

INSPECTION

1. LHD 3 door models : INSPECT POWER WINDOW MASTER SWITCH CON-TINUITY

Driver's switch :

Switch position	Tester connection	Specified condition
UP	1 – 4 3 – 9	Continuity
OFF	1 – 3 1 – 4	Continuity
DOWN	1 – 3 4 – 9	Continuity

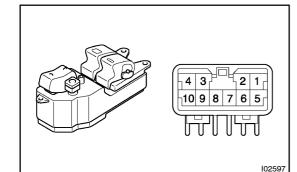
Passenger's switch (Window unlock) :

Switch position	Tester connection	Specified condition
UP	1 – 10 8 – 9	Continuity
OFF	1 – 10 1 – 8	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 continuity is not as specified, replace the switch.



2. RHD 3 door models : INSPECT POWER WINDOW MASTER SWITCH CON-TINUITY

Driver's switch :

Switch position	Tester connection	Specified condition
UP	1 – 4 2 – 6	Continuity
OFF	1 – 4 2 – 4	Continuity
DOWN	1 – 6 2 – 4	Continuity

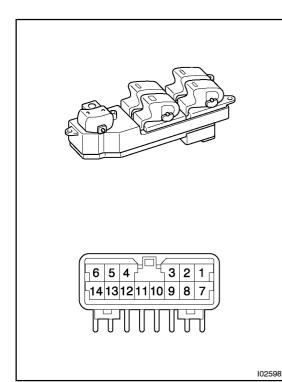
Passenger's switch (Window unlock) :

Switch position	Tester connection	Specified condition
UP	4 – 5 6 – 7	Continuity
OFF	4 – 5 4 – 7	Continuity
DOWN	4 – 7 5 – 6	Continuity

Passenger's switch (Window lock) :

Switch position	Tester connection	Specified condition
UP	6 – 7	Continuity
OFF	5 – 7	Continuity
DOWN	5 – 6	Continuity

If continuity is not as specified, replace the switch.



3. LHD 5 door models : INSPECT POWER WINDOW MASTER SWITCH CON-TINUITY

Front driver's switch :

Switch position	Tester connection	Specified condition
UP	1 – 10, 1 – 11 3 – 5, 4 – 5	Continuity
OFF	1 – 3, 1 – 4 3 – 5, 4 – 5	Continuity
DOWN	5 – 10, 5 – 11 1 – 3, 1 – 4	Continuity

Front passenger's switch (Window unlock) :

Switch position	Tester connection	Specified condition
UP	10 – 14, 11 – 14 3 – 6, 4 – 6	Continuity
OFF	3 – 14, 4 – 14 3 – 6, 4 – 6	Continuity
DOWN	6 – 10, 6 – 11 3 – 14, 4 – 14	Continuity

Front passenger's switch (Window lock) :

Switch position	Tester connection	Specified condition
UP	10 – 14, 11 – 14	Continuity
OFF	6 – 14	Continuity
DOWN	6 – 10, 6 – 11	Continuity

Rear left switch (Window unlock) :

Switch position	Tester connection	Specified condition
UP	9 – 10, 9 – 11 3 – 12, 4 – 12	Continuity
OFF	3 – 9, 4 – 9 3 – 12, 4 – 12	Continuity
DOWN	10 – 12, 11 – 12 3 – 9, 4 – 9	Continuity

Rear left switch (Window lock) :

Switch position	Tester connection	Specified condition
UP	9 – 10, 9 – 11	Continuity
OFF	9 – 12	Continuity
DOWN	10 – 12, 11 – 12	Continuity

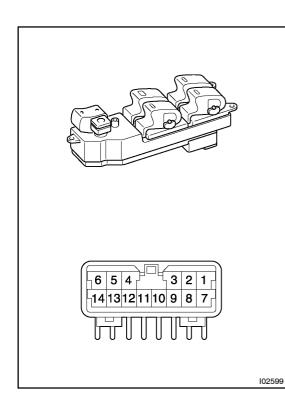
Rear right switch (Window unlock) :

Switch position	Tester connection	Specified condition
UP	8 – 10, 8 – 11 3 – 13, 4 – 13	Continuity
OFF	3 – 8, 4 – 8 3 – 13. 4 – 13	Continuity
DOWN	10 – 13, 11 – 13 3 – 8, 4 – 8	Continuity

Rear right switch (Window lock) :

Switch position	Tester connection	Specified condition
UP	8 – 10, 8 – 10	Continuity
OFF	8 – 13	Continuity
DOWN	10 – 13, 11 – 13	Continuity

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



4. RHD 5 door models for Europe: INSPECT POWER WINDOW MASTER SWITCH CON-TINUITY

Front driver's switch :

Switch position	Tester connection	Specified condition
UP	6 – 10, 6 – 11 3 – 2, 4 – 2	Continuity
OFF	6 - 3, 6 - 4 3 - 2, 4 -2	Continuity
DOWN	2 – 10, 2 – 11 6 – 3, 6 – 4	Continuity

Front passenger's switch (Window unlock) :

Switch position	Tester connection	Specified condition
UP	10 – 7, 11 – 7 3 – 1, 4 – 1	Continuity
OFF	3 – 7, 4 – 7 3 – 1, 4 – 1	Continuity
DOWN	1 – 10, 1 – 11 3 – 7, 4 – 7	Continuity

Front passenger's switch (Window lock) :

Switch position	Tester connection	Specified condition
UP	10 – 7, 11 – 7	Continuity
OFF	1 – 7	Continuity
DOWN	1 – 10, 1 – 11	Continuity

Rear left switch (Window unlock) :

Switch position	Tester connection	Specified condition
UP	13 – 10, 13 – 11 3 – 8, 4 – 8	Continuity
OFF	3 – 13, 4 – 13 3 – 8, 4 – 8	Continuity
DOWN	10 – 8, 11 – 8 3 – 13, 4 – 13	Continuity

Rear left switch (Window lock) :

Switch position	Tester connection	Specified condition
UP	13 – 10, 13 – 11	Continuity
OFF	8 – 13	Continuity
DOWN	10 – 8, 11 – 8	Continuity

Rear right switch (Window unlock) :

Switch position	Tester connection	Specified condition
UP	12 – 10, 12 – 11 3 – 9, 4 – 9	Continuity
OFF	3 – 12, 4 – 12 3 – 9, 4 – 9	Continuity
DOWN	10 – 9, 11 – 9 3 – 12, 4 – 12	Continuity

Rear right switch (Window lock) :

Switch position	Tester connection	Specified condition
UP	12 – 10, 11 – 10	Continuity
OFF	9 – 12	Continuity
DOWN	10 – 9, 11 – 9	Continuity

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

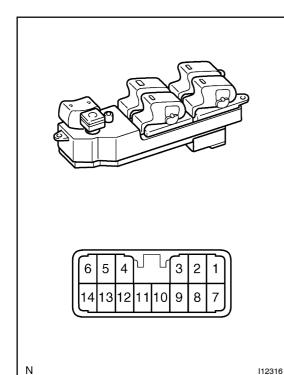
5. RHD 5 door models for except Europe: INSPECT POWER WINDOW MASTER SWITCH CON-TINUITY

Front driver's switch :

Switch position	Tester connection	Specified condition
UP	1 – 3, 2 – 4 2 – 5	Continuity
OFF	1 – 4, 1 – 5 2 – 4, 2 – 5	Continuity
DOWN	1 – 4, 1 – 5 2 – 3	Continuity
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Front passenger's switch (Window unlock) :

Switch position	Tester connection	Specified condition
UP	10 – 7, 4– 8 5 – 8	Continuity
OFF	4 – 7, 5 – 7 4 – 8, 5 – 8	Continuity
DOWN	4 – 7, 5 – 7 8 – 10	Continuity



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Front passenger's switch (Window lock) :

Tester connection	Specified condition
7 – 10	Continuity
7 – 8	Continuity
8 – 10	Continuity
	7 – 10 7 – 8

Rear left switch (Window unlock) :

Switch position	Tester connection	Specified condition
UP	4 – 11, 5 – 11 9 – 10	Continuity
OFF	4 – 9, 5 – 9 4 – 11, 5 – 11	Continuity
DOWN	4 – 9, 5 – 9 10 – 11	Continuity

Rear left switch (Window lock) :

Switch position	Tester connection	Specified condition
UP	9 – 10	Continuity
OFF	9 – 11	Continuity
DOWN	10 – 11	Continuity

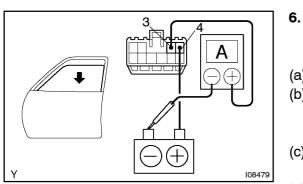
Rear right switch (Window unlock) :

Switch position	Tester connection	Specified condition
UP	4 – 14, 5 – 14 10 – 13	Continuity
OFF	4 – 13, 5 – 13 4 – 14, 4 – 15	Continuity
DOWN	4 – 13, 5 – 13 10 – 14	Continuity

Rear right switch (Window lock) :

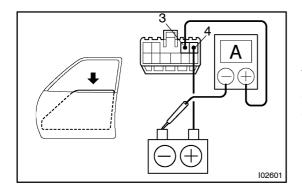
Switch position	Tester connection	Specified condition
UP	10 – 13	Continuity
OFF	13 – 14	Continuity
DOWN	10 – 14	Continuity

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



LHD 3 door models : INSPECT ONE TOUCH POWER WINDOW SYSTEM (Using an ammeter)

- (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 terminal4 on the wire harness side connector.
- (d) As the window goes down, check that the current is approximately 7 A.

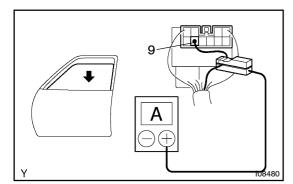


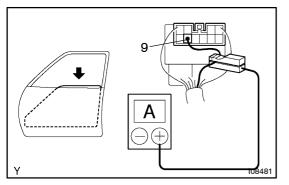
(e) Check that the current increases up to approximately 14.5 A or more when the window stops going down.

HINT:

The circuit breaker opens for 7 - 13 seconds after the window stops going down, so that check must be made before the circuit breaker operates.

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





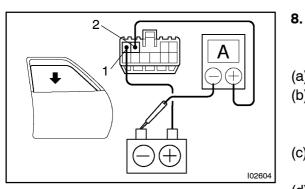
- 7. LHD 3 door models : INSPECT ONE TOUCH POWER WINDOW SYSTEM (Using an ammeter with a current – measuring probe)
- (a) Remove the master switch with connector connected.
- (b) Attach a current measuring probe to terminal 9 of the wire harness.
- (c) Turn the ignition switch ON, and set the power window switch in the down position.
- (d) As the window goes down, check that the current is approximately 7 A.
- (e) Check that the current increases up to approximately 14.5 A or more when the window stops going down.

HINT:

The circuit breaker opens for 7 – 13 seconds after the window stops going down, so that check must be made before the circuit breaker operates.

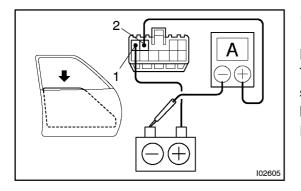
If operation is not as specified, replace the master switch.

YARIS/ECHO (RM685E)



RHD 3 door models : INSPECT ONE TOUCH POWER WINDOW SYSTEM (Using an ammeter)

- (a) Disconnect the connector from the master switch.
- (b) Connect the positive (+) lead from the ammeter to terminal 2 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 terminal1 on the wire harness side connector.
- (d) As the window goes down, check that the current is approximately 7 A.

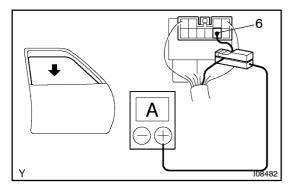


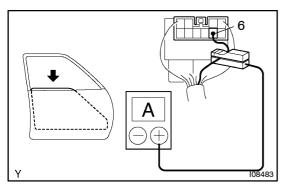
(e) Check that the current increases up to approximately 14.5 A or more when the window stops going down.

HINT:

The circuit breaker opens for 7 - 13 seconds after the window stops going down, so that check must be mate before the circuit breaker operates.

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

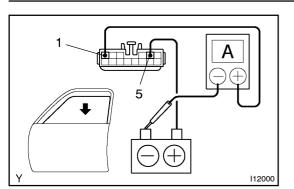




- 9. RHD 3 door models : INSPECT ONE TOUCH POWER WINDOW SYSTEM (Using an ammeter with a current – measuring probe)
- (a) Remove the master switch with connector connected.
- (b) Attach a current measuring probe to terminal 6 of the wire harness.
- (c) Turn the ignition switch ON, and set the power window switch in the down position.
- (d) As the window goes down, check that the current is approximately 7 A.
- (e) Check that the current increases up to approximately 14.5 A or more when the window stops going down.

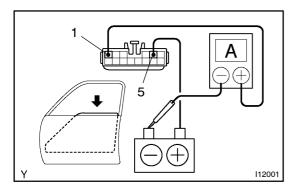
HINT:

The circuit breaker opens for 7 - 13 seconds after the window stops going down, so that check must be made before the circuit breaker operates.



10. LHD 5 door models : INSPECT ONE TOUCH POWER WINDOW SYSTEM (Using an ammeter)

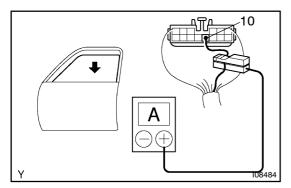
- (a) Disconnect the connector from the master switch.
- (b) Connect the positive (+) lead from the ammeter to terminal 1 on the wire harness side connector and the negative (-) lead to the negative terminal of the battery.
- (c) Connect the positive (+) lead from the battery to terminal5 on the wire harness side connector.
- (d) As the window goes down, check that the current flow is approximately 7 A.

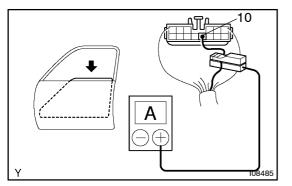


(e) Check that the current increases up to approximately 14.5 A or more when the window stops going down.HINT: The circuit breaker opens some 4 – 40 seconds after the

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.



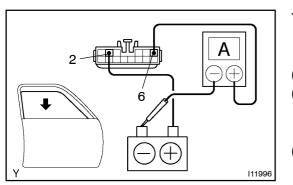


- 11. LHD 5 door models : INSPECT ONE TOUCH POWER WINDOW SYSTEM (Using an ammeter with a current – measuring probe)
- (a) Remove the master switch with connector connected.
- (b) Attach a current measuring probe to terminal 10 of the wire harness.
- (c) Turn the ignition switch ON and set the power window switch in the down position.
- (d) As the window goes down, check that the current flow is approximately 7 A.
- (e) Check that the current increases up to approximately 14.5 A or more when the window stops going down.

HINT:

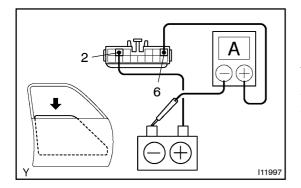
The circuit breaker opens for 4 – 40 seconds after the window stops going down, so that check must be made before the circuit breaker operates.

If operation is as specified, replace the master switch.



12. RHD 5 door models for Europe: INSPECT ONE TOUCH POWER WINDOW SYSTEM (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 the negative terminal of the battery.
- (c) Connect the positive (+) lead from the battery to terminal2 on the wire harness side connector.
- (d) As the window goes down, check that the current flow is approximately 7 A.

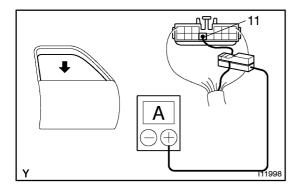


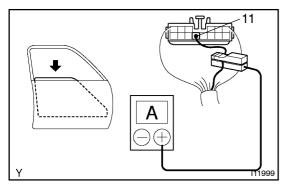
(e) Check that the current increases up to approximately 14.5 A or more when the window stops going down.

HINT:

The circuit breaker opens for 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.



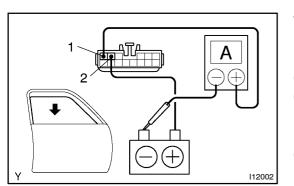


- 13. RHD 5 door models for Europe: INSPECT ONE TOUCH POWER WINDOW SYSTEM (Using an ammeter with a current – measuring probe)
- (a) Remove the master switch with connector connected.
- (b) Attach a current measuring probe to terminal 11 of the wire harness.
- (c) Turn the ignition switch ON and set the power window switch in the down position.
- (d) As the window goes down, check that the current flow is approximately 7 A.
- (e) Check that the current increases up to approximately 14.5 A or more when the window stops going down.

HINT:

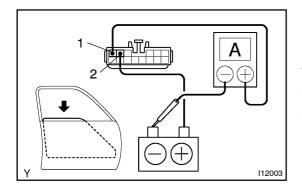
The circuit breaker opens for 4 – 40 seconds after the window stops going down, so that check must be made before the circuit breaker operates.

If operation is as specified, replace the master switch.



14. RHD 5 door models for except Europe: INSPECT ONE TOUCH POWER WINDOW SYSTEM (Using an ammeter)

- (a) Disconnect the connector from the master switch.
- (b) Connect the positive (+) lead from the ammeter to terminal 1 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 terminal2 on the wire harness side connector.
- (d) As the window goes down, check that the current flow is approximately 7 A.

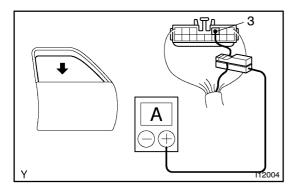


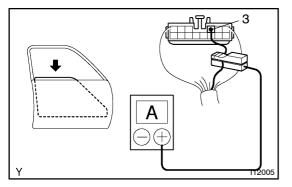
(e) Check that the current increases up to approximately 14.5 A or more when the window stops going down.

HINT:

The circuit breaker opens for 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.





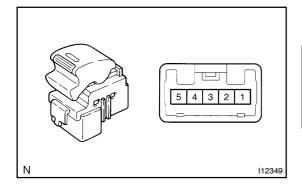
- 15. RHD 5 door models for except Europe: INSPECT ONE TOUCH POWER WINDOW SYSTEM (Using an ammeter with a current – measuring probe)
- (a) Remove the master switch with connector connected.
- (b) Attach a current measuring probe to terminal 3 of the wire harness.
- (c) Turn the ignition switch ON and set the power window switch in the down position.
- (d) As the window goes down, check that the current flow is approximately 7 A.
- (e) Check that the current increases up to approximately 14.5 A or more when the window stops going down.

HINT:

The circuit breaker opens for 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.

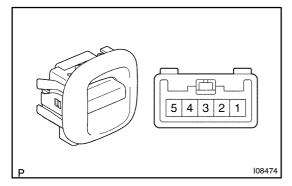
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16. INSPECT PASSENGER'S POWER WINDOW SWITCH CONTINUITY

Switch position	Tester connection	Specified condition
UP	1 – 2, 3 – 4	Continuity
OFF	1 – 2, 3 – 5	Continuity
DOWN	1 – 4, 3 – 5	Continuity

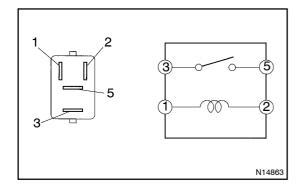
If continuity is not as specified, replace the switch.



17. 5 door models: INSPECT REAR DOOR POWER WINDOW SWITCH CONTINUITY

Switch position	Tester connection	Specified condition
UP	1 – 2, 3 – 4	Continuity
OFF	1 – 2, 4 – 5	Continuity
DOWN	2 - 3, 4 - 5	Continuity

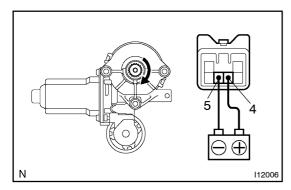
If continuity is not as specified, replace the switch.



18. INSPECT POWER MAIN RELAY CONTINUITY

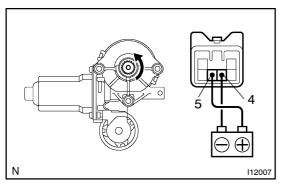
Condition	Tester connection	Specified condition
Constant	1 – 2	Continuity
Apply B + between terminals 1 and 2	3 – 5	Continuity

If continuity is not as specified, replace the switch.



19. Front left side door: INSPECT POWER WINDOW MOTOR OPERATION

 (a) Connect the positive (+) lead from the battery to terminal 4 and the negative (-) lead to terminal 5, and 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.



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- Connect the positive (+) lead from the battery to terminal (a) 5 and the negative (-) lead to terminal 4, and check that the motor turns clockwise.
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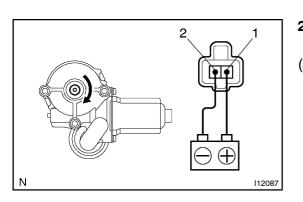
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(b) Reverse the polarity, check that the motor turns counterclockwise.

If operation is not as specified, replace the motor.

- 21. Rear left side door: INSPECT POWER WINDOW MOTOR OPERATION
- Connect the positive (+) lead from the battery to terminal (a) 1 and the negative (-) lead to terminal 2, and check that the motor turns clockwise.
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- Reverse the polarity, check that the motor turns counter-(b) clockwise.

If operation is not as specified, replace the motor.

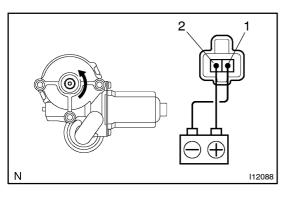


Rear right side door: 22. **INSPECT POWER WINDOW MOTOR OPERATION**

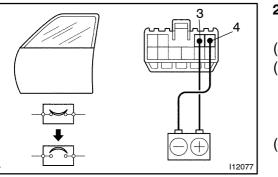
Connect the positive (+) lead from the battery to terminal (a) 1 and the negative (-) lead to terminal 2, and check that the motor turns clockwise.

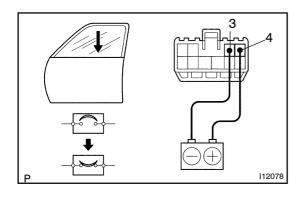
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- (b) Reverse the polarity, check that the motor turns counterclockwise.
- If operation is not as specified, replace the motor.

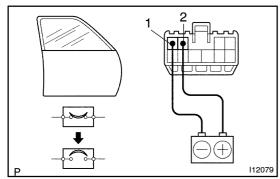


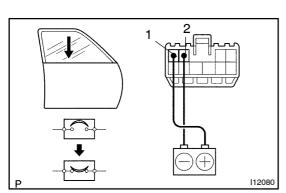


23. LHD 3 door models driver's door: INSPECT PTC OPERATION

- (a) Disconnect the connector from the master switch.
- (b) Connect the positive (+) lead from the battery to terminal 3 and the negative (-) lead to terminal 4 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.

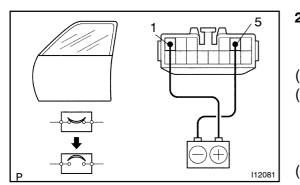




24. RHD 3 door models driver's door: INSPECT PTC OPERATION

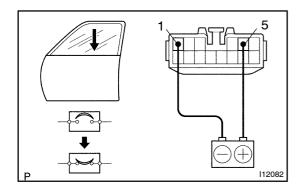
- (a) Disconnect the connector from the master switch.
- (b) Connect the positive (+) lead from the battery to terminal 2 and the negative (-) lead to terminal 1 on the wire harness side connector and raise the window to full closed position.
- (c) Continue to apply voltage, check that there is a circuit 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.

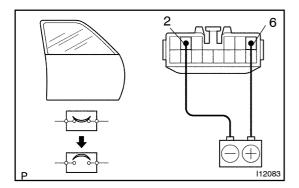


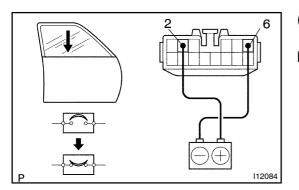
25. LHD 5 door models driver's door: INSPECT POWER WINDOW MOTOR CIRCUIT BREAKER OPERATION

- (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 5 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 meter.
- If operation is not as specified, replace the motor.





26. RHD 5 door models driver's door: INSPECT PTC OPERATION

- (a) Disconnect the connector from the master switch.
- (b) Connect the positive (+) lead from the battery to terminal 6 and the negative (-) lead to terminal 2 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.