

Troubleshooting

Manual Roof

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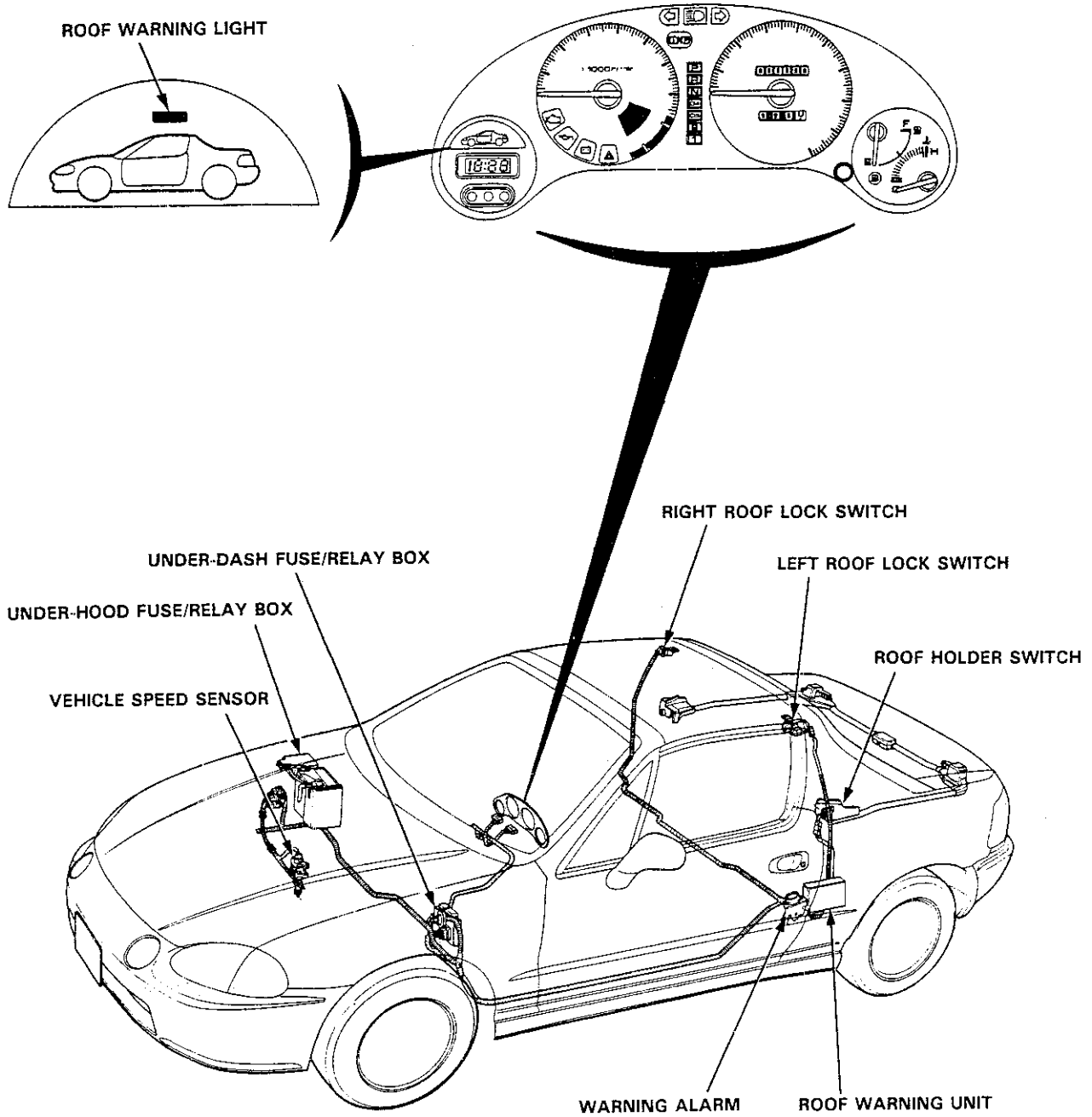
Power Roof

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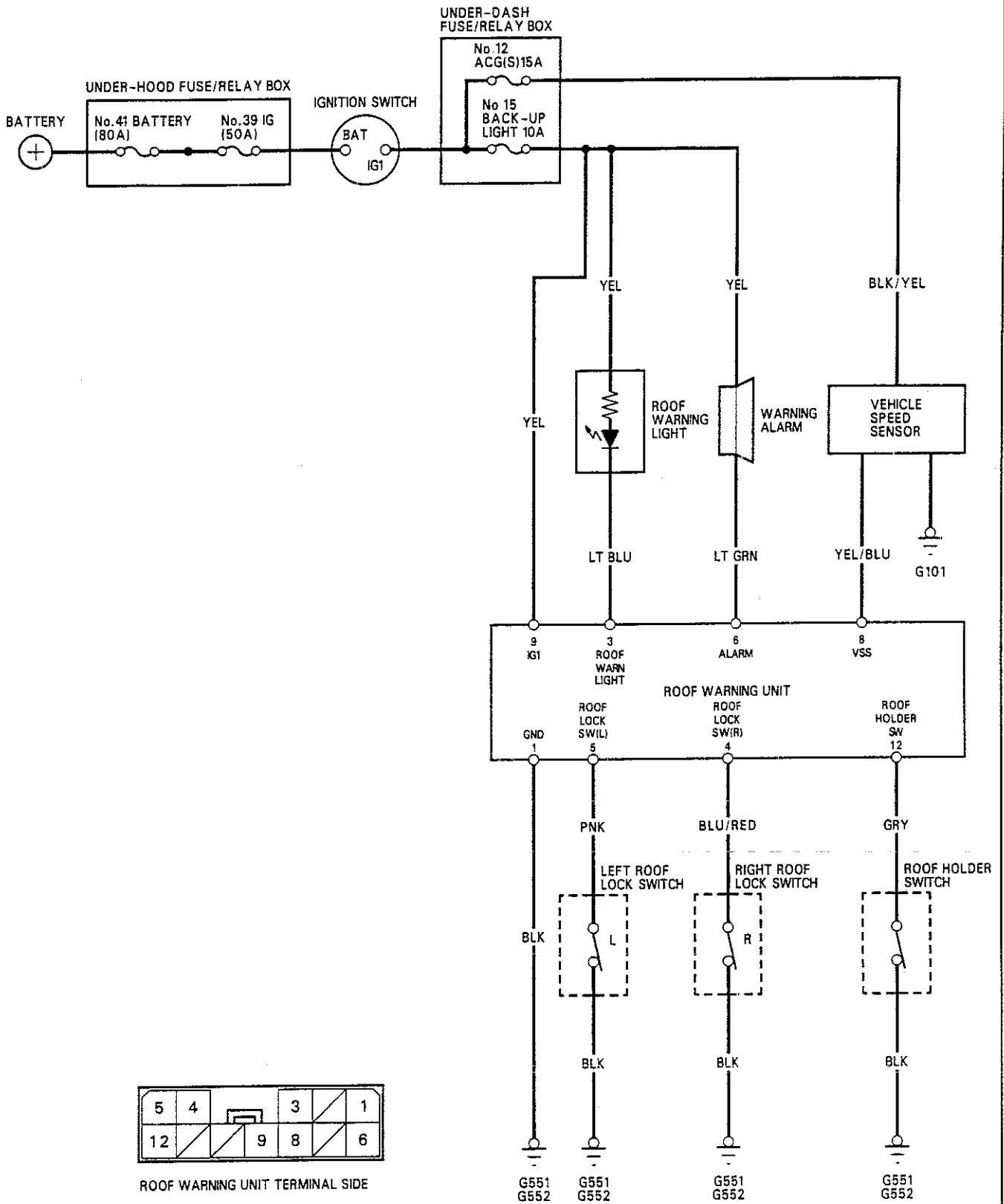
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Component Location Index





Circuit Diagram



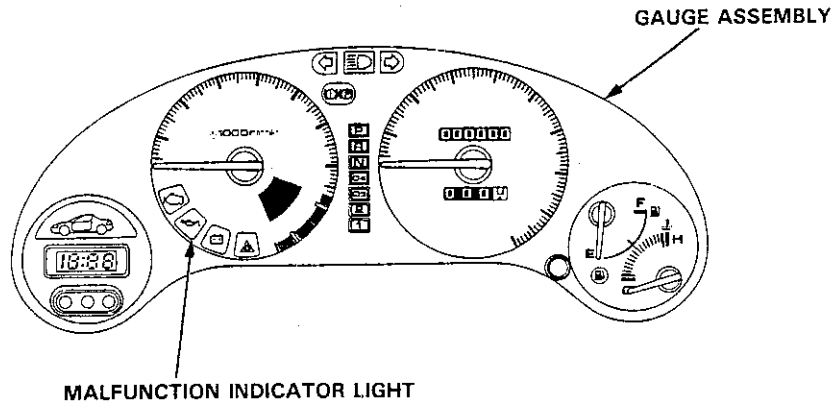
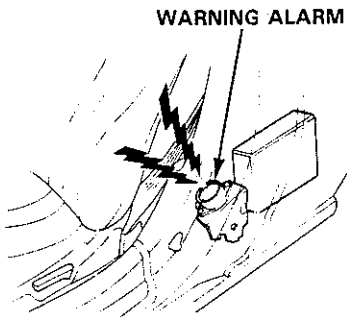
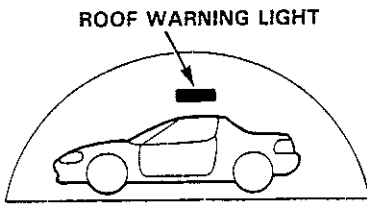
Manual Roof

Troubleshooting Flow Chart

Roof warning unit operation pattern

		RIGHT ROOF LOCK SWITCH		LEFT ROOF LOCK SWITCH	
		ON	OFF	ON	OFF
ROOF HOLDER SWITCH	ON	WARNING ALARM	—	Sounds	Sounds
		WARNING LIGHT	—	ON	ON
	OFF	WARNING ALARM	—	Sounds	Sounds
		WARNING LIGHT	—	ON	ON

*WARNING ALARM: Sounds continuously for about 10 seconds when the speed reaches 4–10 km/h (3–6 mph) or more for the first time after the ignition switch is ON.



● ROOF WARNING LIGHT TEST

Turn the ignition switch ON.

Do the other indicator lights (malfunction indicator light) come on?

NO → Turn the ignition switch OFF

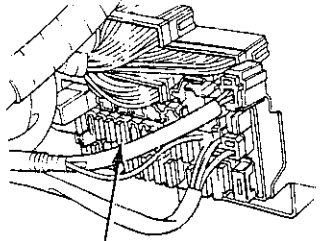
Check the No. 15 (10 A) fuse in the under-dash fuse/relay box.

Is it normal?

No 15 BACK-UP LIGHT (10 A)

NO → Replace the No. 15 (10 A) fuse and recheck.

YES → Repair open in the YEL wire between the under-dash fuse/relay and gauge assembly.



(To page 20-159)

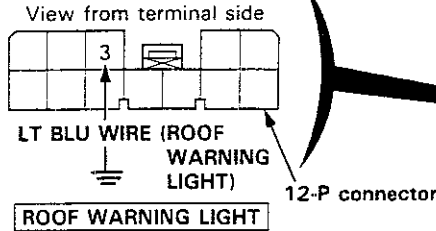


(From page 20-158)

Turn the ignition switch OFF

Disconnect the 12-P connector from the roof warning unit

Ground the roof warning light No 3 terminal to the body ground and turn the ignition switch ON



Does the roof warning light come on?

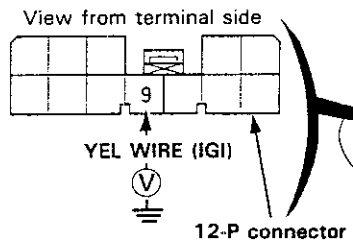
NO

- Replace the bulb.
- Repair open in the LT BLU wire between the roof warning unit and roof warning light

YES

● ROOF WARNING UNIT POWER SOURCE AND GROUND TEST

Measure the voltage between the No. 9 terminal for the roof warning unit and body ground



Is there battery voltage?

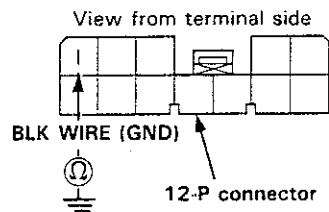
NO

Repair open the YEL wire between the roof warning unit and underdash fuse/relay box.

YES

Turn the ignition switch OFF

Check for continuity between the No. 1 terminal for the roof warning unit and body ground



Is there continuity?

YES

- Repair open in the BLK wire between the roof warning unit and body ground.
- Poor the ground.

NO

(To page 20-160)

(cont d)

Manual Roof

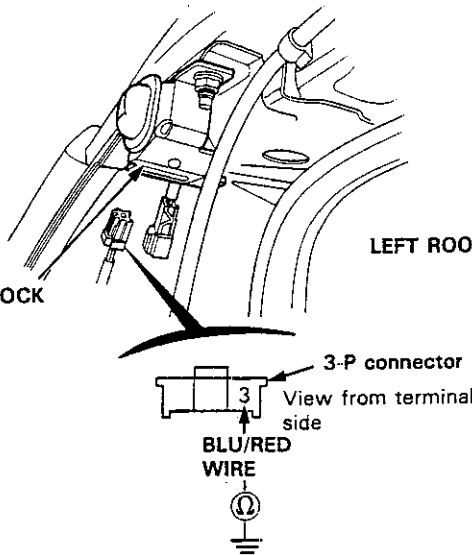
Troubleshooting Flow Chart (cont'd)

(From page 20-159)

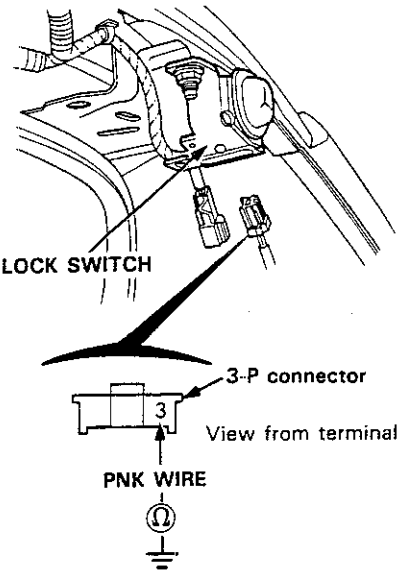
● ROOF LOCK SWITCH TEST

Disconnect the 3-P connector from the right roof lock switch and the 3-P connector from the left roof lock switch.

RIGHT ROOF LOCK SWITCH



LEFT ROOF LOCK SWITCH



Check for continuity between the No. 3 terminal for the roof lock switch and body ground.

Is there continuity?

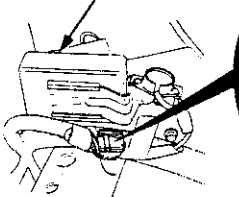
YES

Repair short in the BLU/RED (right roof lock switch) or PNK (left roof lock switch) wire to the body ground.

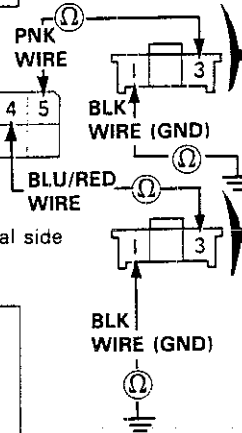
NO

Check for continuity between the No. 4 and 5 terminal for the roof warning unit and No. 3 terminal for the roof lock switch

ROOF WARNING UNIT



View from terminal side



LEFT ROOF LOCK SWITCH

RIGHT ROOF LOCK SWITCH

Is there continuity?

NO

Repair open in the BLU/RED (right roof lock switch) or PNK (left roof lock switch) wire between the roof warning unit and roof lock switch.

YES

Check for continuity between the No. 1 terminals for the roof lock switch and body ground

Is there continuity?

NO

• Repair open in the BLK wire between the roof lock switch and body ground
• Poor the ground.

YES

Check the roof lock switch (see page 20-163)

Is it normal?

NO

Replace the roof lock switch and recheck.

YES

(To page 20-161)

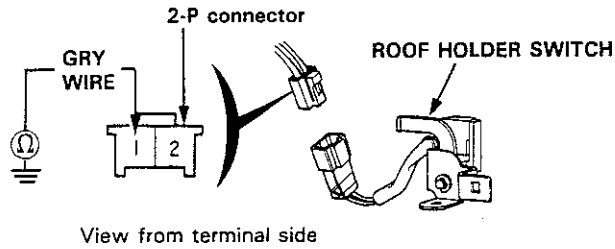


(From page 20-160)

● ROOF HOLDER SWITCH TEST

Disconnect the 2-P connector from the roof holder switch.

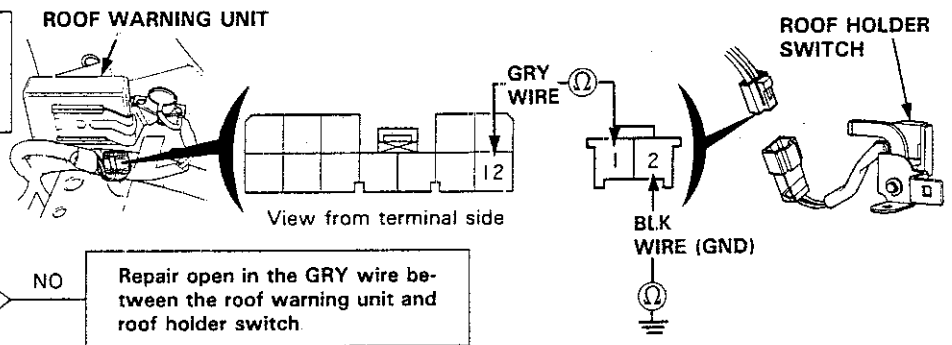
Check for continuity between the No. 1 terminal for the roof holder switch and body ground



Is there continuity? YES → Repair short in the GRY wire to the body ground

NO

Check for continuity between the No. 12 terminal for the roof warning unit and No. 1 terminal for the roof holder switch.



Is there continuity? NO → Repair open in the GRY wire between the roof warning unit and roof holder switch

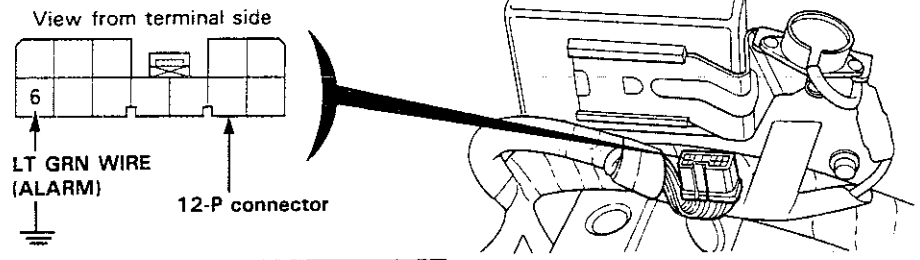
YES

Check for continuity between the No. 2 terminal for the roof holder switch and body ground.

Is there continuity? YES → Repair open in the BLK wire between the roof holder switch and body ground. Poor the ground.

● WARNING ALARM TEST

Ground the roof warning alarm No. 6 terminal to the body ground and turn the ignition switch ON. Check the sounds



Does the sound come on? NO → Turn the ignition switch OFF

Remove the warning alarm

Check the warning alarm (see page 20-164)

Is it normal? NO → Replace the warning alarm and recheck.

(To page 20-162)

YES
(To page 20-162)

Manual Roof

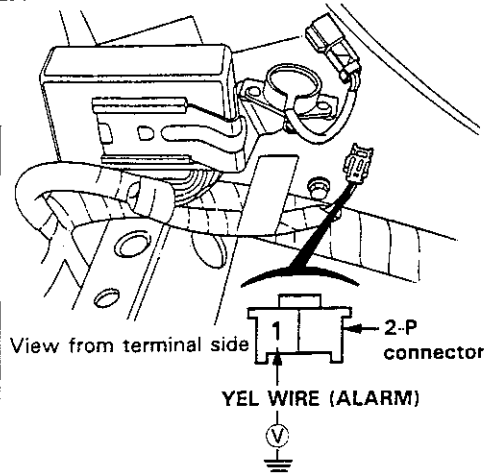
Troubleshooting Flow Chart (cont'd)

(From page 20-161)

(From page 20-161)

Turn the ignition switch ON.

Measure the voltage between the No 1 terminal for the warning alarm and body ground.



Is there battery voltage?

NO

Repair open in the YEL wire between the warning alarm and underdash fuse/relay box.

YES

• Repair open in the LT GRN wire between the roof warning unit and warning alarm.

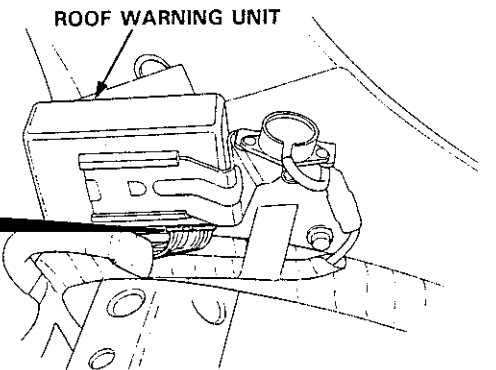
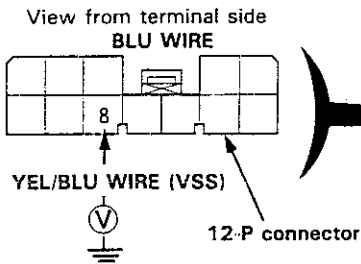
• VEHICLE SPEED SENSOR TEST

Raise the car and support it with safety stands (see section 1)

Start the engine

Shift the transmission into 2 range (AT) or 2nd gear (MT)

Measure the voltage between the No. 8 terminal for the roof warning unit and body ground when the speedometer display to approximately 10 km/h (6 mph)



NOTE:
• Use the 15 V range or a similar range in the analog tester.



is there approximately 6.0 V?

NO

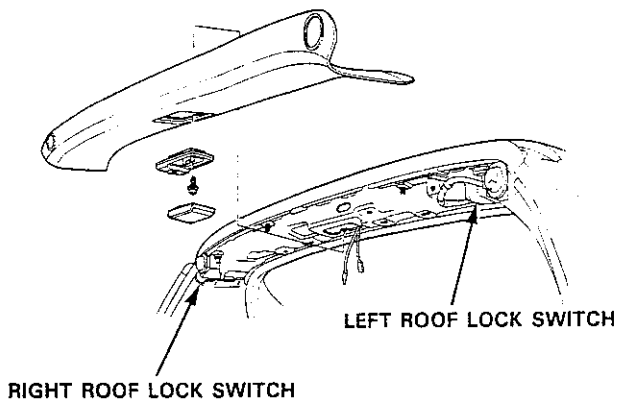
Repair open in the YEL/BLU wire between the roof warning unit and vehicle speed sensor

YES

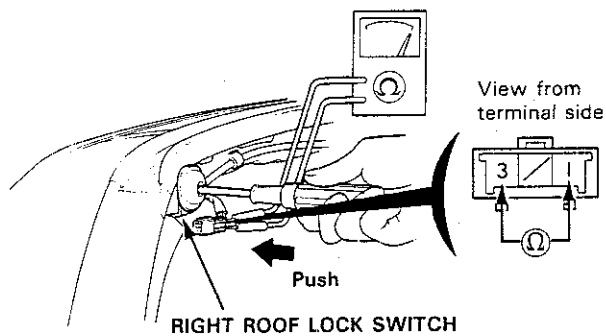
Check for loose roof warning unit connectors. If necessary, substitute a known-good roof warning unit and recheck.



Roof Lock Switch Test

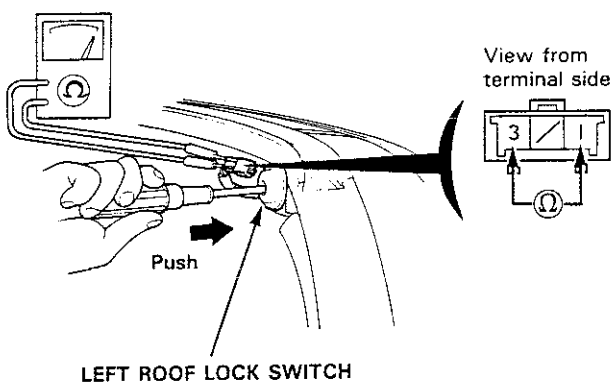


● Right roof lock switch



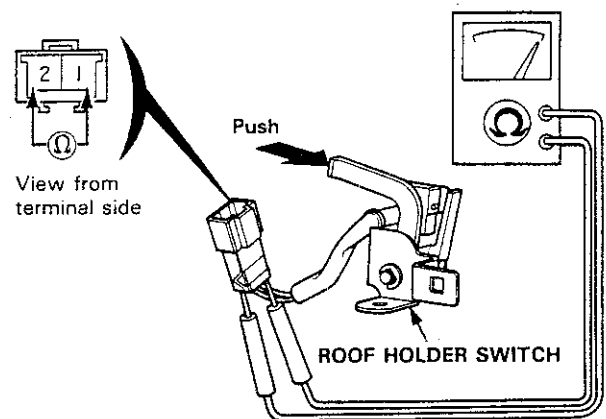
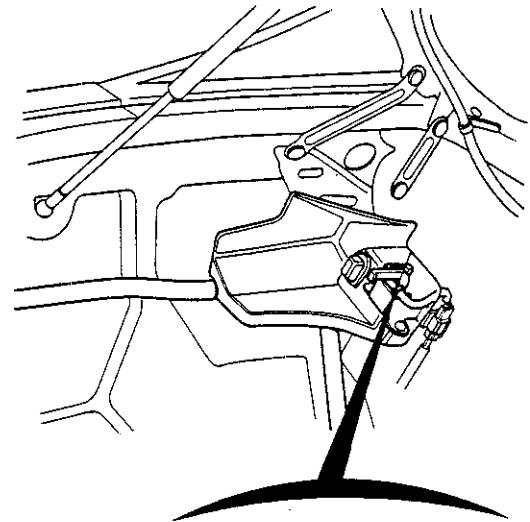
Push the right roof lock switch using a screwdriver or an equivalent tool, and be sure that there is continuity between the No 1 and No 3 terminals

● Left roof lock switch

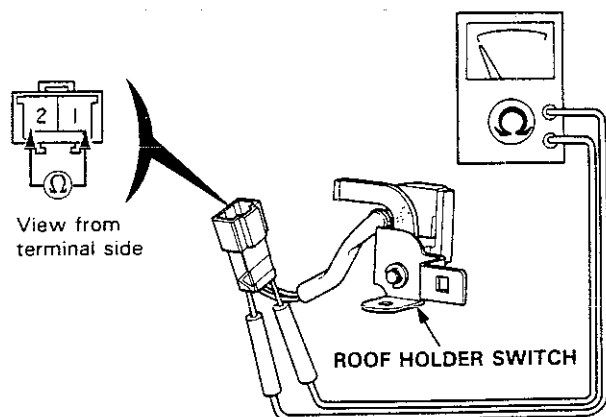


Push the left roof lock switch using a screwdriver or an equivalent tool, and be sure that there is continuity between the No 1 and No 3 terminals

Roof Holder Switch Test



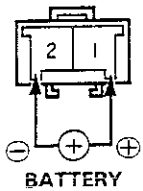
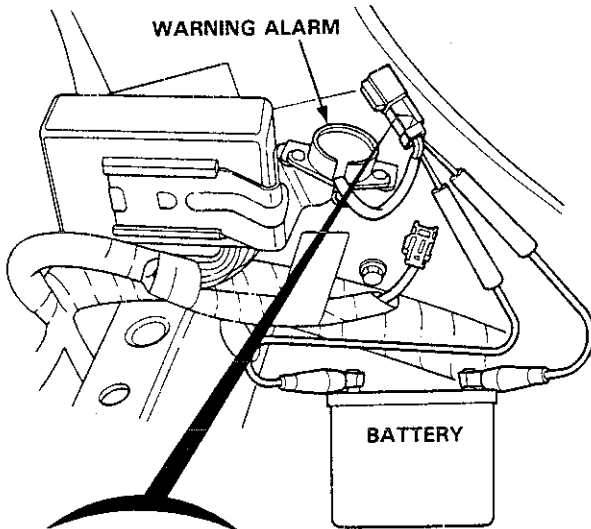
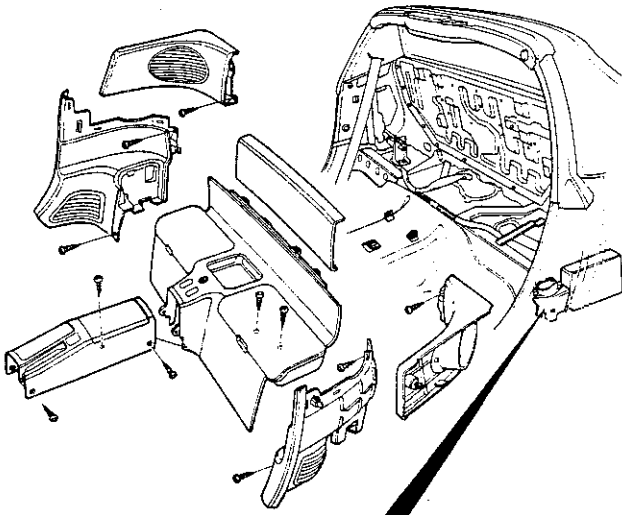
Be sure that there is continuity between the No 1 and No 2 terminals while the roof holder switch is pushed



Be sure that there is no continuity between the No 1 and No 2 terminals while the roof holder switch is released.

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Warning Alarm Test



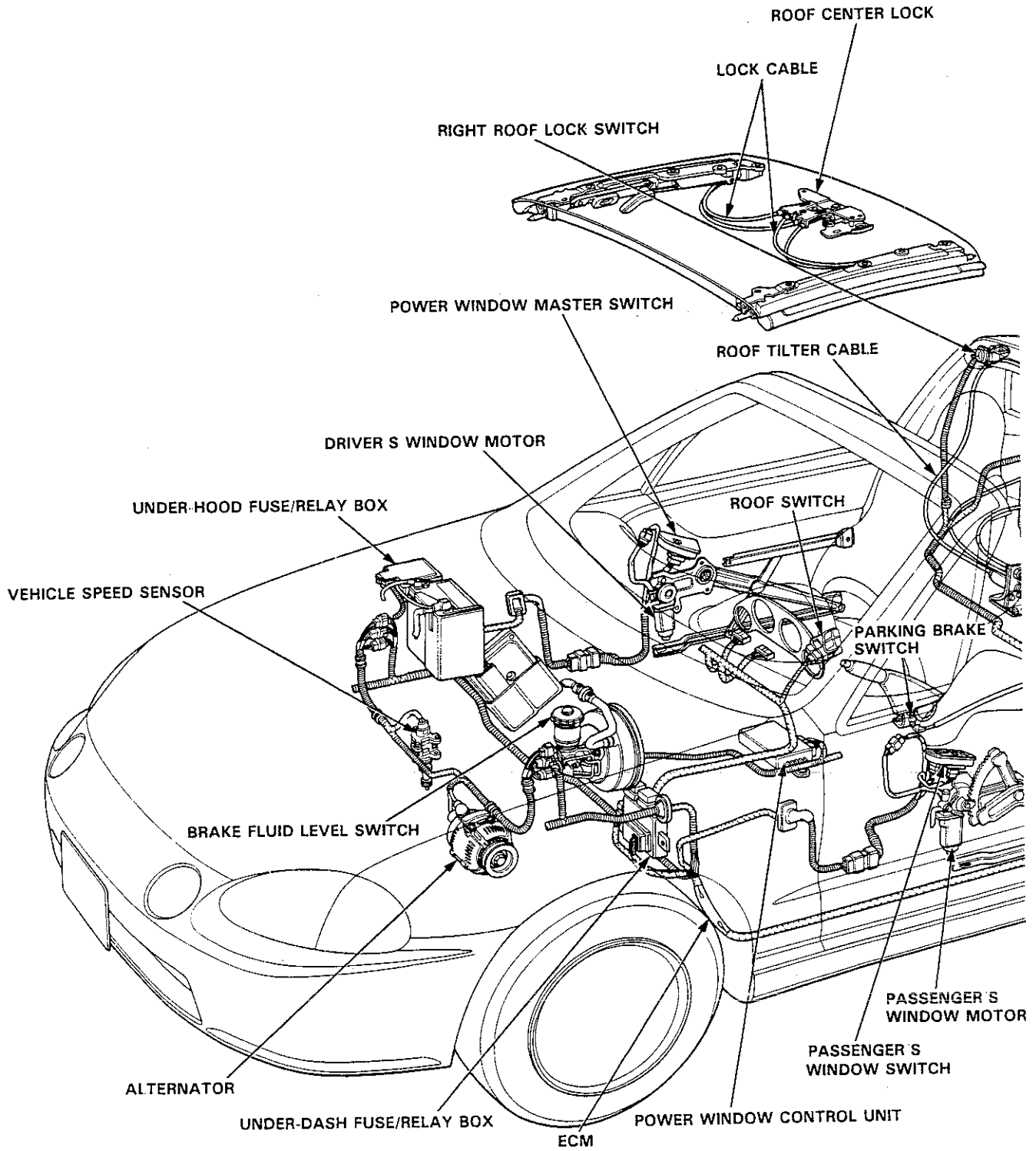
View from terminal side

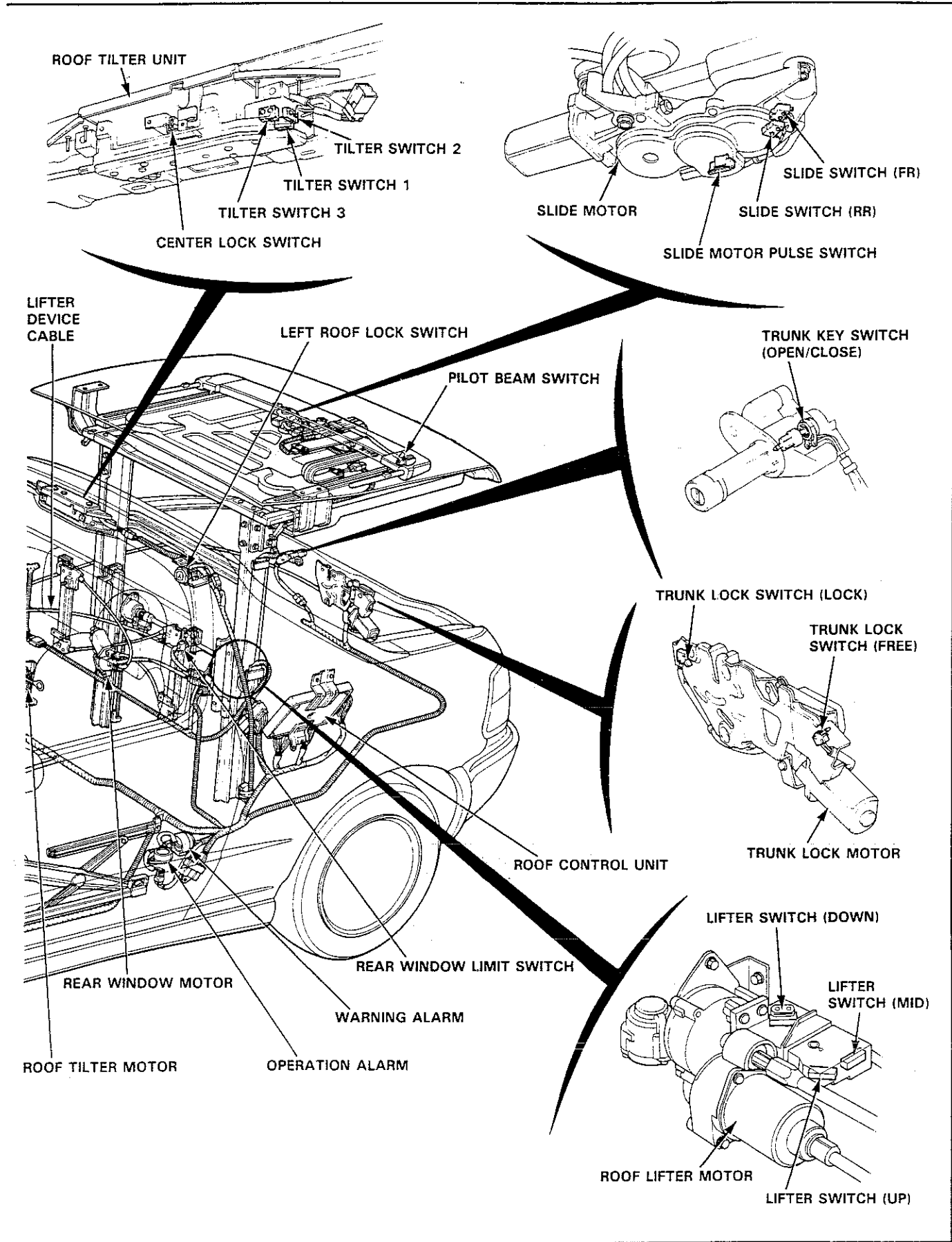
Connect the No. 1 terminal to the battery positive (+) terminal and the No. 2 terminal to the battery negative (-) terminal, and be sure that the alarm sounds



Power Roof

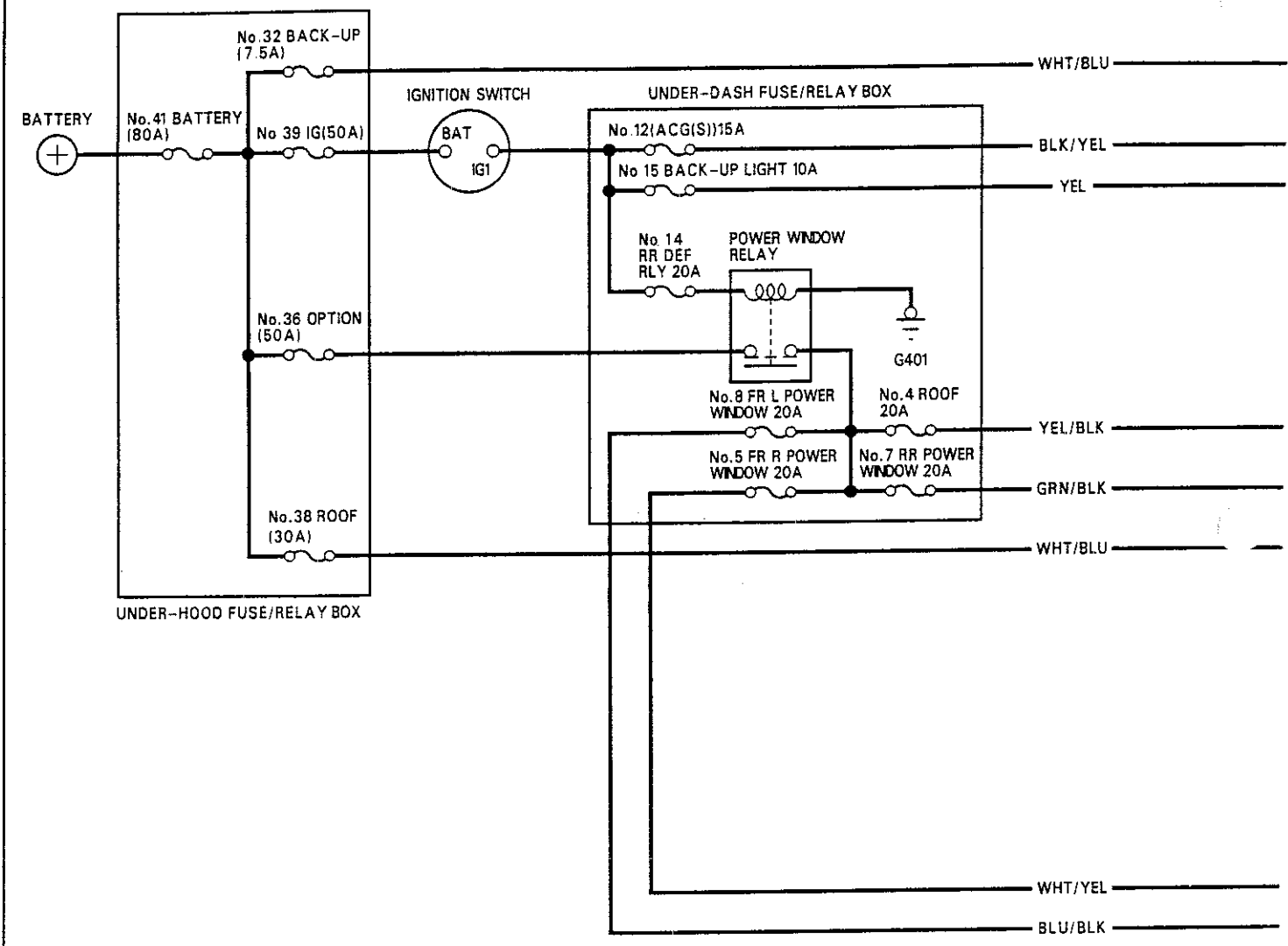
Component Location Index





Power Roof

Circuit Diagram



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

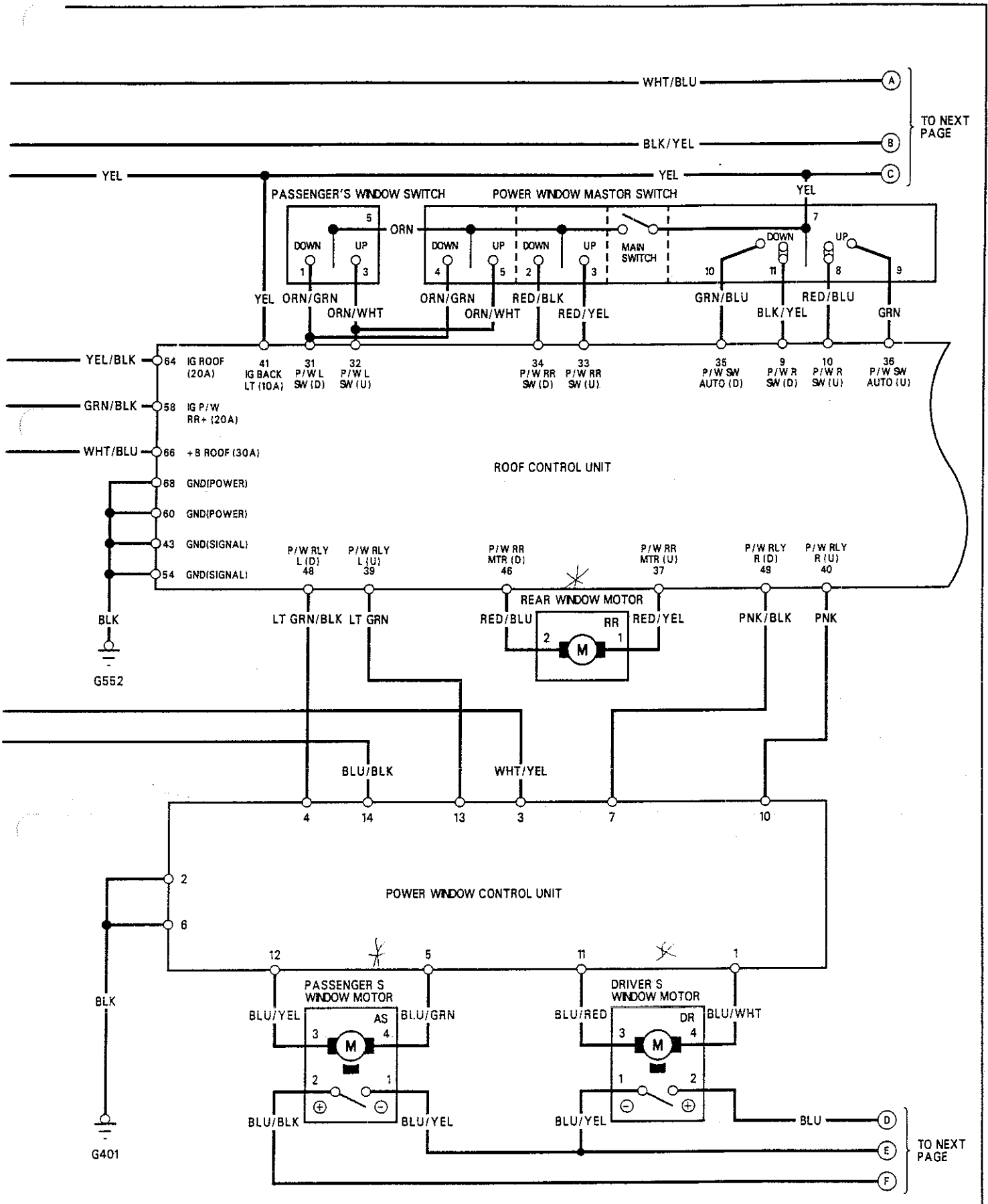
26	25	24	23	22	21	20	19	18	17
36	35	34	33	32	31	30	29	28	27

45	44	43	42		41	40	39	38	37	
56	55	54	53	52	51	50	49	48	47	46

58	57	
61	60	59

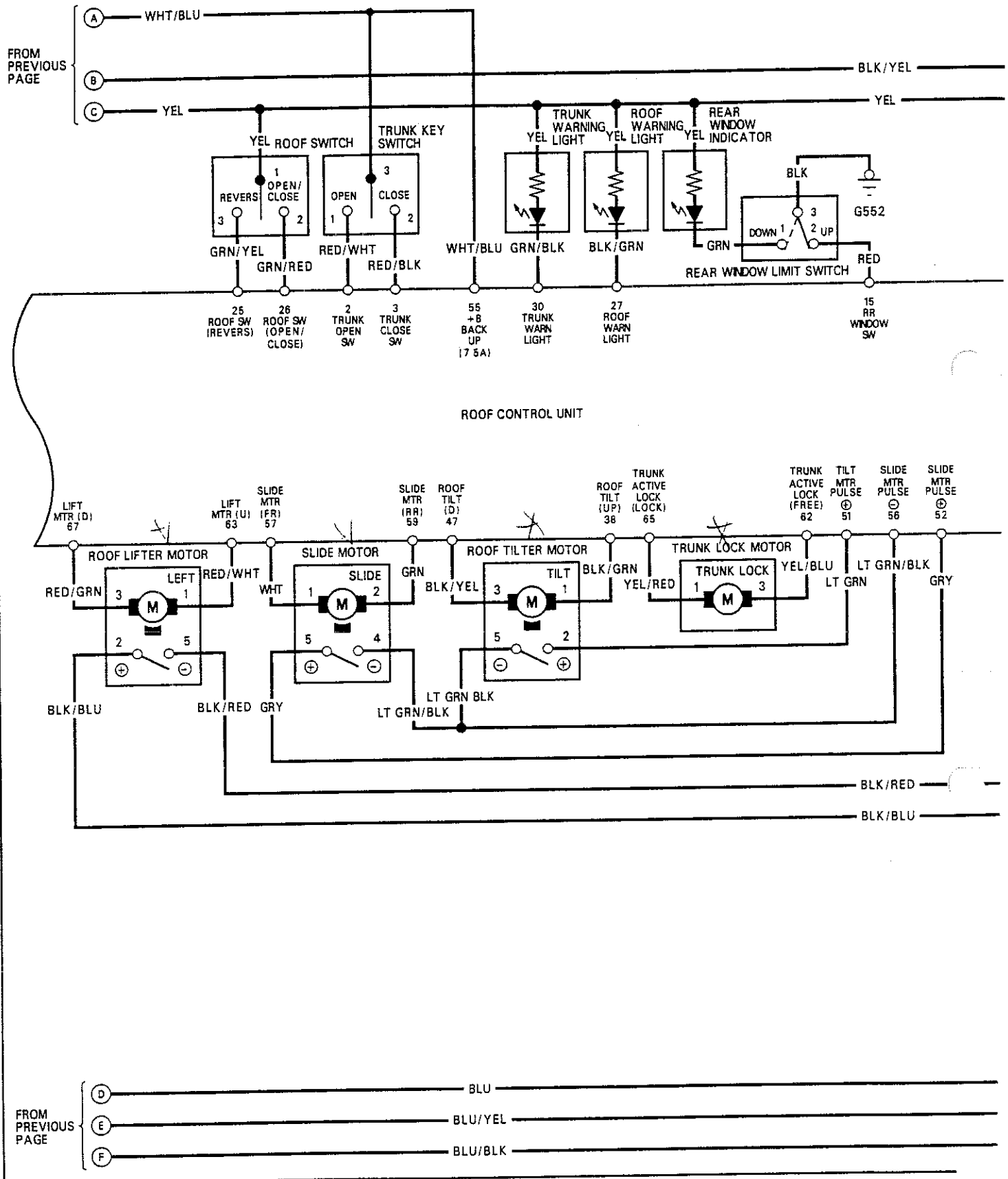
64	63	62	
68	67	66	65

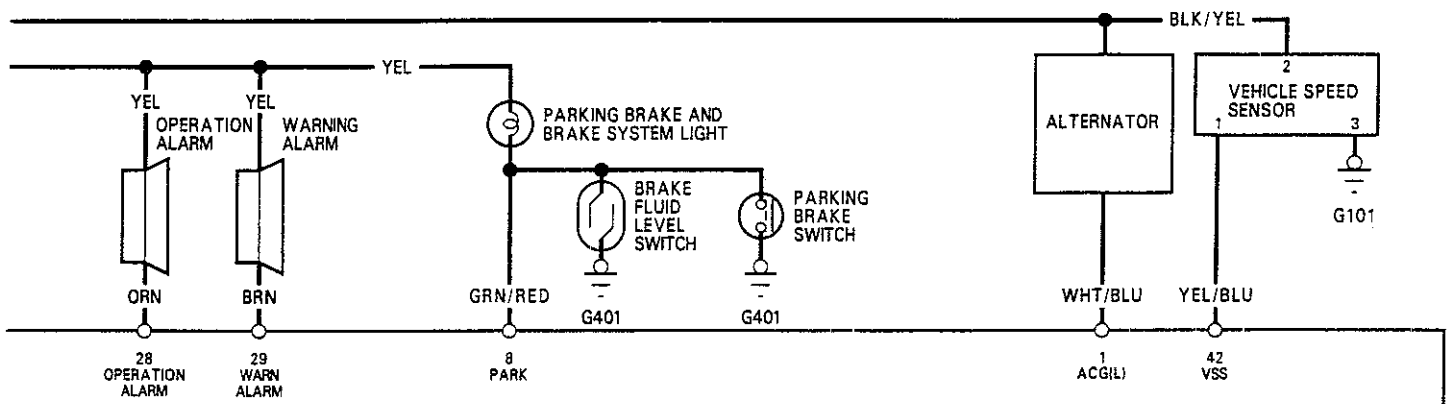
ROOF CONTROL UNIT TERMINAL SIDE



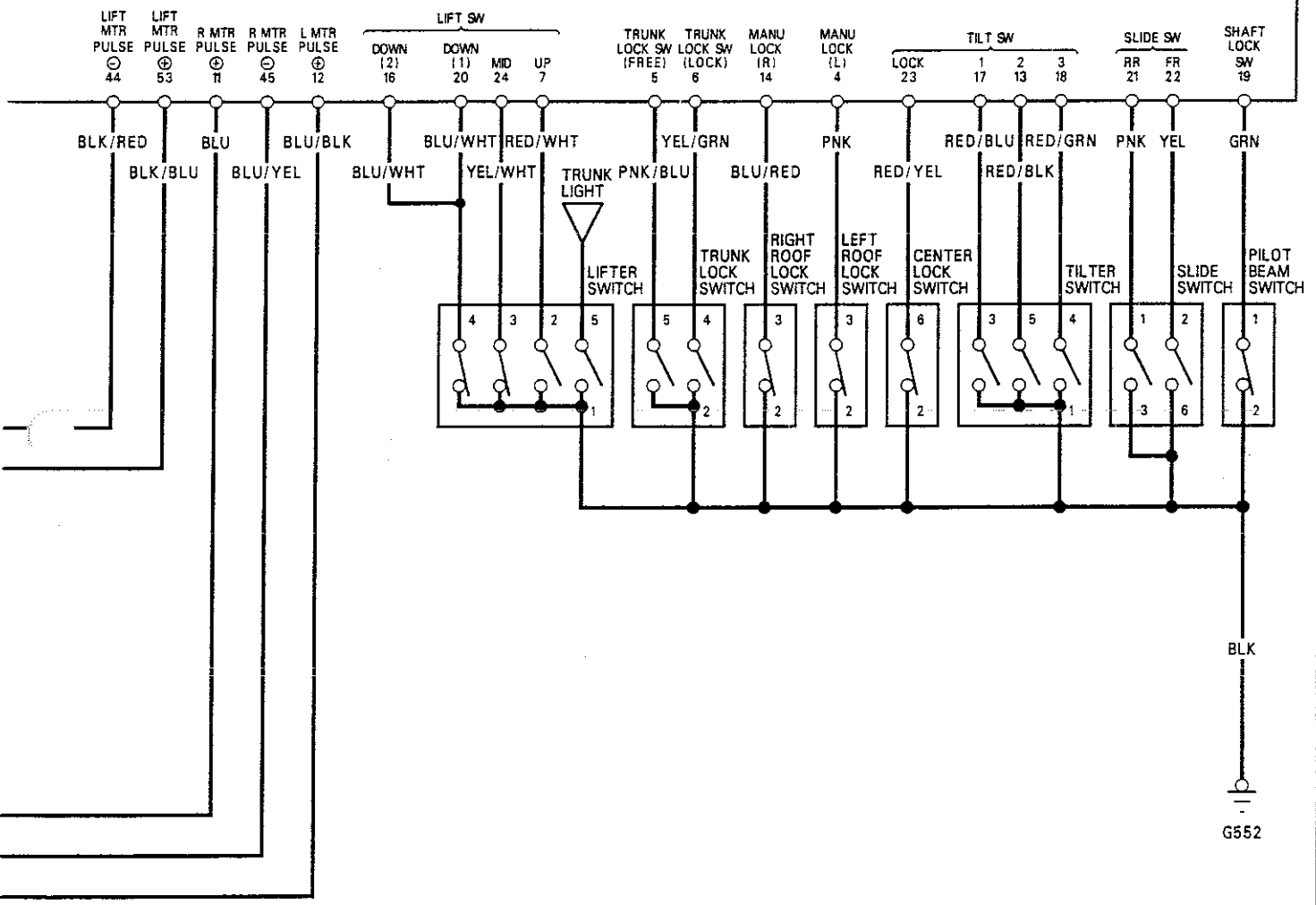
Power Roof

Circuit Diagram





ROOF CONTROL UNIT



Power Roof

Self-Diagnostic Procedures

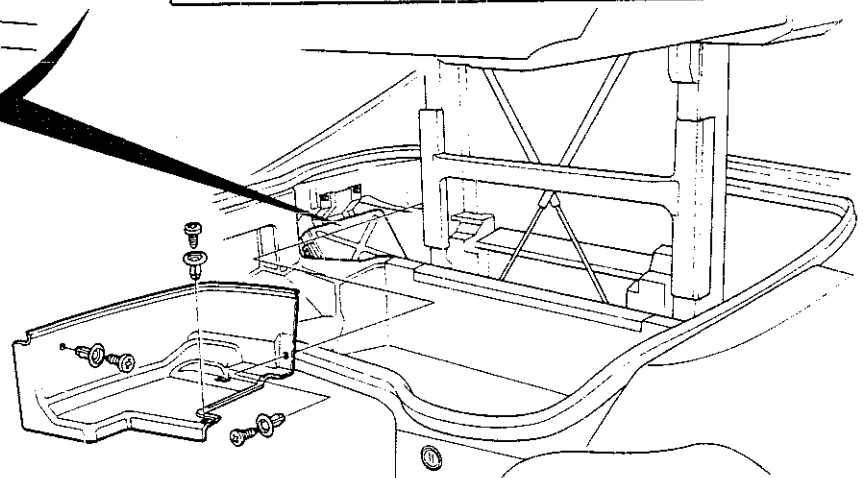
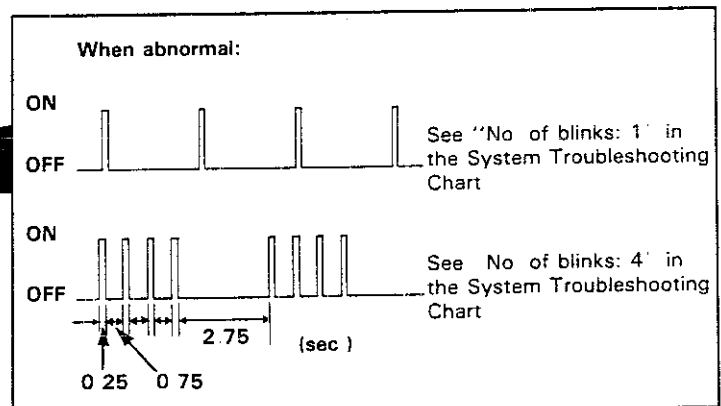
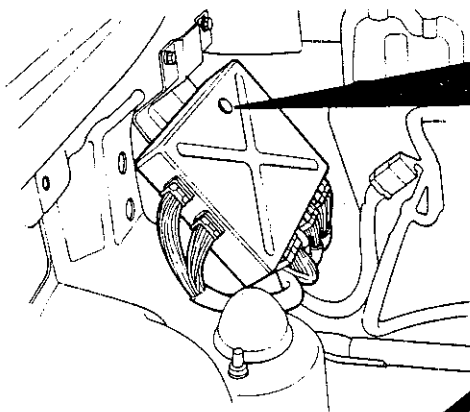
- The roof control unit has the self-diagnosis function that blinks the self-diagnosis light on the control unit body when it detects abnormality with the control unit input and output systems.
 - The self-diagnosis light blinks to indicate a trouble in the system. The problem part can be detected by the number and pattern of the blinks.
 - When troubleshooting following the System Troubleshooting Chart, perform the followings
 - 1. Operation procedure
 - 2 To light self-diagnosis light
 - 3. Reset of roof control unit
 - 4. Operation after troubleshooting
 - 5 Service tip
- Perform the above operations as described below and in the following page.

—1. Operation procedure

1. Check the self-diagnosis light for the number of blinks.
2. Reset the roof control unit.
3. Be sure that the power roof is fully closed (or fully opened) and operate the roof switch to open (or close) the power roof
4. If the power roof does not open or close properly, check the self-diagnosis light for the number of blinks again. (If the power roof opens or closes properly, it indicates operation error or poor connection of the connector.)
5. Refer to the Self-Diagnosis Procedure for the number of blinks and troubleshoot following the Flow Chart. (When the number of blinks after reset differs from the number of blinks before reset, take the number of blinks after reset for troubleshooting.)

—2 To light self-diagnosis light

1. Open the trunk lid (See Emergent Operation, page 20-244.)
2. Remove the lining from the left side of the boot.
3. Turn the ignition switch ON (Do not start the engine.)
4. Record the number of blinks of the self-diagnosis light on the roof control unit body.





- The self-diagnosis light blinks only when the ignition switch is ON. The light goes OFF when the ignition switch is turned OFF. The problem is stored in the control unit this time and the self-diagnosis light blinks again when the ignition switch is turned ON.
- The roof control unit stores and indicates the latest problem code.
- With the ignition switch turned ON, the roof control unit displays the problem code repeatedly at intervals of approximately 3 seconds.

CAUTION:

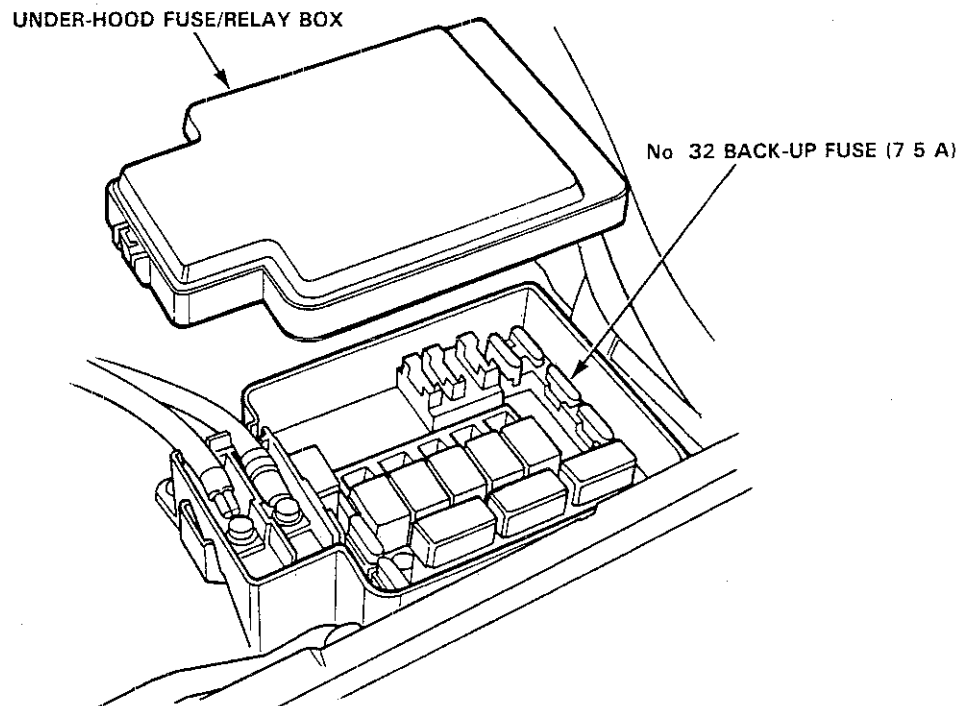
- Record the number of blinks before troubleshooting.
- Do not disconnect the control unit before retrieving the problem code, or the stored problem code can be erased.

–3 Reset of roof control unit

- 1 Turn the ignition switch OFF.
- 2 Disconnect the back-up fuse (7.5 A) in the under-hood fuse/relay box for more than 10 seconds to reset the roof control unit.

CAUTION:

- The back-up fuse stored in the under-hood fuse/relay box is for reset of the ECM. Before resetting the roof control unit, be sure to record the number of blinks of the ECM.



–4 Operation after troubleshooting

- 1 Reset the roof control unit.
- 2 Set the clock and tune into a radio station.

–5. Service tip

CAUTION:

- Do not open/close the power roof while driving.





NOTE:

- Do not try to open/close the power roof when it is iced by snow or at extreme low temperature.
- Do not open/close the wet power roof after rain or snow or cleaning with water.
- Do not open/close the power roof when the car is raised by using the safety stands.


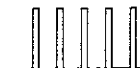




(cont'd)

Power Roof

Self-Diagnostic Procedures

SELF-DIAGNOSIS INDICATOR BLINKS	SYSTEM INDICATED	RELATED COMPONENTS	PAGE
	<ul style="list-style-type: none"> The Roof Warning light, Trunk Warning light and the Rear Window indicator light do not come on 	<ul style="list-style-type: none"> Fuse Ground Gauge assembly 	20-176
	<ul style="list-style-type: none"> Roof Warning light, Trunk Warning light or Rear Window indicator does not go off 	<ul style="list-style-type: none"> Gauge assembly 	20-180
	<ul style="list-style-type: none"> The Operation Alarm or Warning Alarm does not sounding 	<ul style="list-style-type: none"> Warning Alarm Operation Alarm 	20-182
	<ul style="list-style-type: none"> The Operation Alarm or Warning Alarm does not stop sounding 	<ul style="list-style-type: none"> Warning Alarm Operation Alarm 	20-185
	<ul style="list-style-type: none"> The Power Roof can be opened/close while driving 	<ul style="list-style-type: none"> Vehicle Speed sensor Parking brake switch 	20-186
	<ul style="list-style-type: none"> Trunk lid cannot open/close using the ignition key 	<ul style="list-style-type: none"> Trunk key Switch 	20-188
	<ul style="list-style-type: none"> The Power Window does not open/close 	<ul style="list-style-type: none"> Fuse Driver's window motor Power window master switch Power window control unit Power window relay Passenger's window switch Passenger's window motor 	20-190
	<ul style="list-style-type: none"> The Power Roof does not operate (Problem code 0) 	<ul style="list-style-type: none"> Trunk key switch Roof switch Power window switch 	20-196
1 	<ul style="list-style-type: none"> Power Roof does not operate 	<ul style="list-style-type: none"> Lifter switch Roof lifter motor Mechanical system of lifter unit 	20-200
2 	<ul style="list-style-type: none"> Power Roof does not operate 	<ul style="list-style-type: none"> Slide switch Slide motor Mechanical system of roof slider unit 	20-204
3 	<ul style="list-style-type: none"> Power Roof does not operate 	<ul style="list-style-type: none"> Tilter switch Roof tilter motor Mechanical system of roof tilter unit 	20-207
4 	<ul style="list-style-type: none"> Power Roof does not operate 	<ul style="list-style-type: none"> Center lock switch Pilot beam switch 	20-212



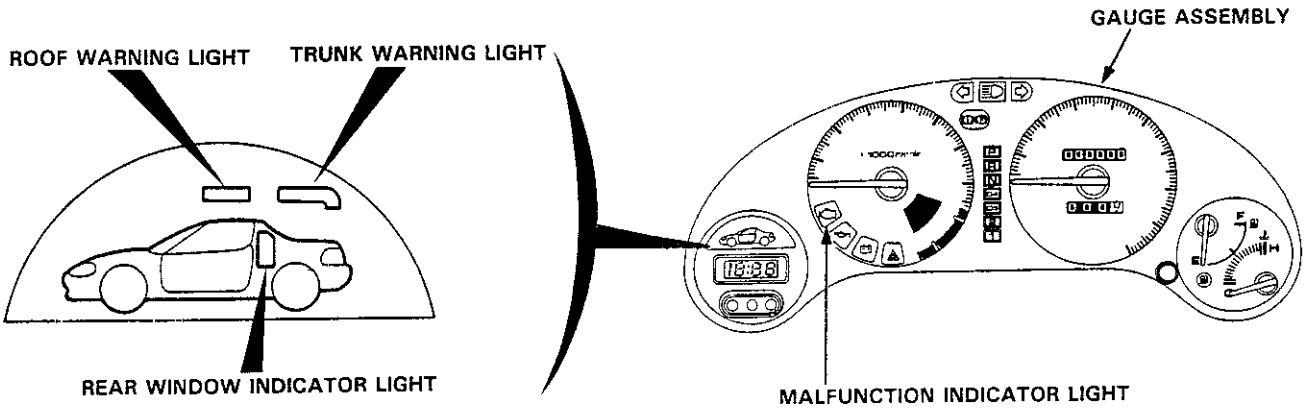
SELF-DIAGNOSIS INDICATOR BLINKS	SYSTEM INDICATED	RELATED COMPONENTS	PAGE
5 	• Power roof does not operate	• Trunk lock switch • Mechanical system of Trunk lock	20-216
6 	• Power roof does not operate	• Trunk key Switch • Power Window Switch (When power window switch and roof switch are operated at the same time)	20-196
7 	• Power roof does not operate	• Roof lock switch (Not operated by the user)	20-218
8 	• Power roof does not operate	• Parking brake switch (Not operated by the user)	20-220
9 	• Power roof does not operate	• Rear window switch (Not operated by the user)	20-222
10 	• Power roof does not operate	• Alternator (Not operated by the user)	20-224

Power Roof

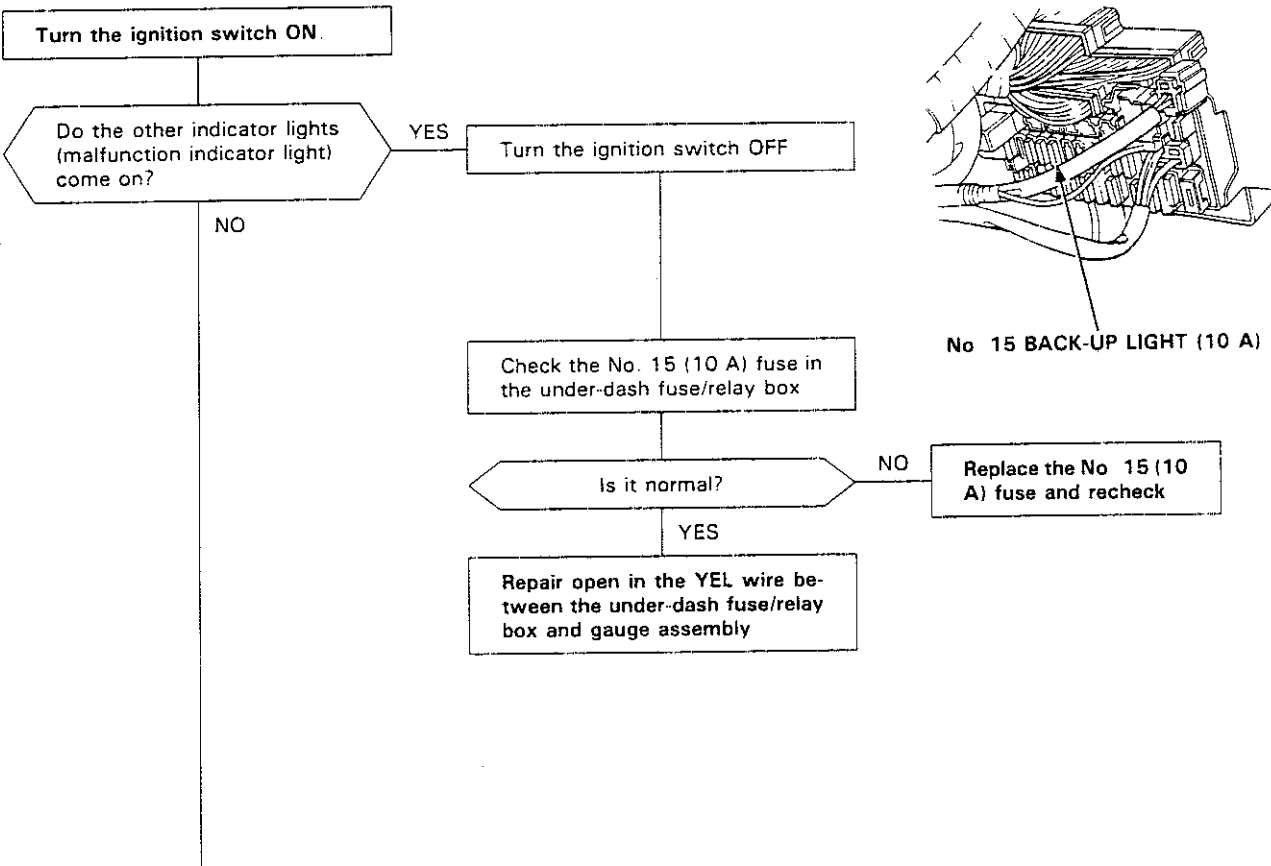
Troubleshooting Flow Chart (cont'd)

The ROOF WARNING light, TRUNK WARNING light, and the REAR WINDOW indicator light do not come on.

NOTE: When the ignition switch is turned on to check for the blown-out bulb, the roof warning light and Trunk warning light come on for approximately 2 seconds



● ROOF WARNING LIGHT AND BOOT WARNING LIGHT TEST



(To page 20-177)

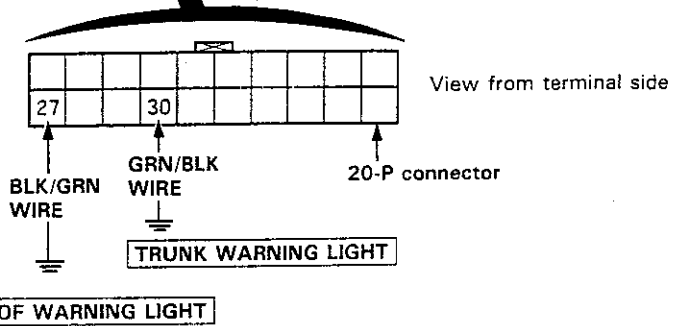
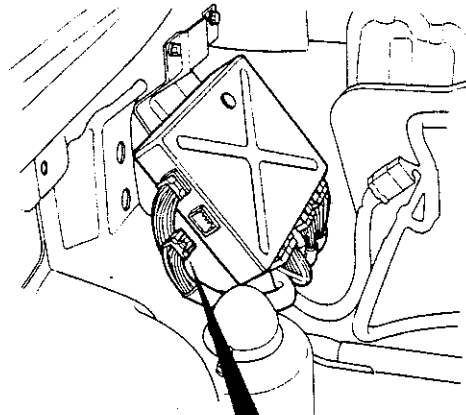


(From page 20-176)

Turn the ignition switch OFF

Disconnect the 20-P connector from the roof control unit.

Ground the following terminals individually to the body ground and turn the ignition switch ON. Check the warning lights.
Roof warning light: No. 27 terminal
Trunk warning light: No. 30 terminal



Do all the lights come on?

NO

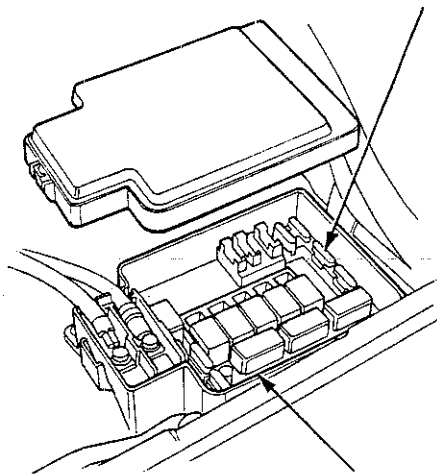
- Replace defective bulb.
- Repair open in the wire between the roof control unit and gauge assembly

YES

Turn the ignition switch OFF

Check the No. 32 (7.5 A) fuse in the under-hood fuse/relay box

No. 32 BACK-UP (7.5 A)



UNDER-HOOD FUSE/RELAY BOX

Is it normal?

NO

Replace the No. 32 (7.5 A) fuse and recheck.

YES

(To page 20-178)

(cont d)

Power Roof

Troubleshooting Flow Chart (cont'd)

(From page 20-177)

Turn the ignition switch ON.

Measure the voltage between the No. 55 terminal for the roof control unit and body ground

Is there battery voltage?

NO

Repair open in the WHT/BLU wire between the roof control unit and under-hood fuse/relay box

YES

Measure the voltage between the No. 41 terminal for the roof control unit and body ground

Is there battery voltage?

NO

Repair open the YEL wire between the roof control unit and under-dash fuse/relay box

YES

Turn the ignition switch OFF

Check for continuity between the No. 43 and 54 terminal for the roof control unit and body ground

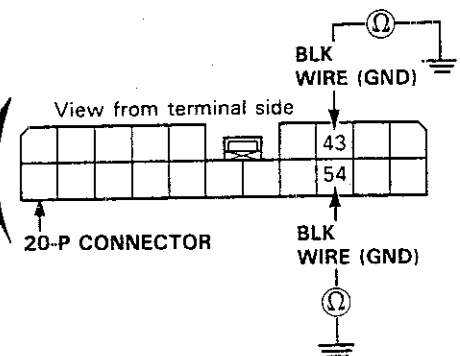
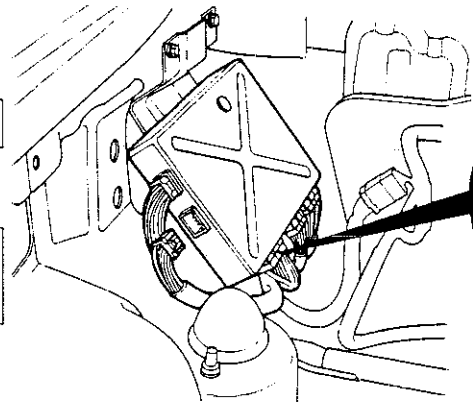
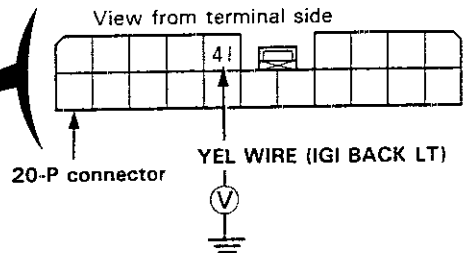
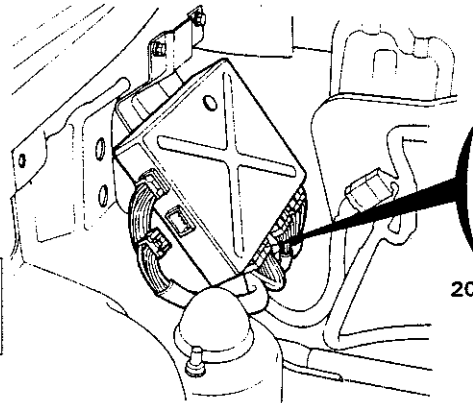
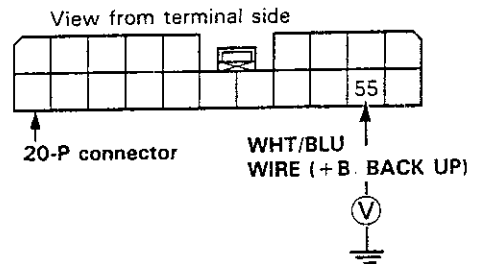
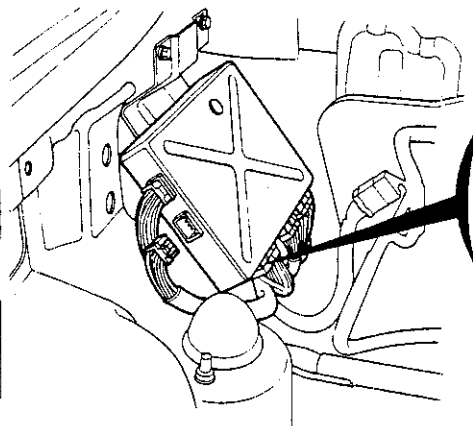
Is there continuity?

YES

• Repair open in the BLK wire between the roof control unit and body ground
• Poor the ground (G552).

NO

Check for loose roof control unit connectors. If necessary, substitute a known-good roof control unit and recheck



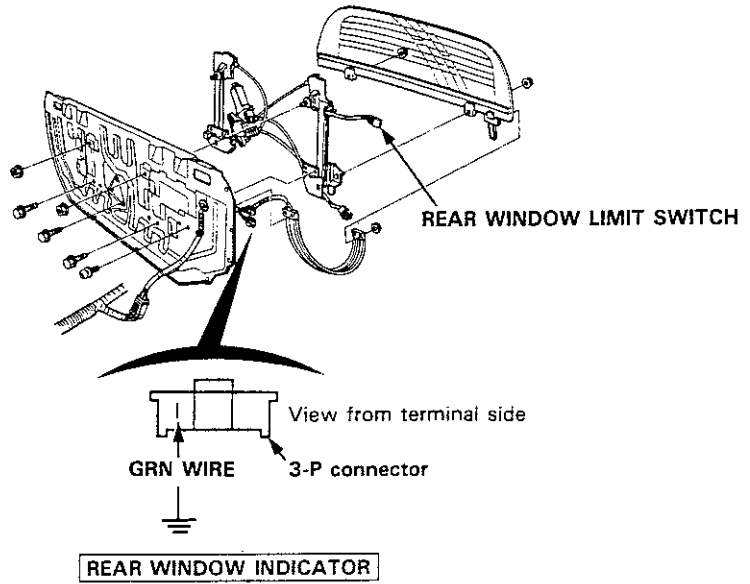


● REAR WINDOW INDICATOR TEST

Turn the ignition switch OFF.

Disconnect the 3-P connector from the rear window limit switch

Ground the No. 1 terminal for rear window indicator to the body ground and turn the ignition switch ON
Check the rear window indicator light



Does the rear window indicator light come on?

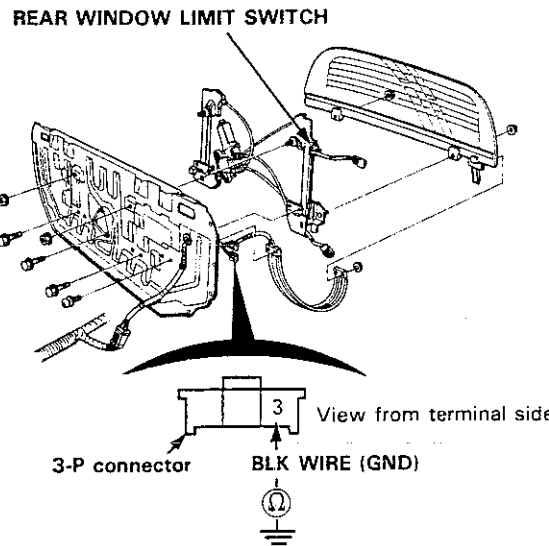
NO

- Replace defective bulb.
- Repair open in the GRN wire between the rear window limit switch and gauge assembly

YES

Turn the ignition switch OFF

Check for continuity between the No. 3 terminal for the rear window limit switch and body ground.



Is there continuity?

NO

Repair open in the BLK wire between the rear window limit switch and body ground.

YES

Check for loose rear window limit switch connectors. If necessary, substitute a known-good rear window limit switch and recheck

(cont'd)



● REAR WINDOW INDICATOR TEST

Turn the ignition switch OFF

Disconnect the 3-P connector from the rear window limit switch.

Turn the ignition switch ON

Do the rear window indicator light go off?

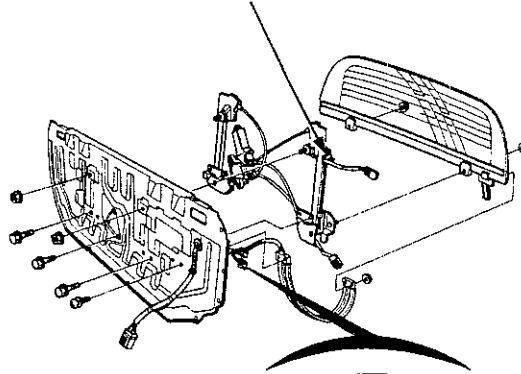
YES

Substitute a known-good rear window limit switch and recheck

NO

Repair short in the GRN wire to the body ground

REAR WINDOW LIMIT SWITCH



3-P connector → View from terminal side

GRN WIRE

REAR WINDOW INDICATOR

(cont'd)

Power Roof

Troubleshooting Flow Chart (cont'd)

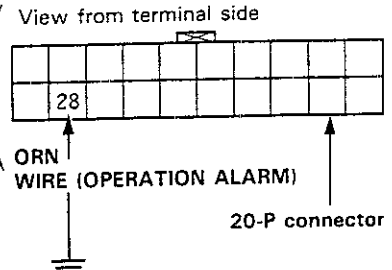
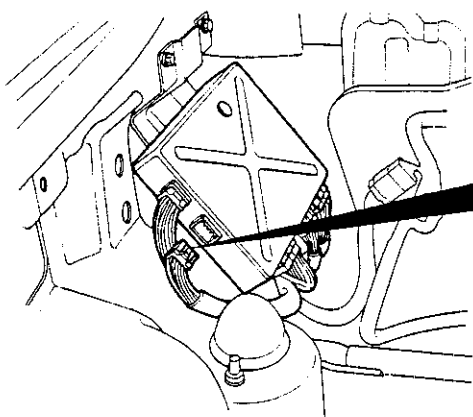
The operation Alarm or Warning Alarm does not sounding.

● OPERATION ALARM TEST

Turn the ignition switch OFF.

Disconnect the 20-P connectors from the roof control unit

Ground the No 28 terminal for operation alarm to the body ground and turn the ignition switch ON. Check the sound.



Does the alarm sound? YES

Check for loose roof control unit connectors. If necessary substitute a known-good roof control unit and recheck.

NO
Turn the ignition switch OFF

Remove the operation alarm

Check the operation alarm (see page 20-226)

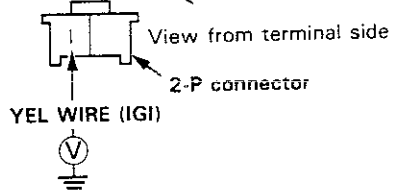
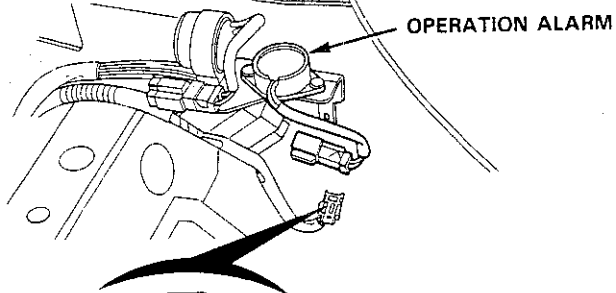
Is it normal? NO

Replace the operation alarm and recheck

YES
Disconnect the 2-P connector from the operation alarm

Turn the ignition switch ON

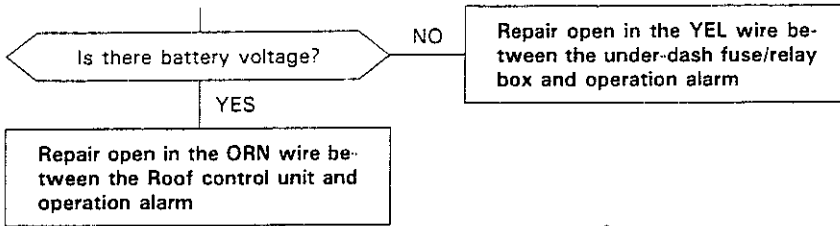
Measure the voltage between the No. 1 terminal for the operation alarm and body ground.



(To page 20-183)



(From page 20-182)

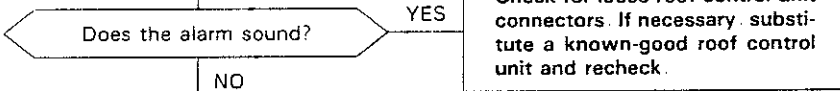


● WARNING ALARM TEST

Turn the ignition switch OFF

Disconnect the 20-P connectors from the roof control unit

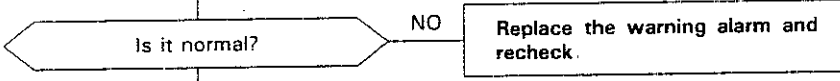
Ground the No 29 terminal for warning alarm to the body ground and turn the ignition switch ON
Check the sound



Turn the ignition switch OFF

Remove the warning alarm

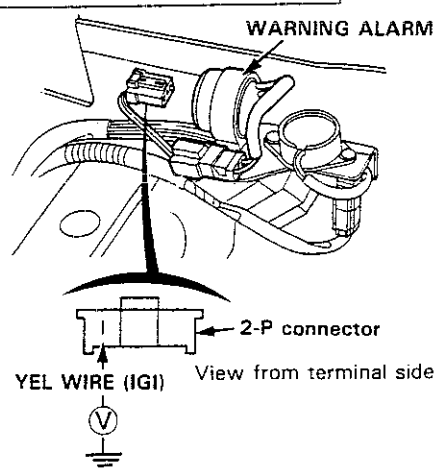
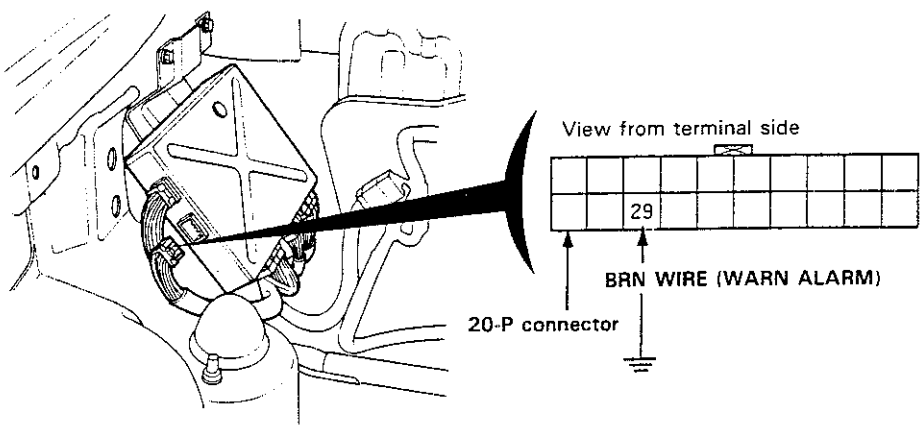
Check the warning alarm (see page 20-226)



Disconnect the 2-P connector from the warning alarm

Turn the ignition switch ON.

Measure the voltage between the No 1 terminal for the warning alarm and body ground



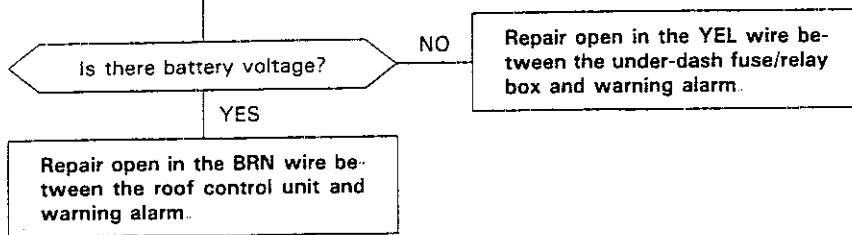
(To page 20-184)

(cont'd)

Power Roof

Troubleshooting Flowchart (cont'd)

(From page 20-183)



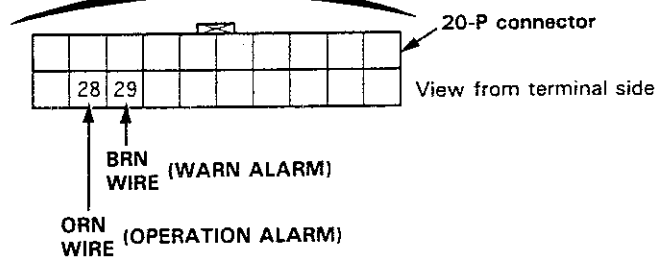
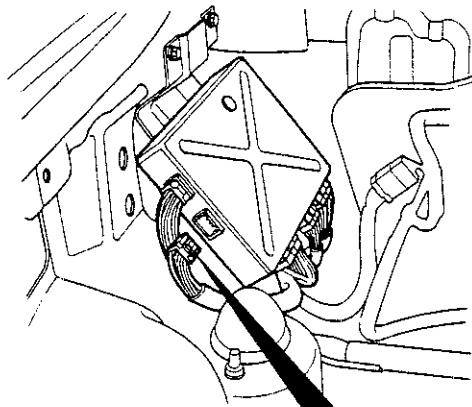


The Operation Alarm or Warning Alarm does not stop sounding

Turn the ignition switch OFF.

Disconnect the 20-P connector from the roof control unit

Turn the ignition switch ON



Does the alarm sound?

NO

Check for loose roof control unit connectors. If necessary, substitute a know-good roof control unit and recheck.

YES

Repair short in the BRN or ORN wire between the roof control unit and alarm

(cont'd)

Power Roof

Troubleshooting Flowchart (cont'd)

The Power Roof can be opened/close while driving

● VEHICLE SPEED SENSOR TEST

Raise the car and support it with safety stand (see section 1).

Start the engine

Shift the transmission into range (AT) or 2nd gear (MT) 2

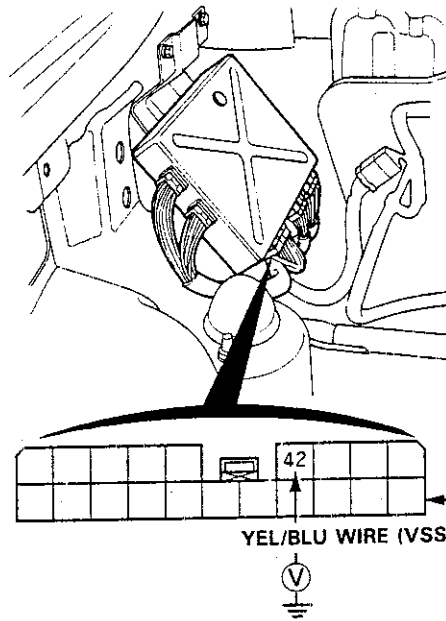
Measure the voltage between the No. 42 terminal for the roof control unit and body ground when the speedometer display to approximately 10 km/h (6 mph).

Is there approximately 6.0 V?

YES

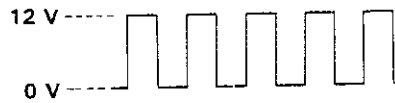
NO

Repair open in the YEL/BLU wire between the roof control unit and vehicle speed sensor



NOTE:

- Use the 15 V range or a similar range in the analog tester



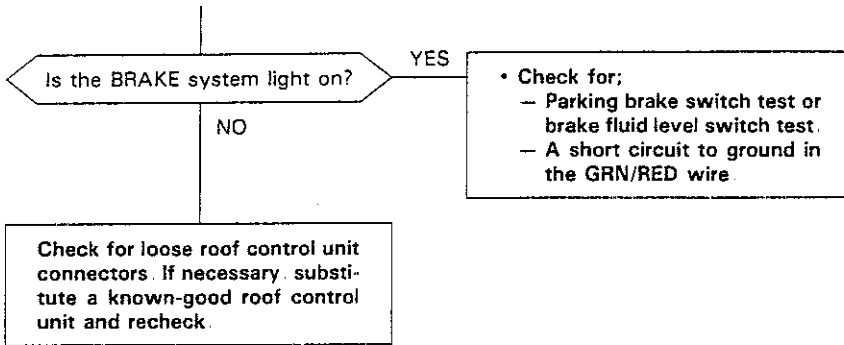
● PARKING BRAKE SWITCH TEST

Release the parking brake lever (switch OFF)

(To page 20-187)



(From page 20-186)



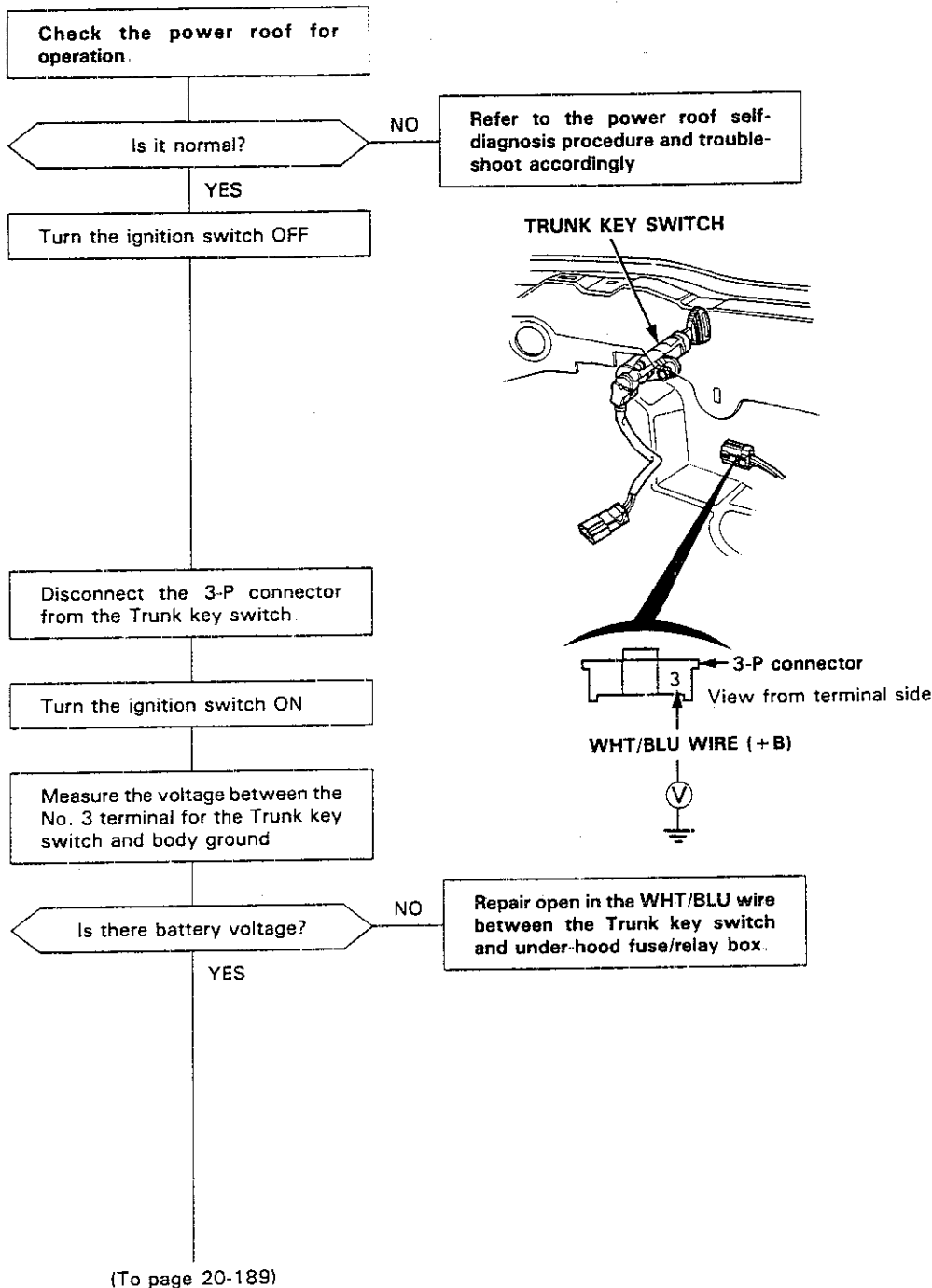
(cont'd)

Power Roof

Troubleshooting Flowchart (cont'd)

The Trunk lid does not open/close using the ignition key.

- The Trunk lid cannot be opened/closed using the ignition key unless the power roof is fully opened/closed
- The Trunk lid cannot be opened/closed using the ignition key unless the rear windows are fully closed



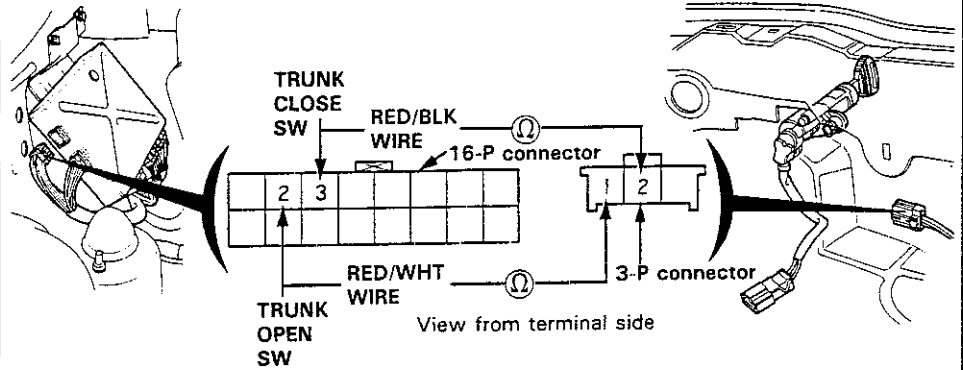


(From page 20-188)

Turn the ignition switch OFF.

Disconnect the 16-P connector from the roof control unit.

Check for continuity between;
• 16-P connector and 3-P connector
— No. 2 (RED/WHT) and No 1 terminals.
— No 3 (RED/BLK) and No 2 terminals.



Is there continuity?

NO

Repair open in the RED/BLK and RED/WHT wire between the roof control unit and Trunk key switch.

YES

Remove the Trunk key switch.

Check the Trunk key switch (see page 20-228)

Is it normal?

NO

Replace the Trunk key switch and recheck.

YES

Check for loose roof control unit connectors. If necessary, substitute a known-good roof control unit and recheck.

(cont'd)

Power Roof

Troubleshooting Flowchart (cont'd)

The Power window does not open/close

- Any power window cannot be operated when the power roof is in operation.
- The right and left power windows cannot be operated when the trunk lid is in operation.

• DRIVER'S SIDE

Check the power roof for operation.

Is it normal?

NO

Refer to the power roof self-diagnosis procedure and troubleshoot accordingly.

YES

Turn the ignition switch OFF

Check the No. 15 (10 A) fuse and No. 14 (20 A) fuse in the under-dash fuse/relay box

Is it normal?

NO

- Replace the No. 15 (10 A) fuse and recheck.
- Replace the No. 14 (20 A) fuse and recheck

YES

Remove the power window relay

Check the power window relay. (see page 20-233)

Is it normal?

NO

Replace the power window relay and recheck.

YES

Check the No. 8 (20 A) fuse in the under-dash fuse/relay box.

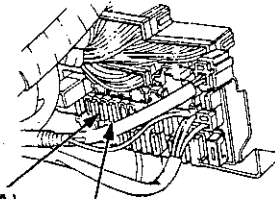
Is it normal?

NO

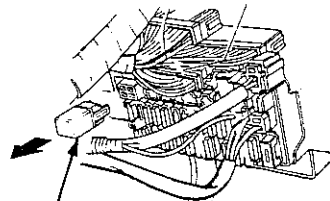
Replace the No. 8 (20 A) fuse and recheck

YES

(To page 20-191)

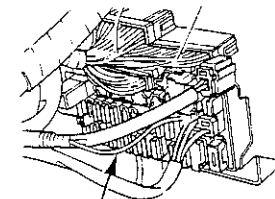


No. 14 RR DEF RLY (20 A)



No. 15 BACK-UP LIGHT (10 A)

POWER WINDOW RELAY



No. 8 FR. L. POWER WINDOW (20 A)



(From page 20-190)

Remove the power window master switch

Check the power window master switch. (see page 20-229)

Is it normal?

NO

Replace the power window master switch and recheck.

YES

Remove the power window control unit

Check the power window control unit. (see page 20-232)

Is it normal?

NO

Replace the power window control unit and recheck.

YES

Remove the driver's window motor.

Check the driver's window motor (see page 20-230)

Is it normal?

NO

Replace the driver's window motor and recheck.

YES

Check the opening or short in the wire harness

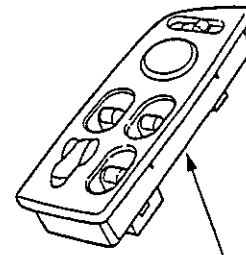
Is it normal?

NO

• Repair open or short in the wire harness.

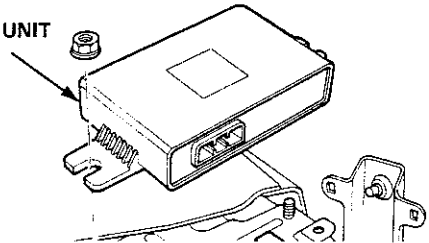
YES

Check for loose roof control unit connectors. If necessary, substitute a known-good roof control unit and recheck.

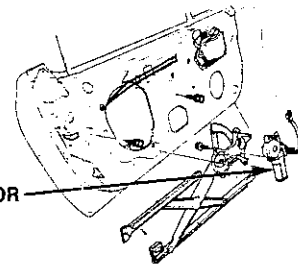


POWER WINDOW MASTER SWITCH

POWER WINDOW CONTROL UNIT



DRIVER'S WINDOW MOTOR



(cont'd)

Power Roof

Troubleshooting Flowchart (cont'd)

● PASSENGER'S SIDE TEST

Check the power roof for operation.

Is it normal?

NO

Refer to the power roof self-diagnosis procedure and troubleshoot accordingly

YES

Turn the ignition switch OFF

Check the No. 15 (10 A) fuse and No. 14 (20 A) fuse in the under-dash fuse/relay box.

Is it normal?

NO

- Replace the No. 15 (10 A) fuse and recheck.
- Replace the No. 14 (20 A) fuse and recheck.

YES

Remove the power window relay

Check the power window relay (see page 20-233)

Is it normal?

NO

Replace the power window relay and recheck

YES

Check the No. 5 (20 A) fuse in the under-dash fuse/relay box

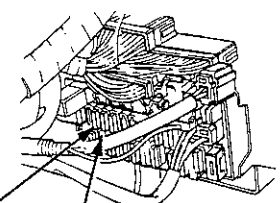
Is it normal?

NO

Replace the No. 5 (20 A) fuse and recheck.

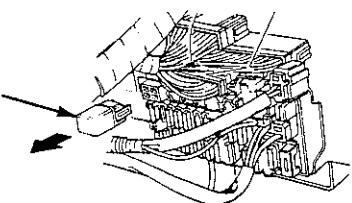
YES

(To page 20-193)

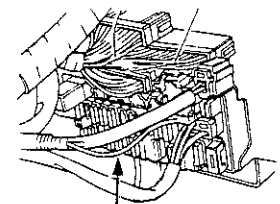


No. 14 RR DEF RLY (20 A)

No. 15 BACK-UP LIGHT (10 A)



POWER WINDOW RELAY



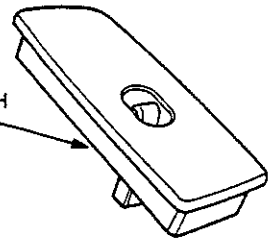
No. 5 FRONT POWER WINDOW (20 A)



(From page 20-192)

Remove the passenger's window switch.

PASSENGER'S WINDOW SWITCH



Check the window passenger's window switch (see page 20-229)

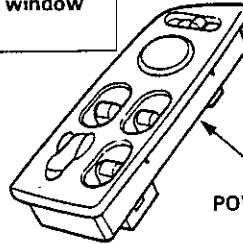
Is it normal?

NO

Replace the passenger's window switch and recheck.

YES

Remove the power window master switch.



POWER WINDOW MASTER SWITCH

Check the power window master switch (see page 20-229)

Is it normal?

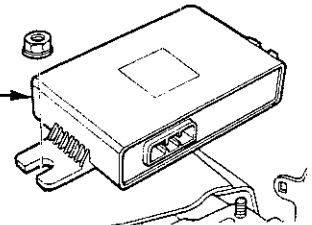
NO

Replace the power window master switch and recheck.

YES

Remove the power window control unit.

POWER WINDOW CONTROL UNIT



Check the power window control unit (see page 20-232)

Is it normal?

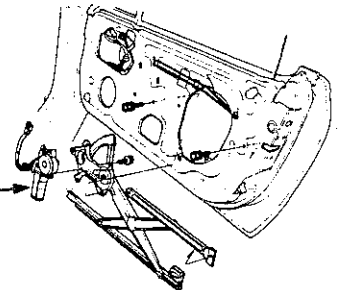
NO

Replace the power window control unit and recheck.

YES

Remove the passenger's window motor

PASSENGER'S WINDOW MOTOR



Check the passenger's window motor (see page 20-230)

Is it normal?

NO

Replace the passenger's window motor and recheck.

YES

Check the opening or short in the wire harness

Is it normal?

NO

• Repair open or short in the wire harness.

YES

Check for loose roof control unit connectors. If necessary, substitute a known-good roof control unit and recheck.

(cont'd)

Power Roof

Troubleshooting Flowchart (cont'd)

● REAR WINDOW TEST

Check the power roof for operation

Is it normal?

NO

Refer to the power roof self-diagnosis procedure and troubleshoot accordingly.

YES

Turn the ignition switch OFF

Check the No. 15 (10 A) fuse and No. 14 (20 A) fuse in the under-dash fuse/relay box

Is it normal?

NO

- Replace the No. 15 (10 A) fuse and recheck.
- Replace the No. 14 (20 A) fuse and recheck.

YES

Remove the power window relay.

Check the power window relay (see page 20-233).

Is it normal?

NO

Replace the power window relay and recheck.

YES

Check the No. 7 (20 A) fuse in the under-dash fuse/relay box.

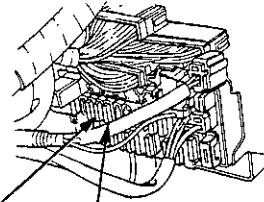
Is it normal?

NO

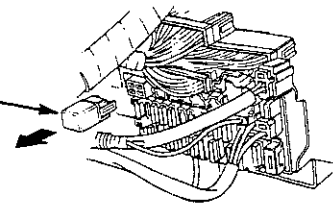
Replace the No. 7 (20 A) fuse and recheck.

YES

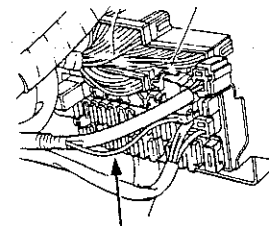
(To page 20-195).



POWER WINDOW RELAY



No. 7 REAR POWER WINDOW (20 A)





(From page 20-194)

Remove the power window master switch.

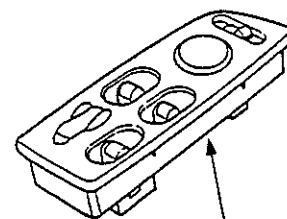
Check the power window master switch (see page 20-229).

Is it normal?

NO

Replace the power window master switch and recheck.

YES



POWER WINDOW MASTER SWITCH

Remove the rear window motor.

Check the rear window motor (see page 20-231)

Is it normal?

NO

Replace the rear window motor and recheck.

YES

Check the opening or short in the wire harness

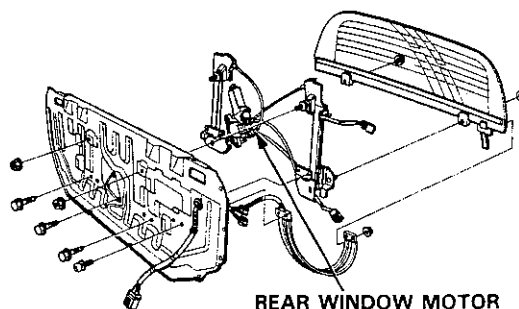
Is it normal?

NO

• Repair open or short in the wire harness.

YES

Check for loose roof control unit connectors. If necessary, substitute a known-good roof control unit and recheck.



REAR WINDOW MOTOR

Power Roof

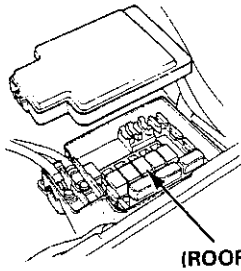
Troubleshooting Flowchart (cont'd)

The Power Roof does not operate (Problem code 0)

● POWER SOURCE AND GROUND TEST

Turn the ignition switch OFF.

Check the (ROOF) (30 A) fuse in the under-hood fuse/relay box

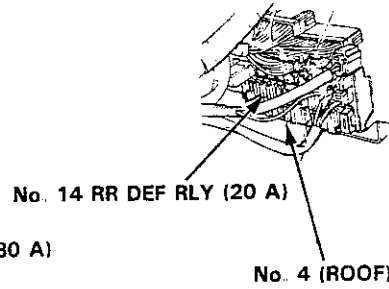


Is it normal?

NO
Replace the (ROOF) (30 A) fuse and recheck.

YES

Check the No. 4 (20 A) fuse and No. 14 (20 A) fuse in the under-dash fuse/relay box

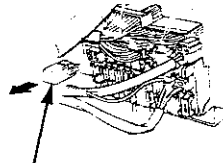


Is it normal?

NO
• Replace the No. 14 (20 A) fuse and recheck.
• Replace the No. 4 (20 A) fuse and recheck.

YES

Remove the power window relay



Check the power window relay (see page 20-233)

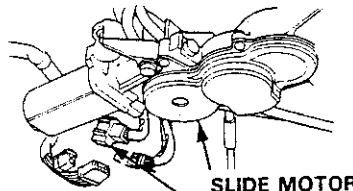
POWER WINDOW RELAY

Is it normal?

NO
Replace the power window relay and recheck.

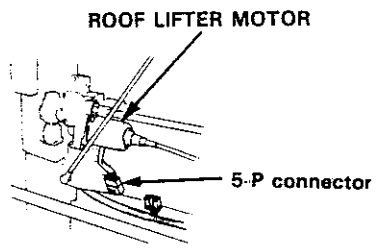
YES

Disconnect the 5-P connector from the roof lifter motor and the 2-P connector from the slide motor



SLIDE MOTOR

2-P connector

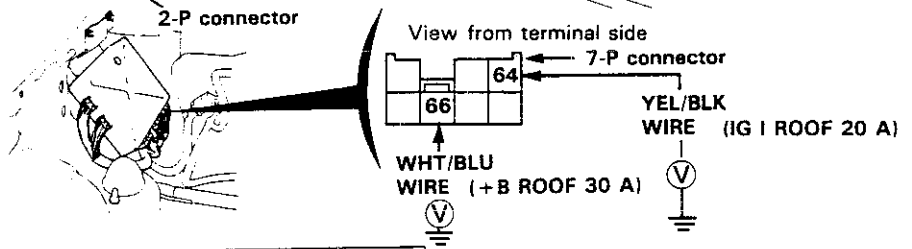


ROOF LIFTER MOTOR

5-P connector

Turn the ignition switch ON

Measure the voltage between the No. 64 and 66 terminal for the roof control unit and body ground



Is there battery voltage?

NO
Repair open the YEL/BLK wire between the roof control unit and under-dash fuse/relay box.

YES

Repair open in the WHT/BLU wire between the roof control unit and under-hood fuse/relay box.

(To page 20-197)



(From page 20-196)

Turn the ignition switch OFF

Check for continuity between the No 60 and 68 terminal and body ground.

Is there continuity?

NO

Repair open in the BLK wire to the body ground.

YES

● ROOF SWITCH TEST

Turn the ignition switch OFF

Disconnect the 3-P connector from the roof switch.

Turn the ignition switch ON

Measure the voltage between the No 1 terminal for the roof switch and body ground

Is there battery voltage?

NO

Repair open the YEL wire between the roof switch and under-dash fuse/relay box

YES

Turn the ignition switch OFF

Remove the roof switch

Check the roof switch (see page 20-234)

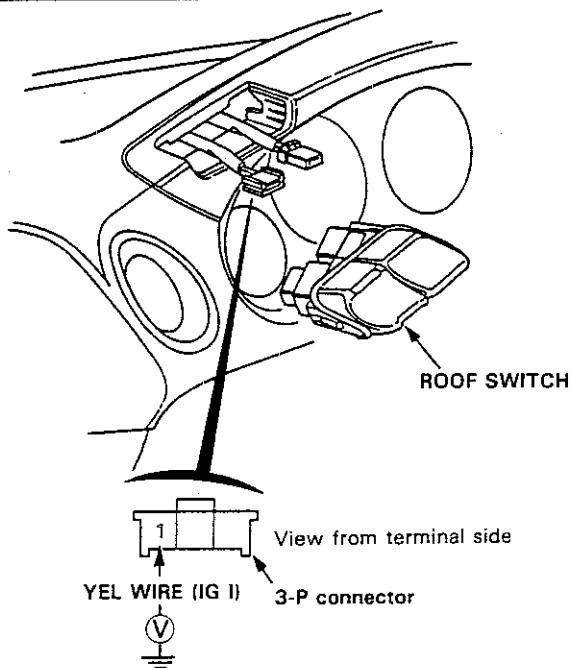
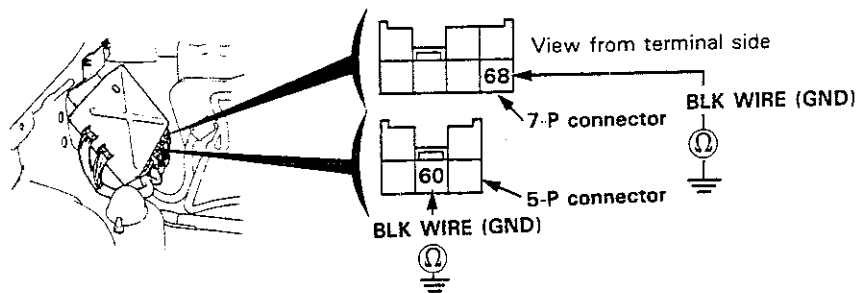
Is it normal?

NO

Replace the roof switch and recheck.

YES

(To page 20-198)



(cont d)

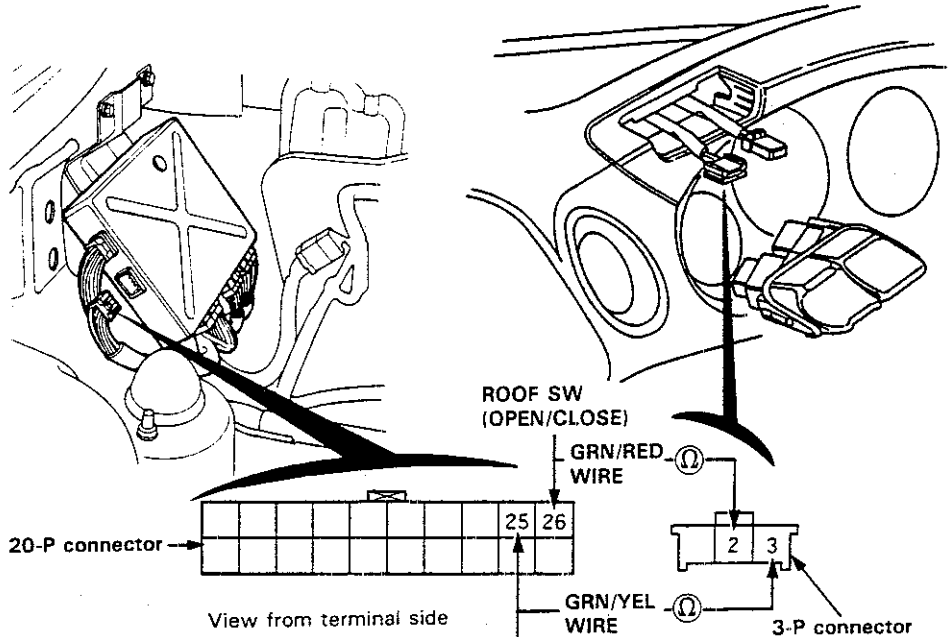
Power roof

Troubleshooting Flowchart (cont'd)

(From page 20-197)

Disconnect the 20-P connector from the roof control unit.

Check for continuity between;
 • 20-P connector and 3-P connector.
 -- No 25 (GRN/YEL) and No. 3 terminals
 -- No 26 (GRN/RED) and No. 2 terminals



Is there continuity?

NO

Repair open in the GRN/YEL and GRN/RED wire between the roof control unit and roof switch.

ROOF SW (REVERS)

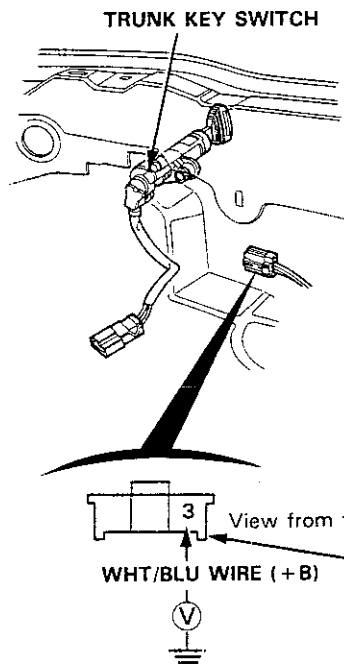
YES

● TRUNK KEY SWITCH TEST

Disconnect the 3-P connector from the Trunk key switch

Turn the ignition switch ON

Measure the voltage between the No. 3 terminal for the Trunk key switch and body ground



Is there battery voltage?

NO

Repair open in the WHT/BLU wire between the Trunk key switch and under-hood fuse/relay box.

YES

(To page 20-199)

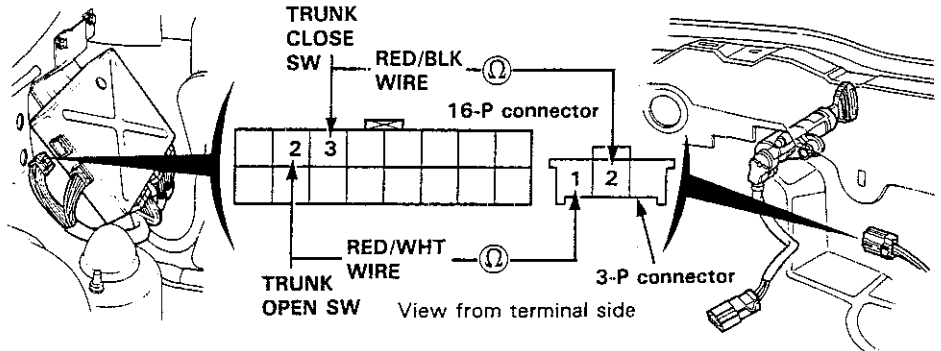


(From page 20-198)

Turn the ignition switch OFF

Disconnect the 16-P connector from the roof control unit

Check for continuity between;
• 16-P connector and 3-P connector.
- No 2 (RED/WHT) and No 1 terminals.
- No 3 (RED/BLK) and No 2 terminals.



Is there continuity?

NO

Repair open in the RED/BLK and RED/WHT wire between the roof control unit and Trunk key switch

YES

Remove the Trunk key switch.

Check the Trunk key switch.
(see page 20-228)

Is it normal?

NO

Replace the Trunk key switch and recheck.

YES

Check for loose roof control unit connectors. If necessary, substitute a known-good roof control unit and recheck

Power Roof

Troubleshooting Flowchart (cont'd)

Problem code 1 :

● LIFTER SWITCH TEST

Turn the ignition switch OFF

Check the (ROOF) (30 A) fuse in the under-hood fuse/relay box.

Is it normal?

NO
Replace the (ROOF) (30 A) fuse and recheck.

YES

Disconnect the 5-P connector from the roof lifter motor and the 2-P connector from the slide motor.

Disconnect the 5-P connector from the lifter switch

Turn the ignition switch ON.

Measure the voltage between the No. 2, 3 and 4 terminal for the lifter switch and body ground

Is there approximately 10 V?

NO
Turn the ignition switch OFF.

YES

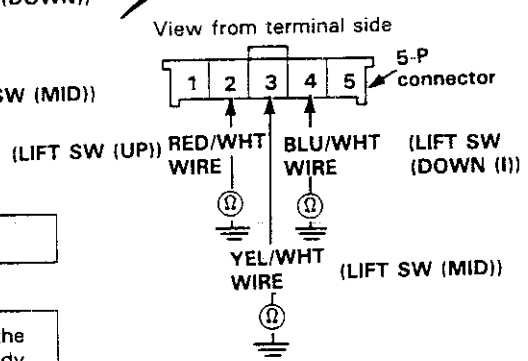
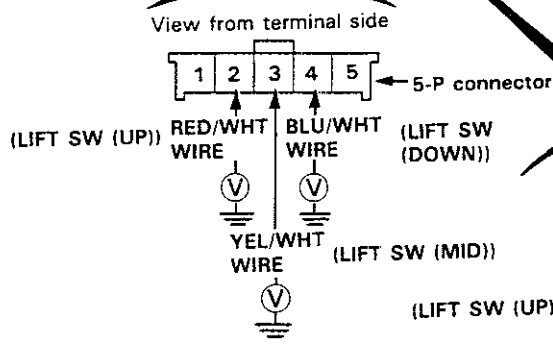
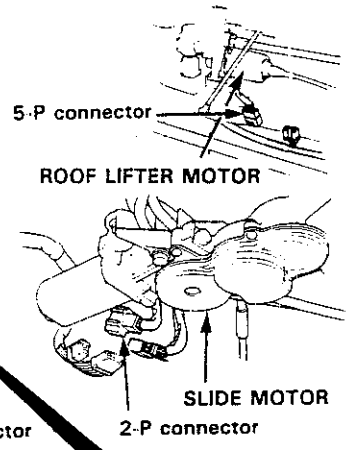
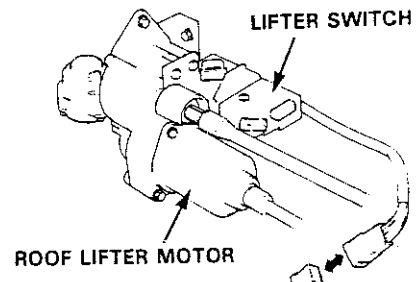
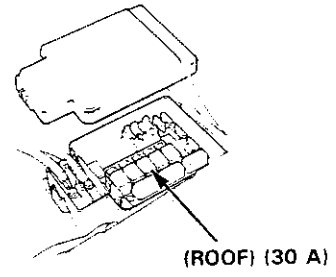
Check for continuity between the No. 2, 3 and 4 terminal and body ground

Is there continuity?

YES
Repair short in the RED/WHT, YEL/WHT and BLU/WHT wire to the body ground.

(To page 20-201)

(To page 20-201)





(From page 20-200)

(From page 20-200)

Turn the ignition switch ON.

Measure the voltage between the No. 7, No. 20 and No. 24 terminal for the roof control unit and body ground.

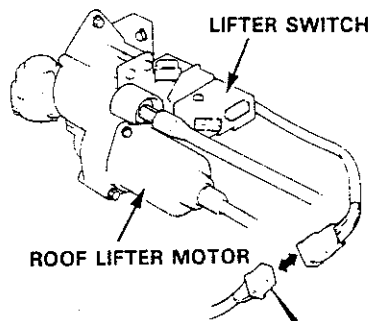
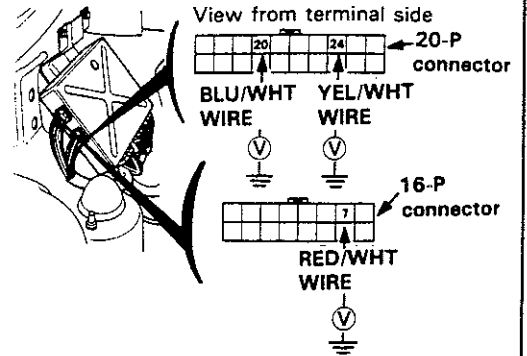
Is there approximately 10 V?

YES

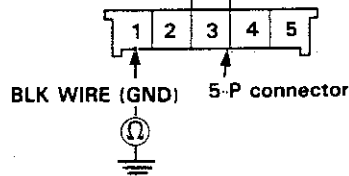
Repair open in the RED/WHT, YEL/WHT and BLU/WHT wire between the roof control unit and lifter switch

NO

Check for loose roof control unit connectors. If necessary, substitute a known-good roof control unit and recheck.



View from terminal side



Turn the ignition switch OFF

Check for continuity between the No. 1 terminal for the lifter switch and body ground.

Is there continuity?

NO

- Repair open in the BLK wire between the roof control unit and body ground.
- Poor the ground (G552).

YES

Remove the lifter switch.

Check the lifter switch (see page 20-227)

Is it normal?

NO

Replace the lifter switch and recheck.

YES

(To page 20-202)

(cont'd)

Power Roof

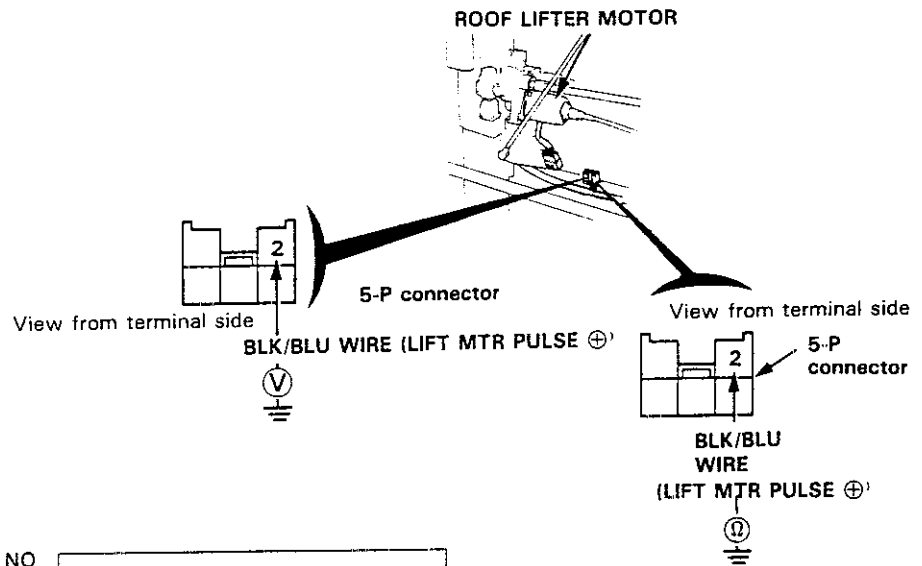
Troubleshooting Flowchart (cont'd)

(From page 20-201)

● ROOF LIFTER MOTOR TEST

Turn the ignition switch ON.

Measure the voltage between the No. 2 terminal for the roof lifter motor and body ground.



Is there approximately 10 V?

NO

Turn the ignition switch OFF

Check for continuity between the No. 2 terminal and body ground.

Is there continuity?

NO

Repair short in the BLK/BLU wire to the body ground

YES

Turn the ignition switch ON

Measure the voltage between the No. 53 terminal for the roof control unit and body ground

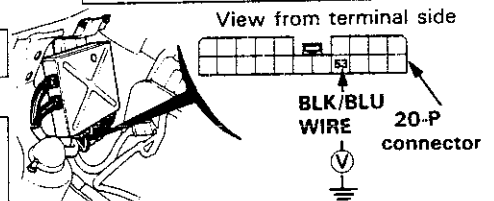
Is there approximately 10 V?

YES

Repair open in the BLK/BLU wire between the roof control unit and body ground.

NO

Check for loose roof control unit connectors. If necessary substitute a known-good roof control unit and recheck.



(To page 20-203)



(From page 20-202)

Turn the ignition switch OFF.

Check for continuity between the No. 5 terminals for the roof lifter motor and body ground.



Is there continuity?

NO

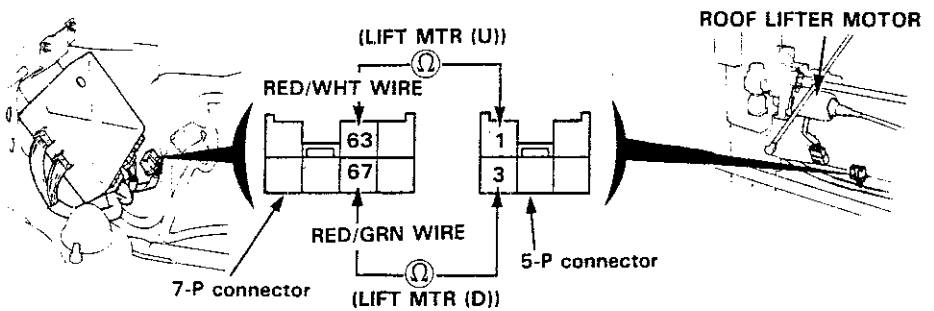
- Repair open in the BLK/RED wire between the roof control unit and body ground.
- Poor the ground

YES

Disconnect the 7-P connector from the roof control unit.

Check for continuity between;

- 7-P connector and 5-P connector.
- No 63 (RED/WHT) and No 1 terminals
- No 67 (RED/GRN) and No 3 terminals



Is there continuity?

NO

- Repair open in the RED/WHT and RED/GRN wire between the roof control unit and roof lifter motor

YES

Remove the roof lifter motor.

Check the roof lifter motor (see page 20-235).

Is it normal?

NO

- Replace the roof lifter motor and recheck

YES

Check the roof lifter (see page 20-132).

Is it normal?

NO

- The device Lead screws is not bent.
- The bearing box assembly is adjusted properly

YES

Check for loose roof control unit connectors. If necessary, substitute a known-good roof control unit and recheck

(cont'd)

Power Roof

Troubleshooting Flowchart (cont'd)

Problem code 2 :

● SLIDE SWITCH TEST

Turn the ignition switch OFF.

Check the No. 4 (20 A) fuse and No. 14 (20 A) fuse in the underdash fuse/relay box.

Is it normal?

NO

- Replace the No. 14 (20 A) fuse and recheck.
- Replace the No. 4 (20 A) fuse and recheck.

YES

Remove the power window relay

Check the power window relay (see page 20-233).

Is it normal?

NO

Replace the power window relay and recheck

YES

Disconnect the 5-P connector from the roof lifter motor and the 2-P connector from the slide motor.

Disconnect the 6-P connector from the slide motor

Turn the ignition switch ON

Measure the voltage between the No. 1, 2 and 5 terminals for the slide motor and body ground

Is there approximately 10 V?

NO

Turn the ignition switch OFF

Check for continuity between the No. 1, 2 and 5 terminals and body ground

YES

(To page 20-205)

(To page 20-205)

No. 14 RR DEF RLY (20 A)

No. 4 (ROOF) (20 A)

POWER WINDOW RELAY

ROOF LIFTER MOTOR

SLIDE MOTOR

6-P connector

View from terminal side

1
PNK WIRE (SLIDE SW (RR))

2
YEL WIRE (SLIDE SW (FR))

5
GRY WIRE (SLIDE MTR PLUSE⊕)

View from terminal side

1
PNK WIRE (SLIDE SW (RR))

2
YEL WIRE (SLIDE SW (FR))

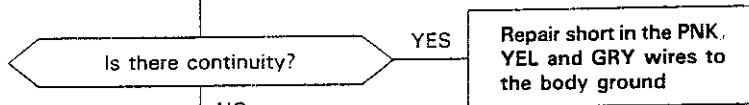
5
GRY WIRE (SLIDE MTR PLUSE⊕)

6-P connector



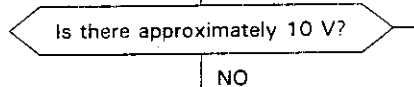
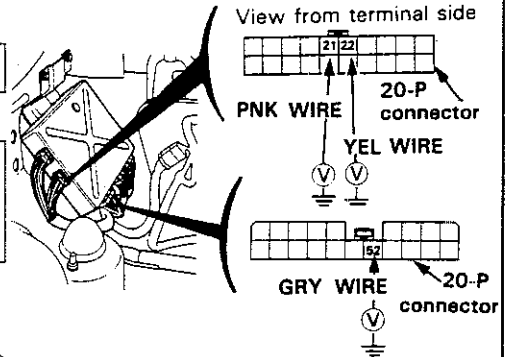
(From page 20-204)

(From page 20-204)



Turn the ignition switch ON.

Measure the voltage between the No. 21, 22 and 52 terminals for the roof control unit and body ground

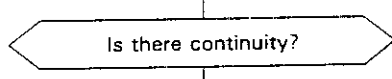
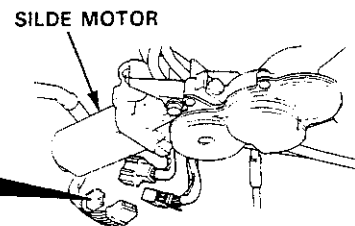
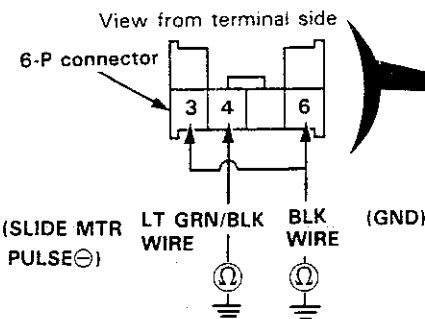


Check for loose roof control unit connectors. If necessary, substitute a known-good roof control unit and recheck

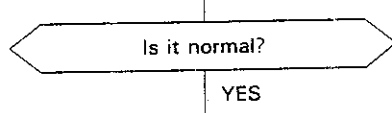
YES → Repair open in the PNK, YEL and GRY wires between the roof control unit and slide motor

Turn the ignition switch OFF

Check for continuity between the No. 3, 4 and 6 terminals for the roof control unit and body ground



Check the slide switch (see page 20-236)



(To page 20-206)

(cont'd)

Power Roof

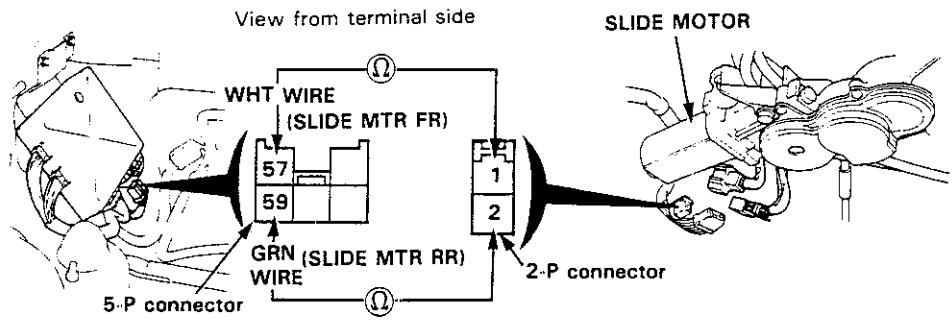
Troubleshooting Flowchart (cont'd)

(To page 20-205)

● SLIDE MOTOR TEST

Disconnect the 5-P connector from the roof control unit.

Check for continuity between;
 • 5-P connector and 2-P connector
 —No. 57 (WHT) and No. 1 terminals
 —No. 59 (GRN) and No. 2 terminals.



Is there continuity?

NO

Repair open in the WHT and GRN wires between the roof control unit and slide motor

YES

Check the slide motor (see page 20-237)

Is it normal?

NO

Replace the slide motor and recheck

YES

Check the roof slider. (see page 20-113, 114)

Is it normal?

NO

- The roof pilot and drive unit are located properly.
- The moving surfaces are cleaned and grease is applied.

YES

Check for loose roof control unit connectors. If necessary, substitute a known-good roof control unit and recheck.



Problem code 3 :

● POWER SOURCE AND GROUND TEST

Turn the ignition switch OFF

Check the (ROOF) (30 A) fuse in the under-hood fuse/relay box.

Is it normal?

NO
Replace the (ROOF) (30 A) fuse and recheck.

YES

Check the No. 4 (20 A) fuse and No. 14 (20 A) in the under-dash fuse/relay box.

Is it normal?

NO
• Replace the No. 14 (20 A) fuse and recheck.
• Replace the No. 4 (20 A) fuse and recheck.

YES

Remove the power window relay.

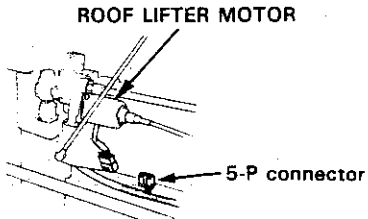
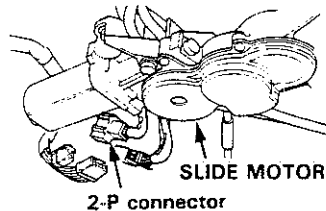
Check the power window relay (see page 20-233)

Is it normal?

NO
Replace the power window relay and recheck.

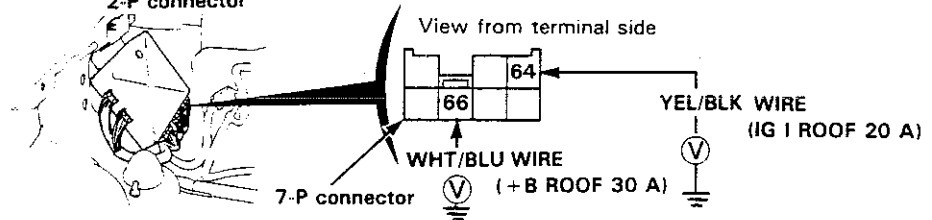
YES

Disconnect the 5-P connector from the roof lifter motor and the 2-P connector from the slide motor.



Turn the ignition switch ON

Measure the voltage between the No. 64 and 66 terminals for the roof control unit and body ground.



Is there battery voltage?

NO
Repair open the YEL/BLK wire between the roof control unit and under-dash fuse/relay box.

YES

Repair open in the WHT/BLU wire between the roof control unit and under-hood fuse/relay box.

(To page 20-208)

(cont'd)

Power Roof

Troubleshooting Flow Chart (cont'd)

(From page 20-207)

Turn the ignition switch OFF.

Check for continuity between the No 60 and 68 terminals and body ground.

Is there continuity?

NO

Repair open in the BLk wire to the body ground

YES

• TILTER SWITCH TEST

Disconnect the 6-P connector from the roof tilter unit.

Turn the ignition switch ON

Measure the voltage between the No 3, 4 and 5 terminals for the roof tilter unit and body ground

Is there approximately 10 V?

NO

Turn the ignition switch OFF.

Check for continuity between the No. 3, 4 and 5 terminals and body ground.

Is there continuity?

YES

Repair short in the RED/BLU, RED/GRN and RED/BLK wires to the body ground

NO

Turn the ignition switch ON

Measure the voltage between the No 13, 17 and 18 terminals for the roof control unit and body ground.

Is there approximately 10 V?

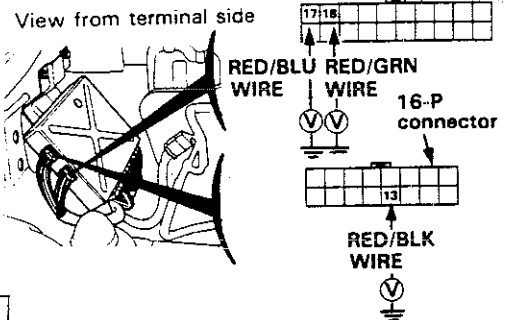
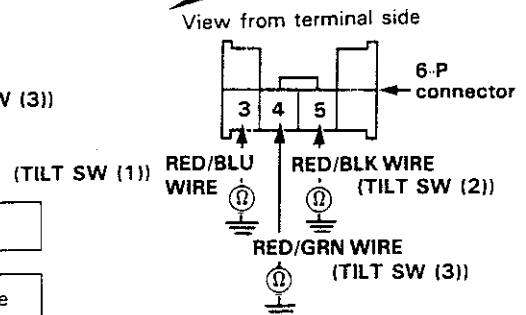
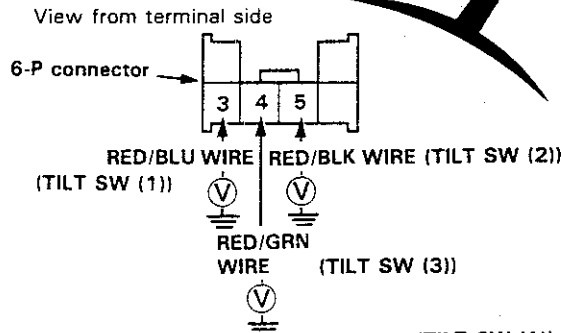
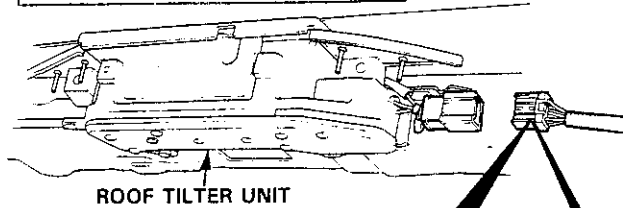
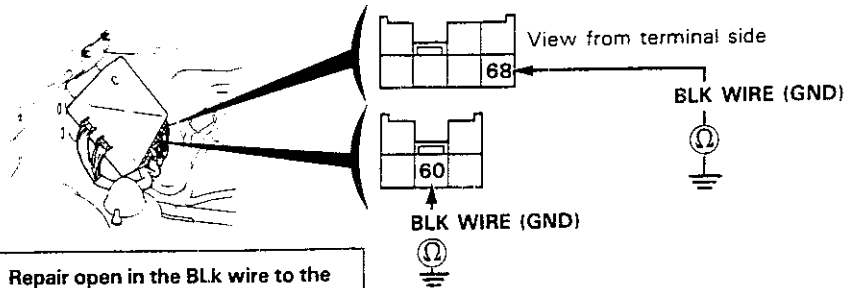
NO

Check for loose roof control unit connectors. If necessary substitute a known-good roof control unit and recheck.

YES

Repair open in the RED/BLU, RED/GRN and RED/BLK wires between the roof control unit and tilter unit

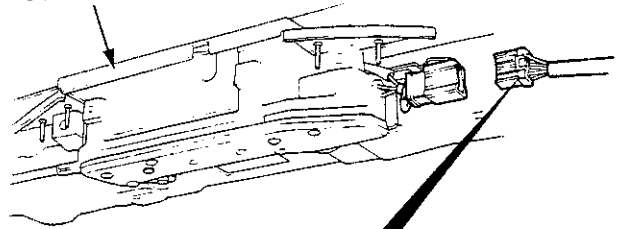
(To page 20-209)



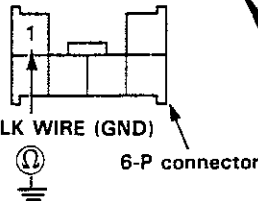


(From page 20-208)

ROOF TILTER UNIT



View from terminal side



Turn the ignition switch OFF

Check for continuity between the No. 1 terminal for the roof tilter unit and body ground

Is there continuity?

NO

- Repair open in the BLK wire between the Roof tilter unit and body ground.
- Poor the ground (G 552).

YES

Check the tilter switch (see page 20-238)

Is it normal?

NO

Replace the tilter switch and recheck.

YES

● ROOF TILTER MOTOR TEST

Disconnect the 5-P connector from the roof tilter motor

Turn the ignition switch ON.

Measure the voltage between the No. 2 terminal for the roof tilter motor and body ground

Is there approximately 10 V?

NO

Turn the ignition switch OFF.

Check for continuity between the No. 2 terminal and body ground

Is there continuity?

YES

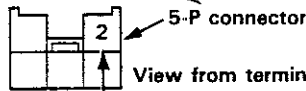
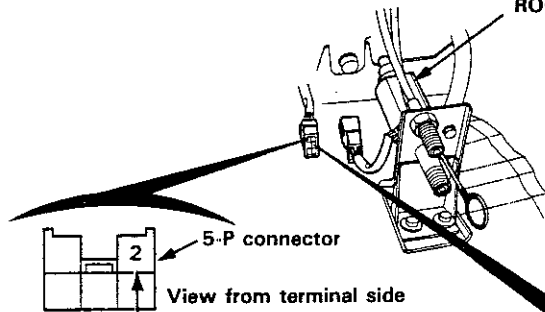
Repair short in the LT GRN wire to the body ground.

NO

(To page 20-210)

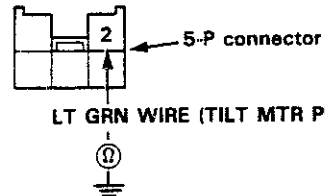
(To page 20-210)

ROOF TILTER MOTOR



LT GRN WIRE (TILT MTR PULIS ⊕)

View from terminal side



LT GRN WIRE (TILT MTR PULIS ⊕)

(cont'd)

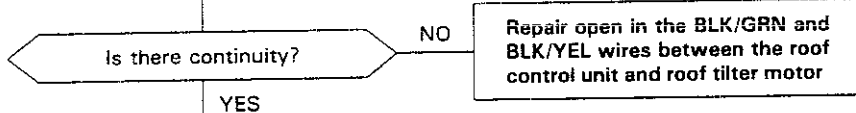
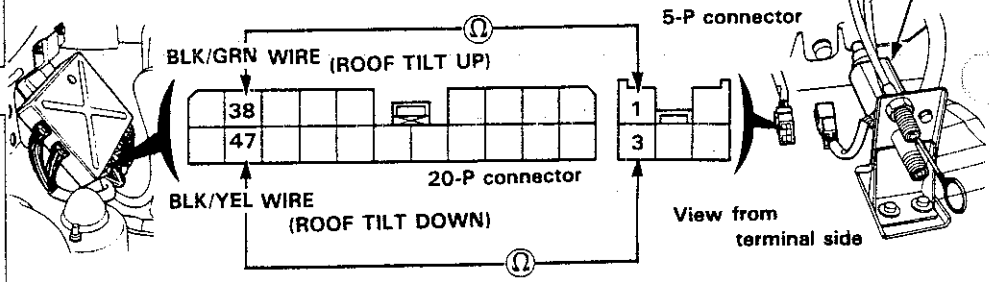
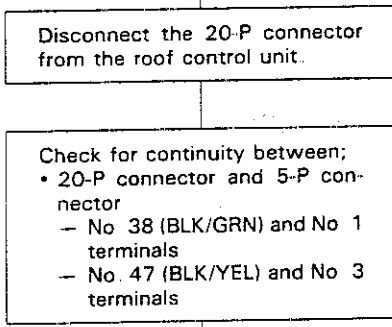
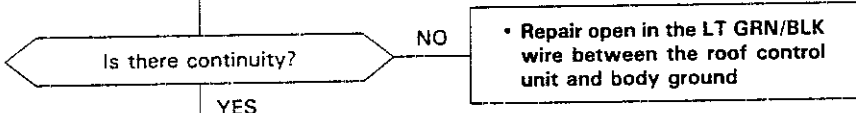
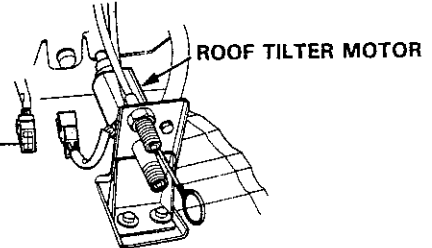
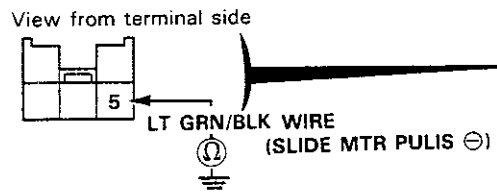
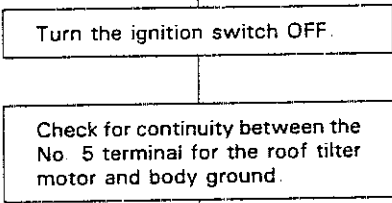
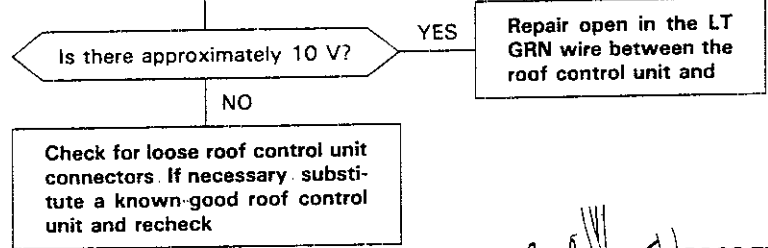
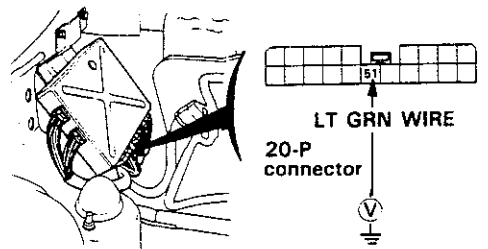
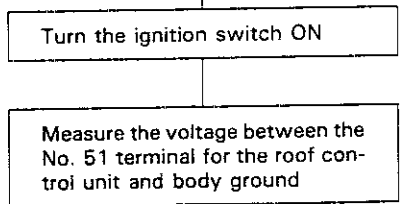
Power Roof

Troubleshooting Flow Chart (cont'd)

(From page 20-209)

(From page 20-209)

View from terminal side





(From page 20-210)

Remove the roof tilter motor.

Check the roof tilter motor (see page 20-239).

Is it normal?

NO

Replace the roof tilter motor and recheck.

YES

Remove the roof tilter cable.

Check the roof tilter cable

Is it normal?

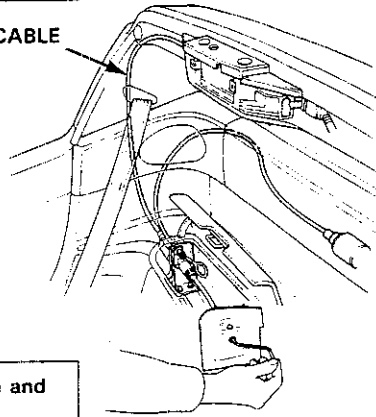
NO

Replace the roof tilter cable and recheck.

YES

Check for loose roof control unit connectors. If necessary, substitute a known-good roof control unit and recheck.

ROOF TILTER CABLE



(cont'd)

Power Roof

Troubleshooting Flow Chart (cont'd)

Problem code 4:

● CENTER LOCK SWITCH TEST

Turn the ignition switch OFF.

Disconnect the 5-P connector from the roof lifter motor and the 2-P connector from the slide motor

Disconnect the 6-P connector from the roof tilter unit.

Turn the ignition switch ON.

Measure the voltage between the No. 6 terminal for the roof tilter unit and body ground

Is there approximately 10 V?

YES

NO

Turn the ignition switch OFF

Check for continuity between the No. 6 terminal and body ground

Is there continuity?

YES

Repair short in the RED/YEL wire to the body ground.

NO

Turn the ignition switch ON

Measure the voltage between the No. 23 terminal for the roof control unit and body ground

Is there approximately 10 V?

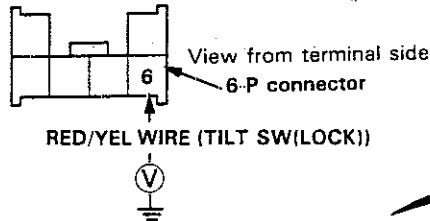
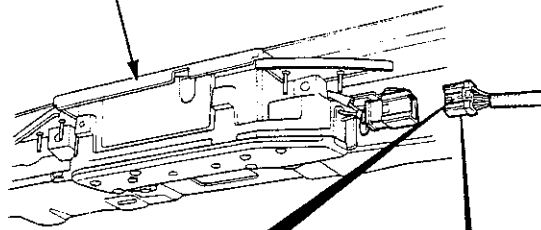
YES

Repair open in the RED/YEL wire between the roof control unit and center lock switch

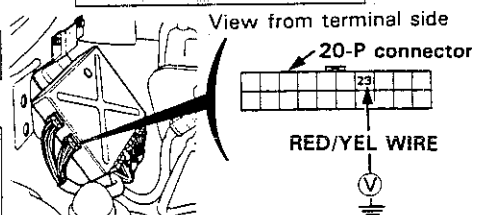
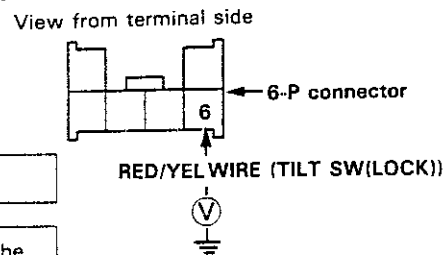
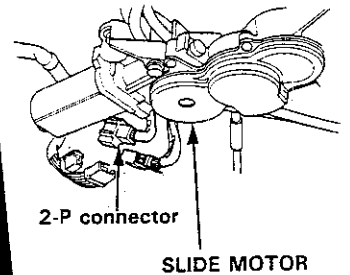
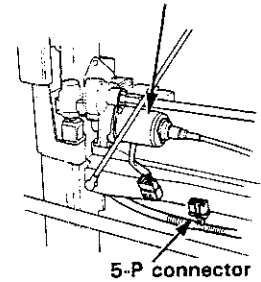
NO

Check for loose roof control unit connectors. If necessary, substitute a known-good roof control unit and recheck.

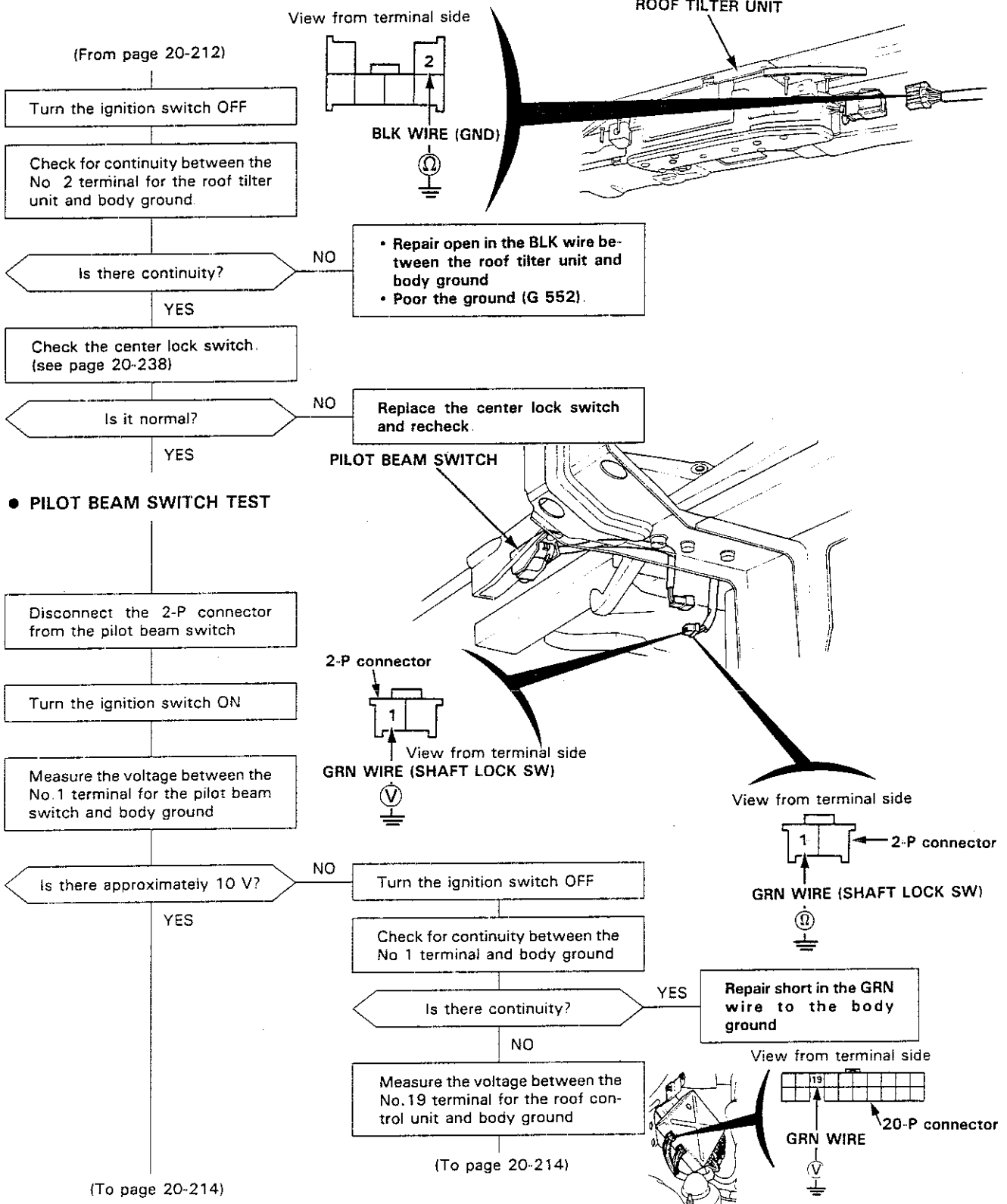
ROOF TILTER UNIT



ROOF LIFTER MOTOR



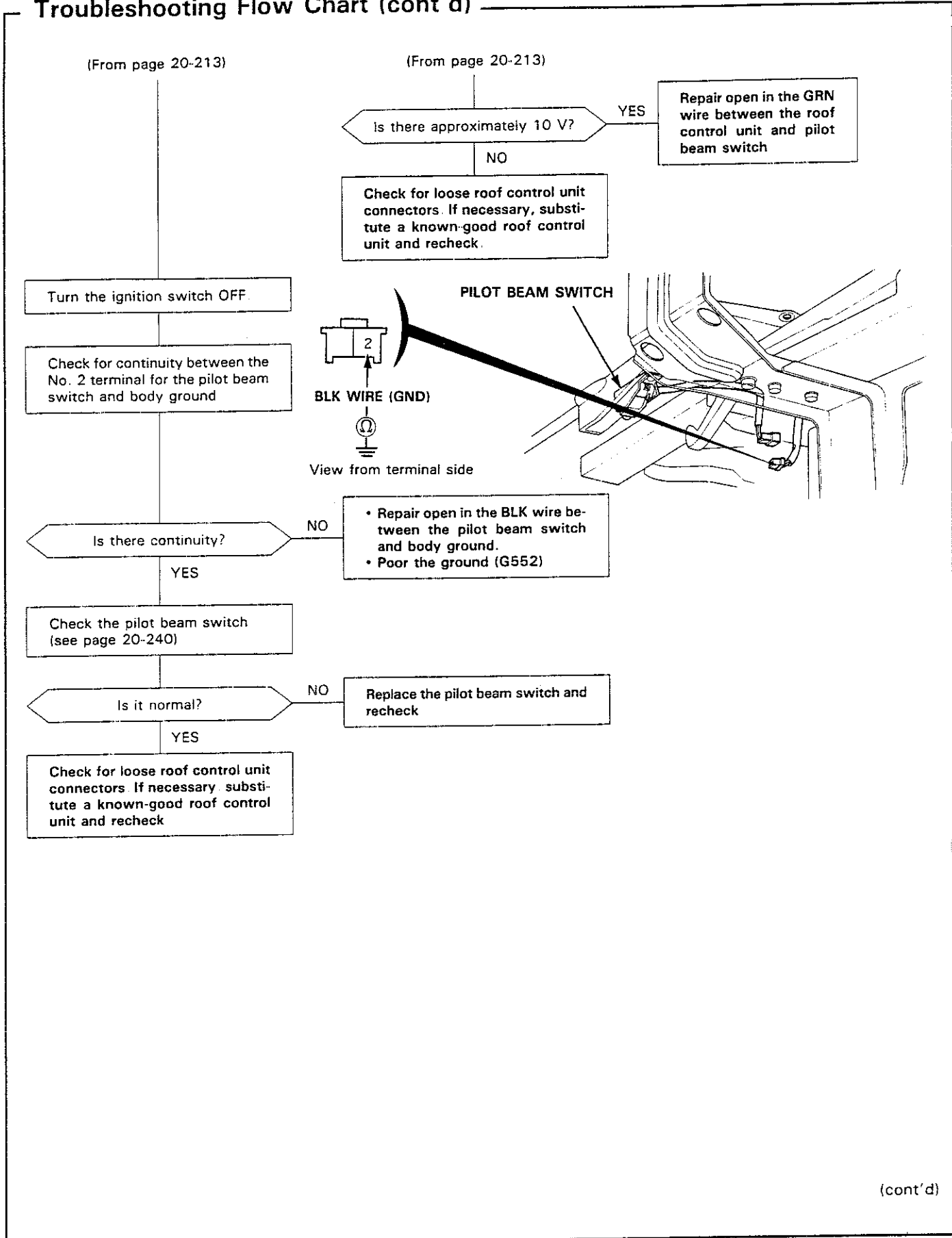
(To page 20-213)



(cont'd)

Power Roof

Troubleshooting Flow Chart (cont'd)



(cont'd)



Power Roof

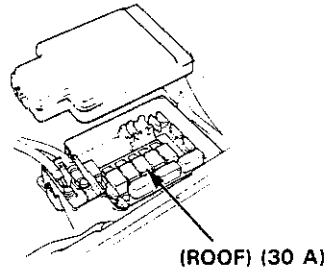
Troubleshooting Flow Chart (cont'd)

Problem code 5:

● TRUNK LOCK SWITCH TEST

Turn the ignition switch OFF

Check the (ROOF) (30 A) fuse in the under-hood fuse/relay box



Is it normal?

NO
Replace the (ROOF) (30 A) fuse and recheck.

YES

Disconnect the 5-P connector from the roof lifter motor and the 2-P connector from the slide motor

Disconnect the 5-P connector from the trunk lock.

Turn the ignition switch ON.

Measure the voltage between the No. 4 and 5 terminals for the trunk lock and body ground

Is there approximately 10 V?

NO
Turn the ignition switch OFF.

YES

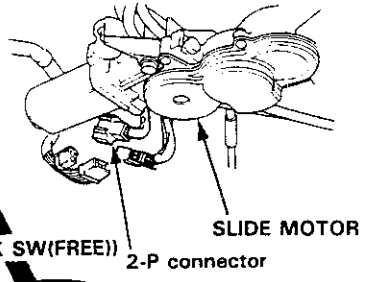
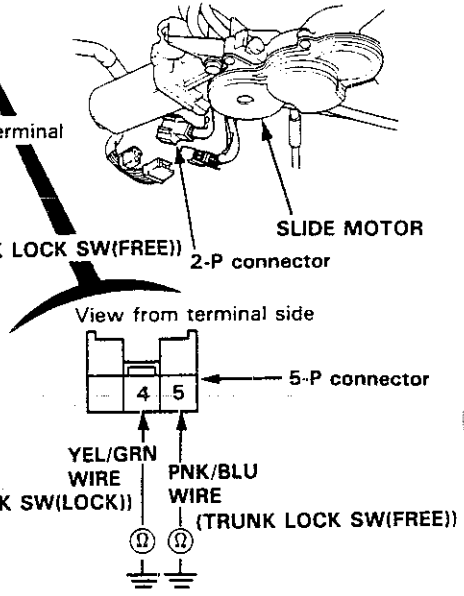
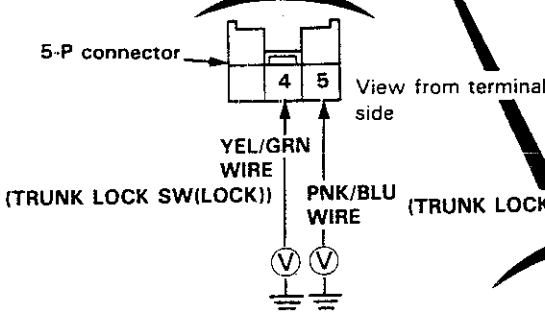
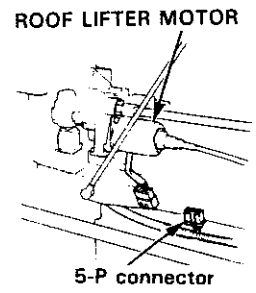
Check for continuity between the No. 4 and 5 terminals and body ground

Is there continuity?

YES
Repair short in the YEL/GRN and PNK/BLU wire to the body ground.

(To page 20-217)

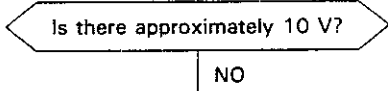
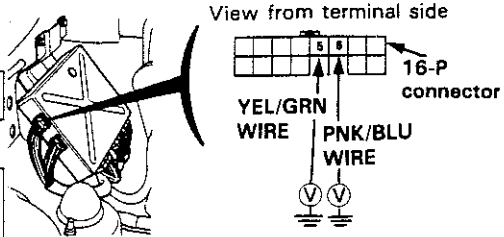
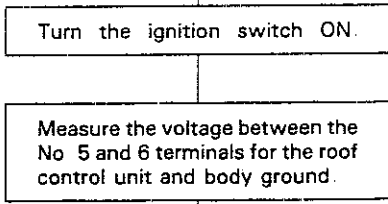
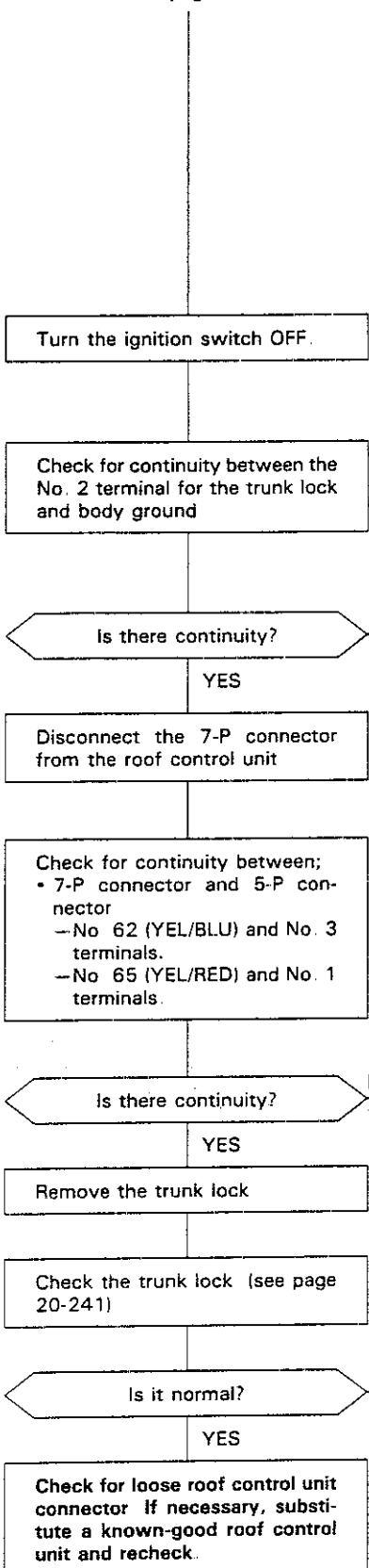
(To page 20-217)





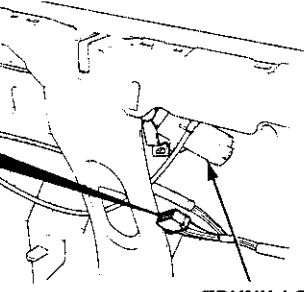
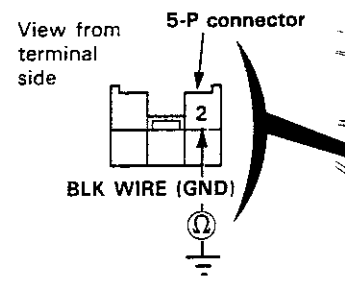
(From page 216)

(From page 20-216)

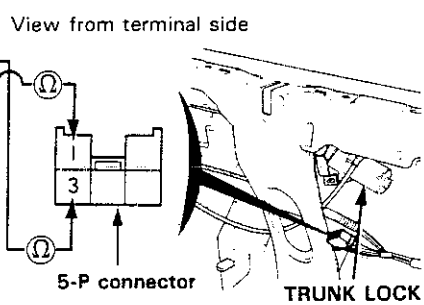
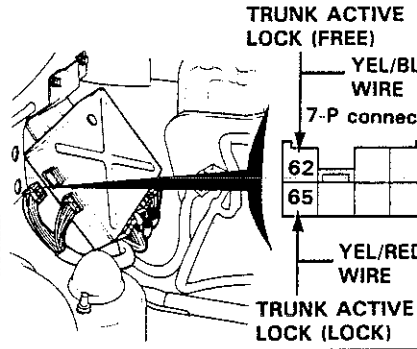


Repair open in the YEL/GRN and PNK/BLU wires between the roof control unit and trunk lock switch.

Check for loose roof control unit connectors. If necessary, substitute a known-good roof control unit and recheck.



- Repair open in the BLK wire between the trunk lock and body ground.
- Poor the ground (G552).



Repair open in the YEL/BLU and YEL/RED wires between the roof control unit and trunk lock.

Replace the trunk lock and recheck

Power Roof

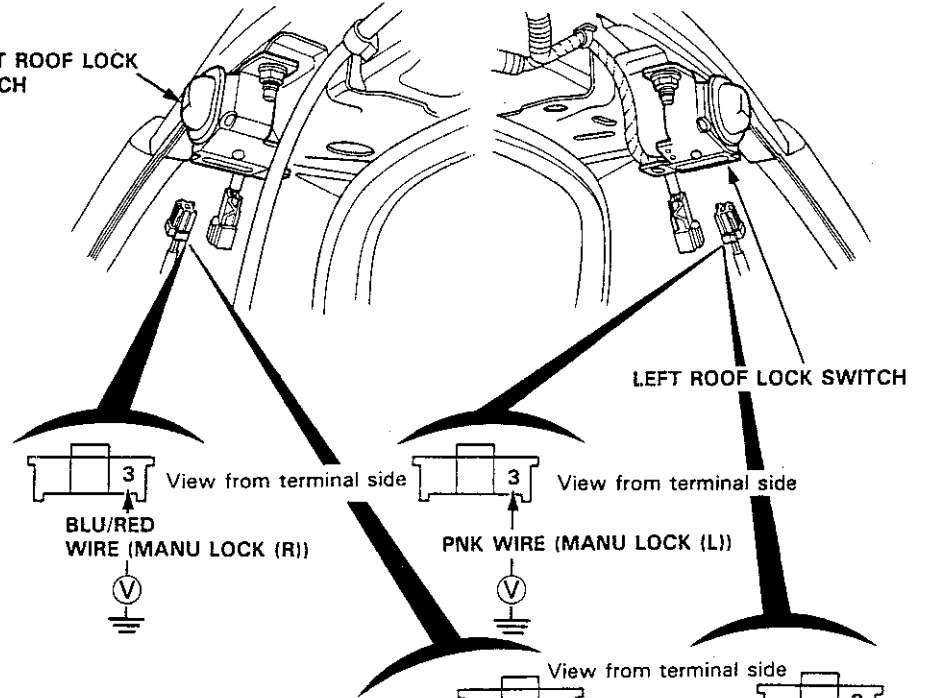
Troubleshooting Flow Chart (cont'd)

Problem code 7:

NOTE: Perform these procedures after the user reports these difficulties and the diagnosis is determined.

● ROOF LOCK SWITCH TEST

- Turn the ignition switch OFF.
- Disconnect the 3-P connector from the right roof lock switch and the 3-P connector from the left roof lock switch
- Turn the ignition switch ON.
- Measure the voltage between the No. 3 terminal for the roof lock switch and body ground



Is there approximately 10 V?

YES

NO

Turn the ignition switch OFF.

Check for continuity between the No. 3 terminal and body ground

Is there continuity?

YES

Repair short in the BLU/RED and PNK wires to the body ground.

NO

Turn the ignition switch ON

Measure the voltage between the No. 4 and 14 terminals for the roof control unit and body ground

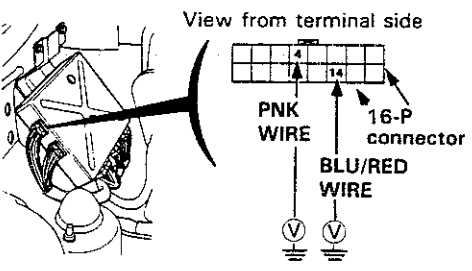
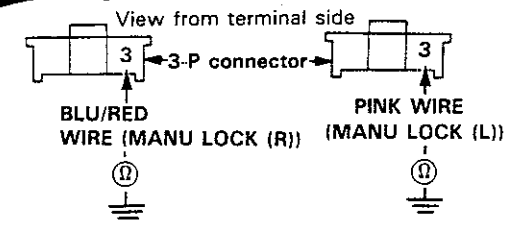
Is there approximately 10 V?

YES

Repair open in the BLU/RED and PNK wires between the roof control unit and roof lock switch.

NO

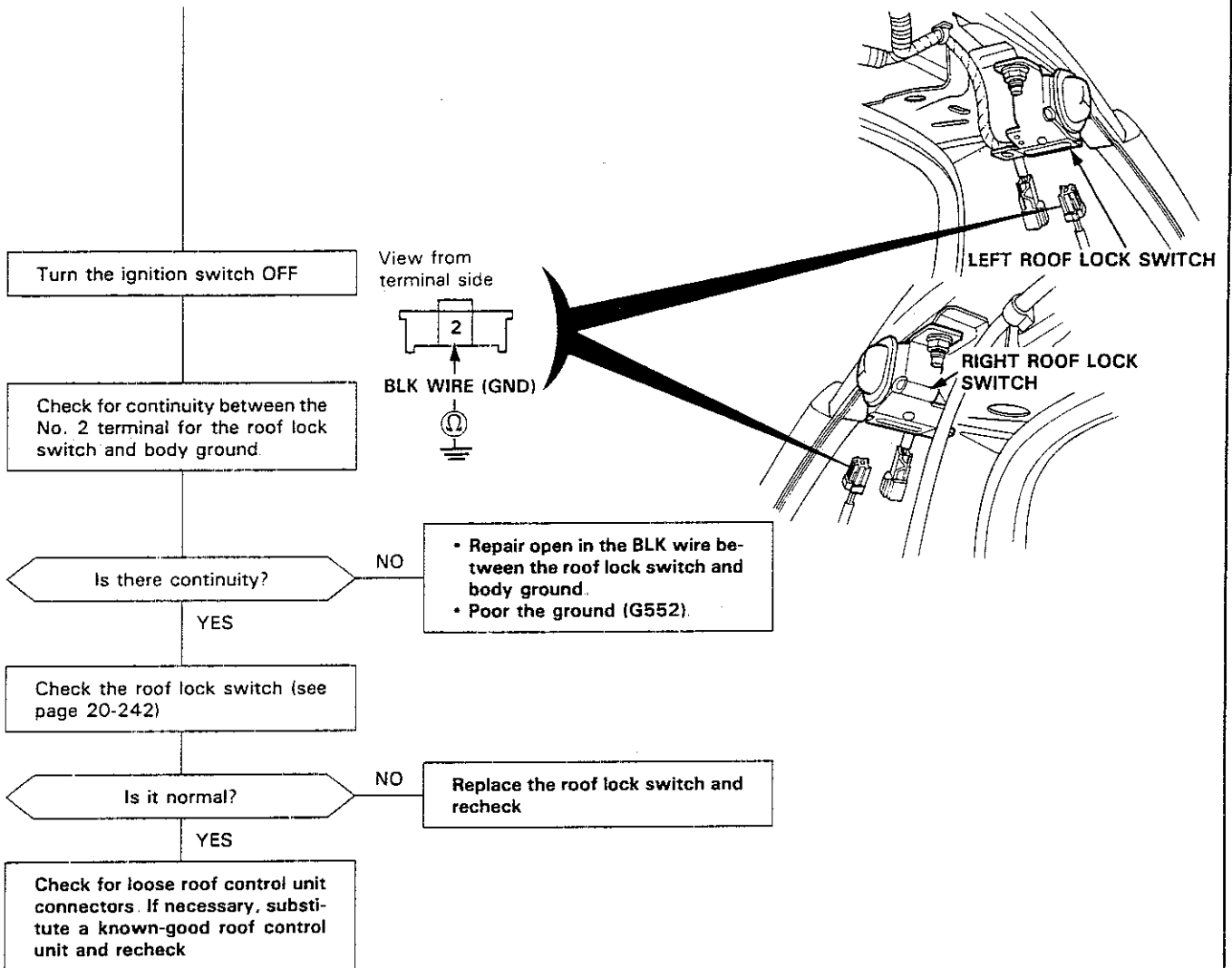
Check for loose roof control unit connectors. If necessary substitute a known-good roof control unit and recheck.



(To page 20-219)



(From page 218)



(cont'd)

Power Roof

Troubleshooting Flow Chart (cont'd)

Problem code 8:

NOTE: perform these procedures after the user reports these difficulties and the diagnosis is determined.

● PARKING BRAKE SWITCH TEST

Turn the ignition switch ON.

Pull up the parking brake lever (switch ON).

Is the BRAKE system light on?

NO

Release the parking brake lever (switch OFF) and turn the ignition switch OFF.

Disconnect the 1-P connector from the parking brake switch.

Turn the ignition switch ON.

Measure the voltage between the No 1 terminal for the parking brake switch and body ground.

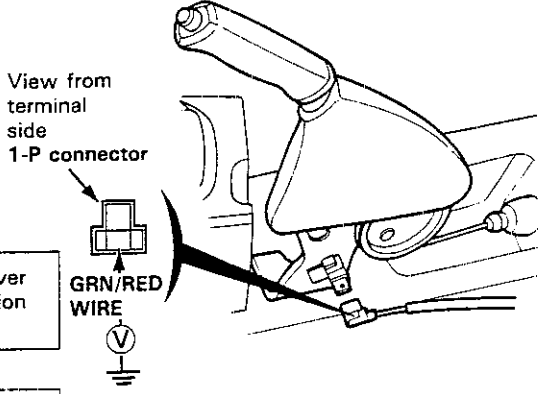
Is there battery voltage?

NO

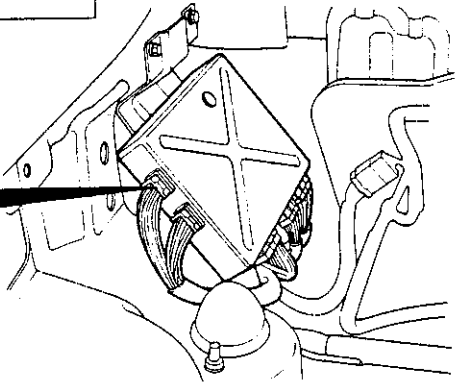
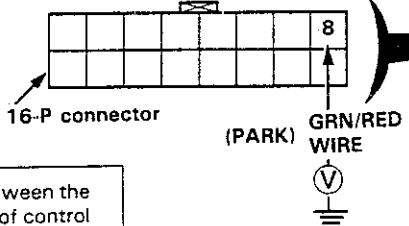
- Replace the BRAKE system bulb.
- Repair open in the GRN/RED wire between the gauge assembly and parking brake switch

YES

Replace the parking brake switch and recheck.



View from terminal side



Measure the voltage between the No 8 terminal for the roof control unit and body ground.

Is there approximately 10 V?

YES

Repair open in the GRN/RED wire between the parking brake switch and roof control unit.

NO

Check for loose roof control unit connector. If necessary, substitute a known-good roof control unit and recheck.

(cont'd)



Power Roof

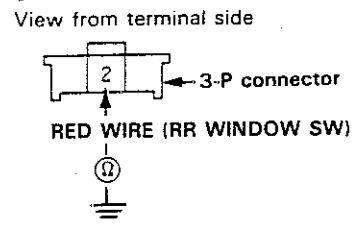
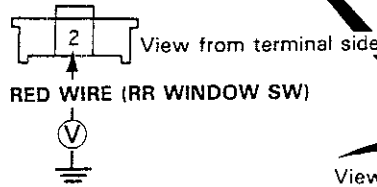
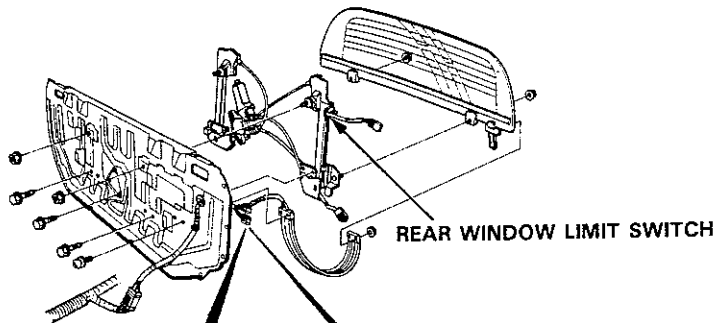
Troubleshooting Flow Chart (cont'd)

Problem code 9:

NOTE: Perform these procedures after the user reports these difficulties and the diagnosis is determined.

● REAR WINDOW SWITCH TEST

- Turn the ignition switch OFF
- Disconnect the 3-P connector from the rear window switch.
- Turn the ignition switch ON
- Measure the voltage between the No. 2 terminal for the rear window limit switch and body ground



Is there approximately 10 V?

YES

Turn the ignition switch OFF

Check for continuity between the No. 2 terminal and body ground.

Is there continuity?

Repair short in the RED wire to the body ground.

NO

Turn the ignition switch ON

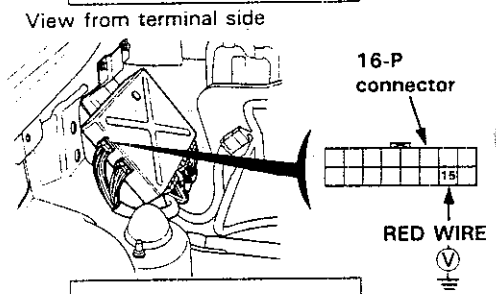
Measure the voltage between the No. 15 terminal for the roof control unit and body ground

Is there approximately 10 V?

Repair open in the RED wire between the roof control unit and rear window limit switch.

NO

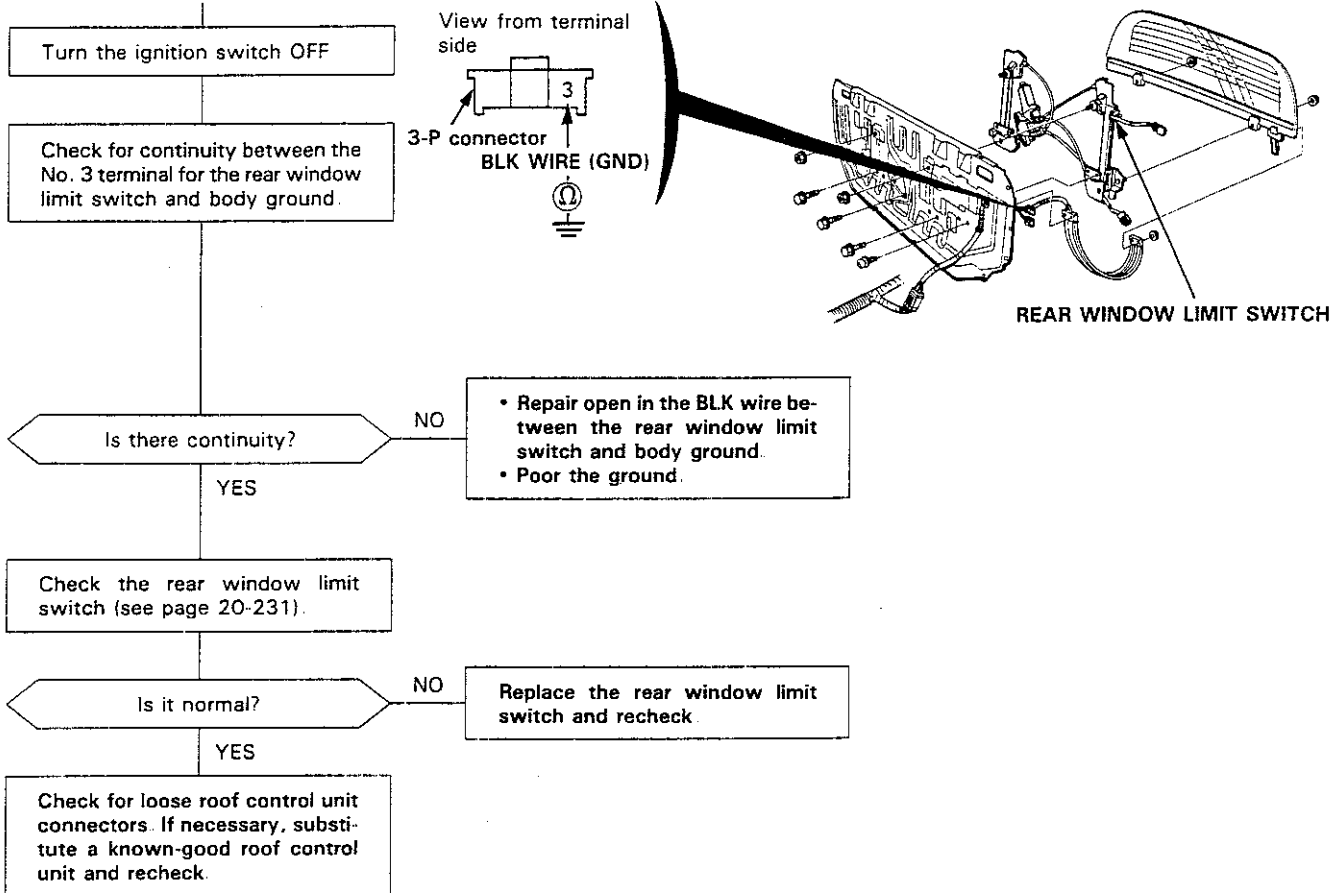
Check for loose roof control unit connectors. If necessary, substitute a known-good roof control unit and recheck



(To page 20-223)



(From page 20-222)



(cont'd)

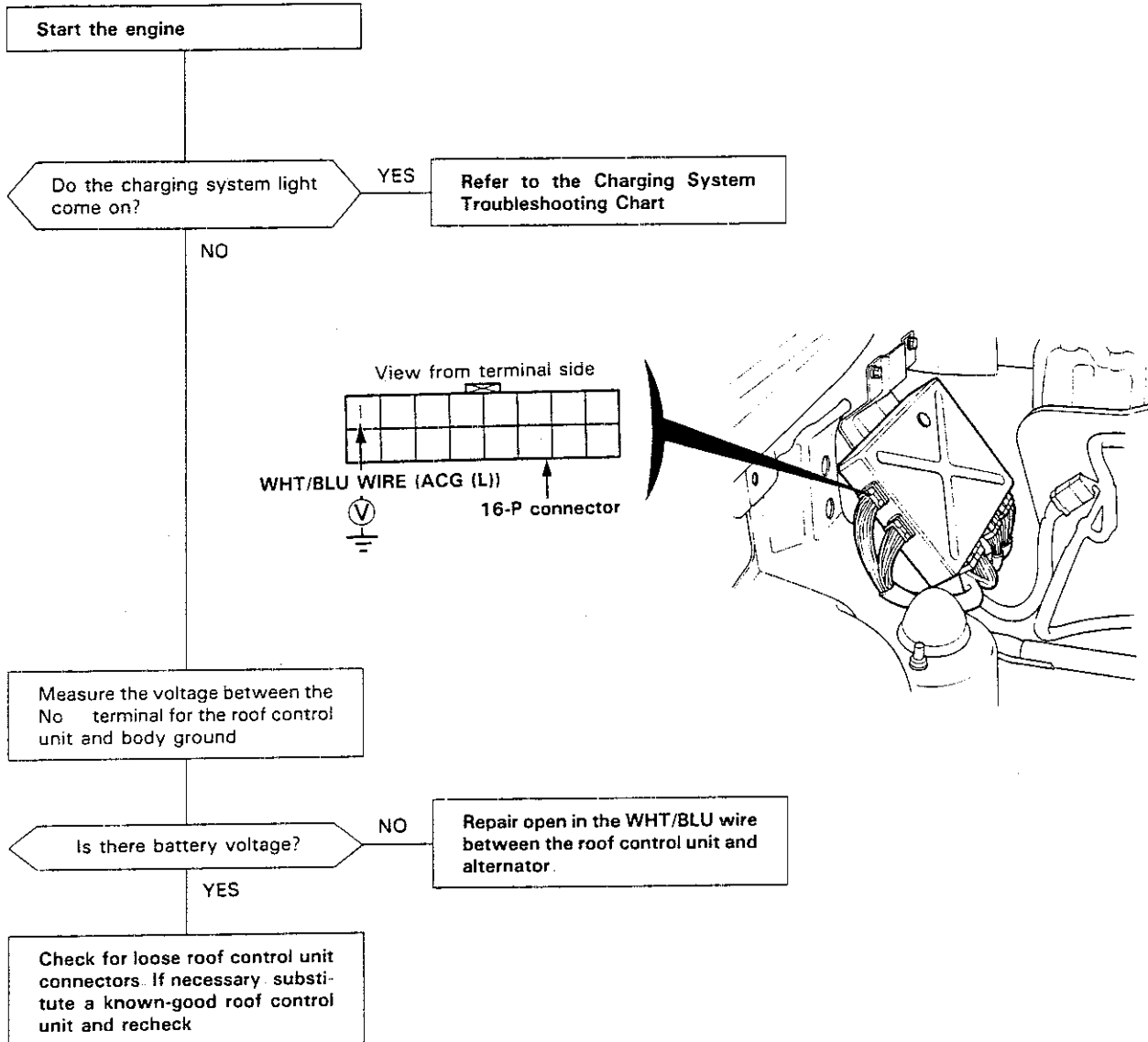
Power Roof

Troubleshooting Flow Chart (cont'd)

Problem code 10:

NOTE: Perform these procedures after the user reports these difficulties and the diagnosis is determined.

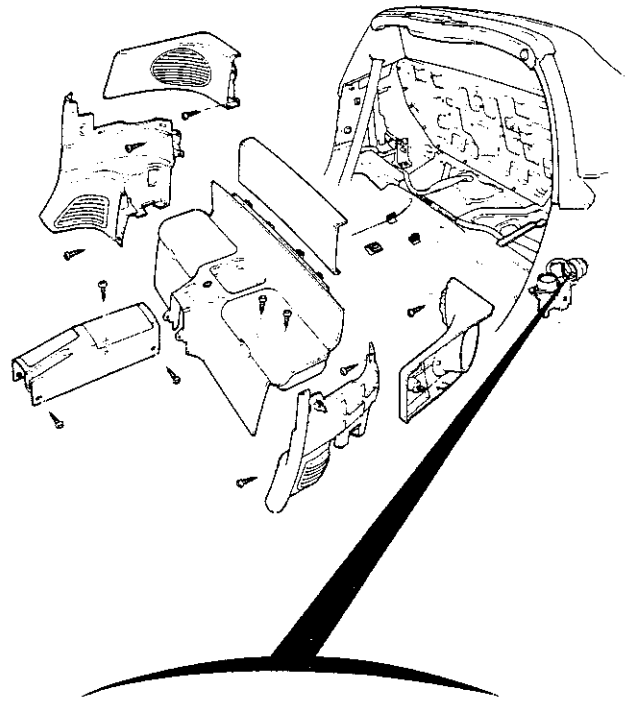
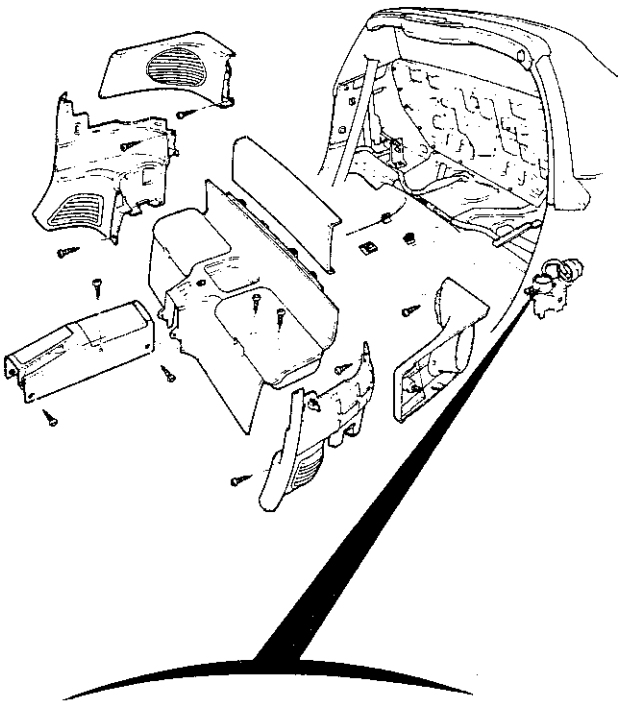
● ALTERNATOR TEST



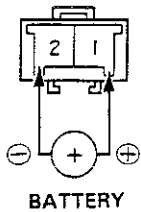
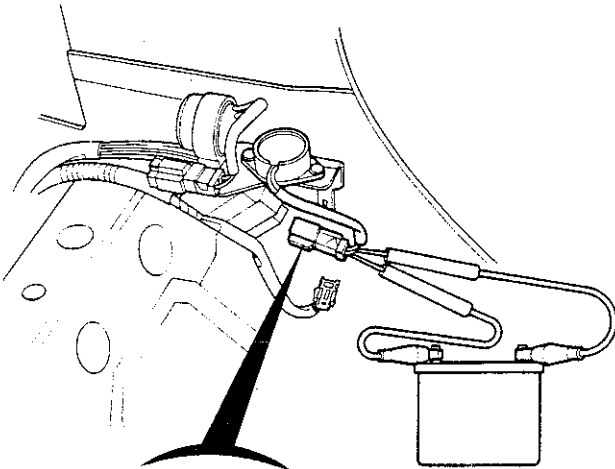


Power Roof

Alarm Test

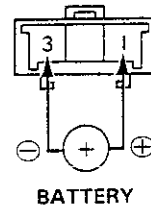
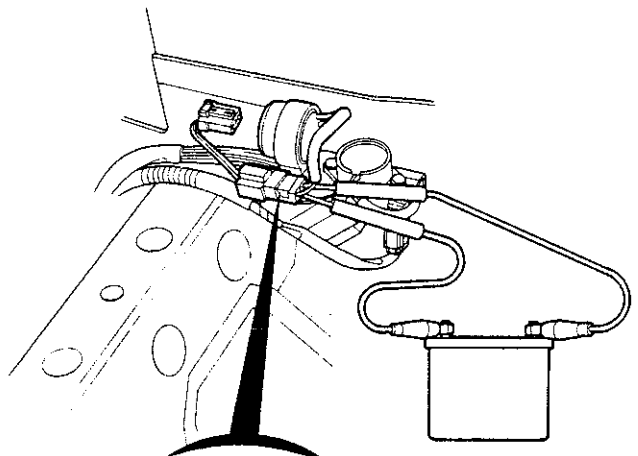


● Operation Alarm



(1) Connect the No. 1 terminal to the battery positive (+) terminal and the No. 2 terminal to the battery negative (-) terminal, and be sure that the alarm sounds

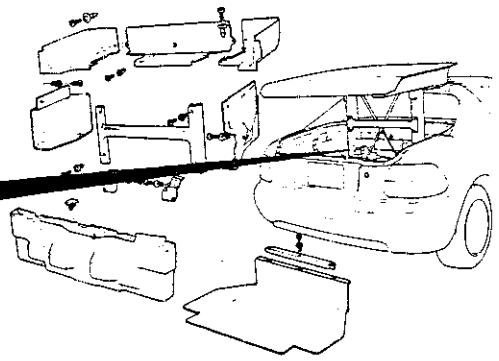
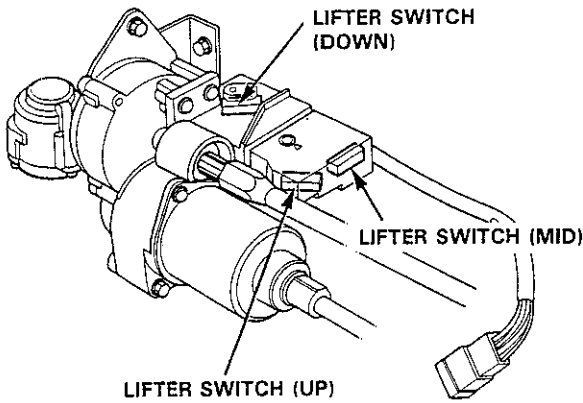
● Warning Alarm



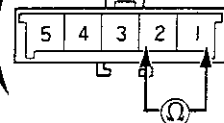
(1) Connect the No. 1 terminal to the battery positive (+) terminal and the No. 3 terminal to the battery negative (-) terminal, and be sure that the alarm sounds



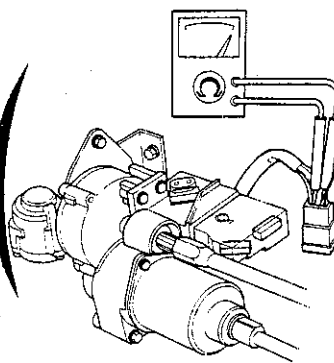
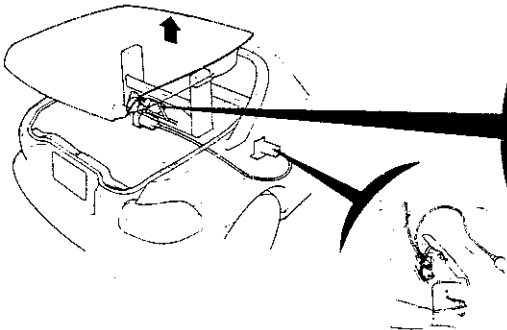
Lifter Switch Test



(View from terminal side)

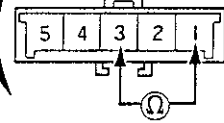


● LIFTER SWITCH "UP"

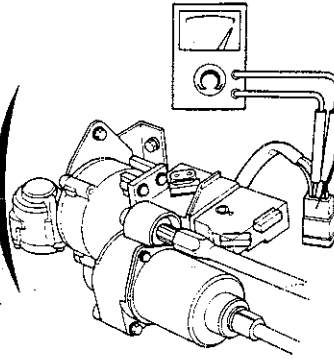
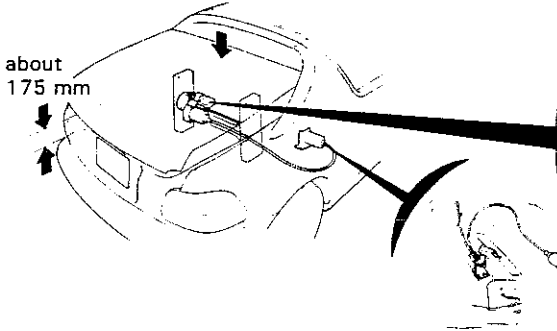


- (1) Lift the boot lid to the "UP" position, and be sure that there is continuity between the No. 1 and No. 2 terminals
- (2) Be sure that there is no continuity between the No. 1 and No. 2 terminals when the boot lid is in any position but the "UP" position.

(View from terminal side)

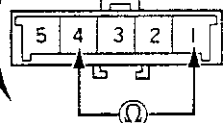


● LIFTER SWITCH "MID"

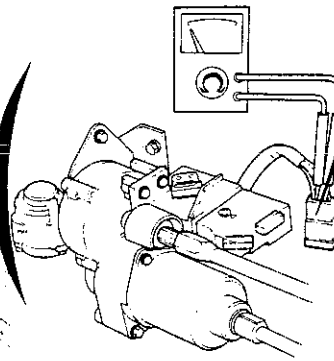
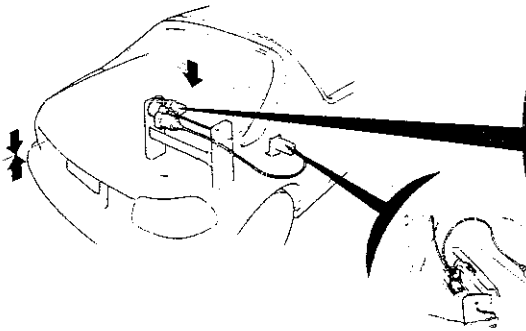


- (1) Lift the boot lid to the "MID" position, and be sure that there is continuity between the No. 1 and No. 3 terminals.
- (2) Be sure that there is no continuity between the No. 1 and No. 3 terminals when the boot lid is in any position but the "MID" position.

(View from terminal side)



● LIFTER SWITCH "DOWN"

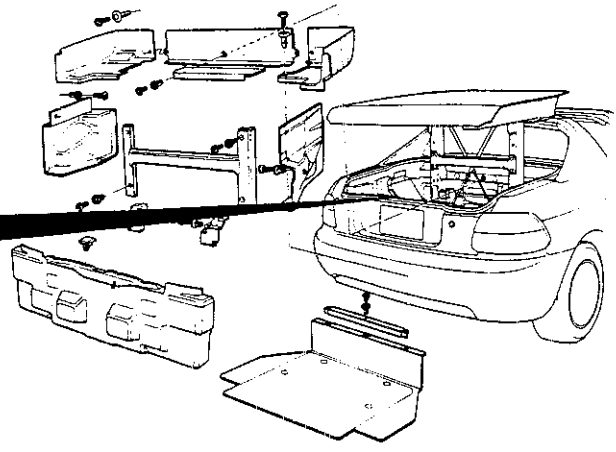
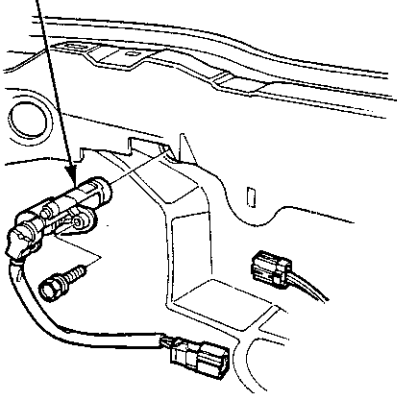


- (1) Lower the boot lid to the "DOWN" position, and be sure that there is continuity between the No. 1 and No. 4 terminals
- (2) Be sure that there is no continuity between the No. 1 and No. 4 terminals when the boot lid is in any position but the "DOWN" position

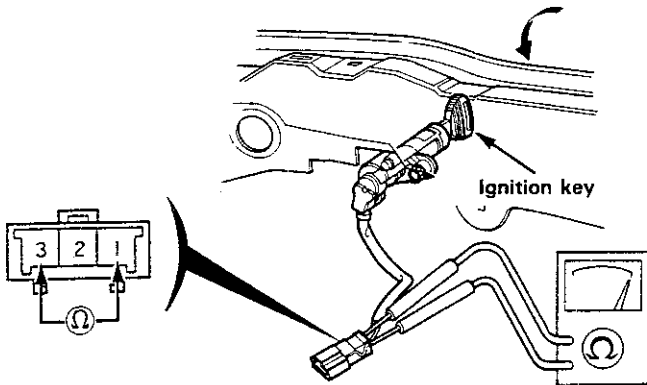
Power Roof

Trunk Key Switch Test

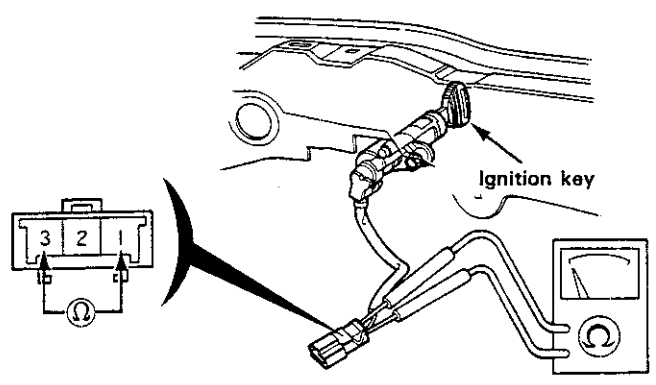
Trunk Key Switch



● Trunk key switch "OPEN"

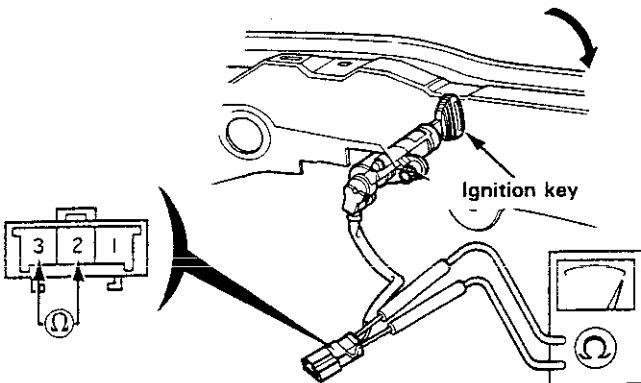


(1) Turn the ignition key clockwise and be sure that there is continuity between the No. 3 and No. 1 terminals.

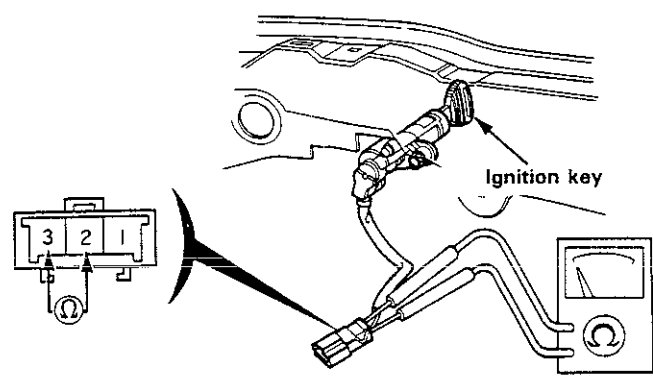


(2) Release the ignition key and be sure that there is no continuity between the No. 3 and No. 1 terminals.

● Trunk key switch "CLOSE"



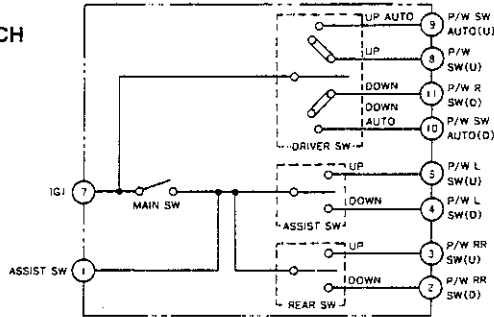
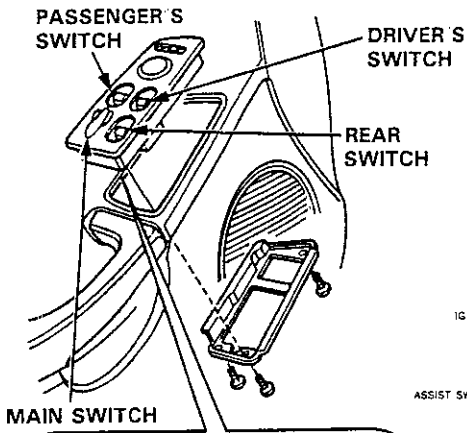
(1) Turn the ignition key counterclockwise and be sure that there is continuity between the No. 3 and No. 2 terminals.



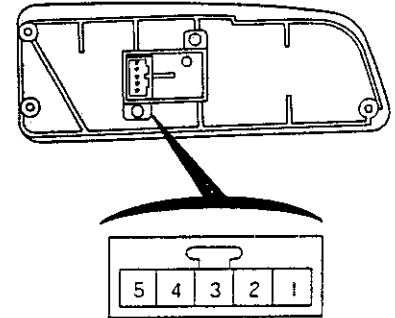
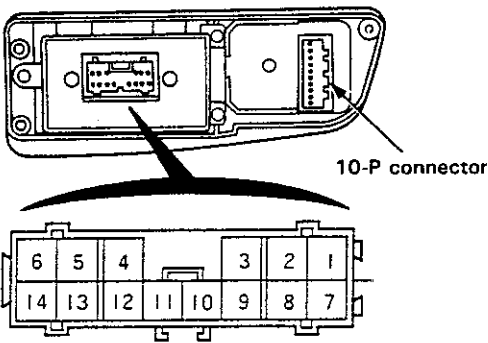
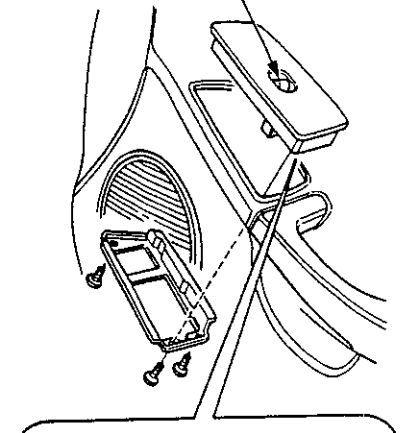
(2) Release the ignition key and be sure that there is no continuity between the No. 3 and No. 2 terminals.



Power Windows Switch Test



PASSENGER'S WINDOW SWITCH



- Remove the door lining and disconnect the 5P connector.
- Check for continuity between the terminals with the switch set at the "OFF", "UP" and "DOWN" positions respectively. There must be continuity between the terminals marked with circle in the following table.

- Remove the driver side door lining and disconnect the 10P and 14P connectors.
- Check for continuity between the terminals with the switch set at each position. There must be continuity between the terminals marked with circle in the following table.

PASSENGER'S WINDOW SWITCH

Terminal	1	3	5
Position OFF			
UP		○	○
DOWN	○		○

REAR WINDOW SWITCH

Position	Terminal Main switch	1	2	3	7
OFF	ON	○			○
	OFF				
UP	ON	○		○	○
	OFF	○		○	
DOWN	ON	○	○		○
	OFF	○	○		

DRIVER'S WINDOW SWITCH (POWER WINDOW MASTER SWITCH)

Terminal	7	8	9	10	11
Position OFF					
UP (AUTO)	○	○	○		
UP	○	○			
DOWN	○				○
DOWN (AUTO)	○			○	○

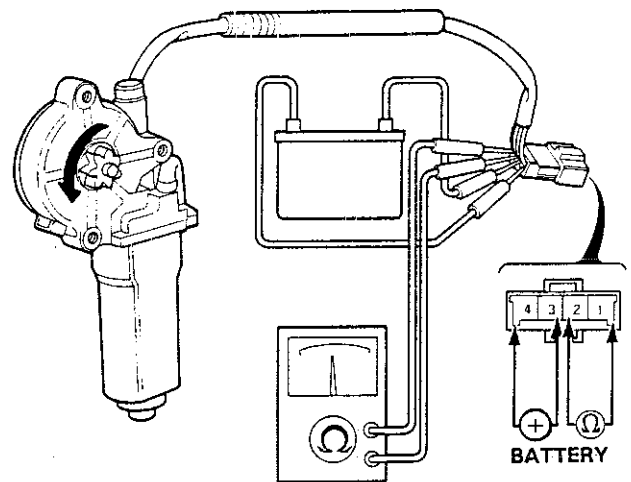
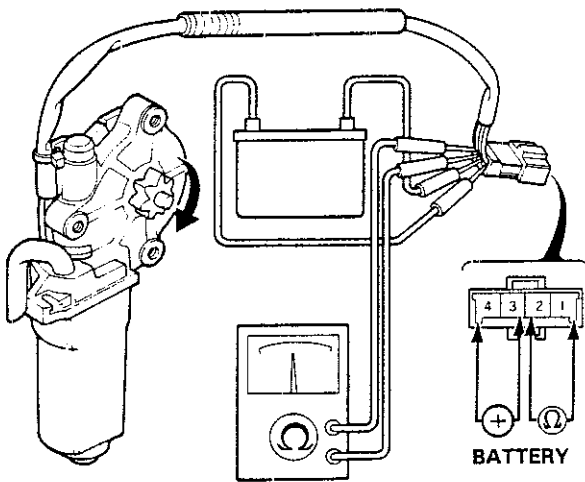
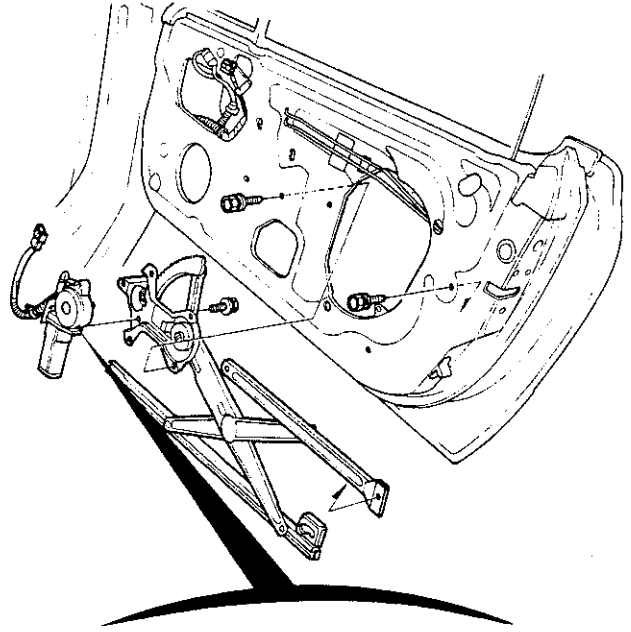
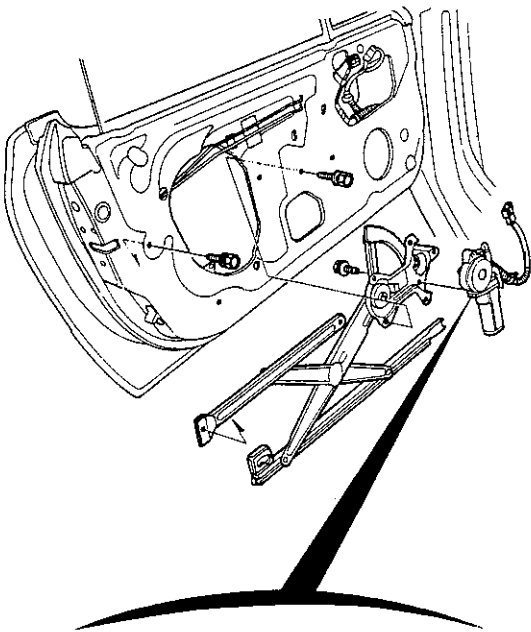
PASSENGER'S WINDOW SWITCH (POWER WINDOW MASTER SWITCH)

Position	Terminal Main switch	1	4	5	7
OFF	ON	○			○
	OFF				
UP	ON	○		○	○
	OFF	○		○	
DOWN	ON	○	○		○
	OFF	○	○		

Power Roof

Driver's Window Motor Test

Passenger's Window Motor Test



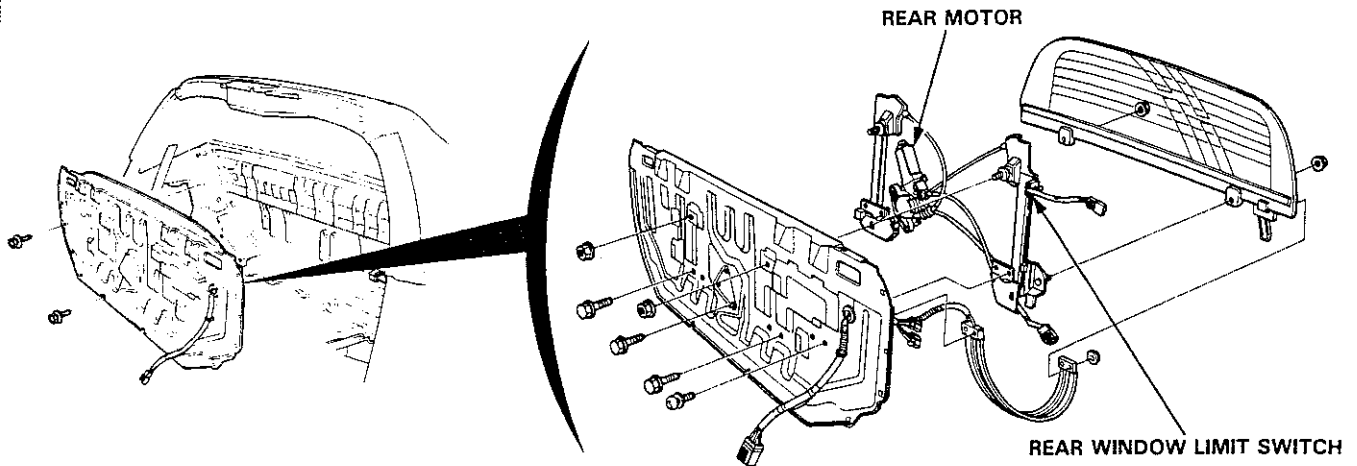
- (1) Remove the door lining and disconnect the power window motor 4P connector.
- (2) Apply battery voltage between the No 3 and No 4 terminals. Be sure that there is no abnormal motor sound and that the motor turns smoothly.
- (3) Using an analog tester, check for continuity between the No. 1 and No. 2 terminals while the motor is ON. Be sure that the tester needle swings near to the neutral.

- (1) Remove the door lining and disconnect the power window motor 4P connector.
- (2) Apply battery voltage between the No 3 and No 4 terminals. Be sure that there is no abnormal motor sound and that the motor turns smoothly.
- (3) Using an analog tester, check for continuity between the No 1 and No 2 terminals while the motor is ON. Be sure that the tester needle swings near to the neutral.

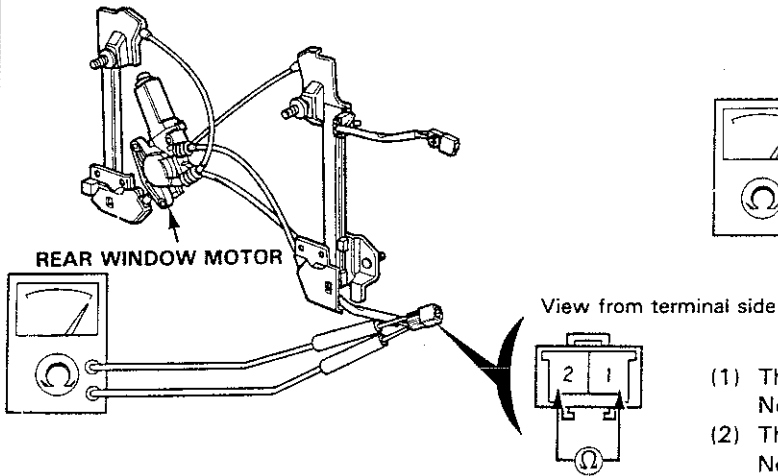


Rear Window Limit Switch Test

Rear Window Motor Test

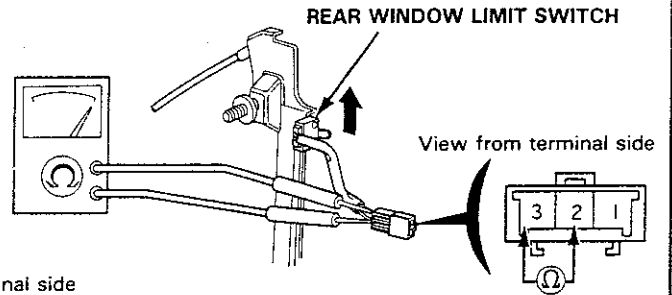


● Rear window motor



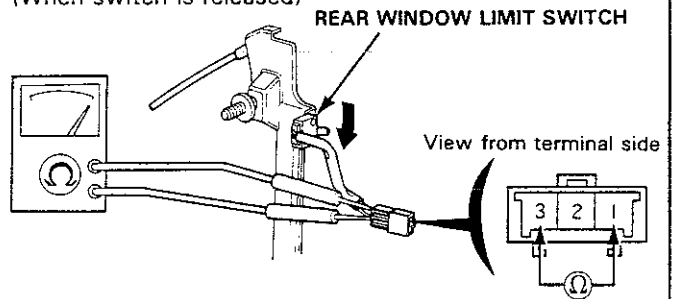
- (1) Check to be sure that there is continuity between the No. 1 and No. 2 terminals

● Rear window limit switch (When switch is up)



- (1) There must be continuity between the No. 2 and No. 3 terminals.
- (2) There must be no continuity between the No. 1 and No. 3 terminals.

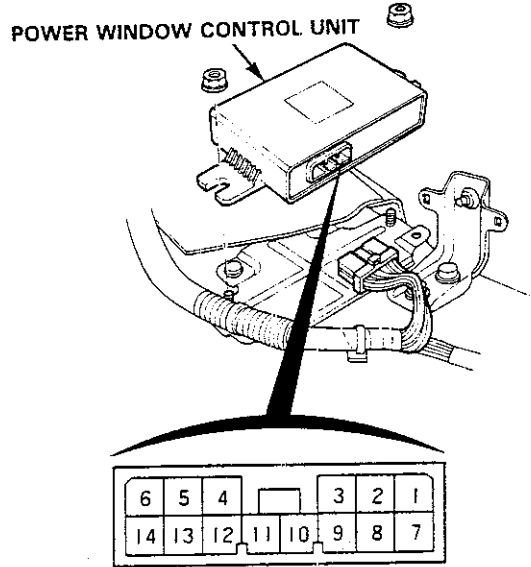
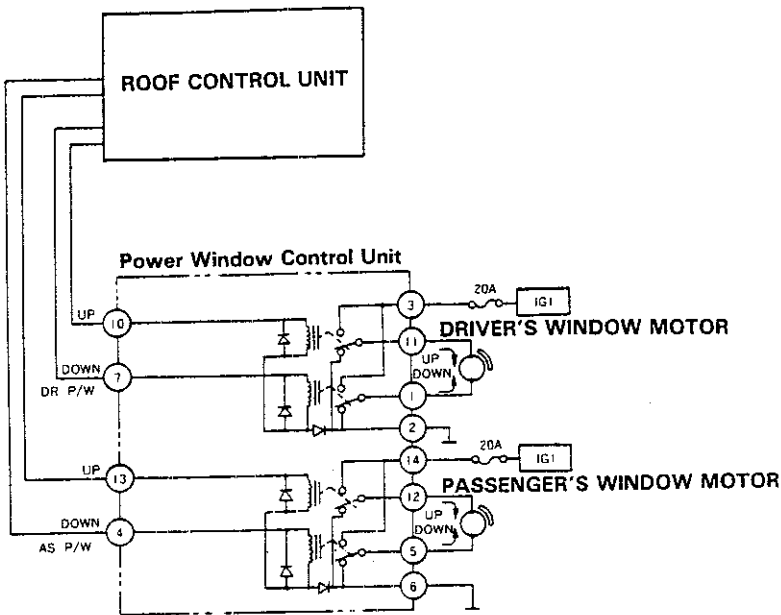
(When switch is released)



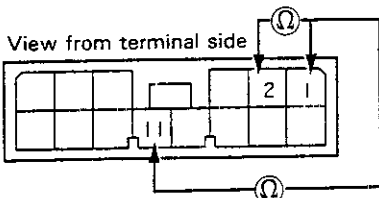
- (1) There must be continuity between the No. 1 and No. 3 terminals
- (2) There must be no continuity between the No. 2 and No. 3 terminals

Power Roof

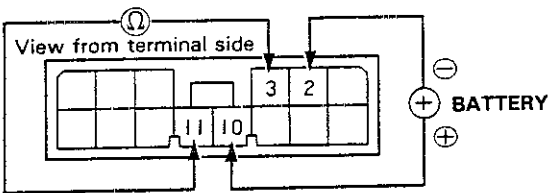
Power Window Control Unit Test



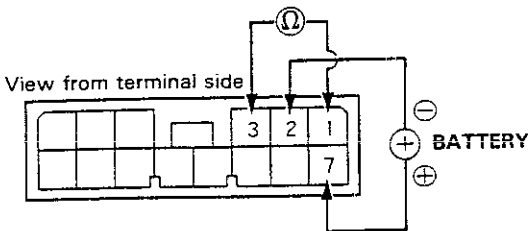
● DRIVER'S SIDE



- (1) Be sure that there is continuity between the No. 1 and No. 2 and No. 11 terminals.

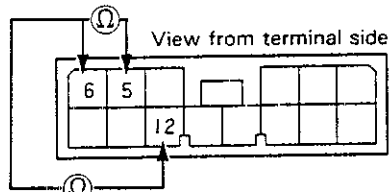


- (2) Connect the No. 10 terminal to the battery positive (+) terminal and the No. 2 terminal to the battery negative (-) terminal. There must be continuity between the No. 3 and No. 11 terminals.

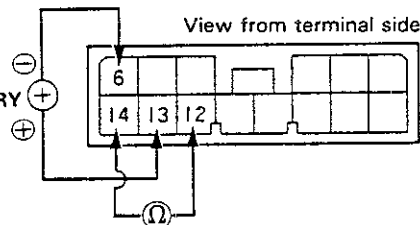


- (3) Connect the No. 7 terminal to the battery positive (+) terminal and the No. 2 terminal to the battery negative (-) terminal. Be sure there is continuity between the No. 3 and No. 1 terminals.

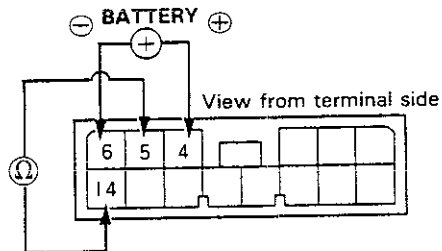
● PASSENGER'S SIDE



- (1) Be sure that there is continuity between the No. 5 and No. 6 and No. 12 terminals.



- (2) Connect the No. 13 terminal to the battery positive (+) terminal and the No. 6 terminal to the battery negative (-) terminal. There must be continuity between the No. 12 and No. 14 terminals.



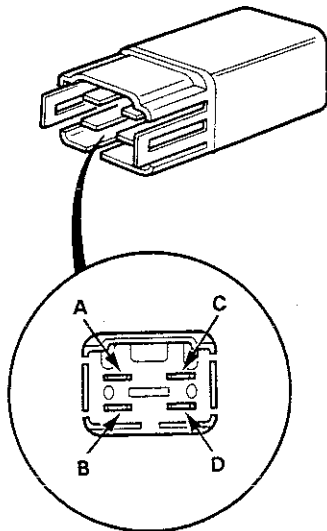
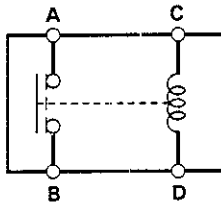
- (3) Connect the No. 4 terminal to the battery positive (+) terminal and the No. 6 terminal to the battery negative (-) terminal. There must be continuity between the No. 14 and No. 5 terminals.



Power Window Relay Test

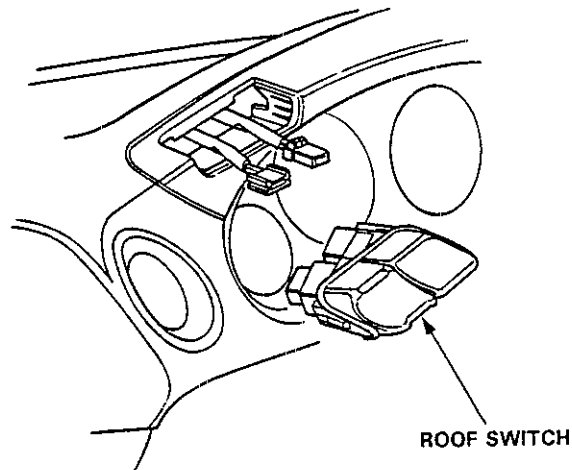
- (1) Remove the relay
- (2) Be sure there is no continuity between the terminals A and B
- (3) Check that there is continuity between the terminals C and D.
- (4) Apply battery voltage between the terminals C and D, and be sure that there is continuity between the terminals A and B.

Relay Circuit Diagram;



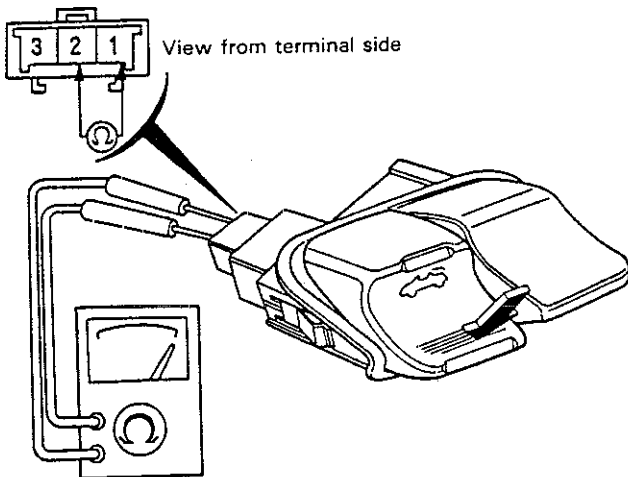
Power Roof

Roof Switch Test

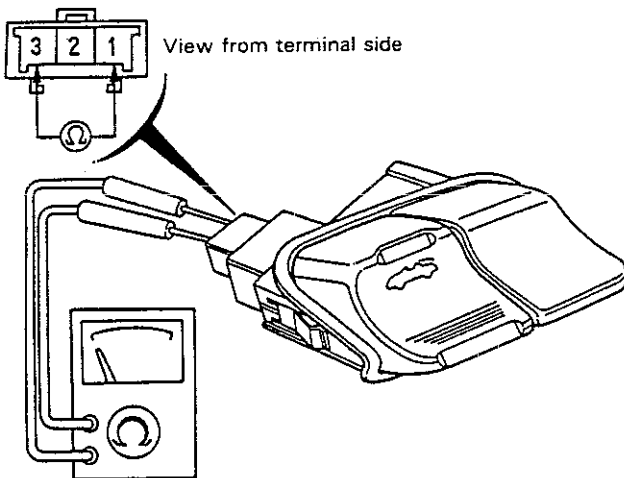


● Roof switch (OPEN/CLOSE)

- (1) Push the roof switch (OPEN/CLOSE), and be sure that there is continuity between the No. 1 and No. 2 terminals.

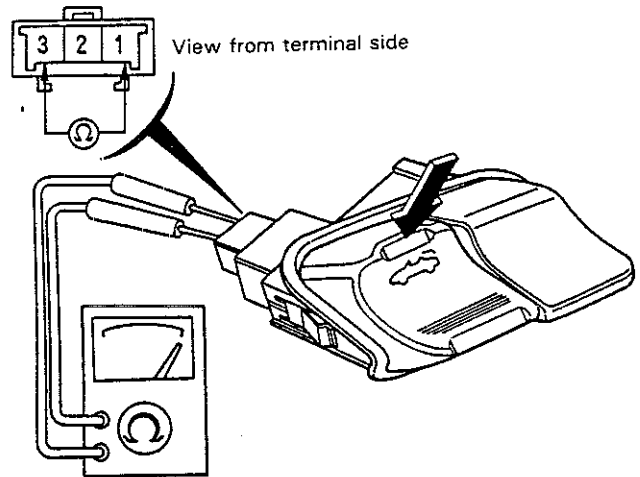


- (2) Release the roof switch (OPEN/CLOSE). There must be no continuity between the No. 1 and No. 2 terminals.

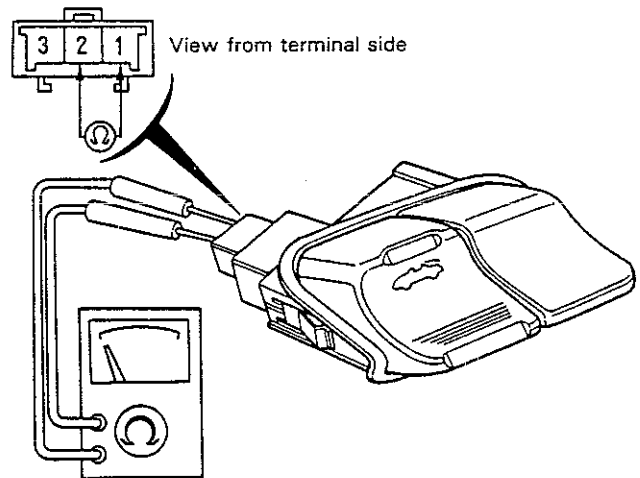


● Roof switch (REVERSE)

- (1) Push the roof switch (REVERSE), and be sure that there is continuity between the No. 1 and No. 3 terminals.

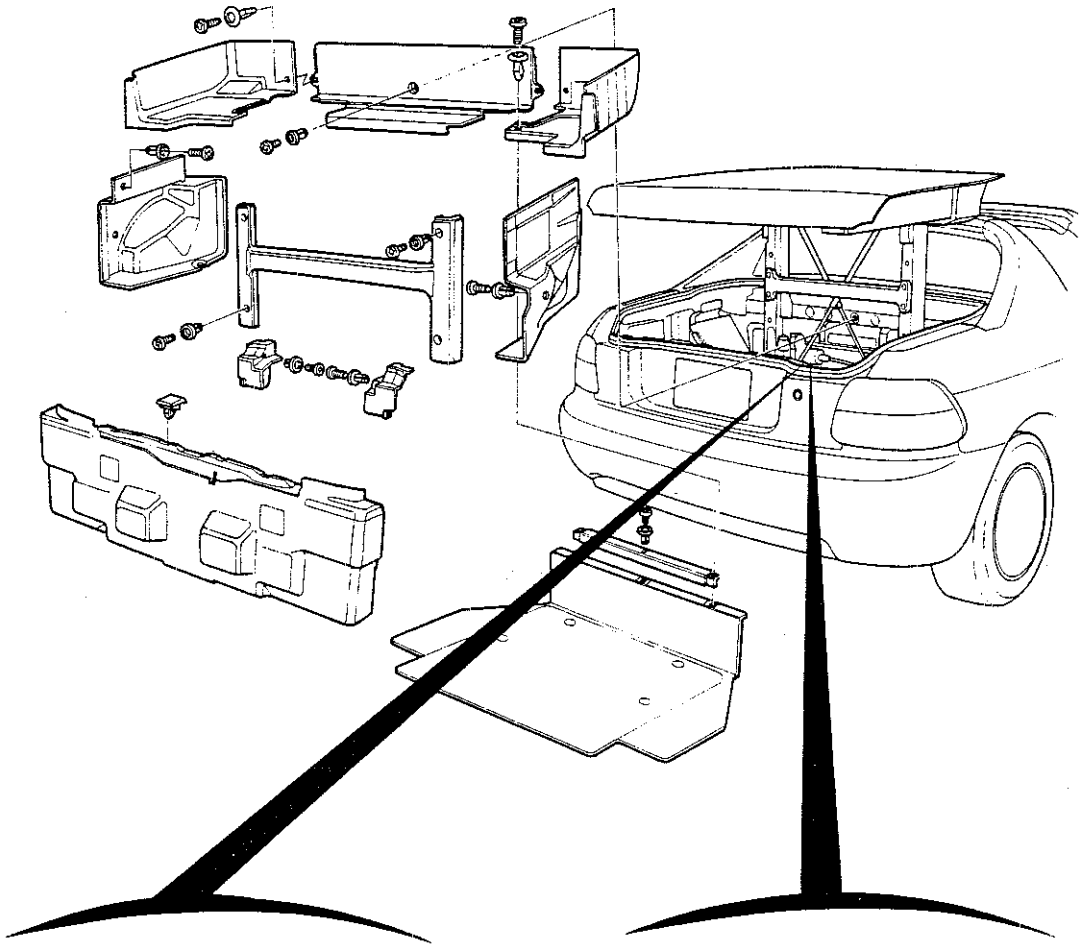


- (2) Release the roof switch (REVERSE). There must be no continuity between the No. 1 and No. 3 terminals.



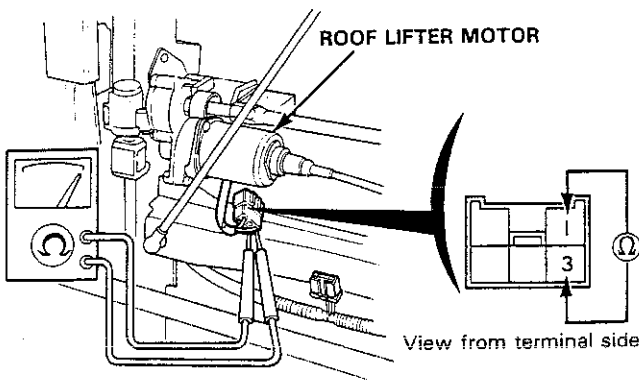


Roof Lifter Motor Test

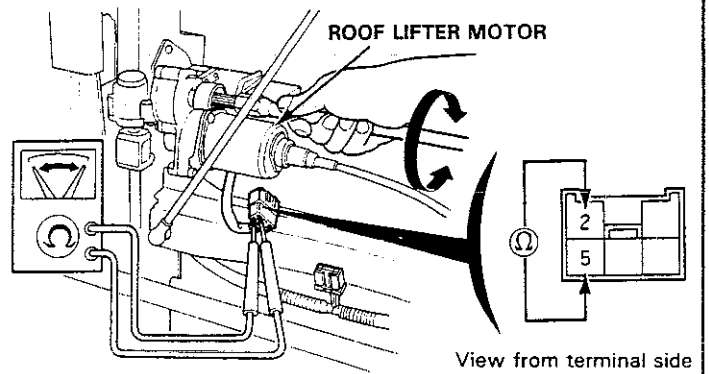


● Roof lifter motor coil

● Roof lifter motor pulse



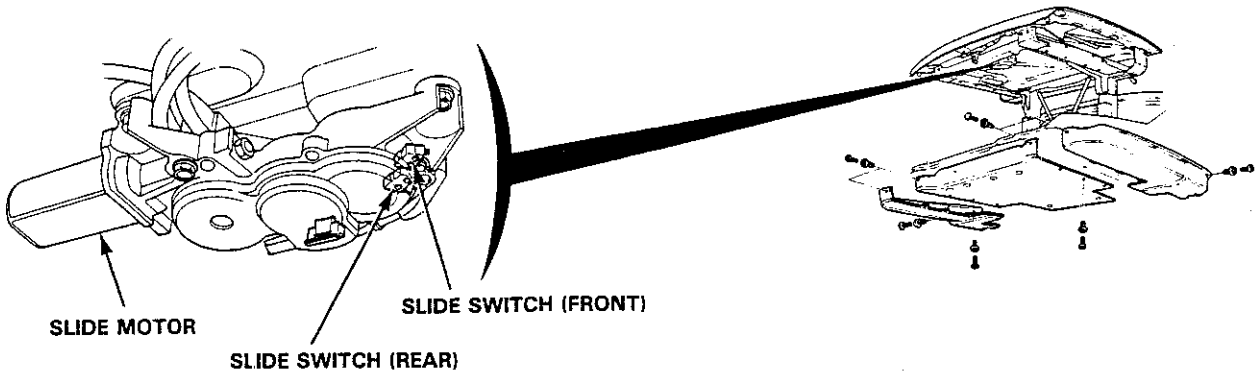
(1) Be sure that there is continuity between the No. 1 and No. 3 terminals



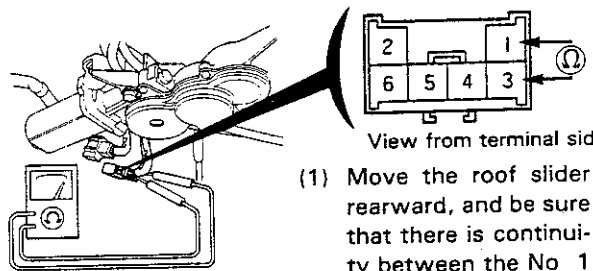
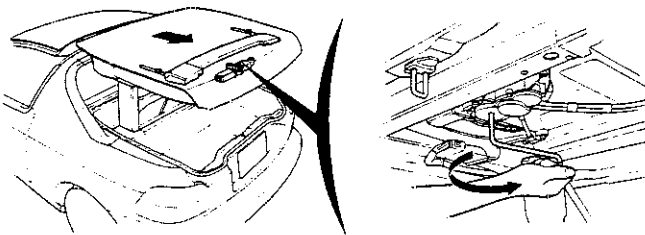
(1) Rotate the lift shaft by hand and be sure that there is intermittent continuity between the No. 2 and No. 5 terminals

Power Roof

Slide Switch Test

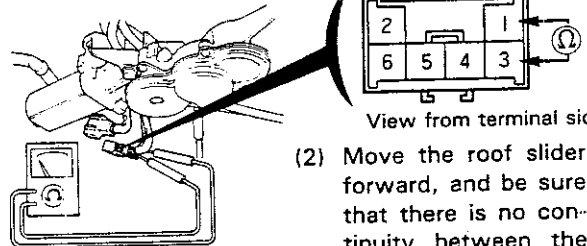
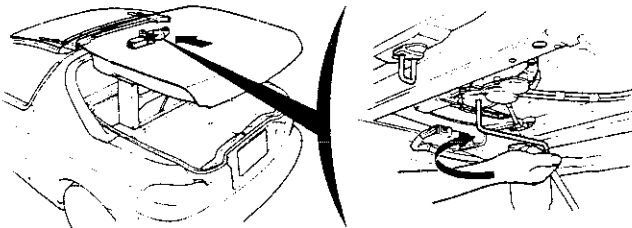


- Slide switch (REAR)
- Roof slider moved rearward (Fully)



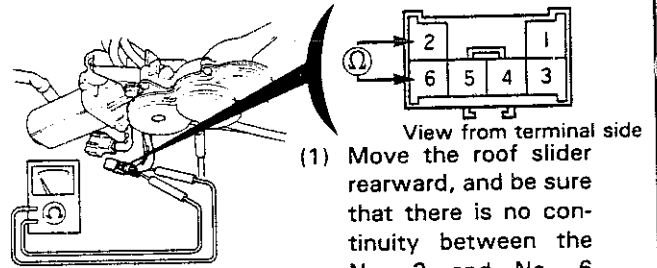
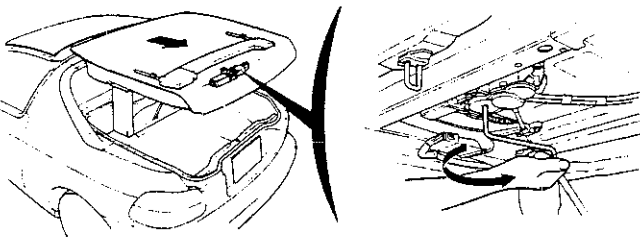
- (1) Move the roof slider rearward, and be sure that there is continuity between the No. 1 and No. 3 terminals.

- Slide switch (REAR)
- Roof slider moved forward (Fully)



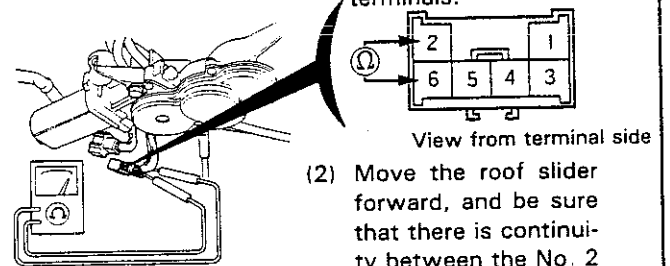
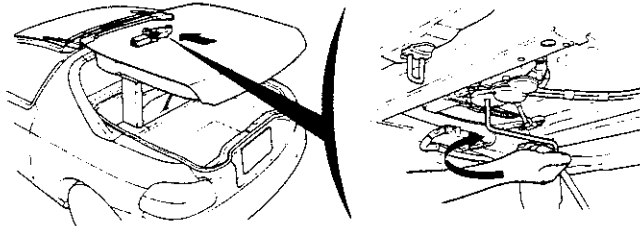
- (2) Move the roof slider forward, and be sure that there is no continuity between the No. 1 and No. 3 terminals.

- Slide switch (FRONT)
- Roof slider moved rearward (Fully)



- (1) Move the roof slider rearward, and be sure that there is no continuity between the No. 2 and No. 6 terminals.

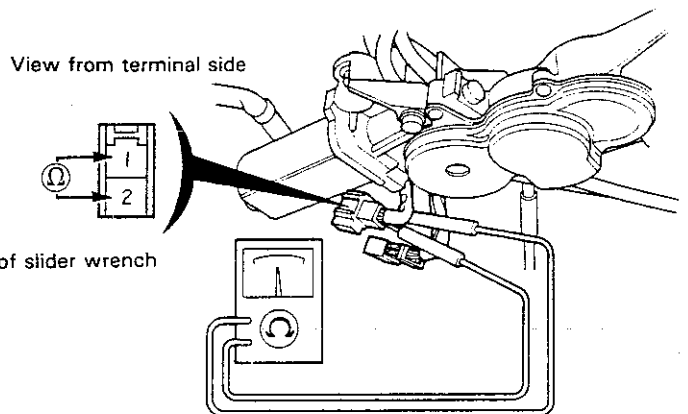
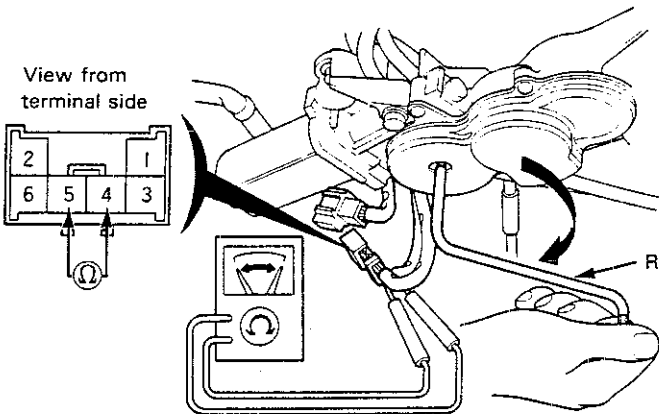
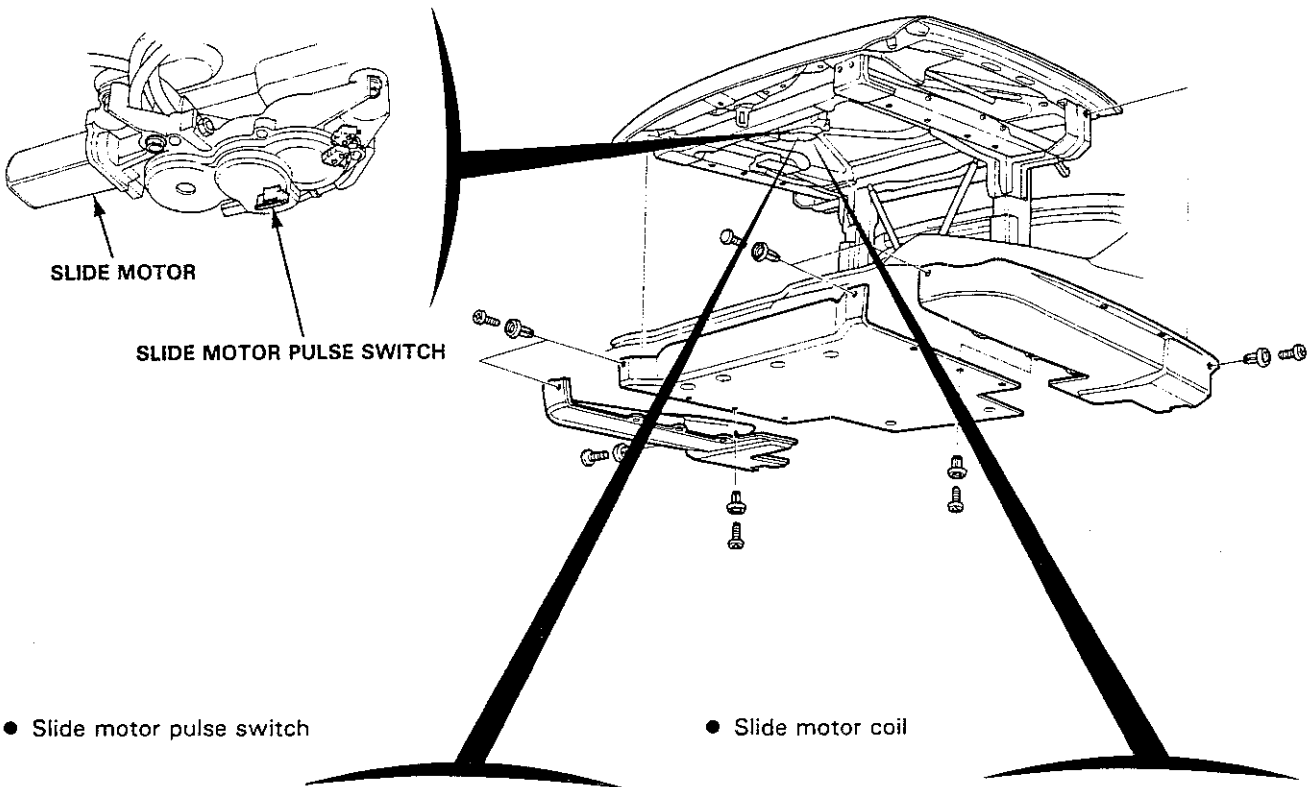
- Slide switch (FRONT)
- Roof slider moved forward (Fully)



- (2) Move the roof slider forward, and be sure that there is continuity between the No. 2 and No. 6 terminals.



Slide Motor Test



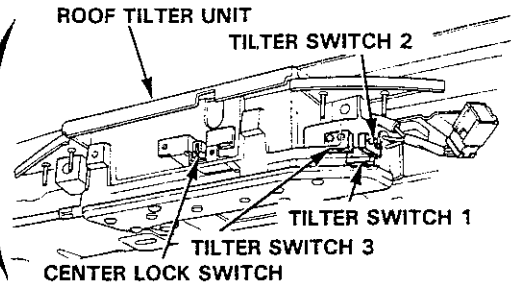
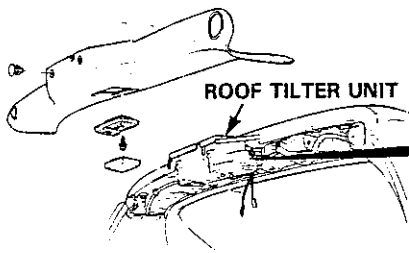
- (1) Attach the roof slider wrench to the slider motor.
- (2) Turn the roof slider wrench by hand and be sure that there is intermittent continuity between the No. 4 and No. 5 terminals.

- (1) Be sure that there is continuity between the No. 1 and No. 2 terminals.

Power Roof

Tilter Switch Test

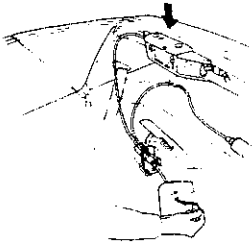
Center Lock Switch Test



● DOWN

● MID (Approx. 80 mm up)

● UP (Approx. 90 mm up)

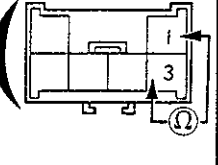
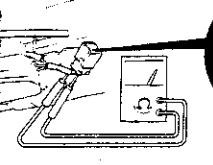
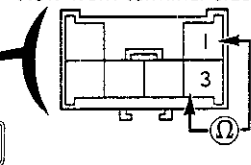
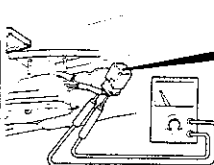
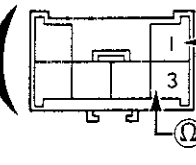
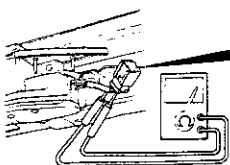


● Tilter switch 3

View from terminal side

View from terminal side

View from terminal side



(1) When the switch is in the DOWN position, there must be continuity between the No. 1 and No. 3 terminals.

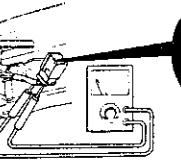
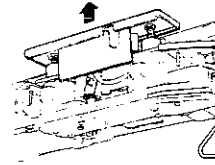
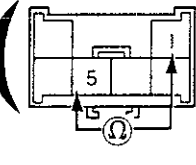
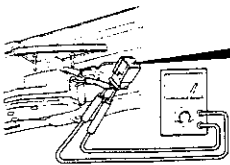
(2) When the switch is in the MID position, there must be no continuity between the No. 1 and No. 3 terminals.

(3) When the switch is in the UP position, there must be continuity between the No. 1 and No. 3 terminals.

● Tilter switch 2

View from terminal side

View from terminal side



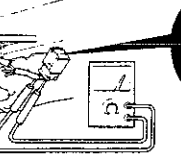
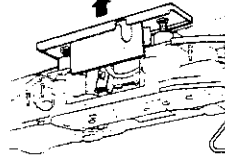
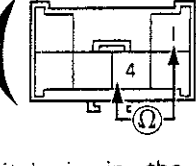
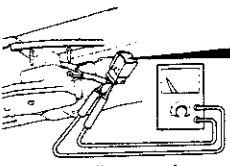
(1) When the switch is in the DOWN position, there must be continuity between the No. 1 and No. 5 terminals.

(3) When the switch is in the UP position, there must be no continuity between the No. 1 and No. 5 terminals.

● Tilter switch 1

View from terminal side

View from terminal side

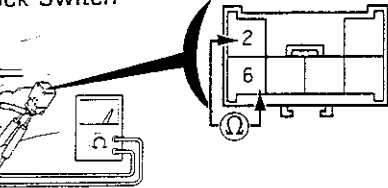
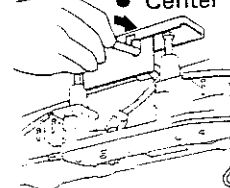


(1) When the switch is in the DOWN position, there must be no continuity between the No. 1 and No. 4 terminals.

(3) When the switch is in the UP position, there must be continuity between the No. 1 and No. 4 terminals.

● Center Lock Switch

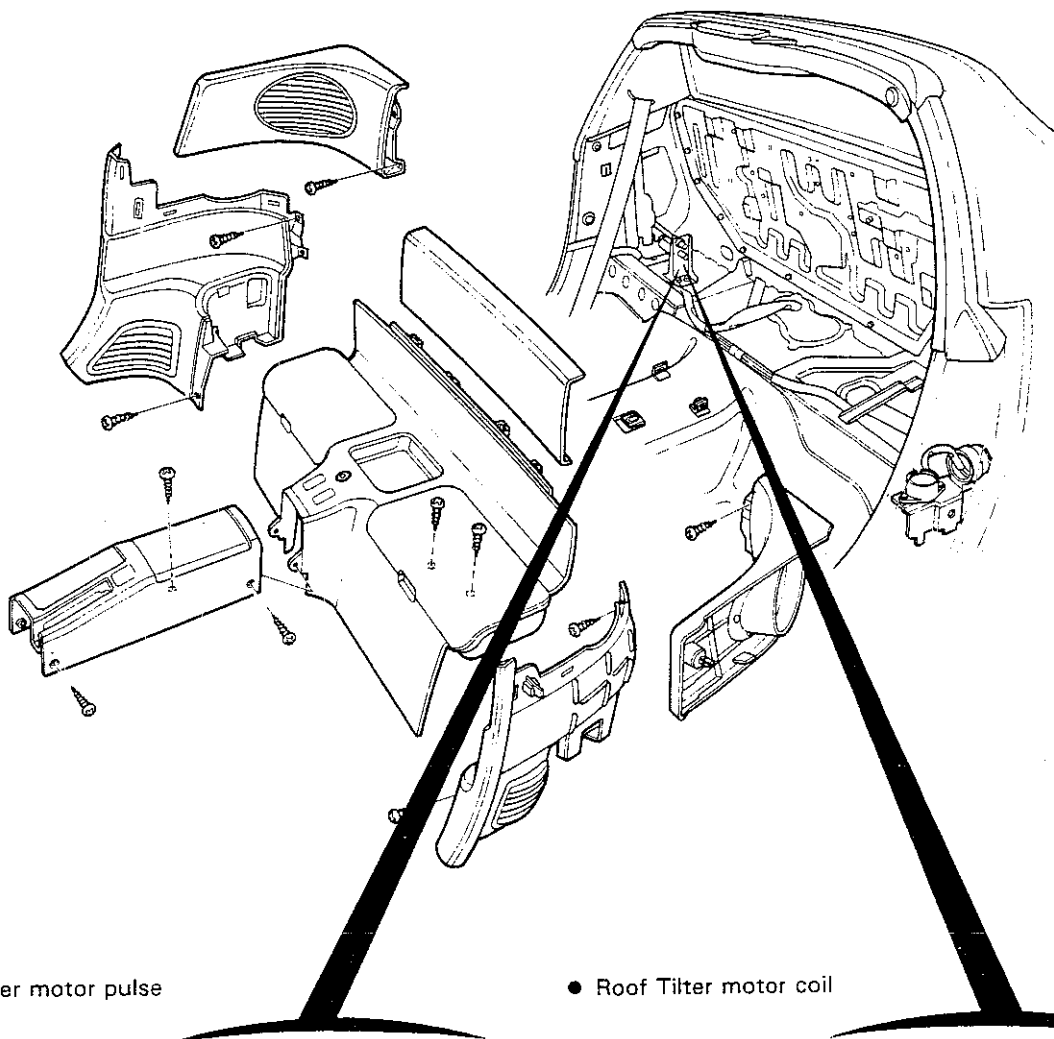
View from terminal side



(1) When LOCK switch is pushed, there must be continuity between the No. 2 and No. 6 terminals.



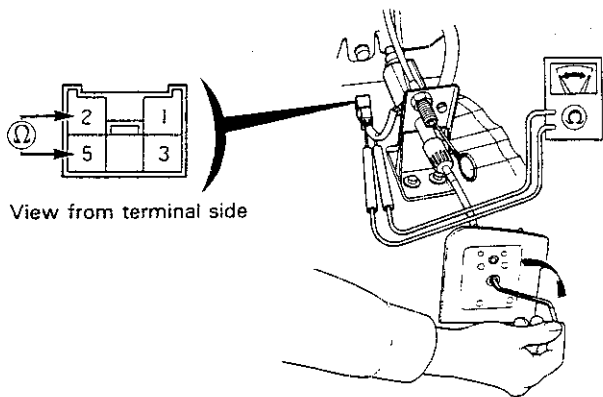
Roof Tilter Motor Test



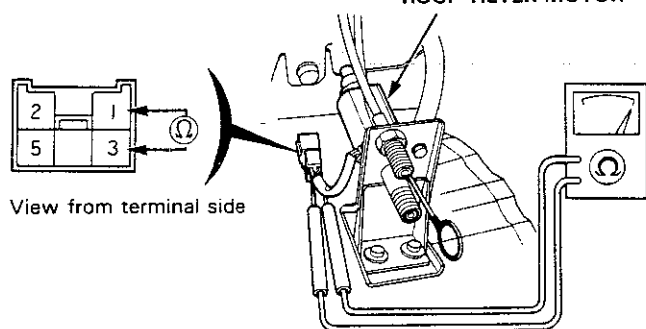
ROOF TILTER MOTOR

● Roof Tilter motor pulse

● Roof Tilter motor coil



View from terminal side



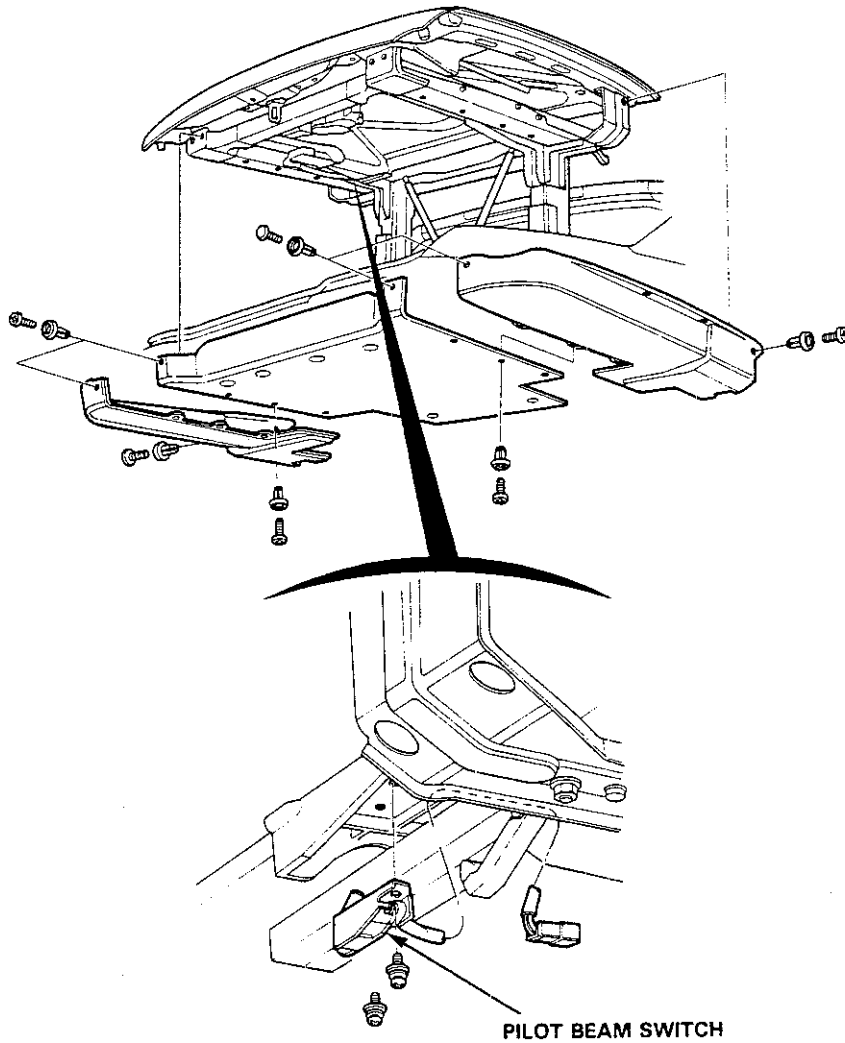
View from terminal side

- (1) Attach the roof tilter wrench to the tilter motor.
- (2) Turn the roof tilter wrench by hand and be sure that there is intermittent continuity between the No. 2 and No. 5 terminals.

- (1) Be sure that there is continuity between the No. 1 and No. 3 terminals

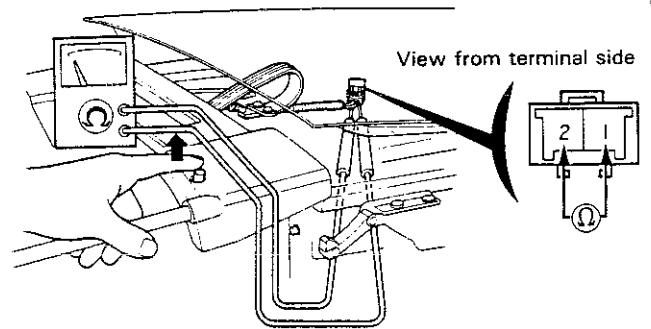
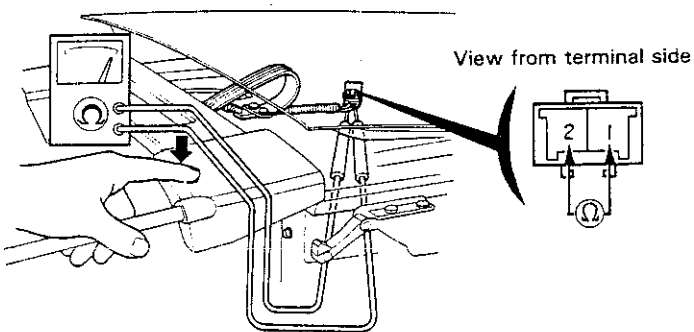
Power Roof

Pilot Beam Switch Test



- Push the Pilot Beam Switch

- Release the Pilot Beam Switch

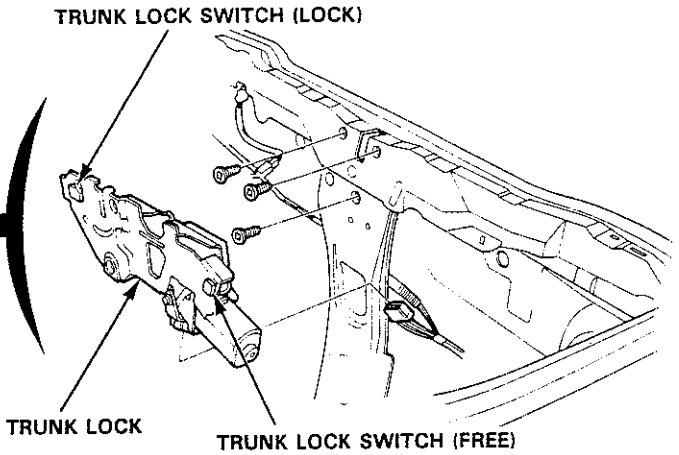
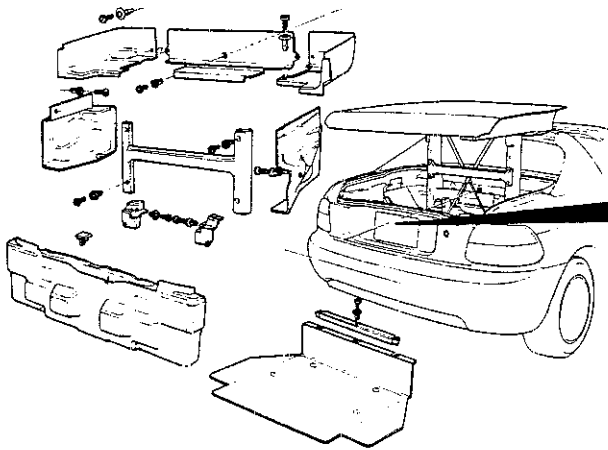


(1) Be sure that there is continuity between the No. 1 and No. 2 terminals while the shaft lock switch is pushed.

(1) Be sure that there is no continuity between the No. 1 and No. 2 terminals while the shaft lock switch is released.

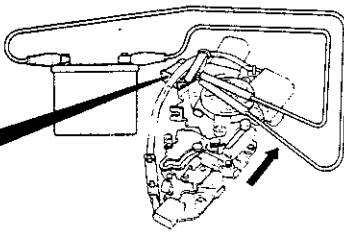
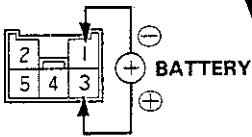


Trunk Lock Switch Test



● Trunk lock unlocking

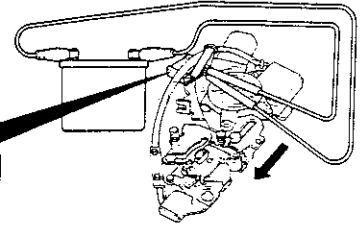
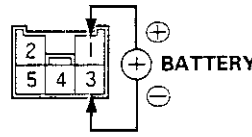
View from terminal side



Connect the No. 1 terminal to the battery negative (-) terminal and the No. 3 terminal to the battery positive (+) terminal, and be sure that the trunk lock unlocks.

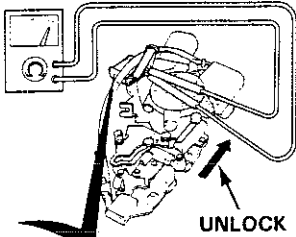
● Trunk lock locking

View from terminal side

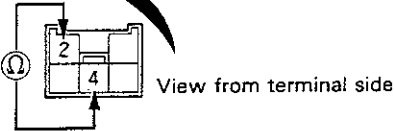


Connect the No. 1 terminal to the battery positive (+) terminal and the No. 3 terminal to the battery negative (-) terminal, and be sure that the trunk lock locks.

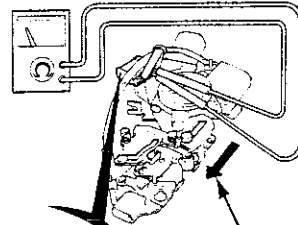
● Trunk lock switch (LOCK)



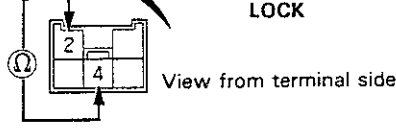
(1) Unlock the trunk lock and be sure that there is continuity between the No. 2 and No. 4 terminals



View from terminal side

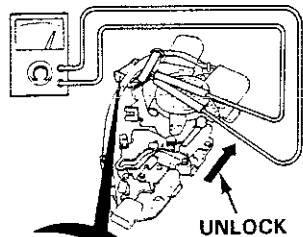


(2) Lock the trunk lock and be sure that there is no continuity between the No. 2 and No. 4 terminals



View from terminal side

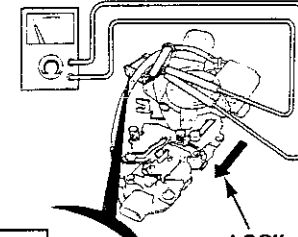
● Trunk lock switch (FREE)



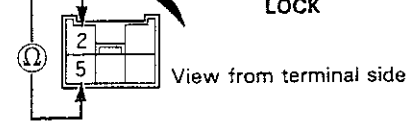
(1) Unlock the trunk lock and be sure that there is continuity between the No. 2 and No. 5 terminals.



View from terminal side



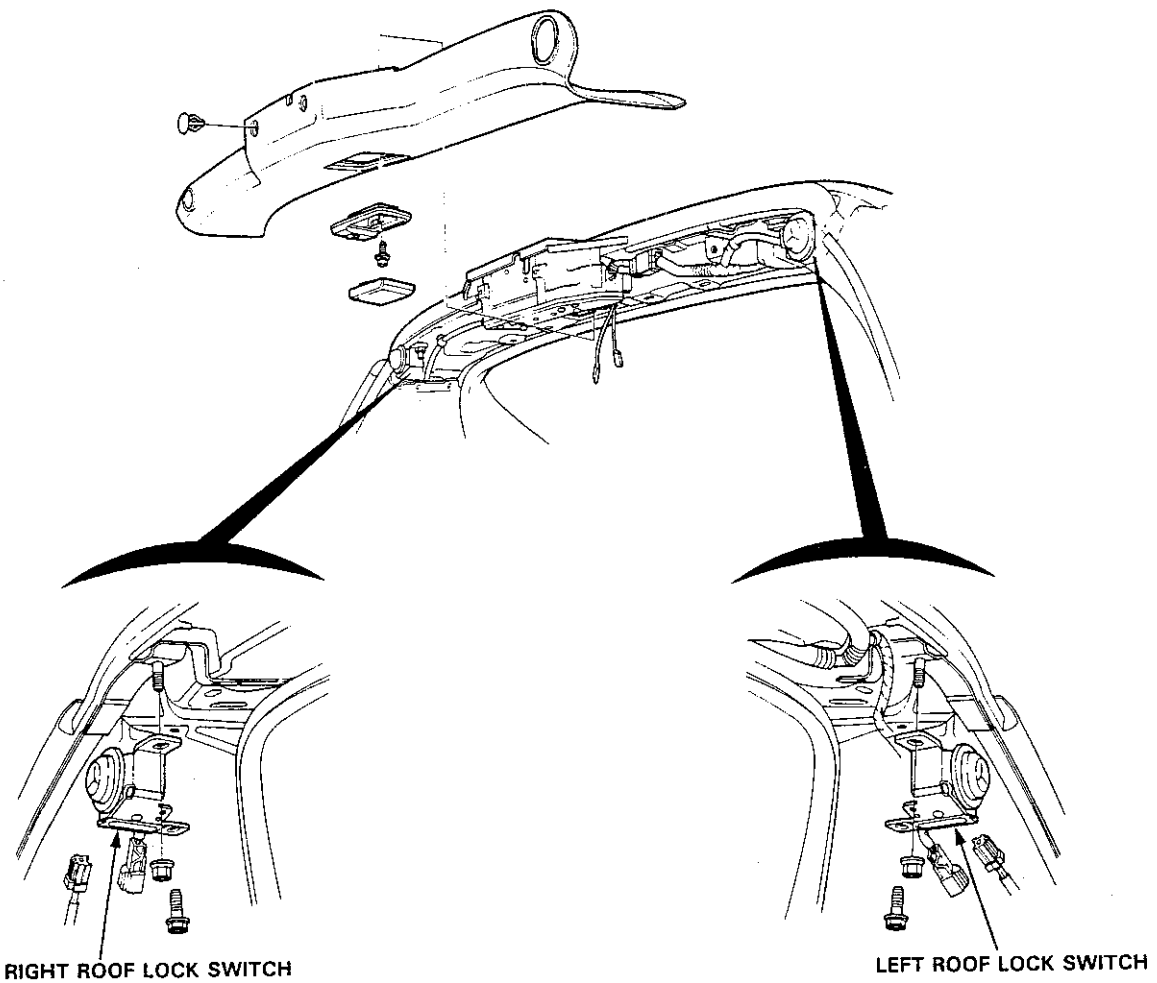
(2) Lock the trunk lock and be sure that there is no continuity between the No. 2 and No. 5 terminals



View from terminal side

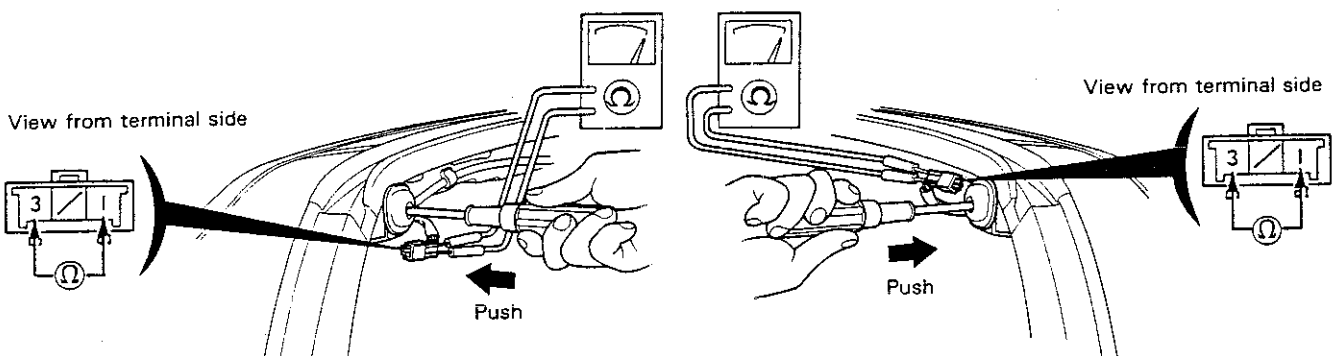
Power Roof

Loof Lock Switch Test



● Right roof lock switch

● Left roof lock switch



(1) Push the right roof lock switch using a screwdriver or an equivalent tool, and be sure that there is continuity between the No. 1 and No. 2 terminals

(1) Push the left roof lock switch using a screwdriver or an equivalent tool, and be sure that there is continuity between the No. 1 and No. 2 terminals.



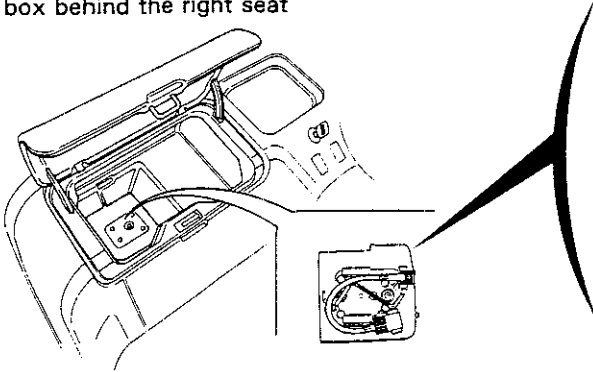
Power Roof

Emergency Operation

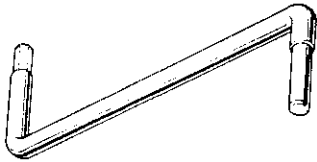
- Perform the following steps when the power open roof does not operate properly by pushing the roof switch.

- Tools

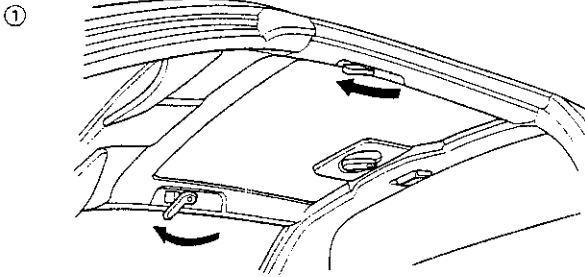
There are two different wrenches for manual operation of the power roof. One is for operating the boot lid and roof tilter. It is located in the rear box behind the right seat.



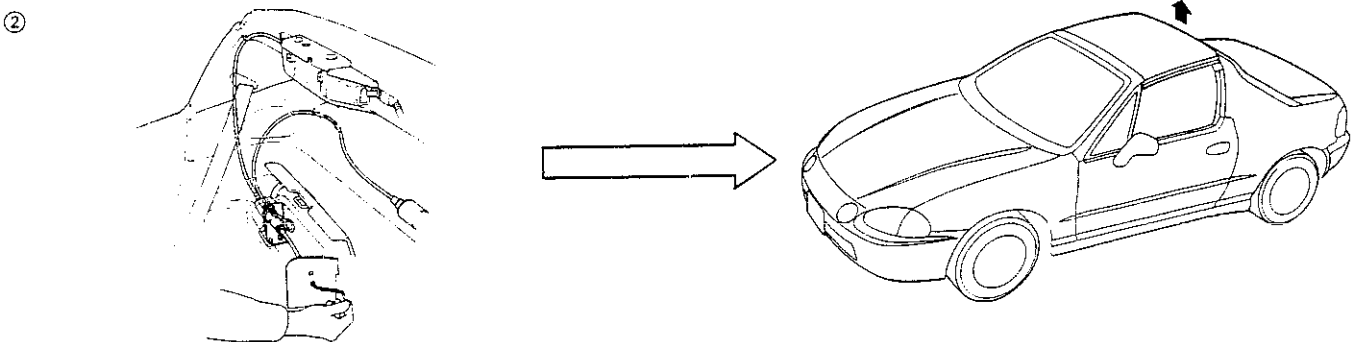
The other is for the roof slider and located in the tool bag in the trunk.



- When opening or closing the power roof using the trunk/roof tilter wrench:

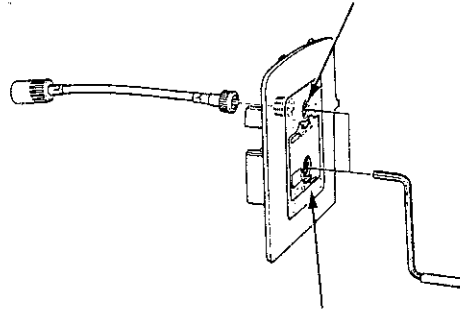


- Release the right and left roof side locks



The lower attachment point is for operation of the boot lid only. Use this point, if the gears in the coupling plate slips when you try to raise or lower the boot lid using the upper attachment point.

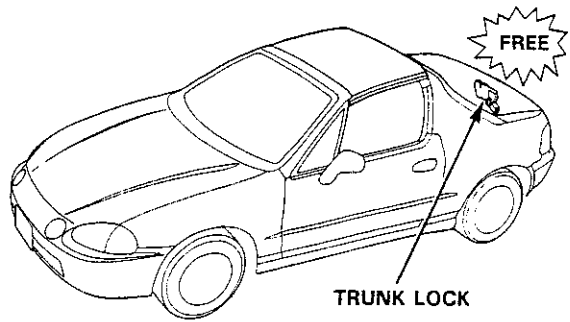
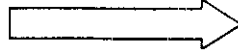
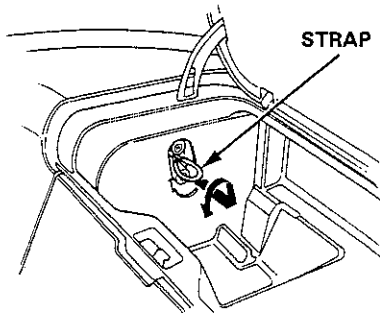
UPPER ATTACHMENT POINT



LOWER ATTACHMENT POINT

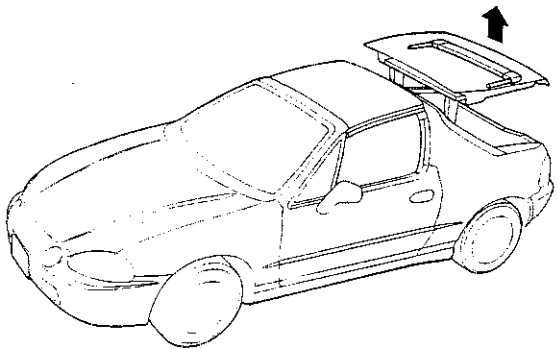
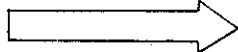
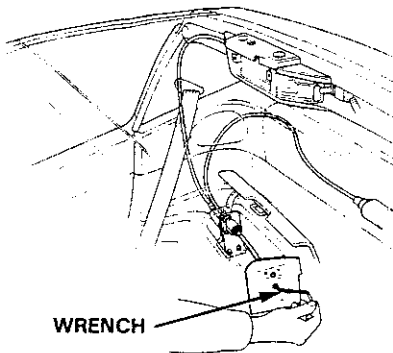


③



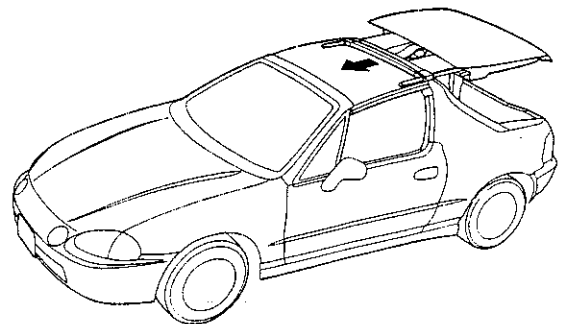
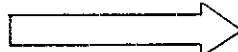
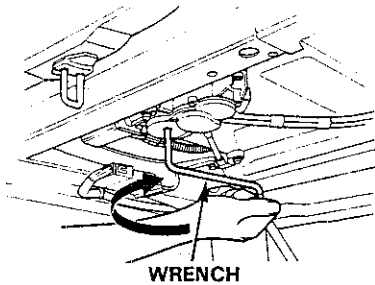
Unlock the trunk lid by pulling the strap and turning it 90° anticlockwise

④



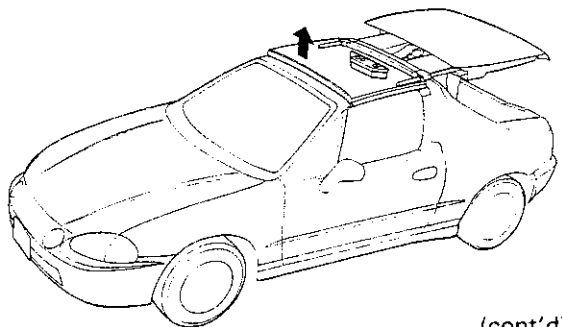
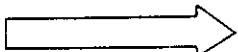
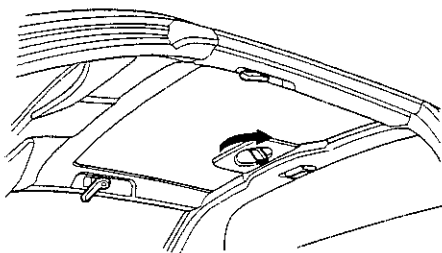
- Insert the wrench into the upper hole and tighten it.
- Turn the wrench clockwise and raise the trunk lid

⑤



- Insert the wrench into the hex hole in the groove underside of the trunk lid
- Turn the wrench clockwise to move the roof slider forward

⑥



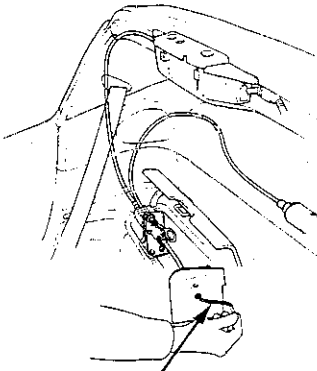
Release the roof switch and slide the roof centre handle to the "OPEN" side.

(cont'd)

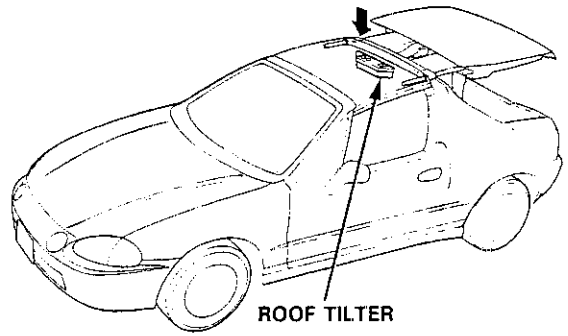
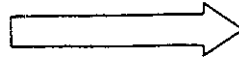
Power Roof

Emergency Operation

⑦

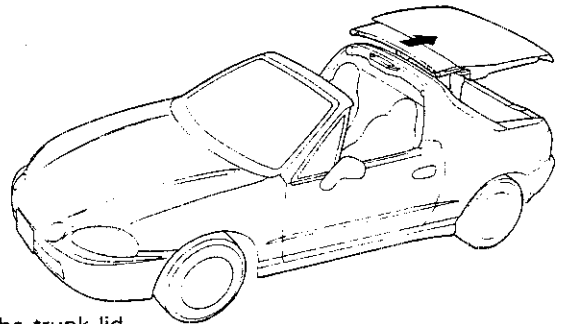
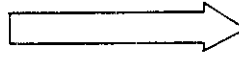
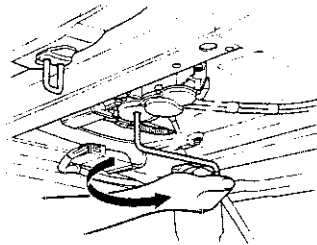


WRENCH



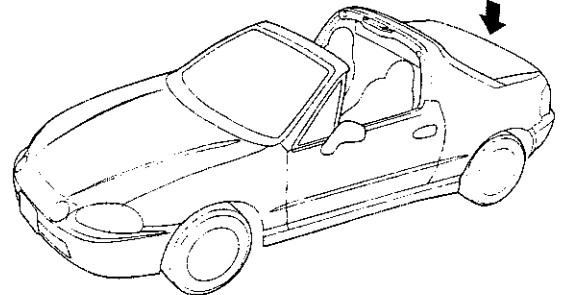
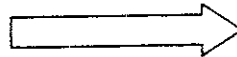
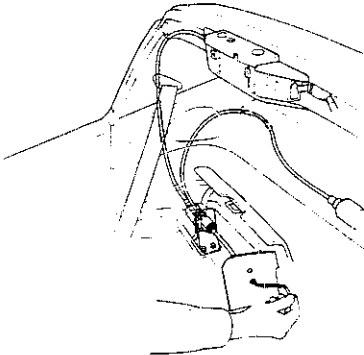
- Insert the wrench into the lower hex hole.
- Turn the wrench counterclockwise and lower the tilter

⑧



- Insert the wrench into the hex hole in the groove underside of the trunk lid.
- Turn the wrench counterclockwise to move the roof slider rearward

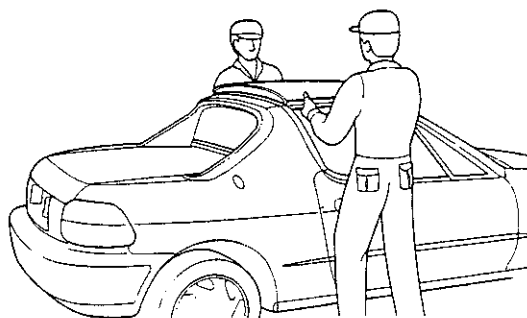
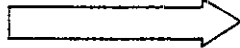
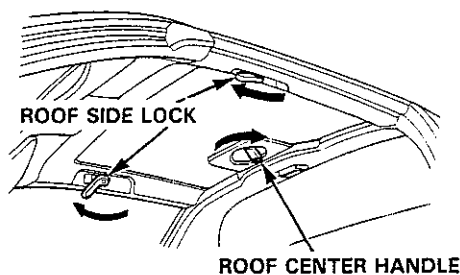
⑨



- Insert the wrench into the upper hex hole and tighten it.
- Turn the wrench counterclockwise to lower the trunk lid.

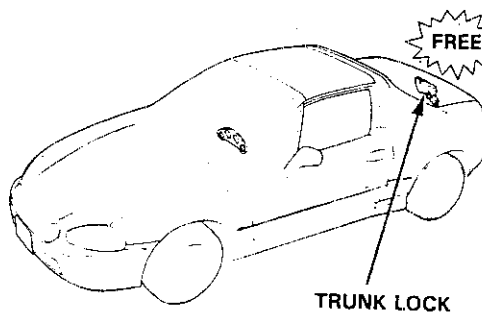
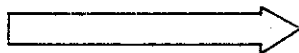
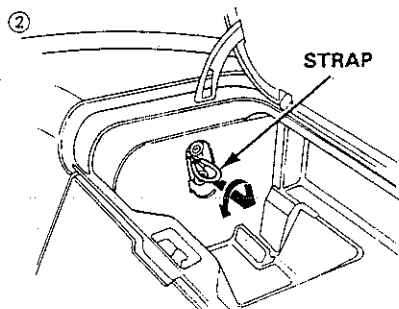
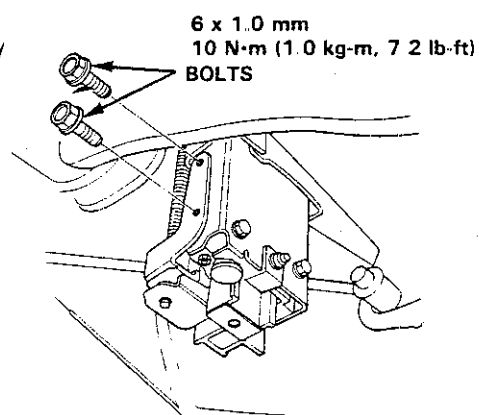
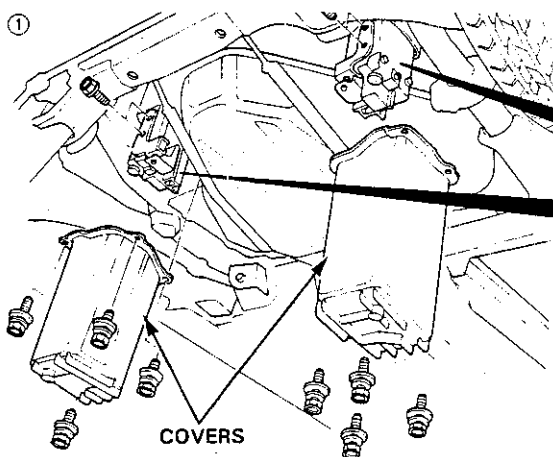


● Roof removal

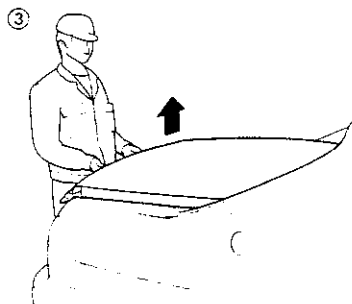


- Unlock the right and left roof side locks.
- Move the roof center handle to the OPEN side.
- Lift the roof and remove it

● When the trunk lid does not open by using the roof tilter wrench:



Pull the strap and turn it 90° to release the trunk lock



Lift the trunk lid by hands

Power Roof

Power Roof Function Check

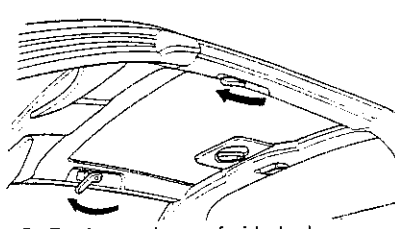
● How to Open the Roof

-1. Service condition

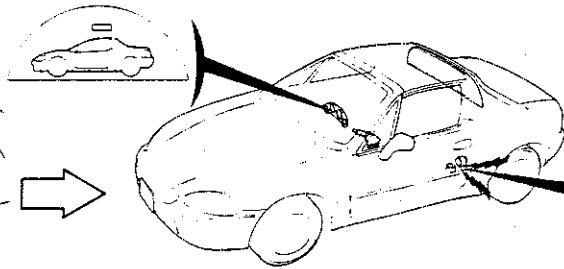
- The parking brake is applied.
- The vehicle is stopped (vehicle speed is 0 km/h).
- The rear window is fully closed.
- The engine is running

When the boot is opened by the key, the power roof cannot be operated.
Make sure the trunk is closed fully and the trunk warning light is off before operation

-2.



- Release the roof-side lock on both sides. To release the lock, press the knob in the direction of the arrow while pulling down the lever.



- Roof warning light turns ON.
- The system gives off beeping of 2 cycles/sec.



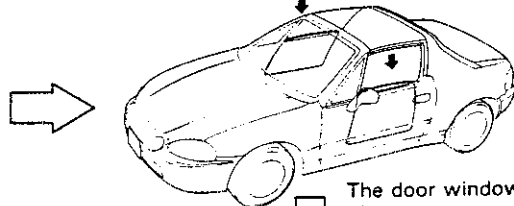
Operation Alarm

Push the reverse switch and hold it

-3.



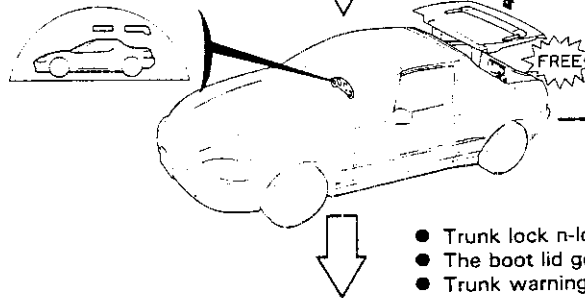
- Push the roof switch on the 'OPEN/CLOSE' side and hold it until beeps are heard.



The door windows open

- Does not function

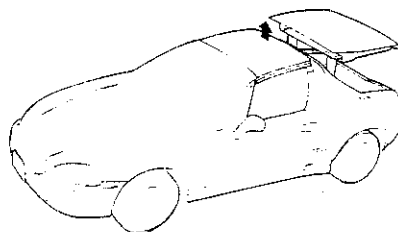
Push the reverse switch and hold it



- Trunk lock n-lock.
- The boot lid goes up
- Trunk warning light turns ON.

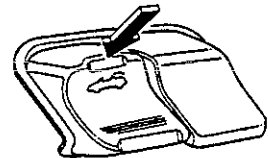


- ① Trunk lid goes down
- ② Trunk lock locks



Push the reserve switch and hold it

- The roof tilter goes up about 90 mm (3.5 in) to raise the edge of the roof.



- ① Roof tilter
- ② Trunk lid goes down
- ③ Trunk lock locks

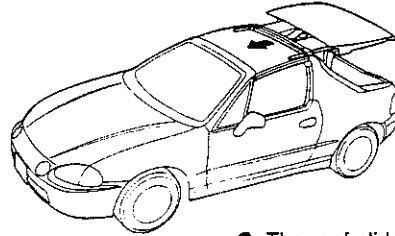
(To page 20-249)

(To page 20-249)



(From page 20-248)

(From page 20-248)

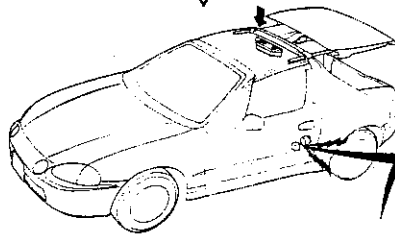


- The roof slider moves forward.

Push the reverse switch and hold it



- ① Roof slider moves rearward.
- ② Roof tilter goes down.
- ③ Trunk lid goes down.
- ④ Trunk lock locks.



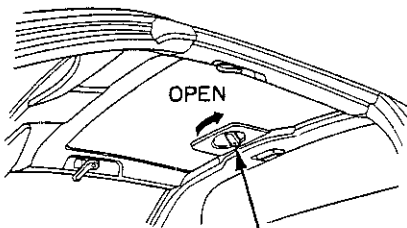
- The roof tilter goes down about 10 mm (0.4 in).
- The system gives off beeping of 2 cycles/sec when the series of motions are completed.

Push the reverse switch and hold it



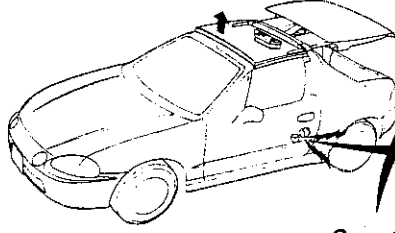
- ① Roof tilter goes up.
- ② Roof slider moves rearward.
- ③ Roof tilter goes down.
- ④ Trunk lid goes down.
- ⑤ Trunk lock locks.

--4.



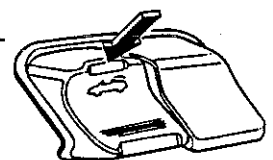
ROOF CENTER HANDLE

- Release the roof switch and slide the roof centre handle to the 'OPEN' side



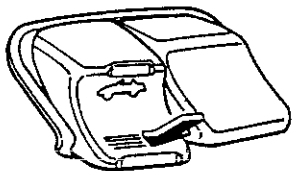
- Roof lifts
- The system gives off beeping of 6 cycles/sec

Push the reverse switch and hold it

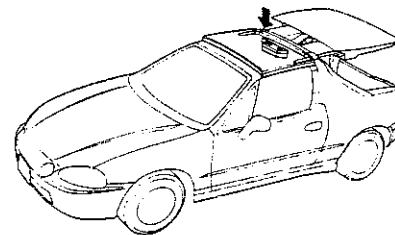


- Does not function

-5

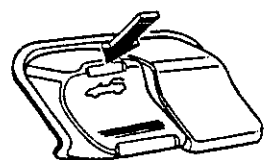


- Push the roof switch on the "OPEN/CLOSE" side and hold it until beeps are heard



- The roof tilter goes down to the bottom

Push the reverse switch and hold it



- ① Roof tilter goes up.

(To page 20-250)

(To page 20-250)

(cont'd)

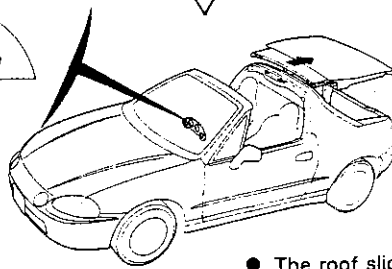
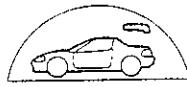
Power Roof

Power Roof Function Check

(From page 20-249)

(From page 20-249)

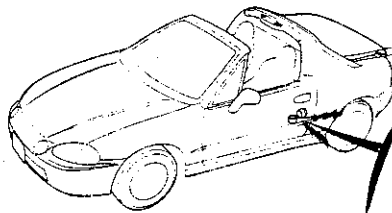
Push the reverse switch and hold it.



- ① Roof slider moves forward
- ② Roof tilter goes up.

- The roof slider moves backward.
- Roof warning light turns OFF.

Push the reverse switch and hold it.



175 mm
(7 in)



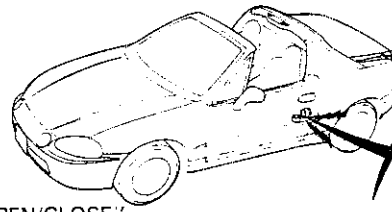
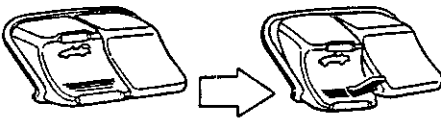
- ① Trunk lid goes up.
- ② Roof slider moves forward
- ③ Roof tilter goes up.

- The trunk lid goes down and stops at 175 mm from the fully closed position
- The system gives off beeping of 2 cycles/sec. when the trunk lid stops at 175 mm height.

Operation Alarm

Push the reverse switch and hold it.

-6.



50 mm
(2 in)



- ① Trunk lid goes up.
- ② Roof slider moves forward
- ③ Roof tilter goes up

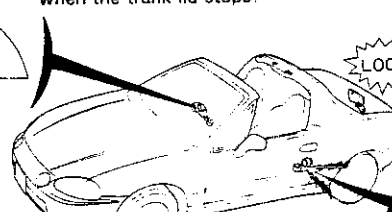
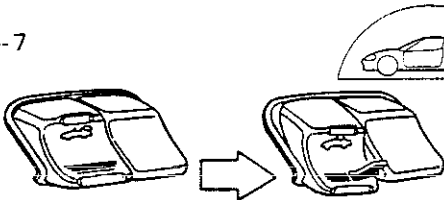
- Release the roof switch. Push it again on the side and hold it until beeping changes its cycle

- The trunk lid goes down further and stops once again at about 50 mm (2.0 in) from the fully closed position
- The system gives off continuous beeping while the trunk lid is moving
- The cycle changes to 2 cycles/sec when the trunk lid stops.

Operation Alarm

Push the reverse switch and hold it.

-7



LOCK



- ① Trunk lid goes up.
- ② Roof slider moves forward
- ③ Roof tilter goes up.

- Release the roof switch. Push it again on the side and hold it

- The trunk lid goes down to the bottom.
- Trunk lock locks
- Continuous beeping is heard while the trunk lid is lowering
- It stops when the trunk lid closes completely
- Trunk warning light turns OFF

Operation Alarm



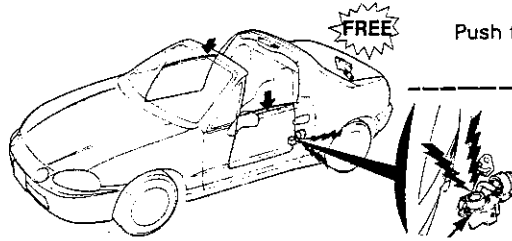
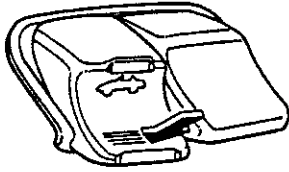
● How to Close the Roof

—1. Service condition

- The parking brake is applied.
- The vehicle is stopped (vehicle speed is 0 km/h).
- The engine is running.

When the trunk is opened by the key, the power roof cannot be operated.
Make sure the trunk is closed fully and the trunk warning light is off before operation

—2.



Push the reverse switch and hold it

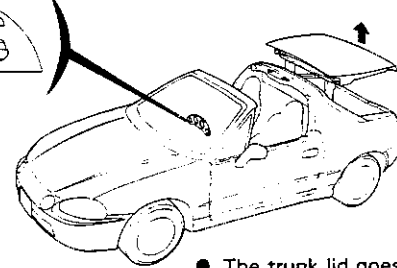
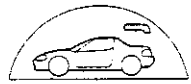


Operation Alarm ① The boot lock locks.

- Push the roof switch on the "OPEN/CLOSE" side and hold it until beeps are heard.



- The door windows open.
- The trunk lock un-lock
- The alarm sounds (Short whistle sound)



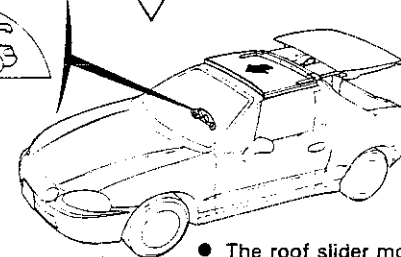
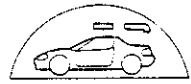
Push the reverse switch and hold it



- ① The trunk lid goes up.
- ② The trunk warning light turns ON
- ③ The alarm sounds (Short whistle sound)



- The trunk lid goes up.
- The trunk warning light turns ON



Push the reverse switch and hold it

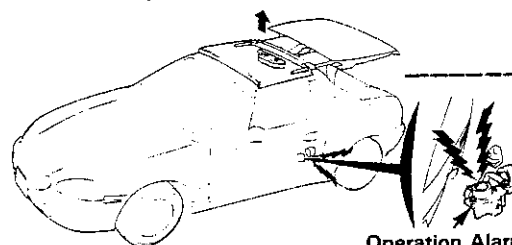


- ① Roof slider moves rearward
- ② The lid goes down.
- ③ The trunk lock locks.
- ④ The alarm sounds (Short whistle sound)

- The roof slider moves forward.
- The roof warning light turns ON.



Push the reverse switch and hold it



- ① The roof tiler goes down
- ② The roof slider moves rearward
- ③ The trunk lid goes down
- ④ The trunk lock locks
- ⑤ The alarm sounds (Short whistle sound)

- The roof tiler goes up about 80 mm (3.1 in)
- The system gives off 2 cycles/sec. beeping when the series of motions have been completed

(cont'd)

(To page 20-252)

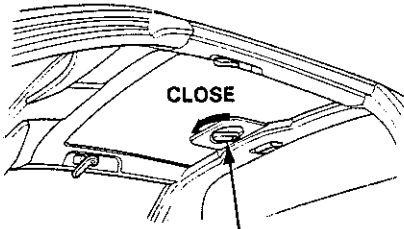
Power Roof

Power Roof Function Check

(From page 20-251)

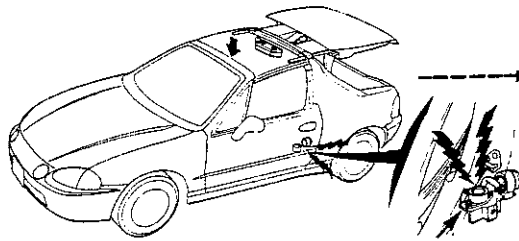


-3



ROOF CENTRE HANDLE

- Release the roof switch and slide the roof centre handle to the "CLOSE" side.



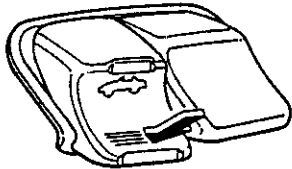
Push the reverse switch and hold it

- Does not function

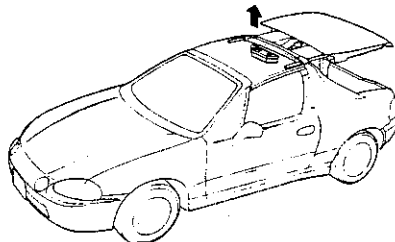
Operation Alarm

- The roof lowers
- The system gives off 6 cycles/sec. beeping.

-4



- Push the roof switch on the "OPEN/CLOSE" side and hold it until beeps are heard



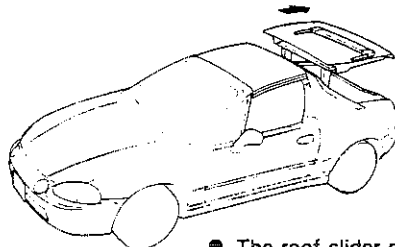
Push the reverse switch and hold it.

- ① The roof tilter goes down

- The roof tilter goes up about 10 mm (0.4 in)



Push the reverse switch and hold it.

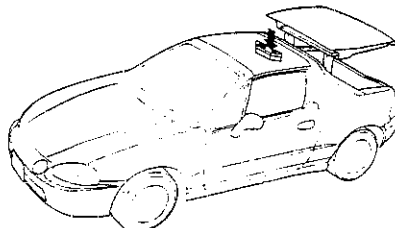


- ① The roof slider moves forward

- The roof slider moves backward.



Push the reverse switch and hold it



- ① The roof tilter goes down
- ② The roof slider moves forward.

- The roof tilter goes down to the bottom



(To page 20-253)

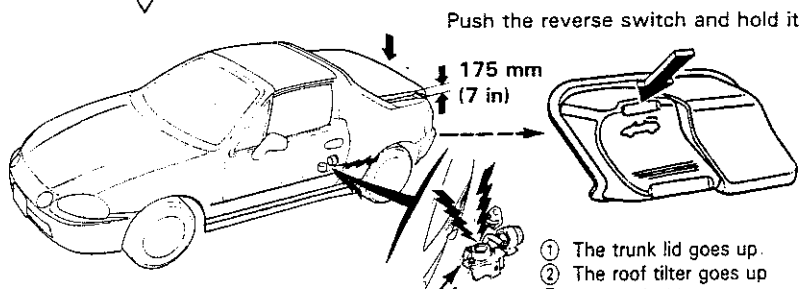
(To page 20-253)



(From page 20-252)



(From page 20-252)



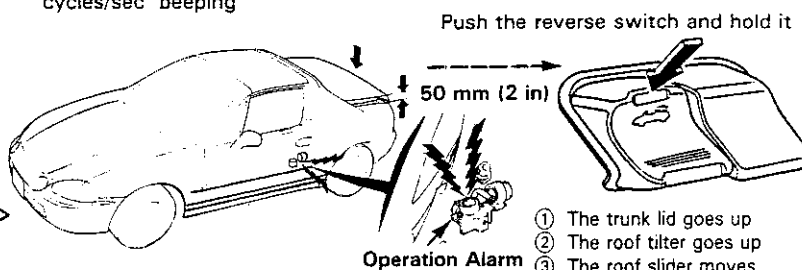
- The trunk lid lowers and stops at about 175 mm (6.9 in) from the fully closed position
- The system gives off 2 cycles/sec beeping

- ① The trunk lid goes up.
- ② The roof tilter goes up
- ③ The roof slider moves forward

-5.



- Release the roof switch Push it again on the "OPEN/CLOSE" side and hold it.



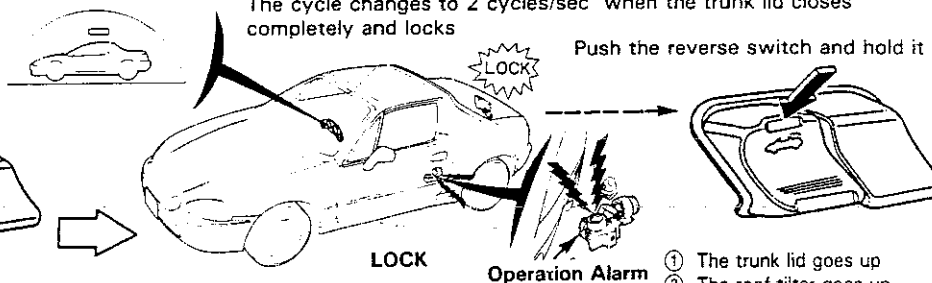
- The trunk lid goes down further and stops once again at about 50 mm (2.0 in) from the fully closed position
- Continuous beeping is heard while the boot lid is lowering The cycle changes to 2 cycles/sec when the trunk lid closes completely and locks

- ① The trunk lid goes up
- ② The roof tilter goes up
- ③ The roof slider moves forward

-6



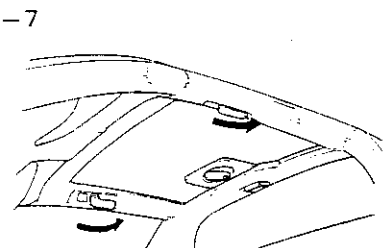
- Release the roof switch Push it again on the "OPEN/CLOSE" side and hold it.



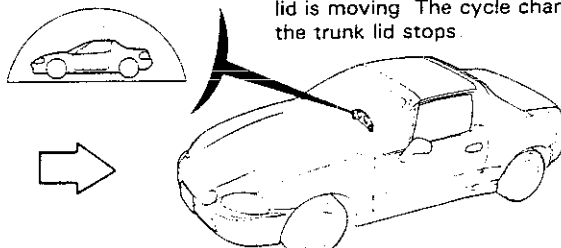
- The trunk lid goes down to the bottom and locks when it closes completely
- The trunk lock locks.
- The system gives off continuous beeping while the trunk lid is moving The cycle changes to 2 cycles/sec when the trunk lid stops.

- ① The trunk lid goes up
- ② The roof tilter goes up
- ③ The roof slider moves forward

-7



- Lock the roof-side lock on both sides Make sure to pull up the lever until the red mark next to the knob disappears

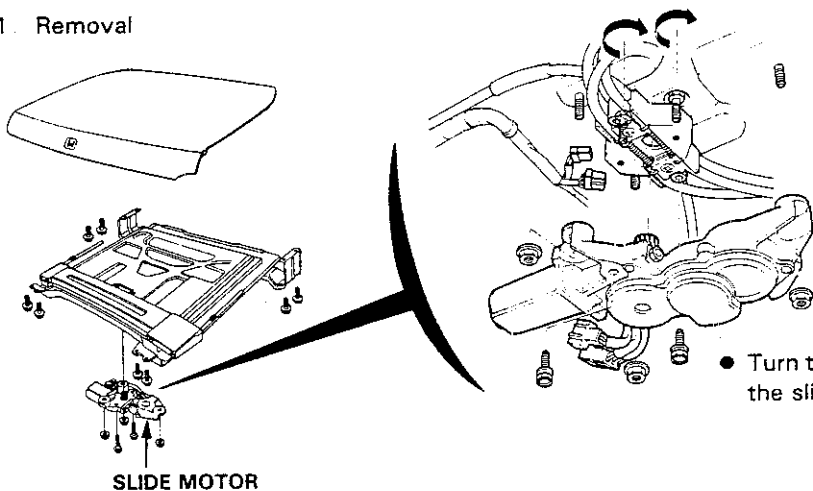


- The roof warning light turns OFF.
- The 2 cycles/sec beeping stops when the roof has been securely closed and locked

Power Roof

Slide Motor Replacement

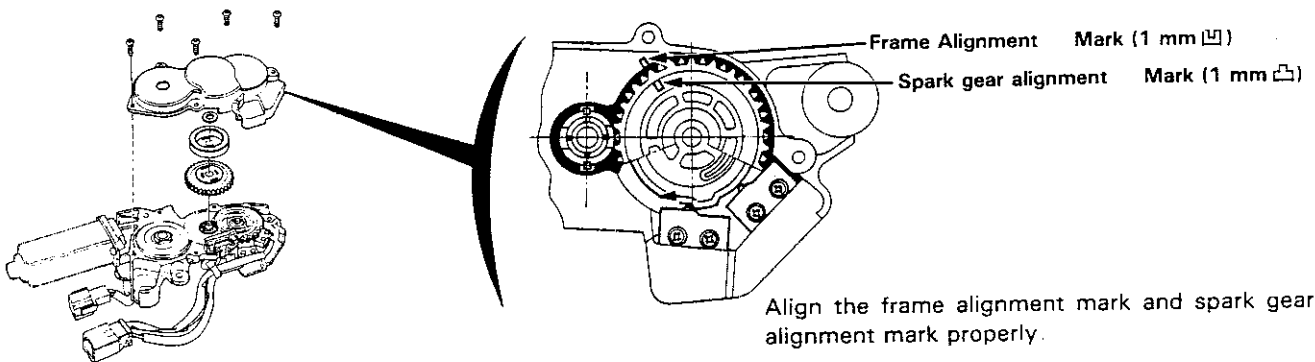
-1. Removal



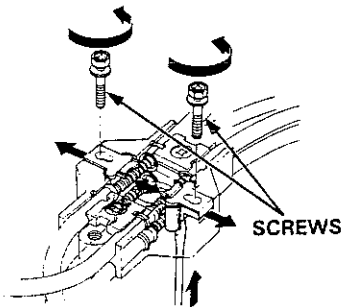
● Turn the screws counterclockwise and remove the slide motor.

-2. Installation

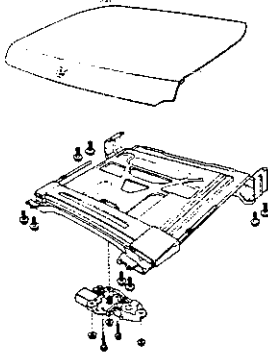
NOTE: Before installation, check the alignment marks on the slide motor for proper alignment



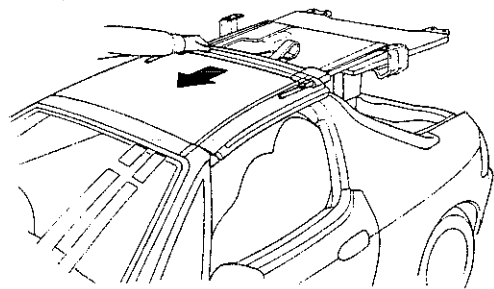
(1) Turn the outer cable screws counterclockwise to increase the clearance between the cables



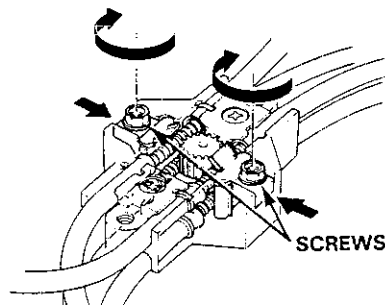
(2) Install the slide motor.



(3) Slide the roof motor fully forward by hand

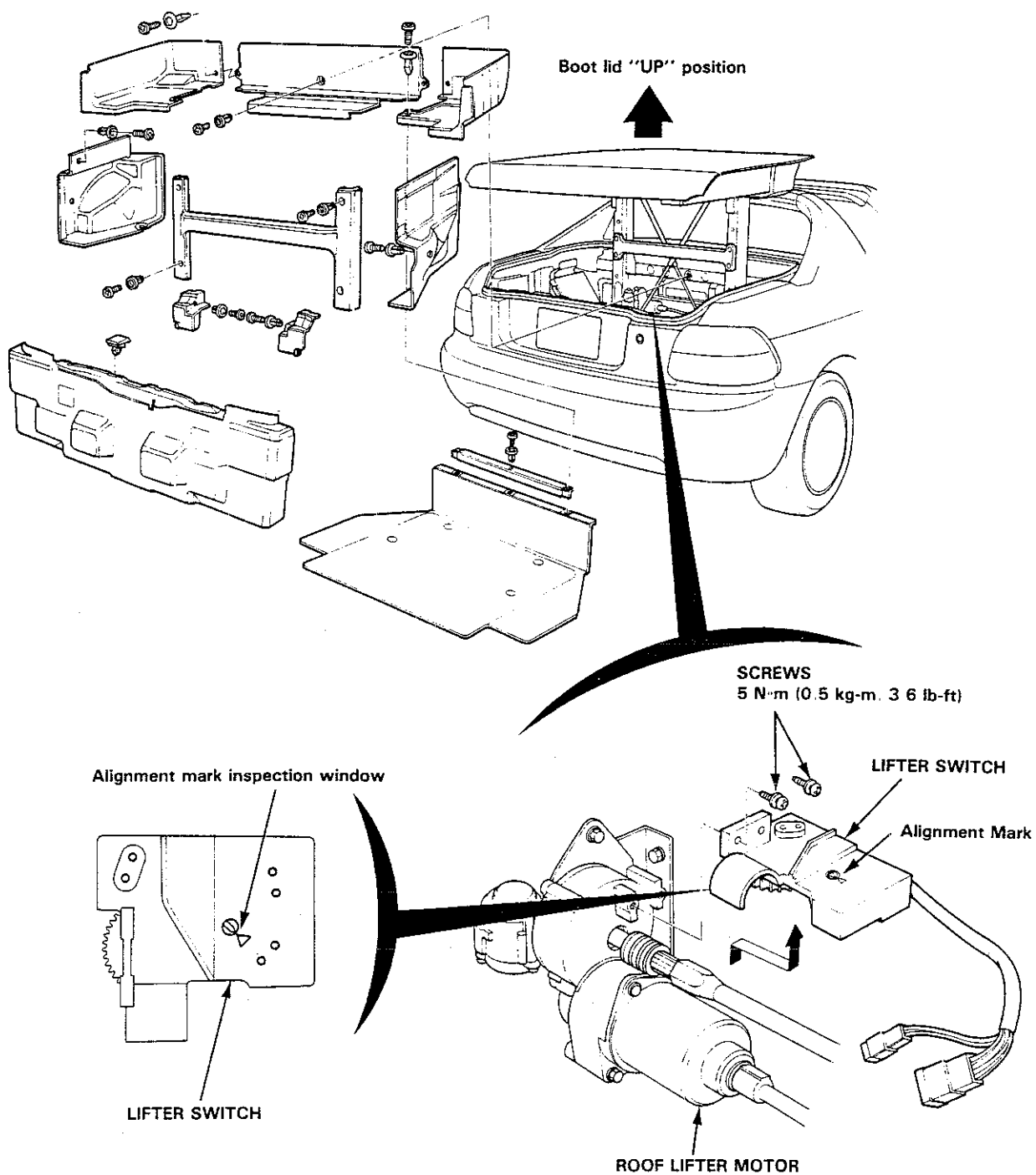


(4) Turn the outer cable screws clockwise to adjust the clearance between the cables to the normal clearance.





Lifter Switch Replacement



NOTE: Be sure that alignment marks are aligned properly or the lifter switch is damaged.

- (1) Lift the boot lid to the "UP" position.
- (2) Check the alignment marks of the lifter switch for proper alignment and install the lifter switch

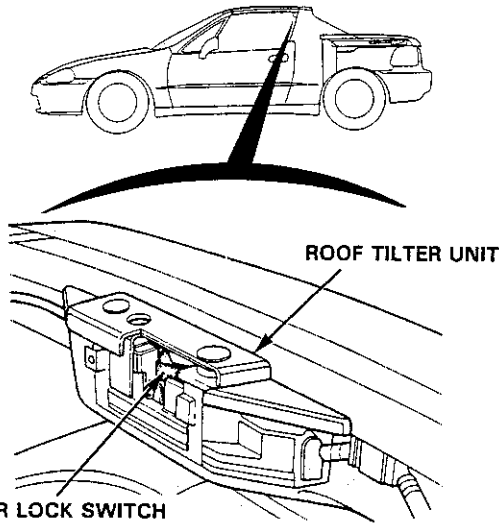
Power Roof

Roof Tilter Unit Replacement

Tilter Switch Replacement

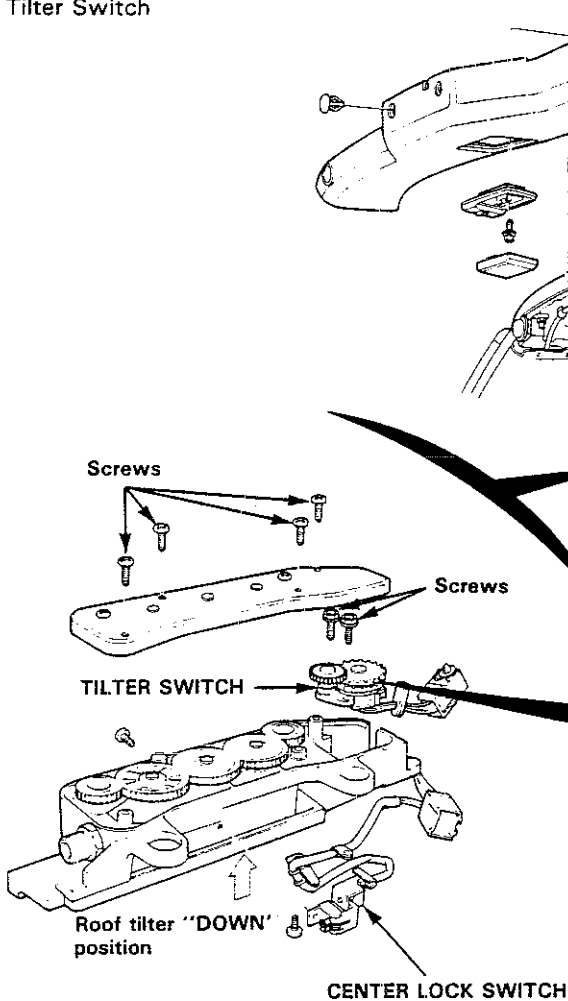
- Roof Tilter Unit

CLOSE

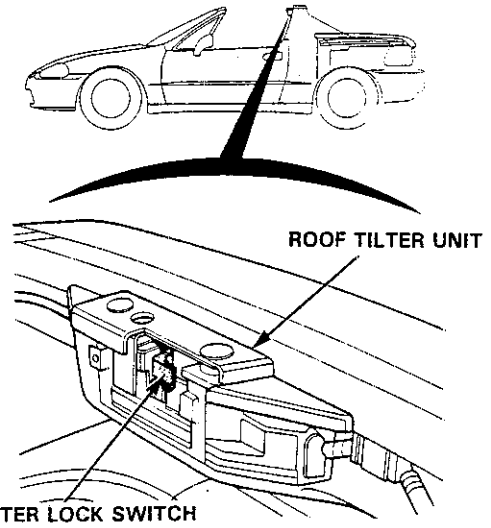


- (1) When the power roof is closed, be sure that the center lock switch is set at the rear side before replacing the roof tilter unit.

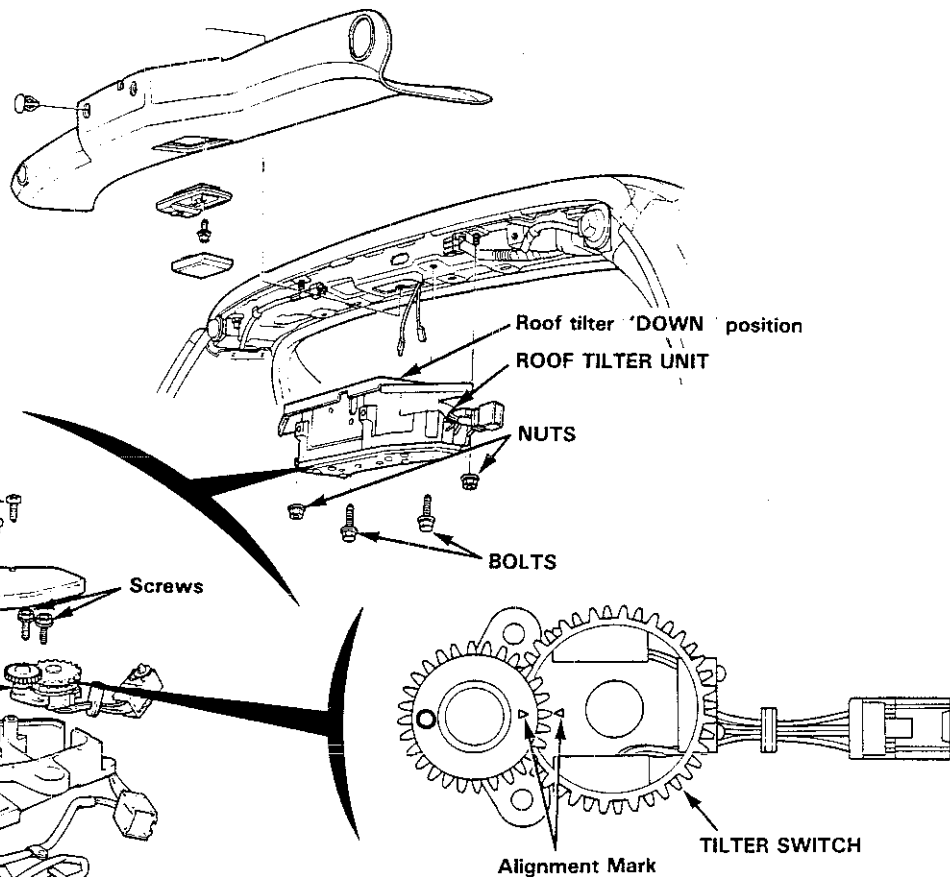
- Tilter Switch



OPEN



- (1) When the power roof is open, be sure that the center lock switch is set at the front side before replacing the roof tilter unit.



- (1) Lower the roof tilter to the DOWN position
 (2) Align the alignment marks of the roof tilter switch and install the switch.