



Transformer Kiln Package Addendum

Congratulations on the purchase of your new kilns with the Transformer Package. The Package should already be installed on your kiln and programmed to run your kiln as separate units (not stacked). The controller for your kiln is for the most part exactly the same as a standard KilnMaster Controller so for basic operations you will use the KilnMaster Manual that came with your kiln.

The Package Includes

- Customized Transformer Controller
- Extended Power Cord For Each Kiln Ordered with Package (18 FT)
- Communication Ports Mounted to Outside of Each Control Box
- Modular Cable for Connecting the Control Boxes
- 1 Reinforced Heavy Duty Welded Stand

How it Works

Two Menu features have been altered on the controller to allow you to configure the Transformer Settings: 2 Key Press and ID. Both may be found under the Configuration Menu which is accessed through the Menu button on your controller. The 2 Key Press feature is used to change the kilns from Standard Mode to Transformer Mode. Once all the kilns being stacked have been toggled "ON", the kilns are designated as a Primary or a Secondary kiln by toggling them to the desired setting using the ID Menu feature.

Only one kiln will be designated as the Primary Kiln (1) and the other one or two kilns (depends how many you are stacking) will be set as Secondary Kilns (2 and 3). The Kiln Controller designated as the Primary will be the only one you need to program after that.

Once the kilns are stacked, designated, connected and programmed the Primary Kiln will give instructions to the Secondary kilns to cycle on or off to maintain the program entered.

INSTALLATION

1. Follow the installation instructions for PK kilns in your KilnMaster Manual. Be sure to place the kiln which will be setting on the Heavy Duty stand in the middle so the cords from the other kilns can easily reach when they are stacked.

STACKING THE KILNS

Your Transformer package came with 1 heavy duty welded stand and two standard stands. You will always use the Heavy Duty Stand as the base when stacking kilns. Since it will be necessary to remove certain components it is a good idea to have spot designated for placing and storing them until they will be reinstalled. Obviously a kiln can only use one lid and slab so you will need remove the ones you will not be using. It is important to keep the kiln sections in the ordered they were assembled in the factory when you are stacking and unstacking the kilns. This will ensure that boxes fit properly on the kilns when they are reattached. It is also a good idea to keep the lids and slabs with the kilns they were installed to ensure proper fitting.

TRANSFORMER ADDENDUM CONTINUED

STACKING THE KILNS CONTINUED

1. Turn off all power to all the kilns you will be stacking.
2. Follow the instructions for de-tensioning and removing the lids of all the kilns you will be stacking.
3. Follow the instructions for Disassembling PK Kilns in your KilnMaster Manual and remove the control boxes on the kilns you will be stacking beginning with the one which will be on the bottom (the one sitting on the Heavy Duty Stand).
4. Remove the top section of the kiln sitting on the Heavy Duty Stand and place it on the floor. Stack the middle section on the bottom section and the top section on the middle section. This places the sections in reverse order so when you stack them over your piece they will be in the correct order. Repeat this for all kilns to be stacked.
5. Place a full 1" kiln shelf posted up approximately 1 inch from the slab of the kiln sitting on the Heavy Duty Stand. Position the piece you are firing so it is centered on the shelf. Make sure to measure the piece to make sure the sections will fit over it with at least 1.5 inches of clearance from the kiln walls and thermocouples and 2 inches from the lid when the kiln is assembled.
6. Begin stacking the sections over the piece in the correct order. You will most likely need two people and possibly two ladders. Be careful not to hit the thermocouples.
7. When you get to the 4th section (the bottom section of the 2nd kiln) stagger the heat shield by one brick facet towards the direction of the outlet for that kiln. This will make it easier to install the control boxes and allow them better ventilation. Stagger the third kiln sections in the opposite direction.
8. Place the lid on top of the kiln. It is probably not necessary to install the lid since you will need to unstack the kiln again to remove the piece. Make sure it is perfectly centered so no heat can escape.
9. Be sure to buckle the sections together and then follow the instructions in the KilnMaster Manual in reverse order to reattach the kiln boxes. Make sure all of your wire connections are very tight.
10. Link the control boxes using the modular control cable.

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PK KILN ADDENDUM CONTINUED

PROGRAMMING YOUR TRANSFORMER KILN

Configure Each Kiln To Transformer Mode

1. From Idle Mode press MENU
2. Continue to press Menu until the display reads CNFG and then press ENTER
3. Continue to press MENU until the display reads 2KEY and press ENTER
4. Press the 1 key to toggle the display to read ON and press ENTER
5. Repeat process for each kiln being stacked.

Designate the Kilns as Primary or Secondary

When firing the kilns together stacked, one kiln is designated as Primary (1) and the others are designated as either Secondary (2 or 3) . It does not matter which kilns are designated as Primary or Secondary as long as they are each designated different.

1. From Idle Mode press MENU
2. Continue to press Menu until the display reads CNFG and then press ENTER
3. Continue to press MENU until the display reads ID and press ENTER
4. Press 1 to designate the kiln as Primary, press 2 to designate the kiln as secondary and if you are connecting 3 kilns press 3 to designate the 3rd kiln. Then press ENTER.
5. Repeat process for each kiln being stacked.

Entering Your Program

1. Enter your program on the kiln with the controller that was set as the Primary (1).
2. Press START.

The display will read ----. The Primary is now trying to communicate with the Secondary kilns. After a few seconds, the controller will display SLV1 or SLV2 to indicate the number of Secondary kilns it found.

3. If the number of Secondary Kilns is correct, press ENTER. Any other key will go back to IdLE.

The display of the Primary Kiln will show ON. The Primary kiln is transferring and verifying the program. If there are no errors the Primary will send a start command to the Secondary kilns. The Secondary kiln displays will then read ON and send their temperature readings back to the Primary Kiln. You will now here the relays in all the kilns click on. The Primary will use the highest temperature reading to determine the traveling setpoint. The Primary will then send the traveling set point back to the Secondary kilns.

When the firing is complete the display will read cplt. In order for the program to advance from a Ramp to a Hold or to Complete all temperatures top to bottom must be within 20 degrees.

Monitoring the Firing

You can check the accuracy of the firing by pressing 1,2, or 3 on the controller set as the Primary. 1 will make all of the kilns display the temperature in the top section of each kiln. 2 will read the center and 3 will read the bottom section.

Error Codes

- E-S Indicates that the Primary cannot verify the last information sent to the Secondary.
 E-C Indicates the Secondary has not received a message from the Primary in the last 90 seconds.