Plan Your Installation

PLAN YOUR INSTALLATION

Read through the entire manual before beginning your installation. Follow all steps exactly. Reading this manual will also help you get all the benefits from your system.

Your Reverse Osmosis Drinking Water System can be installed under a sink or in a remote location. Typical remote sites are a laundry room or utility room. Review the location options below and determine where you are going to install your system.

NOTE: For best system performance, the feed water to the system should be softened or have hardness less than 10 grains per gallon, with no iron.

UNDER THE SINK LOCATION

The Reverse Osmosis Filter Assembly and storage tank may be installed in a kitchen or bathroom sink cabinet. See Fig. 4.

A suitable drain point is needed for drain water from the Reverse Osmosis system.

REMOTE INTERIOR LOCATION

The Reverse Osmosis Filter Assembly and storage tank may also be installed in a remote interior location away from the Reverse Osmosis Faucet. You will need a near-by water source and drain point.

See Fig. 5.

CHECK SPACE REQUIREMENTS

Check size and position of items for proper installation into location chosen.

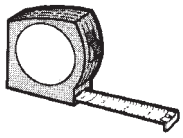
TOOLS NEEDED

Review the tools needed list. See Fig. 3. Gather needed tools before proceeding with the installation. Read and follow the instructions provided with any tools listed here.

TOOLS NEEDED

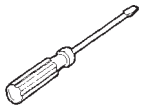
Adjustable wrench

Phillips Screwdriver

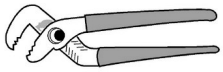


Tape Measure

Drill & Drill bits, if required.



Flathead Screwdriver



Large Adjustable Jaw Pliers or Pipe Wrench

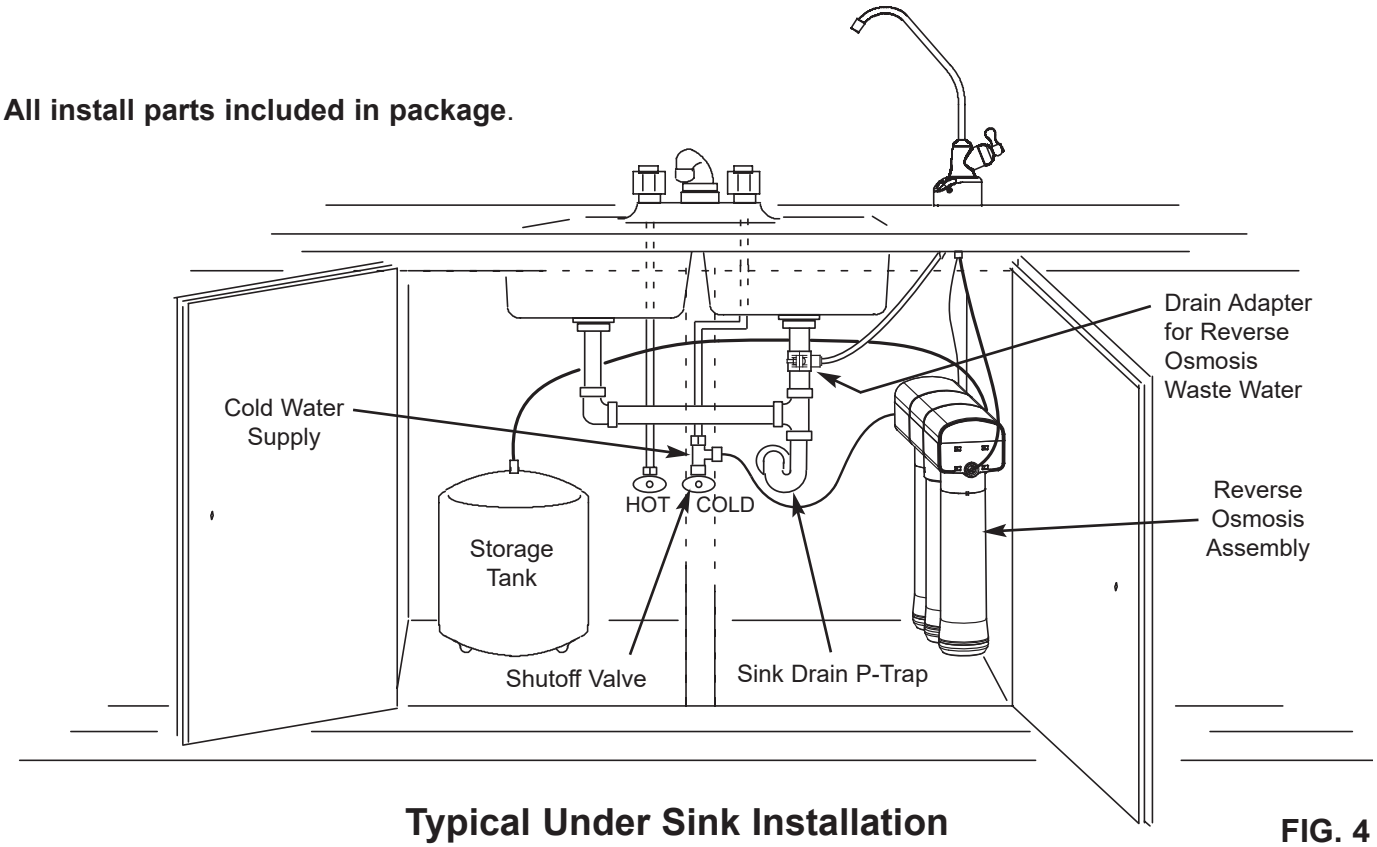
FIG. 3

Questions? Call Toll Free 1-800-693-1138 or visit **www.ecopure.com**

When you call, please be prepared to provide the model, date code and serial number, found on the rating decal, located inside the cover.

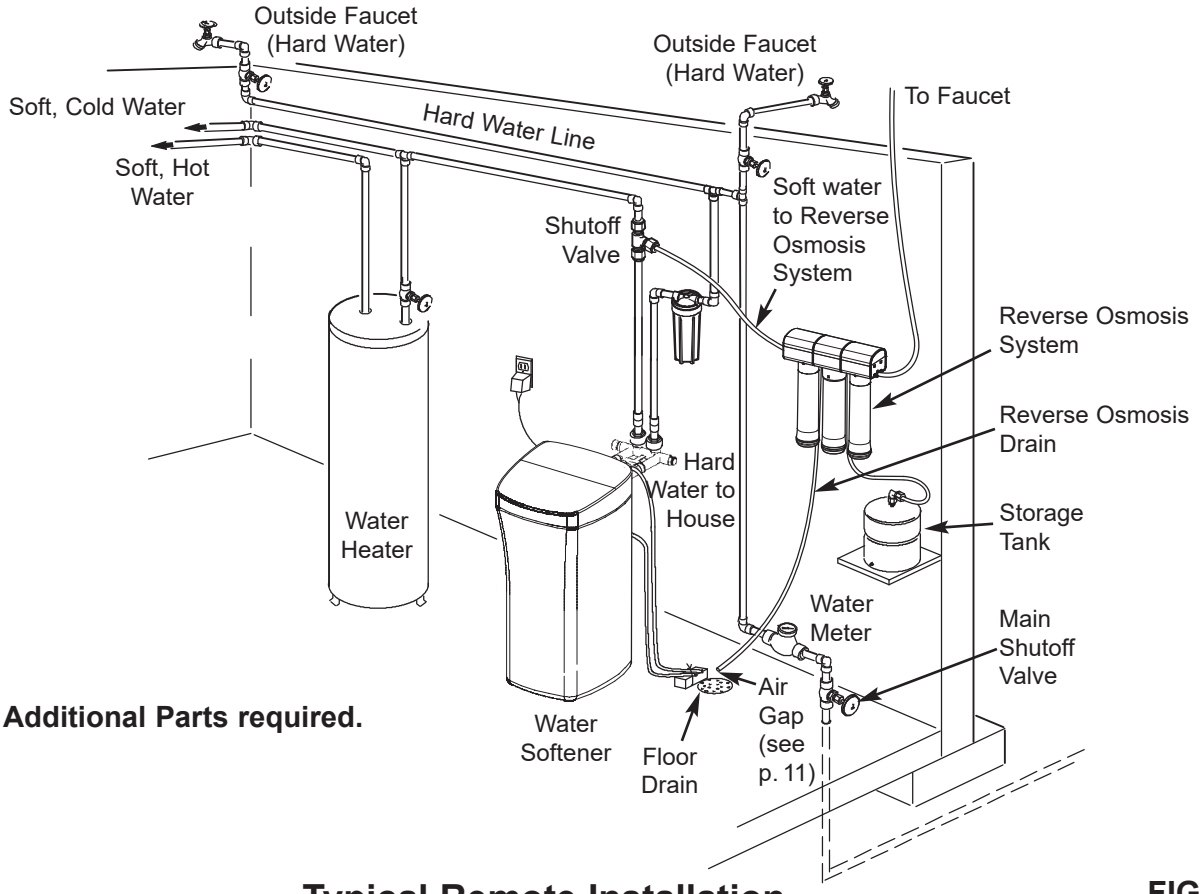
Plan Your Installation

All install parts included in package.



Typical Under Sink Installation **FIG. 4**

Additional Parts required.



Typical Remote Installation **FIG. 5**

Overview and Site Preparation

OVERVIEW

Read through the entire manual before beginning your installation.

There are seven steps to installing your Drinking Water system. They are as follows:

STEP A - Install Cold Water Supply fitting

STEP B - Install Drain Adapter

STEP C - Install Reverse Osmosis Assembly

STEP D - Install Storage Tank

STEP E - Install Reverse Osmosis Faucet

STEP F - Connect Tubing

STEP G - Sanitize, Pressure Test, Purge System

These steps are explained in detail over the next few pages. Follow all steps. Reading this manual will also help you receive and use all the benefits your Reverse Osmosis system can give you.

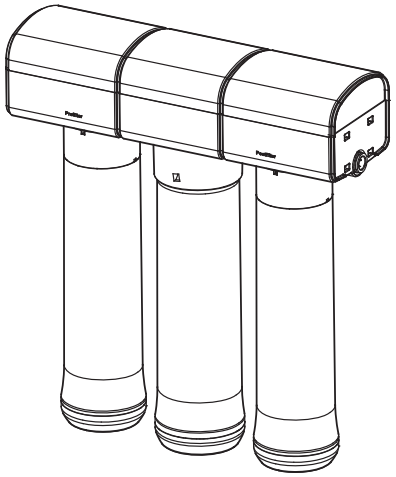


FIG. 6

PREPARE SITE FOR INSTALLATION

1. Before starting, close the hot and cold water shutoff valves (See Figure 7).
2. Temporarily place tank and filter assembly into planned location. Check position of items and space required for proper installation. Ensure tubes may be routed without kinking.
3. Remove tank and filter from planned location and set aside.

NOTE: You must check and comply with all local plumbing codes.

NOTE: Codes in the state of Massachusetts require installation by a licensed plumber and do not permit the use of saddle valves.
If you live in the state of Massachusetts, review plumbing code 248-CMR of the Commonwealth of Massachusetts before proceeding with the installation.

NOTE: For best system performance, the feed water to the system should be softened or have hardness less than 10 grains per gallon, with no iron.

Step A - Install Supply Water Fitting

Check and comply with local plumbing codes as you plan, then install a cold feed (supply) water fitting. Refer to the Specifications page for supply water requirements. The fitting must provide a leak-tight connection to the RO 1/4" tubing. A typical connection using the included water supply fitting is shown in Figure 7.

NOTE: Local code may dictate which type of water fitting is used. Consult a plumber if you are not familiar with local codes or plumbing procedures.

NOTE: Codes in the state of Massachusetts require installation by a licensed plumber and do not permit the use of saddle valves.

If you live in the state of Massachusetts, review plumbing code 248-CMR of the Commonwealth of Massachusetts before proceeding with the installation.

INSTALL COLD WATER SUPPLY FITTING

(Included)

This fitting will be installed on the cold water pipe. The fitting must provide a leak-tight connection to the Reverse Osmosis 1/4" tubing. Locate the cold water line in the sink cabinet. It is recommended, but not required, that the cold water line be soft water.

Complete the following steps to install the water supply fitting.

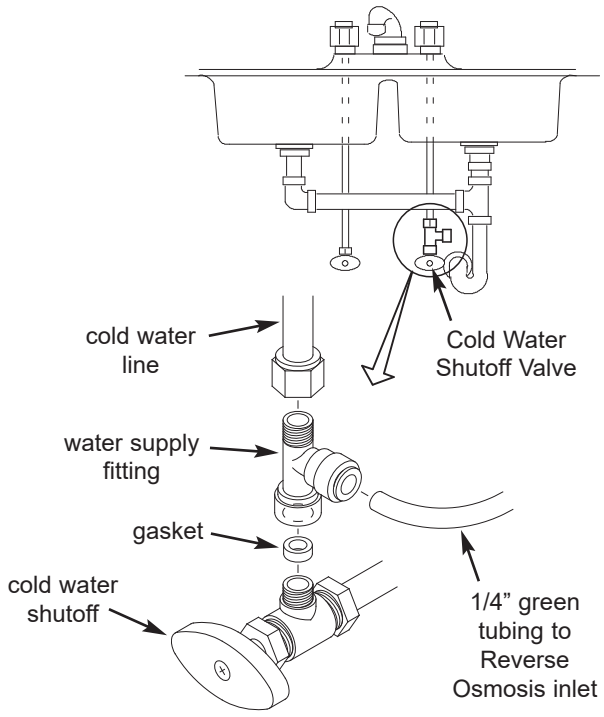
1. Close the water shutoff valve (angle stop valve) that the water supply fitting will be installed on, and open faucet(s) to relieve pressure.

2. Disconnect the existing cold water line from the water shutoff valve.

3. Make sure that the water supply fitting's gasket is inside the female threaded portion of the fitting.

4. Install the water supply fitting onto the cold water shutoff valve, where the existing cold water line was removed, and hand tighten. Be careful not to cross thread or overtighten.

5. Connect the existing cold water line to the male threaded portion of the water supply fitting and hand tighten. Be careful not to cross thread or overtighten.



Cold Water Supply Connection
(included in package)

FIG. 7

Step B - Install RO Drain Under Sink

INTRODUCTION

A suitable drain point is needed for the drain water from the Reverse Osmosis filter. You have two options:

- **Install the Drain Adaptor included with your unit** As shown in Figures 8-10, the drain adaptor is installed onto your sink's drain pipe above the P-trap. This is normally used for under sink installations.
- **Use another existing drain in your home** As shown in Figures 11 and 12, the drain tube from the RO filter runs directly to an open drain. This is often used for remote location installations.

NOTE: An incorrectly connected drain point can cause water to leak from the faucet's air gap.

NOTE: Local code may restrict the type of drain installation to use. Either drain installation type, if permitted by code, may be used in under sink or remote location installations. Consult a plumber if you are not familiar with plumbing procedures.

INSTALL DRAIN ADAPTOR

(Under sink Installation)

The drain adaptor included with your RO system is designed to fit around a standard 1-1/2" O.D. drain pipe. In the following procedure, you will install the drain adaptor above (upstream of) the P-trap. See Fig. 8 & 10. Be sure to comply with local plumbing codes.

NOTE: Before starting this procedure, inspect the drain pipe under the sink for corrosion, and replace if necessary, before continuing with installation.

1. Test fit the two halves of the drain adaptor onto the sink drain pipe, about 6 inches above the P-trap (See Fig. 9). Make sure that the Q.C. fitting is toward the direction of the RO faucet (See Fig. 10). ***NOTE: Locate so that the drain tubing from the Reverse Osmosis faucet will run straight to the adaptor, with no dips, loops, or kinks.***

2. Using the hole through the drain fitting as a guide, mark the pipe where a 3/8" hole will be drilled (See Fig. 9), and remove the drain adaptor from the pipe. ***NOTE: Do not drill through the drain adaptor's Q.C. fitting, as this could damage the o-ring.***

3. Drill a 3/8" dia. hole in the pipe and remove flash.

4. Clean the sink tailpiece to assure a leak-tight fit.

5. Place the halves of the drain fitting back onto the sink drain pipe. Use a pencil or similar pointed object to align the Q.C. fitting so that it is centered on the hole you drilled.

6. Assemble the nuts and screws, as shown in Figure 9, and tighten both sides equally to secure the drain adaptor halves onto the pipe. Do not overtighten.

7. Do not connect black tubing to the Q.C. fitting at this time. It is done after the RO faucet is installed.

Under the Sink Installation

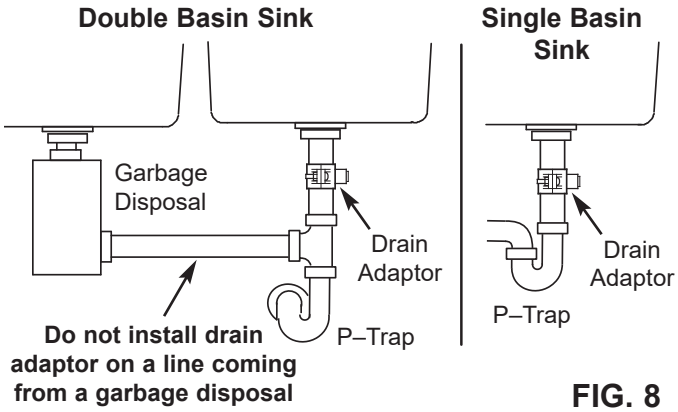


FIG. 8

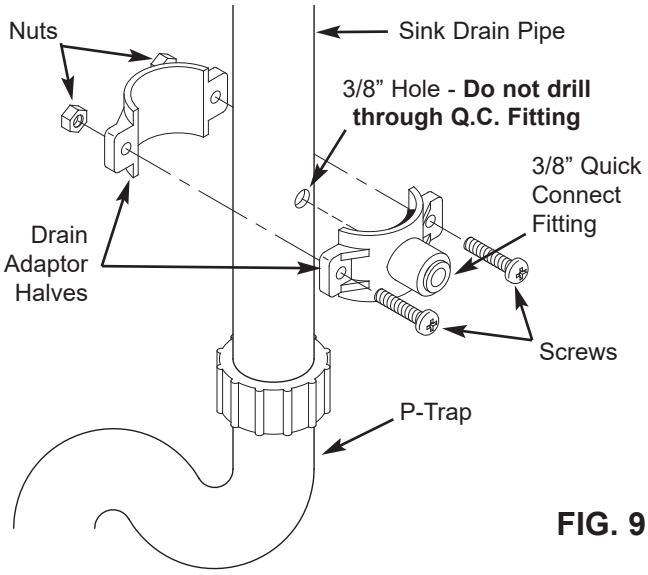
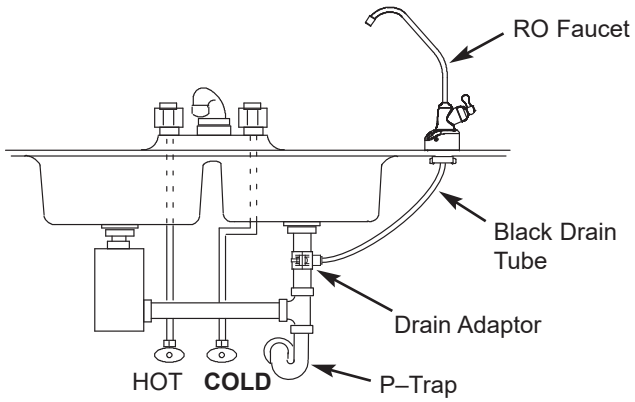


FIG. 9



IMPORTANT: Do not install drain adaptor below the P-Trap. Locate drain adaptor so that when the black drain tube from the Reverse Osmosis Faucet is installed it will run straight to the adaptor, with no dips, loops, or kinks.

FIG. 10

Step B - Install RO Drain In Remote Location

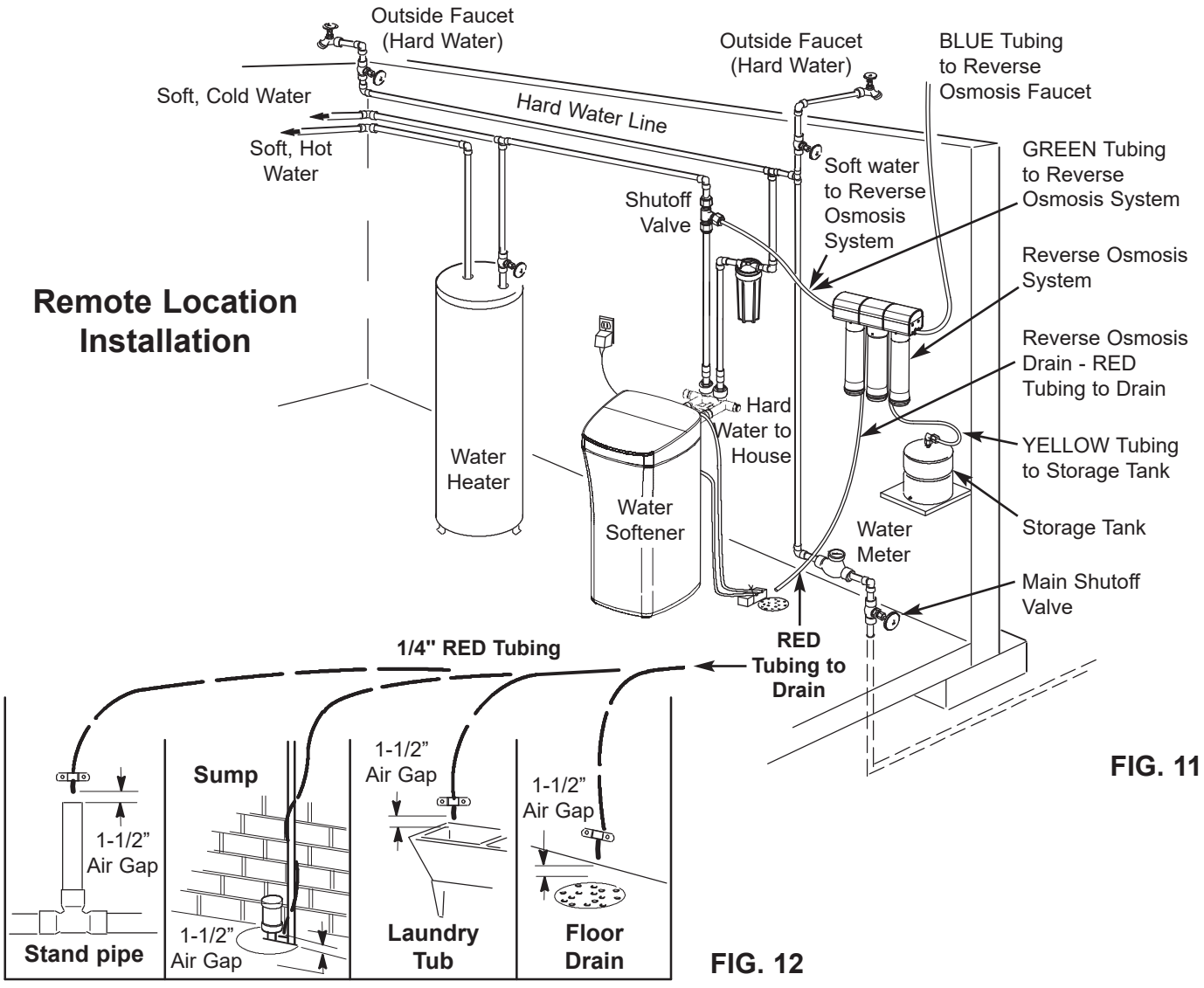


FIG. 11

FIG. 12

INSTALL A REMOTE DRAIN POINT AND AIR GAP (Remote Location)

Route the drain tubing to an existing drain in the house. A floor drain, laundry tub, standpipe, sump, etc. are suitable drain points. See Fig. 12. This type of drain is the preferred over the p-trap drain adapter.

Always be sure to provide a 1-1/2” air gap between the end of the hose and the drain point. This will prevent water from backing up into the system.

NOTE: Check your local plumbing codes.

To install a remote drain point, complete the following steps:

1. Locate the 1/4” red tubing on the Reverse Osmosis filter assembly. See Fig. 11.
2. Determine if this length is long enough to reach the drain point. Longer lengths of tubing (see parts list in back of manual) may be needed.
3. If longer tubing is required, disconnect the 1/4” red tubing and replace with an adequate length of tubing to reach the drain point. Refer to Step F later in the manual on how to disconnect and connect tubing. ***NOTE: A flow control insert is located inside the elbow fitting that the drain tube connects to. Refer to Fig. 29. Leave this fitting in place.***
4. Route the tubing to the drain point and secure at the end with a bracket (not included). See Fig. 12. Provide a 1-1/2” air gap between the end of the tube and the drain. See Fig. 12.

Step C: Install RO Filter Assembly

INSTALL REVERSE OSMOSIS FILTER ASSEMBLY

The Reverse Osmosis Filter Assembly is mounted on hanger washers.

See Fig 13. The hanger washers allow you to lift the filter assembly from the washers without any hardware removal. When planning your installation, you need to leave room for changing filters.

Complete the following steps to install your Reverse Osmosis Filter Assembly:

1. Remove the cover.

2. Locate mounting slots on back inside of the assembly. See Fig 13.

3. Hold the assembly up to the wall surface and mark locations for the hanger washers. See Fig 13. Mount the unit high enough to allow room to change filters without taking the unit off of the wall.

4. Fasten the hanger washers to the wall using the screws provided.

5. Hang assembly on washers.

6. Replace cover.

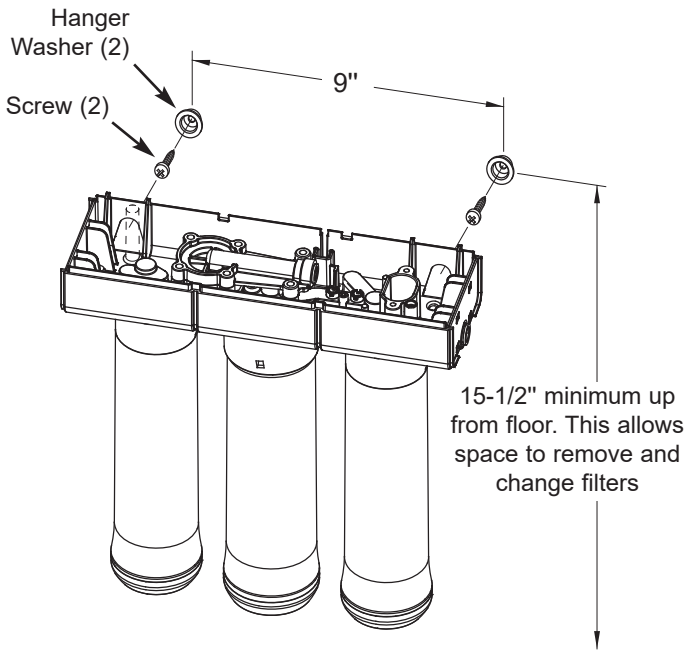


FIG. 13

Step D - Install Storage Tank

The fitting on the supply tank may need to be tightened 7-8 full turns to get a good seal.
Do not overtighten.

INSTALL STORAGE TANK

1. Apply thread sealing tape (2 wraps clockwise) to the threads on the nipple at the top of the tank. See Fig 14.

2. Locate the tubing connector. See Fig. 14. Tighten the tubing connector onto the tank nipple 7-8 full turns, being careful not to cross thread or overtighten.

3. Do not connect the tube at this time. This will occur later in the assembly.

4. Place the storage tank next to the Reverse Osmosis Assembly. The tank can be placed upright or on its side.

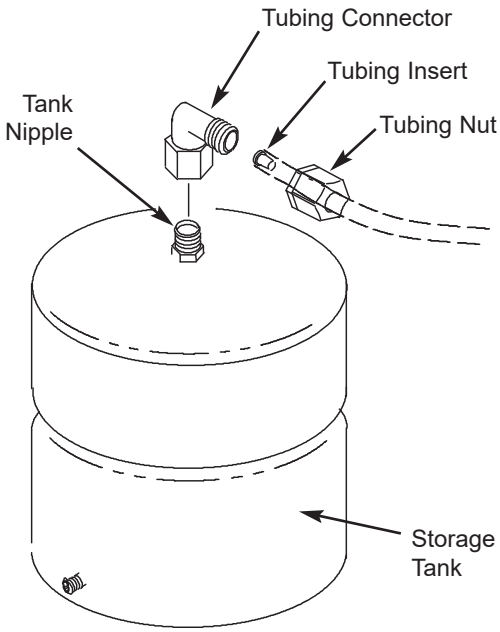


FIG. 14

Step E - Install RO Faucet

SELECT LOCATION OF REVERSE OSMOSIS FAUCET MOUNTING HOLE

You will need to select the location of the Reverse Osmosis Faucet. You have three options to choose from:

- **Use the existing sink top hole for the spray hose or soap dispenser** (Must be 1-1/4” in diameter)
- **Drill a new hole in the sink**
- **Drill a new hole in the countertop next to the sink**

1. Determine where you are going to install your Reverse Osmosis Faucet.

2. Check to ensure the Reverse Osmosis faucet will mount flat against the mounting surface.

3. Visually review the routing of the tubes from the Reverse Osmosis filter assembly to the faucet. Check to ensure there is adequate tube routing space between the faucet and filter assembly.

4. If drilling is needed, drill a 1-1/4" diameter hole in the mounting surface.

IMPORTANT: Drilling holes into countertops and sinks should only be performed by an installer who is qualified for drilling such materials. Drilling of surfaces made of stone or solid surface materials such as granite, marble, Corian™ or other plastic resin products or sinks made of porcelain or stainless steel may cause permanent, irreparable damage to the sink or countertop surface.

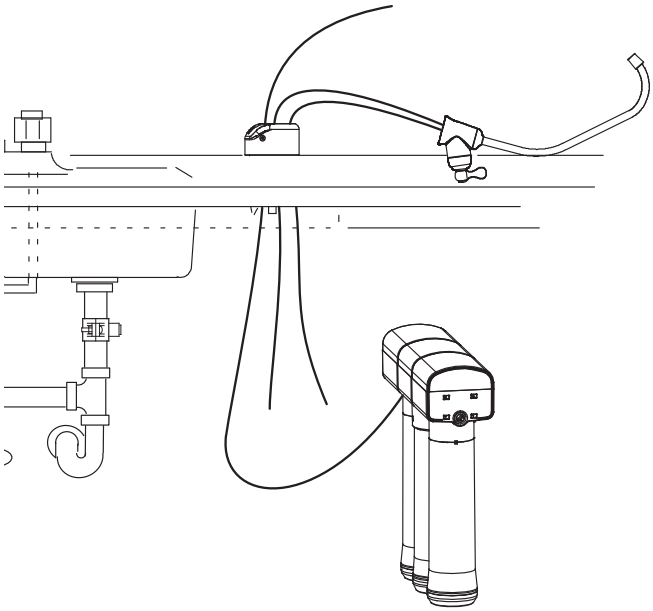


FIG. 15

Questions? Call Toll Free 1-800-693-1138 or visit **www.ecopure.com**

When you call, please be prepared to provide the model, date code and serial number, found on the rating decal, located inside the cover.

Step E - Install RO Faucet (cont.)

INSTALL REVERSE OSMOSIS FAUCET

1. Locate and organize your RO faucet install parts. Refer to Fig. 16.
2. Mount faucet base to sink hole until the faucet base is flat against the sink surface. The rubber gasket should be between the sink surface and the faucet base.
3. Tighten the toggle bolts until the base is firmly mounted to the sink surface. Do not overtighten.
4. Locate the faucet body. (The black and blue tubes are already connected to the faucet.) Insert these tubes into the sink hole until approximately one foot of tube length and the faucet body are left above the counter surface. Do not kink the tubes in the process. See Fig. 15.

NOTE: If you routed the red drain tubing directly to a remote drain point (see page 10), disregard step 5 and move on to step 6.

5. Locate the 1/4" red tubing. One end is connected to the RO filter assembly. See Fig 24.
   A. Route the loose end of the red tube through countertop to faucet.
   B. Cut the loose end of the red tube square and to length. See Fig. 19 for tube cutting instructions.

NOTE: Tubing lengths should allow for the removal of the assembly from the hanger washers for servicing. If tubing lengths are shortened for neater appearance, it may be necessary to keep the assembly on the hanger washers for service.

   C. Insert all the way onto the 1/4" faucet barb fitting on faucet. See Figs. 17, 20 & 21.
   D. Pull on the tubing to be sure it is held firmly in the fitting.

6. Mount the faucet body onto the faucet base, 1/4 turn.

FAUCET ELECTRONICS

Inside the faucet base is a battery operated 6 month timer. An amber LED indicator is also located in the front of the faucet base. This LED will flash continuously after 6 months has passed. This indicates that it is time to replace the battery, prefilter and postfilter.

INSTALL BATTERY

To install battery, complete the following steps.

1. Remove the screw on the right side of the faucet base.
2. Press the battery housing upward from the front faucet base until it releases from the faucet base. See Fig. 16.
3. Install the battery (CR 2032 or equivalent). Place battery into the holder with the positive (+) side facing the back of the holder.
4. When the battery is installed the LED will flash six times and turn off. This indicates the battery is fully charged. After the six flashes, the timer enters the 6 month time cycle.

NOTE: If the LED repeatedly flashes two times, the battery needs to be replaced.

5. Re-install the battery housing and firmly tighten the mounting screw. See Fig. 16.

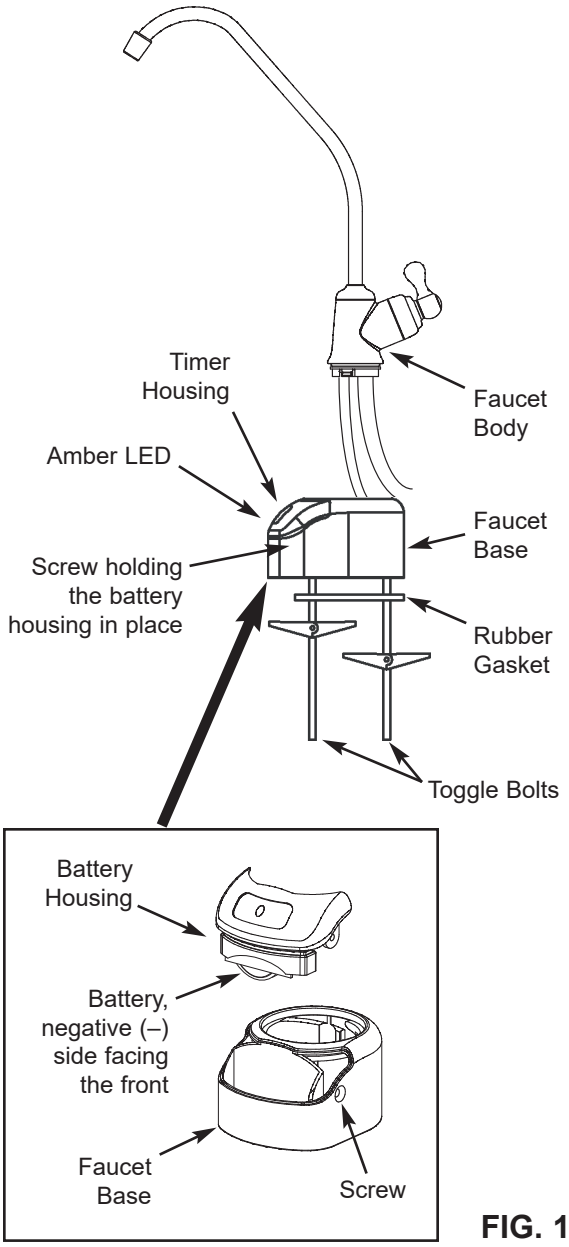


FIG. 16

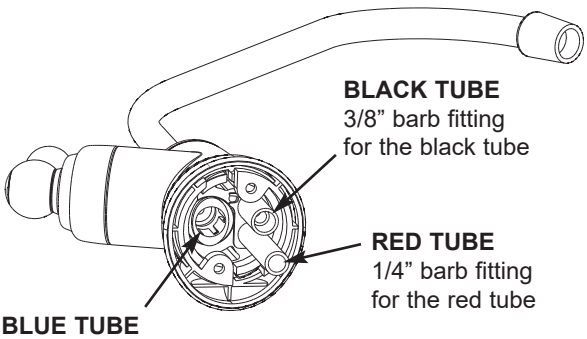


FIG. 17

Step F - Connect Tubes

HOW TO CUT AND CONNECT THE TUBES

Your Reverse Osmosis system includes push-in fittings for quick tubing connection. Review the following instructions before connecting the tubes in the next step. Failure to follow these instructions may lead to future leaks.

Cut tubes to length

1. Use a sharp cutter or knife to cut the end of tubing. Always cut the tubing square. See Fig. 19.
2. Inspect the tube up to 1" from the end to be sure there are no nicks, scratches or other rough spots. If needed, cut the tubing again. See Fig. 19.
   NOTE: Tubing lengths should allow for the removal of the assembly from the hanger washers for servicing. If tubing lengths are shortened for neater appearance, it may be necessary to keep the assembly on the hanger washers for service.

Connect tubes

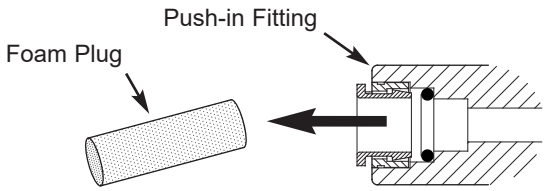
NOTE: Remove protective foam plugs before connecting tubes (See Fig. 18). Discard foam plugs.

1. Push tubing through collet, until it engages the o-ring. See Fig. 20. Continue pushing until the tube bottoms out against the back of the fitting. See Fig. 21. Do not stop pushing when the tube engages the o-ring. Failure to follow these instructions may lead to future leaks. When a 1/4" tube is fully engaged, 11/16" of the tube has entered the fitting. When a 3/8" tube is fully engaged, 3/4" of the tube has entered the fitting. Mark tube with a piece of tape or marker. See Figs. 20 & 21.

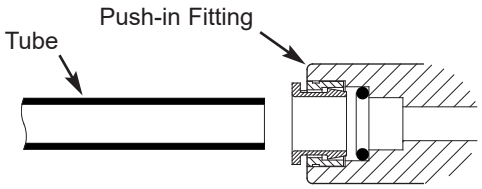
2. If additional tubing is required, see parts list at the end of this manual.

To Disconnect Tubes

1. Push the collet inward with a finger tip. See Fig.23.
2. Continue holding collet inward while pulling the tubing out. See Fig. 23.

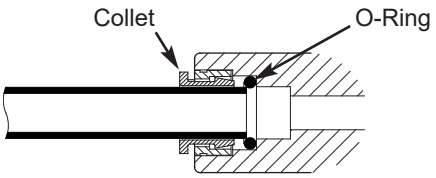


Remove and Discard Foam Plugs **FIG. 18**

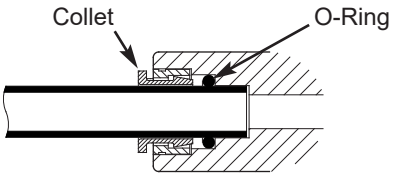


Cut tubing square with end of tubing round, smooth, with no cuts, nicks or flat spots.

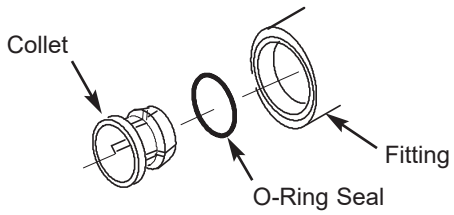
Tube Correctly Cut **FIG. 19**



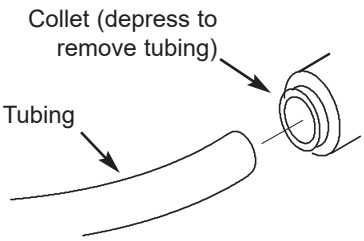
Tube Partially Engaged with Fitting **FIG. 20**



Tube Fully Engaged with Fitting **FIG. 21**

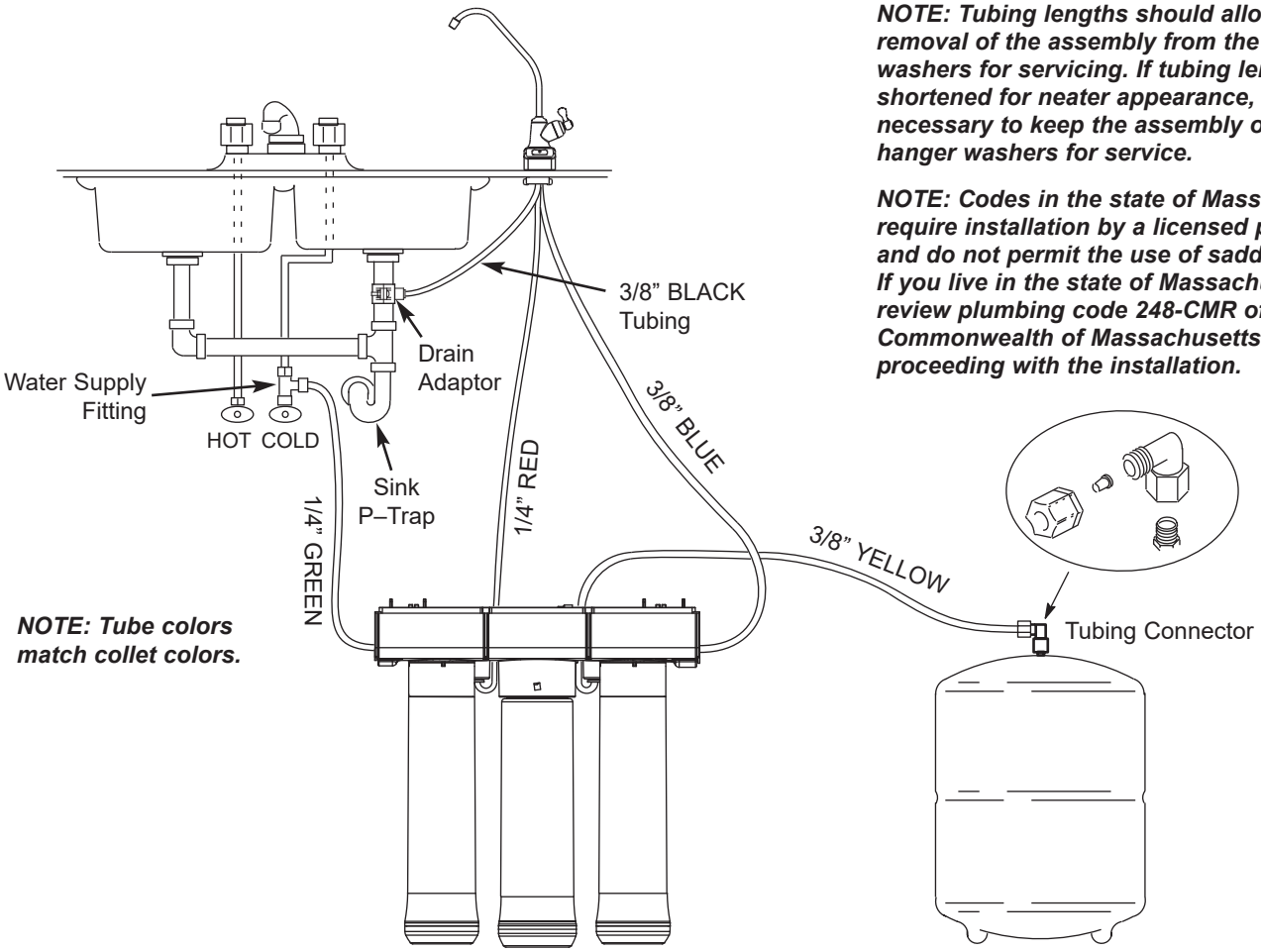


Collet and O-Ring **FIG. 22**



Disconnect Tubing **FIG. 23**

Step F - Connect Tubes (cont.)



NOTE: Tubing lengths should allow for the removal of the assembly from the hanger washers for servicing. If tubing lengths are shortened for neater appearance, it may be necessary to keep the assembly on the hanger washers for service.

NOTE: Codes in the state of Massachusetts require installation by a licensed plumber and do not permit the use of saddle valves. If you live in the state of Massachusetts, review plumbing code 248-CMR of the Commonwealth of Massachusetts before proceeding with the installation.

NOTE: Tube colors match collet colors.

Tube Connections **FIG. 24**

ROUTE YELLOW TUBE TO STORAGE TANK

1. Locate the yellow tube attached to the Reverse Osmosis filter assembly.
2. Route the loose end of the yellow tube to the fitting on top of the storage tank. See Fig. 24.
3. Cut tube square and to length. See Fig. 19.
4. Do not connect at this time. This will occur in the sanitizing step.

CONNECT GREEN TUBE TO COLD WATER SUPPLY PIPE

1. Route one end of the 1/4” green tube to the fitting on the water supply pipe. See Fig. 24.
2. Cut tube square and to length. See Fig. 19.
3. Connect to tee feed adaptor. See Fig. 7. Insert all the way into the fitting. See Figs. 20 & 21.
4. Route the other end of the green tube to green collet to the fitting on the left side of the Reverse Osmosis filter assembly.
5. Cut tube square and to length. See Fig. 19.
6. Insert all the way into the fitting. See Figs. 20 & 21.
7. Pull on the tube to be sure it is held firmly in the fitting.

CONNECT BLUE TUBE TO REVERSE OSMOSIS ASSEMBLY

1. Locate the blue tube attached to the faucet.
2. Route the loose end of the 3/8" blue tube to the blue collet on the right side of the Reverse Osmosis filter assembly.
3. Cut tube square and to length. See Fig. 19.
4. Insert all the way into the fitting. See Figs. 20 & 21.
5. Pull on the tube to be sure it's held firmly in the fitting.

CONNECT BLACK TUBE FROM REVERSE OSMOSIS FAUCET TO DRAIN ADAPTER

1. Locate the 3/8" black tube attached to the faucet. Fig. 24.
2. The loose end needs to be attached to the quick connect fitting on the sink drain adapter.
3. Cut this tube as needed to route it as straight as possible, without loops, dips, or kinks.
4. Cut the end of the tube square. See Fig. 19.
5. Insert all the way into the fitting. See Figs. 20 & 21.
6. Pull on the tube to be sure it is held firmly in the fitting.

RED TUBE TO REVERSE OSMOSIS FAUCET

The red tube connection was completed in the faucet assembly steps.

Step G - Sanitize, Test and Purge System

SANITIZE THE SYSTEM

Sanitizing is recommended immediately after installation of the Reverse Osmosis system. It's also recommended after servicing inner parts. It is important that the person installing or servicing the system have clean hands while handling inner parts of the system.

Complete the following steps to sanitize the system. See Fig. 25.

1. Make sure that the water supply to the Reverse Osmosis system is off.
2. Open the Reverse Osmosis faucet. If the tank is not already empty, allow the water to empty.
3. Locate the eyedropper included in parts bag and common household bleach (5.25%).
4. Add 3 ml. of bleach into open end of yellow tubing. Handle bleach according to bleach manufacturer's recommendations. See Fig. 25.
5. Connect yellow tubing to tank connector. See Figs. 14 and 25.
6. Sanitizing the system will be completed during the pressure test and purging steps on the following page.
   NOTE: The bleach must be removed from the system before drinking the water. See purging instructions on the next page.

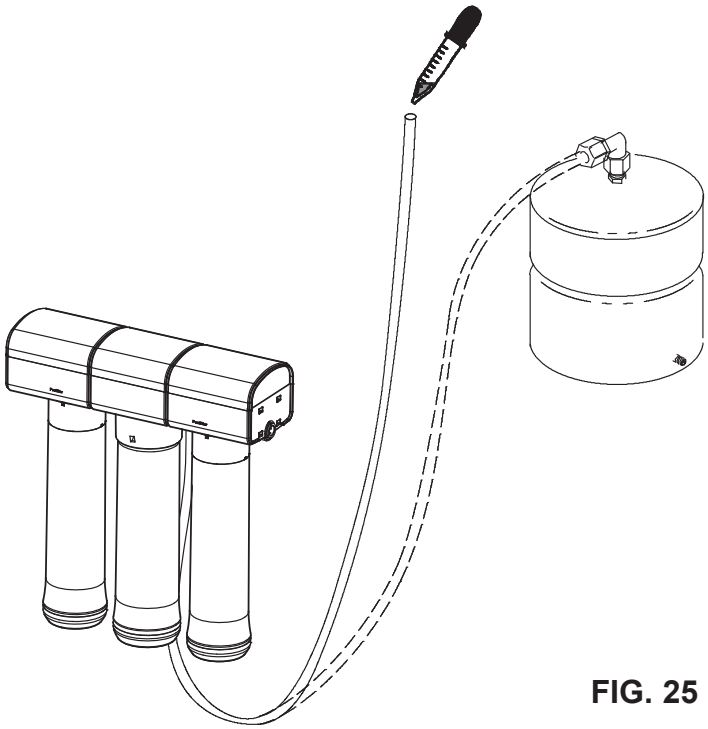


FIG. 25