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Your pyrometer is equipped with a four foot Chromel alumel lead wire attached to a type "K" thermocouple. Your Cress kiln has a 1.5" hole in the kiln case. You can use a large screwdriver and by twisting it, drill a 1/4" hole centered in the 1.5" hole through the soft brick kiln wall. Insert the thermocouple through this hole. The tip of the thermocouple should not be closer than 3/4" to the inside kiln wall. Make sure that the thermocouple does not touch the heating element and that the lead wire does not touch the outside of the kiln. Hang the temperature-indicating meter (pyrometer) on the wall at a height convenient for reading.

Always use a cone behind the peephole to determine final temperature. Pyrometers are not as accurate as a cone in determining ceramic temperature. Cones behave like the ceramic ware. The thermocouple measures air temperature, but a cone takes into account the time that it takes to heat the ceramic itself.

**ALTERNATE MOUNTING OF THERMOUCOUPLE:** You may drill a 1/2" diameter hole lengthwise through the center of a peephole plug. Insert the thermocouple with the end of the thermocouple extending into the kiln approximately 1.5". Hang the pyrometer in a convenient place as above. Do not insert the thermocouple in peephole without a drilled peephole plug as described above.

**MAINTENANCE:** The pyrometer face may be scratched by dust. Use a soft brush to remove dust from the faceplate. The thermocouple will oxidize in use until there is no connection. High temperature firing can damage the accuracy of the thermocouple. If you notice a sudden change in the agreement between the cones and meter, change the thermocouple.

**THERMOUCOUPLE REPLACEMENT INSTRUCTIONS:** The thermocouple has been marked with a minus sign (-) on the end of the large white bushing. The thermocouple lead wires must be connected with the red wire to the minus and the yellow wire to the plus side of the thermocouple.

**RED TO THE MINUS (-) AND YELLOW THE (+)**

If you hook up the thermocouple incorrectly, your pyrometer will not operate properly. If your thermocouple is not marked, or if you believe it is incorrectly marked, you can check it with a magnet. The magnetic side is always the minus (-), and must be connected to the red wire.

After replacement of your thermocouple, we advise that you do a test fire without a load to be sure that the thermocouple is connected properly, otherwise the digital indicator will go the wrong direction. Be careful not to hit the thermocouple when loading and unloading your kiln. We advise that you periodically check the thermocouple visually for cracks.

**REPLACEMENT PARTS IDENTIFICATION:** **Thermocouple:** TC8\_ -specify (3", 5", 7", 8", 10", or 12"), **Meter:** PYDM is the part number for the meter only. **Lead-wire:** ESTCLW – Type "K" Thermocouple lead wire -4 feet.

Pyrometer digital inst.