

## 1971-76 GM FULL SIZE (*Scissor Top*) CONVERTIBLE TOP MECHANISM

### TROUBLE SHOOTING TIPS FROM *CONVERTIBLE SERVICE*:

**Slow or inoperative scissor top:** It's easy to assume that the problem is the motor, but, friction from worn parts is the most common cause for a good motor to not be able to operate the top. Often it's not just worn side rails or side gears, but a combination of several of them being worn at once. See "**Worn Side Rail test**", "**Worn Side Gear test**" & "**Bad switch, relay or motor**" tests below to be sure.

**#2 Bow folds incorrectly when raising top** (one side goes forward toward the header bow): Two things control the position of the #2 Bow; See "**Worn #2 bow side brackets**" & "**Side Hold Down cables**" below.

**Only one side of top operates:** One **Drive Cable** may be loose or broken. Inspect both, first at the side gears, then at the motor behind the rear seat back. If drive cables are functioning, perform the "**Worn Side Gear test**" below, on both sides.

**Top guide pins** won't reach forward enough to drop into holes on the windshield: **1.** Side rails not adjusted or bent. Follow Fisher Body Manual adjustments. If problem persists, bent side rail may need replacing. **2.** Top material may be too tight at the header bow, in the rear quarter, or both. If it is, loosen the top, if possible, or install a new top after properly adjusting the frame. Also, see if tightness of rear window curtain on the #4 bow is holding the outer rear rail assembly back. **3.** If only one guide pin can't be pulled into it's hole, try resynchronizing drive cables so that the bad side comes up to the windshield a little sooner than the other side.

### TESTS TO HELP YOU FIND WHICH PARTS ARE BAD:

**Worn Side Rail test:** With top lowered 2 feet back from windshield, one side at a time, grab the front of the side rail and move it up and down. If there is more than 2 inches of play (caused by slack at the side rail elbow pivot), the side rail has too much wear.

**Worn Side Gear test:** With the top folded all the way down, disconnect the drive cables and unbolt the side gears from the 3 inch siderail links. Grab the side gear appendage and force it through it's travel, all the way forward and all the way back. A worn side gear will either bind up at one or more points (going in either direction), or, will move too freely in either direction. A good side gear will have constant firm resistance throughout travel in both directions.

**Worn #2 Bow Side Brackets:** Check for play where pivot ball/rivets swedge to the bracket; also, see if bracket is bent.

**Side Hold Down Cables:** Each side cable should have a 2" shunt cable attached to the #2 bow. See if it's disconnected or broken, or, if the ends of the #2 bow core substance can no longer hold the cable screw. Replace side cables or #2 bow.

**Bad switch, bad relay or a bad motor?:** This is a little more complicated. Call our info line, 626-285-2255. We'll help you, free!



### TOP MECHANISM SERVICE MANUAL

Sound advice: Never do anything to a convertible top mechanism without the factory top mechanism service manual.

Diagrams, pictures and instructions are a must for adjusting & repairs. (NOTE: If you already own a Fisher Body Service manual, do not buy this. This same info can be found there.) ..... \$27.95

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# SCISSOR TOP ELECTRICAL SYSTEM

**IN-CAR TOP SWITCH TEST** - Turn ignition key to "ON", then pull off 3 wire connector (gray, purple & orange) from the center of relay.

**STEP 1** - A test light should show constant current on orange wire. If not, check feed from battery.

**STEP 2** - With top switch pushed in one direction, test light should show current on gray wire.

With top switch pushed in other direction, test light should show current on purple wire.

If either wire shows no current in one of the 2 switch positions, **REPLACE TOP SWITCH.**

**note:** This assumes car wiring is good & top switch is connected properly to car wiring.

**IN-CAR RELAY TEST** - If top switch has tested good (see above), proceed with relay test with ignition key "ON", and all car wires re-attached.

Use test light to verify constant current at middle terminal (orange).

**STEP 1** - Push top switch in one direction: test light should show current to yellow & red terminals.

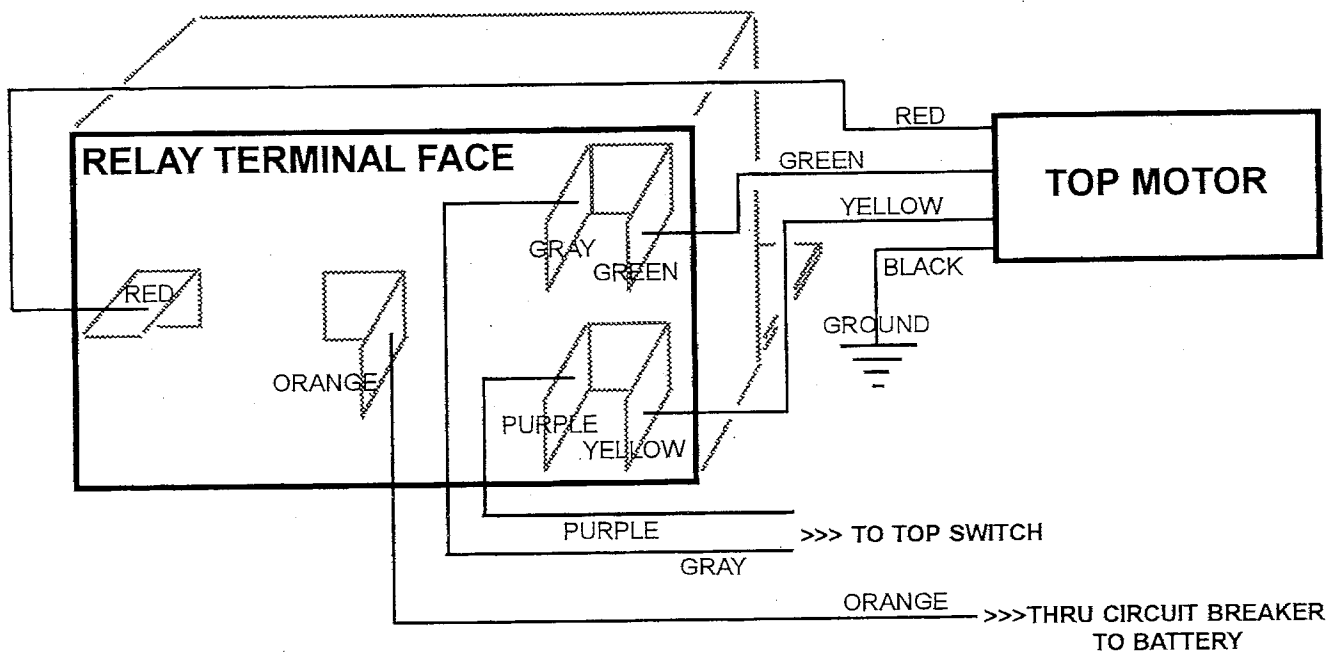
**STEP 2** - Push top switch in other direction: test light should show current to green & red terminals.

If any of above isn't showing proper current, & top switch has tested good,

proceed to **RELAY BENCH TEST.**

If system passes above tests & black motor wire is grounded,

but motor doesn't turn, **REPLACE MOTOR.**



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# SCISSOR TOP RELAY BENCH TEST

(with all car wires disconnected)

Attach constant 12v+ current to center relay terminal (orange).

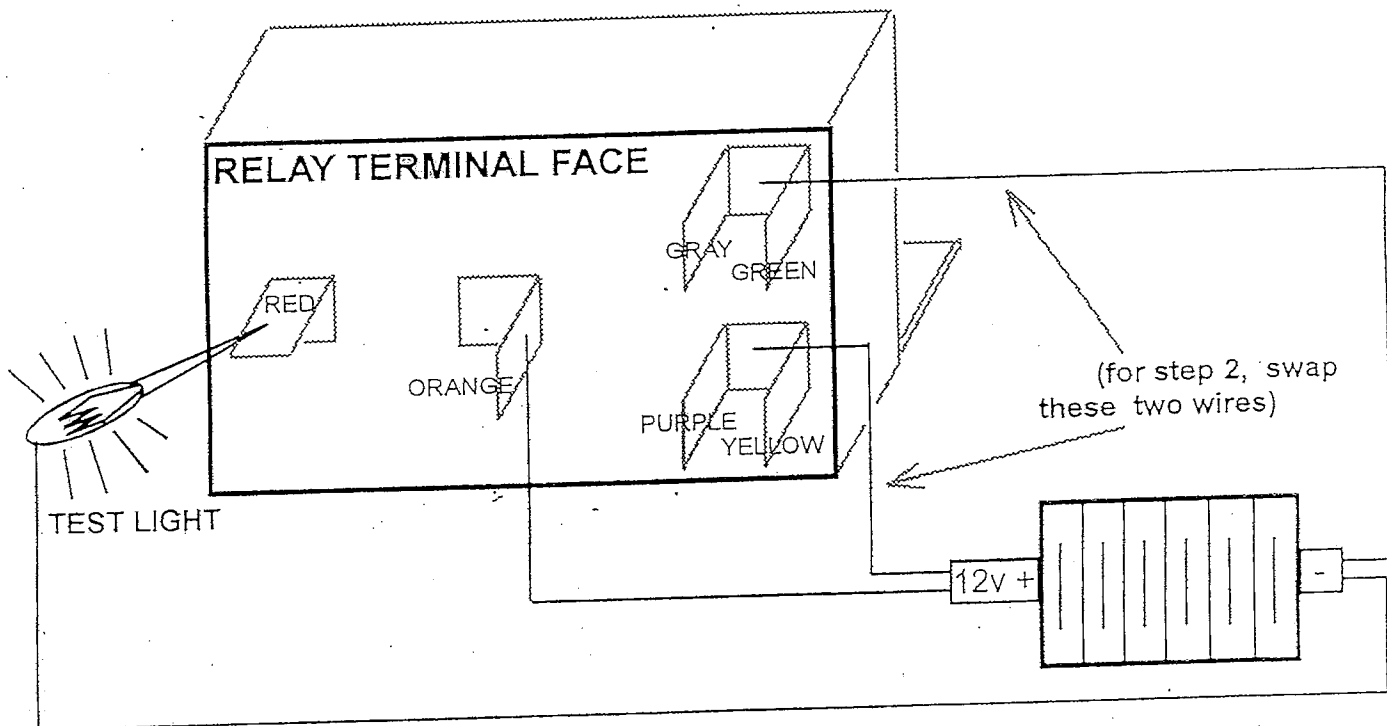
Touch grounded test light (as shown below) to output terminal (red).

**STEP 1** - Apply 12v+ to yellow/purple terminal, while grounding green/gray terminal.  
RESULT: Relay should "click" & test light should light up.

**STEP 2** - Apply 12v+ to green/gray terminal, while grounding yellow/purple terminal.  
RESULT: Relay should "click" & test light should light up.

**DIAGNOSIS:** If test light fails to light up in either step 1 or 2,  
or if test light comes on before step 1 or 2 is performed,  
**REPLACE RELAY.**

## STEP 1 ILLUSTRATION



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2. Detach drive cables at each top actuator.
3. Detach electric motor connectors from relay (Fig. 17).
4. Detach relay attaching screw and remove relay.
5. Remove screw securing motor ground to rear seat back panel.
6. Detach rubber grommets securing motor support to rear seat back panel (Fig. 17).
7. Detach right and left drive cables from electric motor reduction unit (Fig. 17).
8. Remove two attaching screws securing motor support to motor and remove motor.

9. To install, reverse the removal operations. To ease installation of motor and attaching bracket, apply solvent (mineral spirits or equivalent) to grommets on motor bracket. Check operation of motor for proper ground before installing trim.

### FOLDING TOP ACTUATOR DRIVE CABLE - Right and/or Left

#### Removal and Installation

1. Remove rear seat cushion and rear seat back.
2. Detach drive cable at top actuator assembly.
3. Detach right and/or left drive cable at electric motor reduction unit (Fig. 17). For removal of left drive cable, first detach motor.

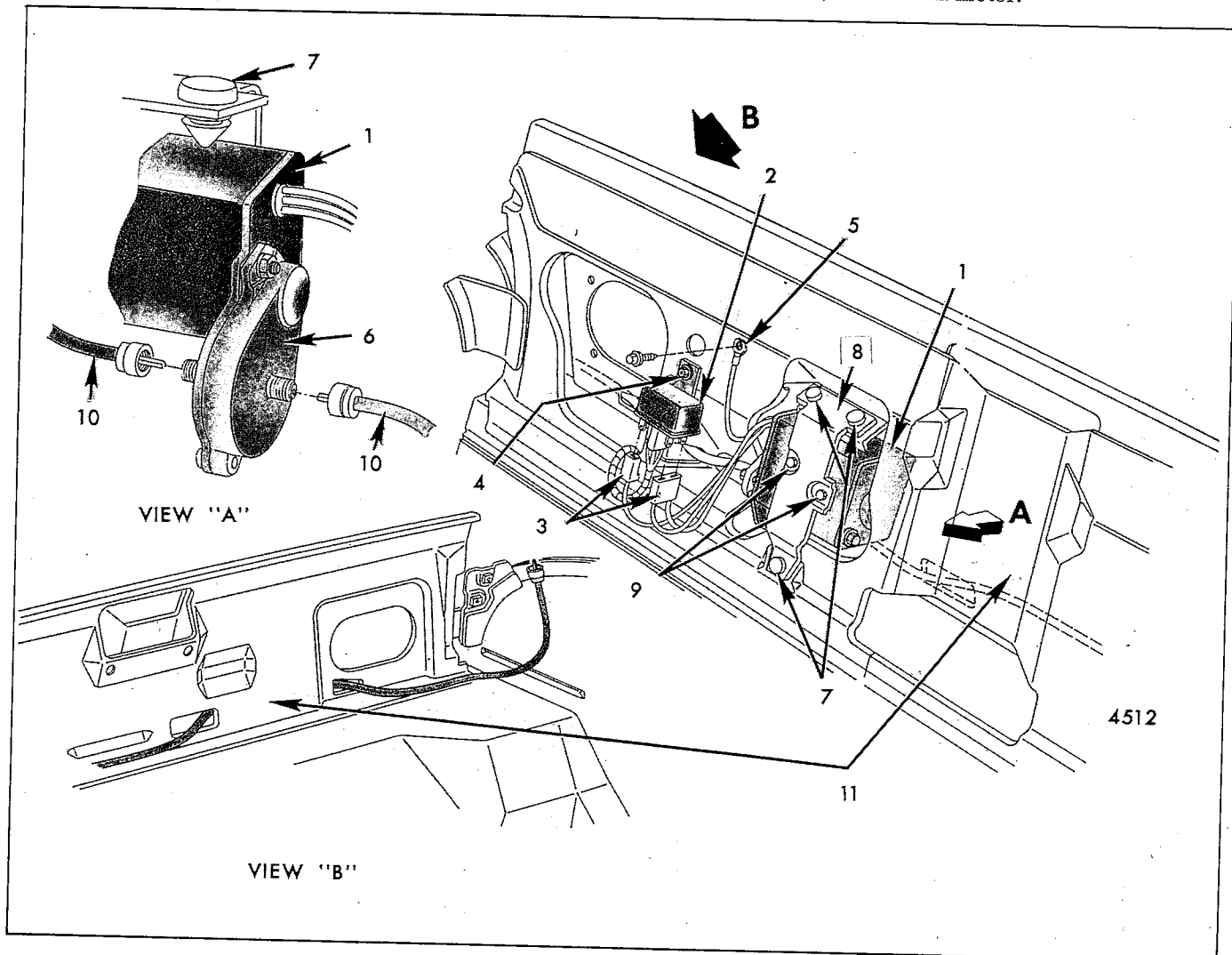


Fig. 17-Folding Top Electric Motor and Relay

- |                              |                                    |                                  |                          |
|------------------------------|------------------------------------|----------------------------------|--------------------------|
| 1. Electric Motor            | 4. Relay Attaching Screw           | 6. Electric Motor Reduction Unit | 9. Motor Attaching Screw |
| 2. Relay                     | 5. Motor Ground to Seat Back Panel | 7. Rubber Grommet(s)             | 10. Drive Cable          |
| 3. Electric Motor Connectors |                                    | 8. Motor Support                 | 11. Seat Back Panel      |