

INSPECTION

1. INSPECT POWER WINDOW MASTER SWITCH CONTINUITY

Driver’s switch:

Switch Position	Tester Connection	Specified Condition
UP	1 – 4, 3 – 9	Continuity
OFF	1 – 3 – 4	Continuity
DOWN (AUTO)	1 – 3, 4 – 9	Continuity

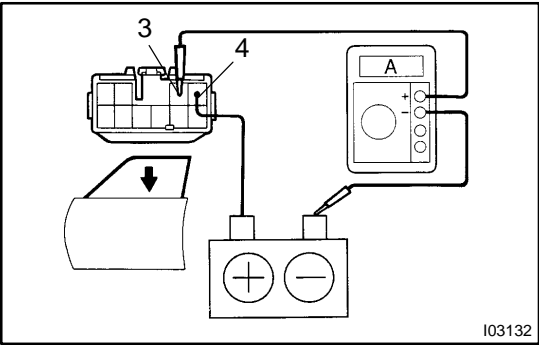
Passenger’s switch (Window unlock):

Switch Position	Tester Connection	Specified Condition
UP	1 – 10, 8 – 9	Continuity
OFF	1 – 8 – 10	Continuity
DOWN	1 – 8, 9 – 10	Continuity

Passenger’s switch (Window lock):

Switch Position	Tester Connection	Specified Condition
UP	8 – 9	Continuity
OFF	8 – 10	Continuity
DOWN	9 – 10	Continuity

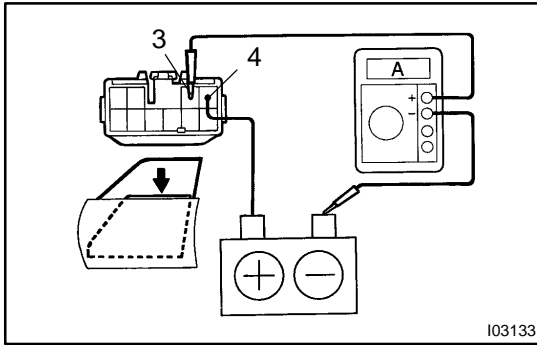
If the continuity is not as specified, replace the switch.



2. Using an ammeter:

INSPECT ONE-TOUCH POWER WINDOW SYSTEM/ CURRENT OF CIRCUIT

- (a) Disconnect the connector from the master switch.
- (b) Connect the positive (+) lead from the ammeter to terminal 3 on the wire harness side connector and the negative (–) lead to the negative (–) terminal of the battery.
- (c) Connect the positive (+) lead from the battery to terminal 4 on the wire harness side connector.
- (d) When the window moves down, check that the current is approximately 7 A.

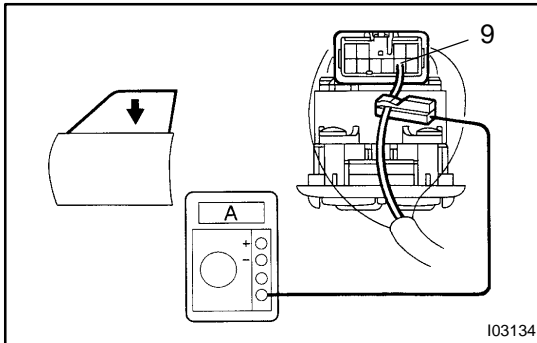


- (e) Check that the current increases to approximately 14.5 A or more when the window stops moving down.

**HINT:**

Since the PTC opens in 4 to 90 seconds after the window stops moving down, the check must be performed before the PTC starts operating.

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



### 3. Using an ammeter with a current-measuring probe: INSPECT ONE TOUCH POWER WINDOW SYSTEM/ CURRENT OF CIRCUIT

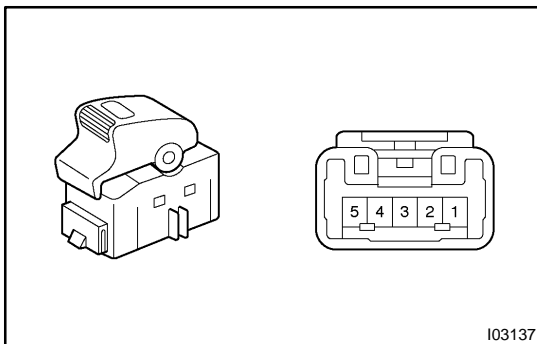
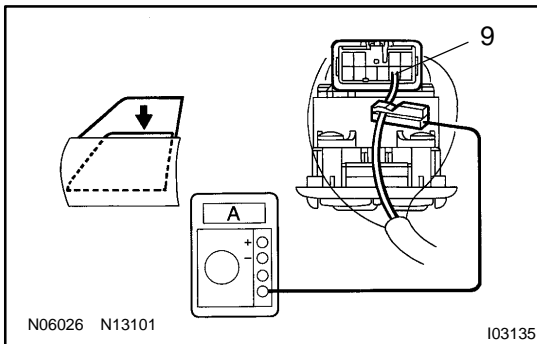
- Remove the master switch with the connector connected.
- Attach a current-measuring probe to terminal 9 of the wire harness side connector.
- Turn the ignition switch ON and set the power window switch in the down position.
- When the window moves down, check that the current is approximately 7 A.

- (e) Check that the current increases to approximately 14.5 A or more when the window stops moving down.

**HINT:**

Since the circuit breaker opens in 4 to 90 seconds after the window stops moving down, the check must be performed before the PTC starts operating.

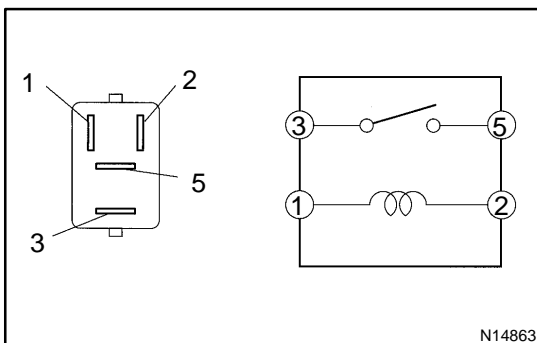
If the result is not as specified, replace the master switch.



### 4. INSPECT POWER WINDOW REGULATOR SWITCH CONTINUITY

Switch Position	Tester Connection	Specified Condition
UP	1 - 2, 3 - 4	Continuity
OFF	1 - 2, 3 - 5	Continuity
DOWN	1 - 4, 3 - 5	Continuity

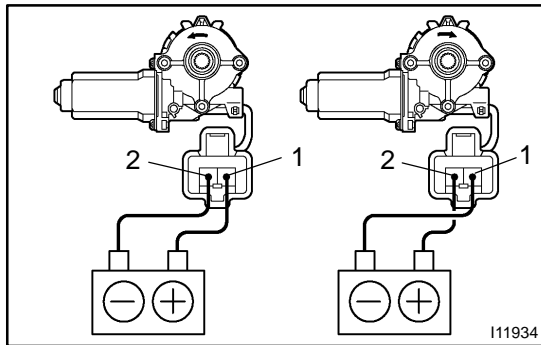
If the continuity is not as specified, replace the switch.



### 5. INSPECT POWER RELAY CONTINUITY

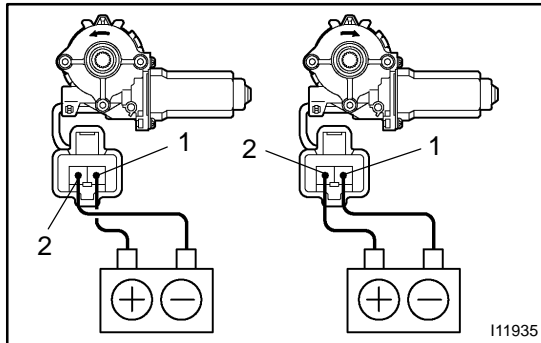
If the continuity is not as specified, replace the switch.

Tester Connection	Specified Condition
3 - 5	No continuity
3 - 5	Continuity (When battery voltage is applied to terminals 1 and 2)

**6. Driver side door:****INSPECT POWER WINDOW MOTOR OPERATION**

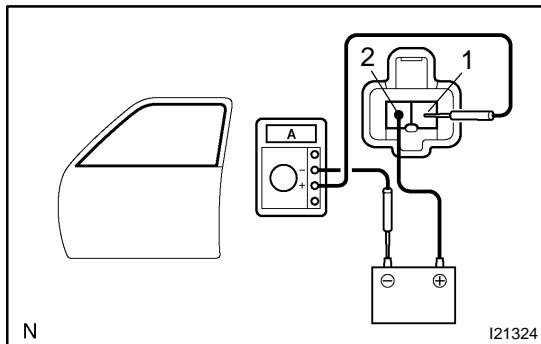
- Connect the positive (+) lead from the battery to terminal 1 and the negative (-) lead to terminal 2, and check that the motor turns counterclockwise.
- Reverse the polarity, and check that the motor turns clockwise.

If operation is not as specified, replace the motor.

**7. Passenger side door:****INSPECT POWER WINDOW MOTOR OPERATION**

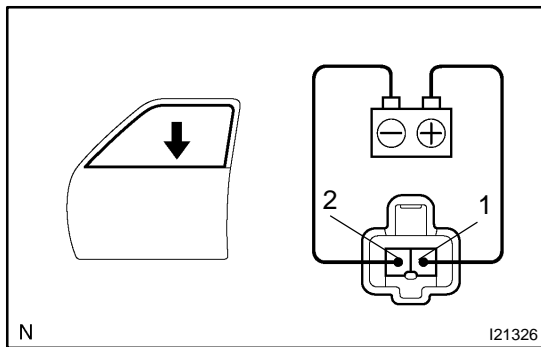
- Connect the positive (+) lead from the battery to terminal 1 and the negative (-) lead to terminal 2, and check that the motor turns counterclockwise.
- Reverse the polarity, and check that the motor turns clockwise.

If operation is not as specified, replace the motor.

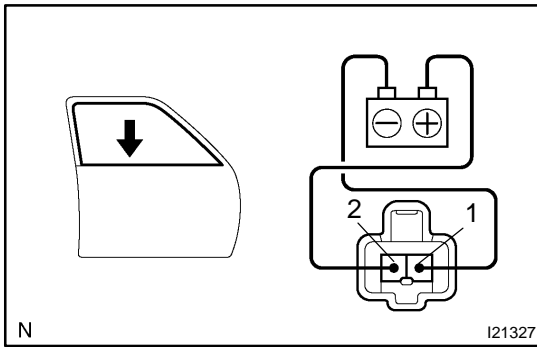
**8. Driver side door:****INSPECT POWER WINDOW MOTOR PTC THERMISTOR OPERATION**

- Disconnect the connector from the motor.
- Connect the positive (+) lead from the ammeter to terminal 1 of the wire motor connector and the negative (-) lead to the negative terminal of the battery.
- Connect the positive (+) lead from the battery to terminal 2 of the motor connector, and raise the window to the fully closed position.
- Continue to apply voltage, and check that the current changes to less than 1 A in 4 to 90 seconds.
- Disconnect the leads from the terminals.
- Approximately 60 seconds later, connect the positive (+) lead from the battery to terminal 1 and the negative (-) lead to terminal 2, and check that the window begins to move down.

If operation is not as specified, replace the motor.

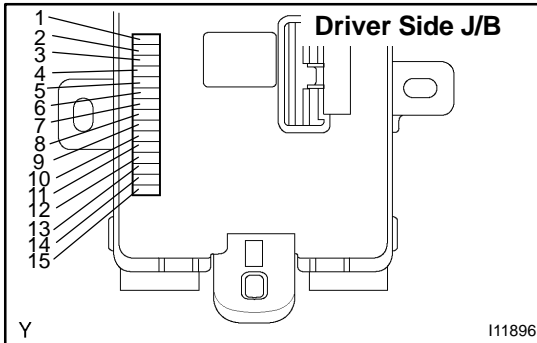
**9. Passenger side door:****INSPECT POWER WINDOW MOTOR PTC THERMISTOR OPERATION**

- Disconnect the connector from the motor.
- Connect the positive (+) lead from the ammeter to terminal 2 of the motor connector and the negative (-) lead to the negative terminal of the battery.
- Connect the positive (+) lead from the battery to terminal 1 of the motor connector, and raise the window to the fully closed position.



- (d) Continue to apply voltage and check that the current changes to less than 1 A in 4 to 90 seconds.
- (e) Disconnect the leads from the terminals.
- (f) Approximately 60 seconds later, connect the positive (+) lead from the battery to terminal 2 and the negative (-) lead to terminal 1, and check that the window begins to move down.

If operation is not as specified, replace the motor.



#### 10. CHECK INTEGRATION RELAY

Remove the integration relay from the driver side J/B, and check the voltage or continuity of each terminal on the driver side J/B side (see page [BE-180](#)).