

1984 Corvette: Service Bulletin: Rear Hatch Defogger Circuit Revision

It should be noted that if your Corvette still has this problem, this Bulletin offers the exact fix with related wiring diagrams. This repair work is NOT for the average "do-it-yourselfer" and should only be conducted by qualified service technicians.

Subject: Rear Hatch Defogger Circuit Revision

Model and Year: 1984 Corvette

Source: Chevrolet Dealer Service Bulletin

Bulletin No: 84-252

Section: 8B

Date: April, 1985

TO: ALL CHEVROLET DEALERS

Some comments have been received regarding blown fuses in the 1984 Corvette rear hatch defogger circuit. This circuit also feeds the door mirror glass heaters. Under certain conditions, the current draw in the feed circuit may exceed 30 amps, resulting in a blown fuse.

This condition has been corrected, starting with vehicle number E5144571, by replacing the (1) 30 amp fuse labeled "defog" in the fuse block with (2) 20 amp fuses in parallel. These fuses are located in the two (2) top left hand cavities of the fuse block (see the two (2) views of the fuse block.)

On vehicles built prior to serial number E5144571, the 30 amp load is the maximum allowable current on the defogger circuit. It has been decided to remove the side door mirror glass heater high current load from the defogger

circuit and move it to the rear hatch release feed circuit (See Figures #2 and #3.)

In order to accomplish this "load" change and retain normal operation of the defogger switch, a relay and wiring jumper harness has to be installed.

The following parts list and procedure steps are required to perform this installation.

PARTS LIST

<u>Quantity</u>	<u>P/N</u>	<u>Description</u>
1	14078902	Relay Assembly
1	12010015	Connector, Relay
4	8905087	Terminal
5 Feet	NPN	(18 ga.) Lt. Blue Electrical Wire
10 Feet	NPN	(18 ga.) Black Electrical Wire
8 Inches	NPN	(18 ga.) Purple Electrical Wire
9 Inches	NPN	(14 ga.) Orange Electrical Wire

The following wiring practices and installation steps are to be adhered to:

SPLICES

- DO NOT use 3M "Quick Splice" or equivalent type connector in any wire splice in this procedure.

- Because of the high current loads in the mirror glass heater circuit, all splices are to be soldered. Soldering is also required when assembling the relay harness jumper wires to the relay terminal connectors.
- Properly insulate all splices with electrical tape or shrink tubing.

WIRE ROUTING

- Avoid routing wires against sharp edges that may abrade the wire insulator.
- Secure the wire to avoid vibration fatigue and or rattles.

RELAY AND WIRING INSTALLATION STEPS

1. Disconnect the negative battery cable.
2. Remove both left and right hush panels.
3. Fabricate the mirror glass heater jumper harness.

NOTICE: It is recommended that the vehicle be raised on a hoist to a workable under dash height before performing under dash solder splices.

4. Solder Splice #1 - locate circuit 540 (Figures #3 and #4) at the I/P harness connector C124, Pin A. Remove approximately 15mm (.62 in.) of insulation from the (16 ga.) orange circuit 540 supply wire. Strip and wrap and mirror replay harness (14 ga.) orange wire (relay terminal E) around the stripped (16 ga.) orange circuit 540 wire and solder to complete the splice. Tape splice to insure proper electrical insulation.
5. Solder Splice #2 and #3 - locate circuit 192 (Figures #2 and #5) under the R.H. side of the dash. It will be necessary to remove the production harness tape to locate the (16 ga.) purple wire to the R.H. mirror glass heater. Cut and strip both ends of this wire. Solder splice the (18 ga.) purple wire from Pin C of the mirror relay harness into the 192 circuit wire end coming from the I/P harness (See Figure #2, Splice #2.) Solder splice the 191mm (7.5 in.) long (18 ga.) light blue

relay harness wire (Relay Pin A) to the remaining circuit 192 stripped wire end leading to the R.H. mirror glass heater (See Figure #2, Splice #3.) Separate and tape splices to insure proper electrical insulation. Gather and re-tape R.H. door harness wires.

6. Using approximately 3 ft. of mechanics wires as a "feeder", run the wire from the left side of the vehicle to the right behind the center console heater controls and adjacent to the ALDL output connector. Tape the 54 in. long (18 ga.) light blue mirror relay harness wire (Pin A) to the feeder wire and pull through to the L.H. side of the passenger compartment.
7. Locate circuit 192 under the L.H. side of the IP (See Figures #2 and #5.) Removal of the production harness tape will be required to expose the (16 ga.) purple circuit 192 wire. Cut and tape back the (16 ga.) purple circuit 192 wire leading from the I/P harness.

NOTICE: There are two (16 ga.) purple wires in the harness at this location, one is the 92 circuit to the wiper switch, the other is the 192 circuit to the L.H. mirror. Connect the battery, turn "on" the rear defogger switch and probe wires with a test light to identify the 192 circuit wire. Disconnect the battery before cutting the wire. Tape the cut end of the wire before taping back to avoid electrical shorts.

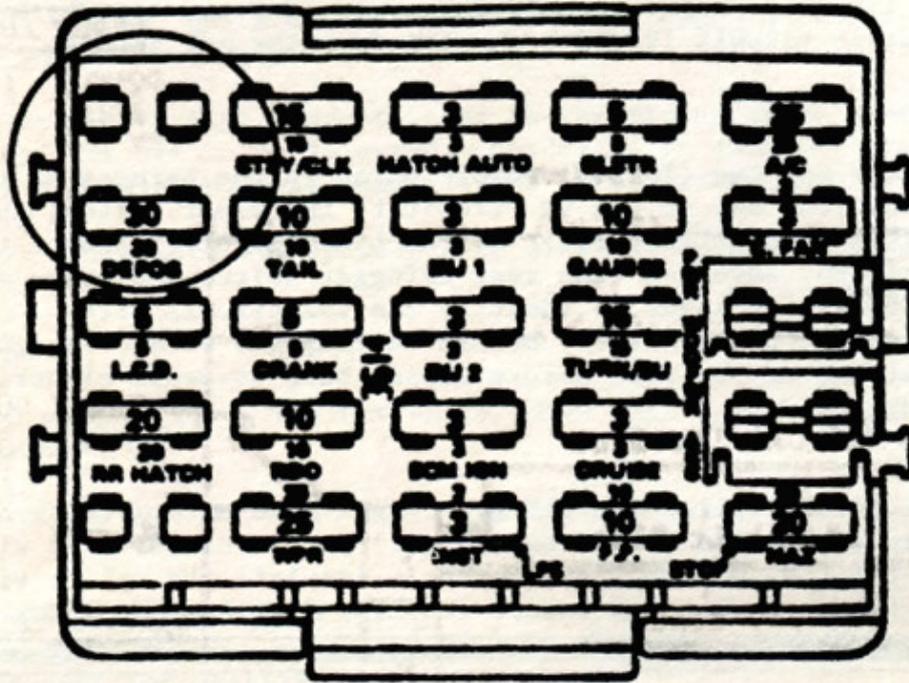
8. Splice #4 - solder splice the (18 ga.) light blue mirror relay harness wire (Relay Pin A) to the (16 ga.) purple circuit 192 wire leading to the L.H. mirror glass heater. Insulate the splice with electrical tape. Gather and re-tape the L.H. door harness wires.
9. Splice #5 - locate the (12 ga.) black circuit 150 ground wire under the R.H. side of the dash (See Figures #2 and #6.) Remove approximately 15mm (.62 in.) of insulation from this wire. Strip and wrap the (18 ga.) black (Relay Pin B) mirror relay harness wire around the circuit 150 ground wire and solder. Tape splice to insulate.
10. With the relay jumper harness plugged into the relay, mount the relay on the R.H. I/P pencil brace (See Figure 7) using a cable tie through the existing relay so that it does not contact any adjacent components that may cause a rattle. Once proper orientation is established, duct

tape the relay to the I/P brace to prevent it from rotating.

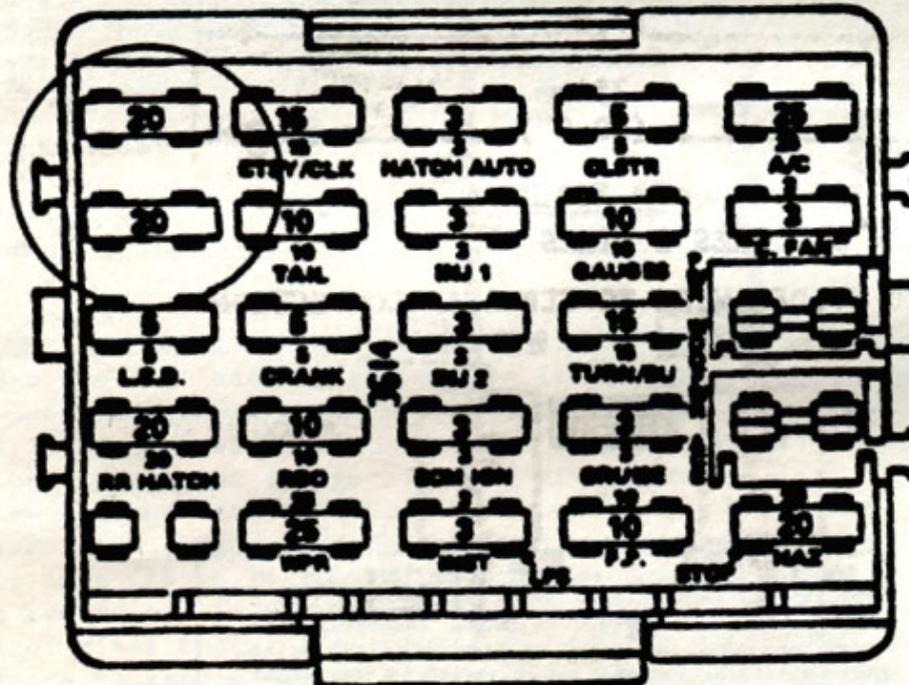
11. Install hush panels and connect the battery.
12. Turn on the ignition key and activate the rear window defogger switch. Touch the side door mirror glass and hatch glass to verify heater operations.

Chevrolet Motor Division
General Motors Corporation

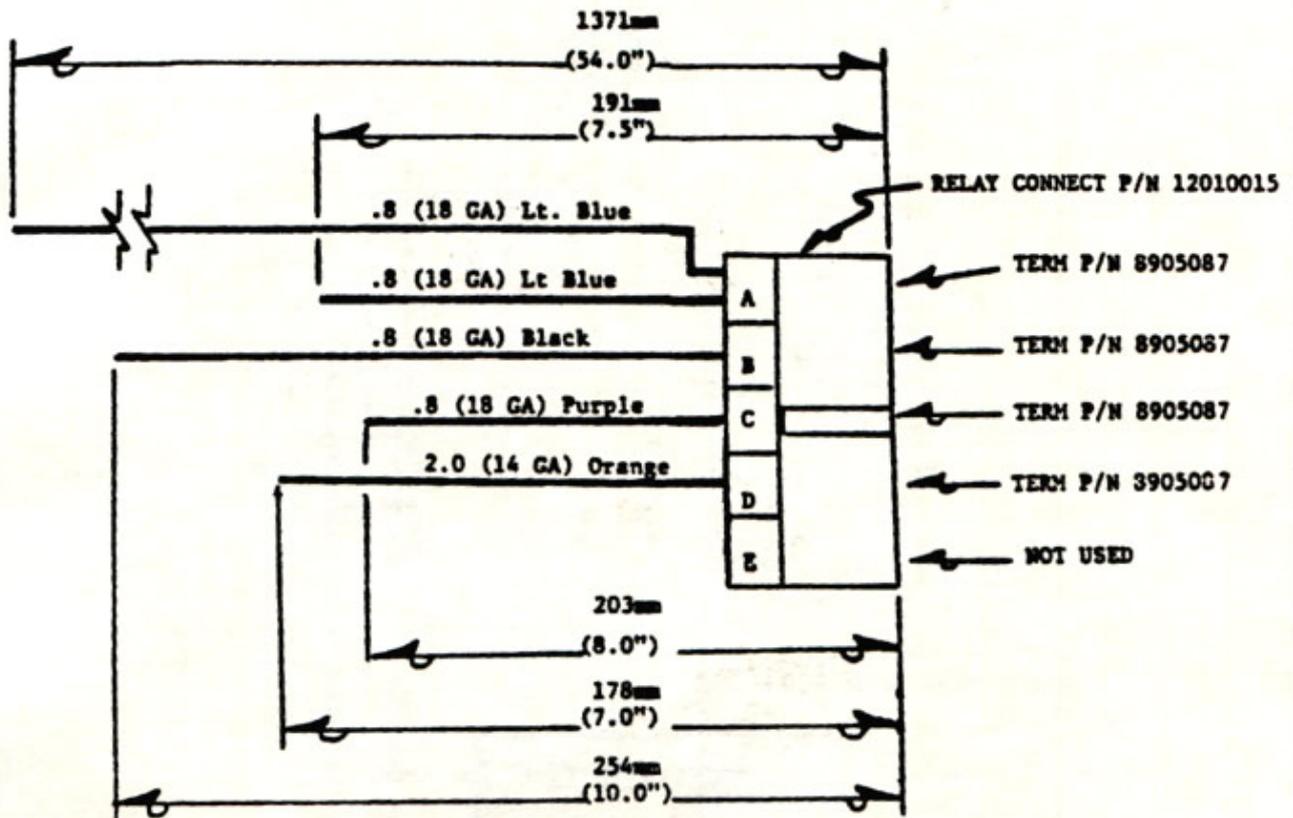
FUSE BLOCK



OWNER MANUALS AND VEHICLES BUILT PRIOR TO SERIAL NUMBER 44571 ARE AS SHOWN ABOVE. SUBSEQUENT VEHICLES ARE EQUIPPED WITH TWO 20 AMP FUSES, BUT THE FUSE PANELS HAVE NEITHER IDENTIFYING FUSE RATINGS NOR CIRCUIT NAMES PRINTED ON THE BODY UNDER THE FUSE CAVITIES.



**FIGURE #1
MIRROR GLASS HEATER RELAY
JUMPER HARNESS**



- NOTE:** (1) TERMINAL *A* REQUIRES 2 WIRES
 (2) CRIMP AND SOLDER WIRE TO TERMINAL CONNECTIONS

REAR WINDOW DEFOGGER

FIGURE #2

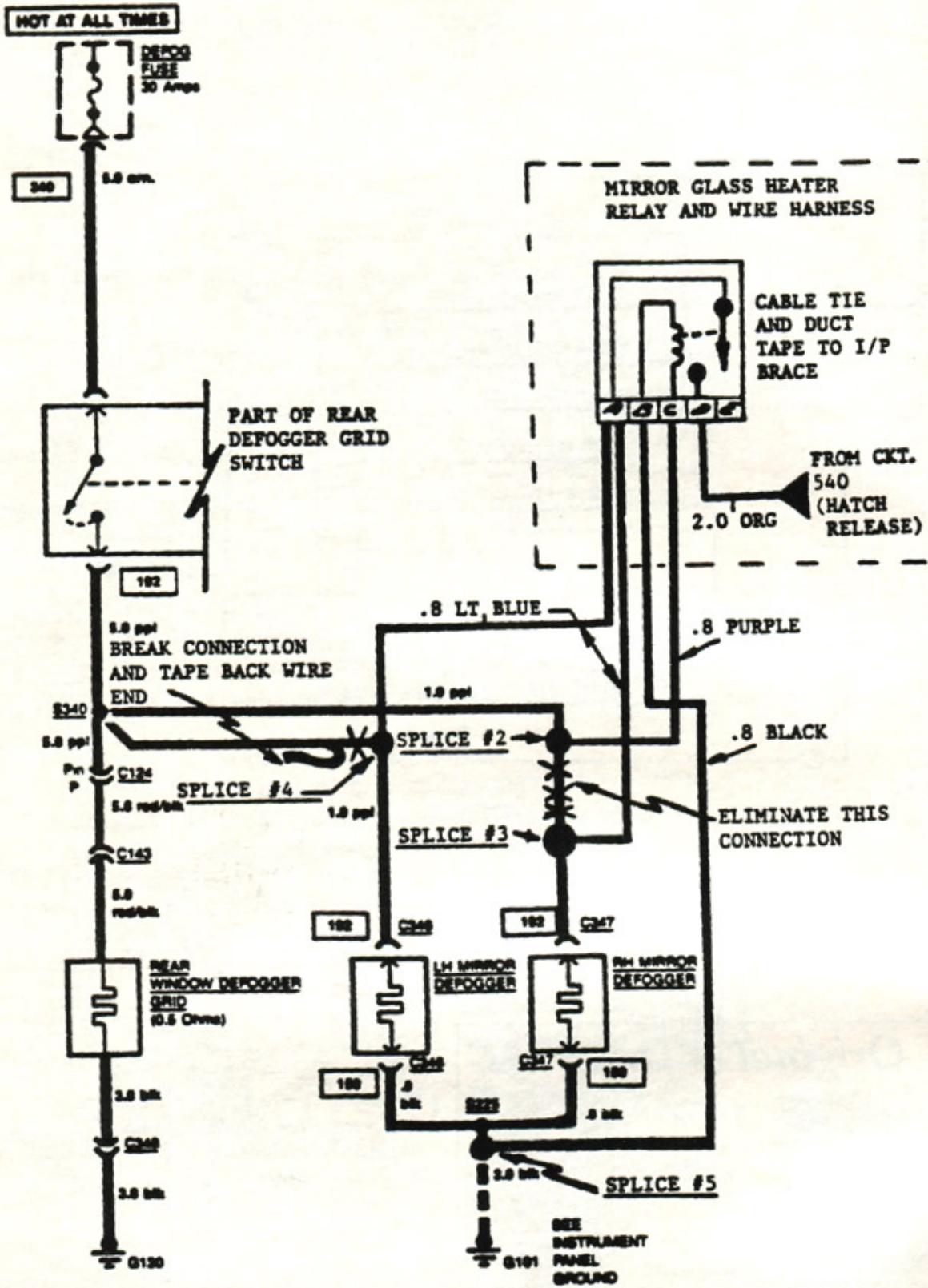
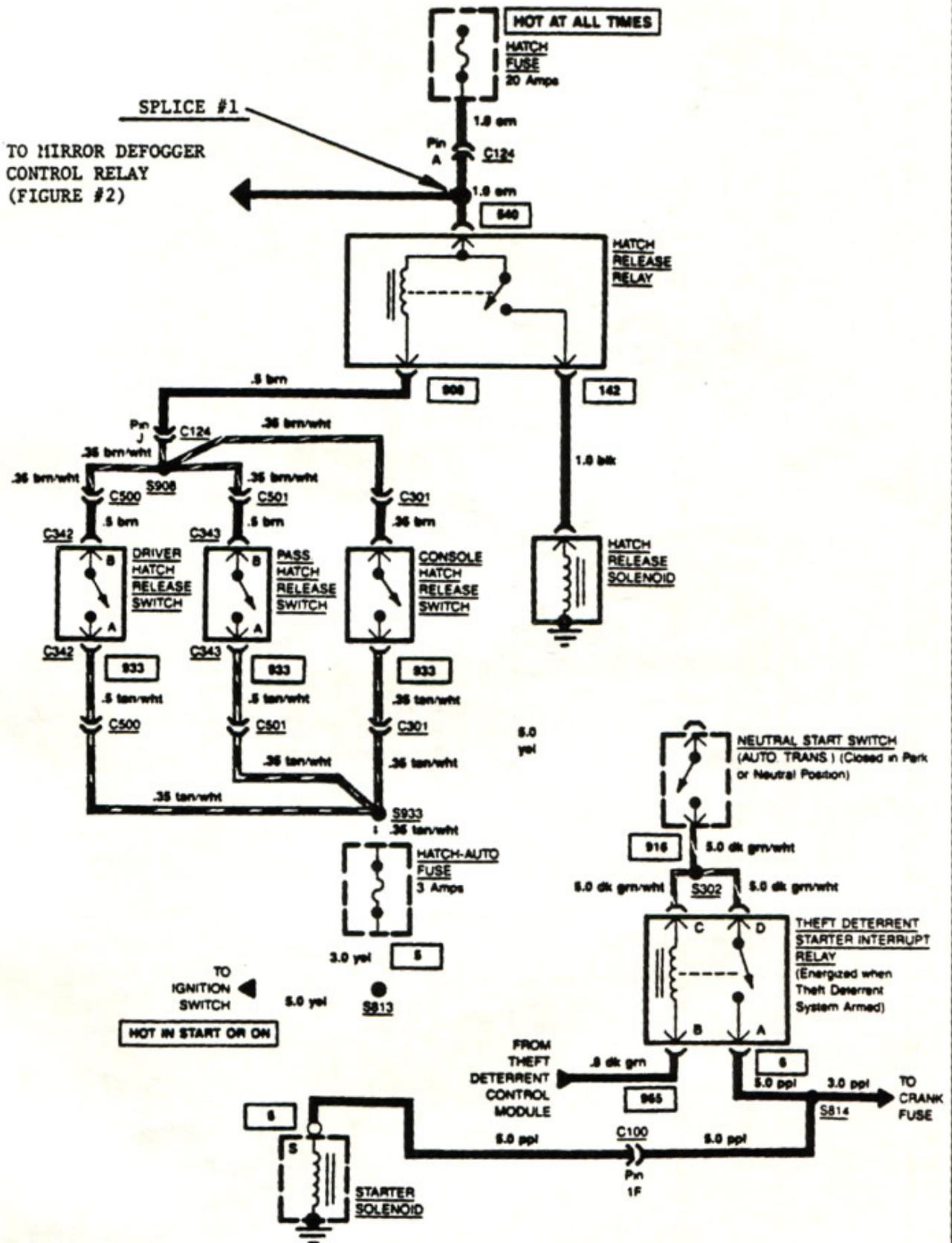


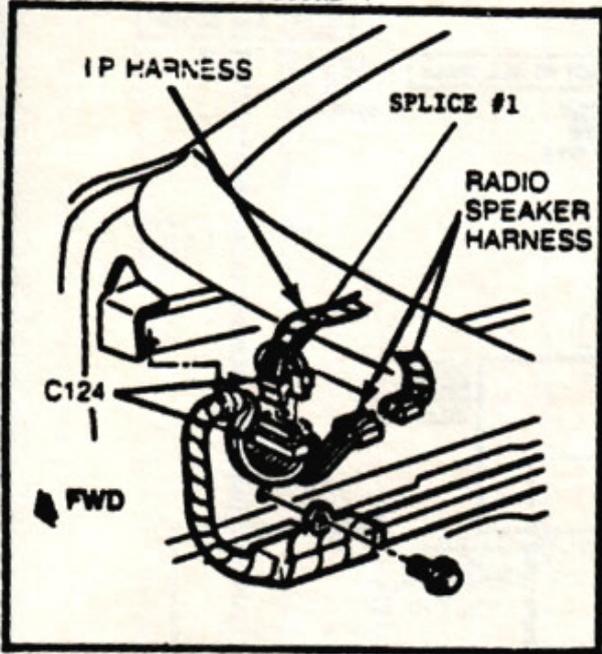
FIGURE NO. 3

HATCH RELEASE



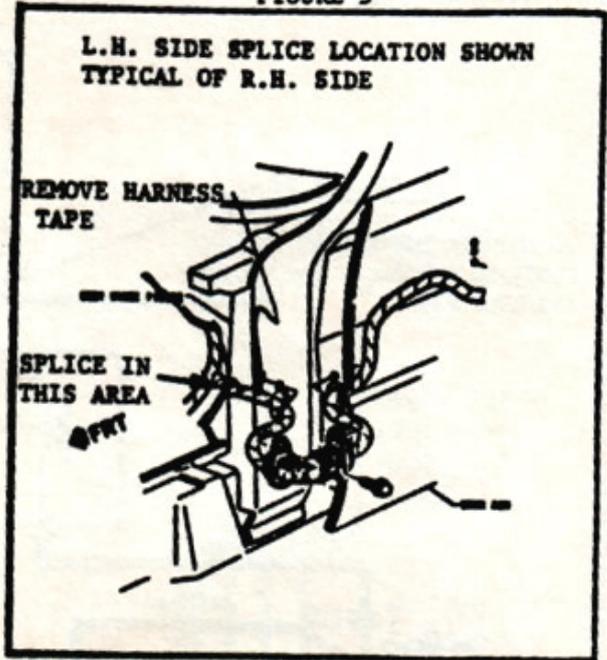
RELAY WIRE SPLICE - RELAY MOUNTING LOCATIONS

FIGURE 4



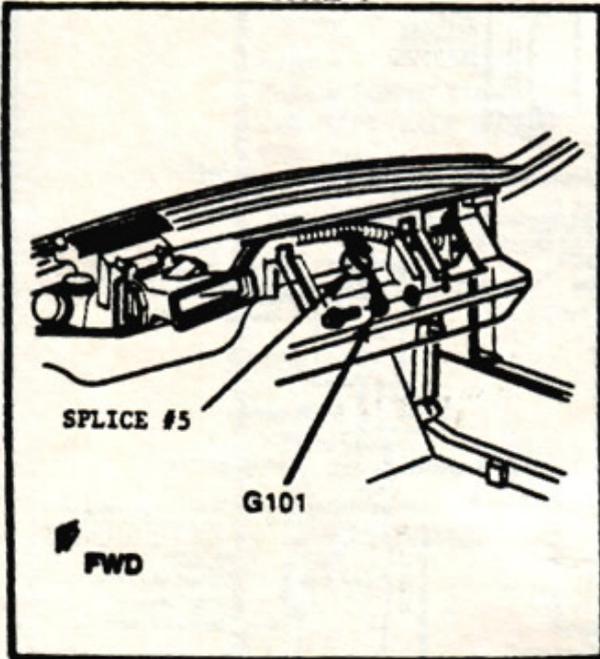
SPLICE #1 - I.P. HARNESS CONNECTOR C124 (PIN A)

FIGURE 5



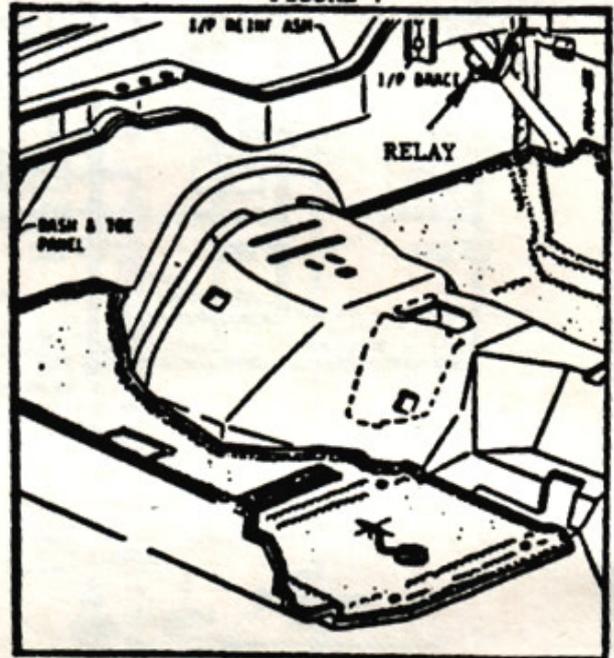
SPLICE #2, 3 R.H. SIDE
SPLICE #4 L.H. SIDE

FIGURE 6



RELAY GROUND CONNECTION AT G101
GROUND WIRE

FIGURE 7



RELAY MOUNTING LOCATION

Online URL:

<https://www.corvetteactioncenter.com/tech/knowledgebase/article/1984-corve>

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