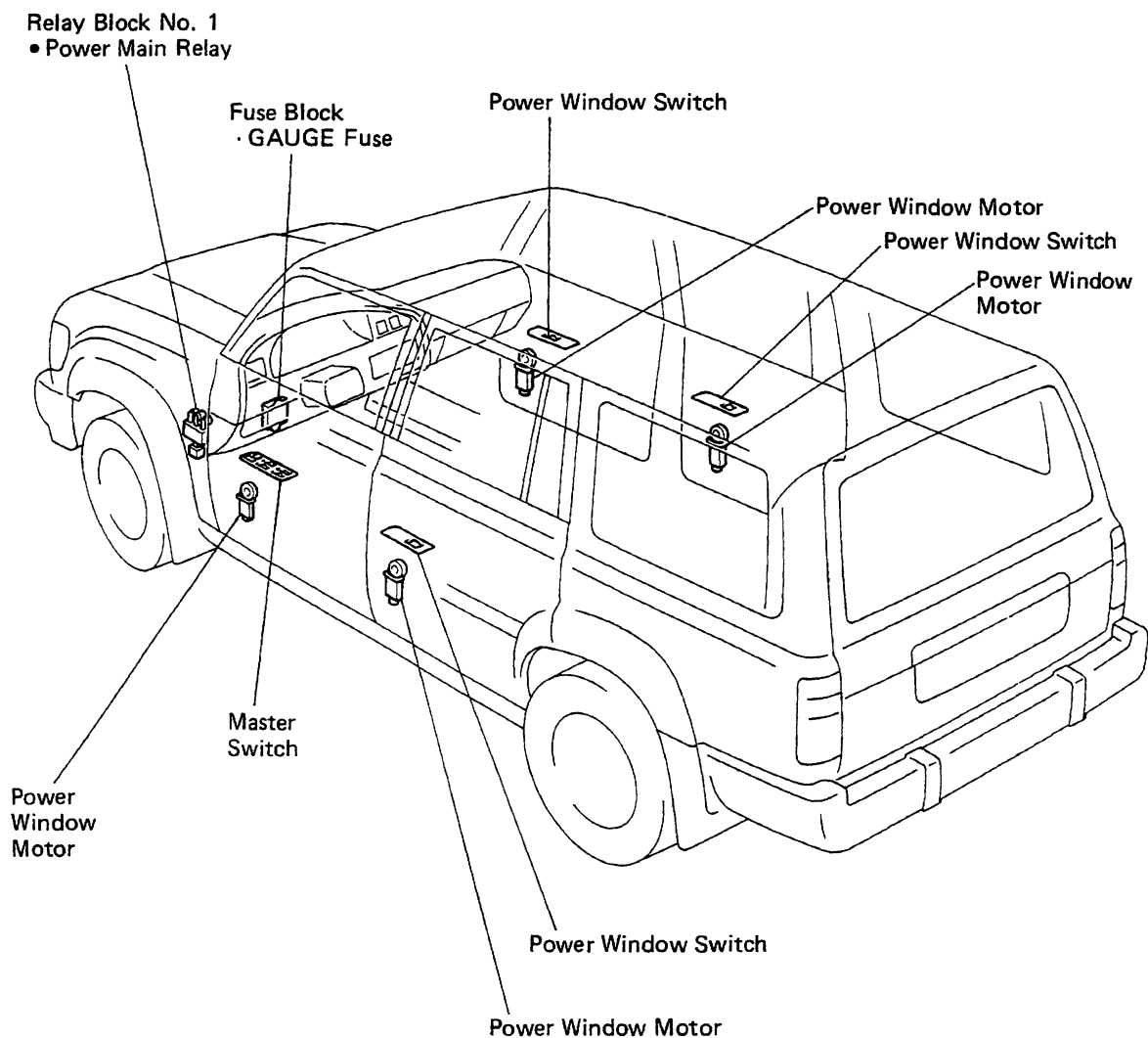
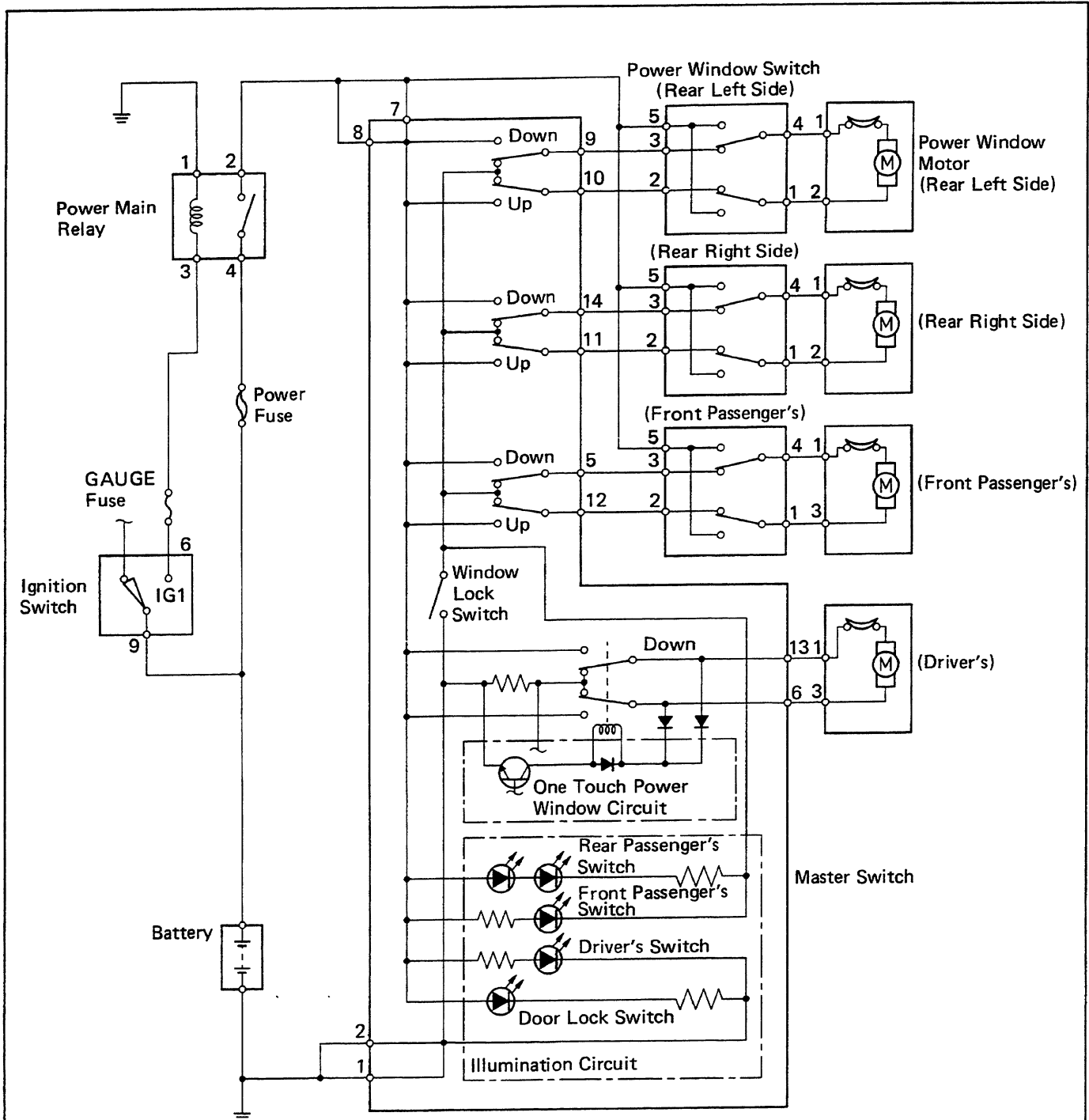


POWER WINDOW CONTROL SYSTEM

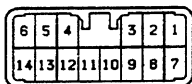
Parts Location



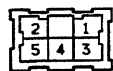
Wiring and Connector Diagrams



Master Switch

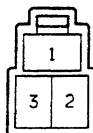


Power Window Switch



Power Window Motor

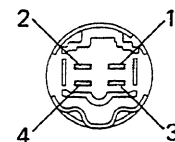
(Front)



(Rear)



Power Main Relay



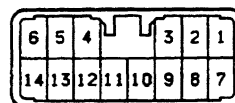
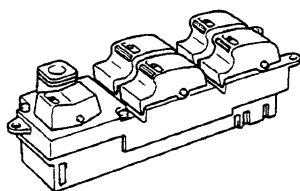
The POWER SOURCE CIRCUIT has been simplified. For full details, see page BE-10.

Troubleshooting

Problem	Possible cause	Remedy	Page
Power window does not operate at all	GAUGE fuse blown POWER fuse blown Power main relay faulty Wiring or ground faulty	Replace fuse and check for short Replace fuse and check for short Check relay Repair as necessary	BE-4, 6 BE-4, 6 BE-53
One-touch power window does not operate	Power window master switch faulty	Check Switch	BE-48
Only one window does not operate	Power window switch faulty Power window motor faulty Wiring Faulty	Check switch Check motor Repair as necessary	BE-50 BE-50

Parts Inspection

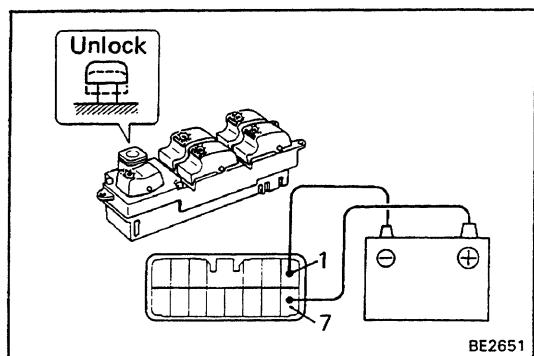
1. INSPECT SWITCHES (Master Switch/Continuity)



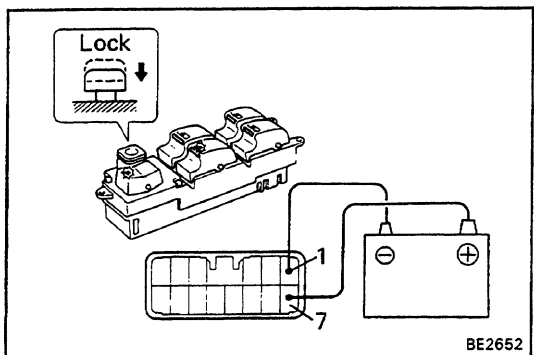
BE2594 S-14-2B

Window operation		Front								Rear							
		Driver's				Passenger's				Left				Right			
Terminal		1 and 2	6	7 and 8	13	1 and 2	5	7 and 8	12	1 and 2	7 and 8	9	10	1 and 2	7 and 8	11	14
Switch position																	
Window lock	UP		○	○				○	○		○	○	○		○	○	
	OFF	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	DOWN			○	○		○	○			○	○			○	○	
Window lock	UP		○	○				○	○		○	○	○		○	○	
	OFF	○	○	○	○		○	○	○			○	○			○	○
	DOWN	○	○				○	○			○	○			○	○	

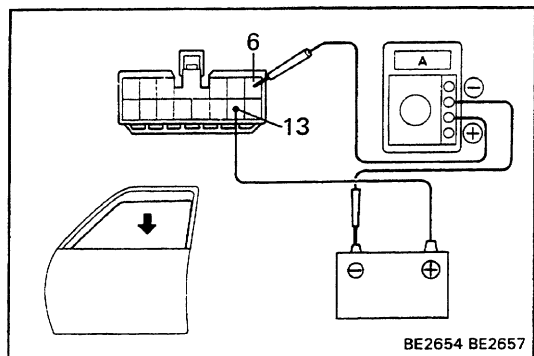
If continuity is not as specified, replace the master switch.

**(Master Switch: Illumination)**

- (a) Set the window lock switch to the unlock position.
- (b) Connect the positive (+) lead from the battery to terminal 7 and the negative (-) lead to terminal 1, check that all the illuminations light up.



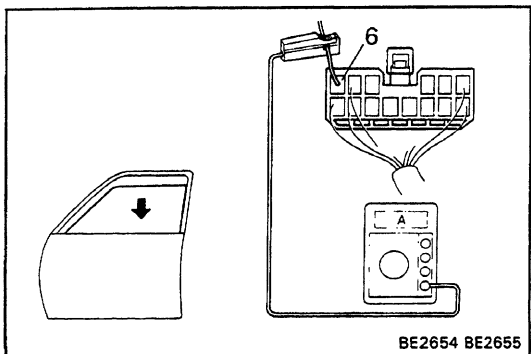
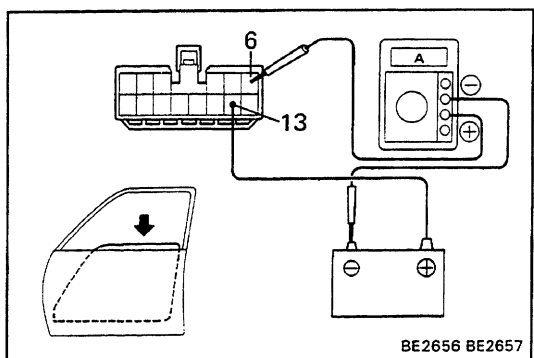
- (c) Set the window lock switch to the lock position, check that all the passenger's power window switch illuminations go out.
If operation is not as specified, replace the master switch.

**(Master Switch: One Touch Power Window System/ Current of Circuit)****Inspection using an ammeter.**

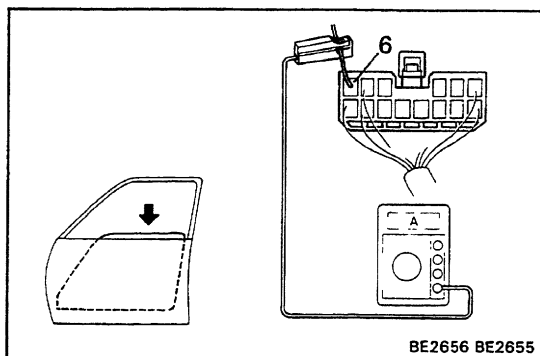
- (a) Disconnect the connector from the master switch.
- (b) Connect the positive (+) lead from the ammeter to terminal 6 on the wire harness side connector and the negative (-) lead to negative terminal of the battery.
- (c) Connect the positive (+) lead from the battery to terminal 13 on the wire harness side connector.
- (d) As the window goes down, check that the current flows approximately 7 amperes.
- (e) Check that the current increases approximately 14.5 amperes or more when the window stops going down.

HINT: The circuit breaker opens some 4 – 40 seconds after the window stops going down, so that check must be made before the circuit breaker operates.

If the operation is as specified, replace the master switch.

**Inspection using an ammeter with a current-measuring probe.**

- (a) Remove the master switch with connector connected.
- (b) Attach a current-measuring probe to terminal 6 of the wire harness.
- (c) Turn the ignition switch ON and set the power window switch in the down position.
- (d) As the window goes down, check that the current flows approximately 7 amperes.



- (e) Check that the current increases approximately 14.5 amperes or more when the window stops going down.

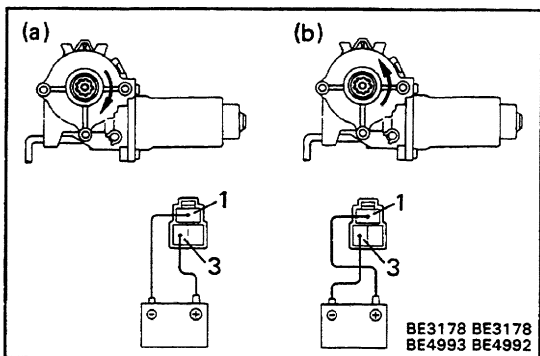
HINT: The circuit breaker opens some 4 – 40 seconds after the window stops going down, so that check must be made before the circuit breaker operates.

If operation is as specified, replace the master switch.

(Power Window Switch/Continuity)

Terminal Switch position	1	2	3	4	5
UP	○		○	○	○
OFF	○	○	○	○	
DOWN	○	○		○	○

If continuity is not as specified, replace the switch.

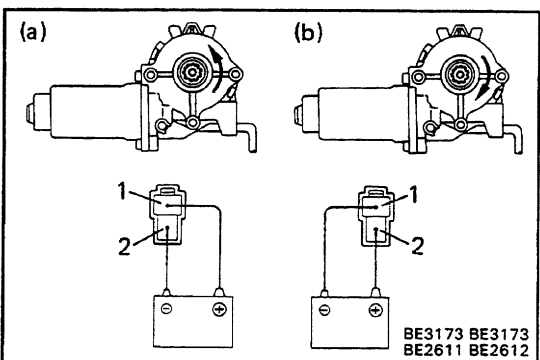


2. INSPECT POWER WINDOW MOTOR (Left Side Door Motor/Motor Operation)

Front Door:

- (a) Connect the positive (+) lead from the battery to terminal 3 and the negative (-) lead to terminal 1, check that the motor turns clockwise.
- (b) Reverse the polarity, check that the motor turns counterclockwise.

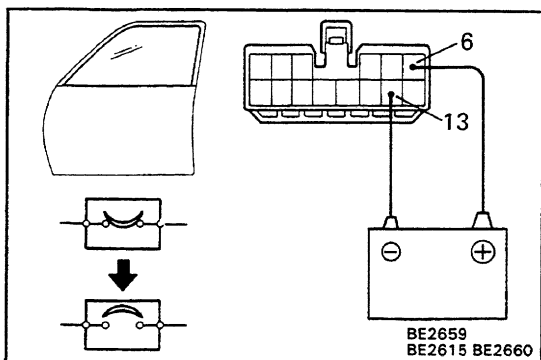
If operation is not as specified, replace the motor.



Rear Door:

- (a) Connect the positive (+) lead from the battery to terminal 1 and the negative (-) lead to terminal 2, check that the motor turns counterclockwise.
- (b) Reverse the polarity, check that the motor turns clockwise.

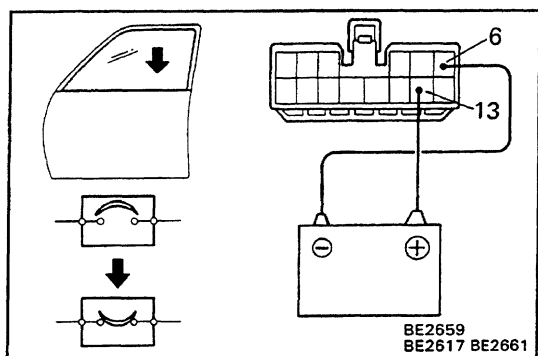
If operation is not as specified, replace the motor.



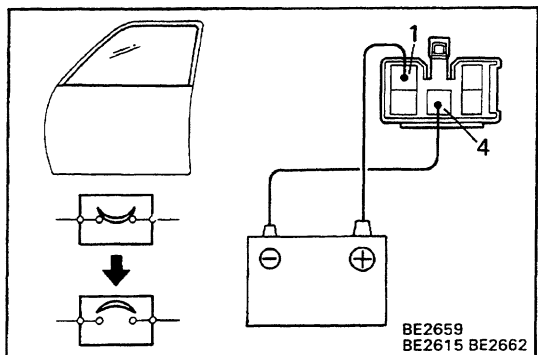
(Left Side Motor/Circuit Breaker Operation)

Driver's Door:

- (a) Disconnect the connector from the master switch.
- (b) Connect the positive (+) lead from the battery to terminal 1 and the negative (-) lead to terminal 13 on the wire harness side connector and raise the window to full closed position.
- (c) Continue to apply voltage, check that there is a circuit breaker operation noise within approximately 4 to 40 seconds.

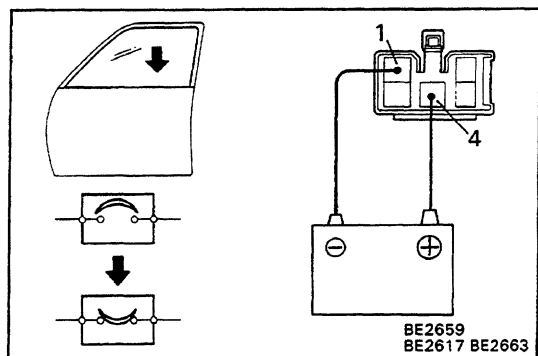


- (d) Reverse the polarity, check that the window begins to descend within approximately 60 seconds. If operation is not as specified, replace the motor.



Passenger's Door:

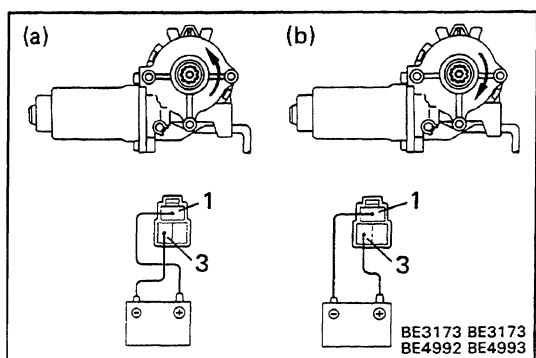
- Disconnect the connector from the power window switch.
- Connect the positive (+) lead from the battery to terminal 1 and the negative (-) lead to terminal 4 on the wire harness side connector, and raise the window to full closed position.
- Continue to apply voltage, check that there is a circuit breaker operation noise within approximately 4 to 40 seconds.
- Reverse the polarity, check that the window begins to descend within approximately 60 seconds. If operation is not as specified, replace the motor.



(Right Side Door Motor/Motor Operation)

Front Door:

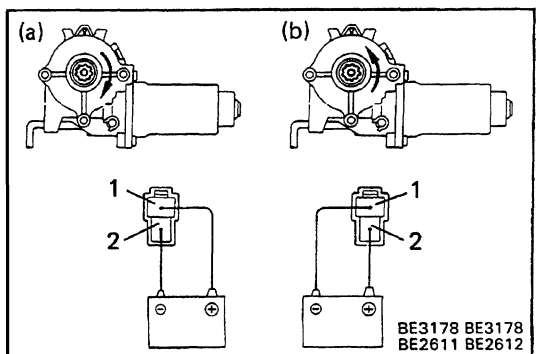
- Connect the positive (+) lead from the battery to terminal 1 and the negative (-) lead to terminal 3, check that the motor turns clockwise.
- Reverse the polarity, check that the motor turns counterclockwise.



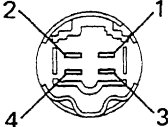
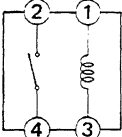
Rear Door:

- Connect the positive (+) lead from the battery to terminal 2 and the negative (-) lead to terminal 1, check that the motor turns counterclockwise.
- Reverse the polarity, check that the motor turns clockwise.

If operation is not as specified, replace the motor.



(Right Side Door Motor/Circuit Breaker Operation)
See Step of Left Side Motor on page BE-51.
3. INSPECT POWER MAIN RELAY
(Continuity)

  BE1647 BE1841	Terminal	1	2	3	4
	Condition				
	Constant				
	Apply battery voltage to terminals 1 and 3.				

If continuity is not as specified, replace the relay.