1. The first steps – make sure:

a. Capillary tubes are not kinked, pinched and/or broken
b. All physical connections are tight; pull on wire to ensure no loose connection
c. All physical mounting of components are tight
d. Check the gas type used agrees with specifications on the nameplate (natural or LP)
e. Check gas pressure, incoming static and flow before and after Invensys gas valve. **(This is a requirement for all warranty claims)**
f. For elevations above 2000' see the manual

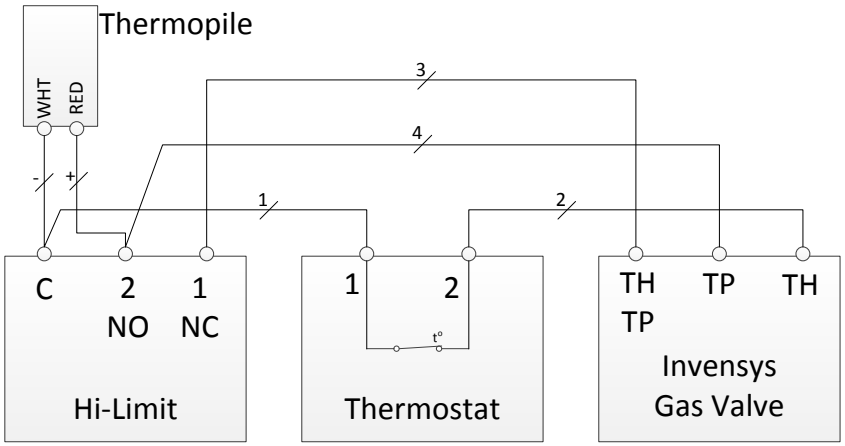

Figure 1: Wiring Diagram for Entrée F-series Fryer

2. Thermopile – how to determine if it is bad (see Figure 1)

a. On Thermostat, add jumper (short out) between terminal #1 and #2
b. On Hi-Limit,
    i. remove both wires (+ and 4) from terminal #2, but leave them connect to each other
    ii. add jumper (short out) between terminal #1 and C
c. On the Gas Valve, turn the knob to pilot indicator, depress/hold for 15 seconds and light the pilot. Release the knob when the pilot lights.
d. If the pilot flame is extinguished after releasing the knob, then the Thermopile most likely bad
e. Turn the knob to off and back to the pilot position again, repeat step c and d again to confirm.
f. However, after replacing the thermopile and the pilot still does not stay on, go to step 3 to troubleshoot the gas valve

3. Gas Valve – how to determine if it is bad (see Figure 1)

a. Remove all wires from its terminals
b. Use an Ohm meter and measure the following:
    i. Between TP and TH/TP terminals, it would be 10.5 Ohm (± 10%)
    ii. Between TP and TH terminals, it would be 1.7 Ohm (± 10%)
c. If the readings are out of range and/or fluctuating, then the gas valve is bad

4. Hi-Limit – how to determine if it is bad (see Figure 1)

a. Remove all wires from its terminals

b. Make sure the oil temperature is below 300F
c. Use an Ohm meter and measure the following:
    i. Between terminal #1 and C, it should be zero ohm (short)
    ii. Between terminal #2 and C, it should be infinity ohm (open)
d. Hi-Limit is OK at normal condition – Now, let check at over-temp condition
e. Reconnect all the wires
f. On Thermostat, add a jumper (short) between terminal #1 and #2
g. Light the pilot and monitor the oil temperature (**CAUTION !!** main burners will come on as soon as the gas valve knob is turned to ON position)
h. Both main burners and pilot flame should go out when oil temperature reach about 450F max. If not, turn OFF the gas valve knob immediately and replace the Hi-limit

5. Thermostat – how to determine if it is bad (see Figure 1)

a. Turn the knob on the thermostat fully CW and CCW, you should hear the click. If not replace the thermostat
b. Use Ohm meter, measure the resistance between terminal #1 and #2
    i. It should be zero ohm (short) when the knob is fully CW
    ii. It would be infinity ohm (open) when the knob is fully CCW