

RAYPAK REPLACEMENT INSTRUCTIONS

PC BOARD REPLACEMENT INSTRUCTIONS [KIT 100-10000719] 84 SERIES PROFESSIONAL HEATERS (MODELS: 259 & 409) X94 PROFESSIONAL HEATERS (MODEL: 410)

IMPORTANT NOTICE: These instructions are 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 the electrical power to the heater is disconnected to avoid damage to components, potential serious personal injury or death. Make sure the gas to the heater has been shut off.

WARNING: Make sure water, gas, and power have been turned OFF before making any repairs or servicing this equipment.

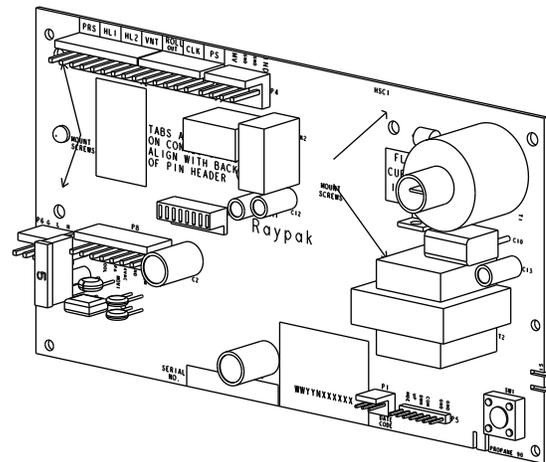
SCOPE: The kit provides instructions for replacing a PC Board for Raypak 84 Professional Pool and Spa Heaters (Models: 259 & 409) and the X94 Professional (Model 410).

KIT CONTENTS:

DESCRIPTION	QTY
PC Board –Temp Ignition Control	1
Tag- Propane Instructions	1
LCD Window Gasket	1
Screws, #6 x 3/8"	5

REQUIRED TOOLS:

- Phillips Head Screwdriver



INSTRUCTIONS:

PC BOARD FOR 84 PROFESSIONAL MODELS:

1. Turn off electrical power at the breaker panel and at the appliance's power switch.
2. Turn off the gas to the appliance at the manual shut-off valve.
3. Allow appliance to cool down before installing this kit.
4. Turn off the pump(s).
5. Locate the front of the heater. Lift the upper translucent panel covering the control panel (see **Figure 1**). The bezel with the keypad will be visible underneath.



Figure 1. 84 Professional Models 259 & 409

6. Locate the two (2) #6 x 3/8" screws that hold the bezel with the control panel to the front of the heater and remove them (see **Figures 2** through **Figure 4**).

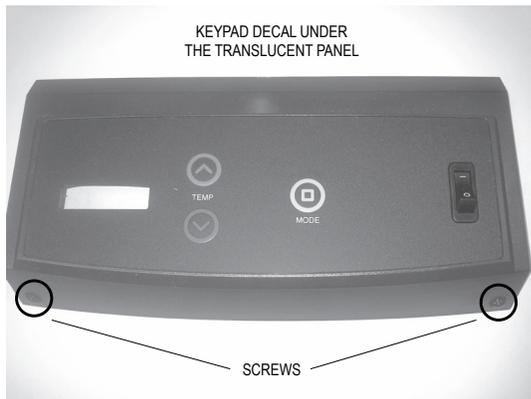


Figure 2. Screws Location

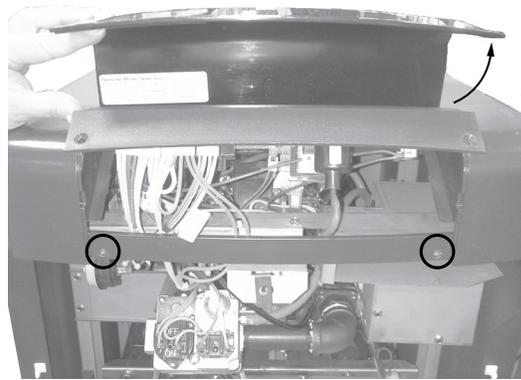


Figure 3. Screws Location

7. Pull the panel backward and upward to access the PC Board beneath it (see **Figure 4**).

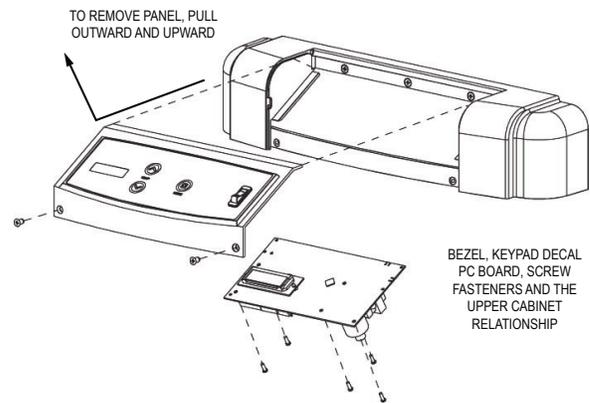


Figure 4. Bezel, Keypad and PC Board

8. Carefully disconnect the wiring harnesses from the PC Board. Gently remove the high-tension wire from the ignition transformer post (see **Figure 5**).

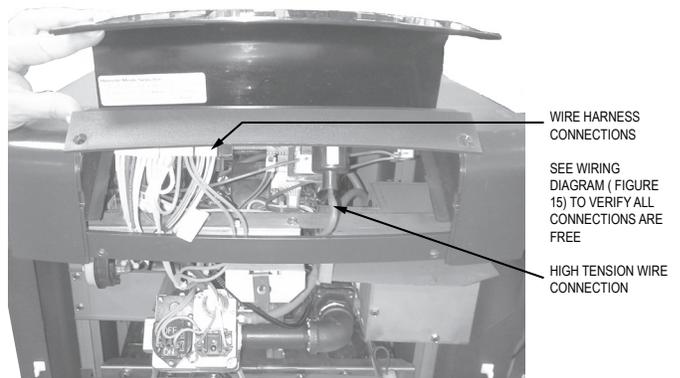


Figure 5. Wire Harness Connections

9. Unplug the ribbon connector on the PC Board that connects it to the keypad (see **Figure 6**).

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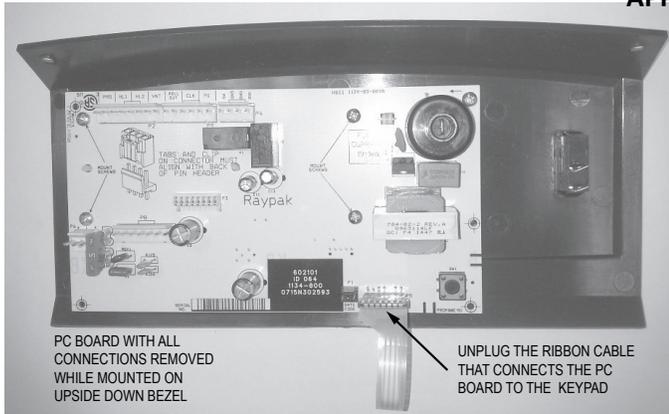


Figure 6. Unplug Ribbon Cable

12. Reverse **Step 11** through **Step 1** to bring the heater back into operation.
13. Ensure that the replacement PC Board is programmed for Natural gas or Propane. Refer to the old PC board to confirm if the “Propane tab” is broken for Propane applications.
14. Refer to the wiring diagram (see **Figure 14**) if there are any wiring issues.

10. Remove the five (5) screws that fasten the PC board to the Bezel (see **Figure 7**).

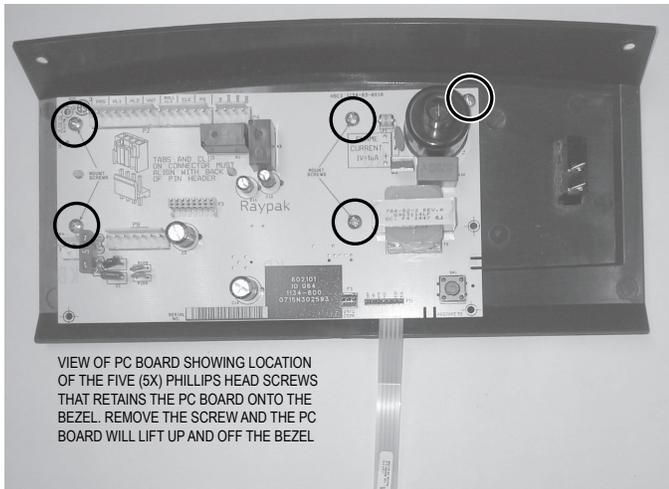


Figure 7. Remove PC Board Screws

11. Lift the PC board straight up to remove it. It will come free after the screws are removed. **Figure 8** provides a view of the Bezel, prepared for the new PC Board.



Figure 8. Bezel with PC Board Removed

PC BOARD FOR X94 POOL & SPA MODELS:

1. Turn off electrical power at the breaker panel and at the appliance's power switch.
2. Turn off the gas to the appliance at the manual shut-off valve.
3. Allow appliance to cool down before installing this kit.
4. Turn off the pump(s).
5. Remove the plastic top of the heater. There are two (2) black countersunk Phillips head screws at the rear that secure the top to the jacket. Both of these screws need to be removed. Additionally, locate the knurled slotted Phillips screw at the front and remove (see **Figure 9**).
6. Once the top is removed, proceed to detach the knurled knob situated at the center top of the access panel. Then, take out a countersunk Phillips head screw located at the center bottom of the panel (see **Figure 9**).

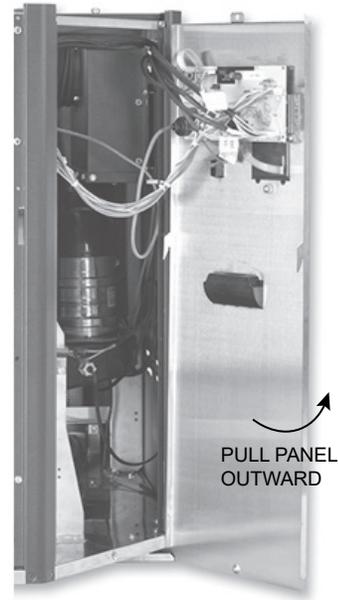


Figure 10. Stainless Steel Panel



Figure 9. X94 Model 410



Figure 11. Heater Controls

7. The stainless steel panel with the PC Board mounted on it can be removed. Gently pull it outward approximately 8 inches, and then rotate it so that the controls are visible (see **Figure 10** & **Figure 11**).

8. Detach the seven (7) wiring harness plugs connected to the PC Board (see **Figure 11**).
9. Remove the keypad ribbon connector and spark wire (see **Figure 12**). **NOTE:** Be careful when removing the spark wire.

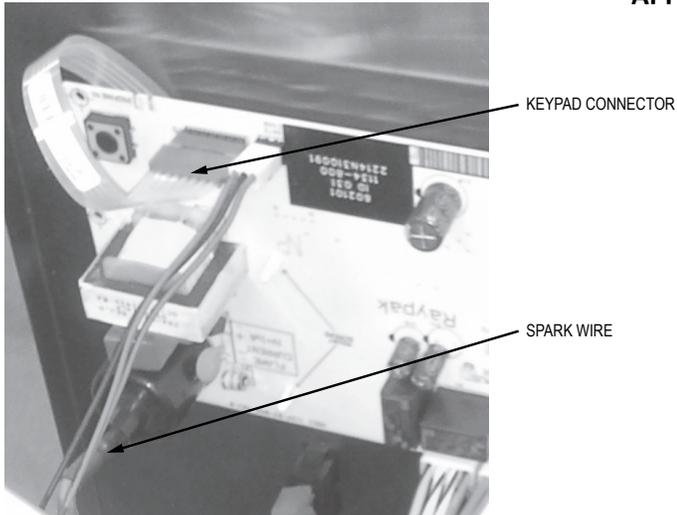


Figure 12. Keypad Connector and Spark Wire

10. Carefully pull the PC Board off the nylon mounting posts (see **Figure 13**).

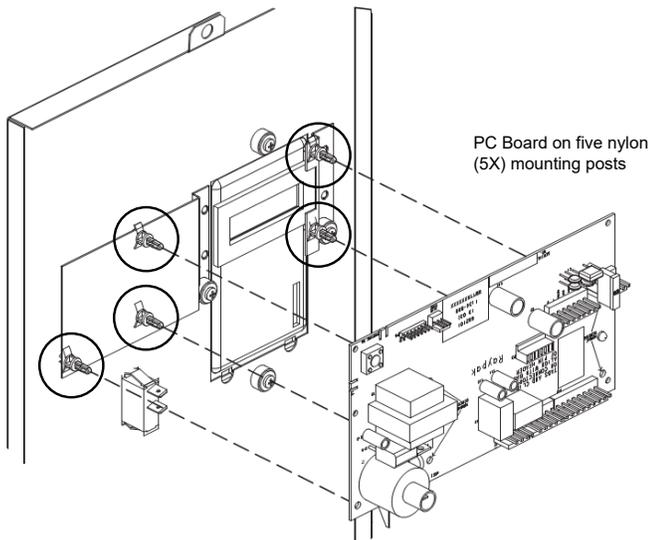


Figure 13. Remove PC Board

11. The PC Board will become free. Gently pull it out and replace it with the supplied PC Board.
12. Reverse **Step 11** through **Step 1** to bring the heater back into operation.
13. Refer to the wiring diagram (**Figure 15**) if there are any wiring issues.

APPROVED WIRING DIAGRAM PROFESSIONAL 84 MODELS 259 & 409

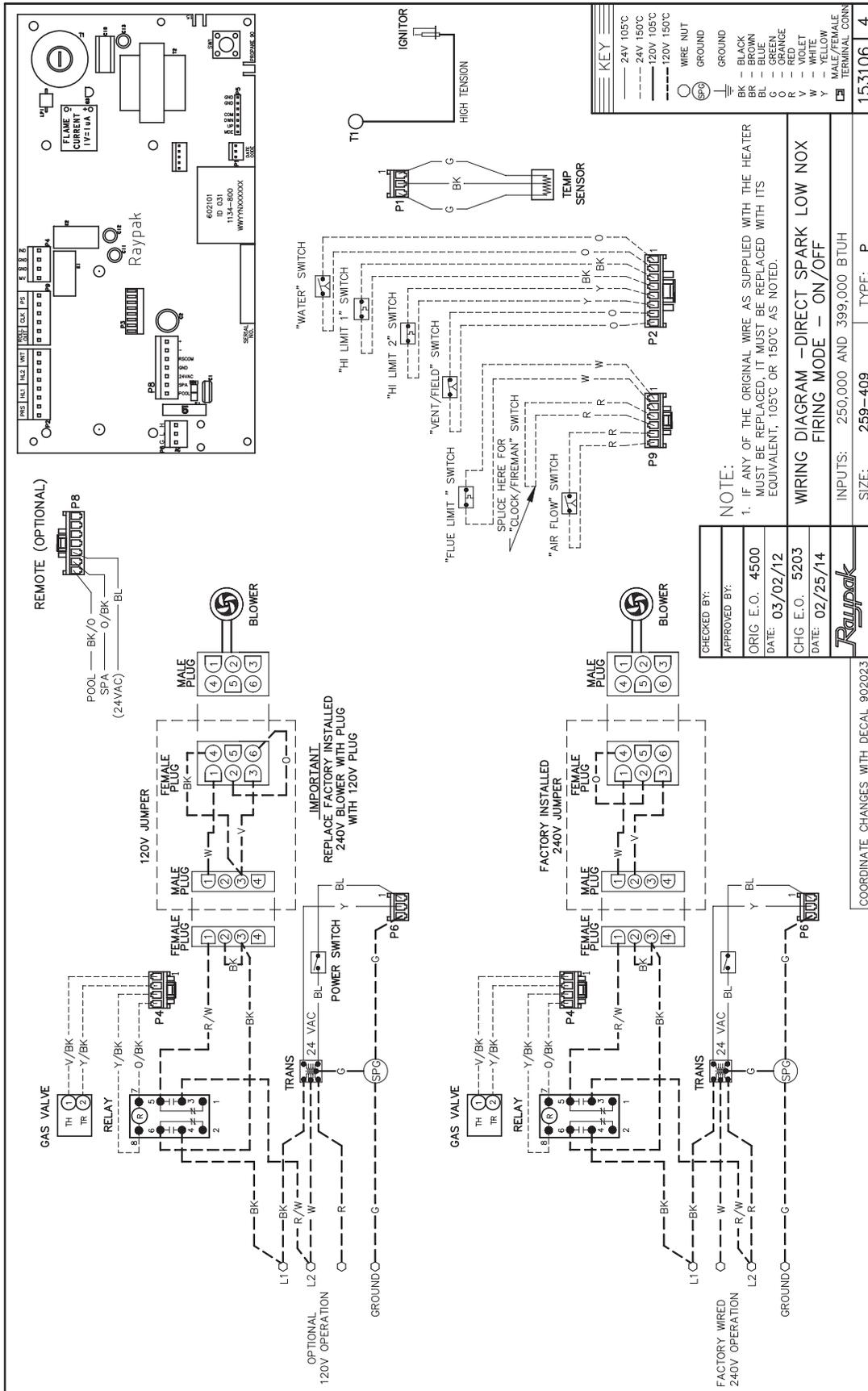


Figure 14. Wiring Diagram - Professional 84 Models

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