

POWER WINDOWS

1993 Toyota Celica

1993 ACCESSORIES/SAFETY EQUIPMENT
Toyota Power Windows

Celica

DESCRIPTION & OPERATION

System components consist of a power window relay, power window switches and power window motors for each door. With ignition switch in ON position, battery voltage is supplied through power window relay to power window switches. Power window switch supplies power and ground for power window motors.

Driver's side power window switch offers one-touch operation of driver's side window. Driver's side power window switch also includes a lock-out feature to prevent passengers from operating any of the other power window switches.

TROUBLE SHOOTING

ALL WINDOWS INOPERATIVE & LOCK-OUT IS INOPERATIVE

Check for defective fuse (ALT, AM1, DOOR, GAUGE, POWER), ignition switch, door lock control relay, driver's side power window switch and wiring circuits.

ALL WINDOWS INOPERATIVE & LOCK-OUT OPERATES NORMAL

Check for defective fuse (GAUGE, POWER), ignition switch, door lock control relay, driver's side power window switch or power main relay.

LOCK SWITCH INOPERATIVE

Check driver's side power window lock switch.

WINDOW LOCK ILLUMINATION DOES NOT OPERATE

Check driver's side power window switch.

ONE-TOUCH FEATURE IS INOPERATIVE

Check driver's side power window switch.

ONE WINDOW DOES NOT OPERATE

Check driver's side power window switch for appropriate window, power window switch, power window motor and wiring circuits for appropriate window.

NOTE: For door lock control relay testing, see DOOR LOCKS - POWER article in the ACCESSORIES/SAFETY EQUIPMENT section. For ignition switch testing, see STEERING COLUMN SWITCHES article in the ACCESSORIES/SAFETY EQUIPMENT section.

TESTING

POWER WINDOW SWITCH ILLUMINATION TEST (DRIVER'S SIDE SWITCH)

- NOTE: Illumination test is for all switches at driver's side power window switch.
- 1) Using a 12 volt battery, connect jumper wire from positive battery terminal to driver's side power window switch connector terminal No. 6. See Fig. 1. Connect jumper wire from negative battery terminal to connector terminal No. 3. Ensure power window switches illuminate.

2) Put power window lock switch in lock position. Ensure passenger side power window switch does not illuminate. If illumination is not as described, replace driver's side power window switch.

POWER WINDOW SYSTEM CURRENT TEST

- 1) Disconnect connector from driver's side power window switch. Connect positive lead of ammeter to driver's side power window switch connector (harness side) terminal No. 5.

2) Connect ammeter negative lead to negative terminal of 12 volt battery. Connect jumper wire from positive battery terminal to driver's side power window switch connector terminal No. 1. See Fig. 1.

3) While lowering driver's side window, current should be about 7 amperes. When window operation is stopped, current should increase to about 14.5 amperes or more. If current is as described, replace driver's side power window switch. If current is not as described, check and repair appropriate circuit.

POWER WINDOW SWITCH CONTINUITY TEST (DRIVER'S SIDE SWITCH)

Using an ohmmeter, check continuity between specified terminals with driver's side power window switch in specified position. See POWER WINDOW SWITCH CONTINUITY TEST table. See Fig. 1. If continuity does not exist at specified terminals, replace power window switch.

POWER WINDOW SWITCH CONTINUITY TEST TABLE

Application & Position	(1) Terminal No.
Driver's Side Switch	
Locked & Unlocked	
UP	1, 3, 5 & 6
OFF	1 & 3; 3 & 5
DOWN	1 & 6; 3 & 5
Passenger Side Switch	
Locked	
UP	2 & 6
OFF	2 & 4
DOWN	4 & 6
Unlocked	
UP	2 & 6; 3 & 4
OFF	2 & 3; 3 & 4
DOWN	2 & 3; 4 & 6

(1) - See Fig. 1.



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Fig. 1: Pwr. Win. Sw. Conn. Term. ID (Drvrs' Side Sw. - Harn Side)
Courtesy of Toyota Motor Sales, U.S.A., Inc.

POWER WINDOW SW CONTINUITY TEST (PASSENGER SIDE & REAR SW'S)

Using an ohmmeter, check continuity between specified terminals with power window switch in specified position. See POWER WINDOW SWITCH CONTINUITY TEST (PASSENGER SIDE & REAR) table. See Fig. 2. If continuity does not exist at specified terminals, replace appropriate power window switch.

PWR WINDOW SW CONTINUITY TEST (PASSENGER SIDE & REAR) TABLE

Application & Position	(1) Terminal No.
UP	1 & 2; 4 & 5
OFF	1 & 2; 3 & 4
DOWN	1 & 5; 3 & 4

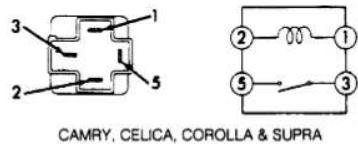
(1) - See Fig. 2.



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Fig. 2: Pwr. Win. Conn. Term. ID (Pass. Side & Rear Sw's Harn. Side)
Courtesy of Toyota Motor Sales, U.S.A., Inc.

POWER WINDOW MAIN RELAY

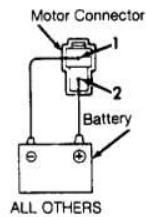
- 1) Remove power window main relay, located in junction block No. 2 at left side kick panel.
- 2) Using an ohmmeter, check continuity between terminals No. 1 and 2. Continuity should exist. See Fig. 3. Apply battery voltage to terminal No. 1 and ground terminal No. 2. Continuity should exist at terminals No. 3 and 5. If relay does not test as described, replace power window main relay.



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Fig. 3: Power Window Main Relay Terminal ID
Courtesy of Toyota Motor Sales, U.S.A., Inc.

POWER WINDOW MOTOR TEST

Using a 12 volt battery, connect jumper wire from positive battery terminal to terminal No. 2 of power window motor. See Fig. 4. Connect jumper wire from negative battery terminal to terminal No. 1 of power window motor. Motor should operate clockwise. Reverse jumper wire positions. Motor should operate counterclockwise. If motor does not test as described, replace motor.



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Fig. 4: Power Window Motor Terminal ID
Courtesy of Toyota Motor Sales, U.S.A. Inc.

REMOVAL & INSTALLATION

POWER WINDOW MOTOR

Removal & Installation

Remove door trim panel and waterproof shield. Remove glass retaining bolts and glass. Remove window regulator nuts and remove window regulator. Remove power window motor retaining screws and remove motor from window regulator. To install, reverse removal procedure.

POWER WINDOW SWITCH

Removal & Installation

Disconnect negative battery cable. Pry out power window switch from door panel using flat screwdriver. Disconnect power window switch connectors and remove switch. To install, reverse removal procedure.

WIRING DIAGRAMS

Proceed to chassis WIRING DIAGRAMS article in WIRING DIAGRAMS section.