FORD MOTOR CO. WINDOW DEFOGGER GRID

All Models

DESCRIPTION

System components include a grid of wires baked on the inside of the rear window, an indicator light, control switch and timer/relay. Power feed to the timer/relay is from the accessory terminal of the ignition switch. Circuit is protected by a fuse located in the fuse panel. Power for the rear window grids, outside rear view mirror (if equipped), and the indicator light is supplied from the battery side of the starter relay through a fusible link which protects the circuit.

OPERATION

The rear window defogger operates only when the ignition switch is on. A spring-loaded 3-position switch turns the relay on, then returns to the center position. The timer in the relay will turn the relay off after 10 minutes of operation. The defogger can also be turned off by moving the control switch to the "OFF" position, or by turning the ignition off.

TROUBLE SHOOTING

If defogger does not operate, check relay operation and power at circuit breaker or fuse. If defogger light operates, but grid does not heat, check continuity in wiring harness from relay to grid, then check grid ground connection. Ground screw must be clean and tight.

TESTING

WINDOW GRID WIRES

1) Shine a strong light through grid from inside vehicle. Check for broken grids which will appear as brown spots.

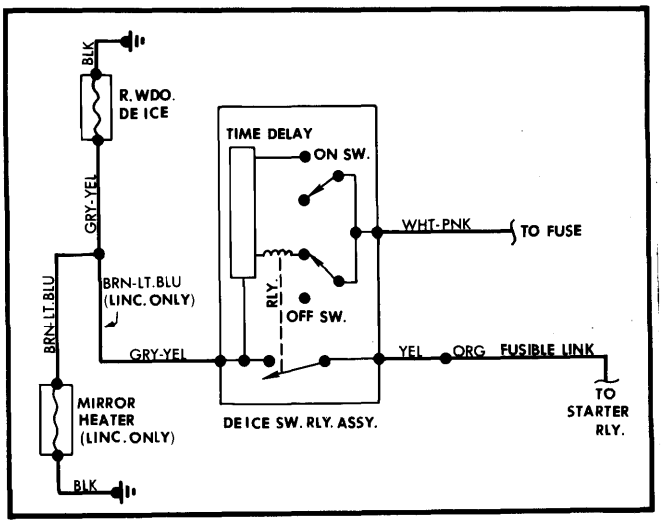

Fig. 1 Heated Rear Window Wiring Diagram (All Models)

2) Run engine at idle, turn control switch to "ON", the indicator light should come on.

3) Using a 12 volt DC voltmeter, contact wide Red-Brown strips on back window. Reading should be 10-13 volts. If voltage is lower, window grid ground connection (pigtail) is loose.

4) Contact a known good ground with meter negative lead. Reading should not change.

5) With negative lead connected to ground, touch each grid line at its mid-point with meter positive lead. A reading of about 6 volts indicates grid line is good. A zero volts reading indicates the grid is broken between the mid-point and the hot side. A 12 volts reading indicates the grid is broken between the mid-point and ground, or that ground connection is loose.

CONTROL SWITCH

1) With switch in "NORM" position, test all terminals with ohmmeter. Continuity should exist between 2 terminals.

2) With switch in "ON" position, there should be continuity between all terminals. In "OFF" position, there should be no continuity.

RELAY/TIMER

NOTE — *Control switch and timer/relay are mounted to climate control head on dashboard.*

1) Ground pin 4 and connect a jumper wire between pins 1 and 3. Connect a 12 volt test light between pin 2 and ground.

2) Apply power to pin 3. Test light should not light. Turn switch on. Test light should come on and stay on after switch returns to "NORMAL" position.

3) Test light should go off under the following conditions: If lever is moved to "OFF"; if power to ignition switch terminal is removed; if 10 minutes have elapsed.

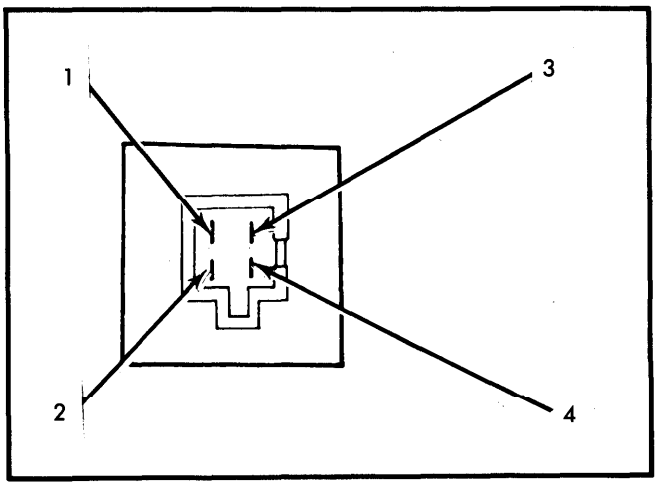

Fig. 2 Pin Positions on Timer/Relay