



STULLER
SINCE 1970

Installing the Stuller Portable Controller

Important Guidelines

- 1** Do NOT cut or bend the thermocouple (temperature sensor that protrudes into the firing chamber).
- 2** Keep thermocouple wires and the thick end of the thermocouple completely out of the firing chamber. Only the 1/8" diameter tube should be inserted into a firebrick hole.
- 3** Keep the thermocouple wires from touching the hot kiln case. The thermocouple itself must not touch anything metallic during operation.
- 4** Even though protected by insulation, thermocouple wires are sensitive to electromagnetic interference. Position the lead wires away from electrical appliances and wires such as the kiln cordset.
- 5** The thermocouple must protrude into the firing chamber at least 1/2" to 5/8" for accurate readings. (Over 1" is not recommended.) Keep the thermocouple at least 1/2" away from ware.
- 6** Position the thermocouple hole approximately midway between the firing chamber floor and roof.
- 7** Before using your Stuller controller, please read the digital controller operating instructions.

Step 1: Position the Controller

Position the controller far enough away from your kiln to avoid heat damage. If your controller uses a mercury relay, the controller must be wall-mounted so that it is vertical. Controllers that have mechanical rather than mercury relays can hang vertically on a wall or lie flat on a table.

How to tell if your controller has a mercury relay: If the controller is placed horizontally on a table, the mercury relay will turn on power to the kiln, even when the controller is idle. When the controller is held upright, the power will shut back off.

Step 2: Attach the thermocouple to the kiln

You can install the thermocouple (temperature sensor) through an existing 1/2" thermocouple hole, through a drilled peephole plug, or by drilling a new hole in the kiln.

If you use an existing 1/2" hole or a drilled peephole plug, stuff ceramic fiber insulation around the thermocouple. This helps to hold the thermocouple in place. It also seals the 1/2" hole.

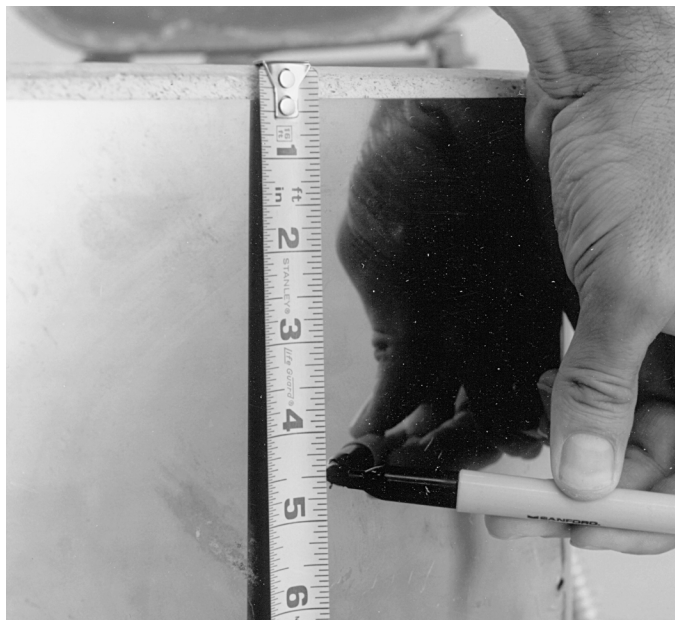
IMPORTANT! If the thermocouple falls out of the kiln during firing or if the tip moves out of the firing chamber, the kiln will over-fire. Monitor the kiln during firing to make sure the thermocouple has not moved.

Drilling a 1/8" Thermocouple Hole

- 1** Drill a 1/8" hole in either a row of blank bricks or between two brick rows, approximately midway between floor and top. Avoid drilling closer than 1" to a heating element. Use a tape measure, if needed, and mark the location of the hole on the kiln case.



Using a drilled peephole plug to attach the thermocouple to the kiln. Make sure the thermocouple does not fall out of the kiln.



Step 3: Plug the kiln into the receptacle on the controller.

Step 4: Plug the controller into the wall receptacle.

Plug your controller into the wall receptacle your kiln was using. Do NOT change the controller plug if it won't fit the wall receptacle.

Step 5: Turn the kiln switches to High.

Turn all kiln switches to the On or High position. Leave all switches on full power when firing with the controller. Read the controller instruction manual before firing.

WARNING: We cannot extend our warranty to cover any damage caused by overfiring, regardless of the circumstances. Even though your controller is an automatic controller, do not leave your kiln unattended while firing.

Wear firing safety glasses when looking into the peephole during firing.

2 Wearing safety glasses, drill a 1/8" hole all the way through the kiln case and wall.

3 Enlarge the 1/8" hole in the kiln case to 1/4". Using a 1/4" drill bit, drill just deep enough to go through the case and no further. Enlarging the hole in the kiln case to 1/4" will prevent the thermocouple from touching the grounded steel case.



4 Press the thermocouple into the hole so that 1/2" to 5/8" or more of the tip protrudes into the firing chamber.

REMINDER: If the thermocouple is pulled out of the hole, the kiln will overfire.

5 Position the thermocouple lead wires so they are away from the hot sides of the kiln case, the cord set, or any other electrical appliances or wiring.