



# Zone Control General Testing Procedure

## POWER PLUG

1. Check ground on power plug for continuity to kiln jacket.
2. Check hot blades on power plug for short to kiln jacket.
3. Perform di-electric test on kiln.

## PROGRAMING ZC KILNMASTER

1. Plug the unit into the appropriate power supply receptacle.
2. Ensure that the display reads "PF".
3. Push the "ENTER" key and wait for the display to read idle conditions.  
The display should alternately read "tc2", "idle" and the kiln temperature. (ambient)  
Ensure that the temperature reading is steady.
4. Push the "F/C" button and then the code 70. The display should read "rSet". Press "enter" to reset the kiln to default zone control values.  
Push the "F/C" button and then "Enter" to ensure the kiln reads in degrees C. The proper ambient reading should be around 20-25 degrees. Again the display will alternate between "tc2", "idle" and the kiln temperature Set the temperature back to degrees Fahrenheit.
5. Push the "CONE FIRE" BUTTON. The display should indicate cone 018. Enter the code number "909" and push enter. The display should indicate cone 018 again. Change the cone value to cone 04 by Entering 04 and pushing enter again. The display should indicate an offset value of "9000". Push enter again to accept this value. The display should now indicate cone 04. Push enter again and program the speed to medium. The display should now ask for a HOLD time of 00.00. Accept this holdtime by pressing enter. The display should now revert to the alternating tc, idle, and kiln temps. When programming is complete, push the review button and check the program for accuracy. The temperature value for cone 04 should be 1944 degrees. Press "review" and review the program.

### Review should show:

ConE 04  
 °F 1944  
 °FOS 9000  
 SPd MED  
 HOLd 00.00  
 dELA 00.00  
 ALAr 9999  
 tC1 °FOS 0000

(continued)

## ZONE CONTROL GENERAL TESTING PROCEDURE

tC2 °FOS 0000  
 tC3 °FOS 0000  
 ErrS ON  
 °FLg 0005  
 StOP  
 tC2 idLE 70 (ambient) (display alternating these 3 values)

6. Using the "RAMP/HOLD" mode and user program #1, program the kiln for a single ramp to 300 degrees at 800 degrees/hour with a 15 minute hold. Set the alarm to 9999. Verify this program by pressing the "REVIEW" button. The review display should have similar values as step 5 above.
7. Close the kiln lid and push "START". Observe the kiln for the following while waiting for the temperature to increase to at least 200 degs.:
  - \*Push the button 1 and check tc1 temp. Do the same with 2 and 3. The temperatures should be in the same general range. (plus or minus 20 degrees or so).
  - \*Ensure the display is constant with no fluctuations
  - \*Check the amperage for proper correlation with kiln type and voltage
  - \*Check the nameplate for proper kiln type, voltage, etc.
  - \*The elements should begin to smoke
  - \*Look for anything unusual
  - \*On lid interlock models, open the lid latch during a "power on" cycle and ensure that the kiln shuts off. Close the lid latch and ensure that the kiln resumes normal operation.
  - \*When the kiln reaches 200 degrees or buttons 1,2 and 3 show uniform temperature and heating, the test is complete.