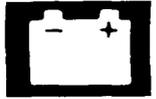


Power Windows



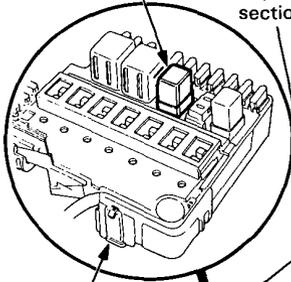
Component Location Index

POWER WINDOW RELAY
Test, page 16-196

R. FRONT MOTOR
Test, page 16-195
Replacement, section 14

R. REAR SWITCH
Test, page 16-194
Replacement, page 16-194

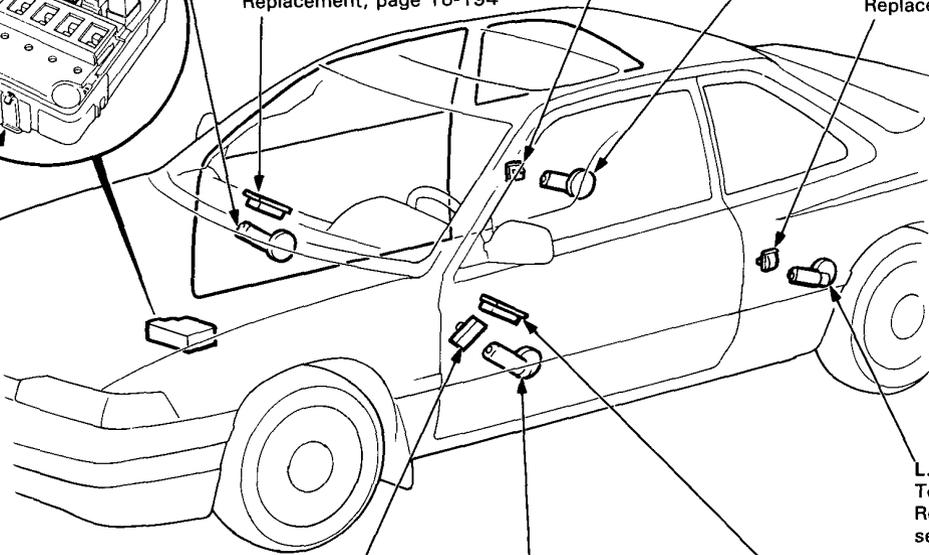
R. REAR MOTOR
Test, page 16-195
Replacement, section 14



UNDER-HOOD RELAY BOX

R. FRONT SWITCH
Test, page 16-194
Replacement, page 16-194

L. REAR SWITCH
Test, page 16-194
Replacement, page 16-194



POWER WINDOW CONTROL UNIT
Input Test, page 16-192

DRIVER'S MOTOR
Test, page 16-195
Replacement, section 14

DRIVER'S SWITCH
Test, page 16-193
Replacement, page 16-194

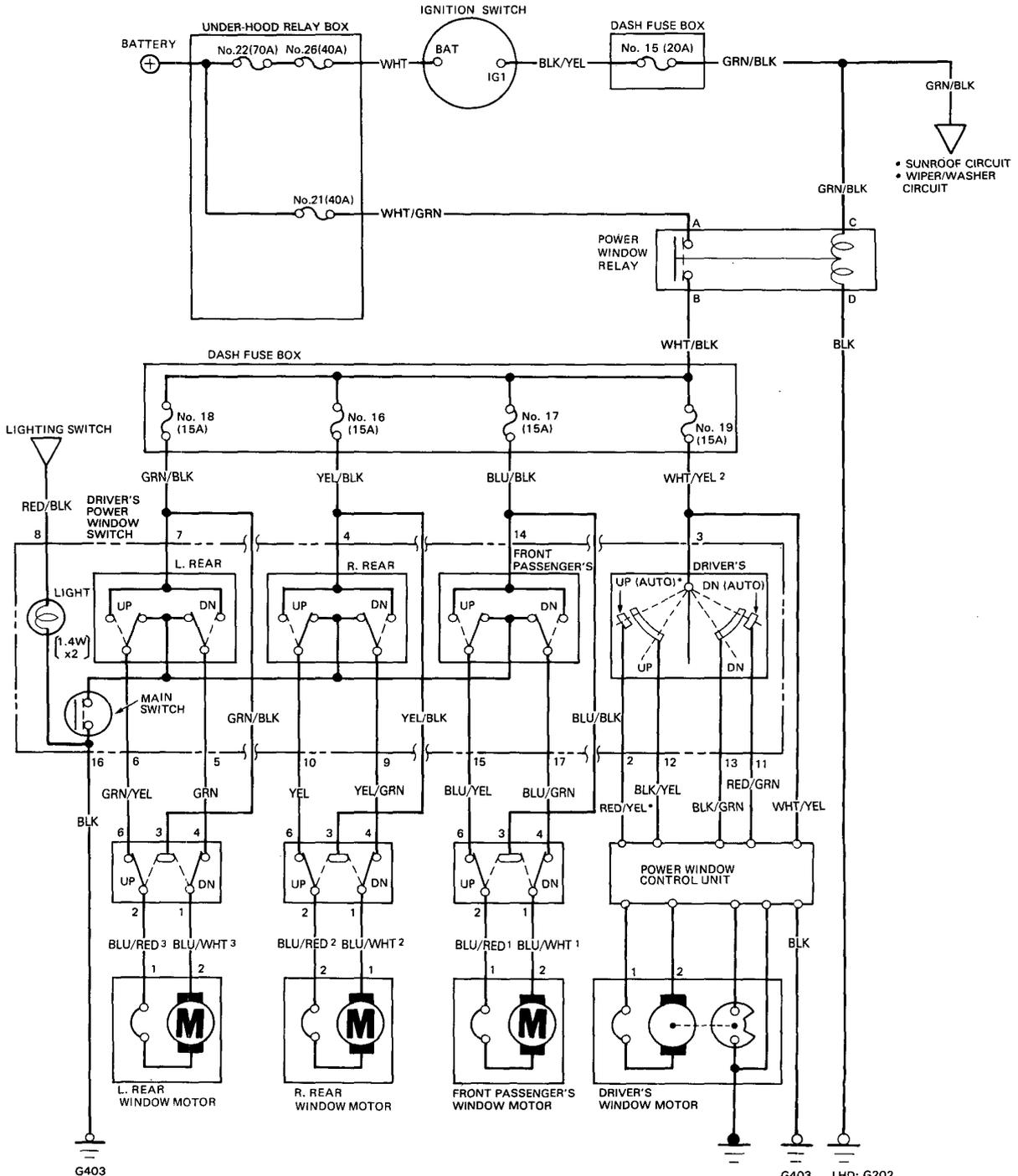
L. REAR MOTOR
Test, page 16-195
Replacement, section 14

Power Windows

Circuit Diagram

NOTE:

- Several different wires have the same color. They have been given a number suffix to distinguish them (for example BLU/WHT¹ and BLU/WHT² are not the same).
- "DN" in the switch circuit denotes DOWN.



*: Standard for some types

G403

LHD: G202
RHD: G204



Troubleshooting

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

Symptom	Item to be inspected										Poor ground	Open circuit in wires or loose or disconnected terminals					
	Blown No. 21 (40 A) fuse (in the under-hood relay box)	Blown No. 15 (20A) fuse (in the dash fuse box)	Power window relay	in the dash fuse box				Driver's motor	Window regulator	Driver's switch			Passenger's switch	Pulser (in driver's motor)	Passenger's motor	Control unit input	
All windows do not operate.	1	2	3													LHD: G202 RHD: G204	WHT/BLK or GRN/BLK
Driver's window does not operate.				1				2	3					4	G403	WHT/YEL	
Driver's window does not operate in (AUTO)										1	2		3			RED/GRN, RED/YEL* or BLU	
Passenger's windows do not operate.	Front				1			3	5	4		2			G403	BLU/YEL, BLU/GRN, BLU/RED ¹ , BLU/WHT ¹ or BLU/BLK	
	Left rear					1		3	5	4		2			G403	GRN/YEL, GRN ² , BLU/RED ³ , BLU/WHT ³ or GRN/BLK	
	Right rear						1	3	5	4		2			G403	YEL ² , YEL/GRN, BLU/RED ² , BLU/WHT ² or YEL/BLK	

*: Standard for some types

Power Windows

Control Unit Input Test

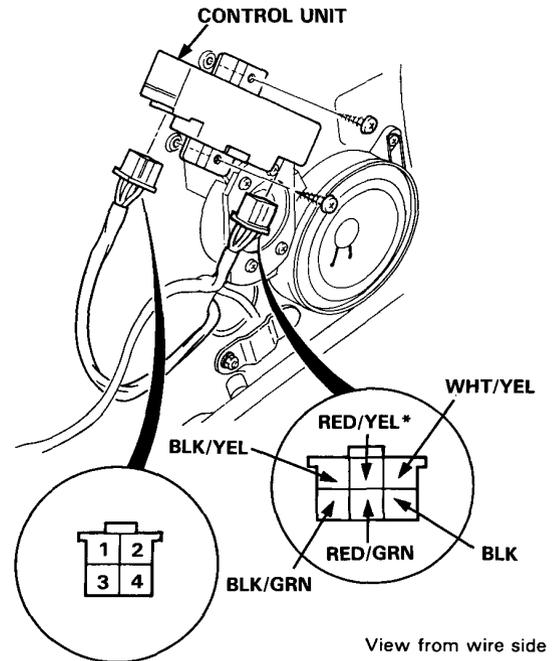
NOTE: The control unit only controls the driver's door window.

Remove the driver's door trim panel and remove the control unit from the panel to disconnect the 4-P and 6-P connectors from the control unit. Make the following input tests at the harness pins.

NOTE:

- To test the unit, keep the driver's switch connector connected with the door wire harness.
- Recheck the connections between the 4-P and 6-P connectors, and the control unit, then replace the control unit if all input tests prove OK.

*: Standard for some types

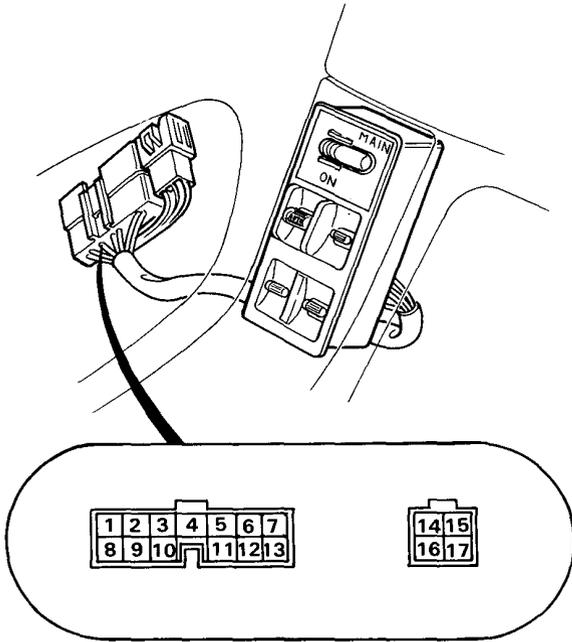


No.	Wire	Test condition	Test: desired result	Possible cause (if result is not obtained)
1	BLK	Under all conditions.	Check for continuity to ground: should be continuity.	<ul style="list-style-type: none"> • Poor ground (G403). • An open in the wire.
2	WHT/YEL	Ignition switch ON.	Check for voltage to ground: should be battery voltage.	<ul style="list-style-type: none"> • Blown No. 21 (40 A) or No. 19 (15 A) fuse. • Faulty power window relay. • Poor ground. (LHD: G202, RHD: G204). • An open in the WHT/YEL or WHT/BLK wire.
3	BLK/YEL	Ignition switch ON and driver's switch UP.	Check for voltage to ground: should be battery voltage as the switch is turned.	<ul style="list-style-type: none"> • Faulty driver's switch. • An open in the wire.
4	BLK/GRN	Ignition switch ON and driver's switch DOWN.		
5	RED/YEL*	Ignition switch ON and driver's switch UP (AUTO).		
6	RED/GRN	Ignition switch ON and driver's switch DOWN (AUTO).		
7	No. 3 and No. 4	Connect the WHT/YEL terminal to the No. 1 terminal, and the BLK terminal to the No. 2 terminal.	Check for resistance between the No. 3 and No. 4 terminals: should indicate between 20–50 ohms as the motor runs.	<ul style="list-style-type: none"> • Faulty pulser. • Faulty driver's motor. • An open in the wire.



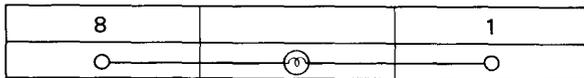
Driver's Switch Test

1. Remove the door trim panel.
2. Check for continuity between the terminals in each switch position according to the tables.



View from wire side

Switch Light



Driver's Switch (*: Standard for some types)

Terminal	2	12	3	13	11
Position					
UP (AUTO)*	○	○	○		
UP		○	○		
OFF					
DOWN			○	○	
DOWN (AUTO)			○	○	○

Front Passenger's Switch

Terminal	14	15	16	17
Position				
Main Switch				
UP	○	○	○	○
OFF	○	○		
DOWN	○	○	○	○

Right Rear Switch

Terminal	4	10	16	9
Position				
Main Switch				
UP	○	○	○	○
OFF	○	○		
DOWN	○	○	○	○

Left Rear Switch

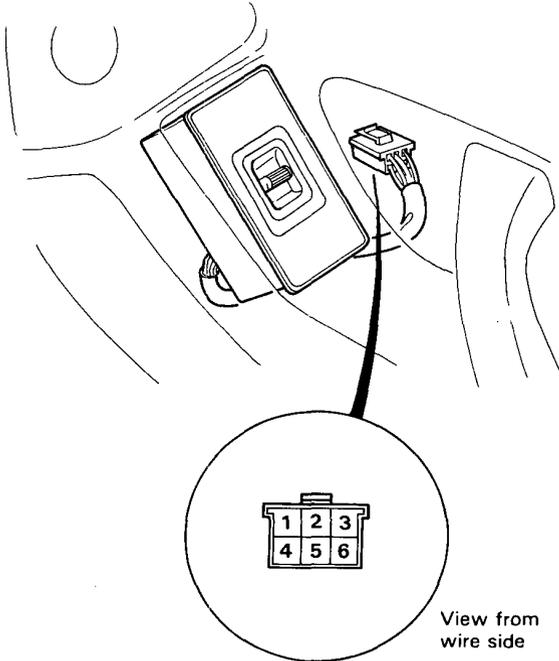
Terminal	7	6	16	5
Position				
Main Switch				
UP	○	○	○	○
OFF	○	○		
DOWN	○	○	○	○

Power Windows

Passenger's Switch Test

1. Remove the door trim panel.
2. Check for continuity between the terminals in each switch position according to the table.

NOTE: Right front switch shown; rear switches similar.

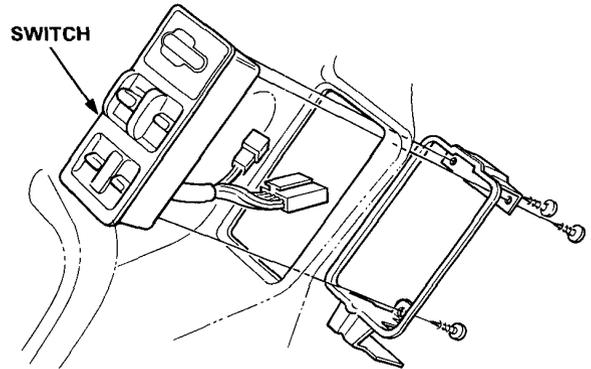


Terminal Position	3	2	1	6	4
UP	○—○				
OFF			○—○		
DOWN	○—○				

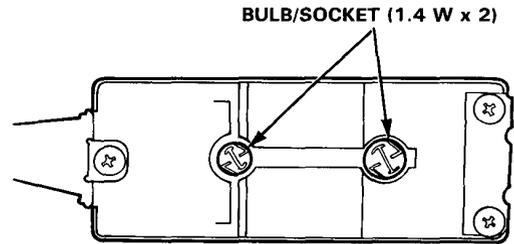
Switch Replacement

Driver's Switch:

1. Remove the door trim panel.
2. Remove the switch from the door trim panel by releasing the 3 mounting screws.



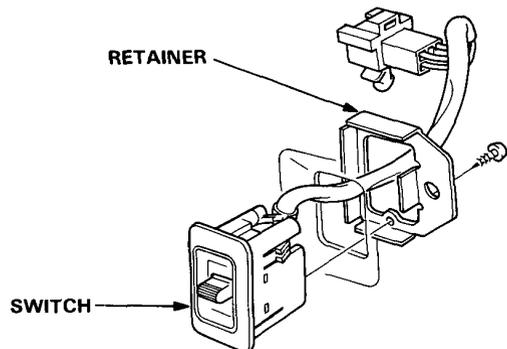
3. If it is necessary to service the driver's switch light, turn the socket 45° counterclockwise to remove it.



Passenger's Switches:

1. Remove the door trim panel.
2. Remove the switch from the door trim panel by releasing the screw and retainer.

NOTE: Right front switch shown; rear switches similar.

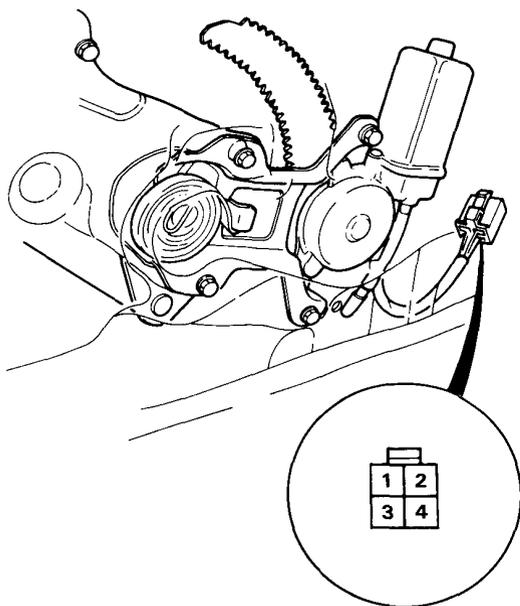




Driver's Motor Test

Motor Test

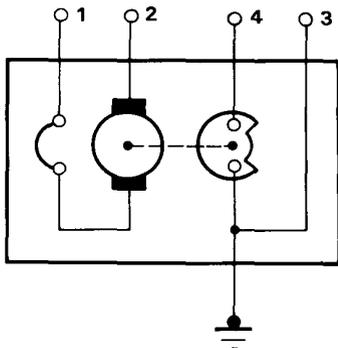
1. Remove the door trim panel.
2. Remove the control unit from the panel to disconnect the 4-P connector from the power window control unit.
3. Test motor operation by connecting battery voltage to the No. 1 and No. 2 terminals. Test the motor in each direction, by switching the leads from the battery.
4. If the motor does not run, replace it.



View from wire side

Pulser Test

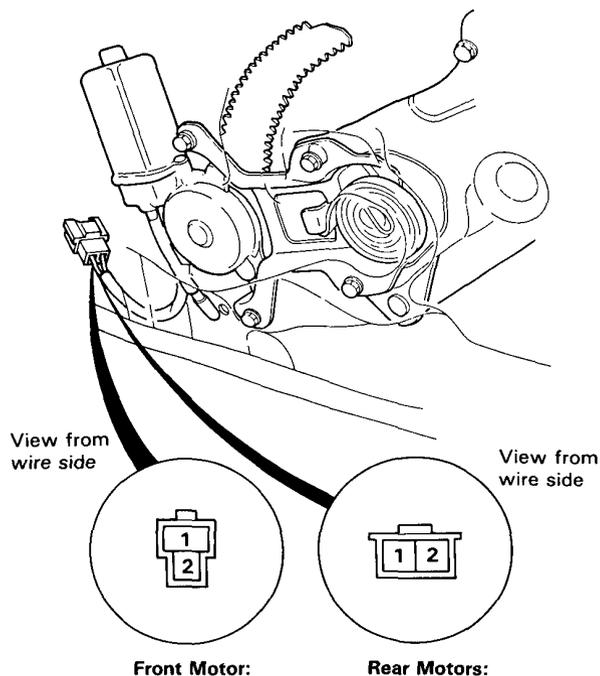
Measure resistance between the No. 3 and No. 4 terminals when running the motor by connecting battery voltage to the No. 1 and No. 2 terminals. Ohmmeter should indicate between 20–50 ohms as the motor runs.



Passenger's Motor Test

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

NOTE: Front motor shown; rear motors similar.



Front Motor:

Rear Motors:

Power Windows

Relay Test

1. Remove the power window relay in the under-hood relay 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.

