PWP Pure Water Products (888) 382-3814 | pwp@purewaterproducts.com | Box 2783, Denton, TX 76202

# Permeate Pump Retrofit Installation

## Installing a Permeate Pump with an Existing Auto-Shutoff System

### You will need:

- 1 Permeate Pump with clip and screws.
- About 5 feet of 1/4" tubing.

### Recommended fittings:

- 1/4" plug-in elbows.

### Installation

Before you start, look at the area where you are going to mount the pump. It should mount on the wall, either beside or above the RO unit. (Floor mounting is OK, if necessary.) Keep in mind that you're going to have to make connections to the unit, so leave room to work. 5 feet of tubing should offer plenty and allow you to avoid tight tubing bends. Plug-in elbows, although not required, can also help to avoid crimped or awkward connections.

> **Note that the pump must be mounted so that the outlet ports are on the top side. See the directional arrow on the pump.**

Before you begin, turn off the water going into the the unit and turn off the valve on top of the storage tank. Open the ledge faucet. If no water is coming out, it's safe to work on the unit.

1. **Start by mounting the pump on the wall using the clip provided.** The pump sits sideways, with both the “Permeate Out” and “Brine Out” ports on top.

2. **Connecting Permeate In and Out:** When the pump is mounted, locate the tube on your RO unit that goes from your auto-shutoff valve to a tee fitting connected to the storage tank and the post filter. Disconnect this tube from the tee fitting and reconnect it to the “Permeate In” port of the permeate pump. Then, run a new line of tube from the “Permeate Out” port of the pump to the tee.

3. **Connecting Brine In and Out:** Locate the tube that runs from the membrane housing to your undersink drain pipe. On Pure Water Products units, this tube will have two small parts installed on it: a flow restrictor and a one-way check valve. The flow restrictor is the larger of the two parts—ours are printed with the letters “USA,” followed by an arrow and a number (if you're curious, the number indicates the number of milliliters per minute that it allows through).

   Disconnect this tube from the drain line. Remove the one-way valve from the line (the smaller of the two cylindrical parts) and set this to the side for now, but leave the flow restrictor on the tube and run it directly into the “Brine In” port of the pump.

   Next, attach the removed one-way check valve to a new line of tube, and connect this tube from the “Brine Out” port of the pump to your drain pipe connection. Note the small directional arrow on the fitting. It must point toward the drain pipe.

   **The flow restrictor must be on the tube going from the membrane to the “Brine In” port. The one-way check valve must be installed on the tube connecting the “Brine Out” to the drain pipe.**

When all connections are made, turn on the inlet water and the storage tank. Let a few glasses of water run from from the faucet. Check for leaks. The pump should begin making gentle, intermittent thumps. If it thumps, you've got it hooked up right.