

P/N 241589 Rev 1 Effective: 4-15-2017

Replaces: NEW

# RAYPAK REPLACEMENT PART INSTRUCTIONS

XPak FT WALL HUNG HEATING BOILER MODELS 88A-398A LOW WATER CUT-OFF COMPONENT KITS 015641F - 013238F - 007157F - 015178F

#### **IMPORTANT NOTICE**

These instructions are primarily intended for use by qualified personnel specifically trained and experienced in the installation of this type of heating equipment and related system components. Installation and service personnel may be required to be licensed in some states. Persons not qualified shall not attempt to install this equipment nor attempt repairs according to these instructions.

### **DANGER - SHOCK HAZARD**

Make sure electrical power to the heater is disconnected to avoid damage to components, potential serious personal injury or death.

### **SCOPE**

This kit provides replacement of the Low Water Cut-Off Momentary Reset Switch Kit, the PC Board Kit and the LWCO water sensor kits that are optional on the XPak FT Models 88A - 398A. Also the one piece (standard) LWCO device (for 398A) is included in this kit instruction.

### KITS INCLUDED IN THIS INSTRUCTION

#### Switch, Momentary 15A 1 005641F Water Probe Sensor 1 013238F LWCO PC Board 1 007157F

1 LWCO Device (unitary) 015178F

#### **REQUIRED TOOLS:**

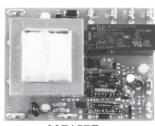
Needle nose pliers Phillips head screwdriver **Pliers** 

Small slotted screwdriver

8" Channel Locks or adjustable pipe wrench



005641F



007157F



013238F



015178F



Power switch located on the underside.



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INSTRUCTIONS FOR REPLACEMENT OF THE XPAK FT 88A-398A LOW WATER CUT- OFF COMPONENT KIT:

# **MOMENTARY SWITCH 005641F**

### **INSTRUCTIONS**

- 1. Turn off water and gas.
- 2. Turn off the electrical power at the breaker panel and power off the appliance at the switch located under the bottom right corner.
- Remove the upper and lower front panel by unscrewing the three (3) to five (5) (Depending on model size) Phillips head screws on the upper and lower flanges. Pull the panels down and forward to remove them. (See FIGURE 2)
- 4. Locate The Panel that has the Low Water Cut-Off PC Board with the "test" and "reset" buttons. For Models 88A-278A with LWCO as optional feature, switches will be in the upper right corner of the cabinet. (See FIGURE 3) For Model 398A it will be located on the left side of the sheet metal panel that supports the controls. (See FIGURE 4)

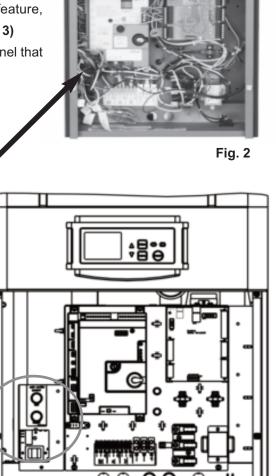


Fig. 3

Fig. 4

### **APPROVED**



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# INSTRUCTIONS FOR REPLACEMENT OF THE XPAK FT 88A-398A LOW WATER CUT- OFF COMPONENT KIT: MOMENTARY SWITCH 005641F

- Unscrew the Momentary switch's outer ring. It is threaded.
  The switch can be pulled out of the panel. (See FIGURE 5)
- 6. Unplug the two wire connections at the back of the switch.
- Pull the switch out of the panel and install the replacement.
  Reverse STEPS 6 through 1 to bring the appliance back into operating condition.

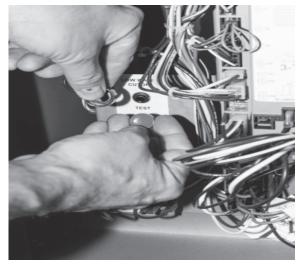


Fig. 5

## **END OF MOMENTARY SWITCH SECTION**



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# INSTRUCTIONS FOR REPLACEMENT OF THE XPAK FT 88A-398A LOW WATER CUT- OFF COMPONENT KIT: WATER PROBE SENSOR 013238F

- 1. Turn off water and gas.
- 2. Turn off the electrical power at the breaker panel and power off the appliance at the switch located under the bottom right corner.
- 3. Remove the upper and lower front panel by unscrewing the three (3) to five (5) (Depending on model size) Phillips head screws on the upper and lower flanges. Pull the panels down and forward to remove them. (Refer to **FIGURE 2**)
- 4. Locate the Low Water Cut-Off Sensor. It is mounted to the Outlet Pipe approximately at the Outlet "Tee". (See **FIGURE 6**)
- 5. Remove the Black wire from the LWCO Probe's post by removing the nut that fastens the wire to the device. (See **FIGURE 7**)
- 6. Unscrew the Probe.
- 7. Install the replacement probe using pipe dope. Do not use Teflon Tape on the threads.

Reverse STEPS 6 through 1 to bring the appliance back into operating condition.



Fig. 6



Fig. 7



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# INSTRUCTIONS FOR REPLACEMENT OF THE XPAK FT 88A-398A LOW WATER CUT- OFF COMPONENT KIT: LWCO PC BOARD 007157F

On **Models 88A-278A** equipped with the LWCO as an Optional Feature, the LWCO is located at the upper right corner of the cabinet. See **FIGURE 3**.

On a Model 398A, it will be located on the lower left corner of the cabinet. (See FIGURE 4)

- 1. Turn off water and gas.
- 2. Turn off the electrical power at the breaker panel and power off the appliance at the switch located under the bottom right corner.
- Remove the upper and lower front panel by unscrewing the three (3) to five (5) (Depending on model size) Phillips head screws on the upper and lower flanges. Pull the panels down and forward to remove them. (See FIGURE 2)
- 4. Remove the PC Board by squeezing the top of the three (3) white nylon spacers that fasten the PC Board to the mounting panel with needle nose pliers. The PC Board will come free from the panel. (See **FIGURE 8**)
- 5. Remove each wire from the old PC Board and transfer it to the same location on the new PC Board, one at a time.
- 6. Place the new PC Board onto the white nylon posts so it is fastened to the appliance's control panel.

**Reverse STEPS 5 through 1** to bring the appliance back into operating condition.



Fig.8



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# INSTRUCTIONS FOR REPLACEMENT OF THE XPAK FT 88A-398A LOW WATER CUT- OFF COMPONENT KIT: LOW WATER CUT OFF DEVICE 015178F

(Note: On Models 88A-278A the LWCO is an optional feature)

- 1. Turn off water and gas.
- 2. Turn off the electrical power at the breaker panel and power off the appliance at the switch located under the bottom right corner.
- Remove the upper and lower front panel by unscrewing the three (3) to five (5) (Depending on model size) Phillips head screws on the upper and lower flanges. Pull the panels down and forward to remove them. (See FIGURE 2)
- 4. Locate the Low Water Cut-Off device. On Models 88A-278A it will be located approximately halfway up the outlet water pipe. (See **FIGURE 2**)
- 5. Lift the manual release on the PRV to be certain the outlet pipe is not pressurized. (See **FIGURE 9**)
- 6. Unplug the four (4) wire connector on the back of the device. (See **FIGURE 10**)
- 7. The LWCO Device is threaded onto the pipe. Rotate the LWCO left (Counterclockwise) to remove the device.
- 8. Carefully install the replacement into the threaded port using pipe dope. **Do not use Teflon tape.**

**Reverse STEPS 7 through 1** to bring the appliance back into operating condition.



Fig. 9



Fig. 10