

# OWNER'S MANUAL

## **PFRFV - Retro-Fit Valve For Indoor Use Only Maintenance Free**



“Power-Flo Pumps & Systems,  
Your Power-Ful partner  
for all your pumping needs”



## **Power-Flo Pumps & Systems**

*a Power-Flo Technologies company*

# Retro-Fit Valve

## General Safety Information

Before installation, read the following instructions carefully. Failure to follow instruction and Safety information could cause serious bodily injury, death and/or property damage. Each Power-Flo pump is individually factory tested to insure proper performance. Closely following these instructions will eliminate potential operating problems, assuring years of trouble-free service.

**▲ WARNING** Installation, wiring, and junction connections must be in accordance with the National Electric Code and all applicable state and local codes. Requirements may vary depending on usage and location.

## Features

### PFRFV - Retro-Fit Valve

The thermostatic Lead-Free Bronze bypass valve is installed under the sink fixture furthest from the hot water heater. The valve reacts to the decreasing temperature in the hot water supply piping and “opens” to allow the flow back through the cold water piping (essentially using the cold water piping as the return line) and providing “instant” hot water at the fixtures.

**NOTE: The Retro-Fit Valve (PFRFV) MUST be installed with Power-Flo Pumps Model PFWRC67S1U circulator pump.**

**HOUSING:** Forged brass with Noryle Cap

**INTERNAL COMPONENTS:** Stainless Steel / Plastic with EPDM O-rings

**CONNECTIONS:** 3/8" hot & cold male compression thread outlets. 1/2" hot & cold male IPS inlets

**FLOWRATE:** 0-100% Slotted screw

**MAX. WORKING PRESSURE:** 125 PSI

**MAX. WATER TEMPERATURE:** 150°F

**MAINTENANCE:** Self-cleaning filter, maintenance-free

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**▲ WARNING** Installation and servicing is to be conducted by qualified personnel only.

## Receiving Inspection

Upon receiving the pump, it should be inspected for damage or shortages. If damage has occurred, file a claim immediately with the company that delivered the pump. Care should be taken to ensure the pump is **NOT** dropped or mishandled, dropping will damage the pump. If the manual is removed from the packaging, do not lose or misplace.



**WARNING:**  
CANCER AND REPRODUCTIVE HARM-  
[WWW.P65WARNINGS.CA.GOV](http://WWW.P65WARNINGS.CA.GOV)

**1. APPLICATION:** The Power-Flo Pumps Retro-Fit Valve was designed to provide instant hot water at any faucet, while also helping to conserve water.

Since the Retro-Fit valve does not require return piping to the water heater, it is an ideal retrofit and new construction solution where a dedicated hot water return line is impractical and/or cost prohibitive.

**2. OPERATION:** As the water at the hot water faucet cools below the low temperature setpoint, the valve opens, allowing cool water to be injected into the cold water line. When the water reaches the valve high temperature setpoint, the valve closes.

**▲ WARNING** *Be sure the power to the circulator is turned off, as well as the hot and cold water supplies to avoid injury and/or property damage.*

***Prior to installation, flush all piping, to remove material that could block or damage the equipment.***



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## 3. INSTALLATION:

### 3.1

**A.)** Install the circulator according to manufacturer's instructions to pump hot water away from the heater.

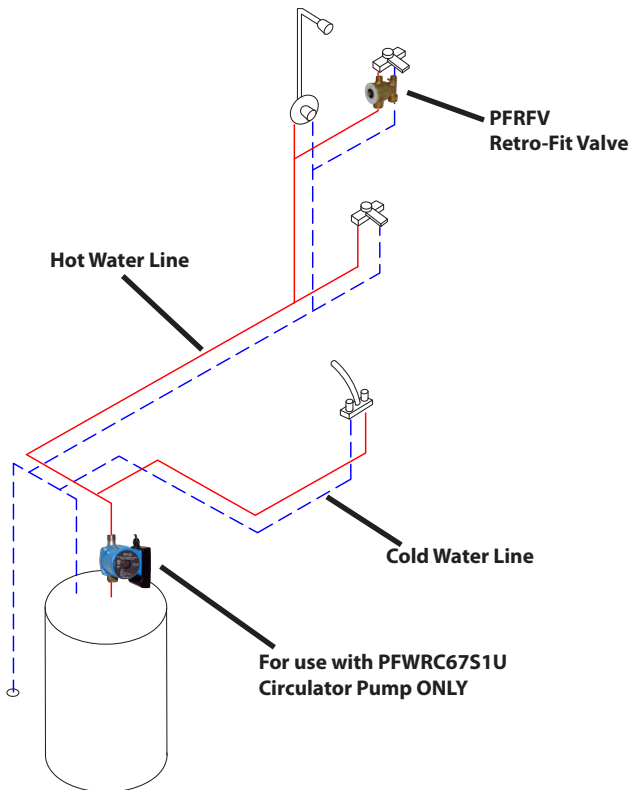
**B.)** Connect the hot and cold water supply to the Retro-Fit Valve 1/2" NPT inlets with flex hose (not supplied).

**C.)** Connect the faucet to the Retro-Fit Valve 3/8" NPT outlets with flex hose (not supplied).

**D.)** Check the installation for leaks:

- Ensure the faucet is closed.
- Open the hot and cold water supply valves.
- Open the faucet hot and cold taps to purge air.
- Close faucet.
- Inspect all piping connections for leakage. If a leak exists, close hot and cold supply valves until leaks are corrected.
- Repeat step D.

**E.)** Connect power to the circulator and verify operation.



## Retro-Fit Valve

**3.2** - The Retro-Fit Valve has a flowrate adjustment screw to suit application conditions and/or preferences.

**A.)** To increase water temperature at the hot water faucet, turn the flowrate adjustment screw counter-clockwise.

**B.)** To decrease the water temperature at the hot water faucet, turn the flowrate adjustment screw clockwise.

**C.)** To completely stop flow through the valve, turn the adjustment screw clockwise until it stops.

Allow several hours after valve adjustment for the system to stabilize before re-evaluating water temperature.

