) (DOIWNWARD)
3	B	GND
4	–	–
5	G	LIFTER (FRONT) (UPWARD)
6	Y	LIFTER (FRONT) (DOWNWARD)
7	L	SLIDE (FORWARD)
8	SB	SLIDE (BACKWARD)
9	P	RECL (FORWARD)
10	BR	RECL (BACKWARD)

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



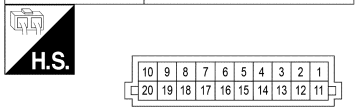
Terminal No.	Color of Wire	Signal Name
1	–	–
2	–	–
3	–	–
4	–	–
5	W	POWER SUPPLY (ENCODER)
6	R	REAR LIFTER SW (DOWNWARD)
7	Y	FRONT LIFTER SW (DOWNWARD)
8	BR	RECLINER SW (BACKWARD)
9	SB	SLIDE SW (BACKWARD)
10	G	IND 2
11	GR	ADDRESS 2
12	W	PULSE (TELESCOPIC)
13	G	PULSE (RECLINER)
14	–	–
15	SB	UART (TX/RX)
16	P	CAN-H
17	–	–
18	–	–
19	–	–
20	–	–
21	L	SET SW
22	V	REAR LIFTER SW (UPWARD)
23	G	FRONT LIFTER SW (UPWARD)
24	P	RECLINER SW (FORWARD)
25	L	SLIDE SW (FORWARD)
26	Y	IND 1
27	V	ADDRESS 1
28	BR	PULSE(TILT)
29	R	PULSE (REAR LIFTER)
30	Y	PULSE (FRONT LIFTER)
31	LG	PULSE (SLIDE)
32	W	CAN-L

Connector No.	B223
Connector Name	DRIVER SEAT CONTROL UNIT
Connector Type	NS12FW-CS
Connector Color	WHITE



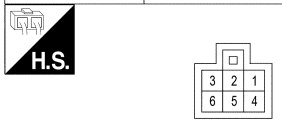
Terminal No.	Color of Wire	Signal Name
33	–	–
34	SB	FRONT LIFTER MOTOR (DOWNWARD)
35	V	RECLINER MOTOR (FORWARD)
36	W	SLIDE MOTOR (BACKWARD)
37	R	BAT (PTC)
38	–	–
39	B	GND
40	L	REAR LIFTER MOTOR (DOWNWARD)
41	Y	REAR LIFTER MOTOR (UPWARD)
42	GR	FRONT LIFTER MOTOR (UPWARD)
43	BR	RECLINER MOTOR (BACKWARD)
44	G	SLIDING MOTOR (FORWARD)

Connector No.	B224
Connector Name	JOINT CONNECTOR-B22
Connector Type	-
Connector Color	PINK



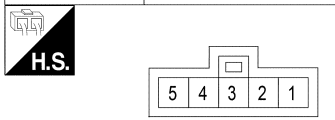
Terminal No.	Color of Wire	Signal Name
1	–	–
2	–	–
3	B	GROUND
4	B	GROUND
5	B	GROUND
6	B	GROUND
7	B	GROUND
8	B	GROUND
9	B	GROUND
10	B	GROUND
11	–	–
12	–	–
13	R	BATTERY
14	–	–
15	R	BATTERY
16	W	POWER SUPPLY
17	W	POWER SUPPLY
18	W	POWER SUPPLY
19	W	POWER SUPPLY
20	W	POWER SUPPLY

Connector No.	B225
Connector Name	RECLINING MOTOR LH (WITH AUTOMATIC DRIVE POSITIONER)
Connector Type	6242-5061
Connector Color	GRAY



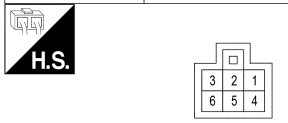
Terminal No.	Color of Wire	Signal Name
1	G	PULSE
2	B	GROUND
3	W	POWER SUPPLY
4	BR	RECLINING MOTOR (FORWARD)
5	–	–
6	V	RECLINING MOTOR (BACKWARD)

Connector No.	B226
Connector Name	SLIDING MOTOR LH(WITH AUTOMATIC DRIVE POSITIONER)
Connector Type	6098-0344
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	W	SLIDING MOTOR (FORWARD)
2	LG	PULSE
3	B	GROUND
4	W	POWER SUPPLY
5	G	SLIDING MOTOR (BACKWARD)

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



Terminal No.	Color of Wire	Signal Name
1	Y	PULSE
2	B	GROUND
3	W	POWER SUPPLY
4	GR	LIFTING MOTOR (FRONT) UPWARD)
5	–	–
6	SB	LIFTING MOTOR (FRONT) DOWNWARD)

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AUTOMATIC DRIVE POSITIONER CONNECTORS

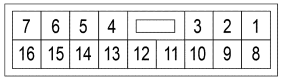
Connector No.	B228
Connector Name	LIFTING MOTOR LH (REAR) (WITH AUTOMATIC DRIVE POSITIONER)
Connector Type	6242-5061
Connector Color	GRAY

H.S.

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

Connector No.	D2
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS
Connector Color	WHITE

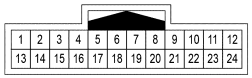
H.S.



Terminal No.	Color of Wire	Signal Name
1	B/W	TO MAIN HARNESS
2	G/B	TO MAIN HARNESS
3	L	TO MAIN HARNESS
4	R	TO MAIN HARNESS
5	W/R	TO MAIN HARNESS
6	W/L	TO MAIN HARNESS
7	V	TO MAIN HARNESS
8	B	TO MAIN HARNESS
9	L/W	TO MAIN HARNESS
10	L/R	TO MAIN HARNESS
11	L/W	TO MAIN HARNESS
12	L	TO MAIN HARNESS
13	Y	TO MAIN HARNESS
14	SB	TO MAIN HARNESS
15	V	TO MAIN HARNESS
16	LG	TO MAIN HARNESS

Connector No.	D4
Connector Name	DOOR MIRROR LH
Connector Type	TH24MW-NH
Connector Color	WHITE

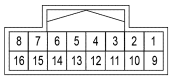
H.S.



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

Connector No.	D10
Connector Name	SEAT MEMORY SWITCH
Connector Type	TH16FW-NH
Connector Color	WHITE

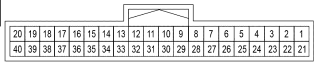
H.S.



Terminal No.	Color of Wire	Signal Name
1	–	
2	SB	MEMORY SW (SET)
3	–	–
4	–	–
5	–	–
6	–	–
7	–	–
8	–	–
9	B	GROUND
10	BR	MEMORY SW (ADDRESS 1)
11	–	–
12	–	–
13	LG	MEMORY SW (IND 2)
14	Y	MEMORY SW (IND 1)
15	V	BATTERY
16	L	MEMORY SW (ADDRESS 2)

Connector No.	D18
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1	SB	TO MAIN HARNESS -(WITHOUT MEMORY MIRRORS)
1	LG	TO MAIN HARNESS -(WITH AROUND VIEW MONITOR)
2	SB	TO MAIN HARNESS
3	BG	TO MAIN HARNESS
4	Y	TO MAIN HARNESS
5	BR	TO MAIN HARNESS
6	SB	TO MAIN HARNESS
7	V	TO MAIN HARNESS
8	GR	TO MAIN HARNESS
9	L	TO MAIN HARNESS
10	W	TO MAIN HARNESS
11	B	TO MAIN HARNESS
12	R/G	TO MAIN HARNESS
13	Y	TO MAIN HARNESS
14	LG	TO MAIN HARNESS
15	L	TO MAIN HARNESS
16	V	TO MAIN HARNESS
17	LG	TO MAIN HARNESS
18	BR	TO MAIN HARNESS
19	LG/B	TO MAIN HARNESS
20	Y/V	TO MAIN HARNESS
21	BR	TO MAIN HARNESS -(WITHOUT MEMORY MIRRORS)
21	BG	TO MAIN HARNESS -(WITH MEMORY MIRRORS)
22	V	TO MAIN HARNESS
23	G	TO MAIN HARNESS -(WITHOUT MEMORY MIRRORRS)
23	L	TO MAIN HARNESS -(WITH MEMORY MIRRORS)
24	LG	TO MAIN HARNESS
25	Y	TO MAIN HARNESS
26	L	TO MAIN HARNESS
27	Y	TO MAIN HARNESS
28	L	TO MAIN HARNESS
29	V	TO MAIN HARNESS
30	R	TO MAIN HARNESS
31	SHIELD	TO MAIN HARNESS
32	R	TO MAIN HARNESS
33	BR	TO MAIN HARNESS
34	–	TO MAIN HARNESS
35	W	TO MAIN HARNESS
36	–	TO MAIN HARNESS
37	–	TO MAIN HARNESS
38	LG	TO MAIN HARNESS
39	SB	TO MAIN HARNESS
40	L	TO MAIN HARNESS

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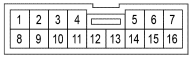
AUTOMATIC DRIVE POSITIONER CONNECTORS

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

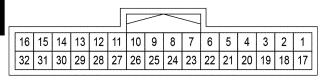
H.S.



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

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

H.S.



Terminal No.	Color of Wire	Signal Name
1	BR	TO MAIN HARNESS
2	V	TO MAIN HARNESS
3	BR	TO MAIN HARNESS
4	L	TO MAIN HARNESS
5	LG/W	TO MAIN HARNESS
6	R/W	TO MAIN HARNESS
7	R/G	TO MAIN HARNESS
8	B	TO MAIN HARNESS
9	W	TO MAIN HARNESS
10	Y	TO MAIN HARNESS
11	LG	TO MAIN HARNESS
12	L	TO MAIN HARNESS
13	Y/V	TO MAIN HARNESS
14	W/L	TO MAIN HARNESS
15	V/R	TO MAIN HARNESS
16	L/W	TO MAIN HARNESS
17	SB	TO MAIN HARNESS
18	Y	TO MAIN HARNESS
19	G	TO MAIN HARNESS
20	V/W	TO MAIN HARNESS -(WITHOUT AUTOMATIC DRIVE POSITIONER)
20	GR/R	TO MAIN HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
21	–	TO MAIN HARNESS
22	–	TO MAIN HARNESS
23	R	TO MAIN HARNESS
24	R	TO MAIN HARNESS
25	SHIELD	TO MAIN HARNESS
26	LG	TO MAIN HARNESS
27	Y	TO MAIN HARNESS
28	BR	TO MAIN HARNESS
29	LG/B	TO MAIN HARNESS
30	–	TO MAIN HARNESS
31	–	TO MAIN HARNESS
32	–	TO MAIN HARNESS

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

H.S.

Terminal No.	Color of Wire	Signal Name
1	BR	SWITCH MTR UP
2	G	SWITCH MTR LT
3	SB	MTR COMMON
4	–	–
5	–	–
6	B/W	HEATED MIRROR +
7	B	VCC
8	R	VIDEO +
9	G/Y	FR TURN RH
10	B	GND
11	LG/B	EC FEED
12	Y/V	EC RETURN
13	L	MEMORY GND
14	V	MEMORY FEED
15	Y	HOR SENSOR
16	BR	VER SENSOR
17	–	–
18	B	HEATED MIRROR -
19	W	GND
20	SHIELD	VIDEO -
21	R/G	BAT SAVER OUT
22	L	ROOM LAMP CONT
23	R	LED RH
24	B	GND

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AUTOMATIC DRIVE POSITIONER CONNECTORS

Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1G	G	TO MAIN HARNESS
2G	B/R	TO MAIN HARNESS
3G	W/B	TO MAIN HARNESS
4G	BR/W	TO MAIN HARNESS
5G	BR	TO MAIN HARNESS
6G	P	TO MAIN HARNESS - (WITH VK56VD)
6G	R/W	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
7G	Y	TO MAIN HARNESS
8G	G	TO MAIN HARNESS
9G	R	TO MAIN HARNESS
10G	W	TO MAIN HARNESS
11G	R/G	TO MAIN HARNESS
12G	W/B	TO MAIN HARNESS
13G	BR	TO MAIN HARNESS
14G	Y/B	TO MAIN HARNESS
15G	G/W	TO MAIN HARNESS
16G	G	TO MAIN HARNESS
17G	G/Y	TO MAIN HARNESS
18G	G/Y	TO MAIN HARNESS
19G	Y/V	TO MAIN HARNESS
20G	G/Y	TO MAIN HARNESS
21G	B/Y	TO MAIN HARNESS
22G	G/R	TO MAIN HARNESS
23G	Y/R	TO MAIN HARNESS
24G	G/B	TO MAIN HARNESS
25G	R/W	TO MAIN HARNESS
26G	R	TO MAIN HARNESS
27G	LG	TO MAIN HARNESS
28G	G/B	TO MAIN HARNESS
29G	G/B	TO MAIN HARNESS
30G	BR/Y	TO MAIN HARNESS
31G	P	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
31G	R	TO MAIN HARNESS - (WITH VK56VD)
32G	P	TO MAIN HARNESS
33G	Y/L	TO MAIN HARNESS
34G	GR	TO MAIN HARNESS
35G	G/R	TO MAIN HARNESS
36G	SB	TO MAIN HARNESS
37G	R/W	TO MAIN HARNESS
38G	BR	TO MAIN HARNESS
39G	BR	TO MAIN HARNESS
40G	–	TO MAIN HARNESS
41G	R/G	TO MAIN HARNESS
42G	O	TO MAIN HARNESS
43G	B	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
43G	G	TO MAIN HARNESS - (WITH VK56VD)
44G	R/Y	TO MAIN HARNESS
45G	G	TO MAIN HARNESS
46G	LG	TO MAIN HARNESS
47G	R	TO MAIN HARNESS
48G	W	TO MAIN HARNESS
49G	–	TO MAIN HARNESS
50G	BR	TO MAIN HARNESS
51G	R	TO MAIN HARNESS
52G	L	TO MAIN HARNESS
53G	W	TO MAIN HARNESS
54G	W	TO MAIN HARNESS
55G	G	TO MAIN HARNESS
56G	W	TO MAIN HARNESS
57G	Y	TO MAIN HARNESS
58G	BG	TO MAIN HARNESS
59G	BG	TO MAIN HARNESS
60G	BG	TO MAIN HARNESS
61G	B	TO MAIN HARNESS
62G	W	TO MAIN HARNESS
63G	R	TO MAIN HARNESS
64G	W/L	TO MAIN HARNESS
65G	W/R	TO MAIN HARNESS
66G	BG	TO MAIN HARNESS
67G	BG	TO MAIN HARNESS
68G	B	TO MAIN HARNESS
69G	Y	TO MAIN HARNESS
70G	L	TO MAIN HARNESS
71G	R/W	TO MAIN HARNESS
72G	L/W	TO MAIN HARNESS
73G	SHIELD	TO MAIN HARNESS
74G	W	TO MAIN HARNESS
75G	R	TO MAIN HARNESS
76G	R/G	TO MAIN HARNESS
77G	G	TO MAIN HARNESS
78G	W	TO MAIN HARNESS
79G	–	TO MAIN HARNESS
80G	R	TO MAIN HARNESS
81G	L	TO MAIN HARNESS
82G	R	TO MAIN HARNESS
83G	L	TO MAIN HARNESS
84G	L	TO MAIN HARNESS
85G	W/B	TO MAIN HARNESS
86G	B/R	TO MAIN HARNESS
87G	W/B	TO MAIN HARNESS
88G	P	TO MAIN HARNESS
89G	L	TO MAIN HARNESS
90G	G	TO MAIN HARNESS
91G	G	TO MAIN HARNESS
92G	V/W	TO MAIN HARNESS
93G	BR	TO MAIN HARNESS
94G	G	TO MAIN HARNESS
95G	G	TO MAIN HARNESS
96G	W	TO MAIN HARNESS
97G	R	TO MAIN HARNESS
98G	W/B	TO MAIN HARNESS
99G	BR	TO MAIN HARNESS
100G	GR/W	TO MAIN HARNESS

Connector No.	M4
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FW-CS
Connector Color	WHITE

H.S.

7P	6P	5P	4P		3P	2P	1P
16P	15P	14P	13P	12P	11P	10P	9P	8P

Terminal No.	Color of Wire	Signal Name
1P	R	IGNITION
2P	Y	IGNITION
3P	G	IGNITION RELAY OUT
4P	B/W	RR DEF RLY
5P	B/W	RR DEF RLY
6P	O	RR DEF RLY OUT
7P	G	IGNITION
8P	W	IGNITION
9P	L	BATTERY
10P	–	–
11P	–	–
12P	–	–
13P	R	BATTERY
14P	Y	BATTERY
15P	Y/LG	BATTERY
16P	W	BLOWER FAN RELAY OUT

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	CS06FW-M2
Connector Color	WHITE

H.S.

3N		2N	1N
8N	7N	6N	5N	4N

Terminal No.	Color of Wire	Signal Name
1N	–	–
2N	W	BATTERY
3N	W	IGNITION
4N	V	BATTERY
5N	Y	BATTERY
6N	W	BATTERY
7N	L	ACC RELAY OUT
8N	W	IGNITION

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AUTOMATIC DRIVE POSITIONER CONNECTORS

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

H.S.

1	2	3		4	5	6	7	
8	9	10	11	12	13	14	15	16

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

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

H.S.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

Terminal No.	Color of Wire	Signal Name
1	LG	TO FRONT DOOR LH HARNESS - (WITH MEMORY MIRRORS)
1	SB	TO FRONT DOOR LH HARNESS - (WITHOUT MEMORY MIRRORS)
2	SB	TO FRONT DOOR LH HARNESS
3	B	TO FRONT DOOR LH HARNESS
4	Y	TO FRONT DOOR LH HARNESS
5	V	TO FRONT DOOR LH HARNESS
6	SB	TO FRONT DOOR LH HARNESS
7	Y	TO FRONT DOOR LH HARNESS
8	GR	TO FRONT DOOR LH HARNESS
9	L	TO FRONT DOOR LH HARNESS
10	W	TO FRONT DOOR LH HARNESS
11	B	TO FRONT DOOR LH HARNESS
12	R/G	TO FRONT DOOR LH HARNESS
13	G	TO FRONT DOOR LH HARNESS
14	P	TO FRONT DOOR LH HARNESS
15	O	TO FRONT DOOR LH HARNESS
16	V	TO FRONT DOOR LH HARNESS
17	P	TO FRONT DOOR LH HARNESS
18	G	TO FRONT DOOR LH HARNESS
19	LG/B	TO FRONT DOOR LH HARNESS
20	Y/V	TO FRONT DOOR LH HARNESS
21	O	TO FRONT DOOR LH HARNESS - (WITH MEMORY MIRRORS)
21	BR	TO FRONT DOOR LH HARNESS - (WITHOUT MEMORY MIRRORS)
22	BG	TO FRONT DOOR LH HARNESS
23	L	TO FRONT DOOR LH HARNESS - (WITH MEMORY MIRRORS)
23	G	TO FRONT DOOR LH HARNESS - (WITHOUT MEMORY MIRRORS)
24	BR	TO FRONT DOOR LH HARNESS
25	Y	TO FRONT DOOR LH HARNESS
26	LG	TO FRONT DOOR LH HARNESS
27	W	TO FRONT DOOR LH HARNESS
28	L	TO FRONT DOOR LH HARNESS
29	P	TO FRONT DOOR LH HARNESS
30	R	TO FRONT DOOR LH HARNESS
31	SHIELD	TO FRONT DOOR LH HARNESS
32	R	TO FRONT DOOR LH HARNESS
33	O	TO FRONT DOOR LH HARNESS
34	–	TO FRONT DOOR LH HARNESS
35	W	TO FRONT DOOR LH HARNESS
36	–	TO FRONT DOOR LH HARNESS
37	–	TO FRONT DOOR LH HARNESS
38	GR	TO FRONT DOOR LH HARNESS
39	P	TO FRONT DOOR LH HARNESS
40	R	TO FRONT DOOR LH HARNESS

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH
Connector Color	GREEN

H.S.

20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21

Terminal No.	Color of Wire	Signal Name
1	G	ENG START SW NO ESCL
2	–	–
3	R	A/L POWER SUPPLY 5V
4	W/R	A/L SIGNAL
5	–	–
6	–	–
7	–	–
8	–	–
9	–	–
10	SB	COMBI SW IN 5
11	G/Y	COMBI SW IN 4
12	Y	COMBI SW IN 3
13	G/B	COMBI SW IN 2
14	V	COMBI SW IN 1
15	–	–
16	–	–
17	P	GND RF A/L
18	V	SECURITY INDICATOR
19	–	–
20	R	SHIFT P
21	R/W	STEP LAMP CONT
22	–	–
23	Y	AIRCON SW
24	–	–
25	W	BRAKE SW FUSE
26	L	SHORT IN PIN INPUT
27	R/G	BRAKE SW LAMP
28	–	–
29	W	BLOWER FAN SW
30	P	DR DOOR LOCK STATUS
31	–	–
32	Y	REAR DEFOGGER SW
33	–	–
34	–	
35	R/G	REVERSE SW
36	W/B	HAZARD SW
37	–	–
38	–	–
39	B/R	SHIFT N/P
40	–	–

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AUTOMATIC DRIVE POSITIONER CONNECTORS

Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH
Connector Color	BLACK

H.S.

60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41
80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61

Terminal No.	Color of Wire	Signal Name
41	Y/L	TRAILER LIGHT CHECK RELAY OUT
42	R/Y	CARGO LAMP OUT
43	–	–
44	–	–
45	–	–
46	–	–
47	–	–
48	R	HIGH SIDE START SW LED
49	–	–
50	–	–
51	–	–
52	W	AUDIO DONGLE
53	–	–
54	W/L	PW UART
55	W/B	L&R SENSOR K-LINE
56	–	–
57	–	–
58	–	–
59	P	CAN-L
60	L	CAN-H
61	O	REAR DEFOGGER RELAY OUT
62	W	STARTER RELAY OUT
63	–	–
64	P	BUZZER OUT
65	–	–
66	W	BLOWER FAN RELAY OUT
67	G	IGN ELEC RELAY OUT 2
68	L	MR OUTPUT
69	R/B	AT DEVICE OUT
70	P	IGN USM OUT 1
71	O	DR REQUEST SW
72	G	AS REQUEST SW
73	–	–
74	–	–
75	L/W	COMBI SW OUT 5
76	P	COMBI SW OUT 4
77	L	COMBI SW OUT 3
78	O/B	COMBI SW OUT 2
79	R/W	COMBI SW OUT 1
80	–	–

Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH24FGY-NH
Connector Color	GRAY

H.S.

92	91	90	89	88	87	86	85	84	83	82	81
104	103	102	101	100	99	98	97	96	95	94	93

Terminal No.	Color of Wire	Signal Name
81	–	–
82	W	RL DOOR SW
83	–	–
84	–	–
85	–	–
86	G/B	TRAILER FLASHER RL
87	Y/B	TRAILER FLASHER RR
88	–	–
89	–	–
90	–	–
91	–	–
92	O	RR FLASHER
93	R	RR DOOR SW
94	G	AS DOOR SW
95	–	–
96	BG	DR DOOR SW
97	P/L	CARGO LAMP SW
98	–	–
99	–	–
100	–	–
101	–	–
102	–	–
103	G/B	RL FLASHER
104	–	–

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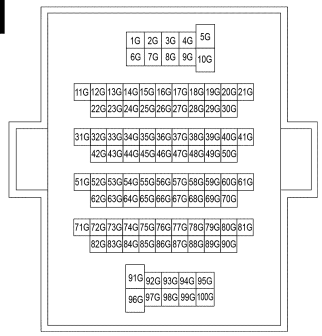
AUTOMATIC DRIVE POSITIONER CONNECTORS

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

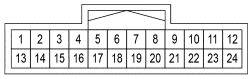
H.S.



Terminal No.	Color of Wire	Signal Name
1G	G	TO ENGINE ROOM HARNESS
2G	B/R	TO ENGINE ROOM HARNESS
3G	W	TO ENGINE ROOM HARNESS
4G	BR/W	TO ENGINE ROOM HARNESS
5G	BR	TO ENGINE ROOM HARNESS
6G	R/W	TO ENGINE ROOM HARNESS
7G	Y	TO ENGINE ROOM HARNESS
8G	G	TO ENGINE ROOM HARNESS
9G	R	TO ENGINE ROOM HARNESS
10G	W	TO ENGINE ROOM HARNESS
11G	R/G	TO ENGINE ROOM HARNESS
12G	W/B	TO ENGINE ROOM HARNESS
13G	BR	TO ENGINE ROOM HARNESS
14G	Y/B	TO ENGINE ROOM HARNESS
15G	G/W	TO ENGINE ROOM HARNESS
16G	G	TO ENGINE ROOM HARNESS
17G	O	TO ENGINE ROOM HARNESS
18G	G/Y	TO ENGINE ROOM HARNESS
19G	Y/V	TO ENGINE ROOM HARNESS
20G	G/Y	TO ENGINE ROOM HARNESS
21G	B/Y	TO ENGINE ROOM HARNESS
22G	G/R	TO ENGINE ROOM HARNESS
23G	Y/R	TO ENGINE ROOM HARNESS
24G	G/B	TO ENGINE ROOM HARNESS
25G	R/W	TO ENGINE ROOM HARNESS
26G	R	TO ENGINE ROOM HARNESS
27G	LG	TO ENGINE ROOM HARNESS
28G	G/B	TO ENGINE ROOM HARNESS
29G	G/B	TO ENGINE ROOM HARNESS
30G	BR/Y	TO ENGINE ROOM HARNESS
31G	R	TO ENGINE ROOM HARNESS
32G	R	TO ENGINE ROOM HARNESS
33G	Y/L	TO ENGINE ROOM HARNESS
34G	GR	TO ENGINE ROOM HARNESS
35G	G/R	TO ENGINE ROOM HARNESS
36G	SB	TO ENGINE ROOM HARNESS
37G	R/W	TO ENGINE ROOM HARNESS
38G	BR	TO ENGINE ROOM HARNESS
39G	BR	TO ENGINE ROOM HARNESS
40G	–	TO ENGINE ROOM HARNESS
41G	R/G	TO ENGINE ROOM HARNESS
42G	O	TO ENGINE ROOM HARNESS
43G	G	TO ENGINE ROOM HARNESS
44G	R/Y	TO ENGINE ROOM HARNESS
45G	G	TO ENGINE ROOM HARNESS
46G	LG	TO ENGINE ROOM HARNESS
47G	R	TO ENGINE ROOM HARNESS
48G	W	TO ENGINE ROOM HARNESS
49G	–	TO ENGINE ROOM HARNESS
50G	BR	TO ENGINE ROOM HARNESS
51G	R	TO ENGINE ROOM HARNESS
52G	L	TO ENGINE ROOM HARNESS
53G	W	TO ENGINE ROOM HARNESS
54G	W	TO ENGINE ROOM HARNESS
55G	G	TO ENGINE ROOM HARNESS
56G	W	TO ENGINE ROOM HARNESS
57G	Y	TO ENGINE ROOM HARNESS
58G	BG	TO ENGINE ROOM HARNESS
59G	BG	TO ENGINE ROOM HARNESS
60G	BG	TO ENGINE ROOM HARNESS
61G	O	TO ENGINE ROOM HARNESS
62G	W	TO ENGINE ROOM HARNESS
63G	O	TO ENGINE ROOM HARNESS
64G	W/L	TO ENGINE ROOM HARNESS
65G	W/R	TO ENGINE ROOM HARNESS
66G	BG	TO ENGINE ROOM HARNESS
67G	O	TO ENGINE ROOM HARNESS
68G	B	TO ENGINE ROOM HARNESS
69G	Y	TO ENGINE ROOM HARNESS
70G	L	TO ENGINE ROOM HARNESS
71G	R/W	TO ENGINE ROOM HARNESS
72G	L/W	TO ENGINE ROOM HARNESS
73G	SHIELD	TO ENGINE ROOM HARNESS
74G	W	TO ENGINE ROOM HARNESS
75G	R	TO ENGINE ROOM HARNESS
76G	R/G	TO ENGINE ROOM HARNESS
77G	BG	TO ENGINE ROOM HARNESS
78G	P	TO ENGINE ROOM HARNESS
79G	–	TO ENGINE ROOM HARNESS
80G	R	TO ENGINE ROOM HARNESS
81G	L	TO ENGINE ROOM HARNESS
82G	R	TO ENGINE ROOM HARNESS
83G	L	TO ENGINE ROOM HARNESS
84G	L	TO ENGINE ROOM HARNESS
85G	W	TO ENGINE ROOM HARNESS
86G	B/R	TO ENGINE ROOM HARNESS
87G	W	TO ENGINE ROOM HARNESS
88G	G	TO ENGINE ROOM HARNESS
89G	P	TO ENGINE ROOM HARNESS
90G	G	TO ENGINE ROOM HARNESS
91G	P	TO ENGINE ROOM HARNESS
92G	V/W	TO ENGINE ROOM HARNESS
93G	BR	TO ENGINE ROOM HARNESS
94G	B	TO ENGINE ROOM HARNESS
95G	G	TO ENGINE ROOM HARNESS
96G	R	TO ENGINE ROOM HARNESS
97G	R	TO ENGINE ROOM HARNESS
98G	W/B	TO ENGINE ROOM HARNESS
99G	R	TO ENGINE ROOM HARNESS
100G	GR/W	TO ENGINE ROOM HARNESS

Connector No.	M33
Connector Name	AUTOMATIC DRIVE POSITIONER CONTROL UNIT
Connector Type	TH24FW-NH
Connector Color	WHITE

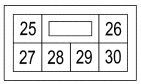
H.S.



Terminal No.	Color of Wire	Signal Name
1	LG	TILT SW (UPWARD)
2	GR	MIRROR SELECOR SW (RH)
3	G	MIRROR SW (UPWARD)
4	P	MIRROR SW (LEFTWARD)
5	BR	MIRROR SENSOR (RH VERTICAL)
6	B	MIRROR SENSOR (LH VERTICAL)
7	BR	TELESCOPIC SW (FRONTWARD)
8	O	UART (TX/RX)
9	–	–
10	BR	MIRROR MOTOR (RH VERTICAL (UP))
11	G	MIRROR MOTOR (RH HORIZONTAL (LEFT))
12	O	MIRROR MOTOR (LH COMMON (DOWN&RIGHT))
13	Y	TILT SW (DOWNWARD)
14	P	MIRROR SELECT SW (LH)
15	R	MIRROR SW (DOWNWARD)
16	W	MIRROR SW (RIGHTWARD)
17	Y	MIRROR SENSOR (RH HORIZONTAL)
18	BG	MIRROR SENSOR (LH HORIZONTAL)
19	L	TELESCOPIC SW (BACKWARD)
20	Y	GND (SENSOR GND)
21	SB	POWER SUPPLY (SENSOR FOR 5V)
22	SB	MIRROR MOTOR (RH COMMON (DOWN&RIGHT))
23	LG	MIRROR MOTOR (LH VERTICAL (UP))
24	L	MIRROR MOTOR (LH HORIZONTAL (LEFT))

Connector No.	M34
Connector Name	AUTOMATIC DRIVE POSITIONER CONTROL UNIT
Connector Type	NS06FW-CS
Connector Color	WHITE

H.S.



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

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AUTOMATIC DRIVE POSITIONER CONNECTORS

Connector No.	M40
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1J	G	TO BODY HARNESS
2J	R/Y	TO BODY HARNESS
3J	L	TO BODY HARNESS
4J	L/B	TO BODY HARNESS
5J	B	TO BODY HARNESS
6J	BR	TO BODY HARNESS
7J	BG	TO BODY HARNESS
8J	SB	TO BODY HARNESS
9J	BR	TO BODY HARNESS
10J	R	TO BODY HARNESS
11J	O/B	TO BODY HARNESS
12J	L	TO BODY HARNESS
13J	W	TO BODY HARNESS
14J	Y	TO BODY HARNESS
15J	–	TO BODY HARNESS
16J	R	TO BODY HARNESS
17J	G	TO BODY HARNESS
18J	SB	TO BODY HARNESS
19J	O	TO BODY HARNESS
20J	O/B	TO BODY HARNESS
21J	Y	TO BODY HARNESS
22J	P	TO BODY HARNESS
23J	W	TO BODY HARNESS
24J	W/R	TO BODY HARNESS
25J	P	TO BODY HARNESS
26J	L	TO BODY HARNESS
27J	R	TO BODY HARNESS

28J	L	TO BODY HARNESS
29J	G/O	TO BODY HARNESS
30J	SB	TO BODY HARNESS
31J	L/G	TO BODY HARNESS
32J	R	TO BODY HARNESS
33J	BG	TO BODY HARNESS
34J	Y	TO BODY HARNESS
35J	P	TO BODY HARNESS
36J	G/R	TO BODY HARNESS
37J	LG	TO BODY HARNESS
38J	SB	TO BODY HARNESS
39J	Y	TO BODY HARNESS
40J	SB	TO BODY HARNESS
41J	L	TO BODY HARNESS
42J	L	TO BODY HARNESS
43J	W	TO BODY HARNESS
44J	BR	TO BODY HARNESS
45J	BG	TO BODY HARNESS
46J	P	TO BODY HARNESS
47J	O	TO BODY HARNESS
48J	V	TO BODY HARNESS
49J	BR	TO BODY HARNESS
50J	G/W	TO BODY HARNESS
51J	–	TO BODY HARNESS
52J	SHIELD	TO BODY HARNESS
53J	R	TO BODY HARNESS
54J	L	TO BODY HARNESS
55J	R	TO BODY HARNESS
56J	W	TO BODY HARNESS
57J	R	TO BODY HARNESS
58J	B	TO BODY HARNESS
59J	–	TO BODY HARNESS
60J	SHIELD	TO BODY HARNESS
61J	G	TO BODY HARNESS
62J	–	TO BODY HARNESS
63J	R/W	TO BODY HARNESS
64J	L/W	TO BODY HARNESS
65J	SHIELD	TO BODY HARNESS
66J	B	TO BODY HARNESS
67J	SHIELD	TO BODY HARNESS
68J	W	TO BODY HARNESS
69J	SHIELD	TO BODY HARNESS
70J	B/R	TO BODY HARNESS
71J	L/W	TO BODY HARNESS
72J	–	TO BODY HARNESS
73J	–	TO BODY HARNESS
74J	SHIELD	TO BODY HARNESS
75J	R	TO BODY HARNESS
76J	O	TO BODY HARNESS
77J	SHIELD	TO BODY HARNESS
78J	W	TO BODY HARNESS
79J	B	TO BODY HARNESS
80J	W	TO BODY HARNESS

81J	SHIELD	TO BODY HARNESS
82J	L/R	TO BODY HARNESS
83J	–	TO BODY HARNESS
84J	–	TO BODY HARNESS
85J	W	TO BODY HARNESS
86J	G	TO BODY HARNESS
87J	W	TO BODY HARNESS
88J	SHIELD	TO BODY HARNESS
89J	R	TO BODY HARNESS
90J	L	TO BODY HARNESS
91J	L/B	TO BODY HARNESS
92J	SB	TO BODY HARNESS
93J	B	TO BODY HARNESS
94J	LG	TO BODY HARNESS
95J	L	TO BODY HARNESS
96J	G	TO BODY HARNESS
97J	B/Y	TO BODY HARNESS
98J	L/B	TO BODY HARNESS
99J	W/L	TO BODY HARNESS
100J	Y	TO BODY HARNESS

Connector No.	M41
Connector Name	ADP STEERING SWITCH
Connector Type	TK06FGY
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
1	BR	TELESCOPIC SW FRONTWARD
2	Y	TILT SW DOWNWARD
3	B	GND
4	–	–
5	LG	TILT SW UPWARD
6	L	TELESCOPIC SW BACKWARD

Connector No.	M68
Connector Name	A/T SHIFT SELECTOR
Connector Type	TK08FW
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	B	GND
2	B	GND
3	L/R	SHIFT LOCK SOL OUT
4	R	SHIFT P
5	R/B	AT DEVICE OUT
6	LG	TOW MODE SW
7	BR	SHIFT UP
8	V/W	SHIFT DOWN

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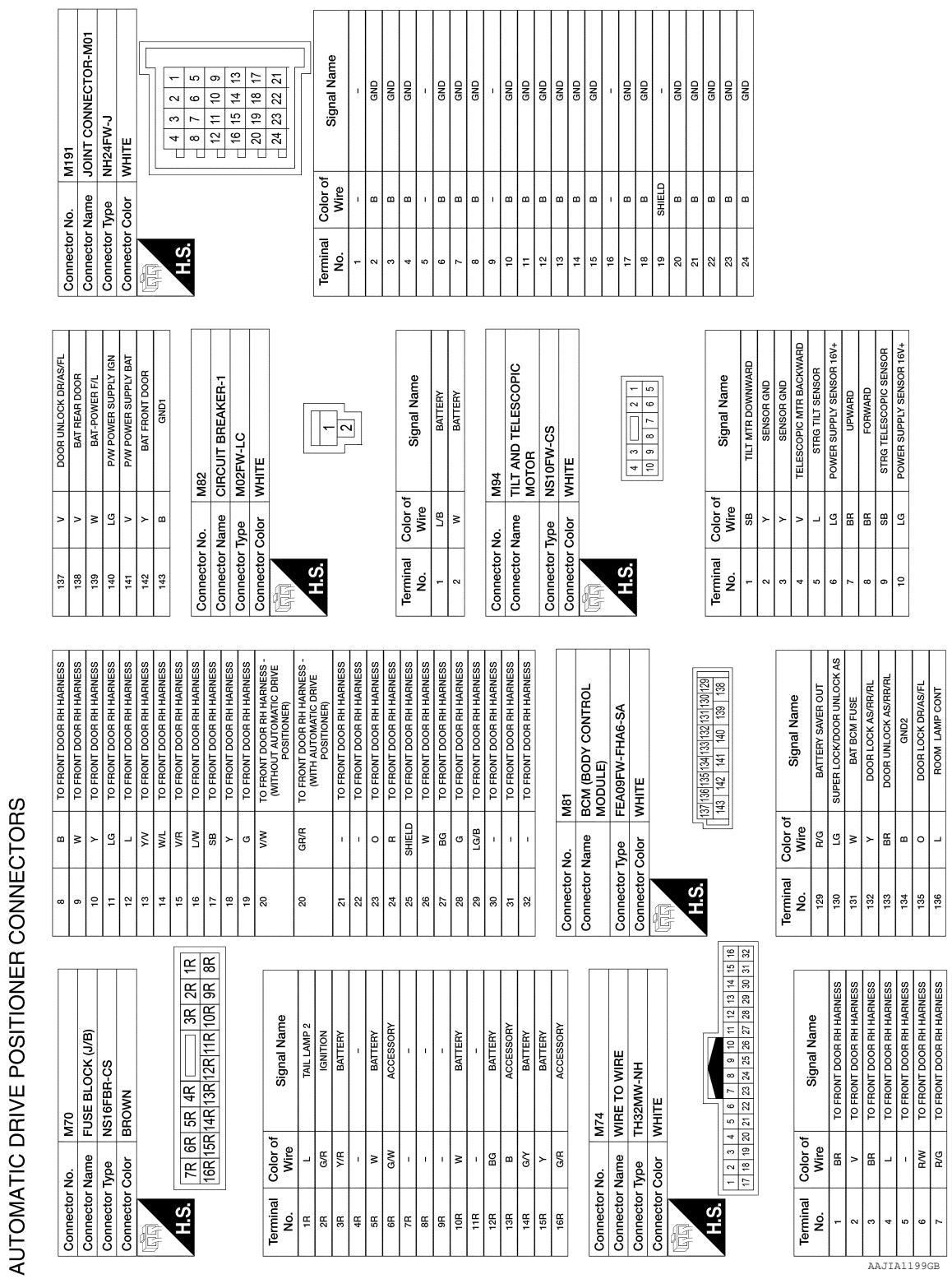
AUTOMATIC DRIVE POSITIONER CONNECTORS



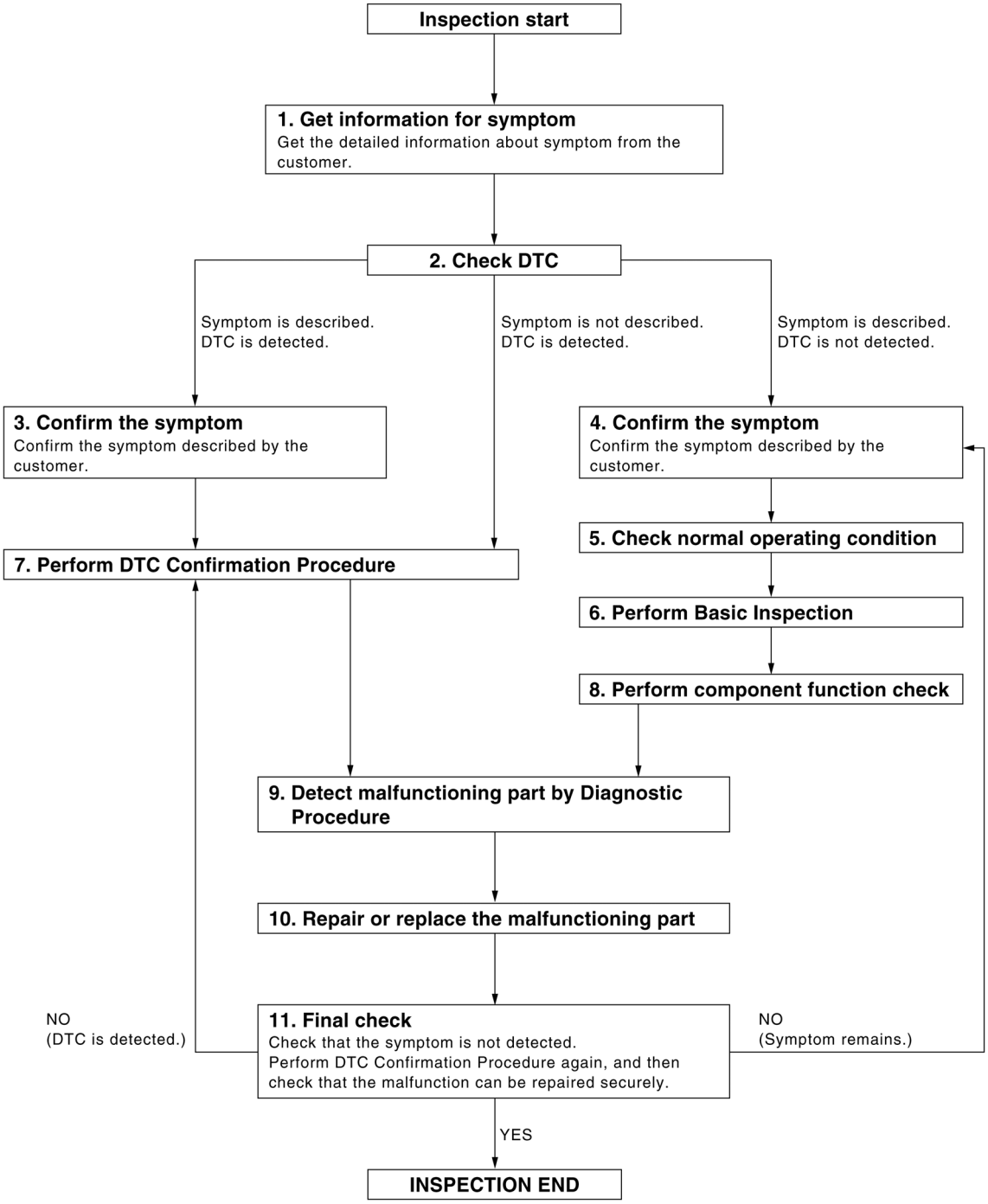
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:0000000012545626

WORK FLOW



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DETAILED FLOW

1. GET INFORMATION FOR SYMPTOM

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

>> GO TO 2.

2. CHECK DTC WITH AUTOMATIC DRIVE POSITIONER SYSTEM

CONSULT
Check “Self Diagnostic Result” mode of “AUTO DRIVE POS.”

Is any symptom described and any DTC is displayed?

Symptom is described, DTC is displayed.>>GO TO 3.
Symptom is not described, DTC is displayed.>>GO TO 7.
Symptom is described, DTC is not displayed.>>GO TO 4.

3. CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

>> GO TO 7.

4. CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

>> GO TO 5.

5. CHECK NORMAL OPERATING CONDITION

Check normal operating condition. Refer to ADP-139, "Description".

Is the incident normal operation?

YES >> Inspection End.
NO >> GO TO 6.

6. PERFORM BASIC INSPECTION

Isolate the malfunctioning point with the basic inspection. Refer to ADP-63, "Basic Inspection".

>> GO TO 8.

7. PERFORM DTC CONFIRMATION PROCEDURE

Perform the confirmation procedure for the detected DTC.

Is the DTC displayed?

YES >> GO TO 9.
NO >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".

8. PERFORM COMPONENT FUNCTION CHECK

Perform the component function check for the isolated malfunctioning point.

>> GO TO 9.

9. DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

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

>> GO TO 10.

10. REPAIR OR REPLACE

Repair or replace the malfunctioning part.

>> GO TO 11.

11. FINAL CHECK

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

Are all malfunctions corrected?

YES >> Inspection End.
Symptom is detected.>> GO TO 4.
DTC is detected.>> GO TO 7.

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description

INFOID:0000000013473783

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

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

*1: Default value is 40 mm.

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

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Work Procedure

INFOID:0000000013473784

1. SYSTEM INITIALIZATION

Perform system initialization. Refer to ADP-59, "SYSTEM INITIALIZATION : Work Procedure".

>> GO TO 2.

2. MEMORY STORAGE

Perform memory storage. Refer to ADP-60, "MEMORY STORING : Work Procedure".

>> GO TO 3.

3. INTELLIGENT KEY INTERLOCK STORAGE

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

>> GO TO 4.

4. SYSTEM SETTING

Perform system setting. Refer to ADP-61, "SYSTEM SETTING : Work Procedure".

>> Inspection End.

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

INFOID:0000000013473785

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

Function	Condition	Procedure
Intelligent Key interlock	Erased	Perform initialization
		Perform storing

*1: Default value is 40 mm.

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

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Work Procedure

INFOID:0000000013473786

1.SYSTEM INITIALIZATION

Perform system initialization. Refer to ADP-59, "SYSTEM INITIALIZATION : Work Procedure".

>> GO TO 2.

2.MEMORY STORAGE

Perform memory storage. Refer to ADP-60, "MEMORY STORING : Work Procedure".

>> GO TO 3.

3.INTELLIGENT KEY INTERLOCK STORAGE

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

>> GO TO 4.

4.SYSTEM SETTING

Perform system setting. Refer to ADP-61, "SYSTEM SETTING : Work Procedure".

>> Inspection End.

SYSTEM INITIALIZATION

SYSTEM INITIALIZATION : Description

INFOID:0000000013473787

Always perform the initialization when the battery terminal is disconnected or the driver seat control unit is replaced.
The entry/exit assist function will not operate normally if no initialization is performed.

SYSTEM INITIALIZATION : Work Procedure

INFOID:0000000013473788

INITIALIZATION PROCEDURE

1. CHOOSE METHOD

There are two initialization methods.

Which method do you use?

With door switch>>GO TO 2.
With vehicle speed>>GO TO 4.

2. STEP A-1

Turn ignition switch from ACC to OFF position.

>> GO TO 3.

3. STEP A-2

Driver door switch is ON (open) → OFF (close) → ON (open).

>> Inspection End.

4. STEP B-1

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

>> Inspection End.

MEMORY STORING

MEMORY STORING : Description

INFOID:0000000013473789

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

MEMORY STORING : Work Procedure

INFOID:0000000013473790

Memory Storage Procedure

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

1.STEP 1

Check the following conditions.
- Ignition switch: ON
- A/T shift selector: P (Park) position

>> GO TO 2.

2.STEP 2

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

>> GO TO 3.

3.STEP 3

1. Push set switch.
   NOTE:
   - Memory indicator for which driver seat position is already retained in memory is illuminated for 5 seconds.
   - Memory indicator for which driver seat position is not retained in memory is illuminated for 0.5 seconds.
2. Push the memory switch (1 or 2) for at least 1 second within 5 seconds after pushing the set switch.
   NOTE:
   - To enter driver seat positions into blank memory, memory indicator will be turned on for 5 seconds.
   - To modify driver seat positions, memory indicator will be turned OFF for 0.5 seconds, then turned ON for 5 seconds.

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

>> GO TO 4.

4.STEP 4

Confirm the operation of each part with memory operation.

>> Inspection End.

INTELLIGENT KEY INTERLOCK STORING

INTELLIGENT KEY INTERLOCK STORING : Description

INFOID:0000000013473791

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 : Work Procedure

INFOID:0000000013473792

Intelligent Key Interlock Storage Procedure

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

1.STEP 1

Check the following conditions.
- Ignition switch: OFF
- Initialization: done
- Driving position: registered

>> GO TO 2.

2.STEP 2

1. Push set switch.
   NOTE:
   Memory indicator for which driver seat position is already retained in memory is illuminated for 5 seconds.
2. Push the Intelligent Key unlock button within 5 seconds after pushing memory switch (while the memory indicator is turned ON).
   NOTE:
   From the time registration is performed, the applicable memory indicator blinks for 5 seconds.

>> GO TO 3.

3.STEP 3

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

>> Inspection End.

SYSTEM SETTING

SYSTEM SETTING : Description

INFOID:0000000013473793

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

Setting Change

×: Applicable

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

SYSTEM SETTING : Work Procedure

INFOID:0000000013473794

1. CHOOSE METHOD

There are three setting methods.

Which method do you choose?

With CONSULT>>GO TO 2.

With set switch>>GO TO 4.

2. WITH CONSULT - STEP 1

Select “Work support”.

>> GO TO 3.

3. WITH CONSULT - STEP 2

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

>> Inspection End.

4. WITH SET SWITCH - STEP 1

Turn ignition switch OFF.

>> GO TO 5.

5. WITH SET SWITCH - STEP 2

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

>> Inspection End.

PRE-INSPECTION FOR DIAGNOSTIC

Basic Inspection

INFOID:0000000012545629

1. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and ground circuit as shown below.
- Driver seat control unit: Refer to ADP-76, "DRIVER SEAT CONTROL UNIT : Diagnosis Procedure".
- Automatic drive positioner control unit: Refer to ADP-77, "AUTOMATIC DRIVE POSITIONER CONTROL UNIT : Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning part.

2. CHECK MANUAL FUNCTION

Check the manual function operations by operating the relevant switches as shown below.
- Seat (slide, reclining, lifting front, lifting rear)
- Pedal assembly (forward, backward)
- Door mirror

Do all manual functions operate normally?

YES >> GO TO 3.
NO (Seat, pedal, door mirror)>>Go to SYMPTOM 1, refer to ADP-138, "Symptom Table". And, GO TO 4 if the result of SYMPTOM 1 is OK.

3. CHECK MEMORY FUNCTION 1

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

Are the operations normal?

YES >> Check each malfunction according to the instruction of the SYMPTOM 4, refer to ADP-138, "Symptom Table".
No (memory indicator operates normally)>> Go to SYMPTOM 2, refer to ADP-138, "Symptom Table".
No (memory indicator does not operate normally either)>> GO TO 5.

4. CHECK MEMORY FUNCTION 2

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

Are the operations normal?

YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".
NO >> GO TO 7.

5. CHECK SEAT MEMORY SWITCH/MEMORY INDICATOR

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

Is the inspection result normal?

YES >> GO TO 6.
NO >> Repair or replace the malfunctioning part.

6. CHECK OPERATION CONDITION

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

Are all operation conditions fulfilled?

YES >> Go to SYMPTOM 6, refer to ADP-138, "Symptom Table".
NO >> Fulfill the operation conditions. Refer to ADP-19, "MEMORY FUNCTION : System Description".

7. CHECK MECHANISM

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

Is any malfunction present in the relevant parts?

YES >> Go to SYMPTOM 3, refer to ADP-138, "Symptom Table".
NO >> Repair or replace the malfunctioning part.

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM CIRCUIT

DTC Description

INFOID:0000000013043141

DTC DETECTION LOGIC

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

POSSIBLE CAUSE

CAN communication system

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1. STEP 1

Turn ignition switch ON and wait at least 2 seconds.

>> GO TO 2.

2. STEP 2

CONSULT

Check “Self Diagnostic Result” mode of “AUTO DRIVE POS.”.

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-65, "Diagnosis Procedure".
NO–1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
NO–2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000013043142

1. SELF DIAGNOSTIC RESULT

CONSULT

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

Is DTC “U1000” displayed?

YES >> Refer to LAN-51, "Trouble Diagnosis Flow Chart".
NO >> GO TO 2.

2. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> Inspection End.

U1010 CONTROL UNIT (CAN)

DTC Description

INFOID:0000000013043143

DTC DETECTION LOGIC

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

POSSIBLE CAUSE

Driver seat control unit

FAIL-SAFE

—

Diagnosis Procedure

INFOID:0000000013043144

1. REPLACE DRIVER SEAT CONTROL UNIT

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

>> Replace driver seat control unit. Refer to ADP-140, "Removal and Installation".

B2112 SLIDING MOTOR

DTC Description

INFOID:0000000013043145

DTC DETECTION LOGIC

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

POSSIBLE CAUSE

- Driver seat control unit
- Slide motor harness is shorted

FAIL-SAFE

Only manual functions, except seat sliding, operate normally.

DTC CONFIRMATION PROCEDURE

1.SELF-DIAGNOSIS WITH AUTOMATIC DRIVE POSITIONER CONTROL UNIT

CONSULT

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

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-67, "Diagnosis Procedure".
NO–1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
NO–2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000013043146

Regarding Wiring Diagram information, refer to ADP-41, "Wiring Diagram".

1.SELF DIAGNOSTIC RESULT

CONSULT

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

Is the DTC displayed again?

YES >> GO TO 2.
NO >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".

2.CHECK SLIDING MOTOR LH CIRCUIT (POWER SHORT)

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

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness or connector.

3.CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

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

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace driver seat control unit. Refer to ADP-140, "Removal and Installation".

4.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> Inspection End.

B2113 RECLINING MOTOR

DTC Description

INFOID:0000000013043147

DTC DETECTION LOGIC

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

POSSIBLE CAUSE

- Driver seat control unit
- Reclining motor harness is shorted

FAIL-SAFE

Only manual functions, except seat reclining, operate normally.

DTC CONFIRMATION PROCEDURE

1.SELF-DIAGNOSIS WITH AUTOMATIC DRIVE POSITIONER CONTROL UNIT

CONSULT

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

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-69, "Diagnosis Procedure".
NO–1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
NO–2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000013043148

Regarding Wiring Diagram information, refer to ADP-41, "Wiring Diagram".

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

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

Is the DTC displayed again?

YES >> GO TO 2.
NO >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".

2.CHECK RECLINING MOTOR LH CIRCUIT (POWER SHORT)

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

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness or connector.

3.CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

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

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace driver seat control unit. Refer to ADP-140, "Removal and Installation".

4.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> Inspection End.

B2116 TILT MOTOR

DTC Description

INFOID:0000000013043149

DTC DETECTION LOGIC

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

POSSIBLE CAUSE

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

FAIL-SAFE

Only manual functions, except steering tilt, operate normally.

DTC CONFIRMATION PROCEDURE

1.SELF DIAGNOSIS WITH AUTOMATIC DRIVE POSITIONER CONTROL UNIT

CONSULT

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

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-71, "Diagnosis Procedure".
NO–1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
NO–2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000013043150

Regarding Wiring Diagram information, refer to ADP-41, "Wiring Diagram".

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Check “Self Diagnostic Result” mode of “AUTO DRIVE POS.”.
3. Erase the DTC.
4. Perform DTC confirmation procedure. Refer to ADP-71, "DTC Description".

Is the DTC displayed again?

YES >> GO TO 2.
NO >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".

2.CHECK TILT MOTOR CIRCUIT (POWER SHORT)

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

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness or connector.

3. CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT OUTPUT SIGNAL

1. Connect automatic drive positioner control unit connector.
2. Check voltage between automatic drive positioner control unit harness connector M34 and ground.

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

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".
NO >> Replace automatic drive positioner control unit. Refer to ADP-141, "Removal and Installation".

B2128 UART COMMUNICATION LINE

DTC Description

INFOID:0000000013043151

DTC DETECTION LOGIC

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

POSSIBLE CAUSE

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

FAIL-SAFE

Only manual functions, except door mirror, operate normally.

DTC CONFIRMATION PROCEDURE

1.SELF-DIAGNOSIS WITH AUTOMATIC DRIVE POSITIONER CONTROL UNIT

CONSULT

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

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-73, "Diagnosis Procedure".
NO–1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
NO–2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000013043152

Regarding Wiring Diagram information, refer to ADP-41, "Wiring Diagram".

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

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

Is the DTC displayed again?

YES >> GO TO 2.
NO >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".

2. CHECK UART COMMUNICATION LINE CONTINUITY

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

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

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B222	15		No

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".
NO >> Repair or replace harness.

B2130 EEPROM

DTC Description

INFOID:0000000013043153

DTC DETECTION LOGIC

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

POSSIBLE CAUSE

Driver seat control unit

FAIL-SAFE

Only manual functions operate normally.

DTC CONFIRMATION PROCEDURE

1.SELF-DIAGNOSIS WITH AUTOMATIC DRIVE POSITIONER CONTROL UNIT

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

Is the DTC detected?

YES >> Perform diagnosis procedure. Refer to ADP-75, "Diagnosis Procedure".
NO–1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
NO–2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000013043154

1.PERFORM DTC CONFIRMATION PROCEDURE

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

Is the DTC displayed again?

YES >> Replace driver seat control unit. Refer to ADP-140, "Removal and Installation".
NO >> GO TO 2.

2.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> Inspection End.

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM : Diagnosis Procedure

INFOID:0000000013189358

Regarding Wiring Diagram information, refer to BCS-54, "Wiring Diagram".

1. CHECK FUSE AND FUSIBLE LINK

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

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

Is the fuse or fusible link blown?

YES >> Replace the blown fuse or fusible link after repairing the affected circuit.
NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

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

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness or connectors.

3. CHECK GROUND CIRCUIT

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

BCM		Ground	Continuity
Connector	Terminal		
M81	134	—	Yes
	143		

Is the inspection result normal?

YES >> Inspection End.
NO >> Repair or replace harness or connectors.

DRIVER SEAT CONTROL UNIT

DRIVER SEAT CONTROL UNIT : Diagnosis Procedure

INFOID:0000000013043156

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

Regarding Wiring Diagram information, refer to ADP-41, "Wiring Diagram".

1.CHECK FUSE

Check that the following fusible link is not blown:

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

Is the inspection result normal?

YES >> GO TO 2.
NO >> Replace the blown fusible link after repairing the affected circuit.

2. CHECK POWER SUPPLY CIRCUIT

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

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Check the following:
- Repair or replace harness.
- Circuit breaker.

3. CHECK GROUND CIRCUIT

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B223	39		Yes

Is the inspection result normal?

YES >> Inspection End.
NO >> Repair or replace harness.

DRIVER SEAT CONTROL UNIT : Special Repair Requirement

INFOID:0000000013043157

1.PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

>> Refer to PG-167, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement"'.

AUTOMATIC DRIVE POSITIONER CONTROL UNIT

AUTOMATIC DRIVE POSITIONER CONTROL UNIT : Diagnosis Procedure

INFOID:0000000013043158

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

Regarding Wiring Diagram information, refer to ADP-41, "Wiring Diagram".

1.CHECK FUSE

Check that the following fusible link is not blown:

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

Is the inspection result normal?

YES >> GO TO 2.
NO >> Replace the blown fusible after repairing the affected circuit.

2. CHECK POWER SUPPLY CIRCUIT

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

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Check the following:
- Repair or replace harness.
- Circuit breaker.

3. CHECK GROUND CIRCUIT

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

Automatic drive positioner control unit		Ground	Continuity
Connector	Terminal		
M34	30		Yes

Is the inspection result normal?

YES >> Inspection End.
NO >> Repair or replace harness.

AUTOMATIC DRIVE POSITIONER CONTROL UNIT : Special Repair Requirement

INFOID:0000000013043159

1.PERFORM ADDITIONAL SERVICE

Perform additional service when removing battery negative terminal.

>> Refer to PG-167, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement".

SLIDING SWITCH

Component Function Check

INFOID:0000000013043160

1. DATA MONITOR

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

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

Is the inspection result normal?

YES >> Inspection End.
NO >> Perform diagnosis procedure. Refer to ADP-79, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000013043161

Regarding Wiring Diagram information, refer to ADP-41, "Wiring Diagram".

1. CHECK SLIDING SWITCH SIGNAL

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

(+)		(–)	Condition		Voltage (Approx.)
Driver seat control unit					
Connector	Terminals				
B222	9	Ground	Sliding switch	Operate (backward)	0 V
				Release	Battery voltage
	25			Operate (forward)	0 V
				Release	Battery voltage

Is the inspection result normal?

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

2. CHECK SLIDING SWITCH CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3. CHECK DRIVER SEAT CONTROL UNIT OUTPUT

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

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

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace driver seat control unit. Refer to ADP-140, "Removal and Installation".

4. CHECK SLIDING SWITCH

Refer to ADP-80, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace power seat switch LH. Refer to ADP-143, "Removal and Installation".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-140, "Removal and Installation".
NO >> Repair or replace malfunctioning part.

Component Inspection

INFOID:0000000013043162

1. CHECK SLIDING SWITCH

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

Power seat switch LH		Condition		Continuity
Terminals				
3	8	Sliding switch (backward)	Operate	Yes
			Release	No
	7	Sliding switch (forward)	Operate	Yes
			Release	No

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace power seat switch LH. Refer to ADP-143, "Removal and Installation".

RECLINING SWITCH

Component Function Check

INFOID:0000000013043163

1.DATA MONITOR

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

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

Is the inspection result normal?

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

Diagnosis Procedure

INFOID:0000000013043164

Regarding Wiring Diagram information, refer to ADP-41, "Wiring Diagram".

1. CHECK RECLINING SWITCH SIGNAL

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

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

Is the inspection result normal?

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

2. CHECK RECLINING SWITCH CIRCUIT

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

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

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B222	24		No
	8		

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3. CHECK DRIVER SEAT CONTROL UNIT OUTPUT

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

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

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace driver seat control unit. Refer to ADP-140, "Removal and Installation".

4. CHECK RECLINING SWITCH

Refer to ADP-82, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace power seat switch LH. Refer to ADP-143, "Removal and Installation".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-140, "Removal and Installation".
NO >> Repair or replace the malfunctioning part.

Component Inspection

INFOID:0000000013043165

1. CHECK RECLINING SWITCH

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

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

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace power seat switch LH. Refer to ADP-143, "Removal and Installation".

LIFTING SWITCH (FRONT)

Component Function Check

INFOID:0000000013043166

1. DATA MONITOR

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

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

Is the inspection result normal?

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

Diagnosis Procedure

INFOID:0000000013043167

Regarding Wiring Diagram information, refer to ADP-41, "Wiring Diagram".

1. CHECK LIFTING SWITCH SIGNAL

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

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

Is the inspection result normal?

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

2. CHECK LIFTING SWITCH (FRONT) CIRCUIT

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

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

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B222	7		No
	23		

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3. CHECK DRIVER SEAT CONTROL UNIT OUTPUT

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

(+)		(–)	Voltage (Approx.)
Driver seat control unit			
Connector	Terminal		
B222	7	Ground	Battery voltage
	23		

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace driver seat control unit. Refer to ADP-140, "Removal and Installation".

4. CHECK LIFTING SWITCH (FRONT)

Refer to ADP-84, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace power seat switch LH. Refer to ADP-143, "Removal and Installation".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-41, "Wiring Diagram".
NO >> Repair or replace the malfunctioning part.

Component Inspection

INFOID:0000000013043168

1. CHECK LIFTING SWITCH (FRONT)

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

Power seat switch LH		Condition		Continuity
Terminals				
3	6	Lifting switch front (down)	Operate	Yes
			Release	No
	5	Lifting switch front (up)	Operate	Yes
			Release	No

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace power seat switch LH. Refer to ADP-143, "Removal and Installation".

LIFTING SWITCH (REAR)

Component Function Check

INFOID:0000000013043169

1. DATA MONITOR

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

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

Is the inspection result normal?

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

Diagnosis Procedure

INFOID:0000000013043170

Regarding Wiring Diagram information, refer to ADP-41, "Wiring Diagram".

1. CHECK LIFTING SWITCH (REAR) SIGNAL

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

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

Is the inspection result normal?

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

2. CHECK LIFTING SWITCH (REAR) CIRCUIT

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

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

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B222	6		No
	22		

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3. CHECK DRIVER SEAT CONTROL UNIT OUTPUT

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

(+)		(–)	Voltage (Approx.)
Driver seat control unit			
Connector	Terminal		
B222	6	Ground	Battery voltage
	22		

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace driver seat control unit. Refer to ADP-140, "Removal and Installation".

4. CHECK LIFTING SWITCH (REAR)

Refer to ADP-86, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace power seat switch LH. Refer to ADP-143, "Removal and Installation".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-140, "Removal and Installation".
NO >> Repair or replace the malfunctioning part.

Component Inspection

INFOID:0000000013043171

1. CHECK LIFTING SWITCH (REAR)

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

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

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace power seat switch LH. Refer to ADP-143, "Removal and Installation".

TILT SWITCH

Component Function Check

INFOID:0000000013043172

1. DATA MONITOR

CONSULT
1. Select “Data Monitor” mode of “AUTO DRIVE POS.”.
2. Select “TILT SW-UP”, “TILT SW-DOWN”.
3. Check that the function operates normally according to 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 inspection result normal?

YES >> Inspection End.
NO >> Perform diagnosis procedure. Refer to ADP-87, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000013043173

Regarding Wiring Diagram information, refer to ADP-41, "Wiring Diagram".

1. CHECK TILT SWITCH SIGNAL

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

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

Is the inspection result normal?

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

2. CHECK TILT SWITCH CIRCUIT

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

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

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

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

Is the inspection result normal?

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

3. CHECK TILT SWITCH

Refer to ADP-88, "Component Inspection".

Is the inspection result normal?

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

4. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> Inspection End.

Component Inspection

INFOID:0000000013043174

1. CHECK TILT SWITCH

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

ADP steering switch (tilt switch) Terminals		Condition		Continuity
1	5	Tilt switch (up)	Operate	Yes
			Release	No
	2	Tilt switch (down)	Operate	Yes
			Release	No

Is the inspection result normal?

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

TELESCOPIC SWITCH

Component Function Check

INFOID:0000000013043175

1. DATA MONITOR

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

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

Is the inspection result normal?

YES >> Inspection End.
NO >> Perform diagnosis procedure. Refer to ADP-89, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000013043176

Regarding Wiring Diagram information, refer to ADP-41, "Wiring Diagram".

1. CHECK TELESCOPIC SWITCH SIGNAL

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

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

Is the inspection result normal?

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

2. CHECK TELESCOPIC SWITCH CIRCUIT

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

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

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

Automatic drive positioner control unit		Ground	Continuity
Connector	Terminal		
M33	7		No
	19		

Is the inspection result normal?

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

3. CHECK TELESCOPIC SWITCH

Refer to ADP-90, "Component Inspection".

Is the inspection result normal?

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

4. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> Inspection End.

Component Inspection

INFOID:0000000013043177

1. CHECK TELESCOPIC SWITCH

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

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

Is the inspection result normal?

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

SEAT MEMORY SWITCH

Component Function Check

INFOID:0000000013043178

1. DATA MONITOR

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

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

Is the inspection result normal?

YES >> Inspection End.
NO >> Perform diagnosis procedure. Refer to ADP-91, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000013043179

Regarding Wiring Diagram information, refer to ADP-41, "Wiring Diagram".

1. CHECK SEAT MEMORY SWITCH SIGNAL

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

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

Is the inspection result normal?

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

2. CHECK MEMORY SWITCH CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-140, "Removal and Installation".
NO >> Repair or replace harness.

3. CHECK MEMORY SWITCH GROUND CIRCUIT

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

Seat memory switch		Ground	Continuity
Connector	Terminal		
D10	9		Yes

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace harness.

4. CHECK SEAT MEMORY SWITCH

Refer to ADP-92, "Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".
NO >> Replace seat memory switch. Refer to ADP-142, "Removal and Installation".

Component Inspection

INFOID:0000000013043180

1. CHECK SEAT MEMORY SWITCH

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

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

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace seat memory switch. Refer to ADP-142, "Removal and Installation".

DOOR MIRROR REMOTE CONTROL SWITCH
SELECT SWITCH

SELECT SWITCH : Component Function Check

INFOID:0000000013043181

1. DATA MONITOR

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

Monitor item	Condition		Status
MIR CHNG SW-R	Mirror switch (right)	Operate	ON
		Release	OFF
MIR CHNG SW-L	Mirror switch (left)	Operate	ON
		Release	OFF

Is the inspection result normal?

YES >> Inspection End.
NO >> Perform diagnosis procedure. Refer to ADP-94, "SELECT SWITCH : Diagnosis Procedure".

SELECT SWITCH : Diagnosis Procedure

INFOID:0000000013043182

Regarding Wiring Diagram information, refer to ADP-41, "Wiring Diagram".

1. CHECK SELECT SWITCH SIGNAL

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

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

Is the inspection result normal?

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

2. CHECK HARNESS CONTINUITY

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

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

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

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3. CHECK DOOR MIRROR REMOTE CONTROL SWITCH GROUND CIRCUIT

Check continuity between door mirror remote control switch connector D20 and ground.

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

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace harness.

4. CHECK SELECT SWITCH

Check select switch.
Refer to ADP-95, "SELECT SWITCH : Component Inspection".

Is the inspection result normal?

YES >> Refer to GI-43, "Intermittent Incident".
NO >> Replace door mirror remote control switch. Refer to MIR-30, "Removal and Installation".

5. CHECK INTERMITTENT INCIDENT

Check intermittent incident.
Refer to GI-43, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-141, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

SELECT SWITCH : Component Inspection

INFOID:0000000013043183

1. CHECK SELECT SWITCH

Check door mirror remote control switch.

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

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace door mirror remote control switch. Refer to MIR-30, "Removal and Installation".

MIRROR SWITCH

MIRROR SWITCH : Component Function Check

INFOID:0000000013043184

1. DATA MONITOR

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

Monitor item	Condition		Status
MIR CON SW-UP/DN	Mirror switch (up/down)	Operate	ON
		Release	OFF
MIR CON SW-RH/LH	Mirror switch (right/left)	Operate	ON
		Release	OFF

Is the inspection result normal?

YES >> Inspection End.
NO >> Perform diagnosis procedure. Refer to ADP-96, "MIRROR SWITCH : Diagnosis Procedure".

MIRROR SWITCH : Diagnosis Procedure

INFOID:0000000013043185

Regarding Wiring Diagram information, refer to ADP-41, "Wiring Diagram".

1. CHECK MIRROR SWITCH FUNCTION

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

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

Is the inspection result normal?

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

2. CHECK HARNESS CONTINUITY

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

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

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

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3. CHECK DOOR MIRROR REMOTE CONTROL SWITCH GROUND CIRCUIT

Check continuity between door mirror remote control switch connector D20 and ground.

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

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace harness.

4. CHECK MIRROR SWITCH

Check mirror switch.
Refer to ADP-97, "MIRROR SWITCH : Component Inspection".

Is the inspection result normal?

YES >> Refer to GI-43, "Intermittent Incident".
NO >> Replace door mirror remote control switch. Refer to MIR-30, "Removal and Installation".

5. CHECK INTERMITTENT INCIDENT

Check intermittent incident.
Refer to GI-43, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-141, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

MIRROR SWITCH : Component Inspection

INFOID:0000000013043186

1. CHECK MIRROR SWITCH

Check door mirror remote control switch.

Door mirror remote control switch	Mirror switch condition	Continuity
Terminals		

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

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace door mirror remote control switch. Refer to MIR-30, "Removal and Installation".

POWER SEAT SWITCH GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000013043187

Regarding Wiring Diagram information, refer to ADP-41, "Wiring Diagram".

1. CHECK POWER SEAT SWITCH LH GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect power seat switch LH.
3. Check continuity between power seat switch LH connector B213 and ground.

Power seat switch LH		Ground	Continuity
Connector	Terminal		
B213	3		Yes

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".
NO >> Repair or replace harness.

TILT &TELESCOPIC SWITCH GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000013043188

Regarding Wiring Diagram information, refer to ADP-41, "Wiring Diagram".

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

1. Turn ignition switch OFF.
2. Disconnect ADP steering switch (tilt & telescopic switch).
3. Check continuity between ADP steering switch (tilt & telescopic switch) connector M41 and ground.

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

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".
NO >> Repair or replace harness.

SLIDING SENSOR

Component Function Check

INFOID:0000000013043189

1. DATA MONITOR

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

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

Is the inspection result normal?

YES >> Inspection End.
NO >> Perform diagnosis procedure. Refer to ADP-101, "Diagnosis Procedure".

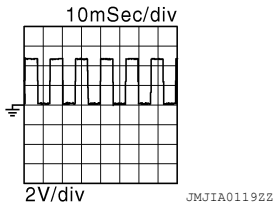
Diagnosis Procedure

INFOID:0000000013043190

Regarding Wiring Diagram information, refer to ADP-41, "Wiring Diagram".

1. CHECK SLIDING SENSOR SIGNAL

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

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

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-140, "Removal and Installation".
NO >> GO TO 2.

2. CHECK SLIDING SENSOR CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect driver seat control unit and sliding motor LH.
3. Check continuity between driver seat control unit harness connector B222 and sliding motor LH harness connector B226.

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

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B222	31		No

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3. CHECK SLIDING SENSOR POWER SUPPLY

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

(+)		(–)	Voltage (Approx.)
Sliding motor LH			
Connector	Terminal		
B226	4	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 5.
NO >> GO TO 4.

4. CHECK SLIDING SENSOR POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect driver seat control unit.
3. Check continuity between driver seat control unit harness connector B222 and sliding motor LH harness connector B226.

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

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B222	5		No

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-140, "Removal and Installation".
NO >> Repair or replace harness.

5. CHECK SLIDING SENSOR GROUND

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

Sliding motor LH		Ground	Continuity
Connector	Terminal		
B226	3		Yes

Is the inspection result normal?

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

NO >> Repair or replace harness.

RECLINING SENSOR

Component Function Check

INFOID:0000000013043191

1. DATA MONITOR

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

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

Is the inspection result normal?

YES >> Inspection End.
NO >> Perform diagnosis procedure. Refer to ADP-104, "Diagnosis Procedure".

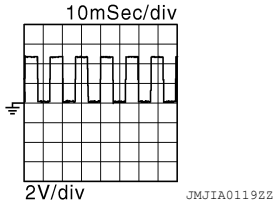
Diagnosis Procedure

INFOID:0000000013043192

Regarding Wiring Diagram information, refer to ADP-41, "Wiring Diagram".

1. CHECK RECLINING SENSOR SIGNAL

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

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

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-140, "Removal and Installation".
NO >> GO TO 2.

2. CHECK RECLINING SENSOR CIRCUIT

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

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

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B222	13		No

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3. CHECK RECLINING SENSOR POWER SUPPLY

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

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

Is the inspection result normal?

YES >> GO TO 5.
NO >> GO TO 4.

4. CHECK RECLINING SENSOR POWER SUPPLY CIRCUIT

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

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

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B222	5		No

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-140, "Removal and Installation".
NO >> Repair or replace harness.

5. CHECK RECLINING SENSOR GROUND

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

Reclining motor LH		Ground	Continuity
Connector	Terminal		
B225	2		Yes

Is the inspection result normal?

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

NO >> Repair or replace harness.

LIFTING SENSOR (FRONT)

Component Function Check

INFOID:0000000013043193

1. DATA MONITOR

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

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

Is the inspection result normal?

YES >> Inspection End.
NO >> Perform diagnosis procedure. Refer to ADP-107, "Diagnosis Procedure".

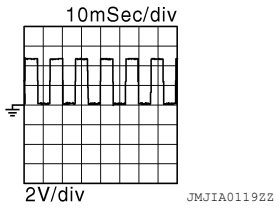
Diagnosis Procedure

INFOID:0000000013043194

Regarding Wiring Diagram information, refer to ADP-41, "Wiring Diagram".

1. CHECK LIFTING SENSOR (FRONT) SIGNAL

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

(+)		(–)	Condition		Voltage signal
Driver seat control unit					
Connector	Terminal				
B222	30	Ground	Seat lifting (front)	Operate	
				Other than above	0 V or 5 V

Is the inspection result normal?

YES >> GO TO 4.
NO >> GO TO 2.

2. CHECK LIFTING SENSOR (FRONT) CIRCUIT

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

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

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B222	30		No

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3. CHECK LIFTING SENSOR (FRONT) POWER SUPPLY

1. Connect driver seat control unit.
2. Turn ignition switch ON.
3. Check voltage between lifting motor LH (front) harness connector B227 and ground.

(+)		(–)	Voltage (Approx.)
Lifting motor LH (front)			
Connector	Terminal		
B227	3	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 5.
NO >> GO TO 4.

4. CHECK LIFTING SENSOR (FRONT) POWER SUPPLY CIRCUIT

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

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

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B222	5		No

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-140, "Removal and Installation".
NO >> Repair or replace harness.

5. CHECK LIFTING SENSOR (FRONT) GROUND

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

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

Is the inspection result normal?

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

NO >> Repair or replace harness.

LIFTING SENSOR (REAR)

Component Function Check

INFOID:0000000013043195

1. DATA MONITOR

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

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

Is the inspection result normal?

YES >> Inspection End.
NO >> Perform diagnosis procedure. Refer to ADP-110, "Diagnosis Procedure".

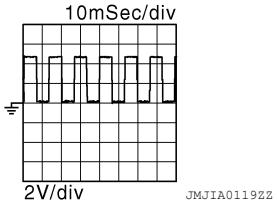
Diagnosis Procedure

INFOID:0000000013043196

Regarding Wiring Diagram information, refer to ADP-41, "Wiring Diagram".

1. CHECK LIFTING SENSOR (REAR) SIGNAL

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

(+)		(–)	Condition		Voltage signal
Driver seat control unit					
Connector	Terminal				
B222	29	Ground	Seat lifting (rear)	Operate	
				Other than above	0 V or 5 V

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-140, "Removal and Installation".
NO >> GO TO 2.

2. CHECK LIFTING SENSOR (REAR) CIRCUIT

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

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

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B222	29		No

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3. CHECK LIFTING SENSOR (REAR) POWER SUPPLY

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

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

Is the inspection result normal?

YES >> GO TO 5.
NO >> GO TO 4.

4. CHECK LIFTING SENSOR (REAR) POWER SUPPLY CIRCUIT

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

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

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B222	5		No

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-41, "Wiring Diagram".
NO >> Repair or replace harness.

5. CHECK LIFTING SENSOR (REAR) GROUND

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

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

Is the inspection result normal?

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

NO >> Repair or replace harness.

TILT SENSOR

Component Function Check

INFOID:0000000013043197

1.DATA MONITOR

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

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

Is the inspection result normal?

YES >> Inspection End.
NO >> Perform diagnosis procedure. Refer to ADP-113, "Diagnosis Procedure".

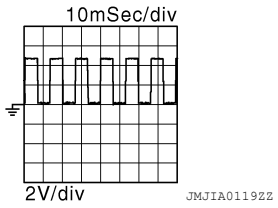
Diagnosis Procedure

INFOID:0000000013043198

Regarding Wiring Diagram information, refer to ADP-41, "Wiring Diagram".

1. CHECK TILT SENSOR SIGNAL

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

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

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-140, "Removal and Installation".
NO >> GO TO 2.

2. CHECK TILT SENSOR CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect driver seat control unit and tilt motor.
3. Check continuity between driver seat control unit harness connector B222 and tilt motor harness connector M94.

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

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B222	28		No

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3. CHECK TILT SENSOR POWER SUPPLY

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

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

Is the inspection result normal?

YES >> GO TO 5.
NO >> GO TO 4.

4. CHECK TILT SENSOR POWER SUPPLY CIRCUIT

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

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

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

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

Is the inspection result normal?

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

5. CHECK TILT SENSOR GROUND CIRCUIT

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

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

Is the inspection result normal?

YES >> Replace tilt motor. Refer to ST-37, "Removal and Installation".
NO >> Repair or replace harness.

TELESCOPIC SENSOR

Component Function Check

INFOID:0000000013043199

1. DATA MONITOR

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

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

Is the inspection result normal?

YES >> Inspection End.
NO >> Perform diagnosis procedure. Refer to ADP-115, "Diagnosis Procedure".

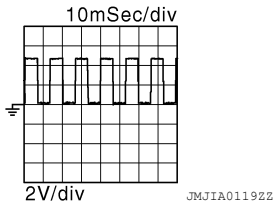
Diagnosis Procedure

INFOID:0000000013043200

Regarding Wiring Diagram information, refer to ADP-41, "Wiring Diagram".

1. CHECK TELESCOPIC SENSOR SIGNAL

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

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

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-140, "Removal and Installation".
NO >> GO TO 2.

2. CHECK TELESCOPIC SENSOR CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect driver seat control unit and telescopic motor.
3. Check continuity between driver seat control unit harness connector B222 and telescopic motor harness connector M94.

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

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B222	12		No

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3. CHECK TELESCOPIC SENSOR POWER SUPPLY

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

(+)		(–)	Voltage (Approx.)
Telescopic motor			
Connector	Terminal		
M94	5	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 5.
NO >> GO TO 4.

4. CHECK TELESCOPIC SENSOR POWER SUPPLY CIRCUIT

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

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

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

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

Is the inspection result normal?

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

5. CHECK TELESCOPIC SENSOR GROUND CIRCUIT

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

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

Is the inspection result normal?

YES >> Replace telescopic motor. Refer to ST-36, "Exploded View".
NO >> Repair or replace harness.

MIRROR SENSOR
DRIVER SIDE

DRIVER SIDE : Component Function Check

INFOID:0000000013043201

1. DATA MONITOR

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

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

Is the inspection result normal?

YES >> Inspection End.
NO >> Perform diagnosis procedure. Refer to ADP-117, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000013043202

Regarding Wiring Diagram information, refer to ADP-41, "Wiring Diagram".

1. CHECK DOOR MIRROR LH SENSOR SIGNAL

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

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

Is the inspection result normal?

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

2. CHECK DOOR MIRROR LH SENSOR CIRCUIT 1

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

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

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

Automatic drive positioner control unit		Ground	Continuity
Connector	Terminal		
M33	6		No
	18		

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3. CHECK DOOR MIRROR LH SENSOR CIRCUIT 2

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

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

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

Automatic drive positioner control unit		Ground	Continuity
Connector	Terminal		
M33	20		No
	21		

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace harness.

4. CHECK TILT MOTOR ADJUSTING OPERATION

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

Is the operation normal?

YES >> Replace door mirror actuator (built into door mirror LH). Refer to MIR-28, "Removal and Installation".
NO >> Replace automatic drive positioner control unit. Refer to ADP-141, "Removal and Installation".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-141, "Removal and Installation".
NO >> Repair or replace the malfunctioning part.

PASSENGER SIDE

PASSENGER SIDE : Component Function Check

INFOID:0000000013043203

1. CHECK FUNCTION

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

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

Is the inspection result normal?

YES >> Inspection End.
NO >> Perform diagnosis procedure. Refer to ADP-119, "PASSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000013043204

Regarding Wiring Diagram information, refer to ADP-41, "Wiring Diagram".

1. CHECK DOOR MIRROR RH SENSOR SIGNAL

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

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

Is the inspection result normal?

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

2. CHECK DOOR MIRROR RH SENSOR CIRCUIT 1

1. Turn ignition switch OFF.
2. Disconnect automatic drive positioner control unit and door mirror RH.
3. Check continuity between automatic drive positioner control unit harness connector M33 and door mirror RH harness connector D107.

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

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

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3. CHECK DOOR MIRROR RH SENSOR CIRCUIT 2

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

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

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

Automatic drive positioner control unit		Ground	Continuity
Connector	Terminal		
M33	20		No
	21		

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace harness.

4. CHECK TILT MOTOR ADJUSTING OPERATION

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

Is the operation normal?

YES >> Replace door mirror actuator (built into door mirror RH). Refer to MIR-28, "Removal and Installation".
NO >> Replace automatic drive positioner control unit. Refer to ADP-141, "Removal and Installation".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic drive positioner control unit. Refer to ADP-141, "Removal and Installation".
NO >> Repair or replace the malfunctioning part.

SLIDING MOTOR

Component Function Check

INFOID:0000000013043205

1. ACTIVE TEST

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

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

Is the operation of relevant parts normal?

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

Diagnosis Procedure

INFOID:0000000013043206

Regarding Wiring Diagram information, refer to ADP-41, "Wiring Diagram".

1. CHECK SLIDING MOTOR LH POWER SUPPLY

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

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

Is the inspection result normal?

YES >> Replace sliding motor LH. Refer to SE-100, "Removal and Installation - Captain Seats", or SE-101, "Removal and Installation - Center Seat".
NO >> GO TO 2.

2. CHECK SLIDING MOTOR LH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect driver seat control unit and sliding motor LH.
3. Check continuity between driver seat control unit harness connector B223 and sliding motor LH harness connector B226.

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

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

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-140, "Removal and Installation".
NO >> Repair or replace the malfunctioning part.

RECLINING MOTOR

Component Function Check

INFOID:0000000013043207

1. ACTIVE TEST

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

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

Is the operation of relevant parts normal?

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

Diagnosis Procedure

INFOID:0000000013043208

Regarding Wiring Diagram information, refer to ADP-41, "Wiring Diagram".

1. CHECK RECLINING MOTOR LH POWER SUPPLY

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

(+)		(-)	Condition		Voltage (Approx.)
Driver seat control unit					
Connector	Terminal				
B223	35	Ground	SEAT RECLINING	OFF	0 V
				FR (forward)	0 V
				RR (backward)	Battery voltage
	43			OFF	0 V
				FR (forward)	Battery voltage
				RR (backward)	0 V

Is the inspection result normal?

YES >> Replace reclining motor LH. Refer to SE-100, "Removal and Installation - Captain Seats", or SE-101, "Removal and Installation - Center Seat".
NO >> GO TO 2.

2. CHECK RECLINING MOTOR LH CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-140, "Removal and Installation".
NO >> Repair or replace the malfunctioning part.

LIFTING MOTOR (FRONT)

Component Function Check

INFOID:0000000013043209

1. ACTIVE TEST

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

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

Is the operation of relevant parts normal?

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

Diagnosis Procedure

INFOID:0000000013043210

Regarding Wiring Diagram information, refer to ADP-41, "Wiring Diagram".

1. CHECK LIFTING MOTOR LH (FRONT) POWER SUPPLY

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

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

Is the inspection result normal?

YES >> Replace lifting motor LH (front). Refer to SE-100, "Removal and Installation - Captain Seats", SE-101, "Removal and Installation - Center Seat".
NO >> GO TO 2.

2. CHECK LIFTING MOTOR LH (FRONT) CIRCUIT

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

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

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B223	34		No
	42		

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-140, "Removal and Installation".
NO >> Repair or replace the malfunctioning part.

LIFTING MOTOR (REAR)

Component Function Check

INFOID:0000000013043211

1. ACTIVE TEST

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

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

Is the operation of relevant parts normal?

YES >> Inspection End.
NO >> Perform diagnosis procedure. Refer to ADP-127, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000013043212

Regarding Wiring Diagram information, refer to ADP-41, "Wiring Diagram".

1. CHECK LIFTING MOTOR LH (REAR) POWER SUPPLY

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

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

Is the inspection result normal?

YES >> Replace lifting motor LH (rear). Refer to SE-100, "Removal and Installation - Captain Seats", SE-101, "Removal and Installation - Center Seat".
NO >> GO TO 2.

2. CHECK LIFTING MOTOR (REAR) CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-140, "Removal and Installation".
NO >> Repair or replace the malfunctioning part.

TILT MOTOR

Component Function Check

INFOID:0000000013043213

1. ACTIVE TEST

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

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

Is the operation of relevant parts normal?

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

Diagnosis Procedure

INFOID:0000000013043214

Regarding Wiring Diagram information, refer to ADP-41, "Wiring Diagram".

1. CHECK TILT MOTOR POWER SUPPLY

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

(+)		(–)	Condition		Voltage (Approx.)
Tilt motor					
Connector	Terminal				
M94	1	Ground	TILT MOTOR	OFF	0 V
				UP	0 V
				DWN (down)	Battery voltage
	7			OFF	0 V
				UP	Battery voltage
				DWN (down)	0 V

Is the inspection result normal?

YES >> Replace tilt motor. Refer to ST-36, "Exploded View".
NO >> GO TO 2.

2. CHECK TILT MOTOR CIRCUIT

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

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

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

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

Is the inspection result normal?

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

TELESCOPIC MOTOR

Component Function Check

INFOID:0000000013043215

1.ACTIVE TEST

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

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

Is the operation of relevant parts normal?

YES >> Inspection End.
NO >> Perform diagnosis procedure. Refer to ADP-131, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000013043216

Regarding Wiring Diagram information, refer to ADP-41, "Wiring Diagram".

1. CHECK TELESCOPIC MOTOR POWER SUPPLY

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

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

Is the inspection result normal?

YES >> Replace telescopic motor. Refer to ST-36, "Exploded View".
NO >> GO TO 2.

2.CHECK TELESCOPIC MOTOR CIRCUIT

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

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

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

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

Is the inspection result normal?

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

DOOR MIRROR MOTOR

Component Function Check

INFOID:0000000013043217

1. ACTIVE TEST

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

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

Is the inspection result normal?

YES >> Door mirror motor function is OK.
NO >> Refer to ADP-133, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000013043218

Regarding Wiring Diagram information, refer to ADP-41, "Wiring Diagram".

1. CHECK DOOR MIRROR MOTOR INPUT SIGNAL

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

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

Is the inspection result normal?

YES >> Refer to ADP-135, "Component Inspection".
NO >> GO TO 2.

2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect automatic drive positioner control unit and door mirror.

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

Door mirror LH

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

Door mirror RH

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

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

Door mirror LH

Automatic drive positioner control unit		Ground	Continuity
Connector	Terminal		
M33	12	Ground	No
	23		
	24		

Door mirror RH

Automatic drive positioner control unit		Ground	Continuity
Connector	Terminal		
M33	10	Ground	No
	11		
	22		

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3. CHECK AUTOMATIC DRIVE POSITIONER CONTROL UNIT OUTPUT SIGNAL

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

Door mirror LH

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

Door mirror RH

(+)		(-)	Mirror switch condition	Voltage (Approx.)
Automatic drive positioner control unit				
Connector	Terminal			
M33	10	Ground	UP	Battery voltage
			Other than above	0 V
	11		LEFT	Battery voltage
			Other than above	0 V
	22		DOWN / RIGHT	Battery voltage
			Other than above	0 V

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace automatic drive positioner control unit. Refer to ADP-141, "Removal and Installation".

4. CHECK DOOR MIRROR MOTOR

Check door mirror motor.
Refer to ADP-135, "Component Inspection".

Is the inspection result normal?

YES >> Refer to GI-43, "Intermittent Incident".
NO >> Replace door mirror actuator. Refer to MIR-28, "Removal and Installation".

Component Inspection

INFOID:0000000013043219

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-22, "Exploded View".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Replace door mirror actuator. Refer to MIR-28, "Removal and Installation".

2. CHECK DOOR MIRROR MOTOR-II

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

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

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace door mirror actuator. Refer to MIR-28, "Removal and Installation".

SEAT MEMORY INDICATOR

Component Function Check

INFOID:0000000013043220

1. ACTIVE TEST

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

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

Is the operation of relevant parts normal?

YES >> Inspection End.
NO >> Perform diagnosis procedure. Refer to ADP-136, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000013043221

Regarding Wiring Diagram information, refer to ADP-41, "Wiring Diagram".

1. CHECK SEAT MEMORY INDICATOR CIRCUIT

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

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

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

Driver seat control unit		Ground	Continuity
Connector	Terminal		
B222	10		No
	26		

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace harness.

2. CHECK MEMORY INDICATOR POWER SUPPLY

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

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Check the following:
- 10A fuse No.9.
- Harness for open or short between memory indicator and fuse.

3. CHECK MEMORY INDICATOR

Refer to ADP-137, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace seat memory switch. Refer to ADP-142, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-140, "Removal and Installation".
NO >> Repair or replace the malfunctioning part.

Component Inspection

INFOID:0000000013043222

1. CHECK SEAT MEMORY INDICATOR

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

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

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace seat memory switch. Refer to ADP-142, "Removal and Installation".

SYMPTOM DIAGNOSIS

ADP SYSTEM SYMPTOMS

Symptom Table

INFOID:0000000013052135

NOTE:
Always perform the “Basic Inspection” before performing diagnosis in the following table. Refer to ADP-55, "Work Flow".

Symptom		Diagnosis procedure	Reference page
Manual functions (for specific part) do not operate.	Sliding operation	Check sliding switch.	ADP-79
	Reclining operation	Check reclining switch.	ADP-81
	Lifting operation (front)	Check lifting switch (front).	ADP-83
	Lifting operation (rear)	Check lifting switch (rear).	ADP-85
	Tilt operation	Check tilt switch.	ADP-87
	Telescopic sensor	Check telescopic switch.	ADP-89
	Door mirror operation	1. Select switch	ADP-94
		2. Mirror switch	ADP-96
	All parts of seat	Check power seat switch ground circuit.	ADP-99
Memory functions (for specific part) do not operate.	Sliding operation	Check sliding sensor.	ADP-101
	Reclining operation	Check reclining sensor.	ADP-104
	Lifting operation (front)	Check lifting sensor (front).	ADP-107
	Lifting operation (rear)	Check lifting sensor (rear).	ADP-110
	Tilt operation	Check tilt sensor.	ADP-113
	Telescopic operation	Check telescopic sensor.	ADP-115
	Door mirror operation	Check door mirror sensor.	Driver side: ADP-117 Passenger side: ADP-119
Memory functions and manual functions (for specific part) do not operate.	Sliding operation	Check sliding motor LH.	ADP-121
	Reclining operation	Check reclining motor LH.	ADP-123
	Lifting operation (front)	Check lifting motor LH (front).	ADP-125
	Lifting operation (rear)	Check lifting motor LH (rear).	ADP-127
	Tilt operation	Check tilt motor.	ADP-129
	Telescopic operation	Check telescopic motor.	ADP-131
	Door mirror operation	Check door mirror motor.	ADP-133
Entry/Exit assist function does not operate.		1. Check system setting.	ADP-15
		2. Perform initialization.	ADP-59
		3. Check front door switch (driver side).	DLK-96
Linking key fob to meter display.		1. Check door lock function.	DLK-100
		2. Perform memory storing.	ADP-19

NORMAL OPERATING CONDITION

Description

INFOID:0000000013052136

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

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

REMOVAL AND INSTALLATION

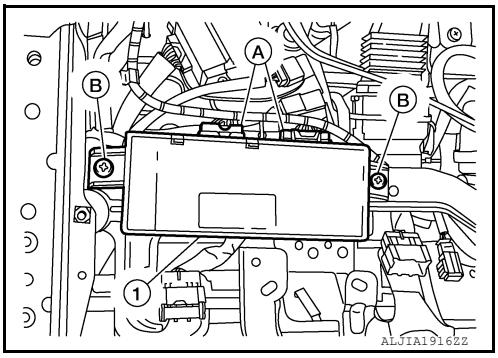
DRIVER SEAT CONTROL UNIT

Removal and Installation

INFOID:0000000012545785

REMOVAL

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



INSTALLATION

Installation is in the reverse order of removal.

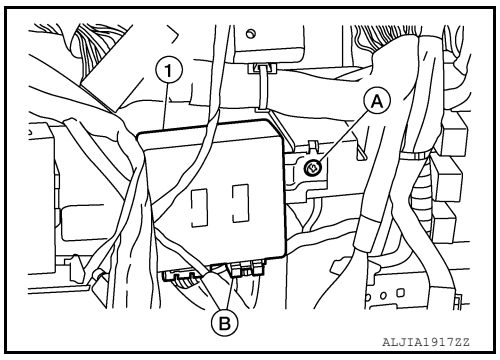
AUTOMATIC DRIVE POSITIONER CONTROL UNIT

Removal and Installation

INFOID:0000000012545786

REMOVAL

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



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

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

SEAT MEMORY SWITCH

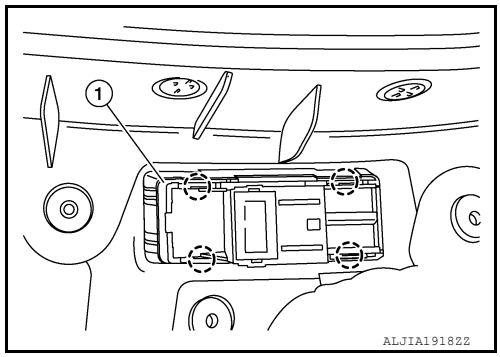
Removal and Installation

INFOID:0000000012545787

REMOVAL

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

: Pawl



INSTALLATION

Installation is in the reverse order of removal.

POWER SEAT SWITCH

Removal and Installation

INFOID:0000000013055385

REMOVAL

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

ADP STEERING SWITCH

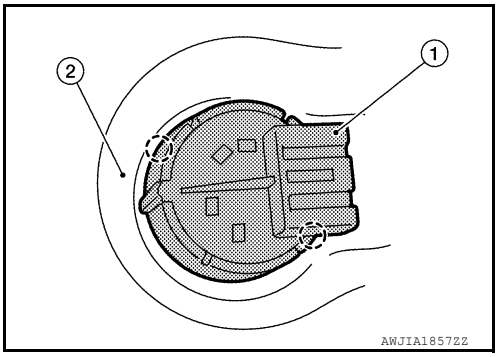
Removal and Installation

INFOID:0000000013055325

REMOVAL

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

: Pawl



INSTALLATION

Installation is in the reverse order of removal.