Olympic Kilns Equipped with a KilnStar Electronic Controller

Press the ***START/STOP*** button to start firing the program you have selected. You can also stop a program from firing.

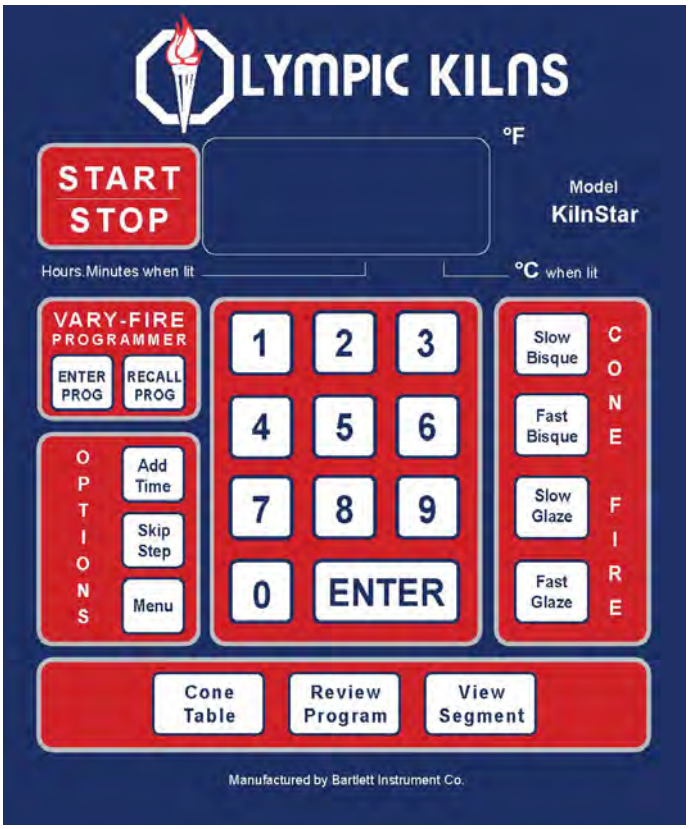
The ***Vary-Fire*** section is used for glass or ramp/hold programs.

Press ***Add Time*** to add 5 minutes during a hold.

Press **Skip Step** when firing a ***Vary-Fire*** program to move to the next programmed segment.

Press ***Menu*** to use options such as Cone Fire preheat, cone offsets, thermocouple offsets, etc.

Press ***Cone Table*** to see the temperature for a selected cone number.



The ***LED Display*** area provides information such as temperatures, program prompts, etc.

Use the ***Number Keys*** are for entering temperatures and time.

Cone Fire buttons are preprogrammed firings for pottery and ceramics.

View Segment allows you to see what segment of the program is currently firing.

Review Program allows you to see what program you are running and to make sure you have the proper information entered.

Instructions

Scan QR or Visit: https://www.olympickilns.com/

QR Code placed here

KilnStar

OLYMPIC KILNS

KilnStar CONE FIRE Programming

This is the quickest and easiest method to program the controller to fire ceramics. Programming consists of choosing the firing speed and entering the clay or glaze's cone number. The firing speed is chosen by the type of firing and thickness of the clay. The bisque firings include water smoking and carbon burn-out stages. The glaze speeds allow for fast firings. All 4 speeds will calculate the firing rate at the end of a firing and adjust the final temperature for correct heat-work. Follow these few steps to enter a cone fire program.

Quick guide

1. Choose cone fire speed on right side of control board :
   A. Press Slow Bisque – display shows S-bC. Slow bisque is used for thicker hand thrown ware, gving extra time for release of water and carbon burnout. Typical firing time 13-17 hours.

   B. Press Fast Bisque – display shows F-bC. Fast bisque is used for thinner ware that requires less time for water and carbon burn out. Typical firing time is 9-11 hours.

   C. Press Slow Glaze – display shows S-GL. Slow glaze is used for firing glaze on thicker ware or for bisque firing very thin ware. Typical firing time is 6-8 hours.

   D. Press Fast Glaze – display shows F-GL. Fast glaze is the fastest speed and is used for glaze firing on thin ware, china painting, and decal firings. Typical firing time is 4-6 hours.

2. Press Enter – display will show CONE and alternate with a number – enter your desired cone number.
Remember, cone numbers starting with a 0 are a lower temperature than those not starting with a 0. Don't mistake cone 6 for cone 06.

3. Press Enter – display shows HOLd and alternate with a number – enter the amount of time to hold at your top temperature. Most firings are left with a 0 hold time. If a hold time is needed for your clay or glaze, hours are to the left of the decimal and minutes to the right. HH.MM

4. Press Enter – programing is complete, and the screen will return to Idle.

5. To start your firing press the Start/Stop button.

Preheat Programing

A preheat segment for drying (candling) ware can be added to any Cone Fire program.

1. Press the Menu button until the display shows PrHt (preheat).
*If PrHt does not show on the display after cycling through the options it means that Cone Fire mode has not been selected.

Exit the menu and program a Cone Fire and return to the Menu.

2. Press Enter – display will show HLd and alternate with 00.00 – enter the time in hours and minutes you want to hold at 200º F. Hours are to the left of the decimal and minutes to the right of the decimal. (HH.MM) Example: if you want to hold for 2 hours and 30 minutes you will press 2, 3, 0 and the display will show 2.30.

3. Press Enter – display will return to Idle.

4. Press the Start/ Stop button to begin firing.

* Once the preheat temperature is reached your display will alternate between the current temperature and the remaining hold time.

KilnStar VARY-FIRE Programing

Also known as ramp-hold programing, the KilnStar has 6 vary-fire user programs to store and reuse. This is ideal for glass,jewelry, decals, PMC, etc. Each program has from 1 to 8 segments (2 to 16 segments if 16-S option is on). Each segment has a firing rate, a soak temperature, and a hold time. The default programs are listed in the full operating manual.

Vary-Fire Programming Steps

1. Press "Enter Prog" to start Vary-Fire programming- the display will show USER/#
2. Select User number - Press a number key 1-6 then ENTER. The display will show SEGS (segments) alternating with a number.
3. Enter number of segments -Press a number key 1-8 then ENTER. The display will show RA1 (ramping temperature in the first segment) alternating with a number.
4. Enter the ramp rate for segment 1 -Type ramp rate then press ENTER. Rates of 1 thru 9999°F/hr are valid. See full manual for calculating ramp rate. The display will show °F alternating with a number (°F is the final temperature in a segment).
5. Enter the hold temperature for segment 1. Type hold temperature then press ENTER. Valid temperatures range from 1°F thru MAX kiln temperature. The display will show HLd1 (hold temperature for segment 1) alternating with a number.
6. Enter the hold time for segment 1 - Type hold time then press ENTER. Displayed time is in the format **hr.min.** Left of decimal are hours, to the right of decimal are minutes.
7. Repeat steps 4 -6 for each segment.
8. Enter an alarm temperature -Type an alarm temperature then press ENTER. See **OPTIONS** section for more information on alarm temperature. The alarm set at 9999 is turned off.

RECALL PROGRAM

Recall program is used to recall a previously programmed firing profile.

Example: To recall user program #5, use the following:

1. Press Recall Prog – display will alternate showing USEr and a number.
2. Press 5 – Display show 5 this indicates the program number selected.
3. Press Enter – display will return to IdlE
4. Press Start to begin firing.

OPTIONS SECTION

Add Time - Pressing the "Add Time" key during a hold period adds 5 extra minutes to the hold period. To add time, press "Add Time," tME will be displayed, then the temperature alternating with the new hold time.

Skip Step (SKIP) - Skip Step is included in in the Options box. The skip step feature is only available with VARY-FIRE programs. It is used when enough heat work has been done at the current segment and you want to immediately go the next ramp rate. To skip to the next ramp, press the Skip Step button in the Options box.

Menu - The menu is a list of options that allow you to add segments to a firing (PRHT, 16-S), adjust calibration (CNOS, TCOS), change settings (CHGo, Id, RSET, ERCd), or check board temperature (bd T). Navigate forward through the menu by pressing MENU and navigate backwards through the menu by pressing ALARM. NOTE: PrHt (Preheat) will only appear in this menu when a CONE FIRE program has been selected. 16-S will only appear when a Cone fire or User 5 is the selected program. TO EXIT this menu without selecting any option, press STOP.

KilnStar FAQs

Q. During programming of a firing, I typed a wrong number. How do I correct this?

A. Before pressing ENTER, enter zero until all zeros are displayed, then enter the correct number.

Q. How do I clear the "PF" from the display?

A. Press the **"1"** key. After several seconds the current temperature will be displayed. Several other numbers or STOP may be displayed before the current temperature.

Q. What does it mean when "FAIL" is displayed?

A. Most likely the *tic* (thermocouple) is defective. ("bd T", board temperature) to determine if the tic or circuit board is at fault. If the tic is faulty, it may actually be poor connections on any extension wire rather than the *tic* itself. For type K thermocouples check all connections and ensure that yellow wires are connected to yellow wires and red to red all the way from the circuit board to the *tic* in the kiln. It is a good idea to loosen the screw connections and then re-tighten them to break any oxide that may have built up. When connecting the thermocouple, connect the RED wire to the connector with RED dot and connect the YELLOW wire to the connector with the"+". On type "K" thermocouples, the RED wire is always negative, and the YELLOW wire is positive. On type"S" thermocouples the RED wire is negative and the BLACK wire is positive.

Q. How can I find out the final temperature that was reached during a cone firing?

A. At the end of a cone fire, the firing time and CPLt will be flashing alternately in the display. Press "STOP". Then press"Review Program", the final temperature will display after oF. This final temperature will be retained until the next firing or until the controller is reprogrammed or turned off.

Q. What is a segment?

A. A segment is the basic building block of a program either in cone-fire or vary-fire (ramp/hold). Each segment consists of a ramp rate in degrees per hour, a temperature you want to achieve, and whether you want to hold there or not. For example, a program for drying ware going at 60°/hour to 200°F and holding for 2 hours would be a one segment firing, the ramp is 60, the temperature is 200, and the hold is 2.00.

Q. Do I need to use witness cones for each firing?

A. After checking your kiln with witness cones for the first few firings, if you are satisfied with the results you are getting and how even the kiln is from top to bottom then you do not need to use cones in each firing. It is a good practice to periodically place witness cones in the kiln to check for proper firing. If you suspect a problem or your results have changed then it is a good idea to check the operation of the kiln with witness cones.

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