### **HEADLIGHT SWITCH TROUBLE SHOOTING**

## #@\$!\*@#\$% INSTRUCTIONS

MID FIFTY F-100 PARTS 1-800-252-1956

# PART NUMBER INST-2901-TS

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#### 1. TROUBLE SHOOTING

The first step in trouble shooting is to establish the facts, making the necessary correction where a fault is found before proceeding with the next step.

A quick analysis of the entire electrical system to isolate individual circuits causing trouble is made by determining if current is available at various points in the main circuit. These tests are made as follows: Press the horn button (momentarily). Operate the starter switch (momentarily). Turn the ignition switch on (15 seconds). Turn the dome light on (momentarily). Turn on the headlights (momentarily).

Based on observations made during the above tests, the following diagnosis can be made:

If the horn sounds, the battery, horn relay and the battery cables are probably OK.

If the horn does not sound and if the starter engages, instruments register, and the lights light, the trouble is in the horn circuit. Follow symptom "d. Horn Does Not Sound."

If the starter engages, and cranks the engine, the battery, cables, and starter relay are OK.

If the starter does not engage, but the horn does sound, the starting system is at fault.

If the instruments register, the battery, cables, and circuit to the lighting switch are OK.

If none of the instruments register and the lights do not light, the trouble is in the wire running from the starter relay to the lighting switch. If none of the instruments register but the lights light, the trouble is in the ignition switch or main feed wire to the instruments.

If some but not all of the instruments register, follow the procedure that applies under g. through i, below. If the dome light lights, the interior light fuse and wiring to the dome light is OK.

If the headlights light, the battery, cables, circuit to the overload circuit breaker (part of lighting switch), and the circuit breaker are OK.

If the headlights do not light, the battery cable is loose, the main feed wire is disconnected at the switch or is broken, the headlight beam control switch is defective, or the headlights are burned out.

#### a. Both Headlights Do Not Light.

If both headlights do not light, the overload circuit breaker may be operating as a result of a grounded wire in the headlight circuit, both lights are burned out, or there is a broken wire. Set the headlight switch to the headlight positon. Observe the reaction as you switch from high to low beam with the beam control switch.

If the lights light only when the beam control switch is in the upper beam position, the trouble is in the lower beam circuit from the beam control switch to the headlights. If the lights light only when the beam control switch is in the lower beam position, the trouble is in the lower beam circuit from the beam control switch to the headlights. If the lights are out in both high and low beam, the trouble is probably in the beam control switch or the wire supplying the switch.

Connect a jumper from the positive battery terminal to the headlight supply wire at the left fender apron terminal block (high beam; green-black band, low beam; red-black band) after first disconnecting the wire. If the headlights now light, there is an open or grounded circuit from the terminal block to the lighting switch.

#### d. Circuit Breaker and Fuses.

A combination headlight switch, circuit breaker and fuse assembly is used (fig. 17). One of the circuit breakers prevents overload of the headlights, and the other prevents overload of the balance of the lighting circuits.

The action of the breaker is thermostatic in nature. If the current becomes excessive, the bi-metallic breaker arm heats, pulls away from the contact point, and breaks the circuit. When the breaker cools, contact is again made, and the circuit is restored. The breaking action is positive with no "fluttering" of the contacts.

