

FIRST FIRING FOR L&L KILNS WITH A DYNATROL OR GENESIS

WHEN TO DO A TEST FIRST FIRING

- Your kiln is set up and leveled properly.
- Control panel and wiring are hooked up to the kiln correctly.
- The first firing is done slowly or on medium speed to cone 04.

FIRING PROGRAM & TIME

- **For DynaTrol:** Slow Glaze to Cone 04
- **For Genesis:** Medium Glaze to Cone 04
- The firing will take about 8 hours.
- The test firing should be closely monitored, especially between 1200°F and the end of the firing, to ensure the kiln heats up and shuts off properly.
- You can create a delayed start if needed. Instructions follow.
- It may take several firings or higher temperatures for thicker elements to lose their springiness. You can use the kiln after the first 04 test firing.

WHY DO A TEST FIRING?

- Helps to steam off any moisture the firebrick absorbs during construction, shipping, and storage.
- Cures the brick coating.
- Forms an “aluminum oxide” coating on the elements’ surface. The aluminium oxide layer helps protect elements from the many contaminants found in materials fired in a kiln (i.e., small amounts of carbon, zinc, and nickel, which are corrosive. It will not protect the elements from glaze chips or large amounts of carbon).
- Reveals any potential problems with your electrical service (i.e. incorrect voltage or wire supply issue).
- The elements will also seat themselves in the ceramic holders, and most springiness you see when you first get your kiln will be alleviated

(except sometimes on thicker elements or APM elements - which may take a few firings to relax).



HOW TO PROGRAM VIDEOS

Programing a DynaTrol

hotkilns.com/programming-first-firing

Programing a Genesis

hotkilns.com/support/pottery-kiln-videos-links/ceramics-programming-genesis



BEFORE YOU START

Fire with Kiln Furniture

Fire with the **evenly spaced kiln furniture** to help



prevent getting an error code (**E-D**). If the kiln is completely empty, the heat does not circulate evenly and can cause the kiln to cool extremely fast, resulting in an error code. You may take this opportunity to put kiln wash on your shelves.

Insert elements in channels

Ensure no segment of the elements is hanging out of the holders. Coils should be seated as much as possible in the holders. Stretch slightly if needed,

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as the coils can shrink due to vibrations from moving and shipping.



(If ceramic washers have been provided with your kiln, use them to wedge the element into the holder at the corner.)

Fire with Cones

If available, place 04 cones on the shelves near the top and bottom thermocouples (no closer than 2" away from the tip of the thermocouples).

VENTING:

If you have a Vent-Sure vent leave it on while the kiln is heating and cooling. Keep the peephole plugs in and the lid closed.

If the kiln does not have a vent system, leave the top peephole plug out during the first test firing.

NOTE: Removing peephole is not ideal but can be done if no vent system is installed. Opening the top peepholes promotes air circulation, which helps the longevity of the elements and thermocouples and creates improved glaze and clay colors.

Note: Removing peepholes can affect thermocouple readings or cause uneven/slow firings.

FREQUENTLY ASKED QUESTIONS

There are ceramic washers between the elements and the element holders in the corners of my kiln - What is their purpose?

- This is done on some kilns - particularly DaVinci kilns. The discs are placed in the element holders to keep the elements from coming out during shipment.
- It is an excellent idea to keep them in place during at least the first firing.
- Once the elements heat up, they generally seat themselves in the element holders, and the washers can be removed (no harm in leaving them in place)

Can you fire to a higher cone than cone 04 on the first firing?

There is no problem firing to a higher cone on the first test firing. Just monitor the kiln and don't fire beyond it's rated temperature.

BE PREPARED - WHAT TO EXPECT?

- Brand new elements will smoke a little initially the first time they are heated.
- Clicking noises will happen periodically as the relays work to turn the elements on and off throughout the firing.
- Humming or vibration can sometimes be heard from the electricity within the elements.
- Hairline cracks can naturally form in the walls, lid, and floor as the kiln parts heat up and expand. These tiny cracks are expected and harmless to the firing process. Tightening the stainless steel bands surrounding the floor, lid, and walls of the kiln every so often helps to close and tighten gaps.
- "Red Heat" can be expected to be visible through the seams between the kiln sections. Redness begins around 1000°F, and the gapping can be slightly larger at the top section of the kiln. If you see too much of a gap in the top stop the firing and check the hinge adjustment. (hotkilns.com/cautions/adjusting-hinge) NOTE: Ensuring your lid has an even gap around the entire opening is important. If the lid gap is larger in the front, too much weight will be placed on the back upper bricks, damaging your lid and bricks.
- The kiln's interior will appear white hot at its highest temperatures.

DELAYED START?

The first firing will take approximately 8 hours. You only need a delayed start if you will not be present when the kiln is finished firing.

CALCULATING THE DELAY START

Think of 8 hours past the time that you press start. If you will not be present with the kiln at that time, you will need a delayed start for the firing.

The number of "hours later" is what you will enter into the kiln's control.

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Example

- 1) You will be available after 3 PM.
- 2) You want to check on the firing for the last 3 hours of the 8-hour firing.
- 3) So, you want to start the kiln 5 hours before 3 PM at 10 AM.
- 4) Let's say it is 7 AM in the morning.
- 5) Set a Delay of 3 hours.

CAUTIONS

- The outer metal and brick surfaces can reach up to 500°F and will burn skin or fabric.
- Always use rated dark safety glasses when looking through peepholes to protect your eyes. (NOTE: #3 shade welding glasses work well.)
- See Kiln Cautions in your instruction manual for complete details.

GENESIS CONTROL - FIRST FIRING

Program Cone 04 Medium Glaze

- 1) Turn on the power to the kiln with the toggle switch.
- 2) Press **LOAD**
- 3) Press **GLAZE**
- 4) The screen will show what the current glaze setting is. Press **OK**
- 5) Press **EDIT**
- 6) Press **CONE#**
- 7) Scroll until **CONE 04** is visible
- 8) Press **SAVE**

- 9) Press **SPEED**. Select **MEDIUM**
- 10) Hold will remain at **0.00**
- 11) Press **BACK**, bringing you to the Main Menu.

ADDING A DELAYED START - GENESIS

- 1) Press **START**
- 2) Press #2-**START LATER** (only if needed)
- 3) Enter the number of hours/minutes needed for the delay.
 - Example A: 2 hour delay - Enter **200**
 - Example B: 2 hours, 30 minutes - Enter **230**
- 4) Press **SAVE**
- 5) If you want to review the program you entered, press **VIEW**
- 6) The kiln will begin firing when the timer runs out.

STARTING KILN WITHOUT DELAY - GENESIS

After the **CONE 04 MEDIUM GLAZE** has been programmed, Press the **START** button on the control.

NOTE: If the first firing ended in an error code, please note which one it was (i.e., **E-1** or **E-d**, etc.). See this first: hotkilns.com/support/error-codes

What to expect-General Firing Profile

- Temperature climbs 150°F until it reaches 250°F
- Temp will raise 400°F per hour until 1695°F
- Temp will raise 120°F per hour until 1945°F

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DYNATROL CONTROL - FIRST FIRING

Program **CONE 04 SLOW GLAZE**

- 1) Turn on power to the kiln with the toggle switch. Display reads **WAIT**, then **IDLE** flashing with **TC2**, **TC3**, or **TC1**.
- 2) You may need to press **ENTER** and wait until you see **IDLE**, **TC2**, and the current temperature cycling repeatedly.
- 3) Press **SLOW GLAZE** and see **S-GL**.
- 4) Press **ENTER** and see **CONE**, and a number (which represents the cone number currently programmed in the control) flashing back and forth.
- 5) Press **04**, and see the number **04** in the display.
- 6) Press **ENTER** and see **IDLE** flashing with **TC2**, **T3**, or **TC1**.

STARTING FIRING WITHOUT DELAY-DynaTrol

- 1) If no delay is needed, after the **CONE 04 SLOW GLAZE** has been programmed, Press the **START/STOP** button on the control.

ADDING A DELAYED START - DynaTrol

- 1) Press **DELAY** and see **dELA**, **0.00** flashing over and over.
- 2) Enter the hours/minutes needed for the delay.
 - Example A: 2-hour delay - Enter **200**
 - Example B: 2 hours, 30 minutes - Enter **230**
- 3) When the correct number of hours and minutes have been keyed in, press **ENTER**, see **IDLE**.

STARTING THE FIRING WITH DELAY

- When the correct time to begin the firing arrives, press **START/STOP**. If you programmed a delayed start, the hours/minutes timer and the **TC2** - current temperature message will be displayed until the timer runs out.

STARTING FIRING WITHOUT DELAY-DynaTrol

- After the **CONE 04 SLOW GLAZE** has been programmed, Press the **START/STOP** button on the control.

WHAT TO EXPECT- FIRING PROFILE

- 1) Temperature climbs 80°F per hour until it reaches 250°F
- 2) Temp. Will raise 200°F per hour until 1000°F
- 3) Temp. Will raise 100°F per hour until 1100°F
- 4) Temp. Will raise 180°F per hour until 1675°F
- 5) Temp. Will raise 80°F per hour until 1925°F
- 6) **CPLT** means the firing is complete. We recommend shutting all power to the kiln off.

Error Codes?

NOTE: If the first firing ended in an error code, please note which one it was (i.e., **E-1** or **E-d**, etc.).

See this first: hotkilns.com/support/error-codes

