JEEP TAILGATE WINDOW DEFOGGER

Jeep
Cherokee
Wagoneer

DESCRIPTION

A heated tailgate window defogger system is available on Cherokee and Wagoneer models. The system consists of 2 vertical bus bars and horizontal rows of heating elements fused to inside of glass, a control switch, pilot light, and timer relay. Braided wire serves as the electrical feed and ground for the grid. The grid feed wire is attached to the timer relay located inside tailgate. The timer relay receives its power from the fuse panel power tailgate terminal. A 30-ampere circuit breaker protects the circuit.

OPERATION

A separate control circuit, connected to the heater control switch, operates the relay and timer. With the control switch on instrument panel and ignition switch "ON", the defogger relay contacts close. A timer, enclosed in relay case will allow the defogger to operate for about 8 to 12 minutes, depending upon ambient temperature, or until the control switch or ignition switch is turned "OFF". A pilot lamp on the instrument panel indicates when the system is in operation.

NOTE — *Defogger switch and electric tailgate switch are serviced as an assembly.*

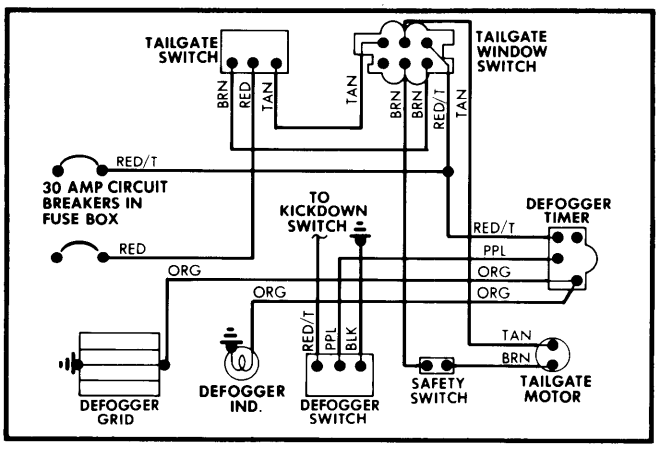

Fig. 1 Jeep Wiring Diagram for Rear Window Defogger

TESTING

CONTROL SWITCH

Turn ignition switch "ON" and press defogger switch. Separate wiring harness at connector under dash. Connect a 12-volt test lamp from Purple wire to ground, test lamp should light. Turn defogger switch "OFF", test lamp should not light.

INDICATOR LIGHT

Disconnect Orange wire from lamp. Connect jumper wire from accessory terminal to Orange wire. With ignition turned to "Accessory", lamp should light.

RELAY

1) Remove tailgate trim panel and access hole cover, then disconnect 3-wire connector at relay. Connect a jumper wire from accessory terminal on fuse panel to "X" terminal (Red wire) on relay. Connect another jumper wire from accessory terminal on fuse panel to Red wire (with tracer) terminal on switch. Connect another jumper wire from "P" terminal (Purple wire) on relay to Purple wire terminal on switch.

2) Connect a 12-volt test lamp from "L" terminal (Orange wire) of relay to ground. With ignition switch in "Accessory" position, test lamp should not light. Press switch "ON", lamp should light and remain on for 8 to 12 minutes.

GRID

1) Use a 12-volt meter and connect positive lead to right (Feed) side of vertical element on inside of glass. Connect negative lead to left side of vertical element. Voltage on meter should read 11 to 13 volts with ignition "ON".

2) Connect negative lead to ground, disconnect positive lead and touch each grid at center of window.

3) Voltage drop of 6 volts indicates good grid. Voltage drop of 12 volts at center indicates break in grid between positive lead and ground. No voltage drop at center indicates break in grid between center and feed wire.

5) Exact location of break can be located by moving positive lead to left or right until abrupt change in voltage is noticed. Repair to grid can then be made.

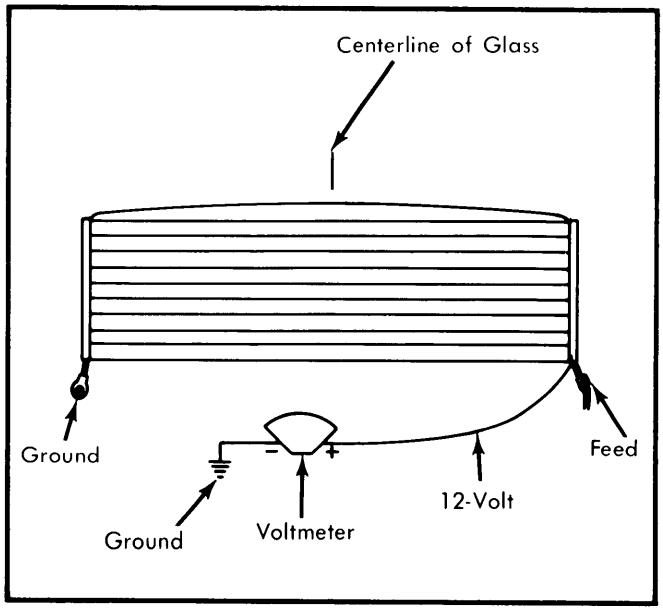

Fig. 2 Voltmeter Connections and Voltage Drop for Grid Continuity