

SUN ROOF - POWER

1993 Toyota Celica

1993 ACCESSORIES/SAFETY EQUIPMENT
Toyota Power Sun Roof

Celica

DESCRIPTION & OPERATION

The ignition switch must be in ON position for sun roof to operate. The sun roof has a tilt mode and sliding mode. When closing sun roof in sliding mode, sun roof will stop partway until sun roof switch is pressed a second time.

ADJUSTMENTS

NOTE: Remove sun roof trim plates from top of sun roof opening before making adjustments.

SUN ROOF HEIGHT

Close sun roof fully. Measure sun roof height. Roof panel should be even with glass weatherstrip within 0.04" (1.0 mm). If adjustment is required, install or remove shims between bracket and sun roof. Recheck sun roof height.

SUN ROOF CLEARANCE & ALIGNMENT

Closing Clearance

If sun roof closing clearances are unequal between right and left sides, loosen sun roof slider mount nuts. Move either side forward or backward as required. Tighten sun roof slide mount nuts. Recheck sun roof alignment and operation.

Front-To-Rear Alignment

If front-to-rear position of sun roof is incorrect, loosen sun roof slider mount nuts. Move sun roof to front or rear as necessary. Tighten sun roof slider mount nuts.

Side-To-Side Alignment

If sun roof is mounted to right or left of center line in roof opening, loosen sun roof slider mount nuts. Move sun roof right or left as necessary. Tighten sun roof slider mount nuts.

TROUBLE SHOOTING

NOTE: Ensure all component terminals and ground connections are clean and tight. Check possible faults in order listed. Repair or replace components and circuits as necessary.

Power Sun Roof Operates Abnormally

Defective GAUGE fuse. Defective POWER fuse. Defective power main relay. Defective power sun roof switch. See SUN ROOF SWITCH under TESTING. Defective limit switch. See LIMIT SWITCH under TESTING. Defective motor. See MOTOR under TESTING. Defective sliding roof control relay. See CONTROL RELAY under TESTING. Defective wire harness.

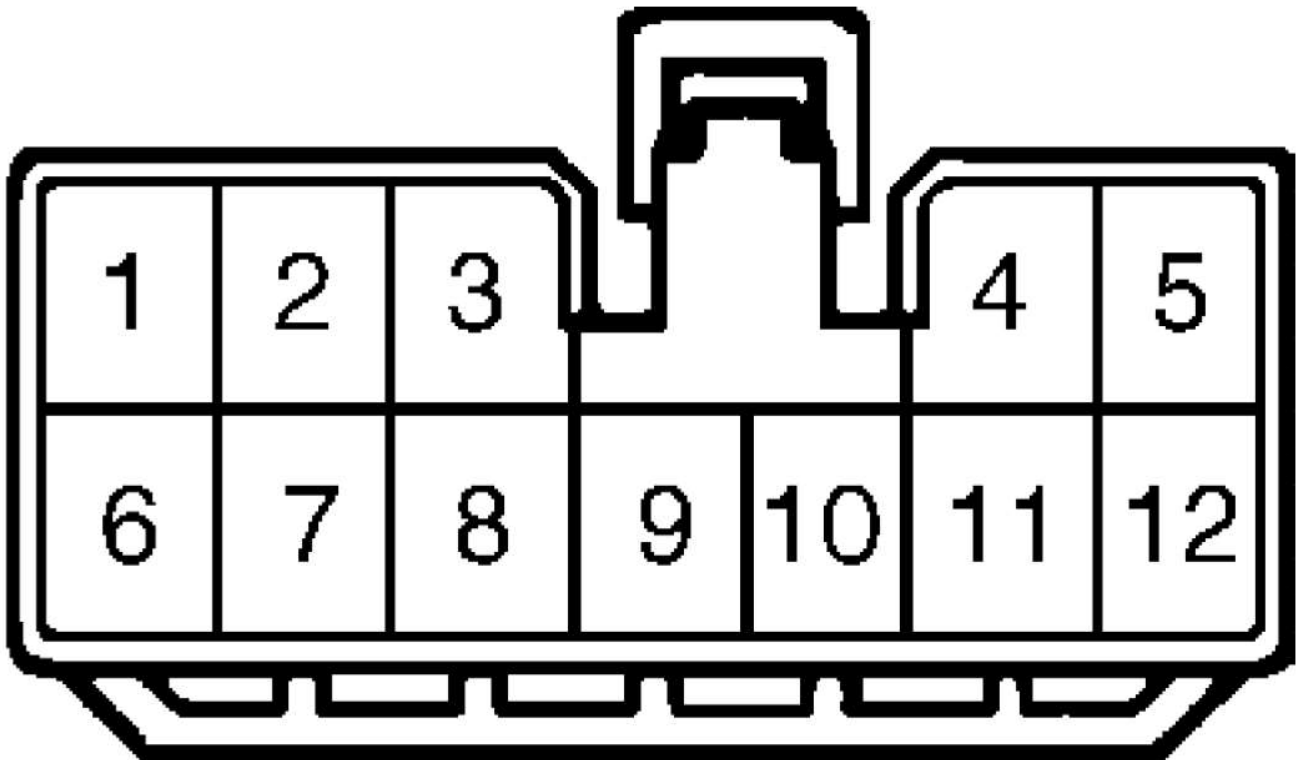
TESTING

CONTROL RELAY

See CONTROL RELAY LOCATION table for relay location. Unplug relay connector. Check for continuity or voltage as indicated at control relay connector terminals with sun roof switch or limit switch in specified positions. See appropriate CONTROL RELAY TEST table. If test results are as specified, replace control relay. If test results are not as specified, repair or replace appropriate switch or wire. See Fig. 1.

CONTROL RELAY LOCATION TABLE

Model	Location
Celica	To Left Of Motor



93C84873

Fig. 1: Control Relay Terminal ID
Courtesy of Toyota Motor Sales, U.S.A., Inc.

CONTROL RELAY TEST TABLE

Terminal No. & Switch Position	Condition
1 And 5	Continuity
2 (1) DOWN, OPEN, Or CLOSE	No Continuity
Up	Continuity

4	(1) OFF (Roof Open)	.....	No Continuity
4	(1) ON (Roof closed)	.....	Continuity
5	(1)	.....	Continuity
6	(1)		
	Ignition Switch LOCK or ACC	.....	No Voltage
	Ignition Switch ON	.....	Battery Voltage
7	(1)		
	UP, DOWN, Or OPEN	.....	No Continuity
	CLOSE	.....	Continuity
8	(1)		
	UP, DOWN, Or CLOSE	.....	No Continuity
	OPEN	.....	Continuity
9	(1)		
	UP, OPEN, Or CLOSE	.....	No Continuity
	DOWN	.....	Continuity
10	(1)		
	OFF		
	Roof Tilted Up	.....	No Continuity
	Roof Partly Open	.....	No Continuity
	ON		
	Except As Above	.....	Continuity
12	(1)	.....	Continuity

(1) - Terminal connected to ground.

MOTOR

Unplug sun roof motor connector. Using fused jumper wires, connect motor connector terminals to battery voltage. Motor should rotate smoothly. Transpose jumper wires. Motor should rotate smoothly in opposite direction. Replace motor if operation is not as specified.

LIMIT SWITCH

1) Unplug switch connector. See Fig. 2. For limit switch No. 1, continuity should not exist between terminals No. 1 and 4 with switch pin released. With pin pressed in, continuity should exist between terminals No. 1 and 4.

2) For limit switch No. 2, continuity should not exist between terminals No. 2 and 4 with switch pin released. With pin pressed in, continuity should exist between terminals No. 2 and 4. Replace switch if continuity is not as specified.

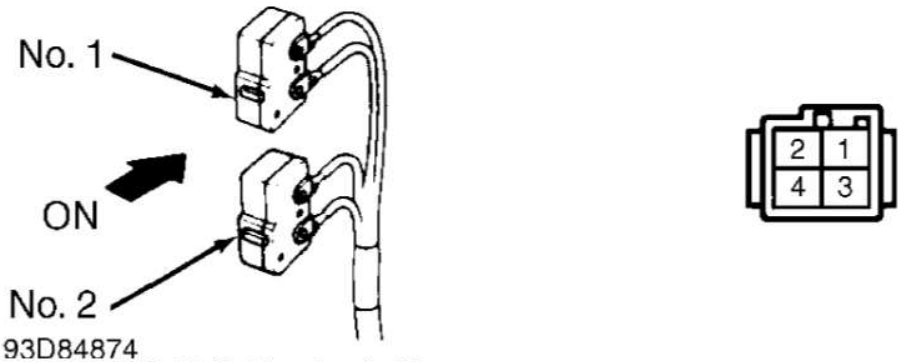
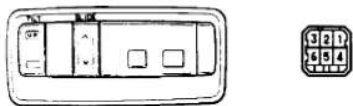


Fig. 2: Limit Switch Terminal ID
Courtesy of Toyota Motor Sales, U.S.A., Inc.

SUN ROOF SWITCH

Remove power sun roof switch. Check for continuity between switch terminals with switch in specified positions. If continuity is not as specified, replace switch. See Fig. 3. See appropriate SUN ROOF SWITCH CONTINUITY TEST table.



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Fig. 3: Sun Roof Switch Terminal ID
Courtesy of Toyota Motor Sales, U.S.A., Inc.

SUN ROOF SWITCH CONTINUITY TEST TABLE

Position		Terminal Continuity
Slide		
Off	.....	(1)
Open	.....	3 & 4
Close	.....	4 & 6
Tilt		
Off	.....	(1)
Up	.....	4 & 5
Down	.....	2 & 4

(1) - Continuity should not exist.

REMOVAL & INSTALLATION

DRIVE CABLES

Removal & Installation
See SUN ROOF.

DRIVE MOTOR

Removal & Installation
See SUN ROOF.

SUN ROOF SWITCH

NOTE: Tape the end of a flat blade screwdriver to protect switch and trim panels during removal.

Removal & Installation
Disconnect negative battery cable. Pry sun roof switch assembly from roof panel. Remove screws and switch from switch panel. Unplug switch connector. To install, reverse removal procedure.

SUN ROOF

WARNING: Disable air bag (if equipped) before removing sun roof. See appropriate AIR BAG RESTRAINT SYSTEM article in the ACCESSORIES/SAFETY EQUIPMENT section.

NOTE: For installation reference, note number and position of shims when removing sun roof.

Removal & Installation

1) Tilt sun roof upward. Disconnect negative battery cable. Disable air bag. Remove map light. Remove sunvisors, rear view mirror, opening trim panels, and front assist grips. Remove front pillar trim moldings.

2) Unplug and remove drive motor. Remove sun roof mounting nuts and shims. Pull upward on sun roof glass to remove. Remove drip channel. Remove wind deflector. Remove cable guide. To install, reverse removal procedure.

WIND DEFLECTOR

See SUN ROOF.

WIRING DIAGRAMS

Proceed to chassis WIRING DIAGRAMS article in WIRING DIAGRAMS section.