#### **SUN ROOF - POWER**

## 1994 Toyota Celica

1994 ACCESSORIES & 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 part way 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 slider 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.

Does Not Open

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

Stops Halfway When Opening Defective limit switch. See LIMIT SWITCH under TESTING.

Defective sliding roof control relay. See CONTROL RELAY under TESTING. Defective motor. See MOTOR under TESTING. Defective wiring.

Does Not Close

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

Stops Halfway When Closing

Defective limit switch. See LIMIT SWITCH under TESTING. Defective sliding roof control relay. See CONTROL RELAY under TESTING. Defective motor. See MOTOR under TESTING. Defective wiring.

Stops At Incorrect Position

Defective limit switch. See LIMIT SWITCH under TESTING. Defective sliding roof control relay. See CONTROL RELAY under TESTING.

Returns & Stops

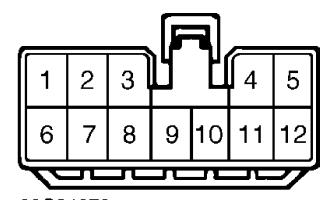
Defective limit switch. See LIMIT SWITCH under TESTING. Defective sliding roof control relay. See CONTROL RELAY under TESTING.

#### **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 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



93C84873

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

CONTROL RELAY TEST TABLE

Terminal No. & Switch Position	Condition
1 & 5	Continuity
DOWN, OPEN, Or CLOSE No	
Up	Continuity
4 (1) OFF (Roof Open)	
5 (1)	
6 (1)	
Ignition Switch LOCK Or ACC	
Ignition Switch ON Batte 7 (1)	ery Voltage
UP, DOWN, Or OPEN No	Continuity
CLOSE	Continuity
8 (1)	Cambin
UP, DOWN, Or CLOSE No OPEN	<u> </u>
9 (1)	concinaicy
UP, OPEN, Or CLOSE No	
DOWN	Continuity
OFF	
Roof Tilted Up No	
Roof Partly Open No	Continuity
ON Except As Above	Continuity
12 (1)	Concinuity
Celica Batte	ery Voltage
Corolla	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 3 with switch pin released. With pin pressed in, continuity should exist between terminals No. 1 and 3.
- 2) For limit switch No. 2, continuity should not exist between terminals No. 2 and 3 with switch pin released. With pin pressed in, continuity should exist between terminals No. 2 and 3. Replace switch if continuity is not as specified.

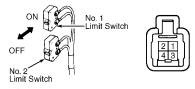


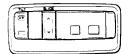
Fig. 2: Identifying Limit Switch Terminals Courtesy of Toyota Motor Sales, U.S.A., Inc.

# 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 Figs. 3 and 4. See SUN ROOF SWITCH CONTINUITY TEST table.

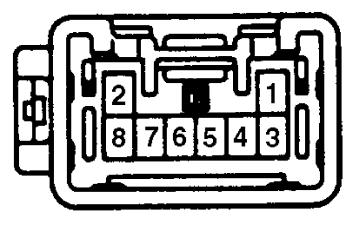
## SUN ROOF SWITCH CONTINUITY TEST TABLE

Position	Terminal Continuity
Slide Off Open Close Tilt	
Off	5 & 8





93B84880
Fig. 3: Sun Roof Switch ID
Courtesy of Toyota Motor Sales, U.S.A., Inc.



# 94H46489

Fig. 4: Sun Roof Switch Terminals Courtesy of Toyota Motor Sales, U.S.A., Inc.

# **REMOVAL & INSTALLATION**

## **DRIVE CABLES**

Removal & Installation See SUN ROOF.

# **DRIVE MOTOR**

Removal & Installation See SUN ROOF.

## SUN ROOF SWITCH

Tape the end of a flat-blade screwdriver to protect switch NOTE: 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 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 sun visors, 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 DIAGRAM

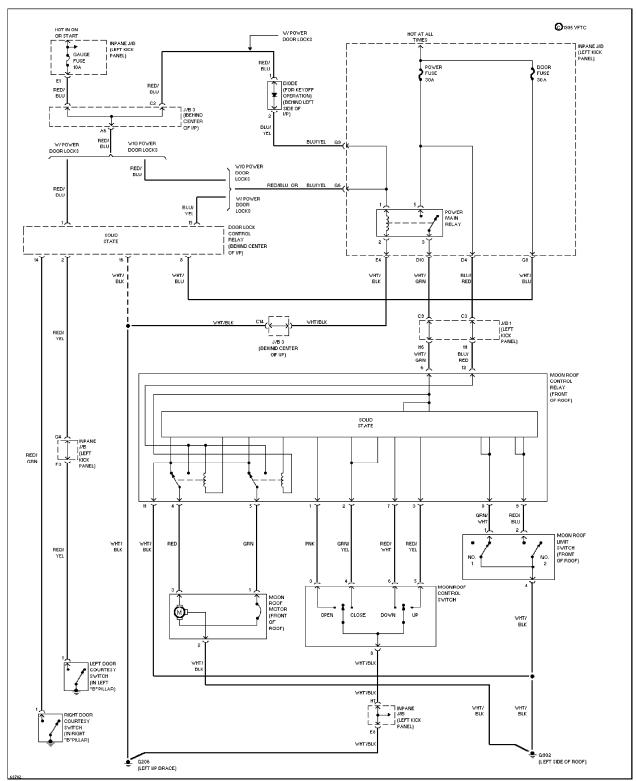


Fig. 5: Power Sun Roof Wiring Diagram