

Operating Instructions for Paragon SC Series Controllers

OVERFIRING

The warranty on your SC series controller does not cover damage from overfiring, regardless of the circumstances. It is the operator's responsibility to make sure the kiln turns off at the proper time. Though reliable, the SC series controller is no guarantee against overfiring.

SAFETY

Do not fire hotter than the kiln's maximum temperature. Firing hotter will void warranty.

Unplug kiln when not in use.

Do not touch hot sides of kiln.

Keep unsupervised children away.

Place kiln on a non-combustible surface.

Install your kiln or furnace at least 12" from any wall or combustible surface.

Fire only in a well-ventilated, covered and protected area away from flammable materials.

Keep cordset away from hot sides of kiln.

DANGEROUS VOLTAGE: Do not touch heating element with anything.

Disconnect kiln before servicing.

Do not leave kiln unattended while firing.

Wear firing safety glasses when opening the door of a hot kiln.

Keep food away from your work area.

CARE OF THE FIRING CHAMBER

The heating element will be ruined by contact with silica or silica bearing compounds, such as kiln wash, glass, ceramic glaze, etc. Therefore, keep all decorative materials from contacting the firing chamber. These materials can melt into the firing chamber and contact the element.

Ceramic Fiber Firing Chambers: Ceramic fiber, moulded to the shape of the chamber, contains an embedded heating element. So load the kiln with care. Gouging or scratching the ceramic fiber could damage the element. Heat ware on a shelf inside the kiln. Firing ware without a shelf could ruin your kiln and void the warranty. The shelf protects the firing chamber.

CONTROLLER OVERVIEW

The electronic controller fires to a single temperature at a single speed per firing. When the kiln reaches firing temperature, the controller will hold that temperature for the length of hold time you specified. If hold time was not entered, the controller will shut off when the kiln reaches firing temperature.

Before firing, the controller will prompt you for the following:

1. firing speed (measured in degrees of temperature rise per hour)
2. firing temperature
3. hold time (holding the temperature at the end of firing)

Arrow Keys: After an arrow key is held down for five seconds, the numbers will begin to change faster. If numbers stop, it is because you released an arrow key.

Hold Time: You can enter up to 99 hours and 99 minutes, displayed as **99.99**. Time is shown as hours.minutes (i.e. 1 hour and 20 minutes would read as 01.20).

Temperature Display: In °C display, a lighted period appears in the lower right display. In °F, the period disappears. See "How to Select °F or °C Temperature Display."

PLUGGING IN THE FURNACE

When you first plug in the kiln and turn on the switch, the controller may take a moment to turn on. This is normal. It is processing.

When the kiln is first plugged in or power switch is turned on, the controller will beep and display "ErrP." Press the PROGRAM key (the key with the green circular arrow). **STOP** will display alternating with kiln temperature.

ErrP displays after a power loss of about 30 minutes. If power loss is less than 30 minutes, normal temperature display will return when the power turns back on. Then the kiln will resume firing.

PROGRAMMING

1 From **STOP**, press the PROGRAM key (the one with the green circular arrow). Speed will appear, alternating with degrees of temperature rise per hour.

2 Using the up and down arrow keys, enter one of five firing speeds:

SPd1 (200° F./hour or 111° C./hour)

SPd2 (500° F./hour or 278° C./hour)

SPd3 (1000° F./hour or 555° C./hour)

SPd4 (1500° F./hour or 833° C./hour)

SPd5 (Full Power)

Then press PROGRAM.

3 °F or °C and the firing temperature will appear. To change the temperature, press the up or down arrow keys. Then press PROGRAM.

4 HLd and the hold time will appear (e.g. 1 hour 10 minutes is **01.10**). Use the arrow keys to change the hold time. Then press PROGRAM.

5 rEdI (ready) will appear. Press PROGRAM to begin firing.

The controller will wait a few seconds to begin firing after you press PROGRAM.

To stop a firing before completion, press PROGRAM. **STOP** will display, alternating with kiln temperature.

When the kiln completes a firing, the controller will beep, and **CPLt** will appear alternating with firing time in hours and minutes. To stop the beeping, press any key. **STOP** will appear.

Do not be concerned if your kiln makes a clicking sound during firing. Your kiln contains relays, which click as they cycle on and off.

The firing speed you select is a programmed speed. The kiln's actual firing speed may be less, depending on the kiln model, available voltage, density of load, etc.

REPEAT FIRINGS AND PROGRAM REVIEW

From **STOP**, press the down arrow key (the right hand key). The firing rate, temperature and hold from the last firing will display. Then rEdI will display. To repeat the last firing just reviewed, press PROGRAM. The kiln will begin firing.

You can also review the program while the kiln is firing. Press the down arrow key (the right hand key) during firing. The current firing rate, temperature and hold will display. Then the controller will continue to display kiln temperature.

DISPLAY MESSAGES

CPLt alternating with firing time: firing completed normally.

ErrP (instead of **CPLt**) alternating with temperature at the completion of firing: Power failed during firing for longer than 30 minutes.

STOP alternating with temperature: the controller is ready to begin programming.

rEdI Kiln is ready to fire. To begin firing, press PROGRAM key.

tc alternating with **FAIL** means the thermocouple is broken.

HOW TO SELECT °F OR °C TEMPERATURE DISPLAY

Right now your controller displays temperature in either °F or °C. If a lighted period appears in the lower right corner of the display, temperature is in °C. If no period is visible in that corner, your controller displays in °F.

To change from °C to °F or vice versa, follow these instructions:

- 1.** Unplug kiln.
- 2.** Remove the four screws that hold the controller to the front of the kiln. Leave wires attached. Remove the controller from the switch box.
- 3.** Look at the back of the controller. A plastic jumper on the back of the board determines the type of temperature display. When the jumper connects two pin-type terminals, display reads °C. When the jumper is removed or is held by only one terminal, display reads °F. Remove or insert the jumper as desired.
- 4.** Before installing the controller to the front of the kiln, look at the wiring behind the switch box. If wires touch the hot surface of the kiln's steel case, which protects the firing chamber, the wires may burn. Press wires away from the steel case. Then place the controller against the front of the kiln. Install the four screws.



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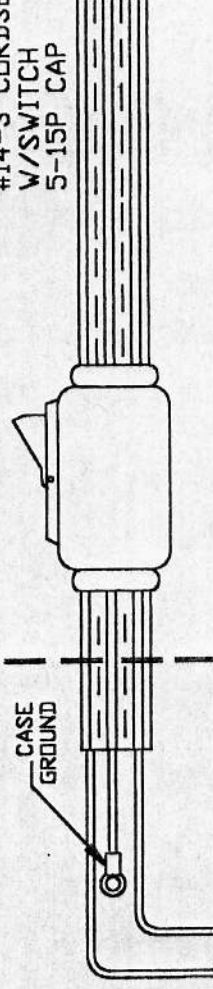
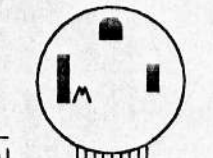
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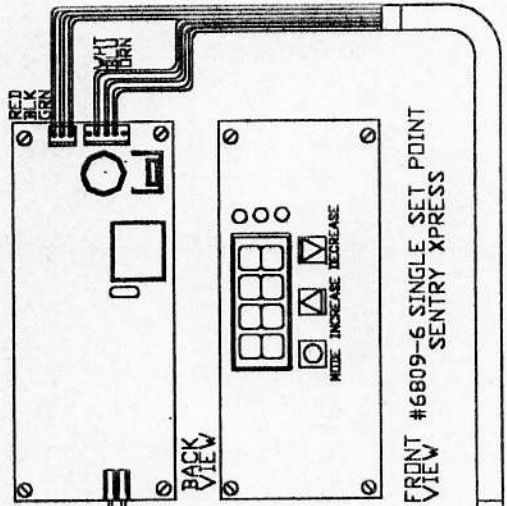
PART NO

- #4507
- #14-3 CORDSET
- W/SWITCH
- 5-15P CAP

POWER REQ'TS
 120 VOLTS
 1 PHASE
 60 HERTZ
 12 AMPS
 1440 WATTS



#2614-1
 MUFFLE
 W/10 OHM
 ELEMENT



#6355
 30A RELAY
 W/12V
 DC COIL

10 OHMS

#6060-2
 20 GA WIRE
 MULTI-COND

#6770-CONTROL
 TRANSFORMER
 OUTPUT=24VAC

WIRING NOTE

ALL WIRES #14 AWG,
 TYPE SEW/SF2 MINIMUM
 UNLESS OTHERWISE NOTED

NOTE: PLEASE REFER
 TO THIS NUMBER WHEN
 ORDERING PARTS FOR
 THIS KILN

PAINTED
 STEEL CASE
CATALOG STANDARD
 2000°F

SWITCH BOX ASSY- 40847-1

PARAGON INDUSTRIES
 2011 SOUTH TOWN EAST BLVD
 MESQUITE, TEXAS 75149

REV DATE BY DESCRIPTION

REV	DATE	BY	DESCRIPTION
-	9-13-01	BLG	

WIRING DIAGRAM

PART NO	0221131B00	REV	-
FILE	SC2 W/SEN-SSP BD		