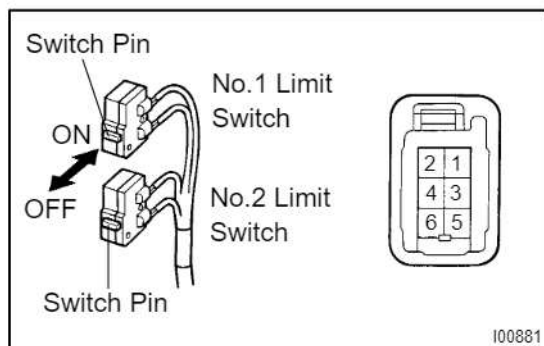


INSPECTION



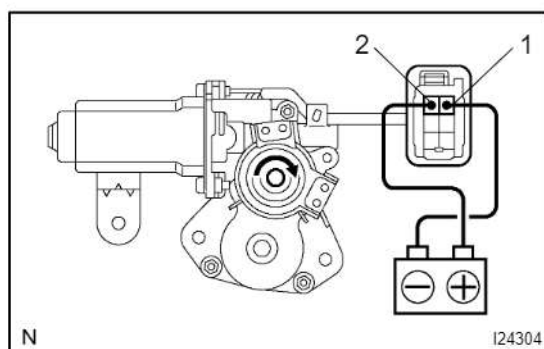
1. INSPECT SLIDING ROOF LIMIT SWITCH

- (a) Inspect the sliding roof limit switch continuity.

Standard:

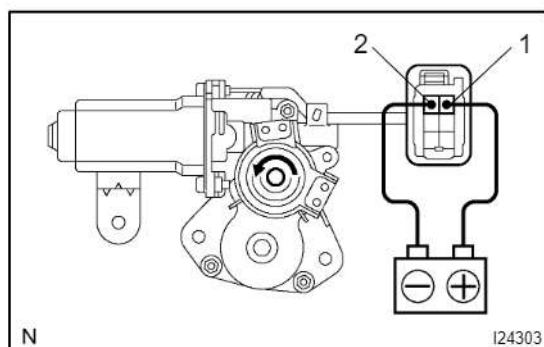
Switch position	Terminal No.	Specified condition
No.1 limit switch OFF (SW pin released)	4 – 5	No continuity
No.1 limit switch ON (SW pin pushed)	4 – 5	Continuity
No.2 limit switch OFF (SW pin released)	4 – 6	No continuity
No.2 limit switch ON (SW pin pushed)	4 – 6	Continuity

If the continuity is not as specified, replace the switch.



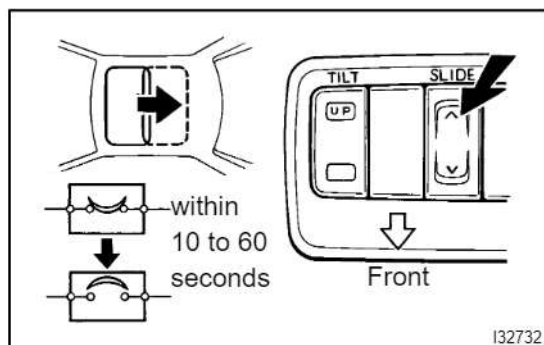
2. INSPECT SLIDING ROOF DRIVE GEAR SUB-ASSY

- (a) Connect the positive (+) lead from the battery to terminal 2 and the negative (–) lead to terminal 1, and check that the motor turns clockwise (moves to the close side).



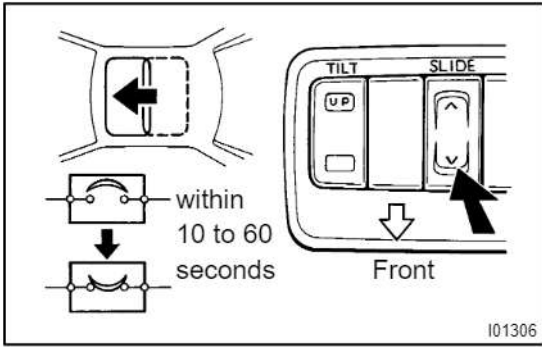
- (b) Reverse the polarity, check that the motor turns counter-clockwise (moves to the open side).

If the operation is not as specified, replace the motor.

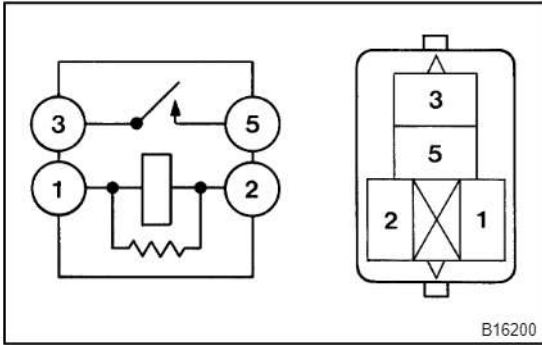


3. INSPECT SLIDING ROOF MOTOR CIRCUIT BREAKER

- (a) With the sliding roof in the fully opened position, hold the sliding roof switch in the "OPEN" side and check that there is circuit breaker operating noise within 10 to 60 seconds.



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



4. INSPECT POWER MAIN RELAY

- (a) Remove the power window relay from the instrument panel J/B.
(b) Inspect the power window relay.

Standard:

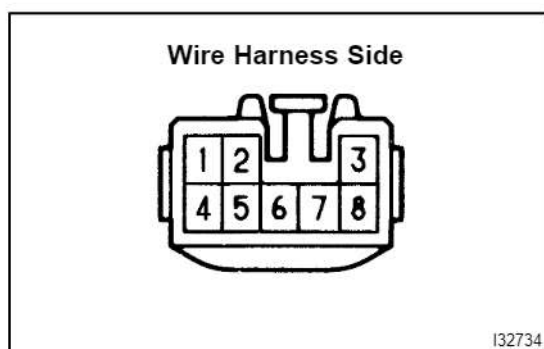
Terminal No.	Condition	Specified condition
1 $\leftrightarrow$ 2	Constant	Continuity
3 $\leftrightarrow$ 5	Apply battery voltage between terminals 1 and 2	Continuity

If the result is not as specified, replace the relay.

ON-VEHICLE INSPECTION

1. INSPECT SLIDING ROOF FUNCTION

- (a) Check the slide opening operation (Manual).
 - (1) Turn the ignition switch ON.
 - (2) When keeping operating the sliding roof switch to the OPEN side, check that the roof glass will slide and be fully opened.
- (b) Check the slide closing operation (Manual).
 - (1) Turn the ignition switch ON.
 - (2) When keeping operating the slide roof switch to CLOSE side, check that the roof glass will slide but stop halfway.
 - (3) When operating the sliding roof switch to the CLOSE side again after the above operation, check that the roof glass will slide again from the halfway position and be fully closed.



2. INSPECT SLIDING ROOF DRIVE GEAR

- (a) Disconnect the connector from the relay and switch, and inspect the connector on the wire harness side, as shown in the chart.

Terminal No.	Condition	Specified condition
4 – 5	Constant	Continuity
8 – Body ground	Constant	Continuity
6 – Body ground	No.1 limit switch OFF (Sliding roof closed)	No continuity
6 – Body ground	No.1 limit switch ON (Sliding roof closed)	Continuity
7 – Body ground	No.2 limit switch OFF (Sliding roof tilted up open approx. 200 mm (7.87 in.))	No continuity
7 – Body ground	No.2 limit switch ON (Except for conditions mentioned above)	Continuity
2 – Body ground	Ignition switch LOCK or ACC	* No voltage
2 – Body ground	Ignition switch ON	Battery positive voltage

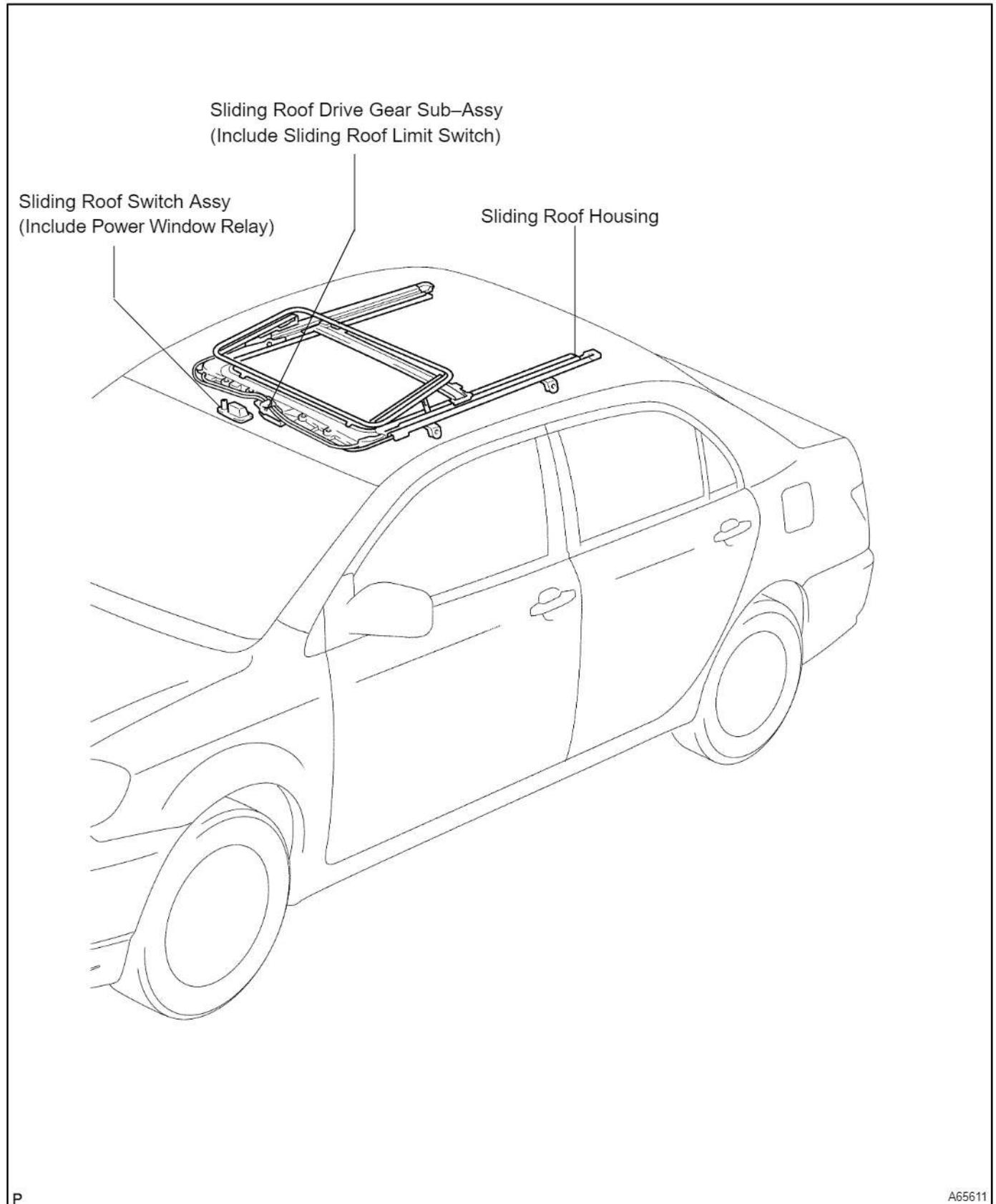
* Exceptions:

For 60 seconds after the ignition switch ON → OFF (ACC) or until the driver or passenger door is opened after the ignition switch ON → OFF (ACC).

If the result is not as specified, replace the relay.

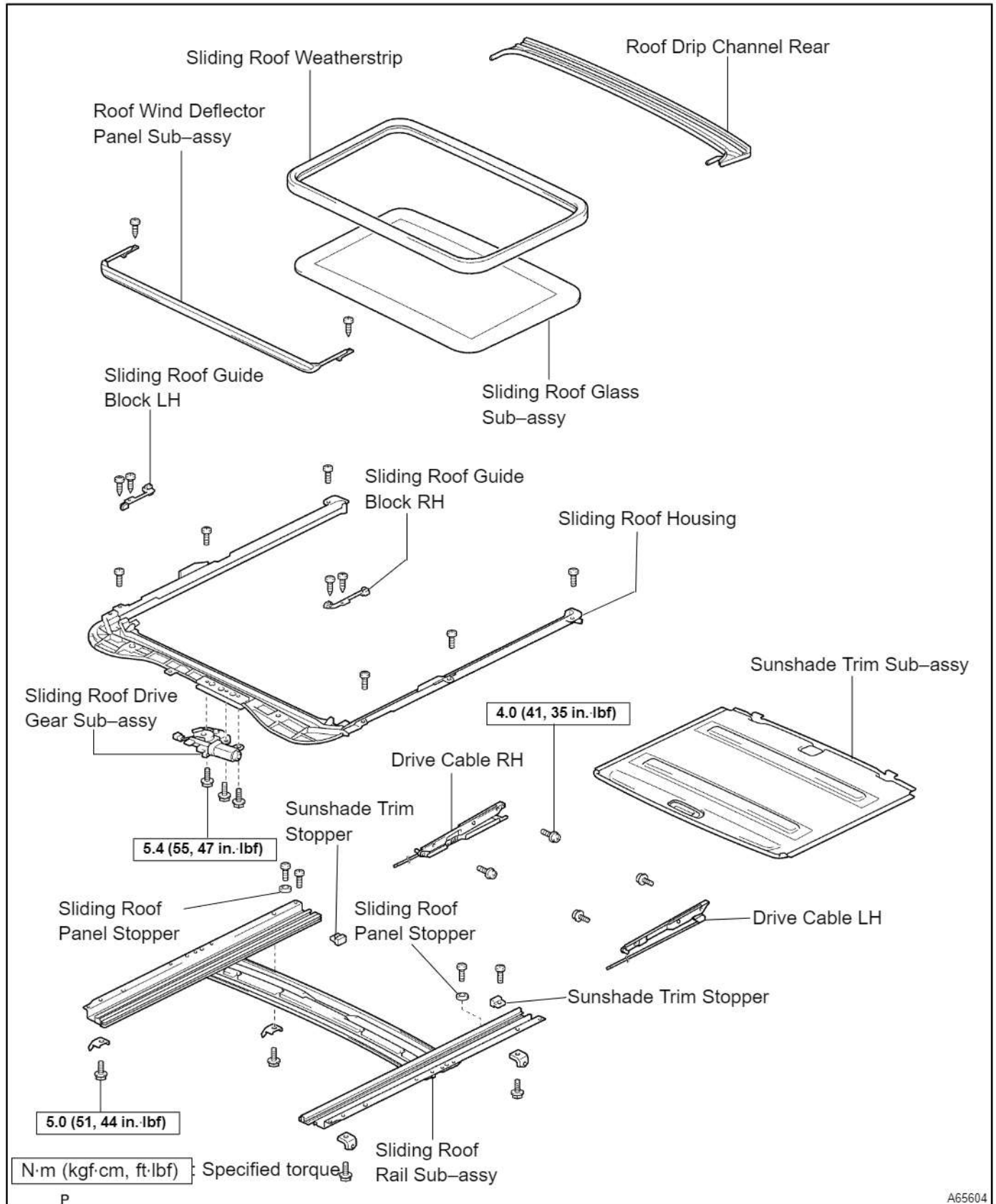
SLIDING ROOF SYSTEM LOCATION

7405N-02



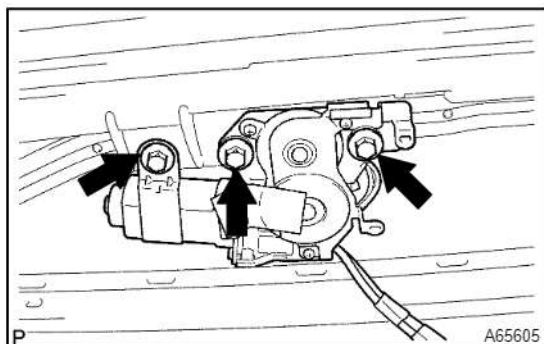
SLIDING ROOF COMPONENTS

7405R-02



OVERHAUL

1. **REMOVE ROOF HEADLINING ASSY** (See page 76-21)
2. **REMOVE SLIDING ROOF GLASS SUB-ASSY**
 - (a) Using a torx wrench (T25), remove the 4 screws the sliding roof glass.
 - (b) Pull the glass upward to remove it.
3. **REMOVE SLIDING ROOF WEATHERSTRIP**

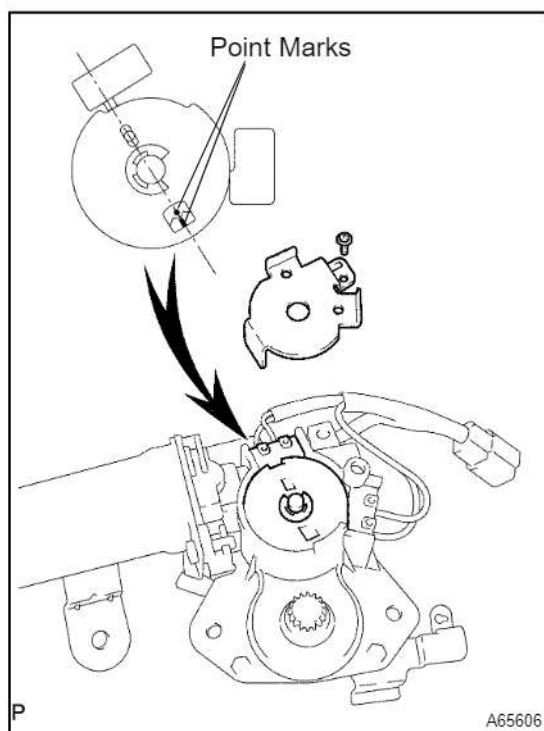


4. REMOVE SLIDING ROOF DRIVE GEAR SUB-ASSY

NOTICE:

Remove the drive gear with the sliding roof fully closed.

- (a) Disconnect the connector.
- (b) Remove the 3 bolts and drive gear.



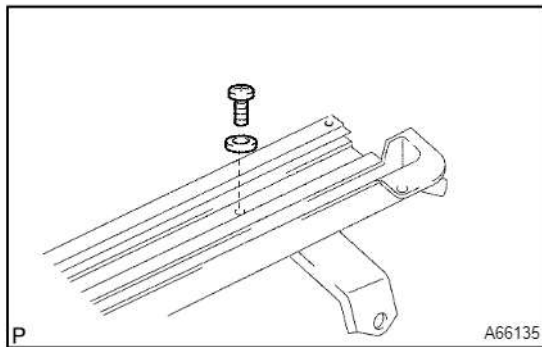
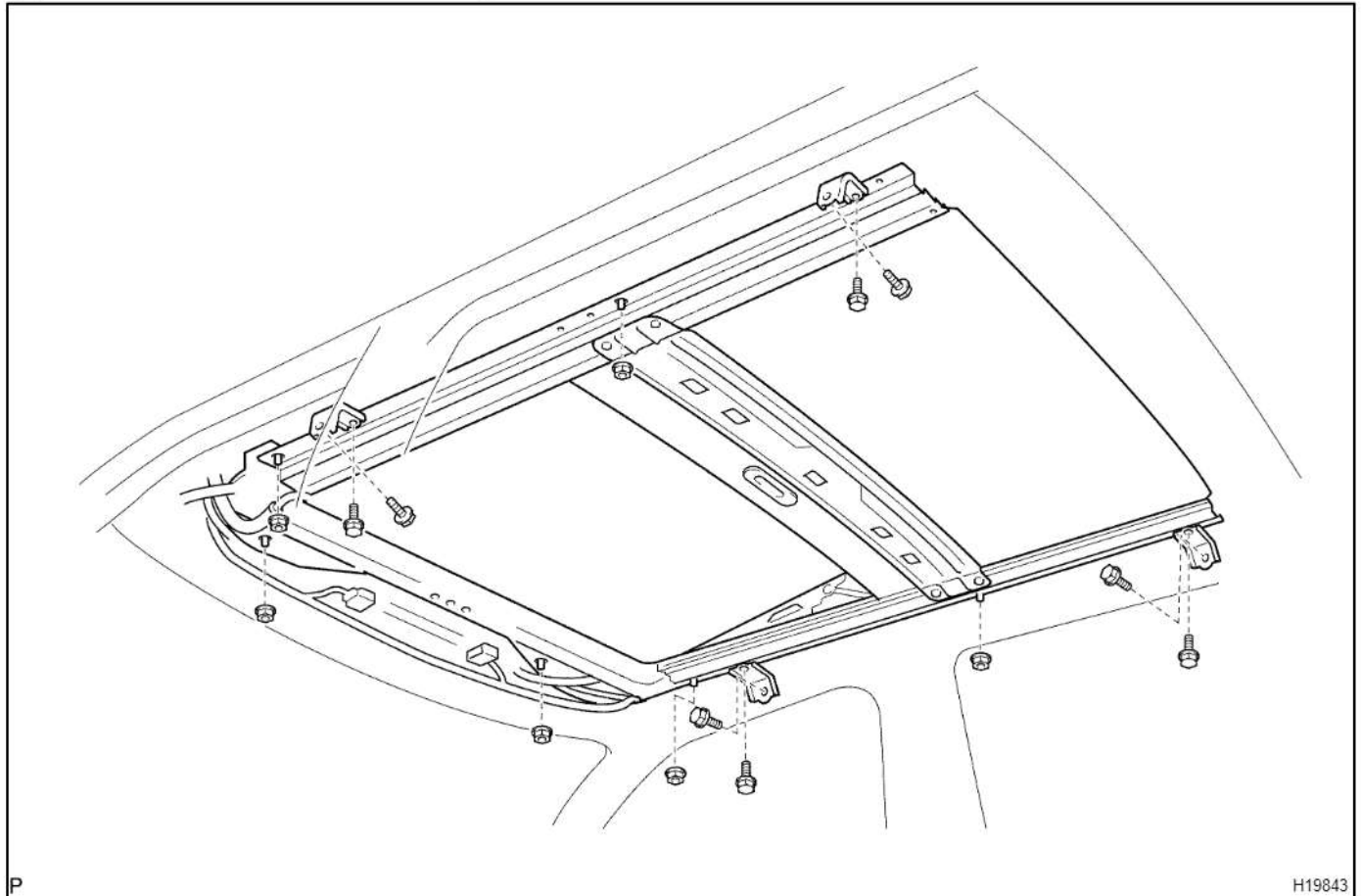
- (c) Remove the screw and cam plate cover.
- (d) Turn the drive gear to align the point marks, as shown in the illustration.
- (e) Install the cam plate cover and screw.

NOTICE:

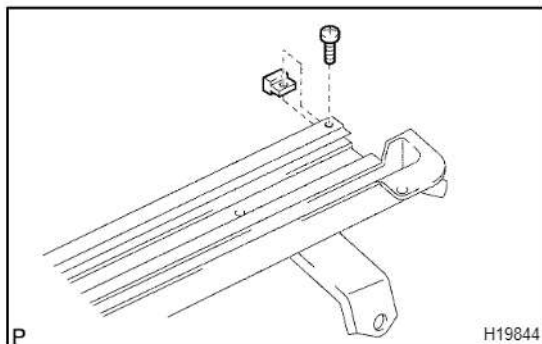
At the time of installation, if the sliding roof position and drive gear fully closed position are not aligned, the sliding roof does not operate normally.

5. REMOVE SLIDING ROOF HOUSING ASSY

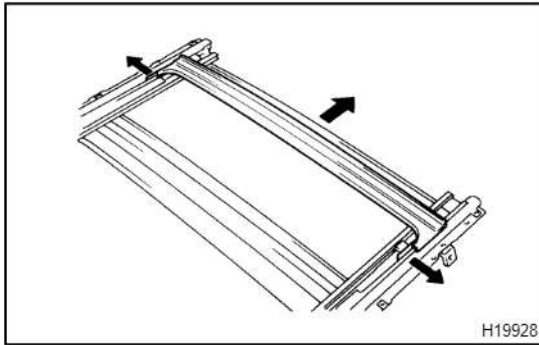
- (a) Disconnect the 4 drain hoses from the housing.
- (b) Remove the 8 bolts and 4 brackets.
- (c) Remove the 6 nuts and housing.

**6. REMOVE SLIDING ROOF PANEL STOPPER**

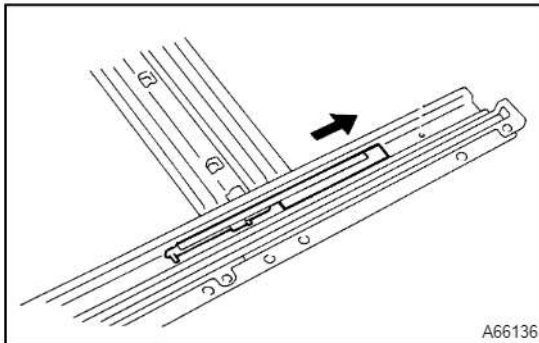
- (a) Remove the 2 screws and 2 stoppers.

**7. REMOVE SUNSHADE TRIM SUB-ASSY**

- (a) Remove the 2 screws and 2 stoppers.
- (b) Sliding the sunshade trim backward, remove it.

**8. REMOVE ROOF DRIP CHANNEL REAR**

- (a) Remove the roof drip channel rear as shown in the illustration.

**9. REMOVE SLIDING ROOF DRIVE CABLE LH**

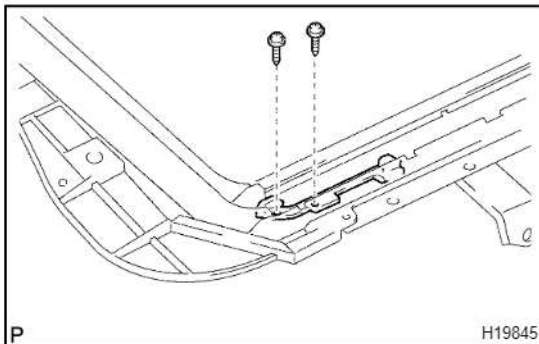
- (a) Sliding the drive cable backward, remove it.

10. REMOVE SLIDING ROOF DRIVE CABLE RH

- (a) Sliding the drive cable backward, remove it.

11. REMOVE ROOF WIND DEFLECTOR PANEL SUB-ASSY

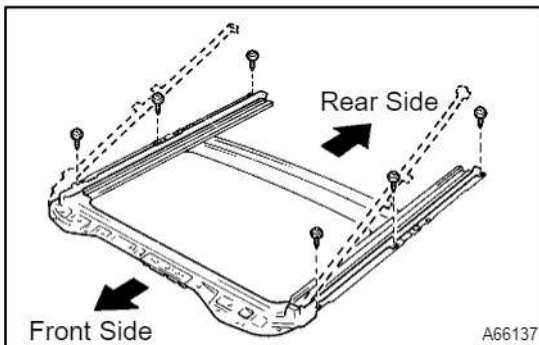
- (a) Remove the 2 screws and roof wind deflector panel.

**12. REMOVE SLIDING ROOF GUIDE BLOCK LH**

- (a) Remove the 2 screws and guide block.

13. REMOVE SLIDING ROOF GUIDE BLOCK RH

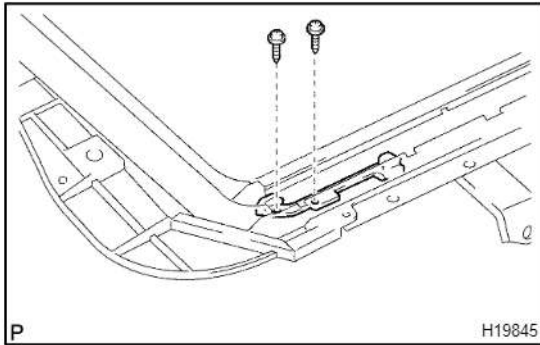
- (a) Remove the 2 screws and guide block.

**14. REMOVE SLIDE ROOF RAIL SUB-ASSY**

- (a) Remove the 6 screws and sliding roof housing.

15. INSTALL SLIDE ROOF RAIL SUB-ASSY

- (a) Install the sliding roof housing with the 6 screws.

**16. INSTALL SLIDING ROOF GUIDE BLOCK LH**

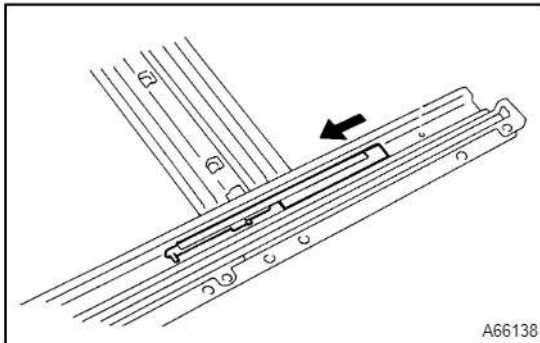
(a) Install the guide block with the 2 screws.

17. INSTALL SLIDING ROOF GUIDE BLOCK RH

(a) Install the guide block with the 2 screws.

18. INSTALL ROOF WIND DEFLECTOR PANEL SUB-ASSY

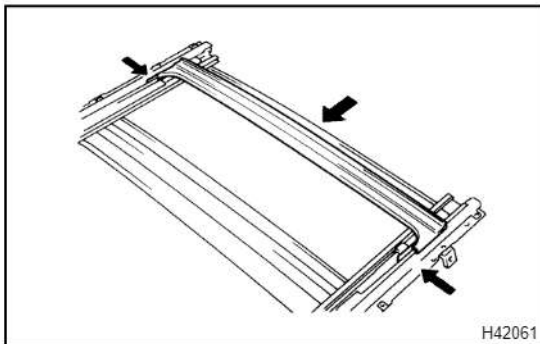
(a) Install the roof deflector panel with the 2 screws.

**19. INSTALL SLIDING ROOF DRIVE CABLE LH**

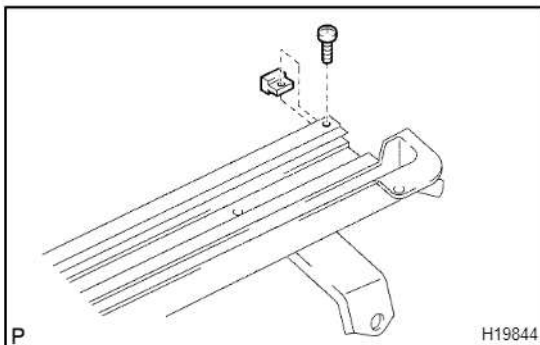
(a) Sliding the drive cable forward, install it.

20. INSTALL SLIDING ROOF DRIVE CABLE RH

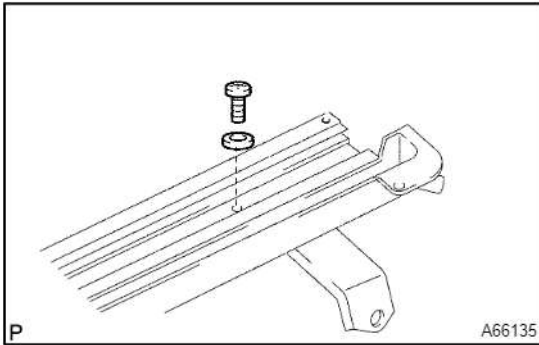
(a) Sliding the drive cable forward, install it.

**21. INSTALL ROOF DRIP CHANNEL REAR**

(a) Install the roof drip channel rear, as shown in the illustration.

**22. INSTALL SUNSHADE TRIM SUB-ASSY**

(a) Install the 2 stopper with the 2 screws.

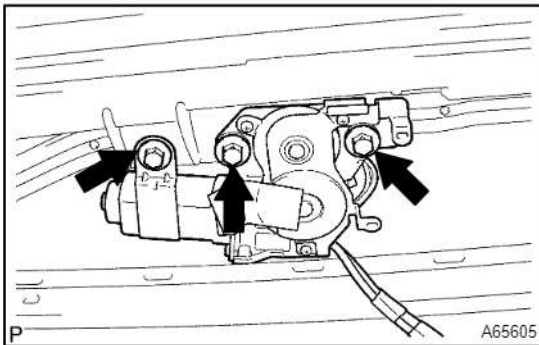


23. INSTALL SLIDING ROOF PANEL STOPPER

- (a) Install the 2 stoppers with the 2 screws.

24. INSTALL SLIDING ROOF HOUSING ASSY

- (a) Install the housing with the 6 nuts.
Torque: 5.5 N·m (56 kgf·cm, 49 in.·lbf)
- (b) Install the 4 brackets with the 8 bolts.
Torque: 5.0 N·m (51 kgf·cm, 44 in.·lbf)
- (c) Connect the 4 drain hoses to the housing.



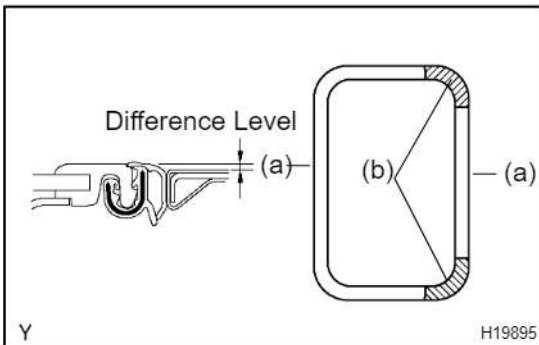
25. INSTALL SLIDING ROOF DRIVE GEAR SUB-ASSY

- (a) Install the drive gear with the 3 bolts.
Torque: 5.4 N·m (55 kgf·cm, 48 in.·lbf)
- (b) Connect the connector.

26. INSTALL SLIDING ROOF WEATHERSTRIP

27. INSTALL SLIDING ROOF GLASS SUB-ASSY

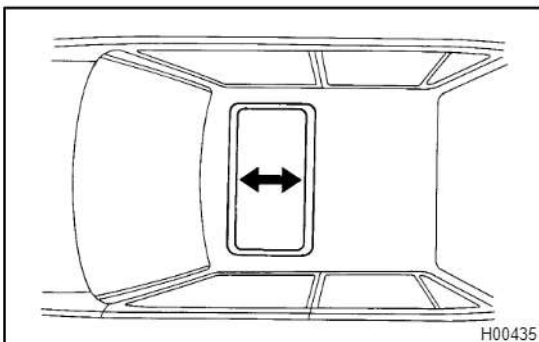
Torque: 4.0 N·m (41 kgf·cm, 35 in.·lbf)



- (a) Check the difference in level between the sliding roof weatherstrip and roof panel.

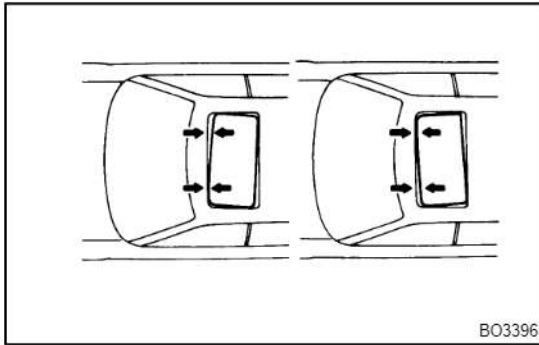
Standard:

Difference in level	Specification
Place (a)	0 + 1.5 mm (0 ± 0.059 in.)
Place (b)	0 + 1.5 mm (0 + 0.059 in.) 0 - 1.0 mm (0 - 0.039 in.)



28. ADJUST SLIDING ROOF GLASS SUB-ASSY

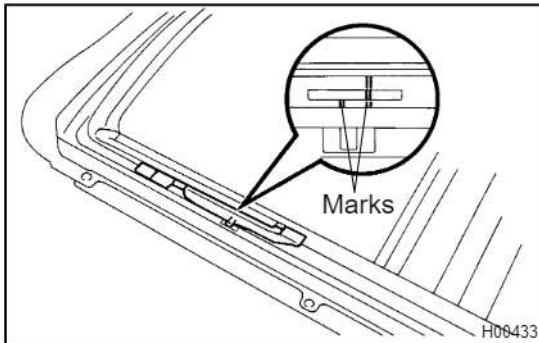
- (a) Using a torx wrench (T25), loosen the sliding roof glass installation screws.
- (b) Adjust the sliding roof glass forward and backward.



- (c) When the front or rear alignment is not correct, remove the drive gear and sliding roof glass, then adjust the drive rail.

NOTICE:

Remove the drive gear with the sliding roof fully closed.



- (d) Adjust the roof rail by sliding the cable forward or backward to align the 2 marks, as shown in the illustration.
- (e) Install the drive gear and sliding roof glass.

29. INSPECT FOR LEAK

- (a) Adjusting the sliding roof, check there is no water leak.
- (b) In case of water leak, readjust the sliding roof.

30. INSTALL ROOF HEADLINING ASSY (See page 76-21)

PROBLEM SYMPTOMS TABLE

Symptom	Suspected Area	See page
Sliding roof system does not operate	1. POWER fuse	—
	2. GAUGE fuse	—
	3. IG1 relay	—
	4. Sliding roof motor switch	74-4
	5. Sliding roof drive gear	74-4
	6. Faulty sliding of sliding roof	—
	7. Wire harness	—
Sliding roof system stops operation halfway (Foreign material, such as a stone, is trapped in motor assembly)	1. Sliding roof motor switch	74-4
	2. Sliding roof drive gear	74-4
	3. IG1 relay	—
	4. Wire harness	—