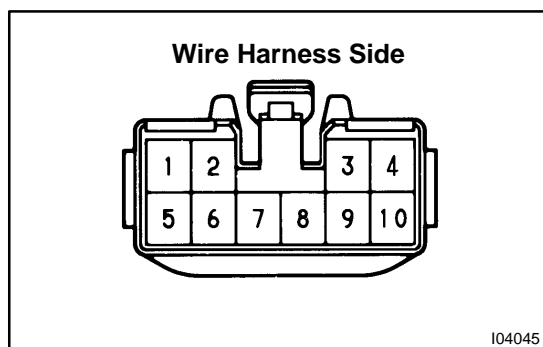


## INSPECTION

### 1. INSPECT SLIDING ROOF SWITCH CONTINUITY

Switch position	Tester connection	Specified condition
SLIDE OPEN	3 - 4	Below 10 $\Omega$
SLIDE OFF	3 - 4, 4 - 6	10k $\Omega$ or higher
SLIDE CLOSE	4 - 6	Below 10 $\Omega$
TILT DOWN	2 - 4	Below 10 $\Omega$
TILT OFF	2 - 4, 4 - 5	10k $\Omega$ or higher
TILT UP	4 - 5	Below 10 $\Omega$

If continuity is not as specified, replace the front personal light (sliding roof switch).



### 2. INSPECT SLIDING ROOF CONTROL ASSEMBLY CIRCUIT

Disconnect the connector from the sliding roof control assembly and inspect the connector on the wire harness side, as shown in the chart below.

Tester connection	Condition	Specified condition
5 - Ground	Sliding roof control switch (TILT) UP	Below 100 $\Omega$
6 - Ground	Sliding roof control switch (TILT) DOWN	Below 100 $\Omega$
1 - Ground	Sliding roof control switch (SLIDE) CLOSE	Below 100 $\Omega$
2 - Ground	Sliding roof control switch (SLIDE) OPEN	Below 100 $\Omega$
8, 7 - Ground	Always	Below 1 V
10 - Ground	Front door is opened	Below 1 $\Omega$
3 - Ground	Ignition switch LOCK or ACC	Below 2 V
3 - Ground	Ignition switch ON	10 to 14 V
4 - Ground	Always	10 to 14 V

If the circuit condition is as specified, replace the sliding roof control assembly.

### 3. CHECK AUTO SLIDE-OPEN/CLOSE OPERATION

#### NOTICE:

If the sliding roof system has not been initialized, then AUTO slide open/close operation does not work.

#### HINT:

Initialize the sliding roof system after any of the following is done:

- The battery is disconnected.
  - The S/ROOF fuse is replaced.
  - The sliding roof assembly (sliding roof ECU) is replaced.
  - The sliding roof is removed and then reinstalled or replaced.
- (a) Initialize the sliding roof system.
    - (1) Turn the ignition switch to the ON position.
    - (2) Using the tilt switch, tilt the roof fully upward, and then fully downward.
    - (3) Using the slide switch, fully open the roof, and then fully close it.
  - (b) Check AUTO slide-open operation.
    - (1) Turn the ignition switch to the ON position.
    - (2) If the roof glass is not fully closed, slide or tilt it so that it is fully closed.
    - (3) Press the sliding roof OPEN switch for 0.3 seconds or more. The roof glass should automatically slide open and stop slightly before the fully open position.
  - (c) Check the AUTO slide-close operation.
    - (1) Turn ignition switch to the ON position.
    - (2) Press the sliding roof CLOSE switch for 0.3 seconds or more. The roof glass should automatically close.
    - (3) If the CLOSE, OPEN, UP, or DOWN switch is pressed while the roof glass is in motion, the roof glass will stop moving.
    - (4) If the roof glass cannot be fully closed using AUTO operation (opens due to the jam protection function):
      - Visually check if there is any foreign object between the sliding roof rail and the sliding roof glass.
      - Check if the alignment of the sliding roof glass is within the specified range (see page [BO-126](#) ).
- If no problems are found with the above checks, then perform the following operation to fully close the roof glass forcibly and check if AUTO operation return to normal. (Forced operation)

#### Perform forced operation.\*

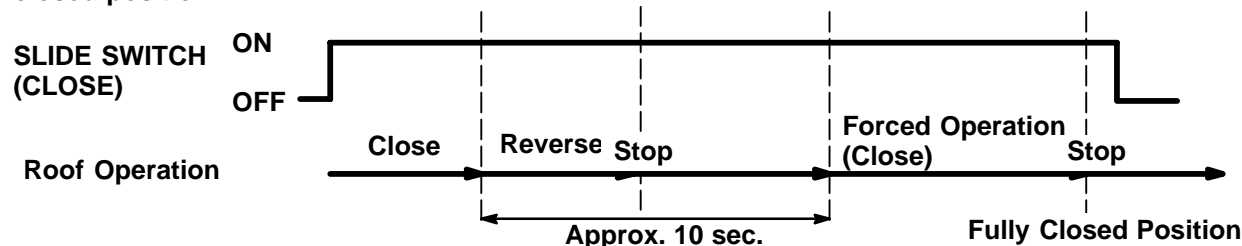
##### Caution:

The jam protection function does not operate during forced operation.

Be careful not to get any part of your body caught between the vehicle body and the roof glass.

\*: Pressing and holding the CLOSE switch inhibits the jam protection function approx.10 sec. after starting the reverse operation.

If the switch is kept pressed, the sliding roof starts close operation and stops when detecting the fully closed position.



If the roof glass does not operate normally even after performing above procedures, then replace the sliding roof control assembly.

#### 4. CHECK AUTO TILT-UP/DOWN OPERATION

##### NOTICE:

If the sliding roof system has not been initialized, then AUTO slide tilt-up/down operation does not work.

##### HINT:

Initialize the sliding roof system after any of the following is done:

- The battery is disconnected.
  - The S/ROOF fuse is replaced.
  - The sliding roof assembly (sliding roof ECU) is replaced.
  - The sliding roof is removed and then reinstalled or replaced.
- (a) Initialize the sliding roof system.
    - (1) Turn the ignition switch to the ON position.
    - (2) Using the tilt switch, tilt the roof fully upward, and then fully downward.
    - (3) Using the slide switch, fully open the roof, and then fully close it.
  - (b) Check AUTO tilt-up operation.
    - (1) Turn the ignition switch to the ON position.
    - (2) If the roof glass is not fully closed, slide or tilt it so that it is fully closed.
    - (3) Press the sliding roof UP switch for 0.3 seconds or more. The roof glass should automatically tilt upward until it is fully open.
  - (c) Check the AUTO tilt-down operation.
    - (1) Turn the ignition switch to the ON position.
    - (2) When the roof glass is fully tilted upward, press the sliding roof DOWN switch for 0.3 seconds or more. The roof glass should automatically tilt downward until it is fully closed.
    - (3) If the CLOSE, OPEN, UP, or DOWN switch is pressed while the roof glass is in motion, the roof glass will stop moving.
    - (4) If the roof glass cannot be fully tilted using AUTO operation (opens due to the jam protection function):
      - Visually check if there is any foreign object between the sliding roof rail and the sliding roof glass.
      - Check if the alignment of the sliding roof glass is within the specified range (see page [BO-126](#) ).
- If no problems are found with the above checks, then perform the following operation to fully down the roof glass forcibly and check if AUTO operation return to normal. (Forced operation)

##### Perform forced operation.\*

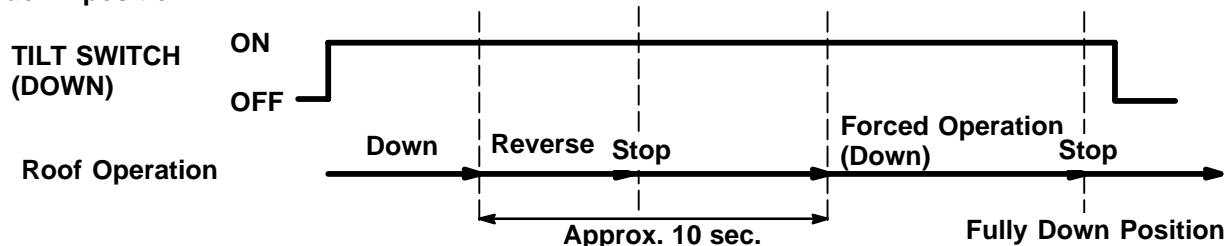
##### Caution:

The jam protection function does not operate during forced operation.

Be careful not to get any part of your body caught between the vehicle body and the roof glass.

\*: Pressing and holding the DOWN switch inhibits the jam protection function approx.10 sec. after starting the reverse operation.

If the switch is kept pressed, the sliding roof starts down operation and stops when detecting the fully down position.



If the roof glass does not operate normally even after performing above procedures, then replace the sliding roof control assembly.

## 5. CHECK KEY-OFF SLIDING ROOF OPERATION

### HINT:

The sliding roof can be operated for approximately 45 seconds after the ignition switch is turned from ON to OFF with all doors closed. However, if the driver side door is opened during this time, the operation is canceled.

- (a) Check the sliding roof operation function after the ignition switch is turned from ON to OFF.
  - (1) Turn the ignition switch from ON to OFF. Sliding roof AUTO operation should be possible. However, opening either of the front doors should disable AUTO operation.
  - (2) Turn the ignition switch from ON to OFF. Wait approximately 45 seconds. AUTO operation should be prohibited.
  - (3) Turn the ignition switch from ON to OFF with either of the front doors open. AUTO operation should immediately stop functioning.

If operation is not as specified, then inspect each part following the problem symptom table (see page [BE-2](#) ).

## 6. CHECK JAM PROTECTION FUNCTION

### HINT:

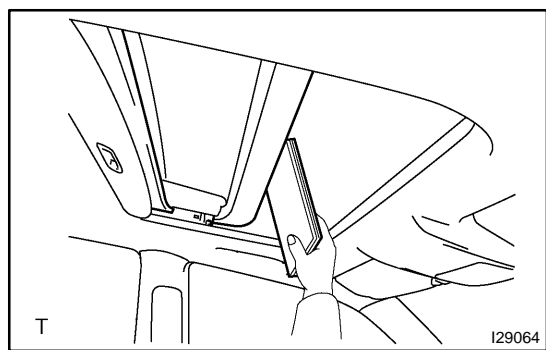
When sliding roof AUTO operation is being used, the jam protection function prevents objects from being caught between the vehicle body and the roof glass.

### Operative condition:

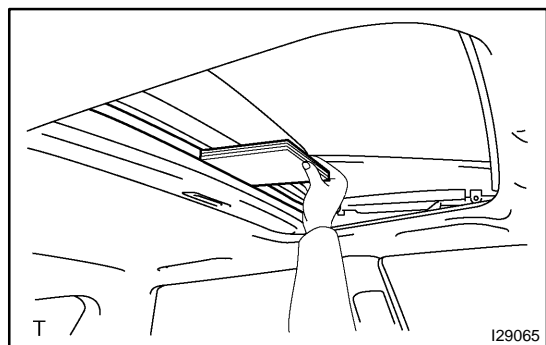
- AUTO CLOSE with ignition switch ON.
- AUTO CLOSE during sliding operation after the ignition switch is turned OFF.
- AUTO TILT-DOWN with ignition switch ON.
- AUTO TILT-DOWN during sliding operation after the ignition switch is turned OFF.

### CAUTION:

- **Do not use any part of your body such as your hand, or any object to check the jam protection function. Do not allow anything to become caught in the sliding roof by accident during this procedure.**
- **The jam protection function may not work against an object less than 5 mm (0.20 in.) in width.**



- (a) When sliding roof AUTO operation is being used: check that the roof glass should open a distance of 200 mm (7.87 in.) from the point of contact with the object, or fully open if 200 mm (7.87 in.) of opening distance is not available when an object is caught between the vehicle body and the roof glass.



- (b) When the tilt-down operation is being used: Check that the sliding roof fully tilts up when an object is caught between the vehicle body and the roof glass. If operation is not as specified, then replace the sliding roof control assembly.