

How to test Paragon 8145-20 defrost timer.

Timer dial rotates continuously, and keeps good time. X-3596 Trippers are attached to edge of dial. When trippers reach the trip switch, the timer relay turns on and defrost cycle starts.

Defrost cycle starts. Refrigeration stops.

Terminal 3 has power during defrost cycle.

Terminal 4 has no power during defrost cycle.

Test these terminals for power to ground. One or the other should have power at all times, but not both.

With 240Volt timer, terminals 1 and 2 and N test for live power to ground at all times. Terminal X tests live to power when limit switch is on.

(With 120Volt timers, terminals 1 and 2 test for live power to ground at all times. Terminal N is neutral. Terminal X is connected to neutral.)

The external limit switch is connected to terminal X and to terminal N.

During the defrost cycle, the limit switch measures the pressure or temperature.

When pressure or temperature reach the set point, the limit switch closes the circuit and this activates the solenoid inside timer. The solenoid turns off the timer relay, and the defrost cycle ends.

At this point the timer turns off defrost, and sends power to refrigeration.

Defrost stops. Refrigeration starts.

Terminal 3 has no power during refrigeration cycle. (The opposite of defrost cycle)

Terminal 4 has power during refrigeration cycle. (The opposite of defrost cycle)

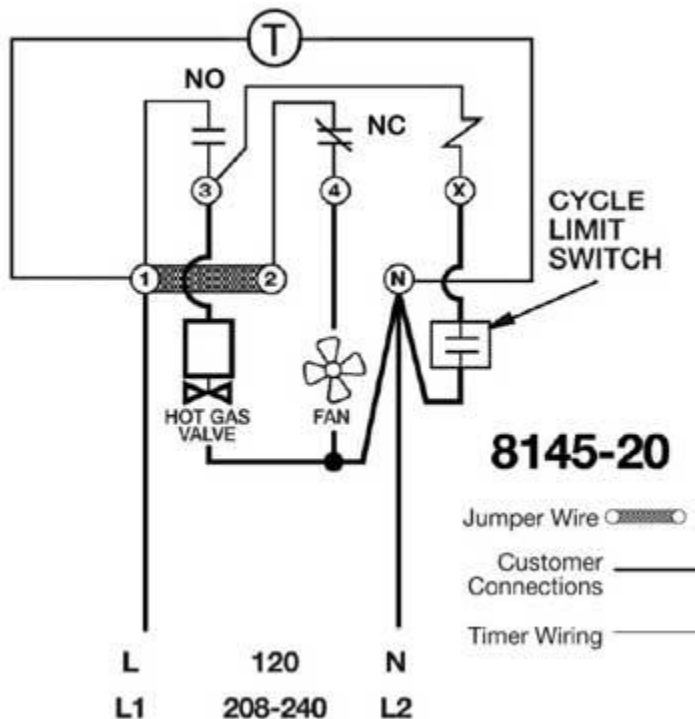
Test these terminals for power to ground. One or the other should have power at all times, but not both.

If timer will not enter defrost cycle, make sure the X-3596 trippers are not worn down.

Disconnect the wire to terminal X and see if defrost cycle will start.

Test terminals 3 and 4 again and see if removing wire from X caused a change.

<http://waterheatertimer.org/Paragon-timers-and-manuals.html#8145>



Paragon 8145 Defrost timer