

# RAYPAK REPLACEMENT PART INSTRUCTIONS

## ECONOMASTER PUMP DELAY KIT 004675F

RAYTHERM APPLIANCES, TYPE W, H, WH, WHP, & P 133 - 4001  
HI DELTA APPLIANCES, TYPE W, H, WH, WHP & P 122 - 2342

### 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

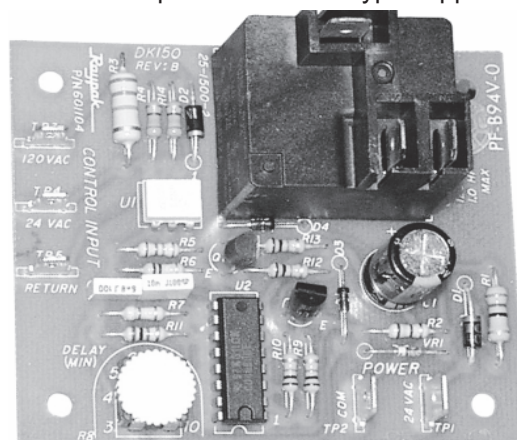
This kit provides for replacement of the Economaster Pump Delay circuit board provided in all Raypak appliances equipped with the Economaster Electronic Time Delay.

#### THIS KIT INCLUDES:

- (1) Economaster PC Board
- (4) Nylon Mounting Posts

#### REQUIRED TOOLS:

- Needle nose pliers
- Voltmeter
- Slotted screwdriver
- Phillips screwdriver
- 5/16" Nutdriver
- Flashlight



white mounting posts not shown

### PROCEDURE

1. Turn off the electrical power at the appliance's switch and at the breaker panel.
2. Turn off the gas at the appliance.
3. Turn off the pump(s).
4. Allow the appliance to cool before installing this kit.
5. Remove the control box cover panel or junction box cover to gain access to the electrical controls.  
See **FIGURE 1** for mounting location options dependent on model.

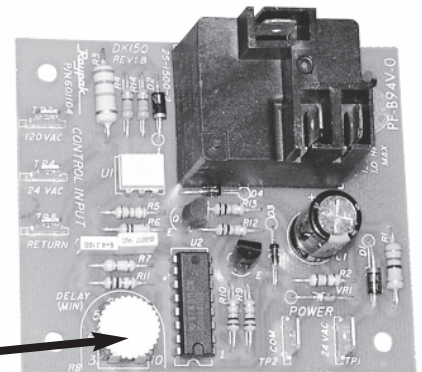
Models	Mounting Locations
W, H, WH & P 514-1826	Left or Right Side (External J-Box)
W & H 133-401	Recessed in Front Alcove
W, H, WH, WHP or P 2100-4001,	In Front Mounted J-Box
Hi-Delta Models 122-322 & 302-2342	Recessed in Control Alcove

Fig. 1

**PROCEDURE continued**

6. Locate the old Economaster PC Board. It is mounted on four (4) nylon mounting posts. Compress the tip of each mounting post spacer with needle nose pliers and pull lightly with gentle force. They will come free.
7. The specified duration of the Time Delay feature that turns the pump on is controlled by the white Trim Potentiometer (R8) (See **FIGURE 2**). The setting for the new Economaster should match the old setting. If the setting cannot be determined, set the potentiometer to the far right. That will allow the maximum time delay setting of 10 minutes.
8. Once the PC Board is free of the mounting posts, remove the wire connections one at a time, replacing each wire on the exact same terminal on the new Economaster Circuit Board.
9. If any of the original nylon mounting posts are broken, worn or missing, use the new ones that are supplied in the kit.
10. Reverse steps 5 through 1 to bring the appliance back into operating condition.

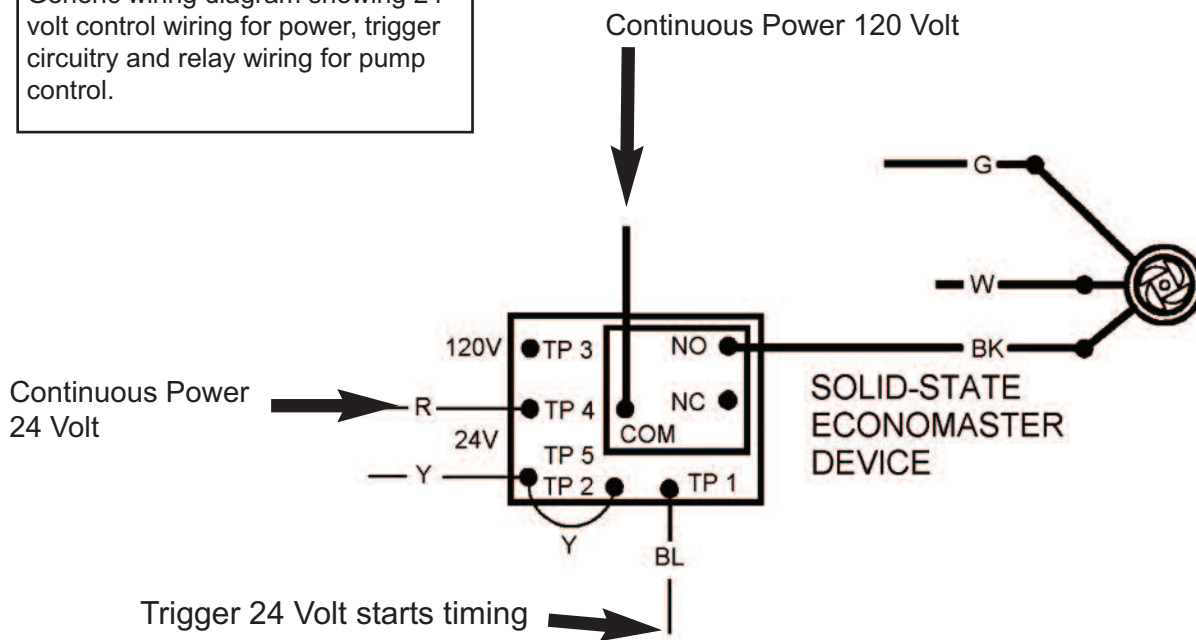
Check the generic wiring diagrams which illustrate commonly provided wiring configurations. (**FIGURES 3, 4 & 5**)



For time delay adjustment set the Trim Potentiometer from 3 minutes to 10 minutes.

**Fig. 2**

Generic wiring diagram showing 24 volt control wiring for power, trigger circuitry and relay wiring for pump control.



**Fig. 3**

Generic wiring diagram showing 24 Volt control wiring for power, trigger circuitry and relay wired for external pump contactor.

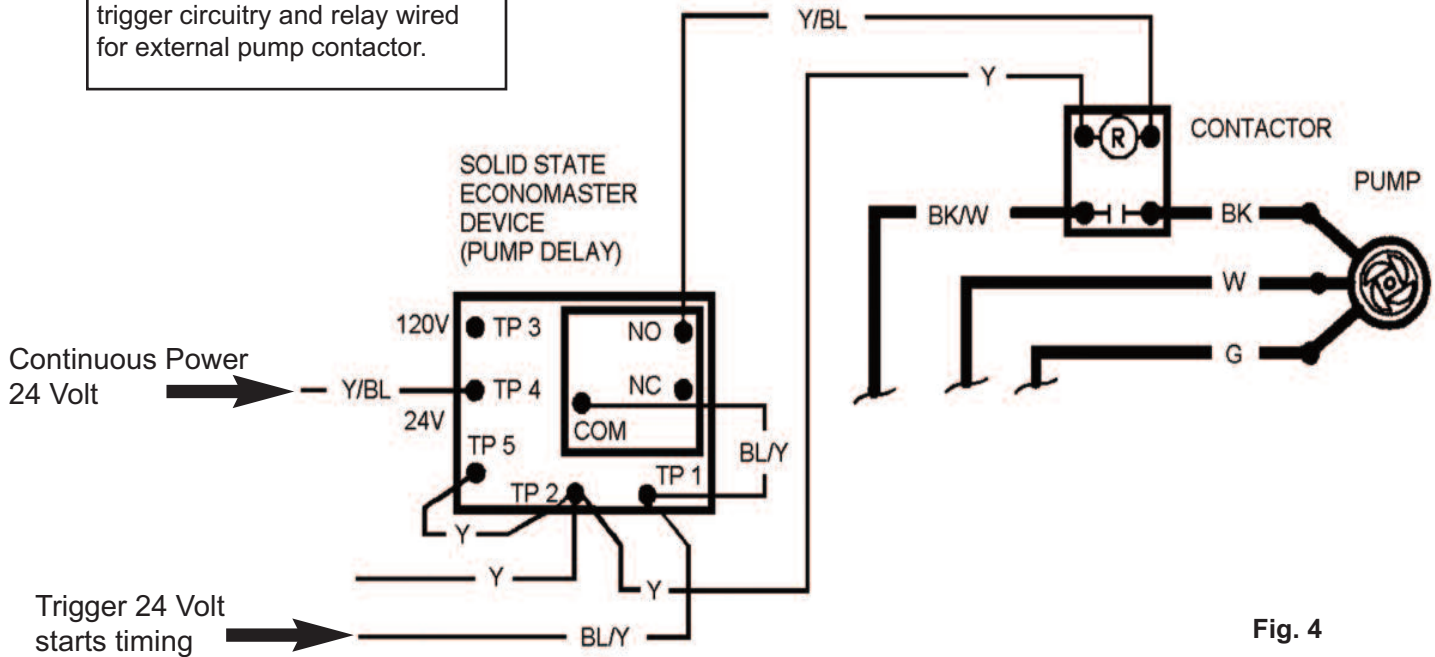


Fig. 4

Generic wiring diagram showing 24 volt control wiring and 120 volt trigger circuit and relay wiring for pump control.

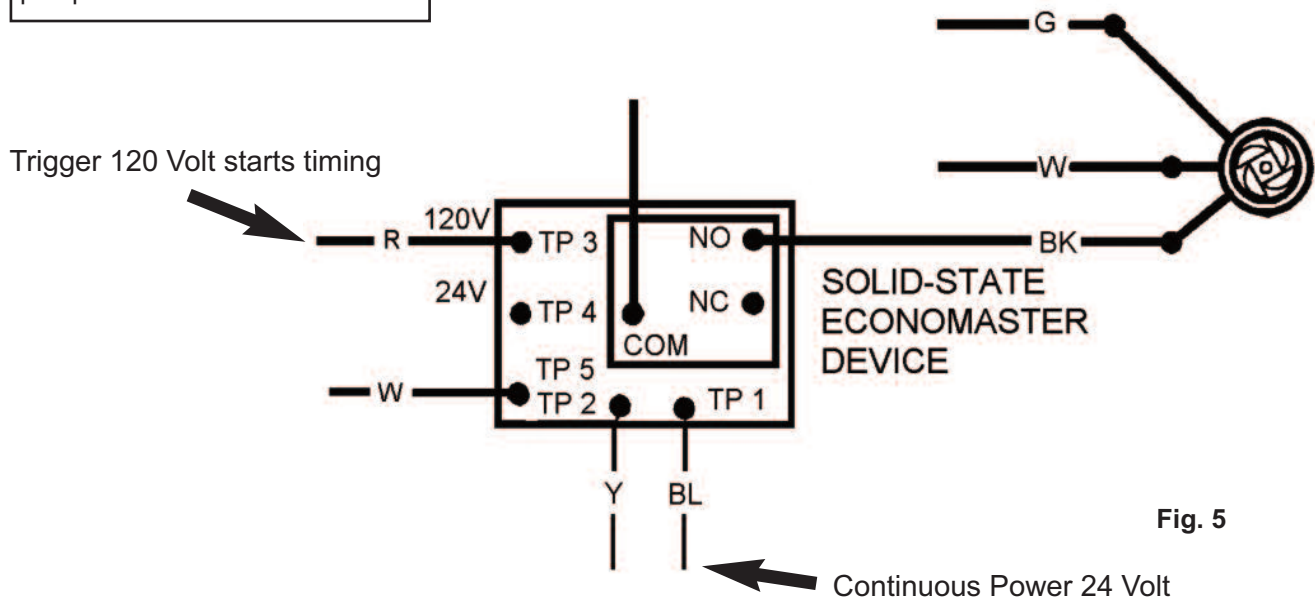


Fig. 5