

TROUBLESHOOTING

ERROR CODES:

Err codes can be cleared from the display by turning the front panel power switch off and then on again.

Code	Description	Possible Cause
Err 1	Over Temperature	Temp > 1120°C, shorted thermocouple, shorted triac, shorted optotriac, wiring connections, computer PCB
Err 2	Open Thermocouple (TC)	Open TC tip, connection to TC, TC to PCB connection, computer PCB
Err 3	Temp > Tmax	Muffle temperature has exceeded the programmed limit temperature TMAX (see SETUP?).
Err 7	Brown-out	Low line voltage < 90VAC (<190VAC for 200-240V), wall socket shared with other loads, furnace connected with small extension cord
Err 8	EEPROM error	Parameter program memory error; computer PCB
Err 19	Line frequency	No line frequency detected, computer PCB

TROUBLESHOOTING THE VULCAN "3-" CONTROL

PROBLEM

CHECK LIST / CAUSES

Dead, Not Operating
No Power / Display

- Check power receptacle or outlet for power
- Check line or power cord connections
- Turn on green power switch

Not Heating
During Program
Operation

- Does the green power switch light when the Start key is pressed?
- No: - Is door completely closed? Door switch may be interrupting power.
- Yes:- Check the fuses on the controller PCB
- Check heating element plates for continuity

Door Too Loose or
Tight

- The amount of force or drag on the door movement can be changed by adjusting the hex screws located on the upper rear corners of the furnace cabinet. Turning the screw clockwise adds drag and requires more force

Heating Too Slow

- Rate programmed wrong. 1.5°/minute rather than 15.0°/minute
- Large loads will slow down response time and increase the time to temperature by 2 to 5 times

Program Turns Off
Too Early

- Programming a Rate to zero will terminate the remainder of the program
- End of program option has been changed from 1 or 2 to option 3 which turns off the furnace at the end of the program [End].

(3-550PD only)
Power Door Does Not
Open

- A hidden switch to activate the door is located between the °C/°F key and the Delay Start key. Try pressing it to test the operation.
- Check activation switch connections to back of furnace.
- Allow the furnace to cool and test the door by activating the switch and then lifting up/pushing door on the door in the appropriate direction of travel.