



POLYGONAL KILNS

QUICK START GUIDE



hotkilns.com

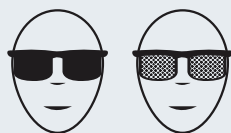
REV: 7/17/25

Kiln Cautions



Details & PDF at
[hotkilns.com](https://hotkilns.com/support/cautions/overview)
[/support/cautions/](https://hotkilns.com/support/cautions/overview)
[overview](https://hotkilns.com/support/cautions/overview)

VIEWING INTO KILN



Use dark glasses (shade number 1.7 to 3.0) to view inside the kiln through the peepholes when firing.

KEEP FLAMMABLES AWAY FROM KILN



Do not put sealed containers or combustible materials such as solvents, paper, rags, in or near kiln. An explosion or fire could result.

TURN OFF POWER WHILE LOADING

Turn off power to the kiln when loading or servicing.



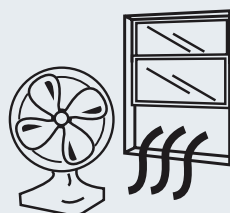
CHILDREN & PETS

Protect any children, animals, and unqualified adults (anyone who is not able to understand these cautions) that may be near the kiln.



VENTILATION IS ESSENTIAL

Kilns generate harmful fumes when firing ceramics. Fumes include carbon monoxide, sulfur oxides, hydrogen fluoride and metal vapors (all of which can be very toxic).



DO NOT STORE ANYTHING ON LID

Do not use the lid as a storage shelf. The lid could crack.



DO NOT FIRE TOXIC, FLAMMABLE, OR UNKNOWN MATERIALS

Flammable or unknown materials can decompose under heat causing the release of highly toxic fumes or rapid uncontrollable combustion.



NO EXTENSION CORDS

Locate the outlet close enough to the kiln to plug directly into it with the kiln's supplied power cord.



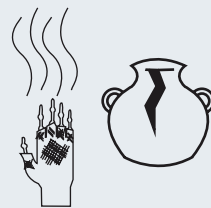
SURFACE IS HOT AND CAN CAUSE BURNS

Kiln surface can be extremely hot: up to 500°F(260°C). You can be severely burned if you touch the hot surface.



DO NOT UNLOAD KILN WHILE HOT

You may burn yourself or you may harm your work.



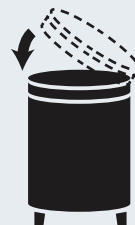
ATTEND THE FIRING

We recommend attending the kiln while firing. Be especially careful about attending the kiln when it is scheduled to shut off.



KEEP LID CLOSED WHEN KILN IS NOT USED

Keep lid closed when not operating the kiln. Keeping the lid closed will keep out dust and extend the longevity of your kiln.



ELECTRICAL SAFETY

Lock out all electrical power before repairing kiln. Have electrical installation performed by a licensed electrician.



SPRINKLER CAUTIONS

If you have a sprinkler system be careful to check the temperature rating and location of the heads so that you do not inadvertently cause them to activate under normal firing conditions.



FIRE EXTINGUISHER

Keep an adequate fire extinguisher near the kiln and check it on a regular basis.



AVOID LOOSE/FLAMMABLE CLOTHING

When working around a hot kiln be careful of the kinds of clothes you are wearing. Some clothes could potentially catch on fire if they touch the hot surface of a kiln.



DO NOT OPEN DOOR ABOVE 250°F

Do not open the kiln door until the kiln has cooled down to 250°F (120°C).



KEEP KILN DRY

Kiln must be kept dry and protected from moisture. It is best to keep kiln in an enclosed room away from inclement weather and dew formation.



POLYGONAL KILNS



Doll Kiln Assembly
[hotkilns.com](https://hotkilns.com/support/kiln-assembly/doll)
[/support/kiln-assembly/
doll](https://hotkilns.com/support/kiln-assembly/doll)

This guide is broadly applicable to all L&L Polygonal Kiln series. This includes the Easy-Fire, School-Master, eQuad-Pro, Jupiter, and JH Crystalline kiln series. For doll kilns, follow the relevant link for assembly instructions.

PRE-ASSEMBLY Preparation & Installation



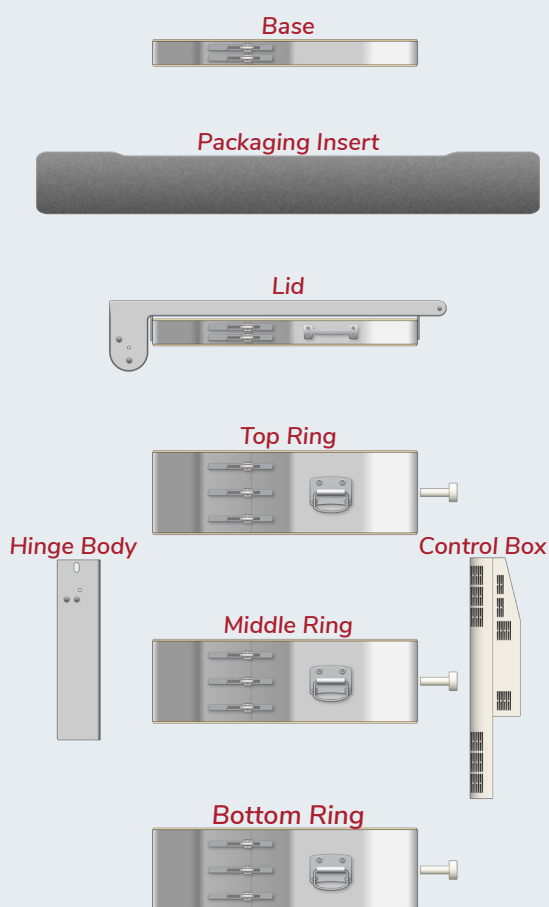
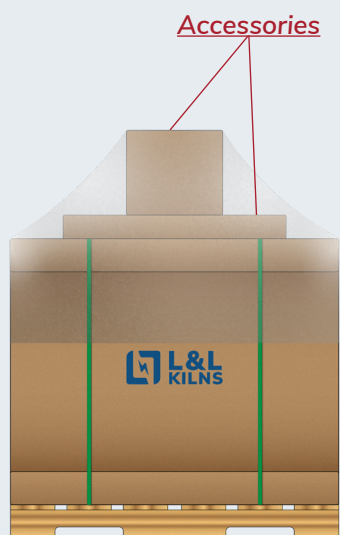
Details at
[hotkilns.com](https://hotkilns.com/support/installation/overview)
[/support/installation/
overview](https://hotkilns.com/support/installation/overview)

Before assembling your kiln, make sure your workspace meets all ventilation, power, and clearance requirements.

Follow the link to read our full preparation and installation guide—it covers everything you need to set up your space and operate the kiln safely.

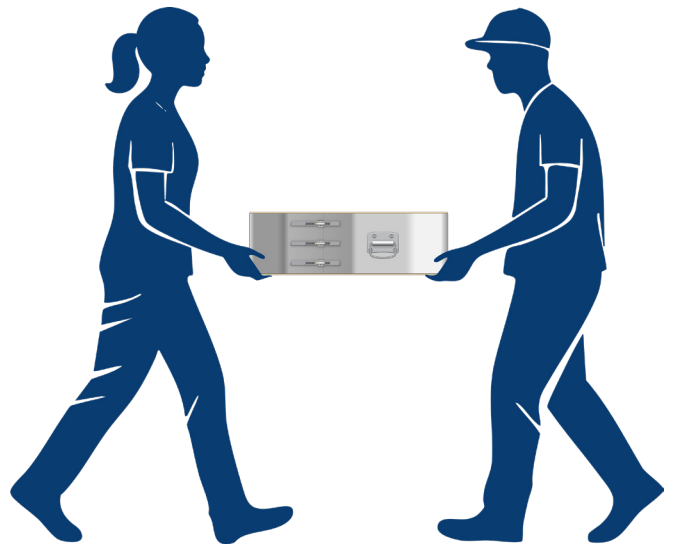
WHAT'S INSIDE

The smaller boxes on top contain the kiln stand and any optional accessories, while the kiln itself is packed in the larger box. On 3-ring and up models, the kiln base is secured in a packaging insert (made of foam or honeycomb cardboard) above the main body. On 2-ring models, the base comes pre-attached to the bottom ring.



MOVING

- The kiln ships fully assembled, but moving it in one piece may risk damage and injury.
- It may be moved as one piece with enough people over a short distance.
- For farther distances with fewer people, disassemble the kiln and carry one ring at a time.
- Always work with at least two people.

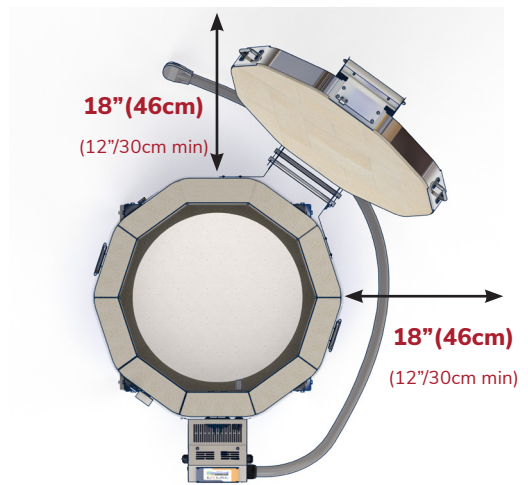


PLACEMENT



Details at
[hotkilns.com](https://hotkilns.com/support/installation/overview)
[/support/installation/](https://hotkilns.com/support/installation/overview)
[overview](https://hotkilns.com/support/installation/overview)

- **Floor Surface:** Use non-combustible surfaces (cement, ceramic, stone, slate, cinder blocks, brick).
- **Avoid:** Wood, vinyl, carpet; protect linoleum with a non-combustible covering.
- **Clearance:** Maintain 18" (46cm) clearance from non-combustible walls, 12" (30cm) minimum; 36" (91cm) (from combustible surfaces).



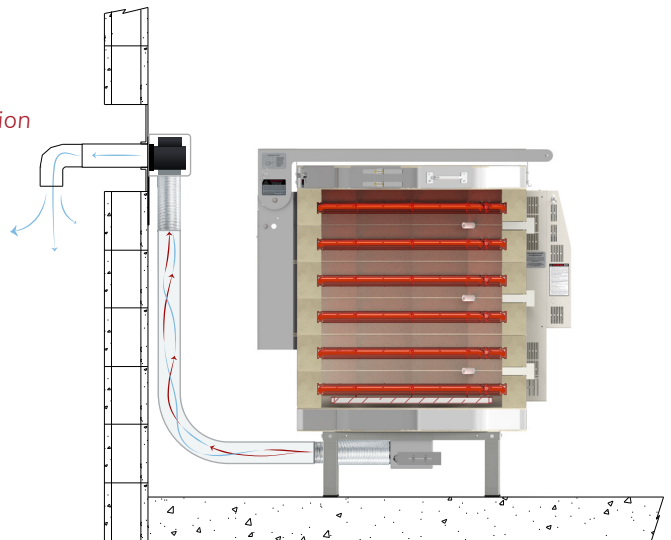
Concrete or Nonflammable Surface / Floor

VENTILATION



Details at
[hotkilns.com](https://hotkilns.com/support/ventilation)
[/support/ventilation](https://hotkilns.com/support/ventilation)

- **Vent-Sure Downdraft Vent System Recommended:** Removes harmful fumes, prevents corrosion, improves firing uniformity, enhances kiln atmosphere.
- If using without a dedicated vent system, fire in a well-ventilated area with the top peephole unplugged.
Always use a CO-Monitor. Pro-Rated Element & Thermocouple Limited Warranty may be effected.



VIDEO INSTRUCTIONS



Details at
[hotkilns.com](https://hotkilns.com/support/kiln-assembly/standard-kilns)
[/support/kiln-assembly/](https://hotkilns.com/support/kiln-assembly/standard-kilns)
[standard-kilns](https://hotkilns.com/support/kiln-assembly/standard-kilns)

The following guide gives a general overview of the assembly process. See the link above for more detailed instructions and a video demonstration of the assembly.

REQUIRED TOOLS

- | | |
|---|----------------------|
| 1. Phillips-Head Screwdriver (medium size head) | 4. Adjustable Wrench |
| 2. Utility Knife | 5. Level |
| 3. Needle-Nose Pliers | 6. Safety Gloves |

UNPACKING

1. Inspect for shipping damage before accepting delivery.



2. Unpack furniture kit and vent kit (if ordered).



3. Remove staples from box lid and bottom if present.



4. Lift the box straight up and off the kiln.

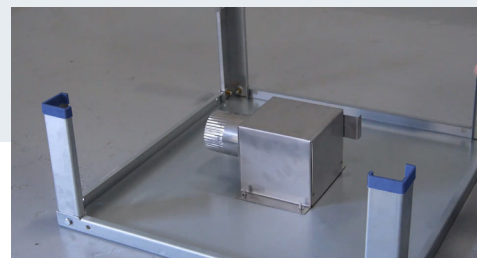
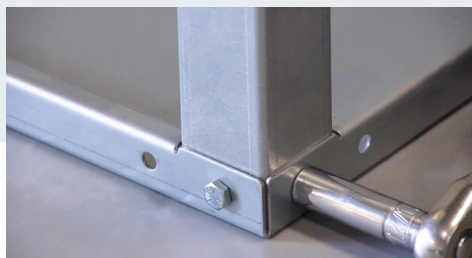
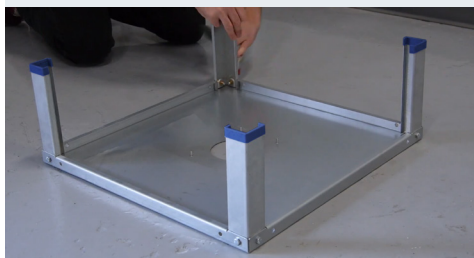
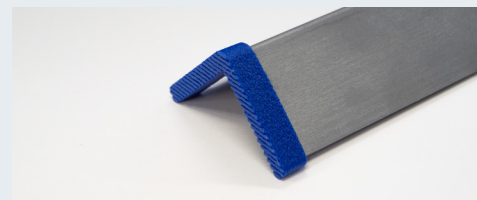


KILN STAND ASSEMBLY



Details at
[hotkilns.com](https://hotkilns.com/support/kiln-assembly/rolling-stand)
[/support/kiln-assembly/
rolling-stand](https://hotkilns.com/support/kiln-assembly/rolling-stand)

Snap apart the four feet. Press fit each of the feet onto the end of each leg. Attach the four legs to the stand using the provided bolts. If installing a vent system, attach the Bypass Collection Box now. For Rolling Stand instructions, see the link above.



BASE ASSEMBLY

1. Remove the base (located in a packaging insert at the top of the box on 3-ring and up models).



2. Center the base on the stand in the desired orientation. If using a rolling stand, refer to the link above.



3. Position the base 18" (46cm) from walls (12"/30cm minimum).



4. Use a level to ensure the base is flat and stable.



DISASSEMBLY

If required to move the kiln

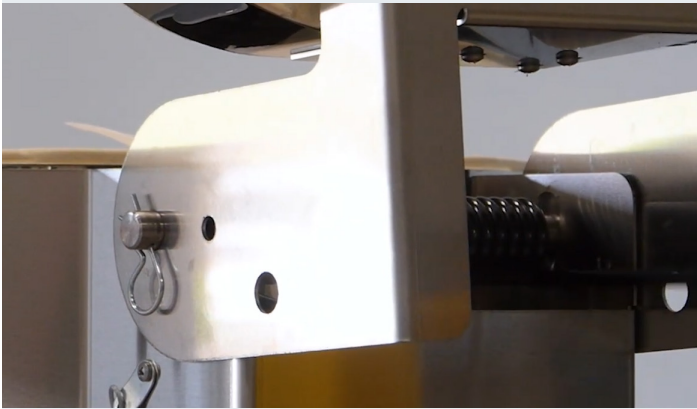
1. Open the lid and hold it at a 90° angle.



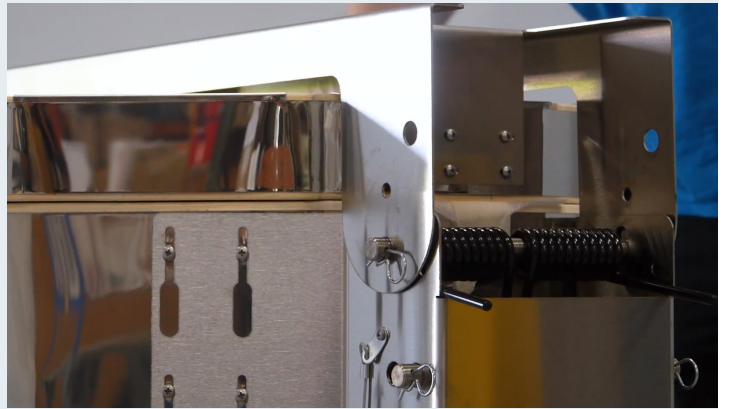
2. Remove the cotter pin from the tension bar.



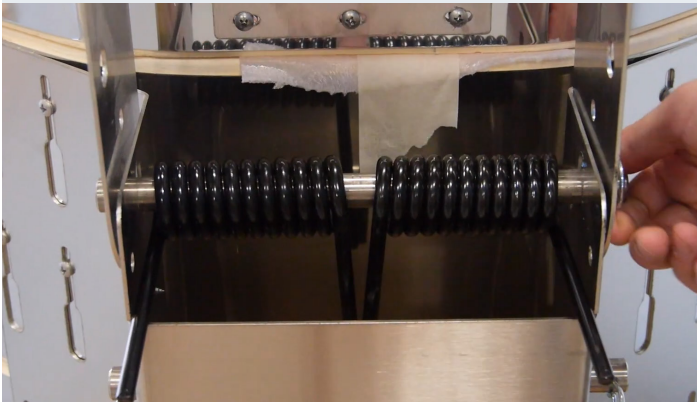
3. Remove the tension bar.



4. Close the lid.



5. Remove one cotter pin from the spring bar.



6. Remove the spring bar and springs.



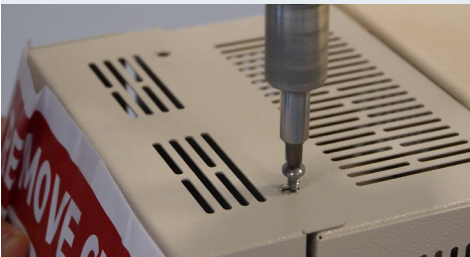
7. Remove the lid.



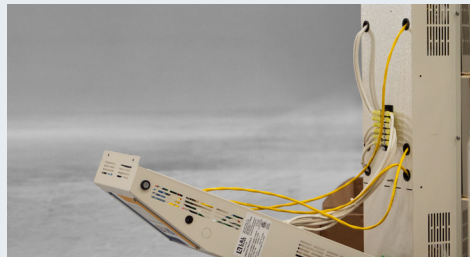
8. Set all removed parts aside for later reassembly.



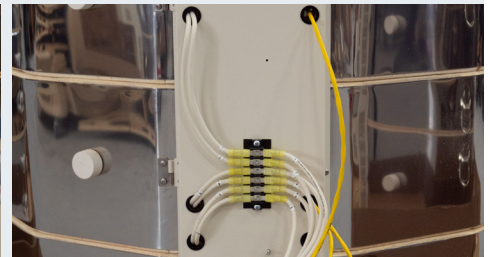
9. Remove the two upper screws from the control panel.



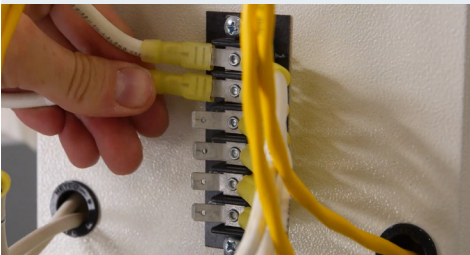
10. Open the control panel.



11. Identify the wires entering the element box.



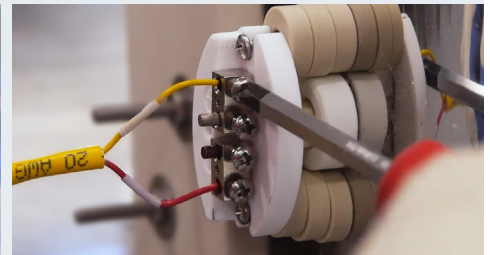
12. Unplug power wires from terminal strip and label their positions.



13. Unscrew the element box from the kiln body.



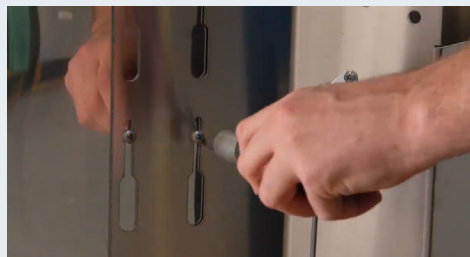
14. Detach the Thermocouple Wires



15. Pull wires through and lift the element box off its hinge.



16. Loosen (but do not remove) screws securing the hinge body.



17. Lift the hinge body up and off the screws.

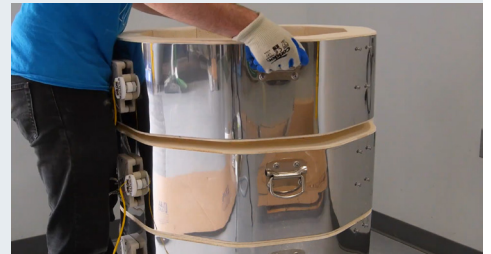


18. Carefully lift each ring and place them off to the side. Keep all of the parts organized.



STACKING KILN SECTIONS

Stack the kiln rings ontop of the base. **Keep them all aligned and in the same order and orientation.**

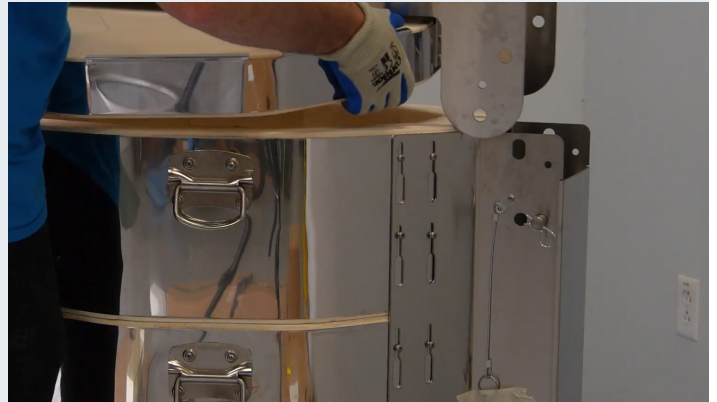


HINGE ASSEMBLY

1. Place the hinge body back on the screws and gently tighten a few of them.



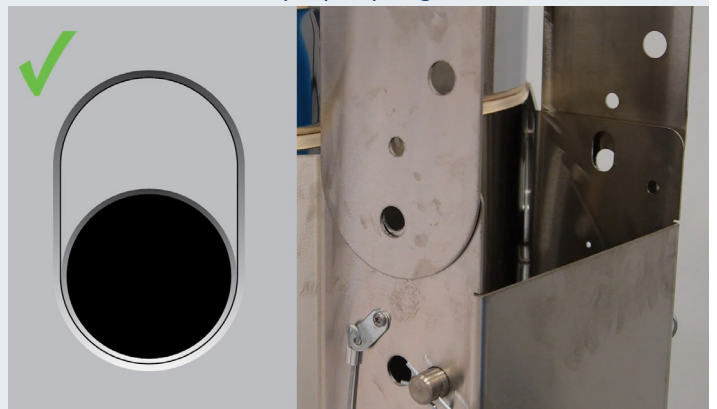
2. Place the lid on top



3. Replace the spring bar, springs, and cotter pins



4. Ensure the hole in the lid and the hinge plate are properly aligned



5. Fully tighten the hinge body screws.



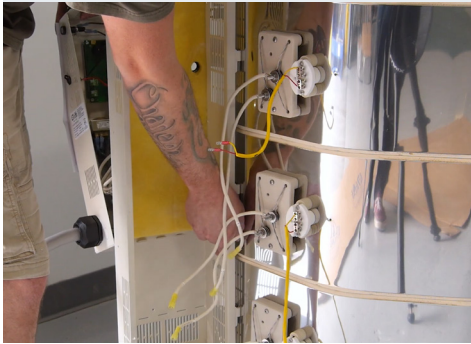
6. While holding the lid open at a 90° angle, replace the tension rod and cotter pins.



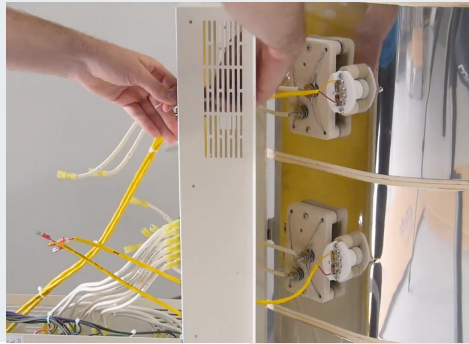
EASY-FIRE CONTROL PANEL ASSEMBLY

When assembling an Easy-Fire Kiln, the control panel will be attached to the element box with internal power and thermocouple wires linking them.

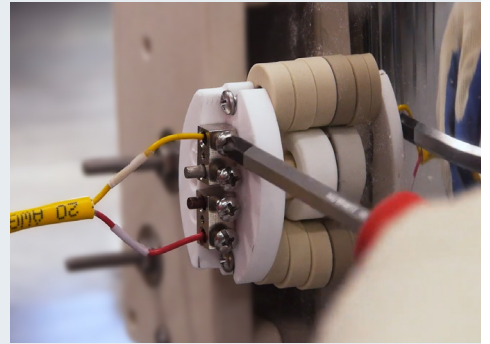
1 Place the element box back onto its hinge pins.



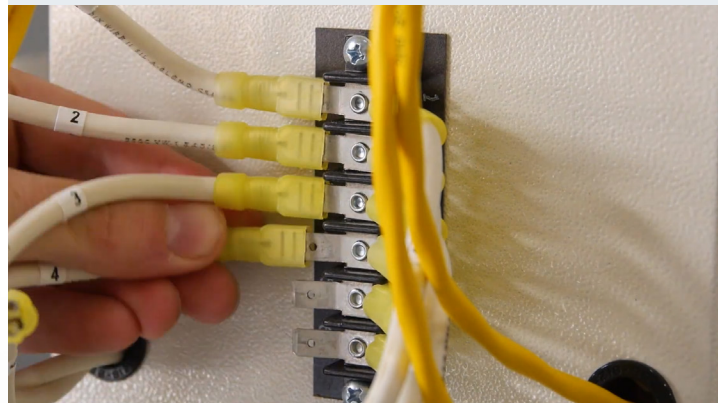
2 Feed the power and thermocouple wires back into the element box.



3. Reattach the TC wires to their respective thermocouples.
Yellow Lead = positive
Red Lead = negative



4 Reattach all of the power wires in the correct order.



5 close the element box and control panel.



JUPITER CONTROL PANEL ASSEMBLY

If assembling a Jupiter Kiln, the control panel will be external with individual power plugs and TC wires for each kiln section.

1. Feed the power cords through the openings on the control panel mounting bracket.



2. Mount the control panel to the element boxes with the provided screws.



3. Plug the Power cords into the control panel in the correct order.



4. Hook up the TC wires to their respective thermocouples. Yellow Lead = positive, Red Lead = negative



INSTALLATION CHECKLIST



Details at
[hotkilns.com](https://hotkilns.com/support/installation/checklist)
/support/installation/
checklist

Safety Approvals & Codes (If required - usually for commercial or institutional spaces)

- ☐ Review the relevant safety approvals and codes
- ☐ Determine if my kiln is listed to UL499 or Canadian Standards
- ☐ Consult the local safety authorities

Clearances & Surfaces

- ☐ Review the kiln's General Dimension Drawing (available on each kiln page)
- ☐ Ensure a 12" clearance (18" recommended) from non-combustible surfaces and 36" from combustible surfaces.
- ☐ Install the kiln on a non-combustible floor, 2" thick, extending 12" beyond the kiln
- ☐ Install the kiln on the factory-supplied kiln stand.

Kiln Room Environment

- ☐ Install the kiln in a dry, weather-proof area
- ☐ Ensure the kiln is inaccessible to children and pets
- ☐ Post clear warning signs (if the kiln is operated in public areas)
- ☐ Have a regularly inspected fire extinguisher nearby
- ☐ (if applicable) Consult local fire codes regarding sprinkler systems

Ventilation

- ☐ Have an exhaust fan OR HVAC system and a thermometer to monitor excess heat
- ☐ Install a downdraft kiln vent OR plan to vent the kiln to manage fumes manually (If manually venting, ensure there is adequate room ventilation)

Electrical Installation

- ☐ Hire a licensed electrician for the installation
- ☐ (If required) Obtain approval from the facility owner
- ☐ Ensure my kiln's voltage, amperage, and phase requirements match the building's supply
- ☐ Ensure the kiln will be located within 50' of the breaker
- ☐ Use copper wire (NOT aluminum) of the appropriate gauge to wire my kiln
- ☐ Have an electrician determine the appropriate wire gauge based on the kiln's amperage load and room conditions. Model-specific electrical specs are available on our website.
- ☐ Install a dedicated ground conductor (suggested - but check with your electrician)
- ☐ (if required) Install a fused disconnect switch for lockout/tagout procedures
- ☐ Ensure no wires, cords, or plugs are making contact with the kiln's exterior

Kiln Assembly

- ☐ Follow the assembly directions for my specific kiln

PRE-FIRING

1. Ensure all the elements are seated properly in the holders.



2. Remove the red plastic element clips.



3. Remove any remaining tape or packaging.



4. Plug in the power cord.



5. Power on the kiln to ensure it works.



FIRST FIRING



Details at

[hotkilns.com
/support/first-firing](https://hotkilns.com/support/first-firing)

PURPOSE OF FIRST FIRING

- Removes any moisture from firebrick and sets brick coating
- Forms a protective oxide layer on elements.
- Identifies electrical issues (e.g., wrong voltage or wiring).
- Helps elements settle into holders.

BEFORE YOU START

Check elements

- Ensure all elements are fully seated in holders—no coils hanging out.
- Stretch coils slightly if needed; vibration during transit may cause shrinkage.

Fire without ware

- Fire without any ware to prevent fumes from damaging the element coils.

Fire with kiln furniture

- Fire with evenly spaced shelves to help with heat circulation and prevent rapid, uneven cooling.
- Apply kiln wash to shelves during this firing if desired.

Fire with cones

- Place cones near thermocouples, at least 2" away from tips.
- We include 04 cones and a recommended firing schedule, but you're welcome to use your own.

Venting

- **With Vent-Sure:** Leave vent on; keep lid closed and peephole plugs in.
- **Without Vent-Sure:** Remove top peephole plug during first firing for airflow.

RECOMMENDED FIRING SCHEDULE

Ceramic Glaze Cone 04 Medium (Firing Time: ~8 hours)

Segment	Firing Rate	Setpoint Temp (F)	Hold Time
1	150	180	0:00
2	150	250	0:00
3	400	1695	0:00
4	120	1945	0:00

GENESIS PROGRAMMING STEPS

1. Press LOAD
2. Press GLAZE
3. Current setting will display—press OK
4. Press EDIT
5. Set CONE# to CONE 04
6. Set SPEED to MEDIUM
7. Hold should remain at 0.00
8. Press BACK, returning to the Main Menu
9. Press START
10. Choose to start now, later, or remote

Follow the link or QR code for a more detailed first firing guide and Dynatrol programming steps.

KILN CALIBRATION

Get To Know Your Kiln



Details at
[hotkilns.com](https://hotkilns.com/support/operation/calibration)
[/support/operation/](https://hotkilns.com/support/operation/calibration)
[calibration](https://hotkilns.com/support/operation/calibration)

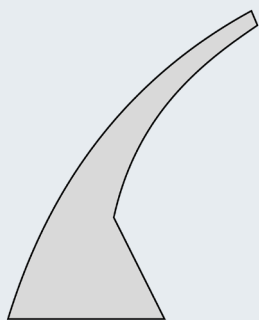
OVERVIEW

New kilns sometimes overfire and may need to be calibrated.

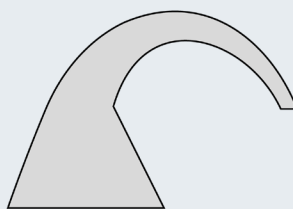
Calibration can also become necessary as elements and thermocouples age. Always use witness cones to verify accuracy and adjust as needed. For detailed instructions, see our guides on kiln calibration and using pyrometric cones.

BASIC PROCESS:

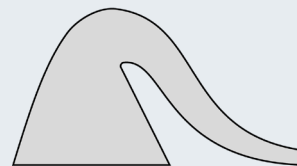
1. Fire to your target cone using a full cone pack (guide, target, guard) in each kiln section.
2. After firing, inspect the cones and adjust as needed:
 - If the entire kiln is off, apply a **Cone Offset** for that specific cone number.
 - If only one section is off in a multizone kiln, apply a **Thermocouple Offset** for that zone to even it out.
3. Use our Offset Calculator to help estimate the right adjustment:
 - hotkilns.com/support/cone-offset-calculator



Underfired



Perfect



Overfired

GENESIS FIRMWARE UPDATES

If using the Genesis Control, periodically check for firmware updates. See the Genesis Control Manual for more details.



Details at
[hotkilns.com](https://hotkilns.com/support/operation/genesis-control)
[/support/operation/](https://hotkilns.com/support/operation/genesis-control)
[genesis-control](https://hotkilns.com/support/operation/genesis-control)



INSTALLATION

Space and wiring guidelines, site-preparation checklist — everything you need for kiln installation support.

Pages:

- Overview
- Checklist



VENTILATION

Best-practice for downdraft and hood vents, airflow calculators, and health-and-safety guidelines for kiln ventilation.

Pages:

- Overview
- Vent-Sure Instructions
- Vent Control



OPERATION

Controller programming videos (Genesis®, One-Touch™, Dyna-Trol), calibration guides, and firing-profile templates for precise kiln operation support.

Pages:

- Genesis
- Dynatrol
- One Touch Control
- Manual Control
- First Firing
- The Ceramic Process
- Calibration
- Pyrometric Cones
- Orton Firing Tips



MAINTENANCE

Element replacement, thermocouple testing, brick repair, and preventive-maintenance focused on long-term reliability.

Pages:

- Routine Maintenance
- Changing Elements
- Changing Thermocouples
- Changing Relays
- Changing Transformers
- Changing Controls
- Changing Fuses & Fuse Holders
- Brick Repair

ONLINE SUPPORT INDEX



DIAGNOSTICS

Troubleshooting flowcharts, complete error-code tables, and electrical-supply tips so you can quickly resolve kiln troubleshooting issues.

Pages:

- General Diagnostics
- Electrical Diagnostics
- Error Codes
- Paper Test
- Element Diagnostics
- Firing Log
- Genesis Log



SERVICE

How to get service, how to prepare for a service call or visit, how to hire an electrician, warranty help, and for urgent kiln repair help.

Pages:

- Get Service
- Warranties



RESOURCES

Knowledge-base articles, PDF libraries, wiring diagrams, legacy manuals, external links, and our video library — a deep archive of ceramic-kiln resources at your fingertips.

Pages:

- Video Library
- PDF Library
- Knowledge-Base
- External Links
- Discontinued Kilns
- Receiving
- Wiring Diagrams
- Dimension Drawings



CAUTIONS

Critical safety notices, high-temperature handling advice, and best practices to protect people, property, and your kiln investment.

Pages:

- Cautions Overview
- Cautions Poster
- Safety Data Sheets

Control Operation Manuals

GENESIS



[hotkilns.com
/support/operation/genesis-control](https://hotkilns.com/support/operation/genesis-control)

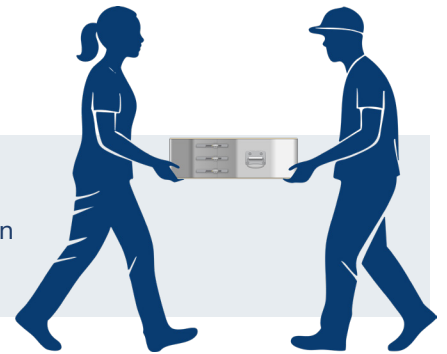
DYNATROL



[hotkilns.com
/support/operation/dynatrol](https://hotkilns.com/support/operation/dynatrol)

Moving Your Kiln After Firing

- Disassemble the kiln and move each section separately to prevent injury or damage.
- If the kiln has been fired, tighten the steel case before moving (heat cycles can loosen it).
- Always use two people to lift and move components safely.



Helpful Links

SERVICE



[hotkilns.com
/support/service/get-service](https://hotkilns.com/support/service/get-service)

PARTS



[hotkilns.com
/parts](https://hotkilns.com/parts)

RESOURCES



[hotkilns.com
/support/resources](https://hotkilns.com/support/resources)

Wiring Diagrams



Download wiring diagrams:
[hotkilns.com
/support/resources/
wiring-diagrams](https://hotkilns.com/support/resources/wiring-diagrams)

Electrical Installation: Have all electrical installations performed by a licensed electrician or qualified technician to ensure safety and compliance with electrical codes. Do not use aluminum wire for the final connection to the kiln. Route the power cord (or electrical connection wires) away from the kiln so that it cannot touch the hot case of the kiln or run under the stand. Never use an extension cord with your kiln. Follow the amperage rating on the diagram or the kiln specifications on the website to ensure proper fusing and wire gauge selection. Note that the recommended wire gauge for kiln hookup is based on 75 °C wire. Adjust the wire accordingly for the length of the run to the kiln and any local conditions, such as excessive heat.