

# ASSEMBLY INSTRUCTIONS FOR L&L DURA-FIRE KILNS

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## VIDEOS OF SELECT PROCESSES CAN BE FOUND ON YOUTUBE AT:

[www.youtube.com/LLKilns](http://www.youtube.com/LLKilns)

## TOOLS NEED FOR THE JOB

You will need the following tools for the job:

- 1) Philip's head screw driver (medium size head)
- 2) Knife
- 3) Needle Nose pliers
- 4) Adjustable Wrench
- 5) Level
- 6) Safety Gloves

## WHAT SHOULD YOU READ?

The information in these installation instructions is as complete as we can make it - which means that there is more than most people will need to read. Each heading is self-contained (for instance "Assembling the Stand") Most people will be able to figure out how to assemble their stand by looking at it - so only read this heading if you get stuck.

First of all be comfortable with where you are putting your new kiln. If you have any questions about that read the information about clearances, ventilation, etc. in the "Installation" section. Do that first so you don't have to redo your work.

If there is anything we feel you must read we will call it to your attention with one of these shaded boxes.

## CAN YOU MOVE THE KILN WITHOUT DISASSEMBLING IT?

The kiln is shipped mostly assembled (except for the stand). It is possible to move the kiln without disassembling it. However, these kilns, particularly the D28S and D28T, are very heavy and awkward to move. If you decide to move it without disassembling the sections first be absolutely certain you have at least two or three strong people who are familiar with proper lifting techniques. Serious back injury could result if such a heavy object is lifted improperly. See page 9 for details on how to do it - there are specific instructions depending on which model you have.

**CAUTION:** Do *NOT* attempt to disengage the spring hinge without first reading the detailed instructions as listed on pages 6-8.

# ASSEMBLY INSTRUCTIONS FOR L&L DURA-FIRE KILNS

## UNPACKING

### Inspect for visible damage

The carton should arrive without visible damage. If the carton was damaged in transit, you should either refuse shipment or unpack the kiln in the drivers presence in order to file a damage report with the freight company.

**Call our office immediately if there is a problem. SAVE ALL MATERIALS UNTIL YOU ARE SURE YOU WON'T NEED THEM. AT THE VERY LEAST NOTE DAMAGE ON THE BILL- OF-LADING - WITHOUT THIS YOU HAVE NO PROTECTION!**

*Below is a picture of how your kiln should arrive: (Note that the below picture shows a kiln as ordered with a furniture kit and vent)*



### Unpack Instructions, Vent and Furniture Kit

1) Remove the two separate Furniture Kit and Vent-Sure vent system boxes, if ordered, from the top of the kiln carton.

2) If you ordered a Vent-Sure vent system you will find the following items inside the cardboard box:

- flexible ductwork
- bypass collection box
- galvanized 90 degree elbow
- vent motor with mounting bracket and duct attached for venting through a wall.

3) If you ordered the standard Furniture/Accessory kit you will find the following:

#### For a D18S:

- One 15-1/2" full round shelf
- four 15-1/2" half shelves
- six each 1/2", 1", 2", 4", 6" and 8" square posts
- five pounds of Cone 10 kiln wash
- a pair of temperature resistant gloves

#### For a D18S-3:

- One 15" full round shelf
- four 15" half shelves
- six each 1/2", 1", 2", 4", 6" and 8" square posts
- five pounds of Cone 10 kiln wash
- a pair of temperature resistant gloves

#### For a D18T:

- two 15-1/2" full round shelves
- four 15-1/2" half shelves
- six each 1/2", 1", 2", 4", 6" and 8" square posts
- five pounds of Cone 10 kiln wash
- a pair of temperature resistant gloves

#### For a D18T-3:

- two 15" full round shelf
- four 15" half shelves
- six each 1/2", 1", 2", 4", 6" and 8" square posts
- five pounds of Cone 10 kiln wash
- a pair of temperature resistant gloves

#### For a D23S:

- One 21" full round shelf
- four 21" half shelves
- six each 1/2", 1", 2", 4", 6" and 8" square posts
- five pounds of Cone 10 kiln wash
- a pair of temperature resistant gloves

#### For a D23S-3:

# ASSEMBLY INSTRUCTIONS FOR L&L DURA-FIRE KILNS

- a) One 20" full round shelf
- b) four 20" half shelves
- c) six each 1/2", 1", 2", 4", 6" and 8" square posts
- d) five pounds of Cone 10 kiln wash
- e) a pair of temperature resistant gloves

## For a D23T:

- a) two 21" full round shelves
- b) four 21" half shelves
- c) six each 1/2", 1", 2", 4", 6" and 8" square posts
- d) five pounds of Cone 10 kiln wash
- e) a pair of temperature resistant gloves

## For a D23T-3:

- a) two 20" full round shelf
- b) four 20" half shelves
- c) six each 1/2", 1", 2", 4", 6" and 8" square posts
- d) five pounds of Cone 10 kiln wash
- e) a pair of temperature resistant gloves

## For a D28S-3:

- a) six 26" half shelves
- b) six each 1/2", 1", 2", 4", 6" and 8" square posts
- c) five pounds of Cone 10 kiln wash
- d) a pair of temperature resistant gloves

## For a D28T-3:

- a) eight 26" half shelves
- b) six each 1/2", 1", 2", 4", 6" and 8" square posts
- c) five pounds of Cone 10 kiln wash
- d) a pair of temperature resistant gloves

**NOTE:** Furniture Kits can be ordered to come with all half shelves at no extra charge. If you ordered your kit this way then there will be twice as many half shelves as there are full shelves listed above, plus whatever amount of half shelves already listed.

*Below is a picture of the cardboard box with a Vent-Sure system enclosed. NOTE: Depending on where you bought your kiln, your vent system and/or kiln furniture may arrive packed differently.*



*Below is how the cardboard box with a Furniture Kit enclosed should look upon opening.*



## Remove Top from Carton

- 1) Remove the packing slip from the packing list enclosed envelope.
- 2) Cut the banding around the kiln box.
- 3.) With a screw driver pry off the staples holding the top of the box to the box sleeve and remove the top.

# ASSEMBLY INSTRUCTIONS FOR L&L DURA-FIRE KILNS

*Below is the first thing you will see when you open the box - foam tubes securing the kiln:*



## Unpacking the kiln

- 1) With a screw driver pry off the staples holding the bottom box tray to the box sleeve.
- 2) Next remove the cardboard inset from the carton, and remove the carton sleeve from the skid.
- 3) The heavy duty kiln stand containing a white box, or manilla envelope, with the stand legs positioned around it will be set on top of the kiln. This will be slightly covered by the foam packaging tubes.

*Interior packaging with the inset removed:*



- 4) Push the foam tubes away from the kiln body. If desired, these can be completely removed by using a knife to carefully cut the plastic tubing by the base of the kiln. There should be little to no foam there. Be careful not to scratch the kiln with your knife.

## Removing foam tubes:



- 5) Carefully cut off the stretch wrap that is around the kiln. Be careful not to scratch the kiln with your knife.

# ASSEMBLY INSTRUCTIONS FOR L&L DURA-FIRE KILNS

Carefully cut off shrink wrap:



6) Remove the kiln stand base from the top of the kiln. The kiln manual, in a white cardboard box or manilla envelope, surrounded by the four kiln stand legs should be resting within the edges of the kiln stand base.

Removing the kiln stand:



7.a) If you ordered a D18S, D18T, D23T, or D28T your kiln floor will be on top, remove it now.

**CAUTION:** Do *NOT* attempt to disengage the spring hinge without first reading the detailed instructions as listed on pages 6-8.

Removing the kiln base:



7.b) If you ordered a D28S the floor of the kiln will not be on the top, it will be on the bottom of the kiln as it helps secure the spring hinge bracket which is assembled for shipping.

## NOTE ABOUT D18 & D23 SERIES KILNS:

These kilns employ simple hinges, thus the kiln base will always be packed on top.

The base as attached to the hinge bracket:



8) Notice that the spring on your spring hinge *IS* engaged and in working condition.

# ASSEMBLY INSTRUCTIONS FOR L&L DURA-FIRE KILNS

## ASSEMBLING THE STAND

Next, using the enclosed stand hardware, assemble the kiln stand. If ordered, also use the vent system components and hardware to finish assembly of the kiln stand.

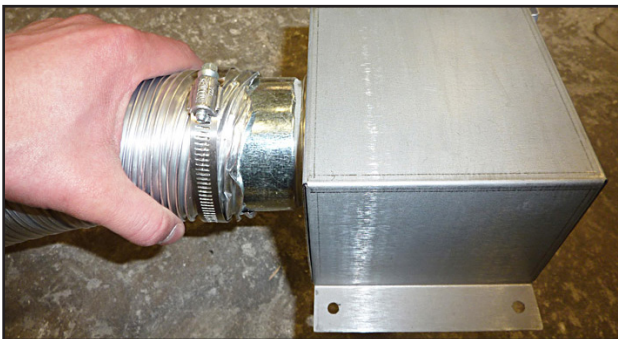
1) Assemble the stand legs. **Make sure all the stand legs are tight.** Use a nut driver or an adjustable wrench to do this. NOTE: If you did not order a vent then your stand is completely assembled after this step.

**Each leg gets bolted to the stand with two 1/4-20 bolts provided. They do not need nuts:**



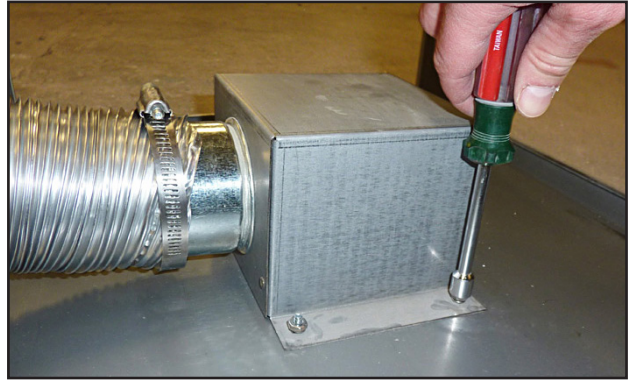
2) Attach the flexible vent tube to the outlet of the vent collection box. It takes some patience to get the flexible tube around the fitting. Tighten the Breeze clamp to secure the duct to the outlet.

**Installing the flexible duct onto the bypass collection box of the vent-sure vent system:**

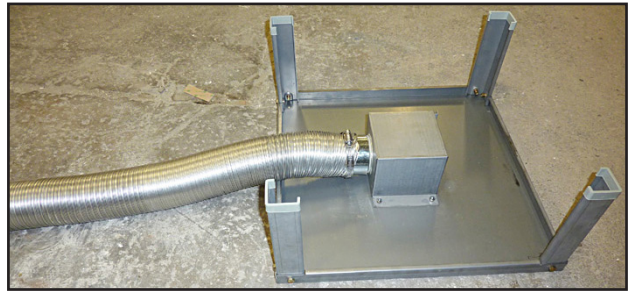


3) Attach the bypass collection box using the studs that are secured to the bottom of the stand and the supplied mounting hardware, four 10-24 nuts and lock washers.

*The bypass collection box fits over four studs on the bottom of the stand. The lock washers are used between the bypass box flanges and the nuts:*



**The fully assembled stand:**



## DISENGAGING THE SPRING-HINGE AND REMOVING THE LID

The next step is to remove the lid from the kiln which can only be done once the spring hinge has been disengaged.

**The hinge is shipped assembled (with the spring engaged). This way you can see how it all goes back together:**



1) Unclasp the latch underneath the lid handle and open the kiln lid to its fullest extent.

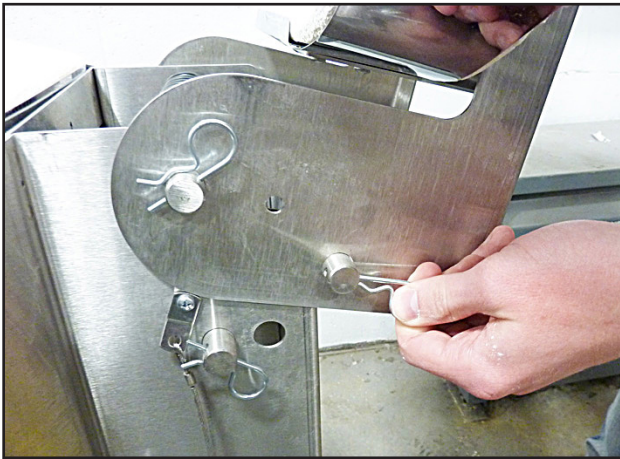
# ASSEMBLY INSTRUCTIONS FOR L&L DURA-FIRE KILNS

*The kiln with the lid opened:*



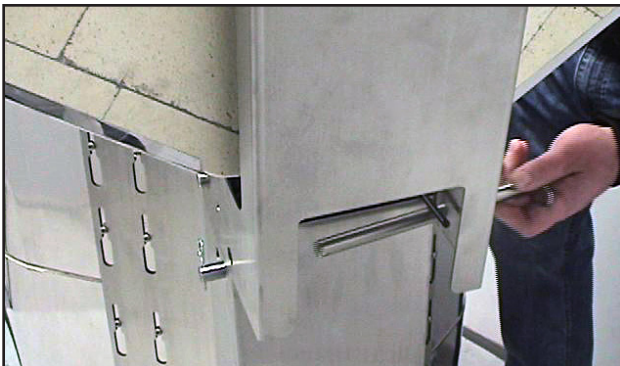
2) Remove one of the cotter pins from the top-most hinge bar that only goes through the lid bracket.

**Removing a cotter pin from the top-most bar:**



3) Slide out the top-most hinge bar, set this aside with the cotter pin that you already removed.

**Removing the top-most bar:**



4) Carefully close the lid of the kiln. **NOTE:** By removing the top-most hinge bar the springs have been disengaged and the full weight of the lid will now exert its downward force. Use caution when performing this step.

**The closed lid without the top-most hinge bar:**



5) Remove one of the cotter pins from the middle hinge bar. This is the one that runs through the springs.

**Removing a cotter pin from the middle bar:**



6) Grasp both of the springs with one hand and carefully slide out the middle hinge bar. The springs will be freed once the bar has been removed. Set this all aside, along with the cotter pin that you already removed.

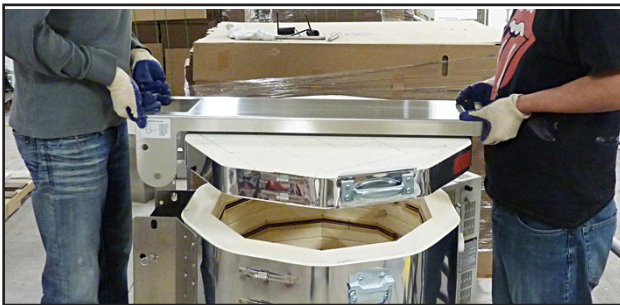
# ASSEMBLY INSTRUCTIONS FOR L&L DURA-FIRE KILNS

*Removing the middle bar and springs:*



7) Your lid is now free of the kiln rings and can carefully be removed.

*Lifting the lid off of the kiln body:*



**NOTE ABOUT D18S, D18T, D23S, and D23T HINGES:** These standard hinges are simple and are shown on page 18. However, if the D23S or D23T was ordered with the spring hinge upgrade, refer to the hinge instructions for the corresponding D28 kiln.

## **MOVING THE KILN WITHOUT DISASSEMBLING IT**

SEE THE CAUTION NOTE ON PAGE 1 OF THESE INSTRUCTIONS. THIS TAKES TWO OR THREE STRONG PEOPLE TO DO.

### **Moving a D18S, D18T, D23T or D28T:**

1) Remove the lid because this is easy and removes much of the weight. 2) Prepare the stand and place the floor slab on the stand. 3) Pick the the kiln up by the chest handles on the bottom kiln section and place the three connected sections on the floor slab.

### **Moving a D23S or D28S:**

1) Remove the lid because this is easy and removes much of the weight. 2) Prepare the stand. 3) Pick up the kiln by the front chest handle attached to the kiln floor and by the hinge. 4) Place the entire unit on the prepared kiln stand.

**CAUTION:** It is important to lift the two-section kilns up by the handle on the floor slab because the hinge is attached to the floor slab in the back of the kiln. You will damage the floor slab if you do not follow this procedure.

Go to "LOCATING THE KILN" on page 13.



# ASSEMBLY INSTRUCTIONS FOR L&L DURA-FIRE KILNS

## REMOVING THE HINGE

1) Loosen the screws of the large hinge piece that holds the three rings together (or the two rings and bottom).

**WE RECOMMEND NOT REMOVING SCREWS.** The teardrop holes will allow you to remove the hinge piece without taking the screws out. If you take the screws out it increases the chance of stripping a screw. Even though there are plenty of screws to take the load it is best to avoid stripping them.

2) Gently pull the ring hinge piece up and away from the kiln.

***Pulling the hinge piece up and away from the kiln. It should slide up easily. If not check all the screws because it only takes one screw that is not loose enough to prevent the hinge piece from sliding up:***



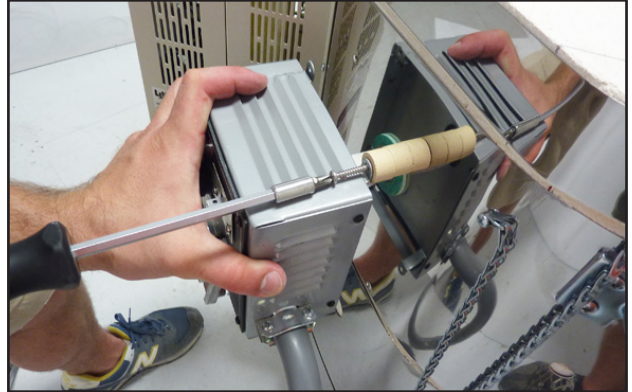
## REMOVING THE KILN SITTER, CONTROL PANEL, AND ELEMENT COVER AS ONE ASSEMBLY

You have two choices. You can remove the Control Box and Element Cover Box as ONE assembly, along with the AutoCone Kiln Sitter, or you can first remove the Control Box with the AutoCone Kiln Sitter from the Element Cover Box and then remove the Element Cover Box. The easiest method, in our opinion, is to remove the whole assembly. However, both methods are given.

1) Remove the four screws that hold the AutoCone Kiln Sitter to the kiln. Take care not to lose any of the ceramic spacers as the screws are pulled out. Set these

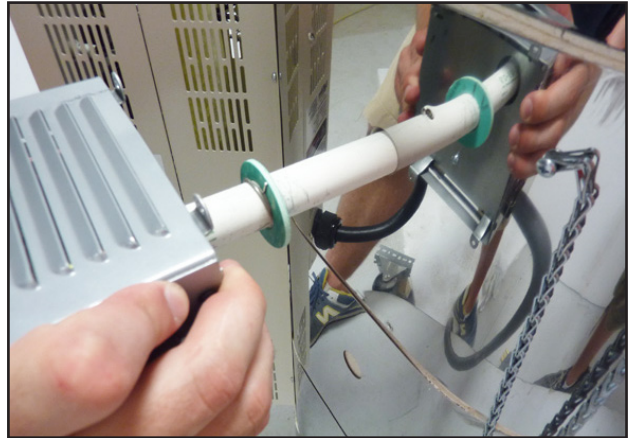
all aside.

***Removing the four screws that hold the kiln sitter to the kiln:***



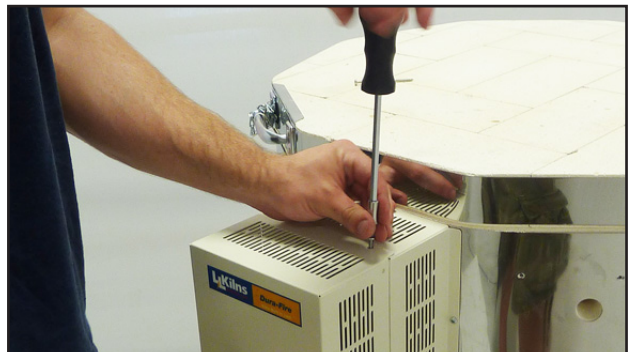
2) Gently pull the Kiln Sitter assembly out and away from the kiln.

***Pulling the kiln sitter out of the kiln ring:***



3) Remove the two screws, that hold the outer portion of the control panel to the element terminal box, set these aside.

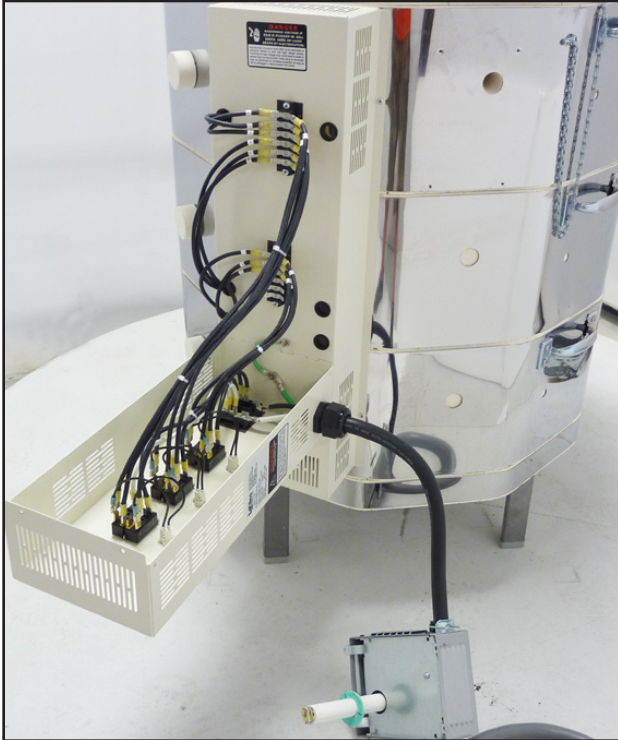
***Removing the two screws that hold the control box closed:***



## ASSEMBLY INSTRUCTIONS FOR L&L DURA-FIRE KILNS

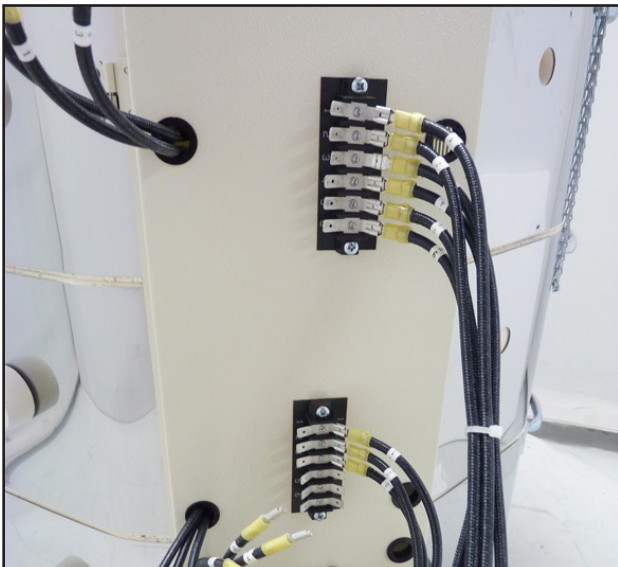
4) Hinge the Infinite Switch portion of the control panel down exposing the wire connection terminals.

**The control box hinged down:**



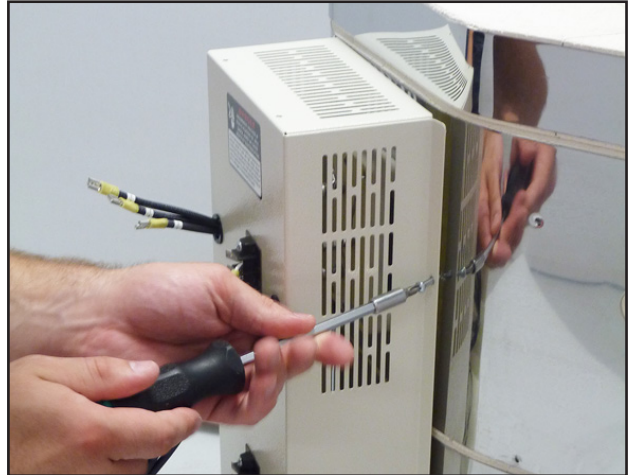
5) Remove the wires numbered 1 through 6 from the left side of the upper Power Terminal Strip, and wires numbered 1 through 3 from the left side of the lower Power Terminal Strip.

**Wires shown disconnected:**



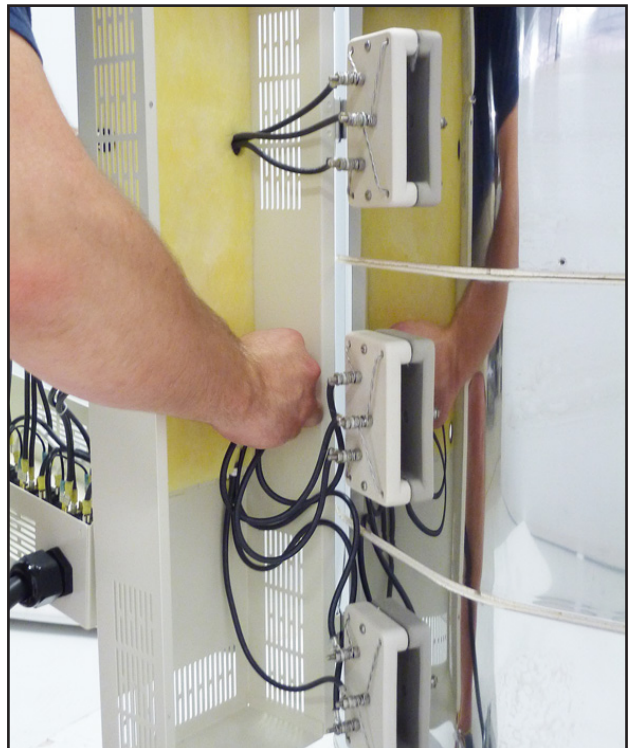
5) Remove the two screws that hold the Element Cover Box to the kiln, these are on the right side of the Cover Box, set these aside.

**Removing the two screws that hold the element cover box closed:**



6) Swing the whole assembly away from the kiln body, to the left, carefully feeding the element and thermocouple wires through their respective holes

**Swinging the whole assembly to the left and removing the wires:**



# ASSEMBLY INSTRUCTIONS FOR L&L DURA-FIRE KILNS

7) Gently lift the whole assembly off of the hinges on the left of the Element Cover Box.

**Lifting the whole assembly off of the kiln body:**



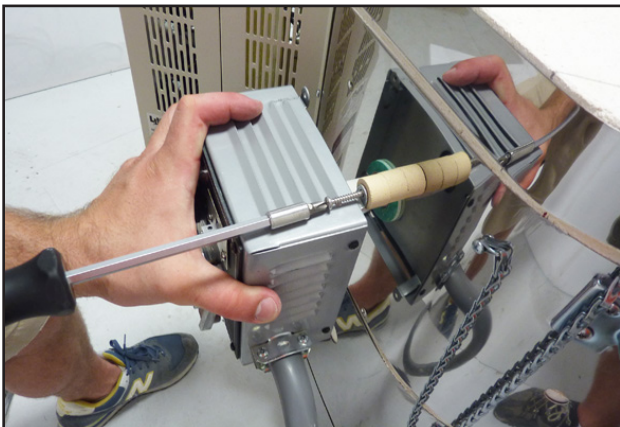
8) Now skip to the the section called “LOCATING THE KILN”.

## REMOVING THE KILN SITTER

This is method number two.

1) Remove the four screws that hold the AutoCone Kiln Sitter to the kiln. Take care not to lose any of the ceramic spacers as the screws are pulled out. Set these all aside.

**Removing the four screws that hold the kiln sitter to the kiln:**



2) Gently pull the Kiln Sitter assembly out and away from the kiln.

**Pulling the kiln sitter out of the kiln ring:**



## REMOVING THE CONTROL BOX

1) Remove the two screws, that hold the outer portion of the control panel to the element terminal box.

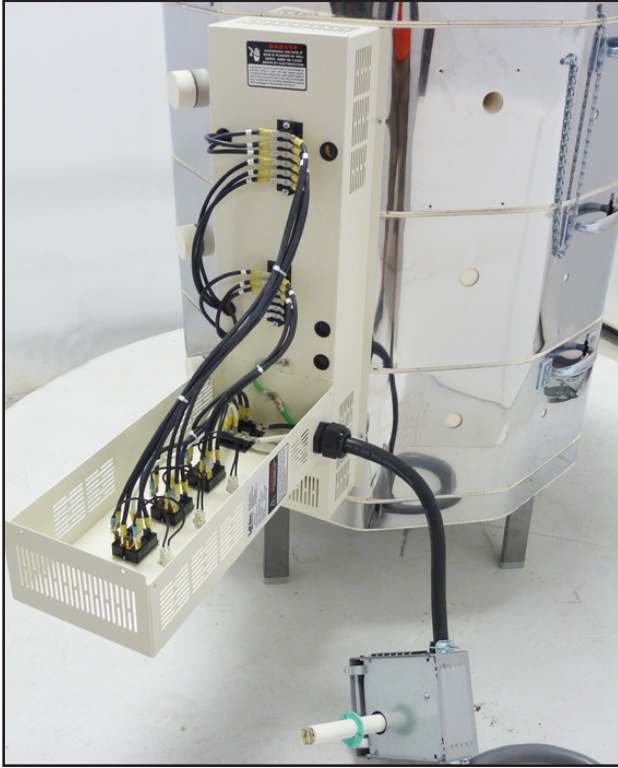
**Removing the two screws that hold the control box closed:**



# ASSEMBLY INSTRUCTIONS FOR L&L DURA-FIRE KILNS

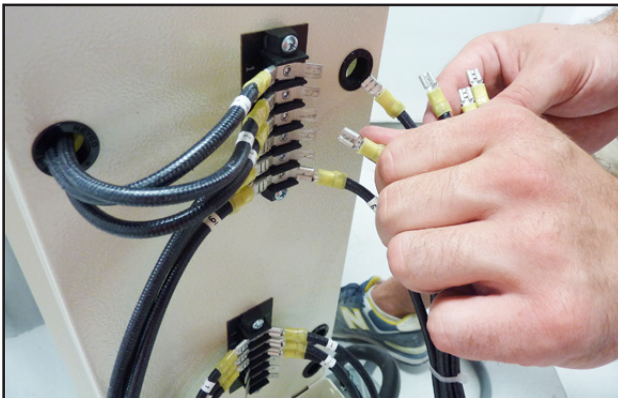
2) Hinge the Infinite Switch portion of the control panel down exposing the wire connection terminals.

**The control box hinged down:**



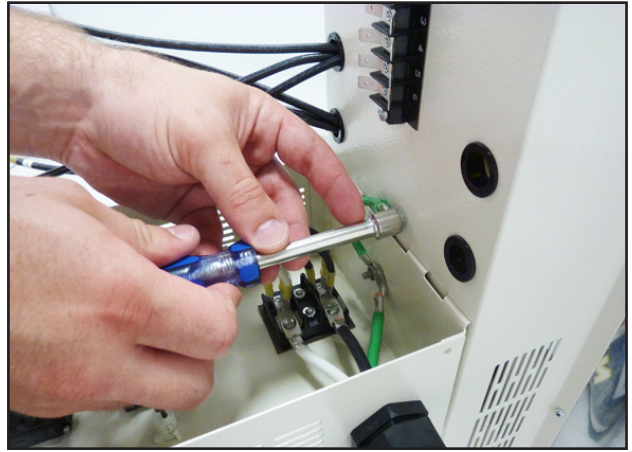
4) Remove wires numbers 1 through 6 from both sides of the upper Power Terminal Strip, and wires numbered 1 through 3 from both sides of the lower Power Terminal Strip.

**Disconnecting the power wires:**



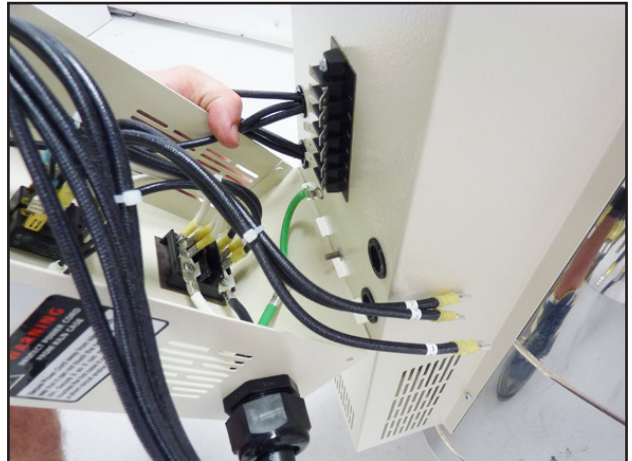
5) Remove the green ground that connects the front panel to the rear panel.

**Removing the ground wire:**



6) Tilt the control panel halfway back to its original position and gently pull the panel from the element box and set aside. It will take a combination of pulling slightly up and slightly out to disengage the control panel from the element terminal box.

**Removing the control box:**



## REMOVING ELEMENT COVER BOX

If you prefer you can remove the box using the method shown on page 7 instead.

1) Remove the two screws that hold the Element Cover Box to the kiln, these are on the right side of the Cover Box, set these aside.

# ASSEMBLY INSTRUCTIONS FOR L&L DURA-FIRE KILNS

**Removing the two screws that hold the element cover box closed:**



2) Swing the Element Cover Box away from the kiln body, to the left, carefully feeding the element and thermocouple wires through their respective holes

**Swinging the element cover Box to the left and removing the wires**



3) Gently lift the element cover box up and remove from the kiln sections.

**Removing the element cover box from the kiln:**



4) You are now ready to set up the kiln.

## LOCATING THE KILN

1) Place the stand on the floor in the desired location. This should be set so that the outside stainless steel surface of the kiln will be at least 12" to 18" from any combustible wall. Floor must be nonflammable.

Information concerning clearances, ventilation and electrical requirements is detailed in the INSTALLATION Section. Read now if you are uncertain about any of these issues. **DON'T PROCEED UNTIL YOU ARE COMFORTABLE WITH THE LOCATION THAT YOU SELECT.** You don't want to do this job twice.

2) Place bottom floor section of kiln on the stand, making certain it is centered properly.

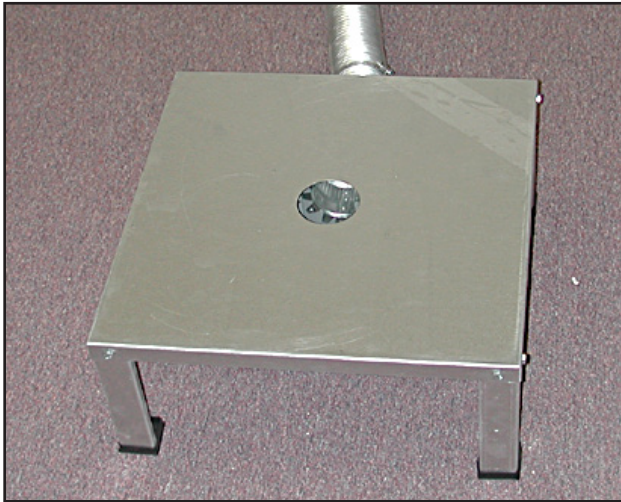
3) Note that the kiln bottom is packed on top of the kiln so it is easily removed first without moving the kiln.

# ASSEMBLY INSTRUCTIONS FOR L&L DURA-FIRE KILNS

## SETTING UP THE KILN

1) Place the stand in your desired location making sure to face the flexible duct work toward the wall that the kiln will be vented through.

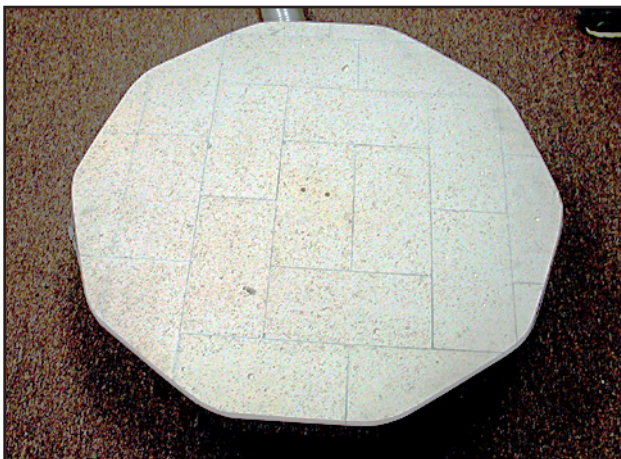
*The stand in position on the floor:*



2) You're now going to build the kiln from the bottom up.

3) Place the bottom of the kiln on the kiln stand, make sure the holes for the vent, if ordered, line up with the large 3" hole on the kiln stand. Center the bottom brick on the stand. It is not critical how the polygonal corners are oriented to the square stand.

*The kiln base positioned on the stand:*



4) **LEVEL THE KILN NOW!** Do this before proceeding because at this point it is easy to put a level on the flat bottom. Use metal shims under the legs to accomplish the leveling. We suggest using a carpenter's level for this job. Make sure that the base will not wobble.

### WHY IS LEVELING SO IMPORTANT?

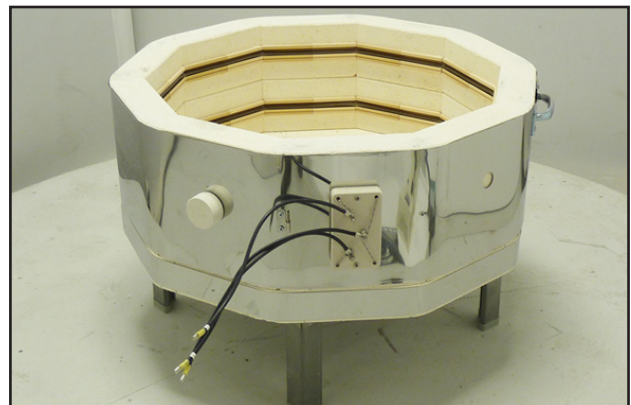
If the stand and the bottom are not level your kiln shelves will not be level and loading will be difficult. Kiln shelves loaded with ceramic ware are like a house of cards to begin with - don't make it any harder!

Also - an uneven floor will quickly become a cracked floor. There should be equal support under each leg of the stand so the floor does not rock back and forth.

Be patient about doing this right as you are assembling the kiln. Once you have put the kiln sections on the bottom of the kiln you will not feel like taking it off - so it is important to have this base be level to start with.

5) Place the kiln section with the long #1, #2, & #3 element lead wires on top of the kiln bottom (this will not exist for a D18S, D23S, or D28S so skip to the next step if you have one of those kilns).

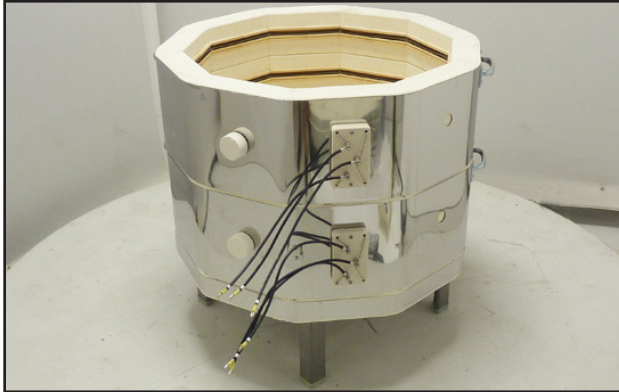
*Positioning the bottom ring on the base:*



6) Place the kiln section with the #4, #5, & #6 on the element lead wires on next.

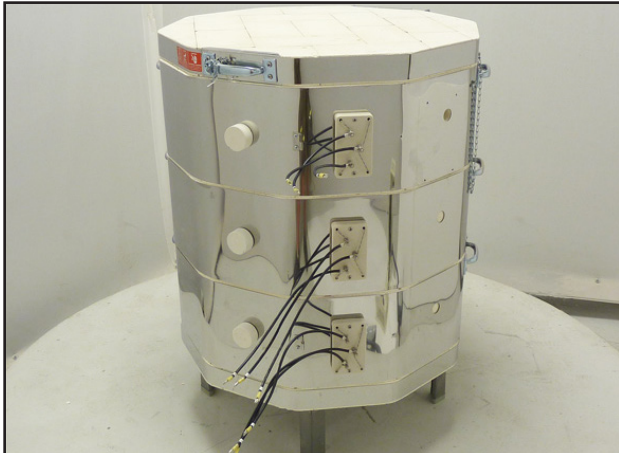
# ASSEMBLY INSTRUCTIONS FOR L&L DURA-FIRE KILNS

## Positioning the middle ring:



7) Place the kiln section with the #1, #2, & #3 on the element lead wires on the top ring of the stack.

## Positioning the top ring with the simple hinge, and lid:

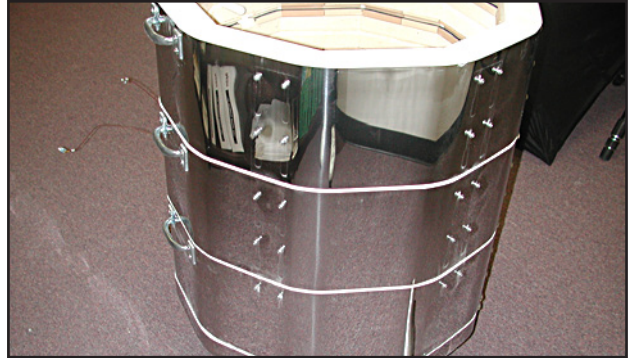


8) You are now ready to reattach the spring hinge.

## SETTING UP THE HINGE

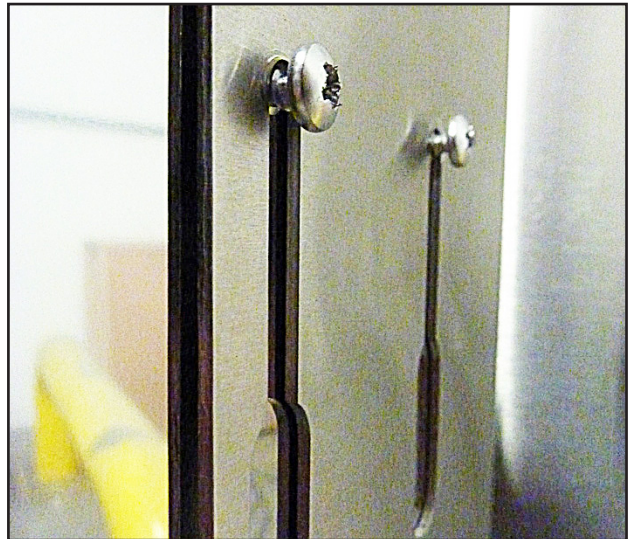
1) Notice that on the back of the kiln that the mounting screws for the hinge line up. There should be 20 total, 10 on each side.

## The mounting screws lined up:



2) Reattach the Kiln Bracket to the back of the kiln by dropping it onto the screws on the kiln sections. If the screws on the kiln don't perfectly line up with the holes in the bracket, gently maneuver the bracket until you have all the screw heads into the keyhole slots. Let the bracket drop so that the top of the slots rest against the screws. **Do not tighten the screws at this time.**

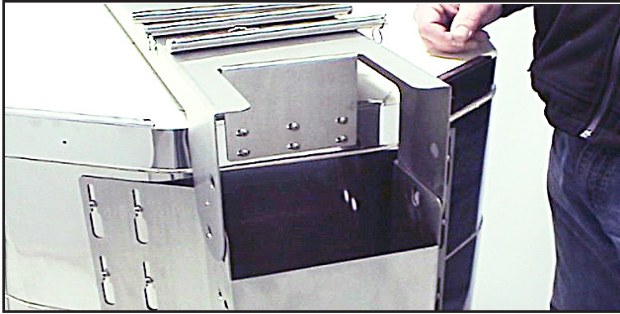
## The slots resting on the loose screws:



3) Set the Lid onto the top ring of the kiln, making sure the lid flange fits around the outside of the kiln bracket.

# ASSEMBLY INSTRUCTIONS FOR L&L DURA-FIRE KILNS

## The Lid as ready for hinge installation:



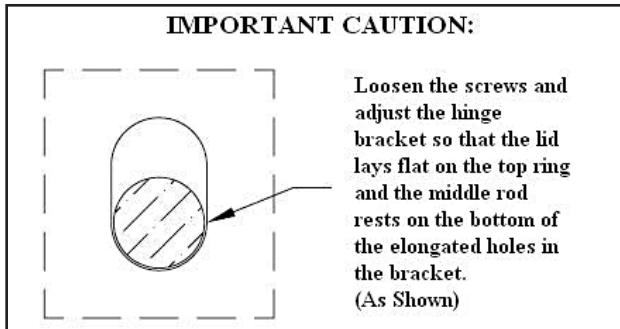
4) Slide one of the 3 metal rods through the middle set of holes. You will notice that the holes on the kiln bracket are elongated circles.

## Sliding in the middle rod:



5) Adjust the height of the bracket by sliding it upwards until the metal rod you inserted in the middle set of holes rests on the bottom ends of the elongated circular holes.

## Positioning the hinge bracket:



6) Tighten each of the 20 screws to secure the Hinge Bracket in this position.

**CAUTION:** It is critical that the hinge bar sits in the bottom of the slot. This is to allow the lid to rise and lower slightly as the kiln heats and expands with out putting stress on the lids connection points and potentially damaging the lid.

7) Remove the middle metal rod. Hold the two hinge springs on the inside of the hinge bracket chamber and slip the rod back through the holes and through the center of the springs. Ensure that the outer spring ends are sitting on either end of the back of the bracket.

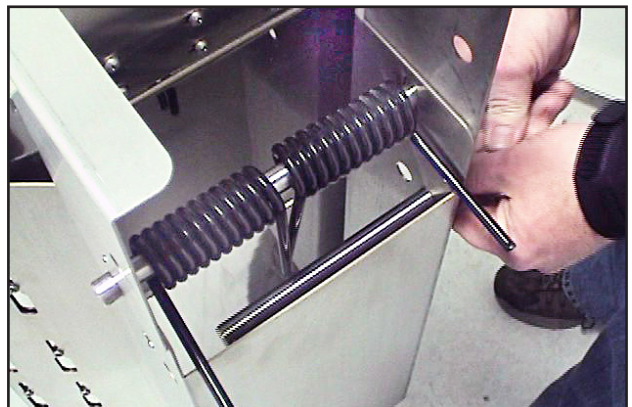
## Installing the middle rod and springs:



8.a) If you left the bottom metal rod in the kiln bracket ensure that the inner spring ends rest against the inside face of the rod, closest to the kiln body.

8.b) Take the second metal rod and run it through the bottom set of holes on the kiln bracket. Make sure that the inner spring ends stay towards the kiln. This will create tension when the spring is loaded.

## Installing the bottom-most rod:

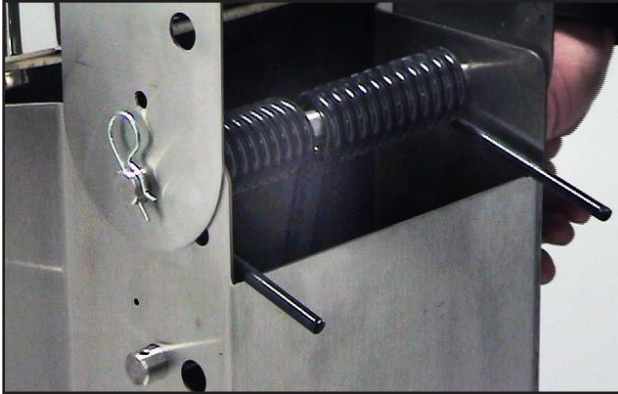




## ASSEMBLY INSTRUCTIONS FOR L&L DURA-FIRE KILNS

9.) Once the two metal rods are set in place, set the Cotter Pins in place at each end of the rods.

### **Setting the cotter pins:**



10) Carefully raise the lid until the top set of holes passes below the spring ends that are resting on the back of the bracket. Once this occurs, slide the third and final metal rod through the holes on the lid flange.

### **Installing the top-most rod:**



11) Once the metal rod is set in place, set the Cotter Pins in place at each end of the rod.

### **The properly Installed spring hinge open:**



12) You will see that when the lid is lowered, this metal rod will catch the spring ends and the weight of the lid

will be reduced as the lid is now properly installed.

### **The properly Installed spring hinge closed:**



### **OPTIONS:**

There is another set of holes on the Kiln Bracket if you find that the tension provided from the original configuration is insufficient. Simply try the second set of holes in the same manner as in step 5.

### **WARNING:**

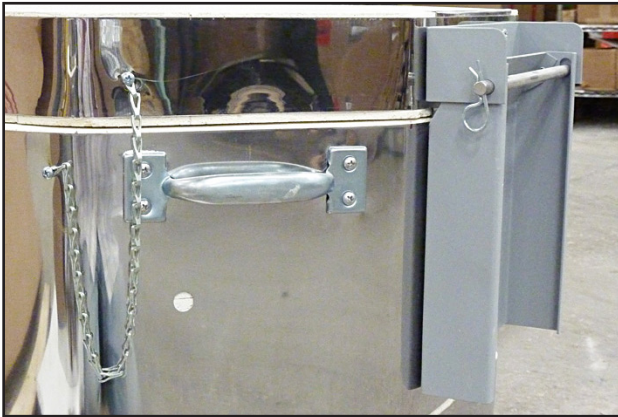
Only use one of the two sets of hole configurations. Never use both.

# ASSEMBLY INSTRUCTIONS FOR L&L DURA-FIRE KILNS

## ADJUSTING THE SMALL NON-SPRING HINGE

- 1) The non-spring hinge is a very simple system that employs a hinge bar, brackets for the top ring and lid, and support chains between the lid and top ring.
- 2) To take apart the hinge simply pull out one of the cotter pins, remove the hinge bar, and unscrew the screws that hold the support chains in place.

### *Closed lid with a standard hinge:*



- 3) If the brackets are ever adjusted you must ensure that the hinge rod rests on the bottom ends of the elongated circular holes. Move the ring bracket up or down to achieve this result.

### *Positioning the hinge bracket:*



**CAUTION:** A Screw Hook is included with the non-spring hinge. This should be secured in a stationary position behind the kiln and be used in conjunction with the chain on the lid handle to prevent the lid from falling when open.

# ASSEMBLY INSTRUCTIONS FOR L&L DURA-FIRE KILNS

## REASSEMBLING THE CONTROL PANEL

### If you removed the control panel as one assembly

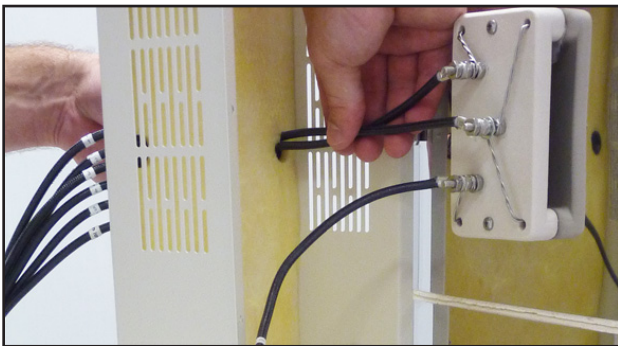
1) Take the Control Box and Element Cover Box Assembly and position the hinges that are attached to the left of the Element Cover Box above the hinge pieces on the kiln body, to the left of the Element Connection Boards. Lower it into place.

#### Reattaching the element cover box:



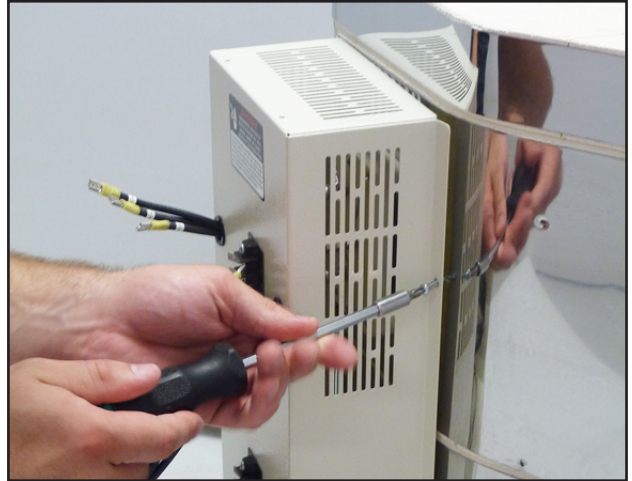
2) Leave the assembly swung out away from the kiln body. Push the element and thermocouple wires through their respective holes in the Element Cover Box.

#### Feeding the wires back through the holes:



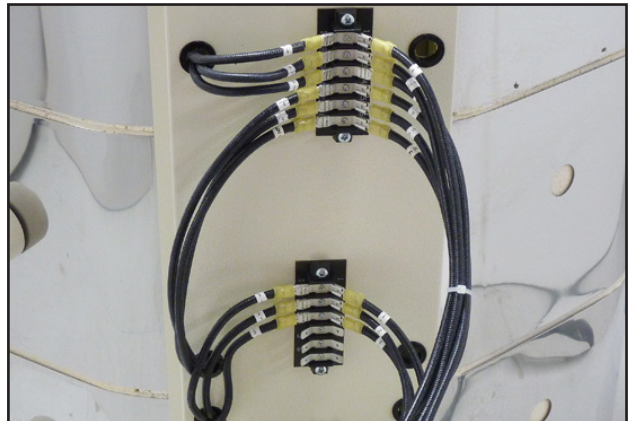
3) Push the Element Cover Box up against the kiln. Insert and tighten the screws back into the right side of the Cover Box.

#### Tightening the element cover box screws:



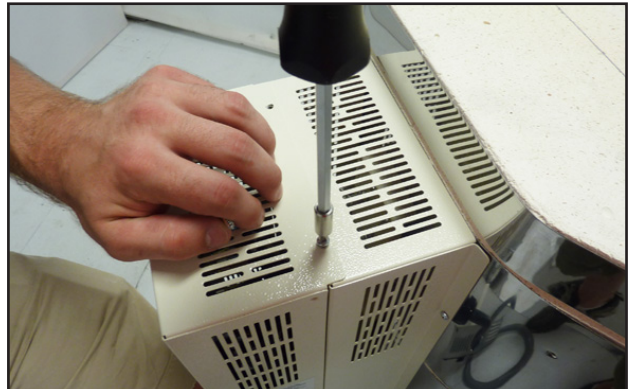
4) Attach all the power wires to their proper place on the terminal boards. They are numbered for convenience.

#### Wires properly reinstalled:



5) Close the Control box and screw in the two screws that hold it in place at the top of the Element Cover Box.

#### Tightening the control box screws:



## ASSEMBLY INSTRUCTIONS FOR L&L DURA-FIRE KILNS

6) Carefully slide the Kiln Sitter tube back through its hole in the kiln ring.

**Sliding the kiln sitter back into place:**



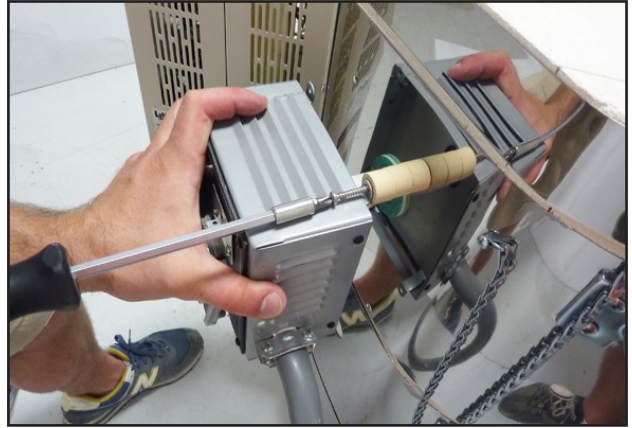
7) Position the Kiln Sitter so that the four mounting holes match up with the four holes in the ring casing. Position three ceramic spacers behind each mount.

**Positioning the kiln sitter with ceramic spacers:**



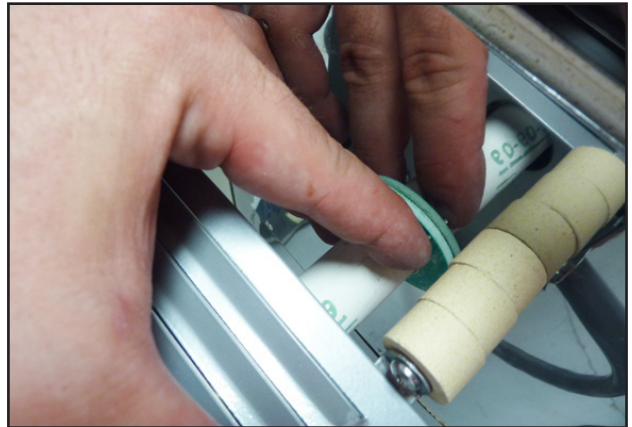
8) Secure the kiln sitter to the kiln ring by tightening all of the screws until the ceramic spacers are flush against the metal casing. Do not over tighten the screws as mounting plates are not used with kiln sitters.

**Securing the kiln sitter with ceramic spacers in place:**



9) Seal the opening around the kiln sitter tube assembly by pressing the gasket firmly against the metal casing and maneuvering the spring tightly against it.

**Sealing the gasket against the metal with the spring:**



# ASSEMBLY INSTRUCTIONS FOR L&L DURA-FIRE KILNS

## **REATTACHING ELEMENT COVER BOX**

### **If you removed the panel separate from the element cover box:**

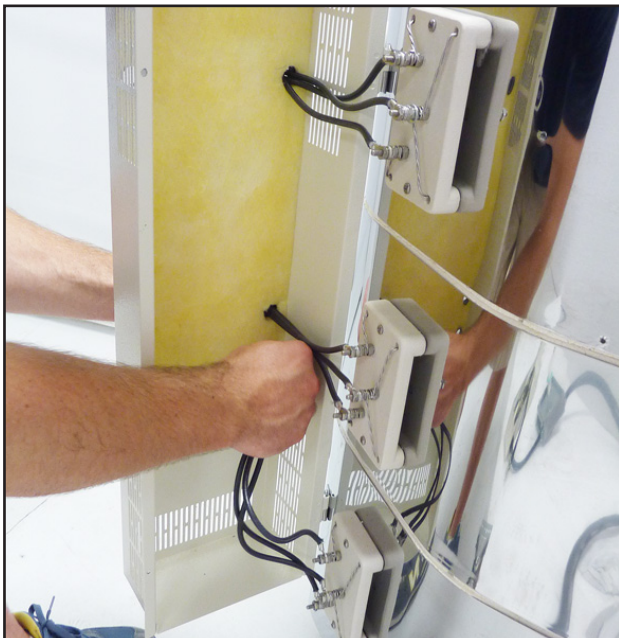
1) Take the Element Cover Box Assembly and position the hinges that are attached to the left of the Element Cover Box above the hinge pieces on the kiln body, to the left of the Element Connection Boards. Lower it into place.

#### ***Reattaching the element cover box:***



2) Leave the assembly swung out away from the kiln body. Push the element and thermocouple wires through their respective holes in the Element Cover Box.

#### ***Feeding the wires back through the holes:***



3) Push the Element Cover Box up against the kiln. Insert and tighten the screws back into the right side of the Cover Box.

#### ***Tightening the element cover box screws:***

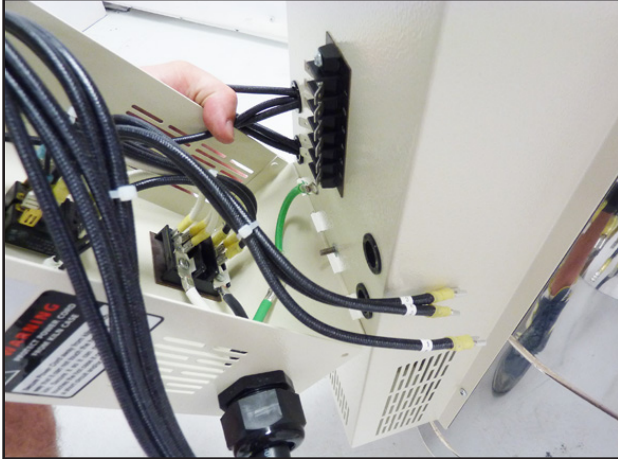


5) You are now ready to reattach the hinge portion of the infinite switch panel.

# ASSEMBLY INSTRUCTIONS FOR L&L DURA-FIRE KILNS

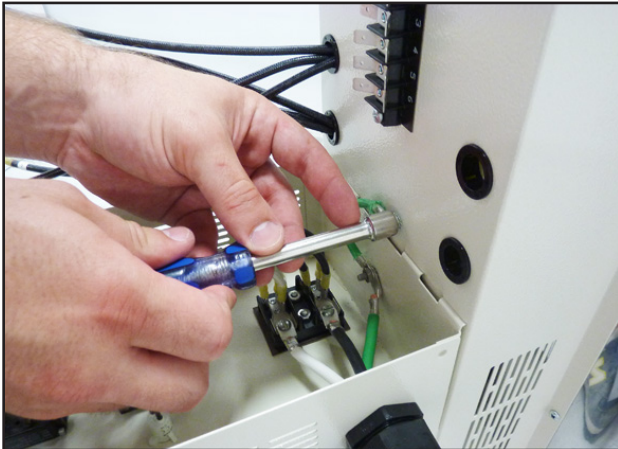
## REATTACHING CONTROL BOX

1) Place the tabs on the control panel box back in to the appropriate slots on the element cover box.



2) Reattach the ground wire to the ground lug from the control box to the element cover box.

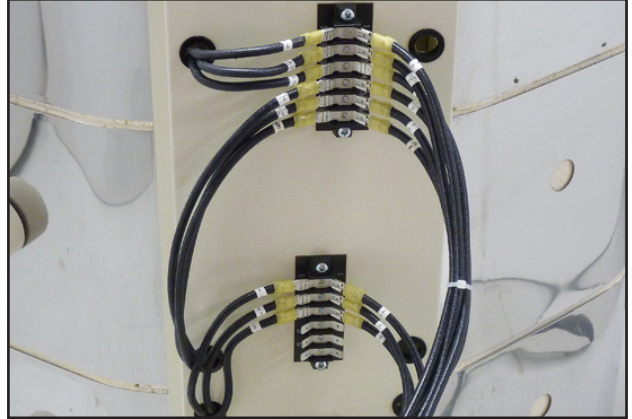
### Reattaching the ground wire:



**CAUTION:** Lock washers must be used on both ends of the ground wire to ensure a good electrical connection; otherwise shock may not be prevented in the case of a short circuit.

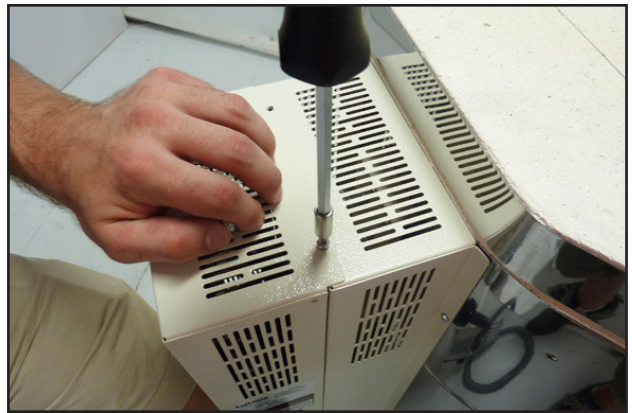
3) Reattach all power wires to the appropriate numbered terminals.

### Power wires properly reinstalled:



5) Raise the panel and replace the two screws at the top and tighten making sure to keep the thermocouple lead wires and the power connect wires from getting pinched in the panel.

### Tightening the control box screws:



# ASSEMBLY INSTRUCTIONS FOR L&L DURA-FIRE KILNS

## REATTACHING THE KILN SITTER

1) Carefully slide the Kiln Sitter tube back through its hole in the kiln ring.

*Sliding the kiln sitter back into place:*



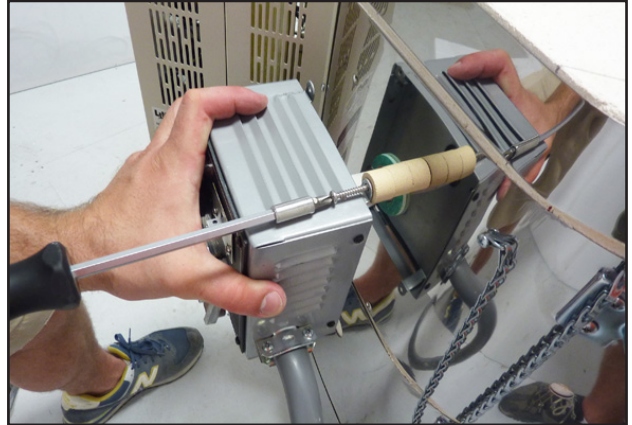
2) Position the Kiln Sitter so that the four mounting holes match up with the four holes in the ring casing. Position three ceramic spacers behind each mount.

*Positioning the kiln sitter with ceramic spacers:*



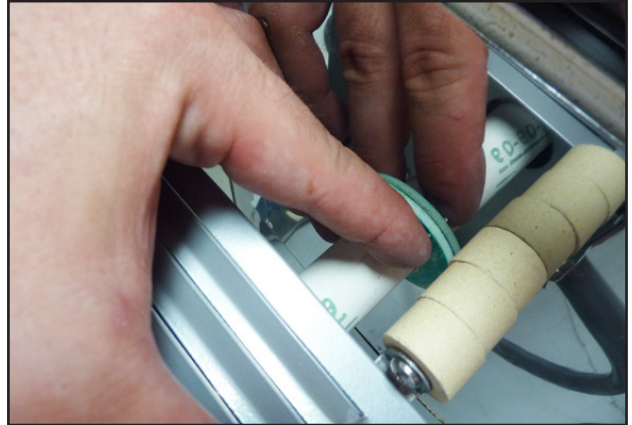
3) Secure the kiln sitter to the kiln ring by tightening all of the screws until the ceramic spacers are flush against the metal casing. Do not over tighten the screws as mounting plates are not used with kiln sitters.

*Securing the kiln sitter with ceramic spacers in place:*



4) Seal the opening around the kiln sitter tube assembly by pressing the gasket firmly against the metal casing and maneuvering the spring tightly against it.

*Sealing the gasket against the metal with the spring:*



5) Your kiln is now fully assembled and ready to operate.