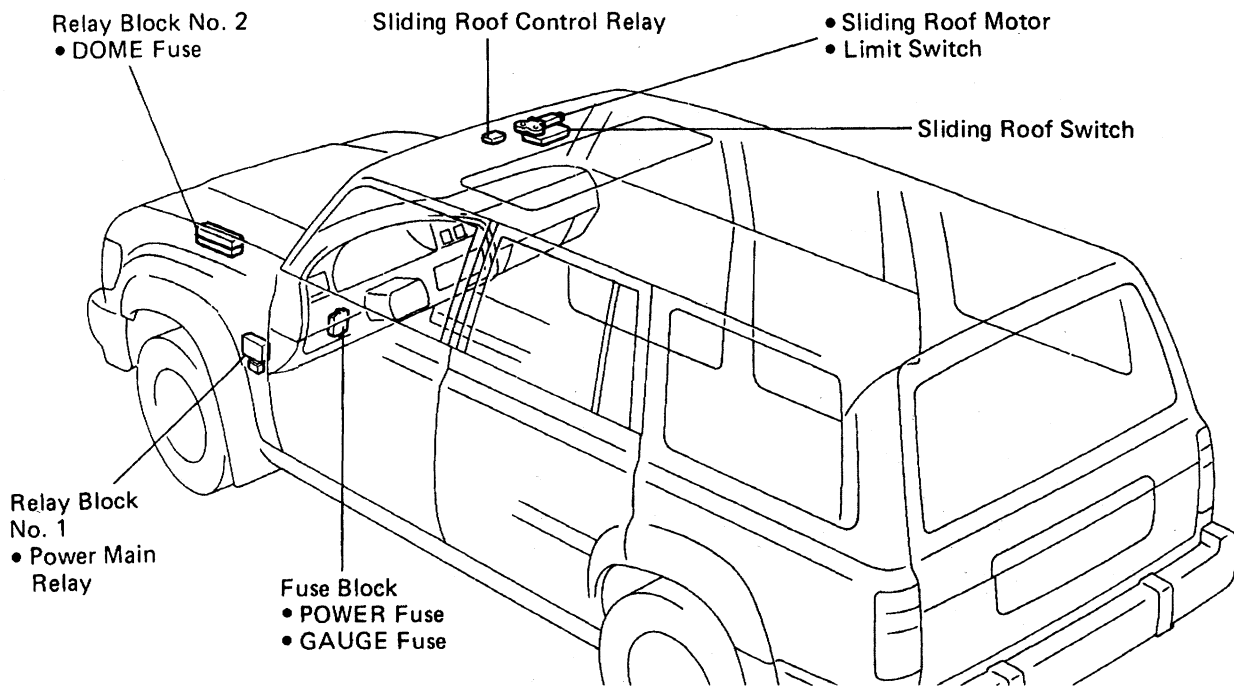
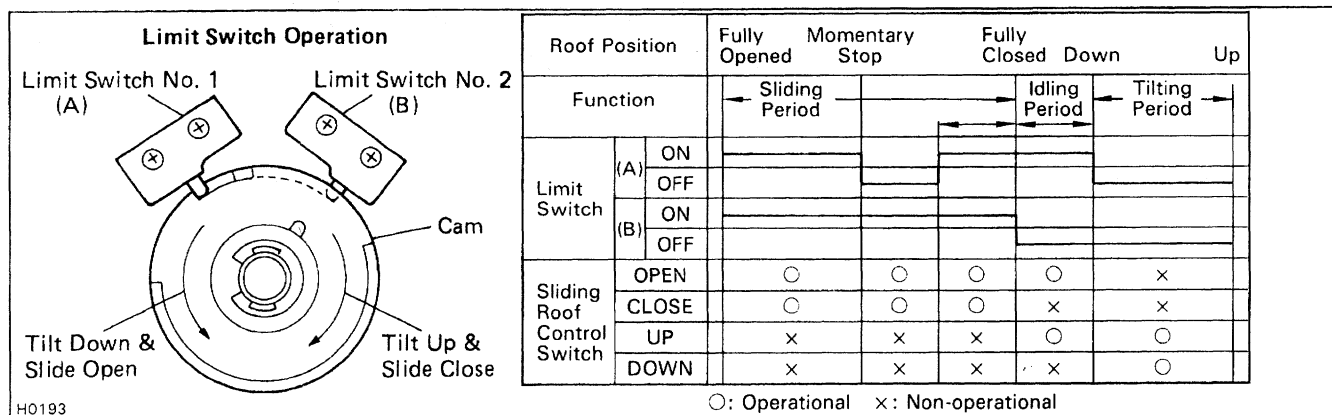


BE0LJ-02

SLIDING ROOF SYSTEM PARTS LOCATION





V02749

SYSTEM DESCRIPTION

STANDBY OPERATION

- Current flows from the DOME fuse to terminal 12 of the Sliding Roof Relay. (hereafter called relay)
- When the ignition switch is on, the current flows from the POWER fuse to terminal 6 of the relay.

OPERATION

1. OPEN operation

When the switch on the "OPEN" side of the control switch is pushed, continuity is produced between terminal 1 of the relay and body ground. Then, the relay operates, the current flows through terminal 6 of the relay – terminal 5 – terminal 1 of the sliding roof motor – terminal 3 – terminal 4 of the relay – terminal 11 – the body ground, and the motor starts to run in order to open the sliding roof.

2. CLOSE operation

When the switch on the "CLOSE" side of the control switch is pushed, continuity is produced between terminal 2 of the relay and body ground. Then, the relay operates, the current flows through terminal 6 of the relay – terminal 4 – terminal 3 of the sliding roof motor – terminal 1 – terminal 5 of the relay – terminal 11 – the body ground, and the motor starts to run in order to close the sliding roof.

Momentary Stop

When the sliding roof reaches about 100 mm (3.94 in.) short of the fully closed position, limit switch A is turned from ON to OFF, so there is no continuity between terminal 8 of the relay and the body ground. As a result, because the relay ceases to operate, the sliding roof of stops at that position. Release the control switch, then press the "CLOSE" side of the control switch again. Then the sliding will then roof move to fully closed position.

3. Tilt up operation (Fully close position)

When the switch on the "UP" side of the control switch is pushed, continuity is produced between terminal 3 of the relay and body ground. Then, the relay operates, the current flows through terminal 6 of the relay – terminal 4 – terminal 3 of the sliding roof motor – terminal 1 – terminal 5 of the relay – terminal 11 – the body ground, and the motor starts to run in order to tilt up sliding roof.

4. Tilt Down operation (Fully close position)

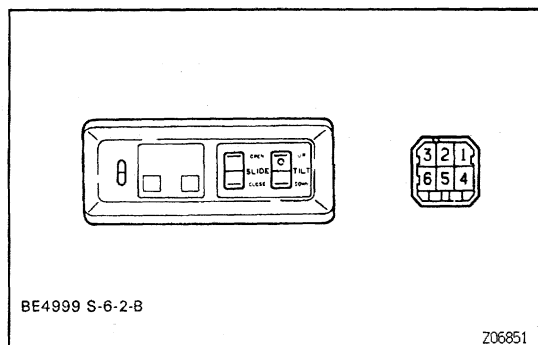
When the switch on the "DOWN" side of the control switch is pushed, continuity is produced between terminal 7 of the relay and body ground. Then the relay operates, the current flows through terminal 6 of the relay –i terminal 5 –i terminal 1 of the sliding roof motor –i terminal 3 – terminal 4 of the relay –i terminal 11 –) the body ground, and the motor starts to run in order to tilt down the sliding roof.

BE0LL-01

TROUBLESHOOTING

The table below will be useful for you in troubleshooting these electrical problems. The most likely causes of the malfunction are shown in the order of their probability. Inspect each part in the order shown, and replace the part when it is found to be faulty.

Trouble	Parts name	(See page)
Sliding roof system does not operate.	1. GAUGE Fuse	(BE-4)
	2. Ignition Switch	(BE-13)
	3. POWER Fuse	(BE-4)
	4. Power Main Relay	(BE-69)
	5. Sliding Roof Control Switch	(BE-80)
	6. Sliding Roof Limit Switch	(BE-80)
	7. Sliding Roof Motor	(BE-81)
	8. Sliding Roof Control Relay	(BE-82)
	9. Wire Harness	



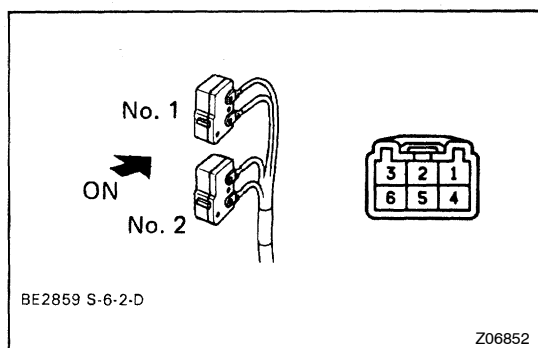
SLIDING ROOF CONTROL SWITCH INSPECTION

INSPECT SLIDING ROOF CONTROL SWITCH

Continuity

Switch position	Tester connection to terminal number	Specified value
SLIDE OPEN	3-4	Continuity
SLIDE OFF	—	No continuity
SLIDE CLOSE	6-4	Continuity
TILT DOWN	2-4	Continuity
TILT OFF	—	No continuity
TILT UP	5-4	Continuity

If continuity is not as specified, replace the switch.



SLIDING ROOF LIMIT SWITCH INSPECTION

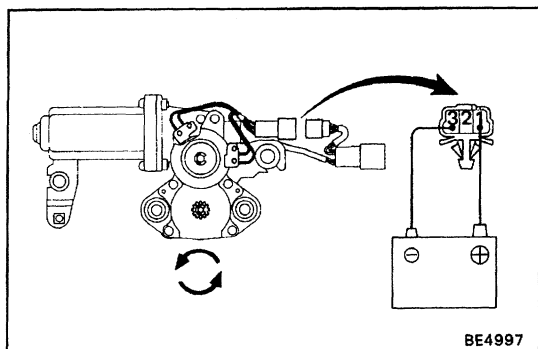
INSPECT SLIDING ROOF LIMIT SWITCH

Continuity

Switch position	Tester connection to terminal number	Specified value
No. 1 limit switch OFF (SW pin released)	—	No continuity
No. 1 limit switch ON (SW pin pushed in)	1-5	Continuity
No.2 limit switch OFF (SW pin released)	—	No continuity
No.2 limit switch ON (SW pin pushed in)	4-5	Continuity

If continuity is not as specified, replace the switch.

BEOLP-02



BE4997

SLIDING ROOF MOTOR INSPECTION

INSPECT SLIDING ROOF MOTOR

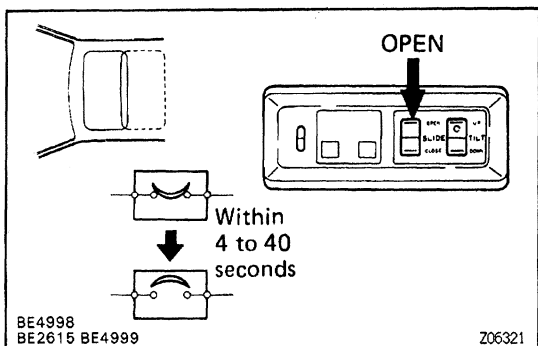
Motor Operation

- Connect the positive (+) lead from the battery to terminal 1 and the negative (-) lead to terminal 3, check that the motor turns to clockwise.
- Reverse the polarity, check that the motor turns to clockwise.

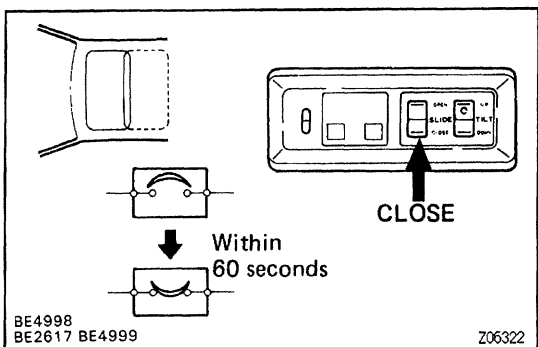
If operation is not as specified, replace the motor.

Circuit Breaker Operation

- With the sliding roof in the fully opened position, hold the sliding roof switch in "OPEN" position and check that there is a circuit breaker operation noise within 4 to 40 seconds.

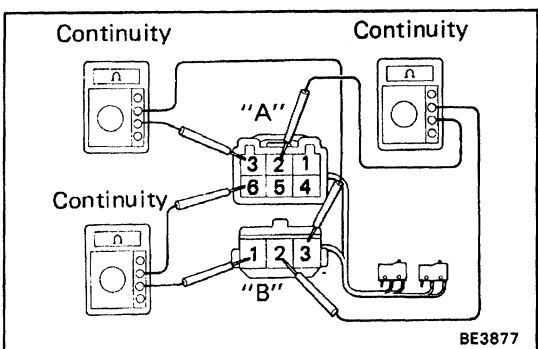
BE4998
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Z06321

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- With the sliding roof in fully opened position, hold the sliding roof switch in "CLOSE" position and check that the sliding roof begins to close within 60 seconds.
- If operation is not as specified, replace the motor.



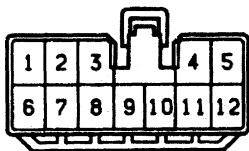
BE3877

MOTOR WIRE CIRCUIT

- Check that there is continuity between terminals A2 and B2.
- Check that there is continuity between terminals A3 and B3.
- Check that there is continuity between terminals A6 and B1.

If continuity is not as specified, replace the switch.

Wire Harness Side



S-12-1

Z06853

SLIDING ROOF RELAY INSPECTION

BE01Q-01

INSPECT SLIDING ROOF RELAY

Relay Circuit

Disconnect the connector from the relay and inspect the connector on the wire harness side, as shown in the chart.

Tester connection to terminal number .	Condition	Specified value (Continuity)
1 – Ground	Sliding roof control switch position (SLIDE) OFF or CLOSE	No continuity
1 – Ground	Sliding roof control switch position (SLIDE) OPEN	Continuity
2 – Ground	Sliding roof control switch position (SLIDE) OFF or OPEN	No continuity
2 – Ground	Sliding roof control switch position (SLIDE) CLOSE	Continuity
3 – Ground	Sliding roof control switch position (TILT) OFF or DOWN	No continuity
3 – Ground	Sliding roof control switch position (TILT) UP	Continuity
4 – Ground	Constant	No continuity
4–5	Constant	*Continuity
5 – Ground	Constant	No continuity
7 – Ground	Sliding roof control switch position (TILT) OFF or UP	No continuity
7 – Ground	Sliding roof control switch position (TILT) DOWN	Continuity
8 – Ground	No. 1 limit switch position OFF (Sliding roof tilted up or open approx. 200 mm (7.87 in.))	No continuity
8 – Ground	No. 1 limit switch position ON (Except for conditions mentioned above)	Continuity
9 – Ground	No. 2 limit switch position OFF (Sliding roof closed)	No continuity
9 – Ground	No. 2 limit switch position ON (Sliding roof open)	Continuity
11 – Ground	Constant	Continuity

Tester connection to terminal number	Condition	Specified value (Voltage)
6 - Ground	Ignition switch position LOCK or ACC	No voltage
6 - Ground	Ignition switch position ON	Battery positive voltage
12 - Ground	Constant	Battery positive voltage

*: There is resistance because this circuit is include motor.

If circuit is as specified, replace the relay.

If circuit is not as specified, inspect the circuits connected to other parts.

POWER MAIN RELAY INSPECTION

BE01A-01

INSPECT POWER MAIN RELAY

See power main relay on page [BE-69](#).