

TESTING THE CONNECTION AND HEATING FILM; MEASURING OHM'S

Measure the ohms (resistance) by connecting the red and black wires from the "cold lead" using a volt meter. Compare this measured value to the "calculated" OHM's in Step #2.

The integrity of the installation can be tested simply by measuring the resistance of the red and black cold lead wires prior to running the cold leads up through the conduit to the wall junction box. The following simple formula will provide you the CALCULATED RESISTANCE for the Heating Film installation. These calculations are based upon an average installed product temperature. These values will fluctuate +/- 20% based upon the ambient temperature in the environment in which the product is operating.

NOTE: TO AVOID ELECTRICAL SHOCK, YOU MUST NOT CONNECT THE THERMOSTAT AND/OR A SLAVE UNIT TO THE COLD LEADS UNTIL THE TAPING PROCEDURE HAS BEEN COMPLETED (SEE NEXT STEP).

The following formulas are voltage specific and are based on the linear length of the installed film. The value "R" represents the calculated resistance (ohms). The value "L" represents the Total linear length of Heating Film.

FOR 120 VOLT INSTALLATIONS, USE THIS FORMULA:

$$R = \frac{218}{L}$$

Example: A typical 10' X 10' (100 sq-ft) room will have approximately three sheets, for a total of 30 linear feet of Heating Film. Divide 218 by 30, yielding a calculated ohms reading of 7.27.

FOR 240 VOLT INSTALLATIONS, USE THIS FORMULA:

$$R = \frac{872}{L}$$

Example: A typical 10' X 10' (100 sq-ft) room will have approximately three sheets, for a total of 30 linear feet of Heating Film. Divide 872 by 30, yielding a calculated ohms reading of 29.07.

1 linear foot of Heating Film = 3.38 square feet of Heating Film. The linear feet calculated is taken as full width (40.6 inches) of Carbonic Heat Film. If a sheet is cut in half (20.30 inches), along the center white strip cut line, then the "linear feet" is half the length.