IF BOILER IS NOT OPERATING, USE THE FOLLOWING GUIDE IN CONJUNCTION WITH THE STATUS PANEL, TO AID IN LOCATING THE CAUSE OF FAILURE.

BEFORE BEGINNING TROUBLESHOOTING THE BOILER REFER TO THE SERIES PDE INSTALLATION INSTRUCTIONS TO BECOME FAMILIAR WITH THE CONTROLS, BOILER SEQUENCE OF OPERATIONS AND WIRING OF CONTROL SYSTEM.

PRESS THE TEST SWITCH LOCATED ON THE LEFT JACKET PANEL AND NOTE IF ALL 24VAC LIGHTS ARE FUNCTIONAL.

ADJUST THERMOSTAT TO CALL FOR HEAT AND OBSERVE WHICH LIGHT IS THE FIRST ONE ON STATUS PANEL THAT IS OFF AND THEN PROCEED TO THE APPROPRIATE POINT IN THIS GUIDE.

NOTE: LINE VOLTAGE IS AVAILABLE TO THE STATUS PANEL L1 AND L2 ¼” SPADE TERMINALS AT ALL TIMES. BEFORE REMOVING OR HANDLING STATUS PANEL, DISCONNECT ELECTRIC POWER TO BOILER AT MAIN FUSE OR CIRCUIT BREAKER.

PEERLESS BOILERS
1- "PWR" (POWER) LIGHT OFF

Check for 120VAC at "L1" and "L2" terminals on Status Panel

NO

YES

Look for open circuit breaker, loose or broken wires

Replace Status Panel

2- "T,STAT" (THERMOSTAT) LIGHT OFF

Check for 24VAC between blue and yellow wire from transformer

NO

YES

Replace transformer

Check for 24VAC between the thermostat connection to red wire and yellow wire in junction box

NO

YES

Check thermostat wiring for loose or broken connections

NO

YES

Replace thermostat

Repair

Check red wire for loose or broken connections

NO

YES

Replace Status Panel

Repair
3- "H, LMT" (HIGH LIMIT) LIGHT OFF

Check to see if boiler water temperature is above limit setting

- NO
  - Check for 24VAC between connection of white wire on limit and yellow wire in junction box
    - NO
      - Check gray wire for loose or broken connections
        - NO
          - Replace Status Panel
        - YES
          - Repair
    - YES
      - Check white wire for loose or broken connections
        - NO
          - Replace Status Panel
        - YES
          - Repair

- YES
  - Determine if circulator is operating
    - NO
      - Check for 120VAC between "CIR" and "L2" leads on Status Panel
        - NO
          - Check for 120 VAC at circulator connections
            - NO
              - Repair circulator wiring
            - YES
              - Replace circulator
        - YES
          - Replace Status Panel
    - YES
      - Limit switch will reset on water temp. fall

4- "TCO" (THERMAL CUT OFF) LIGHT OFF

Check for 24VAC between connection of orange wire on TCO switch and yellow in junction box

- NO
  - Check for 24VAC between brown wire on TCO switch and yellow wire in junction box
    - NO
      - Check brown wire for loose or broken connections
        - NO
          - Replace Status Panel
        - YES
          - Repair TCO switch and determine the cause of failure
    - YES
      - Check orange wire for loose or broken connections
        - NO
          - Replace Status Panel
        - YES
          - Repair
5- "PS" (PRESSURE SWITCH) LIGHT IS OFF

- Check For Blower Operation
  - NO
  - YES
    - Check for 120VAC between "BLW" and "L2" terminals on Status Panel
      - NO
      - YES
        - Check for 24VAC between "C" terminal on pressure switch and yellow wire in Junction box
          - NO
          - YES
            - Replace blower motor
        - NO
        - YES
          - Replace blower motor
          - Repair
      - NO
      - YES
        - Check for broken or loose wires to blower motor
          - NO
          - YES
            - Replace blower motor
            - Repair
          - NO
          - YES
            - Check white/brown wire for loose or broken connections
              - NO
              - YES
                - Replace Status Panel
                - Repair
            - NO
            - YES
              - Check white/black wire for loose or broken connections
                - NO
                - YES
                  - Replace Status Panel
                  - Repair
          - NO
          - YES
            - Replace Status Panel
            - Repair

- Check for 24VAC between the "NO" terminal of the pressure switch and yellow wire in Junction box
  - NO
  - YES
    - Check for greater than a negative .70" W.C. draft in blower housing while fan is operating
      - NO
      - YES
        - Check white/red wire for loose or broken connections
          - NO
          - YES
            - Replace pressure switch
          - NO
          - YES
            - Replace Status Panel
            - Repair
          - NO
          - YES
            - Repair

6- "MV" (MAIN VALVE) LIGHT IS OFF

- Check for 24VAC between white/blue wire and white/orange wire
  - NO
  - YES
    - Check both wires for loose or broken connections
      - NO
      - YES
        - Refer to the ignition control manufacturers trouble shooting guide
          - NO
          - YES
            - Replace Status Panel
            - Repair