

# Sunroof

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### SUNROOF MOTOR

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### SUNROOF SWITCH

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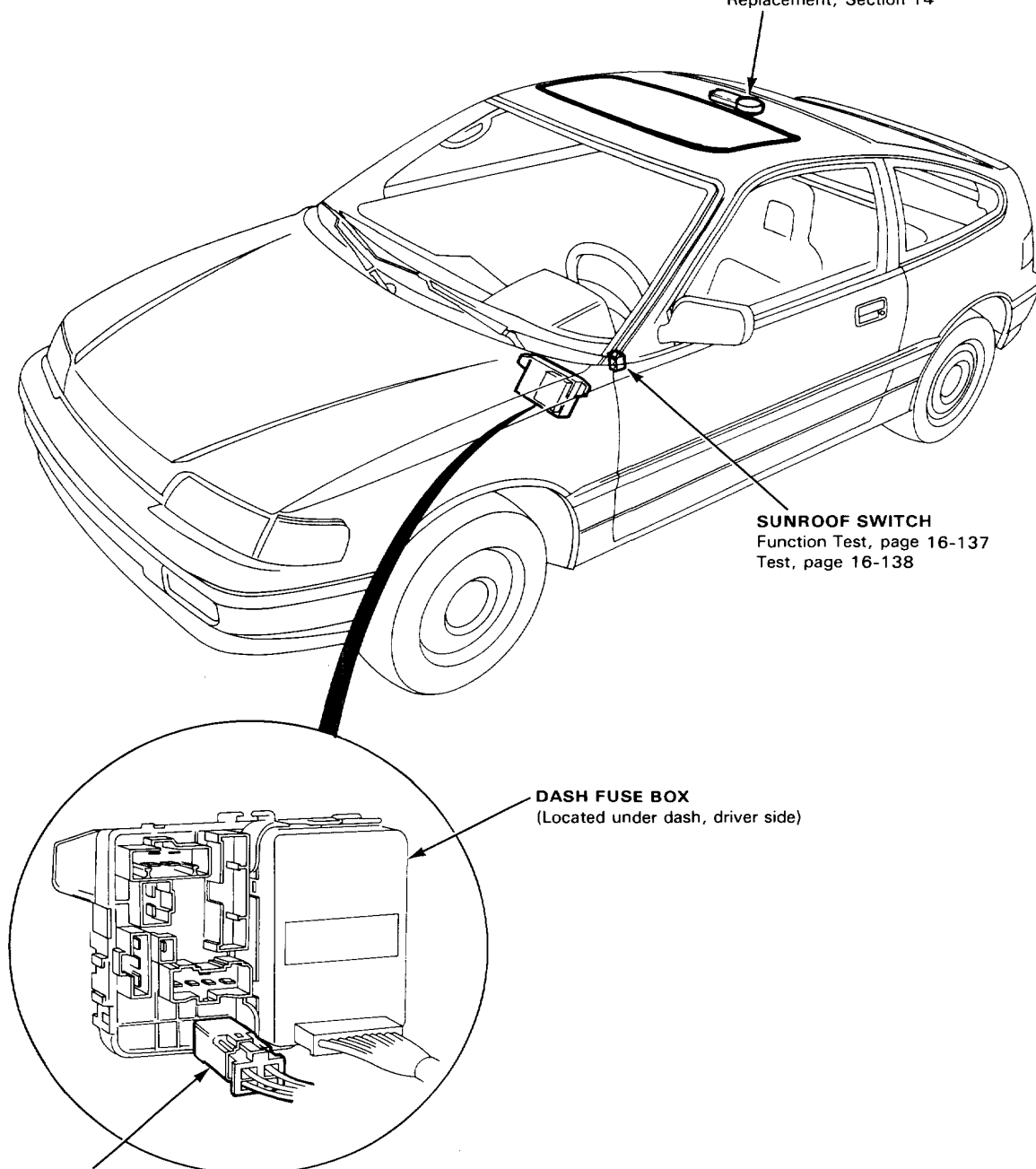
### DASH FUSE BOX

(Located under dash, driver side)

### SUNROOF RELAY

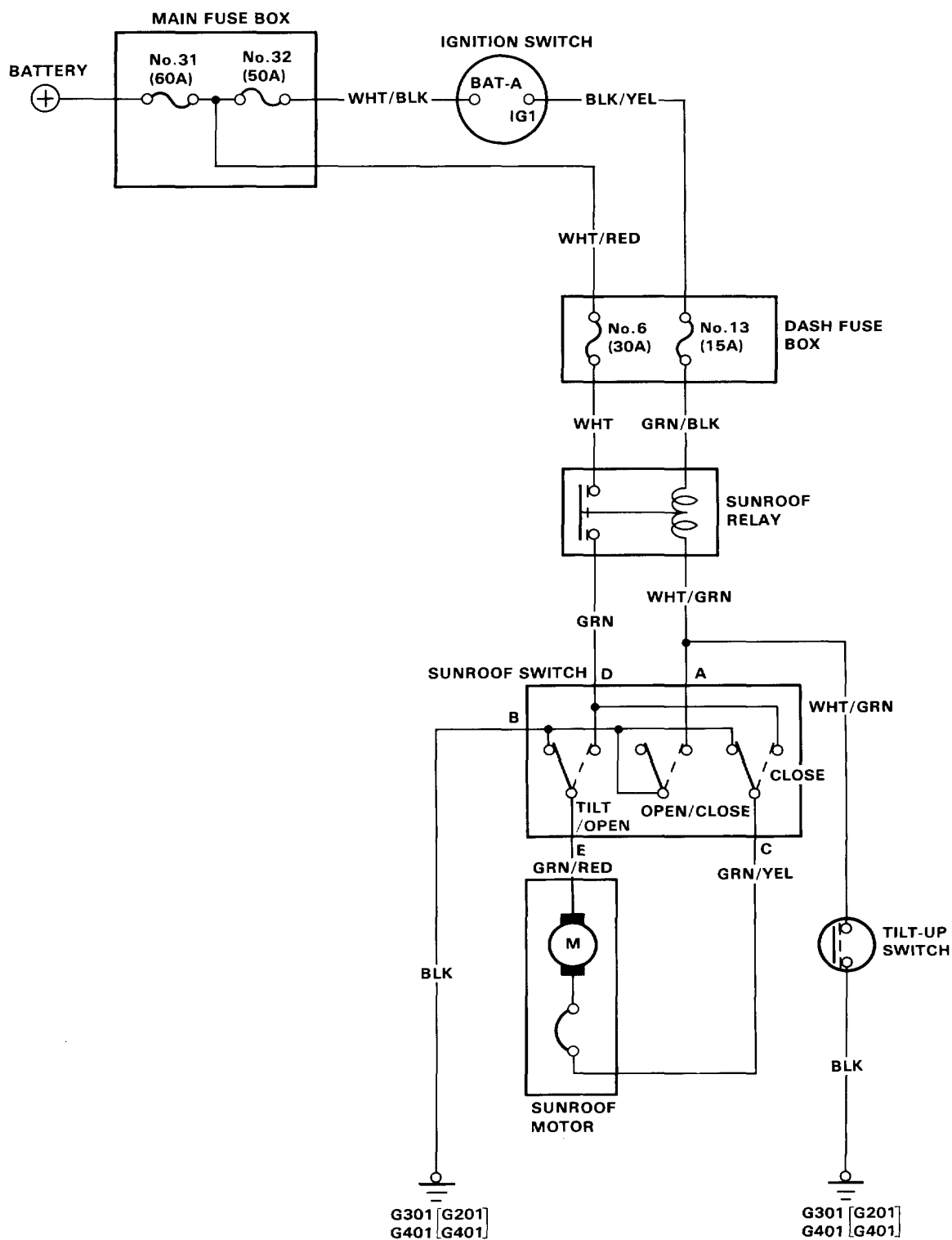
Wire colors: WHT, GRN  
GRN/BLK, WHT/GRN

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## Circuit Diagram



# Sunroof

## Electrical Troubleshooting

**NOTE:** The numbers in the table show the troubleshooting sequence.

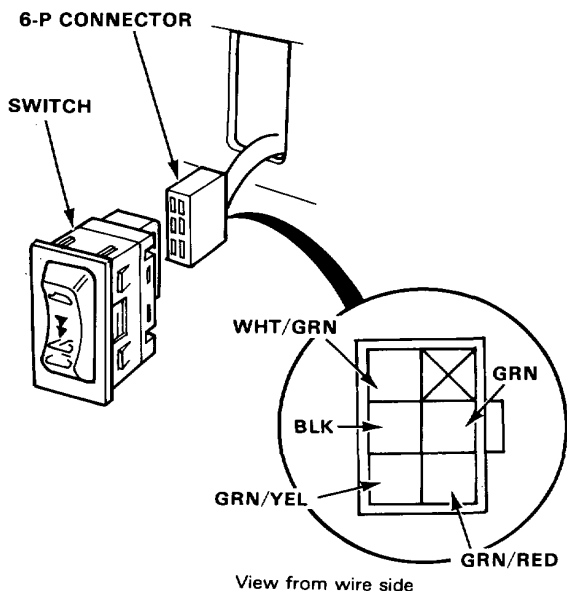
Item to be inspected		Clutch out of adjustment, foreign matter stuck between guide rail and sunroof, or outer cable not attached properly	Blown No. 6 (30A) fuse (in the dash fuse box)	Blown No. 13 (15A) fuse (in the dash fuse box)	Function test	Sunroof relay	Sunroof motor	in the cable assembly		Poor ground	Open circuit in wires or loose or disconnected terminals.
Symptom								Tilt-up switch	Sunroof switch		
Sunroof does not move, but motor turns.		1									
Sunroof does not move and motor does not turn (sunroof can be moved with sunroof wrench).	In all switch positions		1	2	3	4	5			G301,G401 [G201,G401]	WHT, GRN/BLK, GRN WHT/GRN, GRN/RED or GRN/YEL
	With OPEN switch.								1		
	With CLOSE switch.								1		
	With TILT switch.							2	1	G301,G401 [G201,G401]	

[ ] -- RHD



## Function test

1. Remove the dashboard lower panel.
2. Push out the switch from behind the instrument panel, then disconnect the 6-P connector to remove the switch.



3. Check for continuity between the BLK terminal and body ground.  
If no continuity, check for poor ground (LHD: G301, 401 RHD: G201, 401)
4. Check for continuity between the WHT/GRN terminal and body ground with the ignition switch OFF.  
There should be continuity when the sunroof is closed.  
There should be no continuity when the sunroof is opened.
  - If the continuity is not as specified, check for:
    - Faulty tilt-up switch.
    - Poor ground of the tilt-up switch (LHD: G301, 401 RHD: G201, 401)
  - If the continuity is specified, go to step 5.

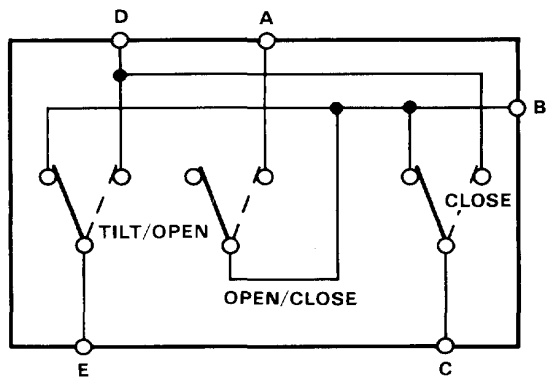
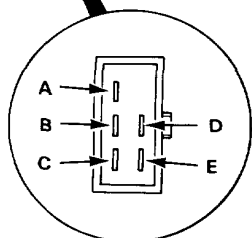
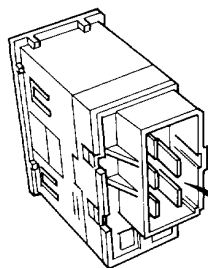
5. Check for voltage between the WHT/GRN terminal and the BLK terminal with the ignition switch ON.  
There should be battery voltage when the sunroof is opened.
  - If there is no voltage, check for:
    - Faulty sunroof relay.
    - An open in the GRN/BLK or WHT/GRN wire.
  - If there is battery voltage, go to step 6.
6. Check for voltage between the GRN terminal and BLK terminal with the ignition switch ON.  
There should be battery voltage when the sunroof closed.
  - If there is no voltage, check for:
    - Faulty sunroof relay.
    - An open in the WHT or GRN wire.
  - If there is battery voltage, go to step 7.
7. Connect the WHT/GRN terminal to body ground, and the GRN terminal to the GRN/RED terminal, and the GRN/YEL terminal to the BLK terminal with jumper wires.  
The sunroof should open when the ignition switch is turned ON.
  - If the sunroof opens, check the sunroof switch.
  - If not, remove the headlining and check the motor.

# Sunroof

## Switch test

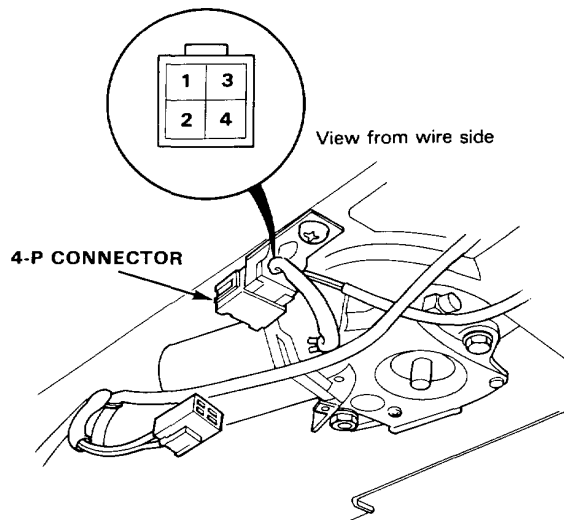
1. Remove the dashboard lower panel.
2. Push out the switch from behind the instrument panel, then disconnect the 6-P connector to remove the switch.
3. Check for continuity between the terminals in each switch position according to the table.

Terminal Position	A	B	C	D	E
OFF		○—○	○—○		○—○
TILT				○—○	○—○
OPEN	○—○	○—○		○—○	○—○
CLOSE	○—○	○—○	○—○	○—○	



## Tilt Up Switch

1. Remove the headliner (See section 14).
2. Disconnect the 4-P connector from the sunroof motor.
3. Check for continuity between the No.1 and No.2 terminals. There should be continuity when the sunroof is not tilted. There should be no continuity when the sunroof is the tilt-up position.

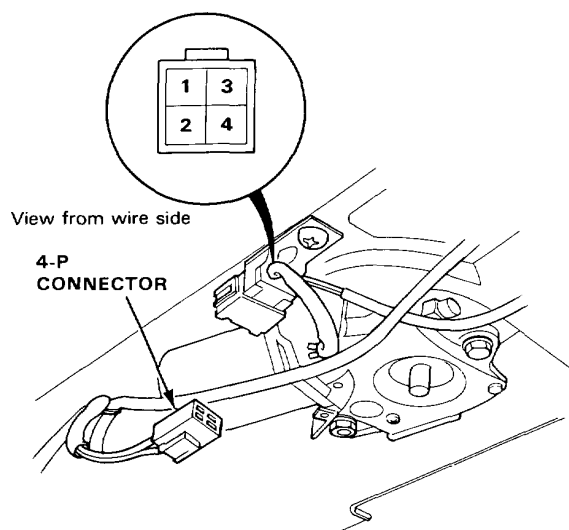




## Motor Test

1. Remove the headliner.
2. Disconnect the 4-P connector from the sunroof motor.
3. Test motor operation by connecting battery to the No. 3 and No. 4 terminals. Test the motor in each direction, by switching the leads from the battery.
4. If the motor does not run, replace it.

NOTE: See Closing Force Check in section 20 for motor clutch test.



## Relay Test

1. Remove the sunroof relay from the dash fuse box.
2. There should be continuity between the A and B terminals when the battery is connected to the C and D terminals. There should be no continuity when the battery is disconnected.

