## SECTION



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## PRECAUTIONS

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

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted.
Information necessary to service the system safely is included in the SRS 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, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SRS 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.


## Service Notice

- When removing or installing various parts, place a cloth or padding onto the vehicle body to prevent scratches.
- Handle trim, molding, instruments, grille, etc. carefully during removing or installing. Be careful not to oil or damage them.
- Apply sealing compound where necessary when installing parts.
- When applying sealing compound, be careful that the sealing compound does not protrude from parts.
- When replacing any metal parts (for example body outer panel, members, etc.), be sure to take rust prevention measures.


## Precautions for Work

- 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 keep them.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After re-installation is completed, be sure to make sure each part works normally.
- Follow the steps below to clean components.
- Water soluble foul: Dip a soft cloth into lukewarm water, and wring the water out of the cloth to wipe the fouled area.
Then rub with a soft and dry cloth.
- Oily foul: Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3\%), and wipe the fouled area.
Then dip a cloth into fresh water, and wring the water out of the cloth to wipe the detergent off. Then rub with a soft and dry cloth.
- Do not use organic solvent such as thinner, benzene, alcohol, and gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.


## PREPARATION

## PREPARATION <br> Special Service Tools

The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

| Tool number |  |  |
| :--- | :--- | :--- |
| (Kent-Moore No.) |  |  |
| Tool name | Description |  |
| (J-39570) |  |  |
| Chassis ear | Locating the noise |  |

Commercial Service Tools

| Tool name | Description |  |
| :--- | :--- | :--- |
| Engine ear |  |  |

## SQUEAK AND RATTLE TROUBLE DIAGNOSIS

## Work Flow



## CUSTOMER INTERVIEW

Interview the customer if possible, to determine the conditions that exist when the noise occurs. Use the Diagnostic Worksheet during the interview to document the facts and conditions when the noise occurs and any customer's comments; refer to SE-9, "Diagnostic Worksheet" . This information is necessary to duplicate the conditions that exist when the noise occurs.

- The customer may not be able to provide a detailed description or the location of the noise. Attempt to obtain all the facts and conditions that exist when the noise occurs (or does not occur).
- If there is more than one noise in the vehicle, be sure to diagnose and repair the noise that the customer is concerned about. This can be accomplished by test driving the vehicle with the customer.
- After identifying the type of noise, isolate the noise in terms of its characteristics. The noise characteristics are provided so the customer, service adviser and technician are all speaking the same language when defining the noise.
- Squeak -(Like tennis shoes on a clean floor) Squeak characteristics include the light contact/fast movement/brought on by road conditions/hard surfaces=higher pitch noise/softer surfaces=lower pitch noises/edge to surface=chirping
- Creak-(Like walking on an old wooden floor) Creak characteristics include firm contact/slow movement/twisting with a rotational movement/pitch dependent on materials/often brought on by activity.
- Rattle—(Like shaking a baby rattle)

Rattle characteristics include the fast repeated contact/vibration or similar movement/loose parts/missing clip or fastener/incorrect clearance.

- Knock - (Like a knock on a door)

Knock characteristics include hollow sounding/sometimes repeating/often brought on by driver action.

- Tick—(Like a clock second hand)

Tick characteristics include gentle contacting of light materials/loose components/can be caused by driver action or road conditions.

- Thump-(Heavy, muffled knock noise) Thump characteristics include softer knock/dead sound often brought on by activity.
- Buzz-(Like a bumble bee) Buzz characteristics include high frequency rattle/firm contact.
- Often the degree of acceptable noise level will vary depending upon the person. A noise that you may judge as acceptable may be very irritating to the customer.
- Weather conditions, especially humidity and temperature, may have a great effect on noise level.


## DUPLICATE THE NOISE AND TEST DRIVE

If possible, drive the vehicle with the customer until the noise is duplicated. Note any additional information on the Diagnostic Worksheet regarding the conditions or location of the noise. This information can be used to duplicate the same conditions when you confirm the repair.
If the noise can be duplicated easily during the test drive, to help identify the source of the noise, try to duplicate the noise with the vehicle stopped by doing one or all of the following:

1) Close a door.
2) Tap or push/pull around the area where the noise appears to be coming from.
3) Rev the engine.
4) Use a floor jack to recreate vehicle "twist".
5) At idle, apply engine load (electrical load, half-clutch on $\mathrm{M} / \mathrm{T}$ model, drive position on $\mathrm{A} / \mathrm{T}$ model).
6) Raise the vehicle on a hoist and hit a tire with a rubber hammer.

- Drive the vehicle and attempt to duplicate the conditions the customer states exist when the noise occurs.
- If it is difficult to duplicate the noise, drive the vehicle slowly on an undulating or rough road to stress the vehicle body.


## CHECK RELATED SERVICE BULLETINS

After verifying the customer concern or symptom, check ASIST for Technical Service Bulletins (TSBs) related to that concern or symptom.
If a TSB relates to the symptom, follow the procedure to repair the noise.

## LOCATE THE NOISE AND IDENTIFY THE ROOT CAUSE

1. Narrow down the noise to a general area. To help pinpoint the source of the noise, use a listening tool (Chassis Ear: J-39570, Engine Ear and mechanics stethoscope).
2. Narrow down the noise to a more specific area and identify the cause of the noise by:

- removing the components in the area that you suspect the noise is coming from.

Do not use too much force when removing clips and fasteners, otherwise clips and fastener can be broken or lost during the repair, resulting in the creation of new noise.

- tapping or pushing/pulling the component that you suspect is causing the noise.

Do not tap or push/pull the component with excessive force, otherwise the noise will only be eliminated temporarily.

- feeling for a vibration with your hand by touching the component(s) that you suspect is (are) causing the noise.
- placing a piece of paper between components that you suspect are causing the noise.
- looking for loose components and contact marks.

Refer to SE-7, "Generic Squeak and Rattle Troubleshooting" .

## REPAIR THE CAUSE

- If the cause is a loose component, tighten the component securely.
- If the cause is insufficient clearance between components:
- separate components by repositioning or loosening and retightening the component, if possible.
- insulate components with a suitable insulator such as urethane pads, foam blocks, felt cloth tape or urethane tape. A Nissan Squeak and Rattle Kit (J-43980) is available through your authorized Nissan Parts Department.


## CAUTION:

Do not use excessive force as many components are constructed of plastic and may be damaged.
Always check with the Parts Department for the latest parts information.
The following materials are contained in the Nissan Squeak and Rattle Kit (J-43980). Each item can be ordered separately as needed.
URETHANE PADS [ 1.5 mm ( 0.059 in ) thick]
Insulates connectors, harness, etc.
76268-9E005: $100 \times 135 \mathrm{~mm}(3.94 \times 5.31 \mathrm{in}) / 76884-71$ L01: $60 \times 85 \mathrm{~mm}(2.36 \times 3.35 \mathrm{in}) / 76884-71$ L02: 15 $\times 25 \mathrm{~mm}(0.59 \times 0.98 \mathrm{in})$
INSULATOR (Foam blocks)
Insulates components from contact. Can be used to fill space behind a panel.
$73982-9 E 000: 45 \mathrm{~mm}(1.77 \mathrm{in})$ thick, $50 \times 50 \mathrm{~mm}(1.97 \times 1.97 \mathrm{in}) / 73982-50 \mathrm{Y} 00: 10 \mathrm{~mm}(0.39 \mathrm{in})$ thick, $50 \times 50 \mathrm{~mm}(1.97 \times 1.97 \mathrm{in})$

```
INSULATOR (Light foam block)
80845-71LOO: 30 mm (1.18 in) thick, 30 < 50 mm (1.18 < 1.97 in)
FELT CLOTHTAPE
Used to insulate where movement does not occur.Ideal for instrument panel applications.
68370-4B000: 15 < 25 mm (0.59 \times 0.98 in) pad/68239-13E00: 5 mm (0.20 in) wide tape roll
The following materials, not found in the kit, can also be used to repair squeaks and rattles.
UHMW (Teflon) TAPE
Insulates where slight movement is present. Ideal for instrument panel applications.
SILICONE GREASE
Used in place of UHMW tape that will be visible or not fit.
Note: Will only last a few months.
SILICONE SPRAY
Use when grease cannot be applied.
DUCT TAPE
Use to eliminate movement.
```


## CONFIRM THE REPAIR

Confirm that the cause of a noise is repaired by test driving the vehicle. Operate the vehicle under the same conditions as when the noise originally occurred. Refer to the notes on the Diagnostic Worksheet.

## Generic Squeak and Rattle Troubleshooting

Refer to Table of Contents for specific component removal and installation information.

## INSTRUMENT PANEL

Most incidents are caused by contact and movement between:

1. The cluster lid A and instrument panel
2. Acrylic lens and combination meter housing
3. Instrument panel to front pillar garnish
4. Instrument panel to windshield
5. Instrument panel mounting pins
6. Wiring harnesses behind the combination meter
7. A/C defroster duct and duct joint

These incidents can usually be located by tapping or moving the components to duplicate the noise or by pressing on the components while driving to stop the noise. Most of these incidents can be repaired by applying felt cloth tape or silicon spray (in hard to reach areas). Urethane pads can be used to insulate wiring harness.
CAUTION:
Do not use silicone spray to isolate a squeak or rattle. If you saturate the area with silicone, you will not be able to recheck the repair.

## CENTER CONSOLE

Components to pay attention to include:

1. Shifter assembly cover to finisher
2. A/C control unit and cluster lid C
3. Wiring harnesses behind audio and $\mathrm{A} / \mathrm{C}$ control unit

The instrument panel repair and isolation procedures also apply to the center console.

## DOORS

Pay attention to the:

1. Finisher and inner panel making a slapping noise
2. Inside handle escutcheon to door finisher
3. Wiring harnesses tapping
4. Door striker out of alignment causing a popping noise on starts and stops

Tapping or moving the components or pressing on them while driving to duplicate the conditions can isolate many of these incidents. You can usually insulate the areas with felt cloth tape or insulator foam blocks from the Nissan Squeak and Rattle Kit ( $\mathrm{J}-43980$ ) to repair the noise.

## TRUNK

Trunk noises are often caused by a loose jack or loose items put into the trunk by the owner. In addition look for:

1. Trunk lid dumpers out of adjustment
2. Trunk lid striker out of adjustment
3. The trunk lid torsion bars knocking together
4. A loose license plate or bracket

Most of these incidents can be repaired by adjusting, securing or insulating the item(s) or component(s) causing the noise.

## SUNROOF/HEADLINING

Noises in the sunroof/headlining area can often be traced to one of the following:

1. Sunroof lid, rail, linkage or seals making a rattle or light knocking noise
2. Sunvisor shaft shaking in the holder
3. Front or rear windshield touching headlining and squeaking

Again, pressing on the components to stop the noise while duplicating the conditions can isolate most of these incidents. Repairs usually consist of insulating with felt cloth tape.

## SEATS

When isolating seat noise it's important to note the position the seat is in and the load placed on the seat when the noise is present. These conditions should be duplicated when verifying and isolating the cause of the noise.
Cause of seat noise include:

1. Headrest rods and holder
2. A squeak between the seat pad cushion and frame
3. The rear seatback lock and bracket

These noises can be isolated by moving or pressing on the suspected components while duplicating the conditions under which the noise occurs. Most of these incidents can be repaired by repositioning the component or applying urethane tape to the contact area.

## UNDERHOOD

Some interior noise may be caused by components under the hood or on the engine wall. The noise is then transmitted into the passenger room.
Causes of transmitted underhood noise include:

1. Any component mounted to the engine wall
2. Components that pass through the engine wall
3. Engine wall mounts and connectors
4. Loose radiator mounting pins
5. Hood bumpers out of adjustment
6. Hood striker out of adjustment

These noises can be difficult to isolate since they cannot be reached from the interior of the vehicle. The best method is to secure, move or insulate one component at a time and test drive the vehicle. Also, engine RPM or load can be changed to isolate the noise. Repairs can usually be made by moving, adjusting, securing, or insulating the component causing the noise.

## $\infty$

INFINITI.

## SQUEAK \& RATTLE DIAGNOSTIC WORKSHEET

Dear Infiniti Customer:
We are concerned about your satisfaction with your Infiniti vehicle. Repairing a squeak or rattle sometimes can be very difficult. To help us fix your Infiniti right the first time, please take a moment to note the area of the vehicle where the squeak or rattle occurs and under what conditions. You may be asked to take a test drive with a service advisor or technician to ensure we confirm the noise you are hearing.
I. WHERE DOES THE NOISE COME FROM? (circle the area of the vehicle)

The illustrations are for reference only, and may not reflect the actual configuration of your vehicle.



Continue to the back of the worksheet and briefly describe the location of the noise or rattle. In addition, please indicate the conditions which are present when the noise occurs.

SQUEAK \& RATTLE DIAGNOSTIC WORKSHEET- page 2
Briefly describe the location where the noise occurs:
II. WHEN DOES IT OCCUR? (check the boxes that apply)

| $\square$ anytime | $\square$ after sitting out in the sun |
| :---: | :---: |
| 1 $1^{\text {st }}$ time in the morning | $\square$ when it is raining or wet |
| $\square$ only when it is cold outside | $\square$ dry or dusty conditions |
| $\square$ only when it is hot outside | $\square$ other: |
| III. WHEN DRIVING: | IV. WHAT TYPE OF NOISE? |
| $\square$ through driveways | $\square$ squeak (like tennis shoes on a clean floor) |
| $\square$ over rough roads | creak (like walking on an old wooden floor) |
| $\square$ over speed bumps | $\square$ rattle (like shaking a baby rattle) |
| $\square$ only at about___ mph | $\square$ knock (like a knock on a door) |
| $\square$ on acceleration | $\square$ tick (like a clock second hand) |
| $\square$ coming to a stop | $\square$ thump (heavy, muffled knock noise) |
| $\square$ on turns : left, right or either (circle) | $\square$ buzz (like a bumble bee) |
| with passengers or cargo |  |
| $\square$ other: |  |
| $\square$ after driving ___ miles or ___ min |  |

TO BE COMPLETED BY DEALERSHIP PERSONNEL Test Drive Notes:
$\qquad$

|  |  |  | Initials of person <br> performing |
| :--- | :--- | :--- | :--- |
|  | YES | NO |  |
| Vehicle test driven with customer | $\square$ | $\square$ | - |
| - Noise verified on test drive | $\square$ | $\square$ |  |
| - Noise source located and repaired | $\square$ | $\square$ | - |
| - Follow up test drive performed to confirm repair | $\square$ | $\square$ |  |
|  |  |  |  |
| VIN: Customer Name: |  |  |  |

W.O. \#: $\qquad$ Date: $\qquad$

## This form must be attached to Work Order

## AUTOMATIC DRIVE POSITIONER

## AUTOMATIC DRIVE POSITIONER

## System Description

- The system automatically moves the driver seat to facilitate entry/exit to/from the vehicle. The automatic driver positioner control unit can also store the optimum driving positions (driver seat, pedal position and door mirror position) for 2 people. If the driver is changes, one-touch operation allows changing to the other driving position.
- The settings (ON/OFF) of the automatic sliding seat (Entry/Exiting operation) at entry/exit can be changed as desired, using the display unit in the center of the instrument panel. The set content is transmitted by CAN communication, from display unit (without NAVI) or display control unit (with NAVI) to driver seat control unit.
- Using CONSULT-II, the seat slide amount at entry/exit setting can be changed.


## MANUAL OPERATION

The driving position [seat position, steering wheel position (tilt, telescopic) and door mirror position] can be adjusted with the power seat switch or ADP steering switch or door mirror remote control switch.
NOTE:

- The seat can be manually operated with the ignition switch OFF.
- The door mirrors can be manually operated with the ignition switch turned ACC or ON.

AUTOMATIC OPERATION

| Function |  | Description |
| :--- | :--- | :--- |
| Memory switch operation | The seat, steering and door mirror move to the stored driving position by pushing <br> memory switch (1 or 2). |  |
| Entry/Exiting function | Exiting operation | At exit, the seat moves backward and steering wheel moves forward/upward. |
|  | Entry operation | At entry, the seat and steering wheel returns from the exiting position to the previous <br> driving position. |
|  | Key fob interlock operation |  | Perform memory operation, exiting operation and entry operation by pressing key fob <br> unlock button. |

## NOTE:

- Disconnecting the battery erases the stored memory.
- After connecting the battery, insert the key into the ignition cylinder and turn the driver door switch ON (open) $\rightarrow$ OFF (close) $\rightarrow$ ON (open), the Entry/ Exiting operation becomes possible.
- After exiting operation is carried out, return operation can be operated.

| Auto operation temporary stop conditions. | When ignition switch turned to START during memory switch operation and return operation, memory switch operation and entry operation is stopped. |
| :---: | :---: |
| Auto operation stop conditions. | - When the vehicle speed becomes $7 \mathrm{~km} / \mathrm{h}(4 \mathrm{MPH})$ or higher. <br> - When the setting switch, memory switch 1 , or 2 are pressed. <br> - When $A / T$ selector lever is in any position other than $P$. <br> - When the door mirror remote control switch is operated (when ignition switch turned to ON or ACC). <br> - When power seat switch turned ON. <br> - When ADP steering switch turned ON (telescopic operation or tilt operation). <br> - When door mirror operates (only memory switch operation). <br> - When driver seat sliding Entry/Exiting setting is OFF (only entry/exiting operation). <br> - When steering wheel tilt and telescopic Entry/Exiting setting is OFF (only entry/exiting operation). <br> - When the tilt and telescopic sensor malfunction is detected. |

## NOTE:

During automatic operation, if the ignition switch is turned ON $\rightarrow$ START, the automatic operation is suspended. When the ignition switch returns to ON , it resumes.

## MEMORY STORING AND KEY FOB INTERLOCK STORING

- Store the 2 driving positions and shifts to the stored driving position with the memory switch.


## AUTOMATIC DRIVE POSITIONER

- Key fob interlock function is set simultaneously with setting driving position memory. It can set driving position to memory position.

Adjust the position of driver's seat, steering wheel (tilt, telescopic) and door mirror with manual operations.


Within 5 seconds.
Press memory switch for which driv-
er's seat positions are to be entered
in memory for more than 0.5 sec-
onds. (2 driver's seat positions can
be memorized.)
(1) To modify driver's seat positions, press memory switch. Indicator LED will then go out for 0.5 seconds and then illuminate for 5 seconds.
(2) To enter driver's seat positions in blank memory, indicator LED illuminates for 5 seconds after memory switch is pressed.


## NOTE:

- If another key fob inter lock function setting is performed by same key, newly registered setting is valid.
- If new memory string is performed to memory switch that already set key fob interlock function, key fob interlock function setting is reset.
- If key does not set previously, key fob interlock function cannot set.


## AUTOMATIC DRIVE POSITIONER

## MEMORY SWITCH OPERATION

## Selecting the memory

| $\qquad$Turn ignition switch "ON" and press desired memory switch <br> for more than 0.5 seconds. (Indicator LED illuminates.) <br> The driver's seat, door mirror and steering wheel will move to their memorized <br> positions. (During adjustments, indicator LED flashes, then illuminates for 5 <br> seconds after adjustment.) |
| :--- |

## PIIA6137E

## NOTE:

The driver's seat position and steering adjustment functions (see the following table) operate simultaneously in the order of priority.

| Priority | Function | Priority | Function |
| :---: | :--- | :---: | :--- |
| 1 | Seat sliding, door mirror LH/RH* | 4 | Seat reclining |
| 2 | Steering wheel telescoping | 5 | Seat lifter-FR |
| 3 | Steering wheel tilt | 6 | Seat lifter-RR |

*: In conjunction with sliding the seat, the door mirrors are positioned.

## ENTRY OPERATION

When the seat are on the exiting positions, the following operation moves the seat to the previous position before the exiting operation.


## EXITING OPERATION

At exit, the seat are automatically moved to the exiting position.

Open driver's door while ignition key is inserted. (Ignition switch is in "OFF" position.)

## AUTOMATIC DRIVE POSITIONER

## KEY FOB INTERLOCK OPERATION

- Perform memory operation, exiting operation and entry operation by pressing key fob unlock button.



## NOTE:

- If steering wheel operation is cancelled, the system performs seat and mirror operation only.
- If Entry/Exiting operation is cancelled, the system performs steering wheel operation and mirror operation only.
- If ignition switch turns ON in the middle of memory operation, the system does not perform exiting operation after memory operation.
- If ignition switch turns ON in the middle of exiting operation, entry operation starts at that time.


## FAIL- SAFE MODE

When any manual and automatic operations are not performed, if any motor operations of seats or tilt of steering are detected for approx. 0.1 sec or more, status is judged "Output malfunction". Motor operation will be suspended automatically, and all automatic operations will be ineffective (in this case, the motor will not operate manually).

| OPERATED PORTION | Seat sliding |
| :--- | :--- |
|  | Seat reclining |
|  | Seat lifting (Front) |
|  | Seat lifting (Rear) |
|  | steering tilt |
|  | steering telescopic |

## CANCEL OF FAIL-SAFE MODE

- The mode is cancelled when the selector lever is shifted to P position from any other position.


View with the center console removed Automatic drive


Rear lifting motor Driver seat control unit
B162 B152 B153

With Intelligent Key



## CAN Communication System Description

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

## CAN Communication Unit

Refer to LAN-6, "CAN COMMUNICATION" .



## AUTOMATIC DRIVE POSITIONER

## Wiring Diagram-AUT/DP-



## AUTOMATIC DRIVE POSITIONER



REFER TO THE FOLLOWING.
E211 -SUPER MULTIPLE JUNCTION (SMJ)
M3 , M34 -ELECTRICAL
UNITS







REFER TO THE FOLLOWING. E211 -SUPER MULTIPLE JUNCTION (SMJ)
 *: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

## AUTOMATIC DRIVE POSITIONER

SE-AUT/DP-08



*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

## AUTOMATIC DRIVE POSITIONER

Terminals and Reference Values for BCM

| TERMINAL | WIRE <br> COLOR | ITEM | CONDITION | VOLTAGE (V) <br> (Approx.) |
| :---: | :---: | :--- | :--- | :---: |
| 11 | LG/R | ACC power supply | Ignition switch ACC | Battery voltage |
| 37 | B/W | Key switch signal | Key switch ON (key is inserted in <br> ignition key cylinder) | Battery voltage |
|  | Key switch OFF (key is removed <br> from ignition key cylinder) | 0 |  |  |
| 38 | W/L | Ignition power supply | Ignition switch ON | - |
| 39 | L | CAN-H | - | Battery voltage |
| 40 | R | CAN-L | - |  |
| 42 | L/R | Battery power supply (fuse) | Ignition switch OFF | - |
| 49 | B | Ground (signal) | Ignition switch ON | Battery voltage |
| 52 | B | Ground (power) | Ignition switch ON | 0 |
| 55 | G | Battery power supply (Fusible <br> link) | Ignition switch OFF | Battery voltage |
| 62 | W | Front door switch (driver side) | ON (Open) $\rightarrow$ OFF (Closed) | $0 \rightarrow$ Battery voltage |

Terminals and Reference Values for Automatic Drive Positioner Control Unit

| TERMINAL | WIRE COLOR | ITEM | CONDITION | VOLTAGE (V) <br> (Approx.) |
| :---: | :---: | :---: | :---: | :---: |
| 1 | LG/R | Tilt switch UP signal | Tilt switch turned to upward | 0 |
|  |  |  | Tilt switch neutral position | 5 |
| 2 | G/W | Changeover switch RH signal | When changeover switch in RH position | 0 |
|  |  |  | When changeover switch in neutral position | 5 |
| 3 | GY | Mirror switch UP signal | When mirror switch in turned to upward position | 0 |
|  |  |  | When mirror switch in neutral position | 5 |
| 4 | Y | Mirror switch LEFT signal | When mirror switch in turned to leftward position | 0 |
|  |  |  | When mirror switch in neutral position | 5 |
| 5 | OR | Passenger side mirror sensor (vertical) signal | When passenger side mirror motor is UP or DOWN operation | Changes between 3 (close to perk) 1 (close to valley) |
| 6 | P/L | Driver side mirror sensor (vertical) signal | When driver side mirror motor is UP or DOWN operation | Changes between 3 (close to perk) 1 (close to valley) |
| 7 | Y/R | Tilt sensor input | Tilt position, top | 1.82 |
|  |  |  | Tilt position, bottom | 4.44 |
| 10 | B | UART LINE (TX) | Memory switch 1 or 2 operated | PIIA4813E |
| 11 | BR | Telescopic switch forward signal | Telescoping switch turned to forward | 0 |
|  |  |  | Telescoping switch neutral position | 5 |

## AUTOMATIC DRIVE POSITIONER

| TERMINAL | WIRE COLOR | ITEM | CONDITION | VOLTAGE (V) <br> (Approx.) |
| :---: | :---: | :---: | :---: | :---: |
| 14 | L/W | Passenger side mirror motor UP signal | When passenger side mirror motor UP operation | 1.5 - Battery voltage |
|  |  |  | Passenger side mirror motor OFF | 0 |
| 15 | L/B | Passenger side mirror motor signal | When passenger side mirror motor LEFT operation | 1.5 - Battery voltage |
|  |  |  | Passenger side mirror motor RH OFF | 0 |
| 16 | P | Driver side mirror motor DOWN signal | When driver side mirror motor DOWN operation | 1.5 - Battery voltage |
|  |  |  | Driver side mirror motor OFF | 0 |
|  |  | Driver side mirror motor RIGTH signal | When driver side mirror motor RIGHT operation | 1.5 - Battery voltage |
|  |  |  | Driver side mirror motor OFF | 0 |
| 17 | R/B | Tilt switch DOWN signal | Tilt switch turned to downward | 0 |
|  |  |  | Tilt switch neutral position | 5 |
| 18 | L/OR | Changeover switch LH signal | When changeover switch in LH position | 0 |
|  |  |  | When changeover switch in neutral position | 5 |
| 19 | GY/L | Mirror switch DOWN signal | When mirror switch in turned to downward position | 0 |
|  |  |  | When mirror switch in neutral position | 5 |
| 20 | PU | Mirror switch RIGHT signal | When mirror switch in turned to rightward position | 0 |
|  |  |  | When mirror switch in neutral position | 5 |
| 21 | G/Y | Passenger side mirror sensor (horizontal) signal | When passenger side mirror motor is LEFT or RIGHT operation | Changes between 1 (close to left edge) 3 (close to right edge) |
| 22 | L/Y | Driver side mirror sensor (horizontal) signal | When driver side mirror motor is LEFT or RIGHT operation | Changes between 1 (close to right edge) 3 (close to left edge) |
| 23 | Y/B | Telescopic sensor input | Telescoping position, top | 0.56 |
|  |  |  | Telescoping position, bottom | 4.44 |
| 26 | W | UART LINE (RX) | Memory switch 1 or 2 operated | PIIA4814E |
| 27 | LG | Telescopic switch backward signal | Telescopic switch turned to backward | 0 |
|  |  |  | Telescoping switch neutral position | 5 |
| 28 | SB | Ignition START power supply | Ignition switch START | Battery voltage |
| 30 | W/R | Passenger side mirror motor DOWN signal | When passenger side mirror motor downward | 1.5 - Battery voltage |
|  |  |  | Passenger side mirror motor OFF | 0 |
|  |  | Passenger side mirror motor RIGTH signal | When passenger side mirror motor RIGHT operation | 1.5 - Battery voltage |
|  |  |  | Passenger side mirror motor OFF | 0 |
| 31 | R/W | Driver side mirror motor UP signal | When driver side mirror motor upward | 1.5 - Battery voltage |
|  |  |  | Driver side mirror motor OFF | 0 |

## AUTOMATIC DRIVE POSITIONER

| TERMINAL | WIRE COLOR | ITEM | CONDITION | VOLTAGE (V) <br> (Approx.) |
| :---: | :---: | :---: | :---: | :---: |
| 32 | G/B | Driver side mirror motor LEFT signal | When driver side mirror motor LEFT operation | 1.5 - Battery voltage |
|  |  |  | Driver side mirror motor OFF | 0 |
| 33 | G/W | Sensor power supply | - | 5 |
| 34 | L/R | Battery power supply | Ignition switch OFF | Battery voltage |
| 35 | R/L | Tilt motor UP signal | Tilt switch turned to upward | Battery voltage |
|  |  |  | Tilt switch OFF | 0 |
| 36 | L/R | Telescopic motor forward signal | Telescoping switch turned to forward | Battery voltage |
|  |  |  | OFF | 0 |
| 39 | W/R | Battery power supply | Ignition switch OFF | Battery voltage |
| 40 | B | Ground (signal) | Ignition switch ON | 0 |
| 41 | B/Y | Sensor ground | - | 0 |
| 42 | R/B | Tilt motor DOWN signal | Tilt switch turned to downward | Battery voltage |
|  |  |  | Tilt switch OFF | 0 |
| 44 | L/W | Telescopic motor backward signal | Telescoping switch turned to backward | Battery voltage |
|  |  |  | Telescoping switch OFF | 0 |
| 48 | B | Ground (power) | Ignition switch ON | 0 |

Terminals and Reference Values for Driver Seat Control Unit

| TERMINAL | WIRE COLOR | ITEM | CONDITION | VOLTAGE (V) <br> (Approx.) |
| :---: | :---: | :---: | :---: | :---: |
| 1A | R | Battery power supply | Ignition switch OFF | Battery voltage |
| 2 | P | UART LINE (TX) | - | PIIA4814E |
| 3 | G | Sliding motor forward signal | Sliding switch turned to forward (Motor operated) | Battery voltage |
|  |  |  | OFF | 0 |
| 4 | G/L | Reclining motor FR signal | Reclining switch turned to forward (Motor operated) | Battery voltage |
|  |  |  | OFF | 0 |
| 5 | LG | Front lifting motor DOWN signal | Front lifting switch turned to downward (Motor operated) | Battery voltage |
|  |  |  | OFF | 0 |
| 6 | G/W | Rear lifting motor UP signal | Rear lifting switch turned to upward (Motor operated) | Battery voltage |
|  |  |  | OFF | 0 |
| 7 | G/B | Rear lifting motor DOWN signal | Rear lifting switch turned to downward (Motor operated) | Battery voltage |
|  |  |  | OFF | 0 |

## AUTOMATIC DRIVE POSITIONER

| $\begin{aligned} & \text { TERMI- } \\ & \text { NAL } \end{aligned}$ | WIRE COLOR | ITEM | CONDITION | VOLTAGE (V) <br> (Approx.) |
| :---: | :---: | :---: | :---: | :---: |
| 8 | G/Y | UART LINE (RX) | - | PIIA4813E |
| 9 | BR | IGN START power supply | Ignition switch START | Battery voltage |
| 10 | G/R | Sliding motor RR signal | Sliding switch turned to backward (Motor operated) | Battery voltage |
|  |  |  | OFF | 0 |
| 11A | R/W | Battery power supply | Ignition switch OFF | Battery voltage |
| 12 | G/Y | Reclining motor RR signal | Reclining switch turned to backward (Motor operated) | Battery voltage |
|  |  |  | OFF | 0 |
| 13 | Y | Front lifting motor UP output signal | Front lifting switch turned to upward (Motor operated) | Battery voltage |
|  |  |  | OFF | 0 |
| 14 | OR | CAN-H | - | - |
| 15 | SB | CAN-L | - | - |
| 16A | B | Ground (power) | Ignition switch ON | 0 |
| 17 | PU | Detention switch signal | Selector lever other than P position | Battery voltage |
|  |  |  | Selector lever is sifted to P position | 0 |
| 18 | G | Seat sliding sensor signal | ON (sliding motor operation) | PIIA3277E |
|  |  |  | Other than above | 0 or 5 |
| 19 | G/Y | Front lifting sensor signal | ON (front lifting motor operation) |  <br> SIIA0691J |
|  |  |  | Other than above | 0 or 5 |
| 22 | L/G | Power seat memory switch 1 signal | Memory switch 1 ON | 0 |
|  |  |  | Memory switch 1 OFF | 5 |
| 23 | Y/W | Power seat memory switch indictor 1 signal | Memory switch 1 ON | 1 |
|  |  |  | Memory switch 1 OFF | Battery voltage |
| 24 | L/R | Seat sliding switch forward signal | ON (seat sliding switch turned to forward) | 0 |
|  |  |  | OFF | Battery voltage |
| 25 | L/OR | Seat reclining switch forward signal | ON (seat reclining switch turned to forward) | 0 |
|  |  |  | OFF | Battery voltage |

AUTOMATIC DRIVE POSITIONER

| $\begin{aligned} & \text { TERMI- } \\ & \text { NAL } \end{aligned}$ | WIRE COLOR | ITEM | CONDITION | VOLTAGE (V) <br> (Approx.) |
| :---: | :---: | :---: | :---: | :---: |
| 26 | L/P | Front lifting switch UP signal | ON (front lifting switch turned to upward) | 0 |
|  |  |  | OFF | Battery voltage |
| 27 | L | Rear lifting switch UP signal | ON (rear lifting switch turned to upward) | 0 |
|  |  |  | OFF | Battery voltage |
| 28C | B/W | Sensor ground | Ignition switch ON | 0 |
| 29 | G/L | Reclining sensor | ON (reclining motor operation) |  <br> SIIA0692J |
|  |  |  | Other than above | 0 or 5 |
| 30 | G/W | Rear lifting sensor | ON (rear lifting motor operation) |  <br> SIIA0693J |
|  |  |  | Other than above | 0 or 5 |
| 34 | L/W | Set switch signal | Set witch ON | 0 |
|  |  |  | Set witch OFF | 5 |
| 35 | L/B | Power seat memory switch 2 signal | Memory switch 2 ON | 0 |
|  |  |  | Memory switch 2 OFF | 5 |
| 36 | Y/G | Power seat memory switch indictor 2 signal | Memory switch 2 ON | 1 |
|  |  |  | Memory switch 2 OFF | Battery voltage |
| 37 | L/P | Seat sliding switch backward signal | ON (seat sliding switch turned to backward) | 0 |
|  |  |  | OFF | Battery voltage |
| 38 | LG/B | Seat reclining switch backward signal | ON (seat reclining switch turned to backward) | 0 |
|  |  |  | OFF | Battery voltage |
| 39 | L/G | Front lifting switch DOWN signal | ON (front lifting switch turned to downward) | 0 |
|  |  |  | OFF | Battery voltage |
| 40 | L/Y | Rear lifting switch DOWN signal | Rear lifting switch turned to downward) | 0 |
|  |  |  | OFF | Battery voltage |
| 61E | B/Y | Ground (signal) | Ignition switch ON | 0 |

## Work Flow

AIS002XJ

1. Check the symptom and customer's requests.
2. Understand the system description. Refer to SE-11, "System Description" .
3. Perform the preliminary check, refer to SE-35, "Preliminary Check" .
4. Perform the CAN communication inspection using CONSULT-II, refer to SE-38, "CONSULT-II Function"
5. Perform the self-diagnosis. Refer to SE-42, "Can Communication Inspection Using CONSULT-II (Selfdiagnosis)".
6. Repair or replace depending on the self-diagnostic results.

## AUTOMATIC DRIVE POSITIONER

7. Based on the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to SE-42. "Symptom Chart" .
8. Does the automatic drive positioner system operate normally?

If it is normal, GO TO 8.
If it is not normal, GO TO 3.
9. INSPECTION END

## Preliminary Check <br> SETTING CHANGE FUNCTION

AIS002XK
The settings of the automatic driving positioner system can be changed, using CONSULT-II and the display unit in the center of the instrument panel.

$$
\times \text { : Applicable -: Not applicable }
$$

| Setting item | Content | CONSULT-II <br> (WORK SUPPORT) | Display unit | Factory setting |
| :---: | :---: | :---: | :---: | :---: |
| Change seat sliding volume setting | The distance at retain operation can be selected from the following 3 modes. | 40 mm | - | $\times$ |
|  |  | 80 mm |  | - |
|  |  | 150 mm |  | - |
| Change the Entry/Exit seat slide function setting | The seat sliding turnout and return at entry/exit can be selected: ON (operated) - OFF (not operated) | ON | ON: Indicator lamp ON | $\times$ |
|  |  | OFF | OFF: Indicator lamp OFF | - |
| Change the Entry/Exit tilt steering wheel function setting | Lift up and backward steering wheel at entry and exit can be selected: ON (operated) - OFF (not operated) | ON | ON: Indicator lamp ON | $\times$ |
|  |  | OFF | OFF: Indicator lamp OFF | - |
| Reset custom settings | All settings to default. | - | Default: Setting button OFF | - |

It is possible to set sliding driver seat for entry/exit of vehicle by pressing set switch.

| Content | Setting change operation | Indicator LEDs |
| :--- | :---: | :---: |
| The seat sliding turnout and <br> steering wheel up/backward at <br> entry/exit can be operated. |  | Blinking twice |
| The seat sliding turnout and <br> steering wheel up/backward at <br> entry/exit can be not operated. | Press the set switch for more than 10 seconds | Blinking ones |

## NOTE:

After the setting is registered, the new setting is effective, even if the battery is disconnected.

## CHECK POWER SUPPLY AND GROUND

## 1. CHECK FUSE

Check if any of the following fuses in the BCM are blown.

| Unit | Power source | Fuse/fusible link No. |
| :---: | :--- | :---: |
| BCM | ACC or ON power supply | $6(10 \mathrm{~A})$ |
|  | ON or STRAT power supply | $1(15 \mathrm{~A})$ |
|  | Battery power supply | $22(15 \mathrm{~A})$ |
|  | Battery power supply | $\mathrm{M}(50 \mathrm{~A})$ |

## NOTE:

Refer to SE-15, "Component Parts and Harness Connector Location" .

## OK or NG

OK >> GO TO 2.
NG >> If fuse is blownout, be sure to eliminate cause of malfunction before installing new fuse. Refer to SE-15, "Component Parts and Harness Connector Location" .

## AUTOMATIC DRIVE POSITIONER

## 2. CHECK POWER SUPPLY CIRCUIT (BCM)

1. Turn ignition switch OFF.
2. Disconnect BCM connector.
3. Check voltage between BCM connector and ground.


## OK or NG

OK >> GO TO 3.
NG >> Check harness for open and short between BCM and fuse or fusible link.

## 3. CHECK GROUND CIRCUIT (BCM)

1. Turn ignition switch OFF.
2. Check continuity between BCM connector and ground.

| Connector | Terminals <br> (Wire color) |  | Condition | Continuity |
| :---: | :---: | :---: | :---: | :---: |
|  | $(+)$ | $(-)$ |  |  |
| B14 | $49(\mathrm{~B})$ <br> $52(B)$ | Ground | Ignition switch <br> OFF | Continuity should exist. |
| OK Or NG |  |  |  |  |

OK or NG
OK >> BCM circuit is OK. Check the driver seat control unit.
 GO TO 4.
NG >> Repair or replace the harness between BCM and ground.

## 4. CHECK FUSE

Check 10A fuse [No.9, located in fuse block (J/B)].
NOTE:
Refer to SE-15, "Component Parts and Harness Connector Location" .
OK or NG
OK >> GO TO 5 .
NG >> If fuse is blownout, be sure to eliminate cause of malfunction before installing new fuse. Refer to SE-15, "Component Parts and Harness Connector Location" .

## AUTOMATIC DRIVE POSITIONER

## 5. CHECK POWER SUPPLY CIRCUIT (DRIVER SEAT CONTROL UNIT)

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

| Connector | Terminals <br> (Wire color) |  | Power <br> source | condition | Voltage (V) <br> (Approx.) |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $(+)$ | $(-)$ | (BR) | Ground | START <br> power <br> supply |
| B153 | Ignition <br> switch <br> START | Battery <br> voltage |  |  |  |
| $11 \mathrm{~A}(\mathrm{R})$, | Ground | Battery <br> power <br> supply | Ignition <br> switch <br> OFF | Battery <br> voltage |  |



## OK or NG

OK >> GO TO 6.
NG >> Repair or replace harness between driver seat control unit and fuse block (J/B).

## 6. check ground circuit (DRIVER SEAT CONTROL UNIT)

1. Turn ignition switch OFF.
2. Check continuity between the driver seat control unit connector B152, B153 terminal16A (B), 61E (B/Y) and ground.

$$
\begin{array}{ll}
16 A(B)-\text { Ground } & \text { : Continuity should exist. } \\
61 E(B / Y)-\text { Ground } & \text { : Continuity should exist. }
\end{array}
$$

OK or NG
OK >> GO TO 6.
NG >> Repair or replace harness between driver seat control unit and ground.


## 7. CHECK POWER SUPPLY CIRCUIT (AUTOMATIC DRIVE POSITIONER CONTROL UNIT)

1. Disconnect automatic drive positioner control unit connector.
2. Check voltage between automatic drive positioner control unit and ground.

| Connector | Terminals <br> (Wire color) |  | Power <br> source | condition | Voltage (V) <br> (Approx.) |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $28(\mathrm{SB})$ | $(-)$ |  | START <br> power <br> pupply | Ignition <br> switch <br> START | | Battery |
| :---: |
| voltage |



## OK or NG

OK >> GO TO 8.
NG >> Repair or replace harness between automatic drive positioner control unit and fuse block (J/B).

## AUTOMATIC DRIVE POSITIONER

## 8. CHECK GROUND CIRCUIT (AUTOMATIC DRIVE POSITIONER CONTROL UNIT)

Check continuity between the automatic drive positioner control unit connector M50 terminal 40 (B), 48 (B) and ground.

40 (B) - Ground
48 (B) - Ground
: Continuity should exist.
: Continuity should exist.
OK or NG
OK >> Driver seat control unit circuit is OK.
NG >> Repair or replace harness between automatic drive positioner control unit and ground.


## CONSULT-II Function

AIS002YF
The following functions are performed by combining data received and command transmitted via the communication line from the driver seat control unit.

| CONSULT-II <br> diagnosis items | Inspection item, self-diagnosis mode |  | Content |
| :---: | :---: | :---: | :---: |
| AUTO DRIVE POSITIONER | WORK SUPPORT*1 |  | Changes the setting for each function. |
|  | SELF-DIG RESULTS |  | Check the self-diagnosis results. |
|  | DATA MONITOR | Selection from menu | Displays the input data to driver seat control unit and automatic driving positioned control unit on real-time basis. |
|  | CAN DIAGNOSTIC SUPPORT MONITOR |  | The results of transmit / receive diagnosis of CAN communication can be read |
|  | ACTIVE TEST*3 |  | Gives a drive signal to a load to check the operation. |
|  | DRIVER SEAT CONTROL UNIT PART NUMBER |  | Displays driver seat control unit part No. |
| $\mathrm{BCM}^{* 2}$ | DATA MONITOR | Selection from menu | Displays the input data to BCM on real-time basis |

*1: For setting automatic drive positioner functions only.
*2: Refer to BL-40, "Data Monitor" .
*3: During vehicle driving, do not perform active test.

## CONSULT-II INSPECTION PROCEDURE

## CAUTION:

If CONSULT-II is used with no connection of CONSULT-II CONVERTER, malfunctions might be detected in self-diagnosis depending on control unit which carry out CAN communication.

1. Turn ignition switch "OFF".
2. Connect "CONSULT-II" and "CONSULT-II CONVERTER" to the data link connector.

3. Turn ignition switch "ON".
4. Touch "START (NISSAN BASED VHCL)".

5. Select diagnosis mode.
"DATA MONITOR", "ACTIVE TEST", "SELF-DIAG RESULTS", "ECU PART NUMBER" and "WORK SUPPORT" are available.


## SELF-DIAGNOSIS RESULTS

Display Item List

| CONSULT-II display | Item | Malfunction is detected when... | Reference <br> page |
| :--- | :--- | :--- | :---: |
| CAN COMM CIRC <br> [U1000] | CAN communication | Malfunction is detected in CAN communication. | SE-42 |
| SEAT SLIDE <br> [B2112] | Seat slide motor | When any manual and automatic operations are not performed, if <br> any motor operations of seat slide is detected for 0.1 second or <br> more, status is judged "Output error". | $\underline{\text { SE-44 }}$ |
| SEAT RECLINING <br> [B2113] | Seat reclining motor | When any manual and automatic operations are not performed, if <br> any motor operations of seat reclining is detected for 0.1 second or <br> more, status is judged "Output error". | $\underline{\underline{\text { SE-45 }}}$ |
| SEAT LIFTER FR <br> [B2114] | Seat lifting FR motor | When any manual and automatic operations are not performed, if <br> any motor operations of seat lifting FR is detected for 0.1 second or <br> more, status is judged "Output error". | $\underline{\text { SE-46 }}$ |
| SEAT LIFTER RR <br> [B2115] | Seat lifting RR motor | When any manual and automatic operations are not performed, if <br> any motor operations of seat lifting RR is detected for 0.1 second or <br> more, status is judged "Output error". | $\underline{\text { SE-48 }}$ |
| TILT OUTPUT <br> [B2116] | Tilt motor | When any manual and automatic operations are not performed, if <br> any motor operations of seat tilt is detected for 0.1 second or more, <br> status is judged "Output error". | $\underline{\text { SE-51 }}$ |

AUTOMATIC DRIVE POSITIONER

| CONSULT-II display | Item | Malfunction is detected when... | Reference <br> page |
| :--- | :--- | :--- | :---: |
| TILT SENSOR <br> [B2118] | Tilt sensor | When tilt sensor detects 0.1 V or lower, or 4.9 V or higher, for 0.5 sec- <br> onds or more. | SE-61 |
| TELESCO SEN- <br> SOR <br> [B2119] | Telescopic sensor | When telescopic sensor detects 0.1 V or lower, or 4.9 V or higher, for <br> 0.5 seconds or more. | SE-60 |
| P RANGE SW <br> [B2125] | P RANGE SW | With the A/T selector lever in P position (P range switch ON), if the <br> vehicle speed of $7 \mathrm{~km} / \mathrm{h}(4 \mathrm{MPH})$ or higher was input the detente <br> switch input system is judged malfunctioning. | SE-82 |
| UART COMM <br> [B2128] | UART communica- <br> tion | Malfunction is detected in UART communication. | SE-89 |

## NOTE:

- The displays of CAN communication and $P$ range switch display error detecting condition from memory erase to the present on "TIME".
- If error is detected in the past and present error is detected, "CRNT" is displayed.
- If error is detected in the past and present error is not detected, "PAST" is displayed.
- If error has never been detected, nothing is displayed on "TIME".
- Any items other than CAN communication and $P$ range switch count error detection frequency occurred after erase history to " $1-127$ ".
- If error was detected in the past, error detection frequency from memory erase to the present is displayed on "TIME".
- If error has never been detected, nothing is displayed on "TIME".
- Can clear the detected memory.

Normal: Clear memory in normal condition, history is erased and nothing is displayed on "TIME". Error: Clear memory in error condition, error is detected again and "1" is displayed on "TIME".

## CAN DIAGNOSIS SUPPORT MONITOR

Can Diagnosis Support Monitor

| Monitor item [UNIT] |  | Contents |
| :---: | :---: | :---: |
| CAN COMM | [OK/NG] | When CAN communication circuit is abnormal, it displays "NG". |
| CAN CIRC 1 | [OK/UNKWN] | Displays [OK/UNKWN] condition of the CAN communication judged by signal input. |
| CAN CIRC 2 | [OK/UNKWN] |  |
| CAN CIRC 3 | [OK/UNKWN] |  |
| CAN CIRC 4 | [OK/UNKWN] |  |

## DATA MONITOR

## Selection from Menu

| Monitor item [OPERATION or UNIT] |  |  |
| :--- | :---: | :--- |
| SLIDE SW-FR | "ON/OFF" | ON/OFF status judged from the sliding switch (FR) signal is displayed. |
| SLIDE SW-RR | "ON/OFF" | ON/OFF status judged from the sliding switch (RR) signal is displayed. |
| RECLN SW-FR | "ON/OFF" | ON/OFF status judged from the reclining switch (FR) signal is displayed. |
| RECLN SW-RR | "ON/OFF" | ON/OFF status judged from the reclining switch (RR) signal is displayed. |
| LIFT FR SW-UP | "ON/OFF" | ON/OFF status judged from the FR lifter switch (UP) signal is displayed. |
| LIFT FR SW-DN | "ON/OFF" | ON/OFF status judged from the RR lifter switch (UP) signal is displayed. |
| LIFT RR SW-UP | "ON/OFF" | ON/OFF status judged from the RR lifter switch (DOWN) signal is displayed. |
| LIFT RR SW-DN | "ON/OFF" | ON/OFF status judged from the door mirror remote control switch (DOWN) signal <br> is displayed. |
| MIR CON SW-UP | ON/OFF status judged from the door mirror remote control switch (UP) signal is <br> displayed. |  |
| MIR CON SW-DN |  |  |

## AUTOMATIC DRIVE POSITIONER

| Monitor item [OPERATION or UNIT] |  |  |
| :--- | :--- | :--- |
| MIR CON SW-RH | "ON/OFF" | ON/OFF status judged from the door mirror remote control switch (RIGHT) signal <br> is displayed. |
| MIR CON SW-LH | "ON/OFF" | ON/OFF status judged from the door mirror remote control switch (LEFT) signal s <br> displayed. |
| MIR CHNG SW-R | "ON/OFF" | ON/OFF status judged from the door mirror remote control switch (switching to <br> RIGHT) signal is displayed. |
| MIR CHNG SW-L | "ON/OFF" | ON/OFF status judged from the door mirror remote control switch (switching to <br> LEFT) signal is displayed. |
| TELESCO SW-FR | "ON/OFF" | ON/OFF status judged from the telescoping switch (FR) signal is displayed. |
| TELESCO SW-RR | "ON/OFF" | ON/OFF status judged from the telescoping switch (RR) signal is displayed. |
| MILT SW-UP | "ON" | "OF" |
| MILT SW-DOWN | ON/OFF status judged from the tilt switch (UP) signal is displayed. |  |

## ACTIVE TEST

## CAUTION:

During vehicle driving, do not perform active test.

## NOTE:

If active test is performed, reset seat memory and key fob interlock drive positioner after performing work.

## Display Item List

| Test item | Description |
| :--- | :--- |
| TILT MOTOR | The tilt motor is activated by receiving the drive signal. |
| TELESCO MOTOR | The telescopic motor is activated by receiving the drive signal. |
| SEAT SLIDE | The sliding motor is activated by receiving the drive signal. |
| SEAT RECLINING | The reclining motor is activated by receiving the drive signal. |
| SEAT LIFTER FR | The front end lifter motor is activated by receiving the drive signal. |
| SEAT LIFTER RR | The rear end lifter motor is activated by receiving the drive signal. |
| MEMORY SW INDCTR | The memory switch indicator is lit by receiving the drive signal. |


| Test item | Description |
| :---: | :--- |
| MIRROR MOTOR RH | The RH mirror motor moves the mirror UP/DOWN and LEFT/RIGHT by receiving the drive <br> signal. |
| MIRROR MOTOR LH | The LH mirror motor moves the mirror UP/DOWN and LEFT/RIGHT by receiving the drive <br> signal. |

## Can Communication Inspection Using CONSULT-II (Self-diagnosis)

 1. sELF-DIAGNOSTIC RESULT CHECK
## CAUTION:

If CONSULT-II is used with no connection of CONSULT-II CONVERTER, malfunctions might be detected in self-diagnosis depending on control unit which carry out CAN communication.

1. Connect to CONSULT-II, and select "AUTO DRIVE POS." on the "SELECT DAIAG SYSTEM" screen.
2. Select "SELF-DIAG RESULTS" on "SELECT DISG MODE" screen.
3. Check display content in self-diagnostic results.

Displayed U1000?
Yes >> INSPECTION END
No >> Refer to LAN-4, "Precautions When Using CONSULT-II".

## Symptom Chart

| Symptom | Diagnoses / service procedure | Reference page |
| :---: | :---: | :---: |
| Only setting change function cannot be set with display. | Interacted display system (with out NAVI) | AV-55 |
|  | Navigation system (with NAVI) | AV-88 |
| A part of seat system does not operate (both automatically and manually). | 1. Sliding motor circuit check | SE-44 |
|  | 2. Reclining motor circuit check | SE-45 |
|  | 3. Front lifter motor circuit check | SE-46 |
|  | 4. Rear lifter motor circuit check | SE-48 |
|  | 5. If the above systems are normal, replace the driver seat control unit. | SE-15 |
| A part of steering tilt, telescopic and door mirror does not operate (both automatically and manually). | 1.Tilt motor circuit check | SE-51 |
|  | 2. Telescopic motor circuit check | SE-49 |
|  | 3. Mirror motor LH circuit check | SE-52 |
|  | 4. Mirror motor RH circuit check | SE-54 |
|  | 5. If the above systems are normal, replace the automatic drive positioner control unit. | SE-15 |
| A part of seat system does not operate (only automatic operation). | 1. Sliding sensor circuit check | SE-56 |
|  | 2. Reclining sensor circuit check | SE-57 |
|  | 3. Front lifting sensor circuit check | SE-58 |
|  | 4. Rear lifting sensor circuit check | SE-59 |
|  | 5. If the above systems are normal, replace the driver seat control unit. | SE-15 |
| A part of door mirror system dose not operate (only automatic operation). | 1. Mirror sensor LH circuit check | SE-62 |
|  | 2. Mirror sensor RH circuit check | SE-63 |
|  | 3. If all the above systems are normal, replace the automatic drive positioner control unit. | SE-15 |

## AUTOMATIC DRIVE POSITIONER

| Symptom | Diagnoses / service procedure | Reference page |
| :---: | :---: | :---: |
| All the automatic operations do not operate. | 1. Detention switch (P range switch) circuit check | SE-82 |
|  | 2. Key switch and key lock solenoid circuit check (with intelligent key) | SE-83 |
|  | 3. Key switch circuit inspection (without intelligent key) | SE-85 |
|  | 4. UART communication line circuit check | SE-89 |
|  | 5. Tilt sensor circuit check | SE-61 |
|  | 6. Telescopic sensor circuit check | SE-74 |
|  | 7. If all the above systems are normal, replace the automatic drive positioner control unit. | SE-15 |
| A part of seat system does not operate (only manual operation). | 1. Sliding switch circuit check | SE-67 |
|  | 2. Reclining switch circuit check | SE-68 |
|  | 3. Front lifting switch circuit check | SE-70 |
|  | 4. Rear lifting switch circuit check | SE-71 |
|  | 5. If the above systems are normal, replace the driver seat control unit. | SE-15 |
| A part of steering tilt, telescopic and door mirror does not operate (only manual operation). | 1. Door mirror remote control (change over switch) circuit check | SE-78 |
|  | 2. Door mirror remote control (mirror switch) switching circuit check | SE-80 |
|  | 3. Tilt switch check | SE-76 |
|  | 4. Telescopic switch check | SE-74 |
|  | 5. If the above systems are normal, replace the automatic drive positioner control unit. | SE-15 |
| Only memory switch operation dose not operate. | 1. Seat memory switch circuit check | SE-86 |
|  | 2. If the above systems are normal, replace the driver seat control unit. | SE-15 |
| Seat memory indicator lamps 1 and 2 do not illuminate. | 1. Seat memory indicator lamp circuit check | SE-88 |
|  | 2. If all the above systems are normal, replace the driver seat control unit. | SE-15 |
| The Entry/Exiting does not operated when door is opened and closed. <br> (The Entry/Exiting operates with key switch) | 1. Front door switch (driver side) circuit check | SE-65 |
|  | 2. If all the above systems are normal, replace the BCM | BCS-15 |
| Only door mirror system dose not operated (only automatic operation). | Steering and door mirror sensor power supply and ground circuit check | SE-64 |
| Only seat sliding and seat reclining operation does not operation | Sliding switch and reclining switch ground circuit check | SE-72 |
| Only sear lifting (front and rear) operation does not operation | Front lifting switch and rear lifting switch ground circuit check | SE-73 |
| Only lumber support does not operate | Lumber support circuit check | SE-91 |

## AUTOMATIC DRIVE POSITIONER

## Sliding Motor Circuit Check

## 1. CHECK SEAT SLIDING MECHANISM

Check the following.

- Operation malfunction caused by sliding rail deformation or pinched harness or other foreign materials
- Operation malfunction caused by foreign materials adhered to the sliding motor or sliding rail connector rod
- Operation malfunction and interference with other parts by poor installation

OK or NG
OK >> GO TO 2.
NG >> Repair the malfunctioning part and check again.

## 2. CHECK FUNCTION

## With CONSULT-II

Check operation with "SEAT SLIDE" in ACTIVE TEST.

| Test item | Description |
| :---: | :---: |
| SEAT SLIDE | The sliding motor is activated by receiving the drive signal. |


| ACTIVE TEST |  |  |  |
| :--- | :--- | :--- | :---: |
| $\qquad$SEAT SLIDE OFF   <br>     <br> FR RR   <br> MODE BACK LIGHT COPY |  |  |  |

## 8. Without CONSULT-II

GO TO 3.
OK or NG
OK >> Sliding motor circuit is OK.
NG >> GO TO 3.

## 3. CHECK SLIDING MOTOR HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect driver seat control unit connector and sliding motor connector.
3. Check continuity between driver seat control unit connector B153 terminals $3(G), 10(G / R)$ and sliding motor connector B161 terminals $3(G), 10(G / R)$.

$$
\begin{array}{ll}
3(G)-3(G) & \text { : Continuity should exist. } \\
10(G / R)-10(G / R) & \text { : Continuity should exist. }
\end{array}
$$

4. Check continuity between driver seat control unit connector B153 terminals $3(G), 10(G / R)$ and ground.

| $3(G)-G r o u n d$ | : Continuity should not exist. |
| :--- | :--- |
| $10(G / R)-$ Ground | : Continuity should not exist. |



OK or NG
OK >> GO TO 4.
NG >> Repair or replace harness between driver seat control unit and sliding motor.

## AUTOMATIC DRIVE POSITIONER

## 4. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

| Connector | Terminals (Wire color) |  | Condition | Voltage (V) <br> (Approx.) |
| :---: | :---: | :---: | :---: | :---: |
|  | (+) | (-) |  |  |
| B153 | 3 (G) | Ground | Sliding switch turned to forward | Battery voltage |
|  |  |  | Sliding switch neutral position | 0 |
|  | 10 (G/R) |  | Sliding switch turned to backward | Battery voltage |
|  |  |  | Sliding switch neutral position | 0 |



## OK or NG

OK >> Replace sliding motor.
NG >> Replace driver seat control unit.

## Reclining Motor Circuit Check

1. check seat reclining mechanism

## Check the following.

- Operation malfunction caused by an interference with the center pillar or center console
- Operation malfunction and interference with other parts by poor installation

OK or NG
OK >> GO TO 2.
NG >> Repair the malfunctioning part and check again.

## 2. CHECK FUNCTION

## (1) With CONSULT-II

Check operation with "SEAT RECLINING" in ACTIVE TEST.

| Test item | Description |
| :--- | :--- |
| SEAT | The reclining motor is activated by receiving the drive signal. |
| RECLINING |  |



## Without CONSULT-II

GO TO 3.
OK or NG
OK >> Reclining motor circuit is OK.
NG >> GO TO 3.

## AUTOMATIC DRIVE POSITIONER

## 3. CHECK RECLINING MOTOR HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect driver seat control unit connector and reclining motor connector.
3. Check continuity between driver seat control unit connector B153 terminals $4(G / L), 12(G / Y)$ and reclining motor connector B166 terminals $4(\mathrm{G} / \mathrm{L})$, $12(\mathrm{G} / \mathrm{Y})$.

| $4(G / L)-4(G / L)$ | : Continuity should exist. |
| :--- | :--- |
| $12(G / Y)-12(G / Y)$ | : Continuity should exist. |

4. Check continuity between driver seat control unit connector B153 terminals $4(\mathrm{G} / \mathrm{L}), 12(\mathrm{G} / \mathrm{Y})$ and ground.

| $4(G / L)-$ Ground | : Continuity should not exist. |
| :--- | :--- |
| $12(G / Y)-$ Ground | : Continuity should not exist. |

## OK or NG

OK >> GO TO 4.
NG >> Repair or replace harness between driver seat control unit and reclining motor.


## 4. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

| Connector | Terminals <br> (Wire color) |  | Condition | Voltage (V) <br> (Approx.) |
| :---: | :---: | :---: | :--- | :---: |
|  | $(+)$ | $(-)$ |  | Battery voltage |
|  | G/G) | Reclining switch turned to <br> forward | Reclining switch neutral <br> position | 0 |
|  |  |  | Reclining switch turned to <br> backward | Battery voltage |
|  |  | Reclining switch neutral <br> position | 0 |  |

## OK or NG

OK >> Replace reclining motor.
NG >> Replace driver seat control unit.

## Front Lifting Motor Circuit Check

## 1. CHECK FRONT END SEAT LIFTING MECHANISM

## Check the following.

- Operation malfunction caused by lifter mechanism deformation or pinched harness or other foreign materials
- Operation malfunction caused by foreign materials adhered to the lifter motor or lead screws
- Operation malfunction and interference with other parts by installation

OK or NG
OK >> GO TO 2.
NG >> Repair the malfunctioning part and check again.

## AUTOMATIC DRIVE POSITIONER

## 2. CHECK FUNCTION

With CONSULT-II
Check operation with "SEAT LIFTER FR" in ACTIVE TEST.

| Test item | Description |
| :--- | :--- |
| SEAT | The front end lifter motor is activated by receiving the drive sig- |
| LIFTER FR | nal. |


| ACTIVE TEST |  |  |  |
| :--- | :--- | :--- | :---: |
| $\qquad$SEAT LIFTER FR OFF    <br>      <br>      <br> UP DOWN    <br> MODE BACK LIGHT COPY  |  |  |  |

## (8) Without CONSULT-II

GO TO 3.
OK or NG
OK >> Front lifting motor circuit is OK.
NG >> GO TO 3.

## 3. check front lifting motor harness continuity

1. Turn ignition switch OFF.
2. Disconnect driver seat control unit connector and front lifting motor connector.
3. Check continuity between driver seat control unit connector B153 and terminals 5 (LG), 13 (Y) and front lifting motor connector B164 terminals 5 (LG), 13 (Y).

$$
\begin{array}{ll}
5(L G)-5(L G) & \text { : Continuity should exist. } \\
13(Y)-13(Y) & \text { : Continuity should exist. }
\end{array}
$$

4. Check continuity between driver seat control unit connector B153 and terminals 5 (LG), 13 (Y) and ground.

$$
\begin{array}{ll}
5(L G)-\text { Ground } & \text { : Continuity should not exist. } \\
13(Y)-\text { Ground } & \text { : Continuity should not exist. }
\end{array}
$$

| OK or NG |  |
| :--- | :--- |
| OK | $\gg$ GO TO 4. |
| NG | $\gg$ Repair or replace harness between driver seat control |
| unit and front lifting motor. |  |



## AUTOMATIC DRIVE POSITIONER

## 4. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

| Connector | Terminals (Wire color) |  | Condition | Voltage (V) <br> (Approx.) |
| :---: | :---: | :---: | :---: | :---: |
|  | (+) | (-) |  |  |
| B153 | 5 (LG) | Ground | Front lifting switch turned to downward | Battery voltage |
|  |  |  | Front lifting switch neutral position | 0 |
|  | 13 (Y) |  | Front lifting switch turned to upward | Battery voltage |
|  |  |  | Front lifting switch neutral position | 0 |

OK or NG
OK >> Replace front lifting motor.
NG >> Replace driver seat control unit.

## Rear Lifting Motor Circuit Check

## 1. CHECK REAR END SEAT LIFTING MECHANISM

Check the following.

- Operation malfunction caused by lifter mechanism deformation or pinched harness or other foreign materials
- Operation malfunction caused by foreign materials adhered to the lifter motor or lead screws
- Operation malfunction and interference with other parts by poor installation


## OK or NG

OK >> GO TO 2.
NG >> Repair the malfunctioning part and check again.

## 2. CHECK FUNCTION

## (1) With CONSULT-II

Check operation with "SEAT LIFTER RR" in ACTIVE TEST.

| Test item | Description |
| :---: | :--- |
| SEAT LIFTER | The rear end lifter motor is activated by receiving the drive sig- <br> RR |


| ACTIVE TEST |  |  |  |
| :---: | :---: | :---: | :---: |
| $\qquad$SEAT LIFTER RR OFF   <br>     <br> UP DOWN   <br> MODE BACK LIGHT COPY |  |  |  |

## 8. Without CONSULT-II

GO TO 3.
OK or NG
OK >> Rear lifting motor check is OK.
NG >> GO TO 3 .

## AUTOMATIC DRIVE POSITIONER

## 3. CHECK REAR LIFTING HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect driver seat control unit connector and rear lifting motor connector.
3. Check continuity between driver seat control unit connector B153 terminals 6 (G/W), 7 (G/B) and lifting motor connector B162 terminals $6(\mathrm{G} / \mathrm{W}), 7(\mathrm{G} / \mathrm{B})$.

$$
\begin{array}{ll}
6(G / W)-6(G / W) & : \text { Continuity should exist. } \\
7(G / B)-7(G / B) & \text { : Continuity should exist. }
\end{array}
$$

4. Check continuity between driver seat control unit B153 terminals 6 (G/W), 7 (G/B) and ground.

$$
\begin{array}{ll}
6(G / W)-\text { Ground } & \text { : Continuity should not exist. } \\
7(G / B)-\text { Ground } & \text { : Continuity should not exist. }
\end{array}
$$

OK or NG
OK >> GO TO 4.
NG >> Repair or replace harness between driver seat control unit and rear lifting motor.


## 4. CHECK DRIVER SEAT CONTROL UNIT OUTPUT SIGNAL

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

| Connector | Terminals <br> (Wire color) |  | Condition | Voltage (V) <br> (Approx.) |
| :---: | :---: | :---: | :--- | :---: |
|  | $(+)$ | $(-)$ |  | Rear lifting switch turned to <br> upward |
|  | $6(\mathrm{G} / \mathrm{W})$ | Ground | Rear lifting switch neutral <br> position | 0 |
|  |  |  | Battery voltage |  |
|  |  |  | 0 |  |



OK or NG
OK >> Replace rear lifting motor.
NG >> Replace driver seat control unit.

## Telescopic Motor Circuit Check

## 1. CHECK STEERING WHEEL TELESCOPIC MECHANISM

## Check following.

- Operation malfunction caused by steering wheel telescopic mechanism deformation or pinched harness or other foreign materials
- Operation malfunction and interference with other parts by poor installation

OK or NG
OK >> GO TO 2.
NG >> Repair the malfunctioning part and check again.

## AUTOMATIC DRIVE POSITIONER

## 2. CHECK FUNCTION

With CONSULT-II
Check operation with "TELESCO MOTOR" in ACTIVE TEST.

| Test item | Description |
| :--- | :---: |
| TELESCO <br> MOTOR | The telescopic motor is activated by receiving the drive signal. |



## 8. Without CONSULT-II

GO TO 3.
OK or NG
OK >> Steering telescopic motor circuit is OK.
NG >> GO TO 3 .

## 3. CHECK TELESCOPIC MOTOR HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect automatic drive positioner control unit and tilt motor and telescopic motor connector.
3. Check continuity between automatic drive positioner control unit connector M50 terminals 36 (L/R), 44 (L/ W) and tilt motor and telescopic motor connector M27 terminals 3 (L/R), 4 (L/W).

| $36(L / R)-3(L / R)$ | : Continuity should exist. |
| :--- | :--- |
| $44(L / W)-4(L / W)$ | : Continuity should exist. |

4. Check continuity between automatic drive positioner control unit connector M50 terminals 36 (L/R), 44 (L/W) and ground.

$$
\begin{array}{ll}
36(\mathrm{~L} / \mathrm{R})-\text { Ground } & \text { :Continuity should not exist. } \\
44(\mathrm{~L} / \mathrm{W})-\text { Ground } & \text { :Continuity should not exist. }
\end{array}
$$

$\frac{\mathrm{OK} \text { or } \mathrm{NG}}{\mathrm{OK} \quad \gg \text { GO TO } 4 .}$
NG >> Repair or replace harness between automatic drive
 positioner control unit and tilt motor and telescopic motor.

## AUTOMATIC DRIVE POSITIONER

## 4. CHECK BCM OUTPUT SIGNAL

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

| Connector | Terminals (Wire color) |  | Condition | Voltage (V) <br> (Approx.) | Automatic drive positioner C/U connector |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | (+) | (-) |  |  |  |
| M50 | 36 (L/R) | Ground | Telescopic switch turned to upward | Battery voltage |   36 $\mid$  <br>   $\mid 44$   <br> $\underbrace{36,44}$ |
|  |  |  | Telescopic switch neutral position | 0 |  |
|  | 44 (L/W) |  | Telescopic switch turned to downward | Battery voltage |  |
|  |  |  | Telescopic switch neutral position | 0 | - |

OK or NG
OK >> Replace tilt and telescopic motor.
NG >> Replace automatic drive positioner control unit.

## Tilt Motor Circuit Check

1. check steering wheel tilt mechanism

## Check following.

- Operation malfunction caused by steering wheel tilt mechanism deformation or pinched harness and other foreign materials
- Operation malfunction and interference with other parts by poor installation

OK or NG
OK >> GO TO 2.
NG >> Repair the malfunctioning part.

## 2. CHECK FUNCTION

## With CONSULT-II

Check operation with "TILT MOTOR" in ACTIVE TEST.

| Test item | Description |
| :---: | :---: |
| TILT MOTOR | The tilt motor is activated by receiving the drive signal. |



## AUTOMATIC DRIVE POSITIONER

## 3. CHECK TILT MOTOR CIRCUIT HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect automatic drive positioner control unit connector and tilt and telescopic motor connector.
3. Check continuity between automatic drive positioner control unit connector M50 terminals 35 (R/L), 42 (R/ B) and tilt and telescopic motor connector M27 terminals 1 (R/L), 2 (R/B).
$35(R / L)-1$ (R/L) : Continuity should exist.
42 (R/B)-2 (R/B) : Continuity should exist.
4. Check continuity between automatic drive positioner control unit connector M50 terminals 35 (R/L), 42 (R/B) and ground.

35 (R/L) - Ground : Continuity should not exist.
42 (R/B) - Ground : Continuity should not exist.

## OK or NG

OK >> GO TO 4.
NG >> Repair or replace harness between automatic drive
 positioner control unit and tilt and telescopic motor.

## 4. CHECK BCM OUTPUT SIGNAL

1. Connect automatic drive positioner control unit connector and tilt and telescopic motor connector.
2. Check voltage between automatic drive positioner control unit connector and ground.

| Connector | Terminals (Wire color) |  | Condition | Voltage (V) <br> (Approx.) |
| :---: | :---: | :---: | :---: | :---: |
|  | (+) | (-) |  |  |
| M50 | 35 (R/L) | Ground | Tilt switch turned to upward | Battery voltage |
|  |  |  | Tilt switch neutral position | 0 |
|  | 42 (R/B) |  | Tilt switch turned to downward | Battery voltage |
|  |  |  | Tilt switch neutral position | 0 |

## OK or NG

OK >> Replace tilt and telescopic motor.
NG >> Replace automatic drive positioner control unit.

## Driver Side Mirror Motor Circuit Check <br> 1. CHECK DOOR MIRROR FUNCTION

## Check the following.

Operation malfunction caused by a foreign object caught in door mirror face edge.
OK or NG
OK >> GO TO 2.
NG >> Repair the malfunctioning parts, and check the symptom again.

## AUTOMATIC DRIVE POSITIONER

## 2. CHECK MIRROR MOTOR

With CONSULT-II
Check the operation with "MIRROR MOTOR LH" in the ACTIVE TEST.

| Test item | Description |
| :---: | :--- |
| MIRROR MOTOR LH | The LH mirror motor moves the mirror UP/DOWN and <br> LEFT/RIGHT by receiving the drive signal. |



## (8ithout CONSULT-II

GO TO 3.
OK or NG
OK >> Driver side mirror motor circuit is OK.
NG >> GO TO 3.

## 3. CHECK DOOR MIRROR MOTOR (DRIVER SIDE) HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect automatic drive positioner control unit connector and door mirror (driver side) connector.
3. Check continuity between automatic drive positioner control unit connector M49 terminal 16 (P), 31 (R/W), 32 (G/B) and door mirror (driver side) connector D2 terminal 8 (P), 9 (PU), 10 (GY).

| $16(P)-8(P)$ | : Continuity should exist. |
| :--- | :--- |
| $31(R / W)-10(G Y)$ | : Continuity should exist. |
| $32(G / B)-9$ (PU) | : Continuity should exist. |

4. Check continuity between automatic drive positioner control unit connector M49 terminal 16 (P), 31 (R/W), 32 (G/B) and ground.

16 (P) - Ground : Continuity should not exist.
31 (R/W) - Ground : Continuity should not exist.
32 (G/B) - Ground : Continuity should not exist.


OK or NG
OK >> GO TO 4.
NG >> Repair or replace harness between automatic drive positioner control unit and door mirror (driver side).

## AUTOMATIC DRIVE POSITIONER

## 4. CHECK MIRROR MOTOR SIGNAL

1. Connect automatic drive positioner control unit and door mirror (driver side) connector.
2. Turn ignition switch to ACC position.
3. Check voltage between door mirror (driver side) connector and ground.


## OK or NG

OK >> Replace door mirror motor (driver side).
NG >> Check the condition of the harness and the connector.

## Passenger Side Mirror Motor Circuit Check <br> 1. CHECK DOOR MIRROR FUNCTION

## Check the following.

Operation malfunction caused by a foreign object caught in door mirror face edge.
OK or NG
OK >> GO TO 2.
NG >> Repair the malfunctioning parts, and check the symptom again.

## 2. MIRROR MOTOR INSPECTION

## With CONSULT-II

Check the operation with "MIRROR MOTOR RH" in the ACTIVE TEST.

| Test item | Description |
| :---: | :--- |
| MIRROR MOTOR RH | The RH mirror motor moves the mirror UP/DOWN and <br> LEFT/RIGHT by receiving the drive signal. |



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## 8 Without CONSULT-II

GO TO 3.
OK or NG
OK >> Passenger side mirror motor circuit is OK.
NG >> GO TO 3 .

## AUTOMATIC DRIVE POSITIONER

## 3. CHECK DOOR MIRROR MOTOR (PASSENGER SIDE) HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect automatic drive positioner control unit connector and door mirror (passenger side) connector.
3. Check continuity between automatic drive positioner control unit connector M49 terminal 14 (L/W), 15 (L/ B), 30 (W/R) and door mirror (passenger side) connector D32 terminal 8 (GY), 9 (OR), 10 (PU).

$$
\begin{array}{ll}
14(\mathrm{~L} / \mathrm{W})-10(\mathrm{PU}) & \text { : Continuity should exist. } \\
15(\mathrm{~L} / \mathrm{B})-9(\mathrm{OR}) & \text { : Continuity should exist. } \\
30(\mathrm{~W} / \mathrm{R})-8(\mathrm{GY}) & \text { : Continuity should exist. }
\end{array}
$$

4. Check continuity between automatic drive positioner control unit connector M49 terminal 14 (L/W), 15 (L/B), 30 (W/R) and ground.

$$
\begin{array}{ll}
14(\text { L/W ) - Ground } & \text { : Continuity should not exist. } \\
15 \text { (L/B) - Ground } & \text { : Continuity should not exist. } \\
30 \text { (W/R) - Ground } & \text { : Continuity should not exist. }
\end{array}
$$



OK or NG
OK >> GO TO 4.
NG >> Repair or replace harness between automatic drive positioner control unit and door mirror (passenger side).

## 4. CHECK MIRROR MOTOR SIGNAL

1. Connect automatic drive positioner control unit and door mirror (passenger side) connector.
2. Turn ignition switch to ACC position.
3. Check voltage between door mirror (passenger side) connector and ground.

| Connector | Terminals (Wire color) |  | Condition <br> (Change over switch RH) | Voltage (V) <br> (Approx.) |
| :---: | :---: | :---: | :---: | :---: |
|  | (+) | (-) |  |  |
| D32 | 8 (G/Y) | Ground | Mirror switch turned to downward or rightward | Battery voltage |
|  |  |  | Mirror position switch is neutral | 0 |
|  | 9 (OR) |  | Mirror switch turned to leftward | Battery voltage |
|  |  |  | Mirror position switch is neutral | 0 |
|  | 10 (PU) |  | Mirror switch turned to upward | Battery voltage |
|  |  |  | Mirror position switch is neutral | 0 |



OK or NG
OK >> Replace door mirror motor (passenger side).
NG >> Check the condition of the harness and connector.

## AUTOMATIC DRIVE POSITIONER

## Sliding Sensor Circuit Check

## 1. CHECK FUNCTION

## With CONSULT-II

Check operation with "SLIDE PUL SE" on the DATA MONITOR to make sure the pulse changes.

| Monitor item [OPERATION or UNIT] | Contents |  |
| :---: | :---: | :--- |
| RECLN PUL SE | - | The seat sliding position (pulse) judged <br> from the sliding sensor signal is dis- <br> played. |


| DATA MONITOR |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| SELECT MONITOR ITEM |  |  |  |  |
| SLIDE PULSE |  |  |  |  |
| RECLN PULSE |  |  |  |  |
| LIFT FR PULSE |  |  |  |  |
| LIFT RR PULSE |  |  |  |  |
| MIR/SEN RH U-D |  |  |  |  |
| Page Up | Page Down |  |  |  |
| SETTING | $\begin{array}{l\|} \hline \text { Numerical } \\ \text { Display } \\ \hline \end{array}$ |  |  |  |
| MODE | BACK | LIGHT | COPY | PHA4558E |

## Without CONSULT-II

1. Turn ignition switch OFF.
2. Check signal between driver seat control unit connector and ground, with oscilloscope.

| Connector | Terminals (Wire color) |  | Condition | Signal |
| :---: | :---: | :---: | :---: | :---: |
|  | (+) | (-) |  |  |
| B152 | 18 (G) | Ground | Sliding motor operation |  <br> PIIA3277E |



OK or NG
OK >> Sliding sensor circuit is OK.
NG >> GO TO 2.

## 2. CHECK SLIDING SENSOR HARNESS CONTINUITY

1. Disconnect driver seat control unit connector and sliding motor connector.
2. Check continuity between driver seat control unit connector B152 terminals $18(G), 28 C(B / W)$ and sliding motor B161 terminals 18 (G), 28 (B/W).

$$
\begin{array}{ll}
18(G)-18(G) & \text { : Continuity should exist. } \\
28 C(B / W)-28(B / W) & : \text { Continuity should exist. }
\end{array}
$$

3. Check continuity between driver seat control unit B152 terminals 18 (G), 28C (B/W) and ground.

18 (G) - Ground : Continuity should not exist. 28C (B/W) - Ground : Continuity should not exist.


OK or NG
OK >> Replace sliding motor.
NG >> Repair or replace harness between driver seat control unit and sliding motor.

## AUTOMATIC DRIVE POSITIONER

## Reclining Sensor Circuit Check

## 1. CHECK FUNCTION

(®) With CONSULT-II
Check operation with "RECLINING PUL SE" on the DATA MONITOR to make sure the pulse changes.

| Monitor item [POERATION or UNIT] |  | Contents |
| :---: | :---: | :---: |
| RECLN PUL SE | - | The seat reclining position (pulse) judged <br> from the reclining sensor is displayed |


| DATA MONITOR |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| SELECT MONITOR ITEM |  |  |  |  |
| SLIDE PULSE |  |  |  |  |
| RECLN PULSE |  |  |  |  |
| LIFT FR PULSE |  |  |  |  |
| LIFT RR PULSE |  |  |  |  |
| MIR/SEN RH U-D |  |  |  |  |
| Page Up | Page Down |  |  |  |
| SETTING | Numerical Display |  |  |  |
| MODE | BACK | LIGHT | COPY |  |

## Without CONSULT-II

1. Turn ignition switch OFF.
2. Check signal between driver seat control unit connector and ground, with oscilloscope.

| Connector | Terminals (Wire color) |  | Condition | Signal |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | (+) | (-) |  |  |  |
| B152 | 29 (G/L) | Ground | Reclining motor operation |  | SIIA0692J |



OK or NG
OK >> Reclining sensor circuit is OK.
NG >> GO TO 2.

## 2. CHECK RECLINING SENSOR HARNESS CONTINUITY

1. Disconnect driver seat control unit connector and reclining motor connector.
2. Check continuity between driver seat control unit connector B152 terminals 28C (B/W), 29 (G/L) and reclining motor connector B166 terminals $28(B / W), 29(G / L)$.

$$
\begin{array}{ll}
28 C(B / W)-28(B / W) & \text { : Continuity should exist. } \\
29(G / L)-29(G / L) & \text { : Continuity should exist. }
\end{array}
$$

3. Check continuity between driver seat control unit connector B152 terminals 28C (B/W), $29(G / L)$ and ground.
```
28C (B/W) - Ground : Continuity should not exist.
```

29 (G/L) - Ground
: Continuity should not exist.


OK or NG
OK >> Replace reclining motor.
NG >> Repair or replace harness between connectors driver seat control unit and reclining motor.

## AUTOMATIC DRIVE POSITIONER

## Front Lifting Sensor Circuit Check

## 1. CHECK FUNCTION

(D) With CONSULT-II

Check operation with "LIFT FR PUL SE" on the DATA MONITOR to make sure the pulse changes.

| Monitor item [OPERATION or UNIT] |  | Contents |
| :---: | :---: | :---: |
| LIFT FR PUL SE | - | The front lifting position (pulse) judged <br> from the front lifting sensor is displayed |



## Without CONSULT-II

1. Turn ignition switch OFF.
2. Check signal between driver seat control unit connector and ground, with oscilloscope.



## OK or NG

OK >> Front lifting sensor circuit is OK.
NG >> GO TO 2.

## 2. CHECK FRONT LIFTING SENSOR HARNESS CONTINUITY

1. Disconnect driver seat control unit connector and front lifting motor connector.
2. Check continuity between driver seat control unit connector B152 terminals 19 (G/Y), 28C (B/W) and front lifting motor connector B164 terminals $19(G / Y)$, 28A (B/W).

| $19(G / Y)-19(G / Y)$ | : Continuity should exist. |
| :--- | :--- |
| $28 C(B / W)-28 A(G / W)$ | : Continuity should exist. |

3. Check continuity between driver seat control unit connector B152 terminals 19 (G/Y), 28C (B/W) and ground.

19 (G/Y) - Ground
: Continuity should not exist. 28C (B/W) - Ground : Continuity should not exist.

[^0]

## AUTOMATIC DRIVE POSITIONER

## Rear Lifting Sensor Circuit Check

## 1. CheCK REAR END LIFTING SENSOR INPUT/OUTPUT SIGNAL

(D) With CONSULT-II

Check operation with "LIFT RP PUL SE" on the DATA MONITOR to make sure pulse changes.

| Monitor item [OPERATION or UNIT |  |  |
| :---: | :---: | :--- |
| LIFT RR PUL SE | - | The rear lifting position (pulse) judged from <br> the rear lifting sensor is displayed. |


| DATA MONITOR |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| SELECT MONITOR ITEM |  |  |  |  |
| SLIDE PULSE |  |  |  |  |
| RECLN PULSE |  |  |  |  |
| LIFT FR PULSE |  |  |  |  |
| LIFT RR PULSE |  |  |  |  |
| MIR/SEN RH U-D |  |  |  |  |
| Page Up Page Down <br> SETTING Numerical <br> Display |  |  |  |  |
|  |  |  |  |  |
| MODE | BACK | LIGHT | COPY |  |
| PIIA4558E |  |  |  |  |

## Without CONSULT-II

1. Turn ignition switch OFF.
2. Check signal between driver seat control unit connector ground, with oscilloscope.



OK or NG
OK >> Rear lifting sensor circuit is OK.
NG >> GO TO 2.

## 2. CHECK REAR LIFTING SENSOR HARNESS CONTINUITY

1. Disconnect driver seat control unit connector and rear lifting motor connector.
2. Check continuity between driver seat control unit connector B152 terminals 28C (B/W), 30 (G/W) and rear lifting motor connector B162 terminals 28B (B/W), 30 (G/W).

28C (B/W) - 28B (B/W) : Continuity should exist. 30 (G/W) - 30 (G/W) : Continuity should exist.
3. Check continuity between driver seat control unit connector B152 terminals 28C (B/W), 30 (G/W) and ground.

28C (B/W) - Ground : Continuity should not exist.
30 (G/W) - Ground : Continuity should not exist.
OK or NG
OK >> Replace rear lifting motor.
NG >> Repair or replace harness between driver seat control


## AUTOMATIC DRIVE POSITIONER

## Telescopic Sensor Circuit Check

## 1. CHECK FUNCTION

## (1)With CONSULT-II

Operate the telescopic switch with "TELESCO SEN" on the DATA MONITOR to make sure the voltage changes.

| Monitor item [OPERA- <br> TION or UNIT] | Contents |  |
| :--- | :---: | :--- |
| TELESCO <br> SEN | " V " | The telescoping position (voltage) judged from the tele- <br> scoping sensor signal is displayed. |


| DATA MONITOR |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| SELECT MONITOR ITEM |  |  |  |  |
| TILT SEN |  |  |  |  |
| TELESCO SEN |  |  |  |  |
| MIR/SE RH R-L |  |  |  |  |
| MIR/SE RH U-D |  |  |  |  |
| MIR/SE LH R-L |  |  |  |  |
| Page Up | Page Down |  |  |  |
| SETTING | Numerical Display |  |  |  |
| MODE | BACK | LIGHT | COPY |  |

## 8Without CONSULT-II

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

| Connector | Terminals <br> (Wire color) |  | Condition | Voltage (V) <br> (Approx.) |
| :---: | :---: | :---: | :--- | :---: |
|  | $(+)$ | $(-)$ |  | 0.56 |
| 23 (Y/B) | Ground | Telescopic <br> top position | Telescopic <br> bottom position | 4.44 |



OK or NG
OK >> Telescopic sensor circuit is OK.
NG >> GO TO 2.

## 2. CHECK HARNESS CONTINUITY

1. Disconnect automatic drive positioner control unit connector and tilt sensor and telescopic sensor connector.
2. Check continuity harness between automatic drive positioner control unit connector M49 terminals $23(\mathrm{Y} /$ $B$ ) and tilt sensor and telescopic sensor connector M28 terminals 3 (Y/B).

23 (Y/B) - 3 (Y/B) : Continuity should exist.
3. Check continuity harness between automatic drive positioner control unit connector M28 terminals $23(\mathrm{Y} / \mathrm{B})$ and ground.

## 23 (Y/B) - Ground : Continuity should not exist.

OK or NG
OK >> Replace tilt sensor and telescopic sensor.
NG >> Repair or replace harness between automatic drive positioner control unit and tilt sensor and telescopic sensor.


## AUTOMATIC DRIVE POSITIONER

## Tilt Sensor Circuit Check

## 1. Check tilt sensor

## (D) With CONSULT-II

With "TILT SEN" on the DATA MONITOR, operate the tilt switch to make sure voltage changes.

| Monitor item [OPERA- <br> TION or UNIT] | Contents |  |
| :---: | :---: | :--- |
| TILT SEN | "V" | The tilt position (voltage) judged from the tilt sensor sig- <br> nal is displayed. |


| DATA MONITOR |  |  |  |
| :--- | :--- | :--- | :---: |
| $\qquad$SELECT MONITOR ITEM    <br> TILT SEN    <br> TELESCO SEN    <br> MIR/SE RH R-L    <br> MIR/SE RH U-D    <br> MIR/SE LH R-L    <br> Page Up    <br> Page Down    <br> SETTING Numerical   <br> MODE BACK LIGHT  <br> COPY    |  |  |  |

## Without CONSULT-II

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

| Connector | Terminals <br> (Wire color) |  | Condition | Voltage (V) <br> (Approx.) |
| :---: | :---: | :---: | :--- | :---: |
|  | $(+)$ | $(-)$ |  | 1.82 |
| M49 | $7(\mathrm{Y} / \mathrm{R})$ | Ground | Tilt top position | 4.44 |
|  |  | Tilt bottom position | 4.4 |  |

OK or NG
OK >> Tilt sensor circuit is OK.


NG >> GO TO 2.

## 2. Check harness

1. Disconnect automatic drive positioner control unit connector and tilt sensor and telescopic sensor connector.
2. Check continuity harness between automatic drive positioner control unit connector M49 terminals 7 (Y/R) and tilt sensor and telescopic sensor connector M28 terminals 2 (Y/R).

$$
7(Y / R)-2(Y / R) \quad: \text { Continuity should exist. }
$$

3. Automatic drive positioner control unit connector M49 terminals 7 (Y/R) and ground.

7 (Y/R) - Ground : Continuity should not exist.
OK or NG
OK >> Replace tilt sensor and telescopic sensor.
NG >> Repair or replace harness between automatic drive positioner control unit and tilt sensor and telescopic sensor.


## AUTOMATIC DRIVE POSITIONER

## Driver Side Mirror Sensor Circuit Check

## 1. CHECK DOOR MIRROR FUNCTION

Check the following.
Operation malfunction in memory control
NOTE:
If a door mirror face position is set to an implausible angle, the set position may not be reproduced.
OK or NG
OK >> GO TO 2.
NG >> Repair the malfunctioning parts, and check the symptom again.

## 2. CHECK MIRROR SENSOR INSPECTION

(1) With CONSULT-II

Make sure "ON" is displayed on "MIR/SE LH R-L, MIR/SE LH UD" in the DATA MONITOR.

| Monitor item [OPERATION or <br> UNIT] | Contents |  |
| :--- | :---: | :--- |
| MIR/SE LH R-L | "V" | Voltage output from LH door mirror sensor (LH/ <br> RH) is displayed. |
| MIR/SE LH U-D | "V" | Voltage output from LH door mirror sensor <br> (UP/DOWN) is displayed. |

Without CONSULT-II

| DATA MONITOR |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| SELECT MONITOR ITEM |  |  |  |  |
| TELESCO SEN |  |  |  |  |
| MIR/SE RH R-L |  |  |  |  |
| MIR/SE RH U-D |  |  |  |  |
| MIR/SE LH R-L |  |  |  |  |
| MIR/SE LH U-D |  |  |  |  |
| Page Up | Page Down |  |  |  |
| SETTING | Numerical Display |  |  |  |
| MODE | BACK | LIGHT | COPY |  |
| PIIA0197E |  |  |  |  |

1. Turn ignition switch to ACC position.
2. Check voltage between door mirror (driver side) connector and ground.


NG >> GO TO 3.

## 3. CHECK HARNESS CONTINUITY 1

1. Disconnect automatic drive positioner control unit and door mirror (driver side) connector.
2. Check continuity between automatic drive positioner control unit connector M50 terminals 33 (G/W), 41 (B/Y) and door mirror (driver side) connector D2 terminals 5 (OR), 12 (BR).

$$
\begin{array}{ll}
33(G / W)-5(O R) & \text { : Continuity should exist. } \\
41(B / Y)-12(B R) & \text { : Continuity should exist. }
\end{array}
$$

3. Check continuity between automatic drove positioner control unit connector M49 terminals 33 (G/W), 41 (B/Y) and ground.
$33(G / W)$ - Ground : Continuity should not exist.
41 (B/Y) - Ground : Continuity should not exist.
OK or NG

| OK >> GO TO 3. |  |
| :--- | :--- |
| NG |  |
|  | >> Repair or replace harness between automatic drive |
| positioner control unit and door mirror (driver side). |  |

 positioner control unit and door mirror (driver side).

## AUTOMATIC DRIVE POSITIONER

## 4. CHECK HARNESS CONTINUITY 2

1. Check continuity between automatic drive positioner control unit connector M49 terminal 6 (P/L), 22 (L/Y) and door mirror (driver side) connector D2 terminal 4 (W), 11 (L/G).
6 (P/L) - 4 (W) : Continuity should exist.
22 (L/Y) - 11 (LG) : Continuity should exist.
2. Check continuity between automatic drive positioner control unit connector M49 terminal 6 (P/L), 22 (L/Y) and ground.
6 (P/L) - Ground
: Continuity should not exist.
22 (L/Y) - Ground : Continuity should not exist.

OK or NG
OK >> Check the condition of the harness and connector.
NG >> Repair or replace harness between automatic drive
 positioner control unit and door mirror (driver side).

## Passenger Side Mirror Sensor Circuit Check <br> 1. CHECK DOOR MIRROR FUNCTION

Check the following.
Operation malfunction in memory control

## NOTE:

If a door mirror face position is set to an implausible angle, the set position may not be reproduced.
OK or NG
OK >> GO TO 2.
NG >> Repair the malfunctioning parts, and check the symptom again.

## 2. CHECK MIRROR SENSOR INSPECTION

(1) With CONSULT-II

Make sure "ON" is displayed on "MIR/SE RH R-L, MIR/SE RH UD" in the DATA MONITOR.

| Monitor item [OPERATION or <br> UNIT] | Contents |  |
| :---: | :---: | :--- |
| MIR/SE RH R-L | "V" | Voltage output from RH door mirror sensor (LH/ <br> RH) is displayed. |
| MIR/SE RH U-D | "V" | Voltage output from RH door mirror sensor (UP/ <br> DOWN) is displayed. |

Without CONSULT-II

| DATA MONITOR |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| SELECT MONITOR ITEM |  |  |  |  |
| TELESCO SEN |  |  |  |  |
| MIR/SE RH R-L |  |  |  |  |
| MIR/SE RH U-D |  |  |  |  |
| MIR/SE LH R-L |  |  |  |  |
| MIR/SE LH U-D |  |  |  |  |
| Page Up | Page Down |  |  |  |
| SETTING | Numerical Display |  |  |  |
| MODE | BACK | LIGHT | COPY |  |
| PIIA0197E |  |  |  |  |

1. Turn ignition switch to ACC position.
2. Check voltage between door mirror (passenger side) connector and ground.

| Connector | Terminals (Wire color) |  | Condition | Voltage(V) <br> (Approx.) |
| :---: | :---: | :---: | :---: | :---: |
|  | (+) | (-) |  |  |
| D32 | 4 (LG) | Ground | When motor is UP or DOWN operation | Changes between 3 (close to perk) - <br> 1 (close to valley) |
|  | 11 (P) |  | When motor is LEFT or RIGHT operation | Changes between <br> 1 (close to left edge) - <br> 3 (close to right edge) |
| OK or NG |  |  |  |  |
| $\begin{aligned} & \text { OK } \\ & \text { NG } \end{aligned}$ | >> Mirror sensor RH circuit is OK.$\text { >> GO TO } 3 .$ |  |  |  |



## AUTOMATIC DRIVE POSITIONER

## 3. CHECK HARNESS CONTINUITY 1

1. Disconnect automatic drive positioner control unit and door mirror (passenger side) connector.
2. Check continuity between automatic drive positioner control unit connector M50 terminal 33 (G/W), 41 (B/ Y ) and door mirror (passenger side) connector D32 terminal 5 (BR), 12 (G).

| $33(G / W)-5(B R)$ | : Continuity should exist. |
| :--- | :--- |
| $41(B / Y)-12(G)$ | : Continuity should exist. |

3. Check continuity between automatic drive positioner control unit connector M50 terminals 33 (G/W), 41 (B/P) and ground.

33 (G/W) - Ground : Continuity should not exist.
41 (B/Y) - Ground : Continuity should not exist.
OK or NG
OK >> GO TO 3.


NG >> Repair or replace harness between automatic drive positioner control unit and door mirror (passenger side).

## 4. CHECK HARNESS CONTINUITY 2

1. Check continuity between automatic drive positioner control unit connector M49 terminal 5 (OR), 21 (G/Y) and door mirror (passenger side) connector D32 terminal 4 (LG), 11 (P).
5 (OR)-4 (LG) : Continuity should exist.
21 (G/Y)-11 (P) : Continuity should exist.
2. Check continuity between automatic drive positioner control unit connector M49 terminal 5 (OR), 21 (G/Y) and ground.

5 (OR) - Ground : Continuity should not exist.
21 (G/Y) - Ground : Continuity should not exist.
OK or NG
OK >> Check the condition of the harness and connector.
NG >> Repair or replace harness between automatic drive
 positioner control unit and door mirror (passenger side).

## Steering and Door Mirror Sensor Power and Ground Circuit Check

1. CHECK MIRROR SENSOR POWER SUPPLY
2. Turn ignition switch OFF.
3. Check voltage between automatic drive positioner control unit connector M50 terminal 33 and ground.

33 (G/W) - Ground : Approx. 5V
OK or NG
OK >> GO TO 2.
NG >> Replace automatic drive positioner control unit.


## AUTOMATIC DRIVE POSITIONER

## 2. CHECK MIRROR SENSOR GROUND CIRCUIT

Check continuity between automatic drive positioner control unit connector M49 terminal 41 and ground.
41 (B/Y) - Ground : Continuity should exist.
OK or NG
OK >> GO TO 3.
NG >> Replace automatic drive positioner control unit.


Automatic drive positioner C/U connector


PIIA4779E

## 3. check harness continuity

1. Disconnect automatic drive positioner control unit and door mirror (driver side).
2. Check continuity between automatic drive positioner control unit connector M49 terminal 33 (G/W), 4 (B/ Y) and door mirror (driver side) connector D32 terminal 5 (OR), 12 (BR).
33 (G/W) - 5 (OR) : Continuity should exist.
41 (B/Y) - 12 (BR) : Continuity should exist.
3. Check continuity between automatic drive positioner control unit connector M49 terminal 33 (G/W), 41 (B/Y) and ground.

33 (G/W) - Ground : Continuity should not exist.
41 (B/Y) - Ground : Continuity should not exist.
OK or NG
OK >> Check the condition of the harness and connector.
NG >> Repair or replace harness between automatic drive positioner control unit and door mirror (driver side).

## Front Door Switch (Driver Side) Circuit Check



## (1) With CONSULT-II

Touch "BCM" with "DOOR SW DR" on the DATA MONITOR, check ON/OFF operation when the driver door is open and closed.

| Monitor item [OPERA- <br> TION or UNIT] | Contents |  |
| :--- | ---: | :--- |
| DOOR SW* <br> DR | "ON/ | Door open (ON)/door closed (OFF) status judged from <br> (he driver door switch is displayed. |

*: Refer to BL-40, "Data Monitor" .

| DATA MONITOR |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| SELECT MONITOR ITEM |  |  |  |  |
| MEMORY SW 2 |  |  |  |  |
| CANCEL SW |  |  |  |  |
| DOOR SW-DR |  |  |  |  |
| VHCL SPEED SE |  |  |  |  |
| DETENT SW |  |  |  |  |
| Page Up | Page Down |  |  |  |
| SETTING | Numerical Display |  |  |  |
| MODE | BACK | LIGHT | COPY |  |
| PlIA0291E |  |  |  |  |

## 8 Without CONSULT-II

GOTO 2.
OK or NG
OK >> Front door switch (driver side) circuit is OK.
NG >> GO TO 2.

## AUTOMATIC DRIVE POSITIONER

## 2. CHECK FRONT DOOR SWITCH (DRIVER SIDE)

1. Turn ignition switch OFF.
2. Disconnect front door switch connector.
3. Check continuity between front door switch connector and ground part of door switch.

| Terminals |  | Condition | Continuity |
| :---: | :---: | :--- | :---: |
| 1 | Ground part <br> of door <br> switch | With the front door switch <br> (driver side) pressed | With the front door switch <br> (driver side) released |

OK or NG
OK >> GO TO 3.
NG >> Replace front door switch (driver side).


## 3. CHECK FRONT DOOR (DRIVER SIDE) HARNESS CONTINUITY

1. Disconnect BCM connector.
2. Check continuity between BCM connector B14 terminal $62(\mathrm{~W})$ and front door switch connector B26 terminal 1 (W).

62 (W)-1 (W) : Continuity should exist.
3. Check continuity between BCM connector B14 terminal 62 (W) and ground.

62 (W) - Ground : Continuity should not exist.
OK or NG
OK >> Front door switch (driver side) circuit is OK.
NG >> Repair or replace harness between BCM and front door
 switch (driver side).

## AUTOMATIC DRIVE POSITIONER

## Sliding Switch Circuit Check

## 1. CHECK FUNCTION

## With CONSULT-II

With "SLIDE SW-FR, SLIDE SW-RR" on the DATA MONITOR, operate the sliding switch to check ON/OFF operation.

| Monitor item [OPER- <br> ATION or UNIT] | Contents |  |
| :--- | :---: | :--- |
| SLIDE SW- <br> FR | "ON/ | ON/OFF status judged from the sliding switch (FR) signal <br> is displayed. |
| SLIDE SW- <br> RR | "ON/ | ON/OFF status judged from the sliding switch (RR) signal <br> is displayed. |


| DATA MONITOR |  |  |  |
| :--- | :--- | :--- | :---: |
| SELECT MONITOR ITEM    <br> SLIDE SW-FR    <br> SLIDE SW-RR    <br> RECLN SW-FR    <br> RECLN SW-RR    <br> LIFT FR SW-UP    <br> Page Down    <br> SETTING Numerical   <br> Display    <br> MODE BACK LIGHT  <br> COPY    |  |  |  |

## Without CONSULT-II

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

| Connector | Terminals <br> (Wire color) |  | Condition | Voltage (V) <br> (Approx.) |
| :---: | :---: | :---: | :--- | :---: |
|  | $(+)$ | $(-)$ |  | 0 |
|  | $24(\mathrm{~L} / \mathrm{R})$ |  | Sliding switch <br> turned to forward | 0 |
|  |  | Sliding switch neu- <br> tral position | Battery voltage |  |
|  |  | Sliding switch <br> turned to backward | 0 |  |
|  |  | Sliding switch neu- <br> tral position | Battery voltage |  |



## OK or NG

OK >> Sliding switch circuit is OK.
NG >> GO TO 2.

## 2. CHECK HARNESS CONTINUITY

1. Disconnect driver seat control unit connector and power seat switch (driver side) connector.
2. Check continuity between driver seat control unit connector B152 terminals 24 (L/R), 37 (L/P) and driver power seat switch connector B154 terminals 24 (L/R), 37 (L/P).
24 (L/R)-24 (L/R)
: Continuity should exist.
$37(L / P)-37(L / P) \quad$ : Continuity should exist.
3. Check continuity between driver seat control unit connector B152 terminals 24 (L/R), 37 (L/P) and ground.

24 (L/R) - Ground
37 (L/P) - Ground
: Continuity should not exist.
37 (L/P) - Ground : Continuity should not exist.


## OK or NG

OK >> GO TO 3.
NG >> Repair or replace harness between driver seat control unit and power seat switch.

## AUTOMATIC DRIVE POSITIONER

## 3. CHECK SLIDING SWITCH

Check continuity between driver seat switch as follows.

| Terminals |  | Condition | Continuity |
| :---: | :--- | :--- | :---: |
| 24 |  | Sliding switch turned to forward | Yes |
|  | 61 D | Sliding switch neutral position | No |
|  |  | Yes |  |
|  |  | No |  |

## OK or NG

OK >> Check the condition of the harness and connector.
NG >> Replace driver power seat switch.


## Reclining Switch Check

1. CHECK FUNCTION

## With CONSULT-II

With "RECLINING SW-FR, RECLINING SW-RR" on the DATA MONITOR, operate the reclining switch to check ON/OFF operation.

| Monitor item [OPERA- <br> TION or UNIT] | Contents |  |
| :--- | ---: | :--- |
| RECLN SW <br> - FR | "ON/ | ON/OFF status judged from the reclining switch (FR) <br> signal is displayed. |
| RECLN SW <br> -RR | "ON/ | ON/OFF status judged from the reclining switch (RR) <br> OFignal is displayed. |



## Without CONSULT-II

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

| Connector | Terminals (Wire color) |  | Condition | Voltage (V) <br> (Approx.) |
| :---: | :---: | :---: | :---: | :---: |
|  | (+) | (-) |  |  |
| B152 | 25 (L/OR) | Ground | Reclining switch turned to forward | 0 |
|  |  |  | Reclining switch neutral position | Battery voltage |
|  | 38 (LG/B) |  | Reclining switch turned to backward | 0 |
|  |  |  | Reclining switch neutral position | Battery voltage |

OK or NG
OK >> Reclining switch is OK.
NG >> GO TO 2.

## AUTOMATIC DRIVE POSITIONER

## 2. CHECK HARNESS CONTINUITY

1. Disconnect driver seat control unit connector and power seat switch (driver side) connector.
2. Check continuity between driver seat control unit connector B152 terminals 25 (L/OR), 38 (LG/B) and power seat switch (driver side) connector B154 terminals 25 (L/OR), 38 (LG/B).

$$
\begin{array}{ll}
25(\text { L/OR) }-25 \text { (L/OR) } & \text { : Continuity should exist. } \\
38 \text { (LG/B) }-38 \text { (LG/B) } & \text { : Continuity should exist. }
\end{array}
$$

3. Check continuity between driver seat control unit connector B303 terminals 25 (L/OR), 38 (LG/B) and ground.


$$
\begin{array}{ll}
25(\text { LO/R) - Ground } & \text { : Continuity should not exist. } \\
38 \text { (LG/B) - Ground } & \text { : Continuity should not exist. }
\end{array}
$$

OK or NG
OK >> GO TO 3.
NG >> Repair or replace harness between driver seat control unit and power seat switch.

## 3. check reclining switch

Check continuity between driver seat switch as follows.

| Terminals |  | Condition | Continuity |
| :---: | :--- | :--- | :---: |
| 25 | 61 D | Reclining switch turned to forward | Yes |
|  |  | No |  |
|  |  | Reclining switch turned to backward | Yes |
|  | Reclining switch neutral position | No |  |

## OK or NG

OK >> Check the condition of the harness and connector.
NG >> Replace power seat switch (driver side).


## AUTOMATIC DRIVE POSITIONER

## Front Lifting Switch Circuit Check

## 1. CHECK FUNCTION

## With CONSULT-II

With "LIFT FR SW-UP, LIFT FR SW-DN" on the DATA MONITOR, operate the front lifting switch to check ON/OFF operation.

| Monitor item [OPERA- <br> TION or UNIT] |  | Contents |
| :--- | :---: | :--- |
| LIFT FR SW- <br> DN | "ON/ | ON/OFF status judged from the FR lifter switch <br> OFF" |
| LIFT RR SW- <br> UP | "ON/ | ON/OFF status judged from the RR lifter switch (UP) <br> OFF |


| DATA MONITOR |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| SELECT MONITOR ITEM |  |  |  |  |
| LIFT FR SW-DN |  |  |  |  |
| LIFT RR SW-UP |  |  |  |  |
| LIFT RR SW-DN |  |  |  |  |
| MIR CON SW-UP |  |  |  |  |
| MIR CON SW-DN |  |  |  |  |
| Page Up | Page Down |  |  |  |
| SETTING | Numerical Display |  |  |  |
| MODE | BACK | LIGHT | COPY | PIIA0323E |

## Without CONSULT-II

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

| Connector | Terminals (Wire color) |  | Condition | Voltage (V) <br> (Approx.) |
| :---: | :---: | :---: | :---: | :---: |
|  | (+) | (-) |  |  |
| B303 | 26 (L/P) | Ground | Front lifting switch ON (UP operation) | 0 |
|  |  |  | Front lifting switch OFF | Battery voltage |
|  | 39 (L/G) |  | Front lifting switch ON (DOWN operation) | 0 |
|  |  |  | Front lifting switch OFF | Battery voltage |



OK or NG
OK >> Front lifting switch circuit is OK.
NG >> GO TO 2.

## 2. CHECK HARNESS CONTINUITY

1. Disconnect driver seat control unit connector and power seat switch (driver side) connector.
2. Check continuity between driver seat control unit connector B152 terminals 26 (L/P), 39 (L/G) and driver seat switch connector B156 terminals 26 (L/P), 39 (L/G).

| $26(L / P)-26(L / P)$ | : Continuity should exist. |
| :--- | :--- |
| $39(L / G)-39(L / G)$ | : Continuity should exist. |

3. Check continuity between driver seat control unit connector B152 terminals 26 (L/P), 39 (L/G) and ground

| $26(L / P)-$ Ground | : Continuity should not exist. |
| :--- | :--- |
| $39(L / G)-$ Ground | : Continuity should not exist. |



OK or NG
OK >> GO TO 3.
NG >> Repair or replace harness between driver seat control unit and power seat switch.

## AUTOMATIC DRIVE POSITIONER

## 3. CHECK FRONT END LIFTING SWITCH

Check continuity between driver seat switch as follows.

| Connector | Terminals |  | Condition | Continuity |
| :---: | :---: | :---: | :---: | :---: |
| B156 | 26 | 61B | Front lifting switch turned to upward | Yes |
|  |  |  | Front lifting switch neutral position | No |
|  | 39 |  | Front lifting switch turned to downward | Yes |
|  |  |  | Front lifting switch neutral position | No |

OK or NG
OK >> Check the condition of the harness and connector.
NG >> Replace driver power seat switch.

## Rear Lifting Switch Circuit Check



1. CHECK FUNCTION

## (1) With CONSULT-II

With "LIFT RR SW-UP, LIFT RR SW-DN" on the DATA MONITOR, operate the rear lifting switch to check ON/OFF operation.

| Monitor item [OPERATION or <br> UNIT] |  | Contents |
| :---: | :---: | :--- |
| LIFT RR SW-UP | "ON/OFF" | (ON/OFF) status judged from the RR lifter <br> switch (UP) signal is displayed. |
| LIFT RR SW-DN | "ON/OFF" | (ON/OFF) status judged from the RR lifter <br> switch (DOWN) signal is displayed. |



## Without CONSULT-II

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

| Connector | Terminals (Wire color) |  | Condition | Voltage (V) (Approx.) |
| :---: | :---: | :---: | :---: | :---: |
|  | (+) | (-) |  |  |
| B152 | 27 (L) | Ground | Rear lifting switch turned to upward | 0 |
|  |  |  | Rear lifting switch neutral position | Battery voltage |
|  | 40 (L/Y) |  | Rear lifting switch turned to downward | 0 |
|  |  |  | Rear lifting switch neutral position | Battery voltage |

OK or NG
OK >> Rear seat lifting switch circuit is OK.
NG >> GO TO 2.

## AUTOMATIC DRIVE POSITIONER

## 2. CHECK REAR LIFTING SWITCH HARNESS CONTINUITY

1. Disconnect driver seat control unit connector and driver power seat switch connector.
2. Check continuity between driver seat control unit connector B152 terminals 27 (L), 40 (L/Y) and power seat switch (driver side) connector B156 terminals 27 (L), 40 (L/Y).

| $27(\mathrm{~L})-27(\mathrm{~L})$ | : Continuity should exist. |
| :--- | :--- |
| $40(\mathrm{~L} / \mathrm{Y})-40(\mathrm{~L} / \mathrm{Y})$ | : Continuity should exist. |

3. Check continuity between driver seat control unit connector B152 terminals 27 (L), 40 (L/Y) and ground.

27 (L) - Ground : Continuity should not exist.
40 (L/Y) - Ground
: Continuity should not exist.


OK or NG
OK >> GO TO 3.
NG >> Repair or replace harness between driver seat control unit and driver power seat switch (driver side).

## 3. Check rear lifting switch

Check continuity between driver seat switch as follows.

| Terminals |  | Condition | Continuity |
| :---: | :--- | :--- | :---: |
| 27 | 61B | Rear lifting switch turned to upward | Yes |
|  |  | No |  |
|  |  | Yes |  |
|  | Rear lifting switch neutral position | No |  |

## OK or NG

OK >> Check the condition of the harness and connector. NG >> Replace power seat switch (driver side).


## Sliding Switch and Reclining Switch Ground Circuit Check

## 1. CHECK POWER SEAT SWITCH

1. Disconnect power seat switch.
2. Check continuity between driver seat switch as follows.

| Terminals |  | Condition | Continuity |
| :---: | :--- | :--- | :---: |
| 24 | 61 D | Sliding switch turned to forward | Yes |
|  |  | No |  |
|  |  | Yes |  |
| 3 | Sliding switch neutral position | No |  |

$\overline{\text { OK or NG }} \mathrm{OK} \quad \gg$ GO TO 2.

NG >> Replace driver power seat switch.


## AUTOMATIC DRIVE POSITIONER

## 2. CHECK POWER SEAT SWITCH GROUND CIRCUIT

Check continuity between power seat switch connector B154 terminal 61D (B/W) and ground.

61D (B/Y) - Ground : Continuity should exist.

OK or NG
OK >> Check the condition of the harness and connector.
NG >> Repair or replace harness between power seat switch and ground.
Front Lifting Switch and Rear Lifting Switch Ground Circuit Check

1. CHECK POWER SEAT SWITCH
2. Disconnect driver seat switch.
3. Check continuity between driver seat switch as follows.

| Terminals |  | Condition | Continuity |
| :---: | :--- | :--- | :---: |
| 26 | 61 B | Front lifting switch turned to upward | Yes |
|  |  | No |  |
|  |  | Yes |  |
|  | Front lifting switch neutral position | No |  |

OK or NG
OK >> GO TO 2.
NG >> Replace driver power seat switch.


## 2. CHECK POWER SEAT SWITCH GROUND CIRCUIT

Check continuity between power seat switch connector B156 terminal 61B (B/W) and ground.

61B (B/Y) - Ground : Continuity should exist.


OK or NG
OK >> Check the condition of the harness and connector.
NG >> Repair or replace harness between power seat switch and ground.

## AUTOMATIC DRIVE POSITIONER

## Telescopic Switch Circuit Check

## 1. CHECK FUNCTION

## (1) With CONSULT-II

With "TELESCO SW-FR, TELESCO SWRR"RR" on the DATA MONITOR, operate the ADP steering switch to check ON/OFF operation.

| Monitor item [OPERATION or <br> UNIT] |  | Contents |
| :---: | :---: | :---: |
| TELESCO SW-FR | "ON/OFF" | (ON/OFF) status judged from the tele- <br> scoping switch (FR) signal is displayed. |
| TELESCO SW-RR | "ON/OFF" | (ON/OFF) status judged from the tele- <br> scoping switch (RR) signal is displayed. |

## Without CONSULT-II

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

| Connector | Terminals <br> (Wire color) |  | Condition | Voltage (V) <br> (Approx.) |
| :---: | :---: | :---: | :--- | :---: |
|  | $(+)$ | $(-)$ |  | 0 |
|  | Ground |  | Telescopic switch turned to <br> forward | Telescopic switch neutral <br> position |
|  |  | Telescopic switch turned to <br> backward | 5 |  |
|  |  | Telescopic switch neutral <br> position | 5 |  |



OK or NG
OK >> Telescopic switch circuit is OK.
NG >> GO TO 2.

## 2. CHECK TELESCOPIC CIRCUIT HARNESS CONTINUITY

1. Disconnect automatic drive positioner control unit connector and ADP steering switch connector.
2. Check continuity between automatic drive positioner control unit connector M49 terminals 11 (BR), 27 (LG) and ADP steering switch connector M13 terminals 4 (LG), 5 (BR).

| $11(B R)-5(B R)$ | : Continuity should exist. |
| :--- | :--- |
| $27(L G)-4(L G)$ | : Continuity should exist. |

3. Check continuity between automatic drive positioner control unit connector M49 terminals 11 (BR), 27 (LG) and ground.
$\begin{array}{ll}11(B R)-\text { Ground } & \text { : Continuity should not exist. } \\ 27(L G)-\text { Ground } & \text { : Continuity should not exist. }\end{array}$


OK or NG
OK >> GO TO 3.
NG >> Repair or replace harness between automatic drive positioner control unit and ADP steering switch.

## AUTOMATIC DRIVE POSITIONER

## 3. CHECK TELESCOPIC SWITCH

Check continuity between ADP steering switch.

| Terminals |  | Condition | Continuity |
| :---: | :--- | :--- | :---: |
| 4 | 1 | Telescopic switch turned to forward | Yes |
|  |  | Telescopic switch neutral position | No |
|  |  | Telescopic switch turned to backward | Yes |
|  |  | Telescopic switch neutral position | No |

OK or NG
OK >> GO TO 4.
NG >> Replace ADP steering switch.


## 4. CHECK ADP STEERING SWITCH GROUND CIRCUIT

Check continuity between ADP steering switch connector M13 terminal 1 (B) and ground.

1 (B) - Ground<br>: Continuity should exist.



OK or NG
OK >> Check the condition of the harness and connector.
NG >> Replace or replace harness between ADP steering switch and ground.

## AUTOMATIC DRIVE POSITIONER

## Tilt Switch Circuit Check

## 1. CHECK FUNCTION

(D) With CONSULT-II

With "TILT SW-UP,TILT SW-DOWN" on the DATA MONITOR, operate the ADP steering switch to check ON/OFF operation.

| Monitor item [OPERATION or <br> UNIT] |  | Contents |
| :--- | :--- | :--- |
| TILT SW-UP | "ON/OFF" | (ON/OFF) status judged from the tilt <br> switch (UP) signal is displayed. |
| TILT SW-DOWN | "ON/OFF" | (ON/OFF) status judged from the tilt <br> switch (DOWN) signal is displayed. |


| DATA MONITOR |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| SELECT MONITOR ITEM |  |  |  |  |
| TELESCO SW-FR |  |  |  |  |
| TELESCO SW-RR |  |  |  |  |
| TILT SW-UP |  |  |  |  |
| TILT SW-DOWN |  |  |  |  |
| MEMORY SW 1 |  |  |  |  |
| Page Up | Page Down |  |  |  |
| SETTING | Numerical Display |  |  |  |
| MODE | BACK | LIGHT | COPY |  |
| PIIA0315E |  |  |  |  |

## Without CONSULT-II

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

| Connector | Terminals (Wire color) |  | Condition | Voltage (V) <br> (Approx.) |
| :---: | :---: | :---: | :---: | :---: |
|  | (+) | (-) |  |  |
| M49 |  | Ground | Tilt switch turned to upward | 0 |
|  | (LG/R) |  | Tilt switch neutral position | 5 |
|  | 17 (R/B) |  | Tilt switch turned to downward | 0 |
|  |  |  | Tilt switch neutral position | 5 |



OK or NG
OK >> Tilt switch circuit is OK.
NG >> GO TO 2.

## 2. CHECK TILT SWITCH CIRCUIT HARNESS CONTINUITY

1. Disconnect automatic drive positioner control unit connector and ADP steering switch connector.
2. Check continuity between automatic drive positioner control unit connector M49 terminals 1 (LG/R), 17 (R/B) and ADP steering switch connector M13 terminals 2 (LG/R), 3 (R/B).

$$
\begin{array}{ll}
1(L G / R)-2(L G / R) & : \text { Continuity should exist. } \\
17(R / B)-3(R / B) & \text { : Continuity should exist. }
\end{array}
$$

3. Check continuity between automatic drive positioner control unit connector M49 terminals 1 (LG/R), 17 (R/B) and ground.
$\begin{array}{ll}1(L G / R)-\text { Ground } & \text { : Continuity should not exist. } \\ 17(R / B)-\text { GRound } & \text { : Continuity should not exist. }\end{array}$


OK or NG
OK >> GO TO 3.
NG >> Repair or replace harness between automatic drive positioner control unit and ADP steering switch.

## AUTOMATIC DRIVE POSITIONER

## 3. check adp tilt steering switch

Check continuity between ADP steering switch.

| Terminals |  | Condition | Continuity |
| :---: | :--- | :--- | :---: |
| 2 | 1 | Tilt switch turned to upward | Yes |
|  |  | Tilt switch neutral position | No |
|  |  | Tilt switch turned to downward | Yes |
|  | Tilt switch neutral position | No |  |

OK or NG
OK >> GO TO 6.
NG >> Replace ADP steering switch.


## 4. CHECK ADP STEERING SWITCH GROUND CIRCUIT

Check continuity between ADP steering switch connector M13 terminal 1 (B) and ground.


ADP steering switch connector


PIIA3310E
OK or NG
OK >> Check the condition of the harness and connector.
NG >> Repair or replace harness between ADP steering switch and ground.

## Door Mirror Remote Control Switch (Changeover switch) Circuit Check <br> 1. CHECK FUNCTION

## With CONSULT-II

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

| Monitor item [OPERATION or <br> UNIT] |  | Contents |
| :--- | :--- | :--- |
| MIR CHNG SW-R | "ON/ |  |
| OFF" | ON/OFF status judged from the door mirror <br> remote control switch (switching to RIGHT) sig- <br> nal is displayed. |  |
| MIR CHNG SW-L | "ON/ | ON/OFF status judged from the door mirror <br> OFF" <br> remote control switch (switching to LEFT) sig- <br> nal is displayed. |

## Without CONSULT-II

1. Turn ignition switch to ACC position.
2. Check voltage between automatic drive positioner control unit connector and ground.

| Connector | Terminals (Wire color) |  | Condition | Voltage (V) <br> (Approx.) |
| :---: | :---: | :---: | :---: | :---: |
|  | (+) | (-) |  |  |
| M19 | 2 (G/W) | Ground | Changeover switch RIGHT position | 0 |
|  |  |  | Changeover switch neutral position | 5 |
|  | 18 (L/OR) |  | Changeover switch LEFT position | 0 |
|  |  |  | Changeover switch neutral position | 5 |



OK or NG
OK >> Door mirror remote control switch (changeover switch) circuit is OK.
NG >> GO TO 2.

## 2. CHECK CHANGEOVER SWITCH CIRCUIT HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect automatic drive positioner control unit and door mirror remote control unit connector.
3. Check continuity between automatic drive positioner control unit connector M49 terminal 2 (G/W), 18 (L/OR) and door mirror remote control unit connector M18 terminal 5 (L/OR), 6 (G/W).

| $2(G / W)-5(L / O R)$ | : Continuity should exist. |
| :--- | :--- |
| $18(L / O R)-6(G / W)$ | : Continuity should exist. |

4. Check continuity between automatic drive positioner control unit connector M49 terminal 2 (G/W), 18 (L/OR) and ground.

$$
\begin{array}{ll}
2(G / W)-\text { Ground } & \text { : Continuity should not exist. } \\
18 \text { (L/OR) - Ground } & \text { : Continuity should not exist. }
\end{array}
$$



## OK or NG

OK >> GO TO 3.
NG >> Repair or replace harness between automatic drive positioner control unit and door remote control switch.

## AUTOMATIC DRIVE POSITIONER

## 3. CHECK DOOR MIRROR REMOTE CONTROL SWITCH GROUND CIRCUIT

Check continuity between door mirror remote control switch connector M18 terminal 7 (B) and ground.

$$
7 \text { (B) - Ground } \quad \text { : Continuity should exist. }
$$

OK or NG
OK >> GO TO 4.
NG >> Repair or replace harness.


Door mirror remote control switch connector


## 4. CHECK DOOR MIRROR REMOTE CONTROL SWITCH (CANGEOVER SWITCH)

Check continuity between door mirror remote control switch as follows.

| Terminals |  | Condition | Continuity |
| :---: | :---: | :--- | :---: |
| 5 | 7 | Changeover switch RIGHT position | Yes |
|  |  | Changeover switch neutral position | No |
|  |  |  | Changeover switch LEFT position |
|  |  | Changeover switch neutral position | Yes |

OK or NG
OK >> Check the condition of the harness and the connector.
NG >> Replace door mirror remote control switch.


PIIA4770E

Door Mirror Remote Control Switch (Mirror Switch) Circuit Check

1. CHECK DOOR MIRROR REMOTE CONTROL SWITCH (MIRROR SWITCH) SIGNAL
(ㄷ) With CONSULT-II
Check the operation on "MIR CON SW-UP/DN" and "MIR CON SW-RH/LH" in the DATA MONITOR.

| Monitor item [OPERATION or <br> UNIT] |  | Contents |
| :--- | :--- | :--- |
| MIR CON SW-UP | "ON/ |  |
| OFF" | ON/OFF status judged from the door mirror <br> remote control switch (UP) signal is displayed. |  |
| MIR CON SW-DN | "ON/ | ON/OFF status judged from the door mirror <br> remote control switch (DOWN) signal is dis- <br> played. |
| MIR CON SW-RH | "ON/ |  |
| OFF" | ON/OFF status judged from the door mirror <br> remote control switch (RIGHT) signal is dis- <br> played. |  |
| MIR CON SW-LH | "ON/ |  |
| OFF" | ON/OFF status judged from the door mirror <br> remote control switch (LEFT) signal s displayed. |  |


| DATA MONITOR |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| SELECT MONITOR ITEM |  |  |  |  |
| LIFT RR SW-DN |  |  |  |  |
| MIR CON SW-UP |  |  |  |  |
| MIR CON SW-DN |  |  |  |  |
| MIR CON SW-RH |  |  |  |  |
| MIR CON SW-LH |  |  |  |  |
| Page Up | Page Down |  |  |  |
| SETTING | NumericalDisplay |  |  |  |
| MODE | вAск | LIGHt | COPY |  |
|  |  |  |  | PIIA0199E |

## Without CONSULT-II

1. Turn ignition switch to ACC position.
2. Check voltage between automatic drive positioner control unit connector and ground.

| Connector | Terminals (Wire color) |  | Condition | Voltage (V) <br> (Approx.) |
| :---: | :---: | :---: | :---: | :---: |
|  | (+) | $(-)$ |  |  |
| M19 | 3 (GY) | Ground | Mirror switch turned to upward | 0 |
|  |  |  | Mirror switch neutral position | 5 |
|  | 4 (Y) |  | Mirror switch turned to leftward | 0 |
|  |  |  | Mirror switch neutral position | 5 |
|  | 19 (GY/L) |  | Mirror switch turned to downward | 0 |
|  |  |  | Mirror switch neutral position | 5 |
|  | 20 (PU) |  | Mirror switch turned to rightward | 0 |
|  |  |  | Mirror switch neutral position | 5 |

## OK or NG

OK >> Door mirror remote control switch (mirror switch) circuit is OK. NG >> GO TO 2.

## AUTOMATIC DRIVE POSITIONER

## 2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect automatic drive positioner control unit and door mirror remote control switch connector.
3. Check continuity between automatic drive positioner control unit connector M49 terminal 3 (GY), 4 (Y), 19 (GY/L), 20 (PU) and door mirror remote control switch connector M18 terminal 1 (PU), 2 (Y), 3 (GY), 4 (GY/L).

| 3 (GY) - 3 (GY) | : Continuity should exist. |
| :--- | :--- |
| $4(\mathrm{Y})-2(\mathrm{Y})$ | : Continuity should exist. |
| $19(\mathrm{GY/L})-4$ (GY/L) | : Continuity should exist. |
| $20(\mathrm{PU})-1$ (PU) | : Continuity should exist. |

4. Check continuity between automatic drive positioner control unit connector M49 terminal 3 (GY), 4 (Y), 19 (GY/L), 20 (PU) and ground.

| $3(G Y)-$ Ground | : Continuity should not exist. |
| :--- | :--- |
| $4($ Y) - Ground | : Continuity should not exist. |
| $19(G Y / L)-$ Ground | : Continuity should not exist. |
| $20(P U)-$ Ground | : Continuity should not exist. |



## OK or NG

OK >> GO TO 4.
NG >> Repair or replace harness between automatic drive positioner control unit and door mirror remote control switch.

## 3. CHECK DOOR MIRROR REMOTE CONTROL SWITCH (MIRROR SWITCH)

Check continuity between door mirror remote control switch terminal as follows.

| Terminals |  | Switch condition | Continuity |
| :---: | :---: | :---: | :---: |
| 1 | 7 | Mirror switch turned to rightward | Yes |
|  |  | Mirror switch neutral position | No |
| 2 |  | Mirror switch turned to leftward | Yes |
|  |  | Mirror switch neutral position | No |
| 3 |  | Mirror switch turned to upward | Yes |
|  |  | Mirror switch neutral position | No |
| 4 |  | Mirror switch turned to downward | Yes |
|  |  | Mirror switch neutral position | No |



PIIA4773E

## OK or NG

OK >> Check the condition of the harness and the connector.
NG >> Replace door mirror remote control switch.

## AUTOMATIC DRIVE POSITIONER

## Detention Switch (P Range Switch) Circuit Check

## 1. CHECK FUNCTION

## With CONSULT-II

Make sure when the $A / T$ selector lever is in $P$ position, "P POSITION SW" on the DATA MONITOR becomes ON.

| Monitor item <br> [OPERATION or UNIT] |  | Contents |
| :---: | :---: | :--- |
| P POSITION SW | "ON/ |  |
| OFF" | The selector lever position "P position (ON)/other than <br> P position (OFF)" judged from the detente switch sig- <br> nal is displayed. |  |


|  | DATA M | ONITOR |  |  |
| :---: | :---: | :---: | :---: | :---: |
| SELECT MONITOR ITEM |  |  |  |  |
| MEMORY SW 2 |  |  |  |  |
| CANCEL SW |  |  |  |  |
| DOOR SW-DR |  |  |  |  |
| VHCL SPEED SE |  |  |  |  |
| P POSITION SW |  |  |  |  |
| Page Up Page Down |  |  |  |  |
| SETTIN | G Nume | $\begin{aligned} & \text { erical } \\ & \text { olay } \end{aligned}$ |  | PIIA6950E |
| MODE | BACK | LIGHT | COPY |  |

## Without CONSULT-II

1. Turn ignition switch OFF.
2. Check voltage between drive seat control unit conductor and ground.

| Connector | Terminals (Wire color) |  | Condition | Voltage (V) <br> (Approx.) |
| :---: | :---: | :---: | :---: | :---: |
|  | (+) | (-) |  |  |
| B152 | 17 (PU) | Ground | Selector lever other than $P$ position. | Battery voltage |
|  |  |  | Selector lever sifted to $P$ position. | 0 |

OK or NG


OK >> Detention switch circuit is OK.
NG >> GO TO 2.

## 2. CHECK DETENTION SWITCH POWER SUPPLY CIRCUIT HARNESS

1. Key is removed form ignition key cylinder.
2. Disconnect driver seat control unit connector and $A / T$ device (detention switch) connector.
3. Check continuity between driver seat control unit connector B152 terminal 17 (PU) and A/T device (detention switch) connector M67 terminal 3 (R/Y).

17 (PU) - 3 (R/Y) : Continuity should exist.
4. Check continuity between driver seat control unit connector B152 terminal 17 (PU) and ground.


17 (PU) - Ground : Continuity should not exist.
$\frac{\mathrm{OK} \text { or } \mathrm{NG}}{\mathrm{OK} \quad \gg \text { GO TO } 3 .}$
NG >> Repair or replace harness between driver seat control unit and $A / T$ device (detention switch).

## AUTOMATIC DRIVE POSITIONER

## 3. CHECK DETENTION SWITCH

Check continuity between detection switch as follows.

| Terminals |  | Condition | Continuity |
| :---: | :---: | :--- | :---: |
| 3 | 2 | P position | Continuity should exist. |
|  |  | Other than P position | Continuity should not exist. |



| OK or NG |
| :--- |
| OK >> GO TO 4. |
| NG >> Replace detention switch. |
| 4. CHECK DETENTION SWITCH GROUND HARNESS |

1. Check continuity between automatic drive positioner control unit connector M67 terminal 2 (B) and ground.

2 (B) - Ground
: Continuity should exist.
OK or NG
OK >> Check the condition of the harness and connector.
NG >> Repair or replace harness between detention switch and ground.



Key Switch and Key Lock Solenoid Circuit Check (With Intelligent Key)

1. CHECK KEY SWITCH AND KEY LOCK SOLENOID POWER SUPPRY CIRCUIT


## 8. Without CONSULT-II

GO TO 2.
OK or NG
OK >> Key switch and ignition knob circuit is OK.
NG >> GO TO 2.

## AUTOMATIC DRIVE POSITIONER

## 2. CHECK KEY SWITCH AND KEY LOCK SOLENOID POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect key switch connector and key lock solenoid connector.
3. Check voltage between key switch and key lock solenoid connector M22 terminal 3 (L/R) and ground.
3 (L/R) - Ground
: Battery voltage.

OK or NG
OK >> GO TO 3.
NG >> Check harness between key switch and key lock solenoid and fuse.


## 3. CHECK KEY SWITCH

Check continuity between key switch as follows.

| Terminals | Condition | Continuity |
| :---: | :--- | :---: |
| $3-4$ | Key is inserted in ignition key cylinder. | Yes |
|  | Key is removed from ignition key cylinder. | No |



OK or NG
OK >> GO TO 4.
NG >> Replace detention switch.

## 4. CHECK HARNESS CONTINUITY

1. Disconnect key switch and ignition knob switch connector and BCM connector.
2. Check continuity between key switch and ignition knob switch connector M22 terminal 4 (B/W) and BCM connector M3 terminal 37 (B/W).

4 (B/W) - 37 (B/W) : Continuity should exist.
3. Check continuity between key switch and ignition knob switch connector M22 terminal 4 (B/W) and ground.

$$
4 \text { (B/W) - Ground } \quad \text { : Continuity should not exist. }
$$



## OK or NG

OK >> Key switch and ignition knob switch circuit is OK.
NG >> Repair or replace harness between key switch and ignition knob switch and BCM.

## AUTOMATIC DRIVE POSITIONER

## Key Switch Circuit Check (Without Intelligent Key)

## 1. CHECK KEY SWITCH

## (D) With CONSULT-II

Touch "BCM". With "IGN KEY SW" on the DATA MONITOR, Check ON/OFF operation.

| Monitor item [OPERA- <br> TION or UNIT] | Contents |  |
| :---: | :---: | :--- |
| IGN KEY SW" | "ON/ <br> OFF" | Key inserted (ON)/key removed (OFF) status judged <br> from the key-in detection switch is displayed. |

*:Refer to BL-40, "Data Monitor" .

| DATA MONITOR |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| SELECT MONITOR ITEM |  |  |  |  |
| IGN ON SW |  |  |  |  |
| IGN ACC SW |  |  |  |  |
| IGN START SW |  |  |  |  |
| IGN KEY SW |  |  |  |  |
| R POSITION SW |  |  |  |  |
| Page Up | Page Down |  |  |  |
| SETTING | Numerical Display |  |  |  |
| MODE | BACK | LIGHT | COPY | P |

## (8) Without CONSULT-II

GO TO 2.
OK or NG
OK >> Key switch circuit is OK.
NG >> GO TO 2.

## 2. CHECK KEY SWITCH AND KEY LOCK SOLENOID POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect key switch connector.
3. Check voltage between key switch connector M23 terminal 2 (L/ R ) and ground.

$$
2(L / R)-\text { Ground } \quad \text { : Battery voltage. }
$$

OK or NG
OK >> GO TO 3.
NG >> Check harness between key switch and fuse.



PIIA5092E

## 3. CHECK KEY SWITCH

Check continuity between key switch as follows.

| Terminals | Condition | Continuity |
| :---: | :--- | :---: |
| $1-2$ | Key is inserted in ignition key cylinder. | Yes |
|  | Key is removed from ignition key cylinder. | No |



OK or NG
OK >> GO TO 4.
NG >> Replace key switch.

## AUTOMATIC DRIVE POSITIONER

## 4. CHECK HARNESS CONTINUITY

1. Disconnect key switch and connector and BCM connector.
2. Check continuity between key switch connector M23 terminal 1 (B/W) and BCM connector M3 terminal 37 (B/W).

$$
1(B / W)-37(B / W) \quad: \text { Continuity should exist. }
$$

3. Check continuity between key switch connector M23 terminal 1 (B/W) and ground.

1 (B/W) - Ground : Continuity should not exist.
OK or NG
OK >> Key switch and circuit is OK.


NG >> Repair or replace harness between key switch and BCM.

## Seat Memory Switch Circuit Check

1. CHECK FUNCTION

## (1) With CONSULT-II

With "SET SW,MEMORY SW1, MEMORY SW2" on the DATA MONITOR, operate the switch to check ON/OFF operation.

| Monitor item [OPERATION or <br> UNIT] |  | Contents |
| :--- | :---: | :--- |
| MEMORY SW1 | "ON/OFF"" | ON/OFF status judged from the seat <br> memory switch 1 signal is displayed. |
| MEMORY SW2 | "ON/OFF" | ON/OFF status judged from the seat <br> memory switch 2 signal is displayed. |
| SET SW | "ON/OFF" | ON/OFF status judged from the setting <br> switch signal is displayed. |


DATA MONITOR

| MONITOR |  |
| :--- | :--- |
| TELESCO SW-FR |  |
| TELESCO SW-RR | OFF |
| TILT SW-UP | OFF |
| TILT SW-DOWN | OFF |
| MEMORY SW 1 | OFF |
| MEMORY SW 2 | OFF |
| CANCEL SW | OFF |
| DOOR SW-DR | OFF |
| VHCL SPEED SE | OFF |
| Page Up  Page Down    <br>     RECORD  <br> MODE BACK LIGHT    | COPY |

## 8ithout CONSULT-II

GOTO 2.
OK or NG
OK >> Seat memory switch circuit is OK.
NG >> GO TO 2.

## AUTOMATIC DRIVE POSITIONER

## 2. CHECK SEAT MEMORY SWITCH

1. Turn ignition switch OFF.
2. Disconnect "memory switch and lumber support switch" connector.
3. Operate the setting switch and memory switch.
4. Check continuity between "memory switch and lumber support switch" connector and ground.

| Terminals |  | Condition | Continuity |
| :---: | :---: | :---: | :---: |
| $\begin{gathered} 34 \\ (\mathrm{~L} / \mathrm{W}) \end{gathered}$ | 61 (B/Y) | Set switch: ON | Yes. |
|  |  | Set switch: OFF | No. |
| $\begin{gathered} 22 \\ (\mathrm{~L} / \mathrm{G}) \end{gathered}$ |  | Memory switch 1 ON | Yes. |
|  |  | Memory switch 1: OFF | No. |
| $\begin{gathered} 35 \\ (\mathrm{~L} / \mathrm{B}) \end{gathered}$ |  | Memory switch 2: ON | Yes. |
|  |  | Memory switch 2: OFF | No. |

OK or NG
OK >> GO TO 3.
NG >> Replace "memory switch and lumber support switch" and lumber support switch.

## 3. CHECK HARNESS CONTINUITY

1. Disconnect driver seat control unit connector.
2. Check continuity between driver seat control unit connector B152 terminals 22 (L/G), 34 (L/W), 35 (L/B) and "memory switch and lumber support switch" connector B158 terminals 22 (L/G), 34 (L/W), 35 (L/B).

| $22($ L/G $)-22($ L/G $)$ | : Continuity should exist. |
| :--- | :--- |
| $34($ L/W) -34 (L/W) | : Continuity should exist. |
| $35($ L/B) -35 (L/B) | : Continuity should exist. |

3. Check continuity between automatic drive positioner control unit connector M19 terminals 22 (L/G), 34 (L/W), 35 (L/B) and


Driver seat C/U connector


Seat memory switch and lumbar support switch connector


Seat memory switch and lumbar support switch
 ground.
$\begin{array}{ll}22(\text { L/G) - Ground } & \text { : Continuity should not exist. } \\ 34(\text { L/W })-\text { Ground } & \text { : Continuity should not exist. } \\ 35(\text { L/B }) \text { - Ground } & \text { : Continuity should not exist. }\end{array}$
35 (L/B) - Ground : Continuity should not exist.
OK or NG
OK >> GO TO 4.
NG >> Repair or replace harness between driver seat control unit and "memory switch and lumber support switch".

## AUTOMATIC DRIVE POSITIONER

## 4. CHECK "MEMORY SWITCH AND LUMBER SUPPORT SWITCH" GROUND CIRCUIT

Check continuity between "memory switch and lumber support switch" B158 terminal 61 ( $B / Y$ ) and ground.

61 (B/Y) - Ground : Continuity should exist.
OK or NG
OK >> Replace driver seat control unit.
NG >> Repair or replace harness between "memory switch and lumber support switch" and ground.


## Memory Indicator Lamp Circuit Check

1. CHECK FUNCTION
(1) With CONSULT-II

With "MEMORY SW INDCTR" in ACTIVE TEST, check operation.

| Test item | Description |
| :--- | :---: |
| MEMORY SW <br> INDCTR | The memory switch indicator is lit by receiving the drive signal. |



## Without CONSULT-II

GO TO 2.
OK or NG
OK >> Memory indicator lamp circuit is OK.
NG >> GO TO 2.

## 2. CHECK "MEMORY SWITCH AND LUMBER SUPPORT SWITCH" POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect "memory switch and lumber support switch" connector.
3. Check voltage between "memory switch and lumber support switch" connector B158 terminal 11 (R/W) and ground.

11 (R/W) - Ground : Battery voltage


OK or NG
OK >> GO TO 4.
NG >> Repair or replace harness between fuse block ( $\mathrm{J} / \mathrm{B}$ ) and memory switch and lumber support switch.

## AUTOMATIC DRIVE POSITIONER

## 3. CHECK HARNESS CONTINUITY

1. Disconnect driver seat control unit connector.
2. Check continuity between driver seat control unit connector B152 terminals 23 (Y/W), 36 (Y/G) and "memory switch and lumber support switch" connector D3 terminals 23 (Y/W), 36 (Y/ $\mathrm{G})$.

$$
\begin{array}{ll}
23(Y / W)-23(Y / W) & \text { : Continuity should exist. } \\
36(Y / G)-36(Y / G) & \text { : Continuity should exist. }
\end{array}
$$

3. Check continuity between driver seat control unit connector B152 terminals 23 (Y/W), 36 (Y/G) and ground.

23 (Y/W) - Ground : Continuity should not exist.


OK or NG
OK >> GO TO 5.
NG >> Repair or replace harness between automatic drive positioned control unit and "memory switch and lumber support switch".

## 4. CHECK SEAT MEMORY SWITCH INDICATOR SIGNAL

Check voltage between driver seat control unit connector B152 terminals 23 (Y/W), 36 (Y/G) and ground.

| $23(\mathrm{Y} / \mathrm{W})-$ Ground | : Battery voltage |
| :--- | :--- |
| $36(\mathrm{Y} / \mathrm{G})-$ Ground | : Battery voltage |

OK or NG
OK >> Memory indicator lamp circuit is OK.
NG >> Replace "memory switch and lumber support switch".


## Uart Communication Line Circuit Check

AIS002Y8

1. CHECK UART LINE HERNESS
2. Disconnect driver seat control unit connector and automatic drive positioner control unit connector.
3. Check continuity between driver seat control unit connector B152 terminal $2(\mathrm{P}), 8(\mathrm{G} / \mathrm{Y})$ and automatic drive positioner connector M49 terminal 10 (B), 26 (G).

$$
\begin{array}{ll}
2(P)-26(W) & \text { : Continuity should exist. } \\
8(G / Y)-10(R) & \text { : Continuity should exist. }
\end{array}
$$

3. Check continuity between driver seat control unit connector B152 terminal $2(\mathrm{P}), 8(\mathrm{G} / \mathrm{Y})$ and ground.

2 (P) - Ground
: Continuity should not exist.
8 (G/Y) - Ground
: Continuity should not exist.

OK or NG
OK >> GO TO 2.
NG >> Repair or replace harness between driver seat control unit and automatic drive positioner.

## AUTOMATIC DRIVE POSITIONER

## 2. CHECK UART LINE SIGNAL 1

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

| Connector | Terminals (Wire color) |  | Condition | Signal |
| :---: | :---: | :---: | :---: | :---: |
|  | (+) | (-) |  |  |
| B152 | 2 (P) | Ground | Seat memory switch 1 or 2 operation |  <br> PIIA4814E |



OK or NG
OK >> GO TO 3.
NG >> Check the flowing.

- When voltage waveform dose not appear with a constant voltage (approx. 5 V ), replace driver seat control unit.
- When voltage waveform dose not appear with a constant voltage (approx. OV ), replace automatic drive positioner control unit.


## 3. Check uart line signal 2

Check signal between automatic driver positioner control unit connector ground, with oscilloscope.

| Connector | Terminals (Wire color) |  | Condition | Signal |
| :---: | :---: | :---: | :---: | :---: |
|  | (+) | (-) |  |  |
| M49 | 10 (R) | Ground | Seat memory switch 1 or 2 operation |  |



## OK or NG

OK >> GO TO 4.
NG >> Check the flowing.

- When voltage waveform dose not appear with a constant voltage (approx. 5 V ), replace automatic driver seat control unit.
- When voltage waveform dose not appear with a constant voltage (approx. OV), replace driver seat control unit.


## 4. CHECK DRIVER SEAT CONTROL UNIT

## Dose the automatic drive positioner operate, when the driver control unit exchanged?

Does seat memory function operate?
YES >> Replace automatic drive positioner control unit.
NG >> Replace driver seat control unit.

## AUTOMATIC DRIVE POSITIONER

## Lumber Support Circuit Check

## 1. CHECK LUMBER SUPPORT SWITCH

1. Turn ignition switch OFF.
2. Disconnect l"memory switch and lumber support switch" connector.
3. Check voltage between I"memory switch and lumber support switch" connector B158 terminal 1 (R) and ground.

$$
1 \text { (R) - Ground: : Battery voltage }
$$



OK or NG
OK >> GO TO 2.
NG >> Repair or replace harness between fuse block (J/B) and I"memory switch and lumber support switch".

## 2. CHECK LUMBER SUPPORT SWITCH

Check continuity power seat switch.

| Terminal |  | Condition | Continuity |
| :---: | :---: | :--- | :---: |
| 31 | 1 | Lumber support switch turned to backward. | Yes |
|  | 16 B | Lumber support switch turned to forward. | No |
| 32 | 1 | Lumber support switch turned to forward. | Yes |
|  | 16 B | Lumber support switch turned to backward. | No |

OK or NG
OK >> GO TO 3.
NG >> Replace power seat switch.


## 3. cHECK LUMBER SUPPORT MOTOR HARNESS

1. Disconnect lumber support motor connector.
2. Check continuity between I"memory switch and lumber support switch" connector B158 terminal 31 (W), 32 (L) and lumber support motor connector B195 terminal 31 (W), 32 (L).
31 (W) - 31 (W)
32 (L) - 32 (L)
: Continuity should exist.
: Continuity should exist.
3. Check continuity between I"memory switch and lumber support switch" connector B159 terminal 31 (W), 32 (L) and ground.

31 (W) - Ground : Continuity should not exist.


32 (L) - Ground
: Continuity should not exist.
OK or NG
OK >> GO TO 4.
NG >> Repair or replace harness between l"memory switch and lumber support switch" and lumber support motor.

## AUTOMATIC DRIVE POSITIONER

## 4. CHECK LUMBER SUPPORT SWITCH GROUND CIRCUIT

Check continuity between lumber support switch connector B158 terminal 16B (B) and ground.

16B (B) - Ground : Continuity should exist.


OK or NG
OK >> Check the condition of the harness and connector.
NG >> Repair or replace harness between l"memory switch and lumber support switch" and ground.

POWER SEAT

## Automatic Drive Positioner Interlocking Power Seat

A trouble diagnosis of a automatic drive positioner interlocking power seat is refer toSE-11, "AUTOMATIC DRIVE POSITIONER".


## POWER SEAT

Wiring Diagram-SEAT- / For Driver Seat



*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.


*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.
HEATED SEAT

## Description

AIS002X3

- When handling seat, be extremely careful not to scratch heating unit.
- To replace heating unit, seat trim and pad should be separated.
- Do not use any organic solvent, such as thinner, benzene, alcohol, etc. to clean trims.




REFER TO THE FOLLOWING
(B1) -SUPER MULTIPLE JUNCTION (SMJ)
*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

## FRONT SEAT

SEC. 870

## FRONT SEAT

1. Headrest
2. Seatback pad
3. Screw
4. Seat cushion pad
5. Side air bag module
6. Lumber support device
7. Reclining device assembly
8. Seat adjust assembly
9. Seat cushion outer finisher
10. Seat cushion forward finisher
11. Headrest holder (Free)
12. Seatback trim
13. Power seat switch assembly
14. Seatback garnish
15. Clip (C101)
16. Bolt
17. Seat cushion frame
18. Clip (C103)
19. Seat cushion outer finisher cover
20. Seat cushion forward finisher lid
21. Headrest holder (Looked)
22. Seat cushion inner finisher
23. Seat cushion trim
24. Nut
25. Inner cloth stay
26. Seatback frame
27. Seat harness assembly
28. Seat adjust assembly cover
29. Power seat memory switch assembly

## FRONT SEAT

## REMOVAL

When removing or installing the seat trim, carefully handle it to keep dirt out and avoid damage.
CAUTION:

- Before removing the front seat, turn ignition switch OFF, disconnect both battery cables and wait at least 3 minutes.
- When checking the power seat circuit for continuity using a circuit tester, do not confuse its connector with the side air bag module connector. Such an error may cause the air bag to deploy.
- Do not drop, tilt, or bump the side air bag module installing in the seat. Always handle it with care.

1. Remove the seat cushion outer finisher cover.
2. Remove the front seat belt anchor bolt. Refer toSB-4, "Removal and Installation of Front Seat Belt" .
CAUTION:
Set the front and rear cushion lifter to the down position.
3. Remove the screw.

4. Remove the seat cushion forward finisher lid.
5. Remove the seat cushion forward finisher.
6. Remove the seat cushion outer finisher.

7. Screw
8. Clip(C101)
9. Remove the power seat memory switch assembly.

## FRONT SEAT

8. Remove the front and rear leg cover (LH and RH).


## NOTE:

1. Slide the seat backward, and disconnect the front tabs on the front leg cover. Then move the cover toward the rear of the vehicle, and pull up to remove.
2. Slide the seat forward, then disengage the tabs on the front LH and RH of the rear leg cover and tabs engaged into the rail. Then pull the cover toward the rear of the vehicle.
3. Slide the seat until the body mounting bolts are visible and a tool can be inserted.

NOTE:
When disassembling the driver seat after removal, set the front and rear cushion lifter to the top position.
10. Disconnect both battery cables.
11. Remove the harness connector for the side air bag module.
12. Remove the power seat harness connector and vehicle harness fixing clip.
13. Remove the front seat.

## NOTE:

When removing and installing, using waste, protect the parts from damage where it may interfere with others.

## INSTALLATION

Install in the reverse order of removal.

## NOTE:

Be sure to insert the rear end tab of the rear leg cover under the rail.

## REMOVAL OF SEATBACK TRIM AND PAD

1. Remove the seatback garnish.

2. Remove the retainer.


## FRONT SEAT

3. Remove the stay securing the inner cloth.

4. Remove the headrest.
5. Remove the headrest holder.

From the back of the seatback, press the headrest holder tab of the stay pipe hole to disengage. Then pull the headrest holder up to remove.
NOTE:
Before installing the headrest holder, check its orientation (front, rear, left and right).


## FRONT SEAT

2. Remove the velcro and retainer.

3. Remove the seat harness connector.
4. Remove the seatback frame.
5. Remove the reclining device assembly.

6. Remove the power seat switch assembly.

7. Remove the retainer and clip.

8. After removing the seat cushion trim and pad, remove the hog rings to separate the trim and pad and the seat cushion heater unit.

## INSTALLATION OF SEAT CUSHION TRIM AND PAD

Install in the reverse order of removal.

## REAR SEAT

Removal and Installation


1. Headrest (Side)
2. Seatback trim (RH)
3. Nut
4. Reclining lever (RH)
5. Bolt
6. Clip (C101)
7. Seatback pad (LH)
8. Armrest bracket cover
9. Reclining device inner cover (LH)
10. Seat hinge cover (LH)
11. Cup holder bracket
12. Headrest holder (Free)
13. Seatback pad (RH)
14. Seat hinge cover (RH)
15. Reclining device outer cover (RH)
16. Seatback garnish (RH)
17. Headrest (Center)
18. Seatback frame (LH)
19. Armrest bracket
20. Reclining device outer cover (LH)
21. Seat cushion trim
22. Cup holder
23. Headrest holder (Looked)
24. Seatback frame (RH)
25. Screw
26. Reclining device inner cover (RH)
27. Trunk net hook
28. Seatback trim (LH)
29. Seatback garnish (LH)
30. Armrest
31. Reclining lever (LH)
32. Seat cushion pad

## REMOVAL

1. Pull the lock at the front bottom of the seat cushion forward (1 for each side), and pull the seat cushion upward to release the wire from the plastic hook, then pull the seat cushion forward to remove.

2. Remove the seatback mounting nuts.

3. Remove the seatback mounting bolt and nut.

Remove the remote control wire.


## INSTALLATION

Install in the reverse order of removal.

## NOTE:

After rear wheel house finisher assembly is remove the seatback is installed. Refer to El-44, "Removal and

## REMOVAL OF SEAT CUSHION TRIM AND PAD

1. Remove the cup holder in the back of the seat cushion.

2. Removal the hog rings to separate the trim and pad.

## REAR SEAT

INSTALLATION OF SEAT CUSHION TRIM AND PAD
Install in the reverse order of removal.

## REMOVAL OF SEATBACK TRIM AND PAD

1. Remove the trunk net hook in the back of the seatback.

2. After removing the seatback garnish, remove the hog rings,
3. Remove the headrest.
4. Remove the headrest holder.

Squeeze and pull up headrest holder tabs to remove from seatback frame.
NOTE:
Before installing the headrest holder, check its orientation (front, rear, left and right)

5. Remove the armrest (LH only).

6. After removing the seatback trim and pad, separate the trim and pad.

INSTALLATION OF SEATBACK TRIM AND PAD
Install in the reverse order of removal.

## REMOVAL OF REMOTE CONTROL LEVER



1. Remote control wire
2. Bolt
3. Remote control lever
4. Remove the rear seat. Refer to SE-109, "REMOVAL" .
5. Remove the luggage side finisher assembly. Refer to El-44, "Removal and Installation" .
6. Remove the remote control lever cover.
7. Remove the remote control lever mounting bolt.
8. Remove the remote control lever assembly.
installation of remote control lever
Install in the reverse order of removal.

[^0]:    OK or NG
    OK >> Replace front lifting motor.
    NG >> Repair or replace harness between driver seat control

