

Installation, Operation and Maintenance Manual

Model PWPERMKIT

PERMEATE PUMP INSTALLATION MANUAL

PURE WATER

Important

Please read the entire manual before proceeding with the installation and startup. Your failure to follow any attached instructions or operating parameters may lead to the product's failure.

Save manual for future reference.



PWPERMKIT

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Note: Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

Introduction

For maximum performance and reliability, please follow the simple instructions in this manual.

Package Contents

Examine the components carefully to make sure no damage has occurred to the Permeate Pump. Care should be taken to ensure the pump is not dropped or mishandled; dropping will damage the pump.

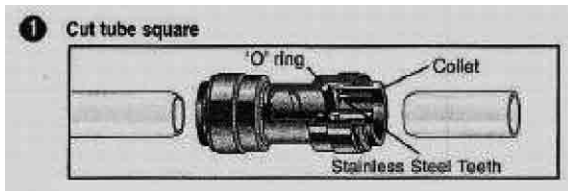
Package contains the following:

- (1) Permeate Pump with mounting clip
- (2) Quick-Connect Reducer Union
- (2) 3" long, 1/4" Blue tubes
- (1) 48" long, 1/4" Blue tube
- (1) 3/8" Quick-Connect Union Tee
- (1) 1/4" Quick-Connect Union Tee
- (1) 3/8" Plug Insert
- (1) 1/4" Plug Insert

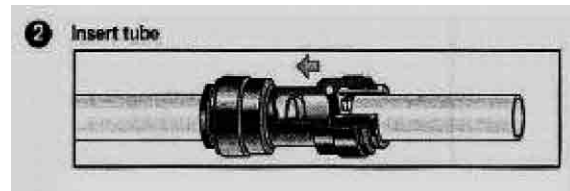
How to use the Quick-Connect fittings on the RO Module

To make a connection, the tube is simply pushed into the fitting. Place a piece of tape 1/2" from end of tube to indicate how far the tube should be inserted. The unique Watts Quick-Connect locking

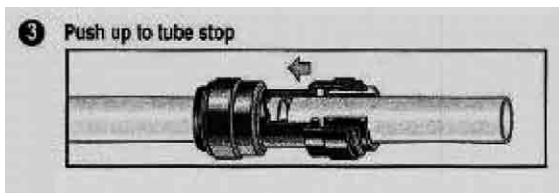
system holds the tube firmly in place without deforming it or restricting flow.



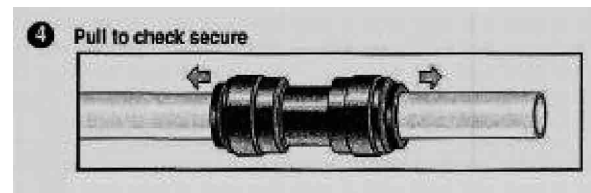
Cut the tube square. It is essential that the outside diameter be free of score marks and that burrs and sharp edges be removed before inserting into fitting.



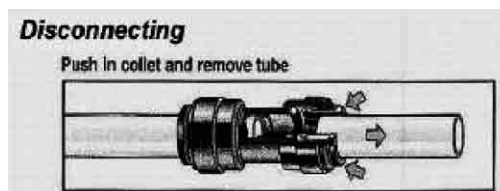
Fitting grips before it seals. Ensure tube is pushed into the tube stop.



Push the tube into the fitting, to the tube stop. The collet (gripper) has stainless steel teeth which hold the tube firmly in position while the O-ring provides a permanent leak proof seal.



Pull on the tube to check that it is secure. It is a good practice to test the system prior to leaving site and /or before use.



To disconnect, ensure the system is depressurized before removing the tube. Push in collet squarely against face of fitting. With the collet held in this position, the tube can be removed. The fitting can then be reused.

Permeate Pump Installation with the Standard System

Parts Needed

- (1) Permeate Pump with mounting clip
- (1) 48" long, 1/4" Blue tube

NOTE: When mounting the Permeate Pump, make sure the outlet ports of the Permeate Pump are above the inlet ports in order to allow entrapped air to escape

Installation Steps

1. Turn off the incoming water to the reverse osmosis unit. Lift the handle on the reverse osmosis drinking water faucet to drain the water from the system and storage tank.
- Note: If tank is equipped with a ball valve, close valve to preserve the tank water.**
2. Before installing the Permeate Pump, remove the blue tube inserts from the ports. Refer to the diagram on Page 2 for instructions for disconnecting from a Quick-Connect fitting.
3. Cut the blue tube between the shutoff valve and the membrane housing. Then insert the end from the reverse osmosis membrane into the Permeate Pump "PERMEATE IN" port.
4. Insert the tube from the shutoff valve into the Permeate Pump "PERMEATE OUT" port. Use the additional blue tubing if extra length is needed.
5. Cut the 1/4" waste line from the membrane (after the flow restrictor) and insert the tube from the membrane into the Permeate Pump "BRINE IN" port (Make sure the flow restrictor is located between the Permeate Pump and the membrane).
6. Insert the 1/4" red tube from the faucet air gap inlet into the Permeate Pump "BRINE OUT" port.
7. Make sure your installation matches the diagram shown in Figure 1.
8. Turn on the water supply. Check for leaks periodically for the next 24-48 hours as the system fills and again after it shuts off when the tank is full.

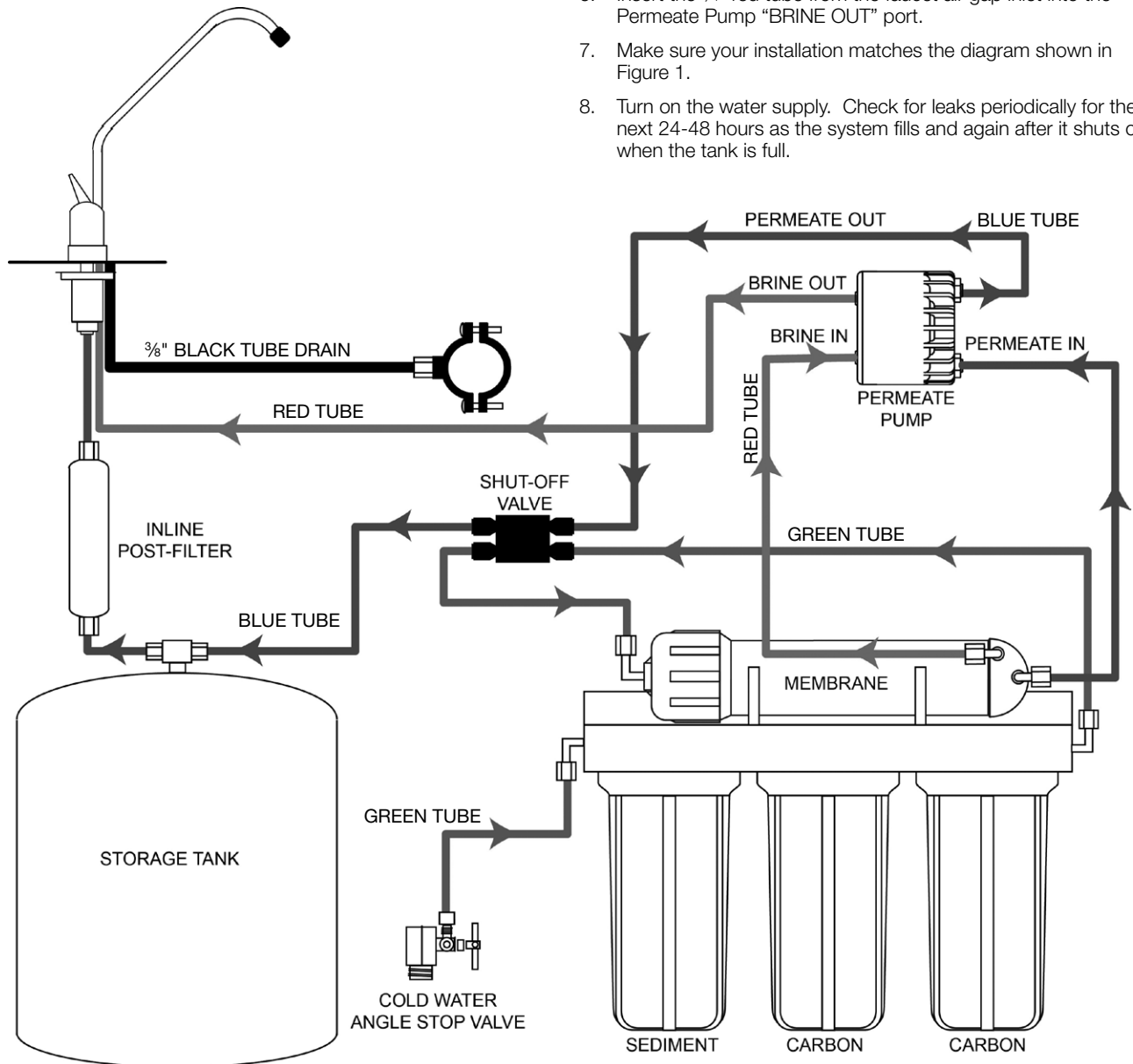


Figure 1: Standard System after installation of Permeate Pump

Permeate Pump Installation with the Manifold System

Parts Needed

- (1) Permeate Pump with mounting clip
- (2) Quick-Connect Reducer Union
- (2) 3" long, 1/4" Blue tubes
- (1) 48" long, 1/4" Blue tube
- (1) 3/8" Quick-Connect Union Tee
- (1) 3/8" Plug Insert

NOTE: The Permeate Pump is equipped with 1/4" Quick-Connect push-to-connect fittings. The pump can be used in RO systems with 3/8" tubing by inserting a short piece of 1/4" tubing into the port on the Permeate Pump and attaching a Quick-Connect Reducer Union to the tubing. Also, when mounting the Permeate Pump, make sure the outlet ports of the Permeate Pump are above the inlet ports in order to allow entrapped air to escape

Installation Steps

1. Turn off the incoming water to the reverse osmosis unit. Lift the handle on the reverse osmosis drinking water faucet to drain the water from the system and storage tank.

Note: If tank is equipped with a ball valve, close valve to preserve the tank water.

2. Before installing the Permeate Pump, remove the blue tube inserts from the ports. Refer to the diagram on Page 2 for instructions for disconnecting from a Quick-Connect fitting.
3. Remove the 3/8" Blue tube from the manifold "TANK" port and insert the 3/8" Plug
4. Locate the 3/8" Blue tube from the manifold "FAUCET" port and cut approximately 24" from the manifold and re-route into the Permeate Pump "PERMEATE IN" port using a Reducer Union and a 3" long, 1/4" Blue tube.
5. Insert the 3/8" Blue tube from the faucet into the Permeate Pump "PERMEATE OUT" port using a Reducer Union and a 3" long, 1/4" Blue tube.
6. Locate the 3/8" Blue tube between the faucet and Permeate Pump, and then cut and insert the 3/8" Union Tee.
7. Insert the 3/8" Blue tube leading to the tank into the open port of the 3/8" Union Tee
8. Locate the 1/4" Red tube between the manifold "DRAIN" port and the faucet air gap inlet and then cut the tube 24" from the manifold (Making sure to leave the flow restrictor plugged into the manifold) Insert the red tube from the manifold into the Permeate Pump "BRINE IN" port and the red tube from the faucet into the Permeate Pump "BRINE OUT" port.
9. Make sure your installation matches the diagram shown in Figure 2
10. Turn on the water supply. Check for leaks periodically for the next 24-48 hours as the system fills and again after it shuts off when the tank is full.

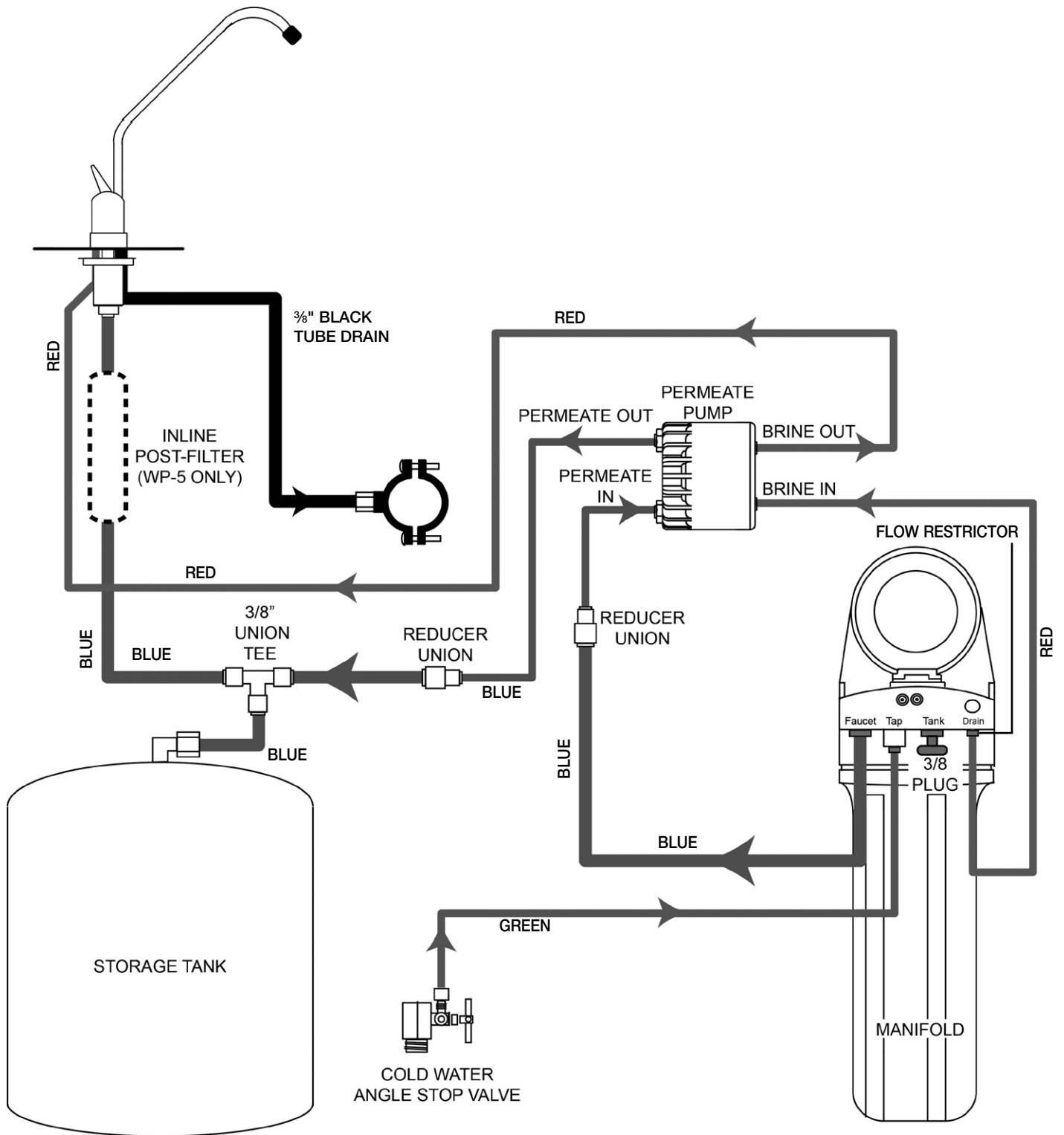


Figure 2: Manifold System after installation of Permeate Pump

Permeate Pump Installation with the KWIK-CHANGE RO

Parts Needed:

- (1) ¼" Plug Insert
- (1) ¼" Quick-Connect Union Tee
- (1) 48" long, ¼" blue tubing
- (1 - Optional) Inline Post Filter

NOTE: When mounting the Permeate Pump, make sure the outlet ports of the Permeate Pump are above the inlet ports in order to allow entrapped air to escape

Installation Steps

1. Turn off the incoming water to the reverse osmosis unit. Lift the handle on the reverse osmosis drinking water faucet to drain the water from the system and storage tank.

Note: If tank is equipped with a ball valve, close valve to preserve the tank water.

2. Before installing the Permeate Pump, remove the blue tube inserts from the ports. Refer to the diagram on Page 2 for instructions for disconnecting from a Quick-Connect fitting.
3. Locate the blue tube coming out of the elbow above the blue filter, then cut the tube 24" from the filters and insert the blue tube from the filter/manifold into the Permeate Pump "PERMEATE IN" port
4. Unplug and remove the blue tube located between the shutoff valve's "OUT" port and the elbow above the green filter. Insert a ¼" plug into the elbow.
5. Use the additional blue tube and insert one end into the Permeate Pump "PERMEATE OUT" port that the blue tube was just removed from.
6. Insert the other end of the additional blue tube into the shutoff valve's "OUT" port that the blue tube was just removed from.
7. Cut the blue tube between the tank and shutoff valve and install a ¼" quick-connect union tee.
8. Insert the blue tube leading to the faucet into ¼" Quick-Connect union tee
9. Locate the ¼" Red drain tube between the filters and faucet, and then cut the tube 24" from the filters.
10. Insert the ¼" Red drain tube, from the filters, into the Permeate Pump "BRINE IN" port (making sure to leave the flow restrictor end of the tube plugged into the filter port.)
11. Insert the ¼" Red drain tube, from the faucet, into the Permeate Pump "BRINE OUT" port.
12. Make sure your installation matches the diagram shown in Figure 3
13. (Optional) Locate the ¼" Blue tube between the faucet and Quick-Connect union tee and install the inline post filter

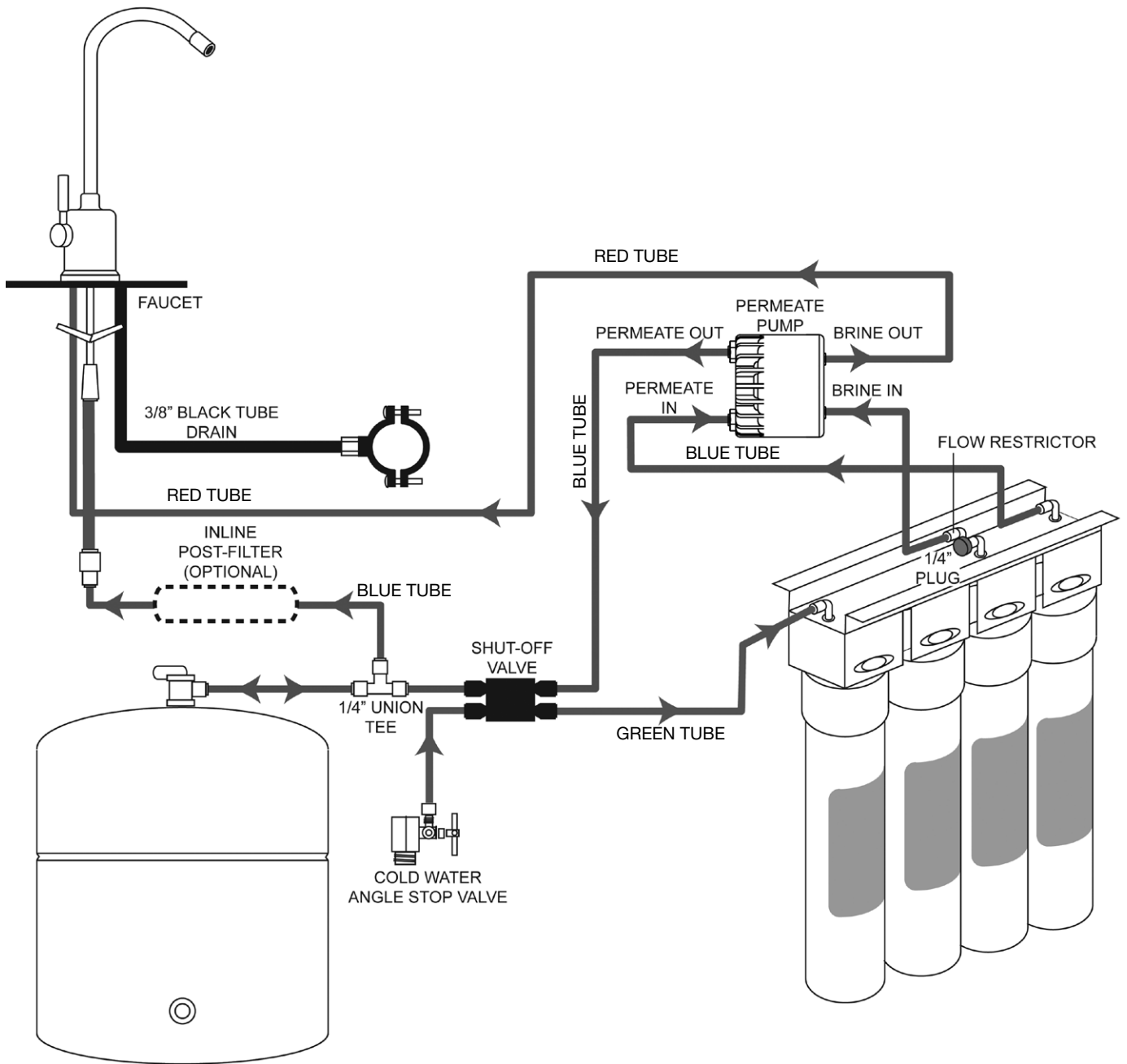


Figure 3: KWIK-CHANGE RO after installation of Permeate Pump

CALIFORNIA PROPOSITION 65 WARNING

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. (California law requires this warning to be given to customers in the State of California.)

For more information: www.watts.com/prop65

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