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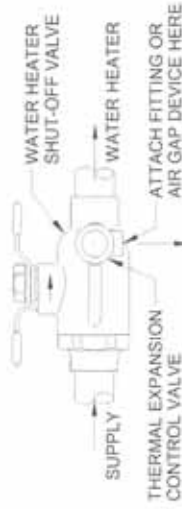
MODEL EXV 78/78LF Series WATER HEATER SHUTOFF/THERMAL EXPANSION CONTROL VALVE

INSTALLATION, OPERATION, & MAINTENANCE GUIDE

INSTALLATION

The Apollo EXV should be installed in the piping system as shown in the figure below. **WARNING:** The control valve portion must be positioned on the water heater side of the water heater shutoff/thermal expansion control valve and must be positioned downward.

Areas adopting the 1997 edition of the International Plumbing Code must use a relief setting of 80 psig. A pressure reducing valve should be installed upstream of the device to control unintended discharges. It is recommended that the pressure reducing valve be set at a maximum of 70 psig.



Threaded End Installation

Pipe connections to be threaded into these valves should be accurately threaded, clean and free of dirt and metal shavings.

Teflon tape is recommended for use as the pipe joint sealant.

Use two wrenches when making the pipe joint. Apply one wrench on the hex pads nearest the joint being tightened to prevent breaking the retainer-to-body seal.

Solder End Installation

Caution: Use only solders with melt points below 500°F.

Caution: Valves should only be soldered in the fully open or closed position.

Piping connections to be soldered into these valves should be cut square and then cleaned with an appropriate cleaner or flux.

These valves are designed to be soft soldered. Apply heat with the flame directed AWAY from the center of the valve body. Excessive heat can harm the ball valve PTFE seats and cause damage to the control valve. Solder valves only in the fully opened or closed position.

A Soldering LF Materials reference video is available on the Apollo LF web page at the following Link: www.apollovalves.com/lead_free

DISCHARGE LINE/AIR GAP DEVICE CONNECTION

After installation of the valve into the piping system, a proper discharge line of not less than 0.245" internal diameter shall be attached at the outlet of the Thermal Expansion Control Valve. As an alternate, an air gap device may be connected to the outlet of the thermal expansion control valve.

The discharge line shall be run independently of the water heater relief valve discharge line to a suitable drain and shall terminate at least 6" above the drain, or as allowed by local code requirements. The end of the discharge line shall not be threaded.

The discharge line shall be anchored or restrained to prevent movement upon discharge.

OPERATION

The shut-off valve is opened by rotating the handle counter-clockwise. The valve is in the full open position when the handle is parallel with the valve run.

MAINTENANCE

Field repair of the water heater shutoff/thermal expansion control valve is not recommended. The control valve relieving pressure is preset at the factory and cannot be adjusted. If different pressure is desired or if control valve is leaking prematurely, replace with preferred repair kit.

Normal stem packing wear can be compensated for by tightening the packing gland nut. There are two nuts on the stem. The top nut retains the lever. The packing nut is the lever may need to be removed to access the packing nut. The packing nut is the lower nut on the stem (wrench p/n H371400 is available to ease this operation). Tighten the packing nut clockwise in 1/8 turn increments until observed leakage stops. Torque on the stem packing nut shall not exceed 50 in-lb. Reinstall the handle and nut.

REPAIR KITS

MODEL	LF MODEL	PSI	CONNECTION
78004RK	78LF004RK	125	BARB
78014RK	78LF014RK	100	BARB
78024RK	78LF024RK	80	BARB
78005RK	78LF005RK	125	PEX
78015RK	78LF015RK	100	PEX
78025RK	78LF025RK	80	PEX
78006RK	78LF006RK	125	COM
78016RK	78LF016RK	100	COM
78026RK	78LF026RK	80	COM
78007RK	78LF007RK	125	½"NPT/SWT
78017RK	78LF017RK	100	½"NPT/SWT
78027RK	78LF027RK	80	½"NPT/SWT