

Vulcan Box Furnaces (50—1100°C)

- You may use these furnaces after carefully following the instructions below.
- Log on to instrument in FOM when you start and log off when you finish.
- Maximum temperature of 1100 °C. The maximum ramp rate of 40°C/min may overshoot your setpoint temperature so lower ramp rates may be desired.
- The furnaces have 3-stage control meaning three unique ramp/temperature/hold settings can be programmed. 6-stage control can be performed by running two programs in sequence (see below).
- Opening the door during operation should suspend power to the elements.
- Setup menu is accessed when the furnace is powered on:
 - To access the setup menu, press ENTER when SETUP? Is displayed.
 - END OF PROGRAM should be set to '3' which means the furnace will shut off at the end of the program.
 - If END OF PROGRAM is set to 1 or 2, the furnace will hold indefinitely at the final setpoint temperature
 - Do not adjust Tmax, Tcal, or Power Door settings.

Programming the furnace to run:

- 1) Press a number 1 through 9 to access a program number (if desired).
 - a. Estimated run time will be displayed.
 - b. Program 0 is a single setpoint program that will hold a set temperature till the STOP button is pressed.
- 2) To set Ramp/Temperature/Hold times for stages 1,2,3 (stage 1,2, or 3 lights will light when pressing buttons below) :
 - a. Press R to set ramps rates for stages 1,2,3 (0 to 40°C/min).
 - b. Press T for stage 1,2,3 setpoint temperatures (50 to 1100°C).
 - c. Press H for stage 1,2,3 hold times (0 to 99:59 hours).
- 3) For air-exchange furnace only (3-1750A furnace), the air exchange fan speed can be set:
 - a. Press A once to set Stage 1 fan speed.
 - b. Enter 0 for off, 9 for full speed, then ENTER. (Setting of 9 is ~5 air exchanges per minute, and may reduce the maximum possible temperature).
 - c. Press A again to set fan speed for other stages, S1, S2, S3.
 - d. Fan speeds are stored in memory along with Ramp/Temperature/Hold settings.
- 4) Press S key to start the program or Press D for delay start duration, followed by S to start the delay timer.
- 5) Two programs can be linked to run in sequence to enable 6-stage programming.
 - a. Press the S key to start the current program.
 - b. Use the digit keys to enter the next program number, then ENTER.
 - c. The program cycle time displayed should be the combination of the two programs and the program number will alternate between the two selected programs.
- 6) Press STOP at any time to abort the current program

Consult the Vulcan Furnace Manual for explanation of any other features.