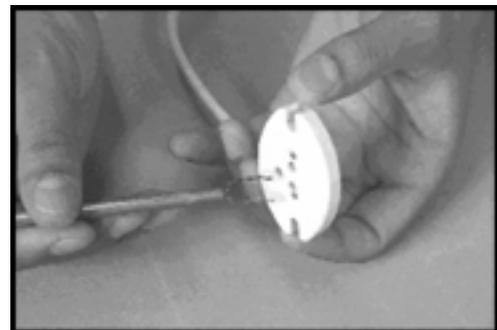
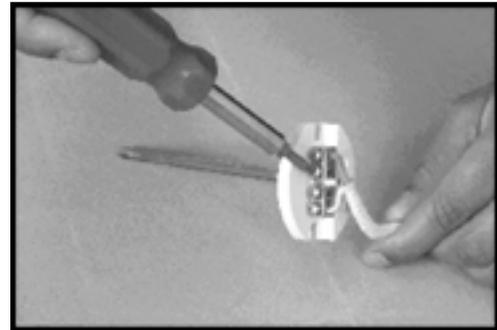




# MI Cable Thermocouple Replacement

1. Unplug the kiln from the power source to avoid electrical shock.
2. Remove the sheet metal screws from the left side of the KM control box.
3. Swing the control box open to expose the thermocouple wiring. This wiring is the yellow and red wiring with a yellow covering. Remove the two spade connectors attaching the wiring to the bottom of the terminal block.
4. Remove the two sheet metal screws attaching the white porcelain thermocouple block to the stainless steel heat shield. Carefully slide the thermocouple assembly out of the kiln taking care not to damage the kiln brick.
5. Remove the old thermocouple from the porcelain thermocouple block by loosening the two center screws on the block and sliding out the old thermocouple element.
6. Install the new MI Cable thermocouple leads into the thermocouple block taking care to insert the negative thermocouple lead into the negative side hole of the block. The lead wires must be slightly bent to align with the holes in the thermocouple block. Red will always be negative, so line up all red wires with any negative connection points. One lead of the thermocouple will be dyed red. Tighten the center screws on the block to hold the wires in place. Do not overtighten the screws as the wires may be cut off.
7. If your kiln was previously equipped with a 1/2" diameter thermocouple, the 2 1/2" long ceramic thermocouple adapter tube must now be inserted into the existing 1/2" thermocouple hole of your kiln. The ceramic adapter tube is slightly larger than 1/2" hole in your kiln in order to ensure a snug fit. Install the tube by slowly twisting the adapter tube into the kiln hole. Continue this process until the tube is inserted as far as the heat shield will allow. Now gently push or tap the ceramic tube the rest of the way into the kiln hole until it is flush with the outer skin of the kiln. The adapter tube may be inserted from the inside of the kiln if desired using this same procedure. The 2 1/2" ceramic tube is suitable for use with 2 1/2" and 3" kilns.



(continued)

## MI CABLE THERMOCOUPLE REPLACEMENT

8. Slide the new MI Cable thermocouple and block assembly into the kiln and fasten in place on the heat shield using the two sheet metal screws you removed during disassembly.
9. Fasten the yellow and red thermocouple lead wire spade connectors back up to the terminal block of the control box. Ensure the negative (red) and positive leads are properly fastened.
10. Close the control box and check to ensure that lead wires are not pinched. If pinching occurs, reroute the wires and close the control box. Reinstall the sheet metal screws to hold the control box shut. Do not overtighten the sheet metal screws as stripping can occur.
11. Plug the kiln in. If a "PF" message appears in the display window, clear it by pressing "ENTER". Observe the display and ensure that the room temperature is displayed. If the proper room temperature is displayed, go to step 12. If the message "FAIL" appears in the display window, the thermocouple has been connected improperly or a lead wire is not connected. Inspect all thermocouple connections and repeat step 11.
12. Program the kiln and start the kiln firing. Observe the temperature long enough to ensure that it is increasing and that the display is steady. If the temperature decreases, the thermocouple leads have been installed in reverse and must be correctly installed. If the display is jumpy, a loose connection may be present.

DO NOT FIRE WARE UNTIL STEP 12 IS COMPLETED AND A TEST FIRING USING PYROMETRIC CONES HAS BEEN PERFORMED!