

# Accessories



## TouchnFire 2 Portable Digital Controller

Enjoy the features of Paragon's Sentry digital controller on your manual-fire furnace. Works with furnaces of any brand or age.

The wall-hanging TouchnFire 2 (TnF 2) plugs into the wall receptacle that your manual-fire furnace is now using. The furnace, in turn, plugs into a receptacle on the TnF 2. To install the thermocouple, which reads temperature, drill a 1/8" hole through the furnace's firebrick wall. After mounting the thermocouple to the furnace, you are ready to fire.

The price of the TnF 2 varies depending on furnace amperage. Each TnF 2 will operate on only one type of wall receptacle.

The TnF 2 comes with a drilled peephole plug, thermocouple and instructions. Warranty: two years for all components except the Sentry controller, which carries a 2 1/2 year warranty.

### TnF 2

Specify wall receptacle used by furnace: NEMA configuration number (i.e. 6-50R) and voltage. 30 lb.



## Hot Glove

Safely handle hot peephole plug or lid handle with the hot glove. Silicone-impregnated, fire-resistant glove will scorch, however, if left in contact with the hot lid handle too long. Not intended for handling hot ceramic molds or hot kiln shelves.



DT-27 Digital Pyrometer (max temp 2000°F)



T-2 Analog Pyrometer (max. temp 2400°F)

## Pyrometers

The pyrometer gives a feeling of confidence as you watch the temperature rise as expected. Pyrometers are necessary for burnouts using a manual-fire furnace.

Insert the thermocouple by drilling a hole in the furnace. The thermocouple is complete with wires and thermocouple.



## Firing Safety Glasses

Protect your eyes with firing glasses whenever looking into the firing chamber of a hot furnace. Specially coated to filter the infra-red and ultra-violet light inside a furnace. Also protects your eyes from heat. Reduces glare.

## The Advantages of Wax Trays

You must remove the wax from the investment mold before heating higher than 300°F. This not only protects the firing chamber of your furnace; it also reduces carbon deposits in the investment.

Removing wax prevents smoke and gives a cleaner burnout, often reducing the firing time. It improves the casting by preventing mold flaws caused by boiling wax.

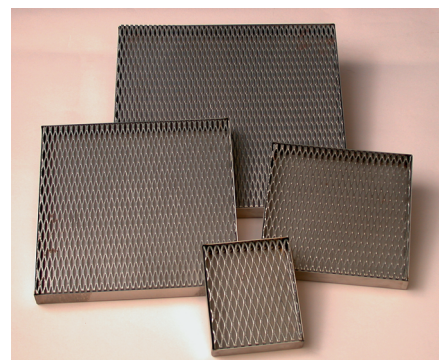


## Wax Tray with Grill

Place the molds on top of the heavy-duty, long-lasting welded steel grill. Slide the wax tray under the grill. Remove the wax tray without disturbing the molds. The grill remains in the furnace throughout the firing.

WWT14: 12 1/2" x 12 1/2" Grill

WWT18: 17" x 17" Grill



## Stainless Steel Wax Trays with Mesh Cover

Catches the wax from jewelry molds during lost wax casting. Welded corners. Comes with a removable steel grid cover.



**W-13-2**  
Digital Automatic  
Firing Chamber:  
13" wide x 9" high x 13" deep



**W-13-4**  
Infinite Control  
Firing Chamber:  
13" wide x 9" high x 13" deep



**Xpress-E-10**  
Digital Automatic  
Firing Chamber:  
8 1/2" wide x 8 3/4" high x 9" deep  
The E-10 (not shown) is the same size kiln, equipped with an infinite control switch, pyrometer, and pilot light instead of a digital controller.

# Paragon Wax Burnout Jewelry Furnaces

## What size to order?

We offer furnace sizes to fit every shop, from the home to the large commercial.

Purchase a furnace just large enough to hold as many flasks as you will cast at one time. As your casting needs expand, add larger furnaces to your shop. Having several furnaces will allow you to cast at different temperatures for different metals.

Small furnaces are ideal for rush orders that require only one flask.

## Types of furnace insulation

Paragon furnaces come in two types: firebrick and ceramic fiber insulation. Firebricks heat more slowly than ceramic fiber. Heating elements are easy to replace in firebrick models. In the ceramic fiber models, elements and the ceramic fiber muffle are replaced as a single unit.

# Firebrick Models

Each firebrick furnace is available with either an infinite control switch or a digital temperature controller. With the infinite control, you can manually adjust the firing speed.

The digital controller saves time, makes casting more reliable, and gives consistently repeatable results. The 12-key Sentry controller has 3 built-in, easy-to-use programs. Both the 12-key and 3-key controllers can be custom programmed for your exact needs. See page 3 for more details on controllers.

Paragon furnaces use a heavy-gauge steel case. The W-series stainless steel case minimizes corrosion.

Heating elements in all Paragon firebrick furnaces are deeply recessed for easy replacement. These furnaces include a top vent with plug or cover for burnout. W-series furnaces use a spring door latch that closes tightly. The E-10 and Xpress-E-10 use a pivoting latch that permits easy opening for removal of flasks.

The larger furnaces use 1/2" steel hinge rods with heavy-duty bushings.

The W-14-3, W-18-3 and Express-E-10 furnaces include an on-off toggle switch. Digital models all have a built-in fuse to protect the controller.



**W-14-3**  
Digital Automatic  
Firing Chamber:  
14" wide x 14" high x 14" deep  
The W-14-4 (not shown) is the same size kiln, equipped with an infinite control switch and pilot light instead of a digital controller.



**W-18-3**  
Digital Automatic  
Firing Chamber:  
18" wide x 18" high x 18" deep  
The W-18-4 (not shown) is the same size kiln, equipped with an infinite control switch and pilot light instead of a digital controller.



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# Ceramic Fiber Models



**SC-2**  
**Digital Automatic**  
Firing Chamber:  
8" wide x 5 3/4" high x  
7 3/4" deep



**UL/CUL Listing** The Paragon SC-2 and SC-3 furnaces are UL Listed to U.S. and Canadian safety standards.

**SC-3**  
**Digital Automatic**  
Firing Chamber:  
7 3/4" wide x 7 3/4" high x 8" deep

## Ceramic fiber insulation

Ceramic fiber insulation is lighter than firebrick insulation. It heats and cools more rapidly.

## Types of controls

The SC-2 and SC-3 furnaces come with the 3-key Sentry Xpress controller (see next page for controller details). The TnF-J-11, TnF-J-14-1, and TnF-J-14-2 come with the 12-key Sentry controller. The J-11, J-14-1 and J-14-2 are manual-fire models with an infinite control switch and safety pilot light. The infinite control allows you to manually adjust the firing speed.

The digital controller saves time, makes casting more reliable, and gives consistently repeatable results. The 12-key Sentry controller has 3 built-in, easy-to-use programs. (Note: To receive the 3 pre-set programs, you must specify this feature at the time you order the furnace.) Both the 12-key and 3-key controllers can be custom programmed quickly and easily.



**TnF-J-11**  
**Digital Automatic**  
Firing Chamber:  
11" wide x 8" high x 10" deep  
The J-11 (not shown) is the same size kiln, equipped with an infinite control and pilot light instead of a digital controller.

Paragon furnaces use a heavy-gauge steel shell. These furnaces include a top vent for burnout, complete with a vent cover or plug. The J-14 furnaces use a spring door latch that closes tightly. The SC-2, SC-3, J-11 and TnF-J-11 use a spring-pressure door catch.

The SC-2, SC-3, TnF-J-11, TnF-J-14-1 and TnF-J-14-2 include an on-off toggle switch. The digital models have a built-in fuse to protect the controller.



**J-14-1**  
**Infinite Control**  
Firing Chamber:  
13" wide x 9" high x 13" deep

The J-14 kilns are available in 120 and 240 volt. See the specifications chart below.



**TnF-J-14-1**  
**Digital Automatic**  
Firing Chamber:  
13" wide x 9" high x 13" deep

# Protecting Elements

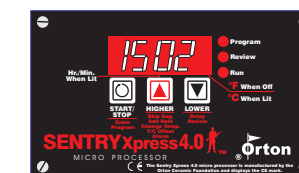
Do not heat the wax inside the furnace above 300°F/148°C. Wax elimination is necessary in all electric furnaces. We recommend the wax trays shown on the back page, or a steam dewaxer.

Place the molds on top of the wax tray inside the furnace. Heat at 300°F/148°C for one hour. Then remove the wax from the tray before casting. (These instructions apply to injection wax that melts at 200°F and not to pattern

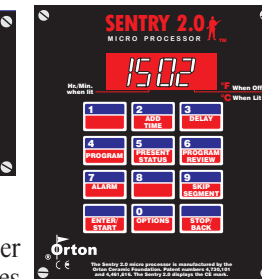
waxes and plastics that melt at higher temperatures.)

If you leave wax in the furnace throughout the burnout, carbon will deposit on the furnace's walls and elements. Carbon build-up ruins the interior. Carbon conducts electricity and causes elements to short circuit. Damage to elements from contact with foreign materials is not covered by warranty.

# Digital Controllers



The 3-key digital Sentry Xpress controller.



The 12-key digital Sentry controller.

- 3 pre-set programs for wax casting (standard on W-series; specify if you want it on other models)
- Go back a step in programming with each press of the Stop/Back key.
- Add Time key adds five minutes to a temperature hold with each key press during firing.
- Program Review lets you check that the program you are about to fire is correct.

A digital controller saves time, makes casting more reliable, and gives consistently

repeatable results. A furnace with a controller waits for you to cast at your leisure. It can maintain casting temperature as long as needed. With a controller, you don't have to remember to check the temperature as you do with manual switches.

A controller, when programmed properly, prevents problems such as blown castings or porous castings.

The 12-key Sentry controller features built-in 5-, 8-, and 12-hour preset programs, ready to use at the touch of a button. (Standard on W-series; specify for other furnaces.) In addition, both the 12-key and 3-key can be custom programmed to fit any requirement.

The 12-key Sentry has an alarm that you can program to sound when it is time to remove the wax tray, or when the cycle is done.

Complete instructions come with each controller. Both controllers have a Delay Start feature. Delay the burnout from one minute to 99 hours (great for overnight burnouts).

## 12-Key Sentry Controller

- Temperature Display throughout firing and cooling in your choice of °F or °C

- Audible Temperature Alarm
- 30 Month Warranty
- Error Messages report mechanical problems such as a disconnected thermocouple.
- Program Safety Lock for the program in active memory. Gives peace of mind.
- Delay Fire
- Up to 20 segments
- Skip Segment feature
- LED lights show when the relays are powered.
- Quick release connectors
- Present Status shows which segment the furnace has reached during firing.
- Control both heating and cooling.
- Hold is available in every segment.

## 3-Key Sentry Xpress Controller

- Skip Segment feature
- Hold is available in every segment.
- Program Review lets you check that the program you are about to fire is correct.
- Temperature Display throughout firing and cooling in your choice of °F or °C
- Error Messages
- Delay Fire
- 8 segments available
- 12 Month Warranty

# Kiln Specifications

We reserve the right to change prices and product specifications without notice or obligation.

Note: All models are available in 200, 208, 220, or 240 volt, 50 or 60 hz.

Circuit Size Model Number	Max. Temp. °F	Firing Chamber		Cubic Feet	Control Type	Approx. Shpg. Wt.	Wax Tray	Uncrated Outside Dimensions W. X D. X H.	Electrical Power			Copper Wire	Fuse Size	NEMA Config.
		Opening	Depth						Volts	Amps	Watts			
E-10	2000°	8 1/2" W x 8 3/4" H	9"	.39	Infinite Switch	80	WT-7	17 1/4" W x 18" D x 17 3/4" H	120	14	1,680	14	15	5-15R
Xpress-E-10	2000°	8 1/2" W x 8 3/4" H	9"	.39	Digital 3-Key	80	WT-7	17 1/4" W x 18" D x 17 3/4" H	120	14	1,680	14	15	5-15R
W-13-2	1700°	13" W x 9" H	13"	.88	Digital 12-Key	165	WWT14	18" W x 21 1/2" D x 21 1/2" H	240	13	3,120	12	20	6-20R
W-13-4	1700°	13" W x 9" H	13"	.88	Infinite Switch	165	WWT14	18" W x 21 1/2" D x 21 1/2" H	240	13	3,120	12	20	6-20R
W-14-3	1700°	14" W x 14" H	14"	1.58	Digital 12-Key	195	WWT14	19" W x 22" D x 26 1/2" H	240	16.7	4,000	12	20	6-20R
W-18-4	1700°	18" W x 18" H	18"	3.37	Infinite Switch	342	WWT18	24" W x 27" D x 31" H	240	24	5,760	10	30	6-30R
W-18-3	1700°	18" W x 18" H	18"	3.37	Digital 12-Key	342	WWT18	24" W x 27" D x 31" H	240	24	5,760	10	30	6-30R
SC-2	2000°	8" W x 5 3/4" H	7 3/4"	.19	Digital 3-Key	36	WT7	13 1/4" W x 14" D x 15 1/2" H	120	12	1,440	14	15	5-15R
SC-3	2000°	7 3/4" W x 7 3/4" H	8"	.28	Digital 3-Key	41	WT7	13 1/4" W x 14" D x 17" H	120	15	1,800	14	15	5-15R
TnF-J-11	1700°	11" W x 8" H	10"	.50	Digital 12-Key	50	WT9.5	17 1/4" W x 20" D x 21 1/2" H	120	15	1,800	14	15	5-15R
J-14-1	1700°	13" W x 9" H	13"	.88	Infinite Switch	90	WWT-14	18 1/4" W x 21 1/2" D x 22 1/4" H	120	20	2,400	12	20	5-20R
TnF-J-14-1	1700°	13" W x 9" H	13"	.88	Digital 12-Key	90	WWT-14	18 1/4" W x 21 1/2" D x 22 1/4" H	120	20	2,400	12	20	5-20R
J-14-2	1700°	13" W x 9" H	13"	.88	Infinite Switch	90	WWT-14	18 1/4" W x 21 1/2" D x 22 1/4" H	240	10	2,400	12	20	6-20R
TnF-J-14-2	1700°	13" W x 9" H	13"	.88	Digital 12-Key	90	WWT-14	18 1/4" W x 21 1/2" D x 22 1/4" H	240	10	2,400	12	20	6-20R

## Power Requirements

IMPORTANT: Have your electrician or power company verify your voltage. Most residential wiring is 120/240 volt. However, 208 volt is becoming common in shopping centers and

schools. 208 volt and 240 volt wall receptacles look the same. If you order a kiln of the wrong voltage, your kiln will need new elements to fire properly. This is not covered by warranty!

Before you plug a new kiln into an existing circuit, have an electrician check the circuit. Have him compare the circuit wire and breaker sizes with our recommended wire sizes. All wire sizes listed are for COPPER only. Local electric codes supersede our recommendations.

## International Electrical Systems

We can make kilns for any country in the world. For international orders, please give voltage, destination country, and plug type.