



RapidFire Pro- Programmable Installation and Operating Manual

Thank you for choosing Tabletop Furnace Company as your designated kiln manufacturer. We take great pride in designing hand-made kilns and furnaces in the USA with our exclusive RAPIDHEAT TECHNOLOGY, which brings together quality components, detailed craftsmanship, and innovative design to produce some of the lightest and most powerful kilns on the marketplace today. For more information about our company or products, please visit us at <http://tabletopfurnace.com/> or call **1.206.274.8446**.

For additional product support, please visit our Support Center at the following link, <http://support.tabletopfurnace.com/>

PACKAGE CONTENTS:

- RAPIDFIRE PRO-LP PROGRAMMABLE KILN
- 1 ALUMINA-FIBER SHELF
- 1 SET OF KILN LEGS

For operation of your new kiln, please refer to the following instructions:

RAPIDFIRE PRO PROGRAMMABLE FEATURES & KILN USAGE INSTRUCTIONS

QUICK START FIRST FIRING GUIDE

STEP 1: Place furnace on a heat resistant surface and in a well-ventilated area. Only during the first firing will the furnace smoke while it burns off any moisture and/or sediment naturally. This burn off process usually lasts around 40-60 minutes. Once the burn off is complete you'll be left with a clean white internal chamber and kiln furniture once again.

STEP 2: Plug in the power cord. The cooling fan SHOULD BE RUNNING AT ALL TIMES WHILE THE FURNACE IS FIRING.

STEP 3: Flip the ON/OFF switch to the ON position

STEP 4: Initially the burn off program will need to be entered in to the controller. The instructional video on our web site (<http://tabletopfurnace.com/videos>) can walk you through the initial burn off. Once entered press the "Down" arrow (∨) for 3-5 seconds. The kiln arrives in "stop" mode. This will

be switched to "RUN" mode and the furnace will begin to heat **Temperature of the unit is set to Fahrenheit**

Step 1: CO1=50 degrees F, (or ambient temperature), t01=15 (rate of rise)

Step 2: CO2=1200 Degrees F, t02=15 (maintain for 15 minutes)

Step 3: CO3=1200 Degrees F, t03=15 (rate of rise to next step)

Step 4: CO4=1700 Degrees F, t04=25 (maintain for 25 minutes)

Step 5: CO5=1700 Degrees F, t05= **-121** (stop the program and let the oven cool naturally –121 is the program stop code)

The first temperature is the ambient temperature, which will increase to 1200°F (649° C) with a 15-minute rate of rise. It is set to hold at 1200 F for another 15 minutes. The next step should increase the temperature to 1700° F (871° C) with a 15-minute rate of rise, hold for 25 minutes, and then back down to ambient temperature.

The maximum firing temperature for the kilns is 2200° F (1204° C). However, we recommend not exceeding 2100° F (1150° C) to prolong the life of your kiln.

PID DIGITAL TEMPERATURE CONTROLLER (See Images Below)

- ① PV display: Indicates the sensor read out, or process value (PV).
- ② SV display: Indicates the set value (SV) or output value (%).
- ③ AL1 indicator: It lights up when AL1 relay is on.
- ④ AL2 indicator: It lights up when AL2 relay is on.
- ⑤ A-M indicator: The light indicates that the controller is in manual mode. For the controllers with the Ramp/Soak option, this light indicates that the program is running.
- ⑥ Output indicator: It is synchronized with control output (terminal 7 and 8), and the power to the load. When it is on, the heater (or cooler) is powered.
- ⑦ SET key: When it is pressed momentarily, the controller will switch the lower (SV) display between set value and percentage of output. When pressed and held for two seconds will put the controller into parameter setting mode.
- ⑧ Automatic/Manual function key (A/M) /Data shift key
- ⑨ Decrement key ▼: Decreases numeric value of the setting value.
- ⑩ Increment key ▲: Increases numeric value of the setting value.

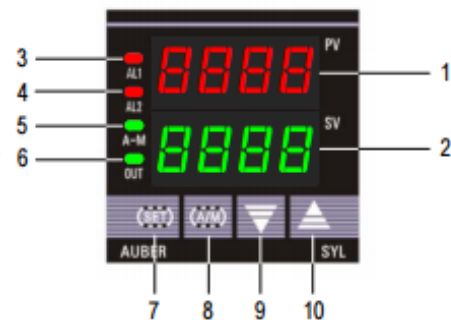


Figure 2. Front panel

KILN SAFETY GUIDELINES:

When operating a Tabletop kiln properly observe the following safety requirements:

1. The stainless steel jacket and fixtures surrounding the kiln will be hot enough to burn your skin when the kiln is in operation. Therefore, it is important to be extremely careful when working close to the kiln. Even after the kiln's power has been turned off it will remain very hot for a considerable amount of time. It should not be touched or opened without proper safety gear, or until fully cooled.
2. Use extreme caution when opening the kiln door while the kiln is heated. We recommend you use heavy-duty and heat-resistant gloves to protect your skin from the heated components and hot air that can escape from the chamber of the kiln.
3. Keep children and pets away from the kiln.
4. The elements inside the kiln chamber *may cause an electrical shock if touched*. Never insert metal instruments into the element coil while it is firing or let steel firing trays touch element coils.
5. Always be sure to unplug the kiln before working on the electrical components of the kiln.
6. Remove all potentially combustible or flammable materials from the kiln area and make certain that the kiln is at:
least 6 feet from curtains, draperies, carpet, any combustible, or flammable household items. The kiln should be used in a garage, carport, or room meant for utility or hobby. The surface on which the kiln must rest should be made of a non-combustible material. Examples are metal, ceramic or brick.
7. Do not put anything on top of the kiln.
8. Use IR and UV protective glasses when looking into the kiln.
9. Your use of the kiln may release gases which can irritate the body and lungs; some of these may be toxic or lethal if proper safety measures are not observed. You should make sure the operating space for the kiln is properly ventilated, using a licensed heating and air-conditioning (HVAC) contractor or the equivalent, to ensure that adequate ventilation is achieved.
10. You should not be operated in an enclosed space or in a room where the temperature may fall below 32°F (0° C) or rise above 105°F (40° C). This may cause damage to the components within the kiln.
11. **Complete product safety and State/Federal regulatory information for Gemcolite Alumina Fiber Insulation is available at the following link, <http://www.rsifibre.com/pdfs/Gemcolite> **HYPERLINK** "<http://www.rsifibre.com/pdfs/Gemcolite-MSDS-9-24-10.pdf>" **HYPERLINK****

PRODUCT WARRANTY/RETURN:

- All Tabletop kilns and furnaces include a 1-year limited warranty on electrical parts including: digital temperature controller, power switch, and the relay.
- Ceramic firing chamber, element coil(s), and the thermocouple are covered for 3 months, excluding normal wear and tear.
- Melting crucibles, crucible tongs, and ceramic fiber shelving are consumables and not covered under manufacturer warranty.
- No cash refunds will be issued.
- All returns are subject to a minimum of 10% to a maximum of 25% restocking fee, per the discretion of manufacturer, dependent on use and condition.

LEGAL DISCLAIMER:

The statements, technical information, and recommendations contained herein are believed to be accurately stated. Tabletop Furnace is not liable for any information interpretation or product misuse. The information provided herein relates only to the specific product designated and may not be applicable when such product is used in combination with other materials or in any process.

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