



ENVIRONMENTAL WATER SYSTEMS™

The Leader In Whole Home Water Filtration.

Since 1987

PRODUCT AND INSTALLATION MANUAL

ESSENTIAL Reverse Osmosis Systems

Model Numbers:



RO3, RO3-UV



RO4, RO4-UV

ALL FILTRATION PRODUCT PROUDLY MADE & ASSEMBLED IN THE USA



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Retain this Product & Installation Manual for Maintenance and Information
Please Register this Product - It is a Requirement for Warranty

A Special Message to Our Customers,

EWS, Inc. and Environmental Water Systems would like to thank you for your consideration in selecting from our comprehensive list of residential filtration and conditioning product. We recommend that you take the time to read the information that pertains to your product as you begin to use it.

The information in this manual is designed to assist your installer to set-up, install and start-up your system properly. In addition, the information contained in this manual is designed to provide the consumer, the most comprehensive information on this series of product. Please contact us if you have any questions, comments or additions to the information provided.

Sincerely,
Customer Service at EWS, Inc.



Installation of the Filtration System - Please Read the Enclosed Information

Please take the time to familiarize yourself with the unit you are about to install. Locate the box with the filter top (head assembly) and if applicable, the UV unit and the box with all the filter cartridges, tubing, angle stop valve and if applicable UV transformer.

You may need the following for proper installation:

• Teflon tape • Work Gloves • Safety Glasses • Knife or scissors • Adjustable Wrench • Pliers • Screwdriver; straight & phillips • Drill & drill bits

WARNING: Verify that all components are included with the unit and were not lost, misplaced, or damaged in shipping or handling. Any damage in shipping needs to be reported to the shipping company.

WARNING: Do not attempt to install this system using defective or damaged components. Check and inspect, inlet and outlet fittings and any other connections on this system that might have been damaged during shipping and handling. Check all these components again upon installation and start-up for any hidden issues. All plumbing should be done in accordance with all local plumbing codes. Water Pressure: minimum 40psi, maximum 75psi. Water Temperature Range (cold supply only): not to exceed 100°F or below 40°F. Electrical (if applicable): an uninterrupted a/c supply, (if applicable): make sure voltage supply is compatible with your unit prior to install

WARRANTY: Warranty Registration of this product is required to have a warranty. A proper installation and start-up will save you time, money and hassles, and is also required for warranty purposes. Any issue as a result of improper application, set-up, installation and/or start-up will void any warranty.

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Dispenser/Faucet Q & A - Reverse Osmosis

Things to know:

- 1 - Spout pulls out from faucet body that's why it swivels.
- 2 - Spout has 2 o-rings at base and is inserted completely into bottom of body to prevent leaking.
- 3 - Handle and tip can also be removed

Q: I do not want to drill any extra holes or use a separate dispenser/faucet - what can I do?

A: Nothing. Reverse osmosis systems are limited to a separate dispenser.

WARNING:

These systems manufacture a limited amount of water and therefore the connection to the cold side of your sink faucet is an unavailable option. In addition, the water produced by a reverse osmosis system is aggressive and would have adverse leaching effects on any other metals (ie: brass, copper) other than stainless steel.

Note:

This application or option is not applicable for reverse osmosis systems. Drinking water filtration systems are pass through systems and will allow this option. There will be a diminishment in your flow rate to the cold side of the faucet (kitchen faucet has a flow rate of up to 2.3 gallons per minute and the filtered water is delivered up to 1 gallon per minute). To get filtered water you must be sure you have the faucet to the cold side only.

Q: I would like to use another dispenser/faucet?

A: Based on many styles and finishes, a consumer may have another dispenser they would like to use. No problem, all these items have universal or industry standard fittings, or if not, can be easily adapted to fit. Always check with manufacturer for proper specifications.

Note:

EWS, Inc. includes a standard chrome, long-reach, lead-free faucet with white tip, handle and optional air gap adaptor (reverse osmosis systems only). Be aware - an air gap may be code and required with a dispenser/faucet installation.

Options: EWS provides the following options to match other items at an additional charge;

- Change your white tip and handle to black
- Change your white air gap adaptor to black
- Change your faucet to the following finishes; satin nickel, polished nickel, polished brass, or oil rubbed bronze (all with black tip, handle and air gap). Inquire with your local EWS, Inc. distributor, contact an authorized internet distributor or visit us on the web

Q: Can we connect the filtered water up to other devices?

A: Yes, simply connect by a "T" connection, the filtered water line to any instant hot, chiller, ice-maker, refrigerator, etc. Regarding flow rate, be mindful of too many (3 or more) connections. Any length of total tubing in excess of 20 feet combined to tank, faucet, and all items will create issues with delivery rates**. See our Point of Entry, Whole Home Appliances to filter all the fixtures within the home.

WARNING:

Reverse osmosis may have warranty or restrictions with other devices, consult with other manufacturer's product information. Any length of total tubing in excess of 20 feet combined to tank, faucet, and all items will create issues with delivery rates**.

Note:

**Tubing in excess of 20 feet is calculated by adding the length of yellow tubing from unit to tank and the blue tubing from the "FAUCET" on unit to dispenser and/or another device(s). EWS, Inc. supplies 5 feet of each type of tubing.

Q: Do I need to use the air gap adaptor?

A: Yes, if local code requires that an air gap be used. Since the unit is both connected to a potable water supply and a drain, some code requires an air gap to prevent cross-contamination, similar to all EWS point of entry systems, a dishwasher and/or washer machines. Care has to be taken with this unit to make all the proper connections. Follow all local plumbing codes.

Placement or Locating Dispenser/Faucet - Reverse Osmosis

Step by step instructions to mount and secure the supplied dispenser/faucet

Professional Installation is Strongly Recommended

Step 1: Locate Faucet Parts Bag

Parts Included: faucet body with handle, faucet spout with tip, decorative washer, black rubber washer, white beveled washer, lock washer, hex nut, 1/4" tube insert sleeve, 1/4" plastic compression ferrule, 1/4" compression nut

Optional Parts: flat white washer (for use under decorative washer depending on hole/application)
air gap adaptor (white) for use with reverse osmosis air gap applications

Preferred - Select a standard sink location to mount the faucet.

It is recommended that the faucet be placed in a hole provided on most sinks similar to the holes used for a sprayer, soap dispenser and/or dishwasher air gap. If the hole or space is unavailable, an alternative location will be required:

NON-AIR GAP:	MINIMUM HOLE REQUIRED 1/2",	MAXIMUM 1 3/8"
AIR GAP:	MINIMUM HOLE REQUIRED 1 1/4",	MAXIMUM 1 3/8"

Option A: On the sink. This option is to drill a new hole into the sink rim itself, if space allows.

Option B: On the countertop next to a sink. This option is to position the faucet spout in the correct location to drain into the sink. This requires a clearance around the faucet both above and below the countertop. Use the supplied dispenser as a template or see the enclosed dispenser schematic and dispenser dimensions.

Prepare to drill the hole using the dispenser as a template.

- Sinks can be made of, but not limited to, stainless steel, copper, porcelain/steel, enamel/cast iron, man-made surfaces, stone, concrete, and/or materials known or unknown at this time.
- Countertops can be made of, but not limited to, or be a combination of, natural stone, enamel, porcelain, concrete, wood, metals and/or man-made materials known or unknown at this time.

CAUTION:

Please consult with the sink or countertop manufacture, supplier, fabricator, or installer for proper drilling techniques and methods.

EXTREME CARE MUST BE TAKEN IN DRILLING THE HOLE FOR ANY SURFACE. THE SURFACE MATERIALS OF SINKS AND COUNTERTOPS CAN CHIP OR CRACK. THE MANUFACTURER ASSUMES NO RESPONSIBILITY FOR ANY DAMAGE RESULTING FROM THIS INSTALLATION.

WARNING:

USE SAFETY GLASSES OR OTHER EYE PROTECTION WHEN GRINDING OR DRILLING TO PREVENT POSSIBLE EYE INJURY DUE TO FLYING PARTICLES.

Installation of the Supplied Dispenser/Faucet with Air Gap

Step by step instructions to mount and secure the supplied dispenser/faucet
If using another faucet, please review the instructions included with that product**

*****Other Air Gap connections can be found with
Drain Installation and Connection and System Interconnection instructions**

Above the Surface

Step 2:

Place air gap to bottom of faucet body***
(optional: place flat white washer under decorative washer)

Step 3:

Place black rubber washer below air gap
(or below optional flat white washer)

Step 4:

Place faucet stem through hole and center

Below the Surface

Step 5:

Insert white beveled washer, bevel side up to fit snugly into a (1 3/8") pre-drilled hole or flat side up depending on the application

Step 6:

Place lock washer on this white beveled washer

Step 7:

Spin hex nut onto faucet stem and tighten hex nut and washers into place

Step 8:

Slide 1/4" compression nut (threads up) onto 1/4" filtered line

Step 9:

Slide 1/4" plastic compression ferrule, long side down onto filtered water tube. Ferrule will seat into compression nut

Step 10:

Insert 1/4" tube insert sleeve into 1/4" filtered water line

Step 11:

Insert 1/4" blue (filtered water) tube into faucet stem. Leave other end available for system interconnection

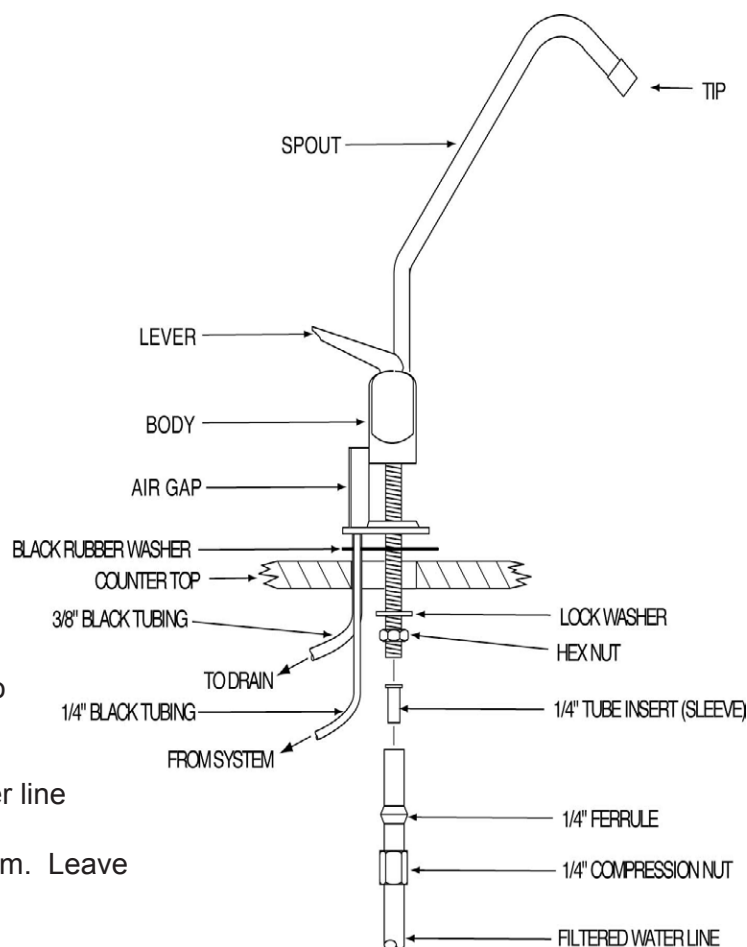
Step 12:

Thread 1/4" compression nut onto faucet stem and tighten

CAUTION: Do not overtighten fittings

Enclosed Dispenser/Faucet Dimensions***

Height: from deck to top of dispenser	8"
from deck to tip of dispenser	6 1/4"
Reach: from center of dispenser to tip	6"
Hole: minimum required with air gap	1 1/4"
maximum	1 3/8"



Note: Spout pulls out from faucet body and has 2 o-rings at base. Insert completely into bottom of faucet body to prevent leaking. Spout swivels to direct water. Handle and tip can be removed. Handle can be locked up in open position.

** Other faucets check with specifications.

***All dimensions are approximate.

Installation of the Supplied Dispenser/Faucet without Air Gap

Step by step instructions to mount and secure the supplied dispenser/faucet
If using another faucet, please review the instructions included with that product**

Above the Surface

Step 2:

Place decorative washer to bottom of faucet body
(optional: place flat white washer under decorative washer)

Step 3:

Place black rubber washer below decorative washer
(or below optional flat white washer)

Step 4:

Place faucet stem through hole and center

Below the Surface

Step 5:

Insert white beveled washer, bevel side up to fit snugly into a (1 3/8") pre-drilled hole or flat side up depending on the application

Step 6:

Place lock washer on this white beveled washer

Step 7:

Spin hex nut onto faucet stem and tighten hex nut and washers into place

Step 8:

Slide 1/4" compression nut (threads up) onto 1/4" filtered line

Step 9:

Slide 1/4" plastic compression ferrule, long side down onto filtered water tube. Ferrule will seat into compression nut

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Insert 1/4" tube insert sleeve into 1/4" filtered water line

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Insert 1/4" blue (filtered water) tube into faucet stem. Leave other end available for system interconnection

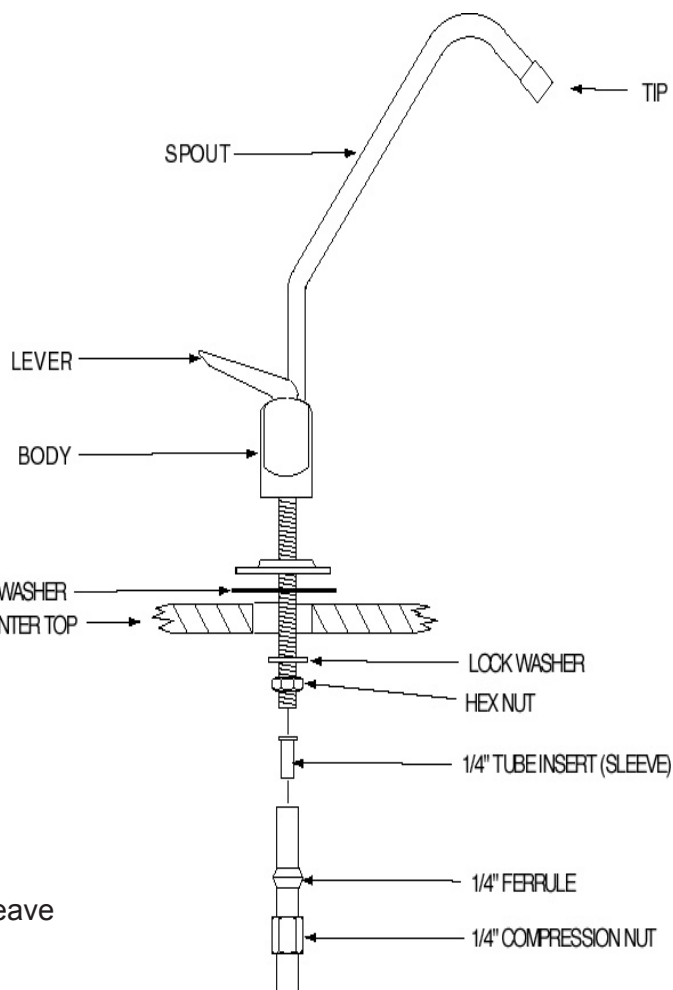
Step 12:

Thread 1/4" compression nut onto faucet stem and tighten

CAUTION: Do not overtighten fittings

Enclosed Dispenser/Faucet Dimensions***

Height: from deck to top of dispenser	8"
from deck to tip of dispenser	6 1/4"
Reach: from center of dispenser to tip	6"
Hole: minimum required	1/2"
maximum	1 3/8"



Note: Spout pulls out from faucet body and has 2 o-rings at base. Insert completely into bottom of faucet body to prevent leaking. Spout swivels to direct water. Handle and tip can be removed. Handle can be locked up in open position.

** Other faucets check with specifications.

***All dimensions are approximate.

Supplied Professional Connection

Professional Installation is Strongly Recommended

The supplied fitting is a John Guest Angle Stop Valve which connects between the supply valve and riser to the main water supply line*.

Instructions from the bag containing the supplied connection

From parts bag locate: Angle Stop Valve
5 feet of red or orange 1/4" tubing (the proper tubing from the water supply to the system)

Step 1

BEST METHOD: Shut off the main water supply to the house and open the kitchen faucet to relieve water pressure in the hard pipe. Once water stops flowing from the kitchen faucet, shut off the water supply at brass or chrome supply valve. This is the shut off valve for the cold water side of the faucet under the sink (see illustration)

NOTE: Shutting the angle stop only, still leaves water in that pipe.

Step 2

Disconnect riser from brass or chrome supply valve.
This is the cold water line that feeds your existing kitchen faucet.

Step 3

Ensure that the sealing gasket is fully seated into the angle stop valve female thread.

Step 4

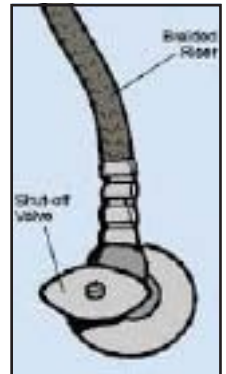
Install angle stop valve on supply valve.

Step 5

Connect the riser to the angle stop valve.

Step 6

Fully insert tubing into the quick connect fitting on the side of the angle stop valve.

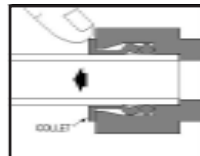
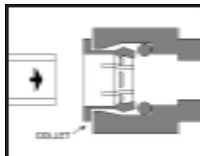


Pictured:
Example of shut off valve and riser up to the cold side of the kitchen faucet typically found under the sink

To Insert: Make sure tubing has an even edge than press tubing in firmly and completely

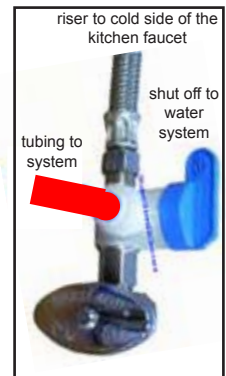
Never Pull Tube Out To Remove

Push Collet In To Release



To Test Fitting:
Give a Gentle "Tug" To Insure Proper Connection

See All
Cautions, Warnings and Inspections



Pictured:
Example of shut off valve and riser up to the cold side of the kitchen faucet with the properly installed angle stop valve

CAUTION: USE ONLY COLD WATER LINE. NOT INTENDED FOR SUPPLY BY HOT WATER.

After complete installation of the system, open main water supply to the house and open all valves and check for any leaks.

If needed, please refer to the John Guest Speedfit Installation Guide and Technical Check List for all other information or visit their website @ www.johnguest.com

Angle Stop Valve (ASVPP1LF)
NSF 51 Compliant
LEAD FREE - Meets AB1953



*Even though this connection can be used in over 90% of household applications, EWS, Inc. can not anticipate all the different locations, applications and materials used by your builder and/or plumbing contractor or any pre-existing situations regarding your household or sink piping and cannot be responsible for additional parts that may be necessary. Proper connection should meet all local codes. If necessary contact a qualified licensed plumber for another part or method to properly install this system.

Placement or Locating the Reverse Osmosis System

Simply place the water system on a level floor, cabinet bottom or horizontal surface.

Always assume for enough space for the system and the storage tank, and tubing to remove, move and/or adjust for filter and membrane replacement and maintenance.

If mounting the system to a wall, cabinet side or other vertical surface, a minimum clearance of 4" will be required to allow for filter replacement. Please see the following procedures:

Step 1

All filter cartridges and membrane for the system are included. For Model #s RO3-UV & RO4-UV only, UV Lamp and Housing are pre-installed.

Locate filter cartridges and single membrane (Blue label with drain connection at bottom):

Starting from the left or "FEED" side, Stage 1 insert the Orange pre-filter, next (the middle) Stage 2 insert the Blue RO membrane (note drain connection at bottom) and lastly Stage 3 insert Green post-filter.

NOTE: Water flows from Left (Labeled: FEED) to Right (Labeled FAUCET).

In order by color: from Left to Right: Orange, Blue, Green

Applicable for Model #'s RO4 & RO4-UV, 4-Stage units only:

Inline 5 micron pre-sediment filter is clipped onto the Orange pre-filter cartridge inserted into Stage 1.

WARNING: PLACING FILTERS AND MEMBRANE IN THE WRONG ORDER WILL ADVERSELY EFFECT THE OPERATION OF THE RO SYSTEM

NOTE: Inserting the all cartridges:

At the blue top of each cartridge find the side with two (2) notches. Line the notches up and insert cartridge into the filter head assembly. Once cartridge is fully inserted into the head turn clockwise and completely lock into position.

Step 2 Once filter system has been fully assembled, mark pilot holes using the bracket as a template.

Step 3 Using a drill bit or punch, drill a hole or punch as a starter hole to catch the mounting screws.

WARNING: ALTERNATIVE FASTENING METHOD MAY BE REQUIRED FOR PLASTER BOARD, PARTICLE BOARD OR SIMILAR MATERIAL INSTALLATION. USE SAFETY GLASSES OR OTHER EYE PROTECTION TO PREVENT POSSIBLE EYE INJURY DUE TO FLYING PARTICLES.

Step 4 Set mounting screws (provided) with screw driver. Leave a 1/4" gap between the screw head and mounting surface to allow the bracket to slide on easily.

Step 5 Slide the bracket over the screws and hang the unit. Make sure unit is level.

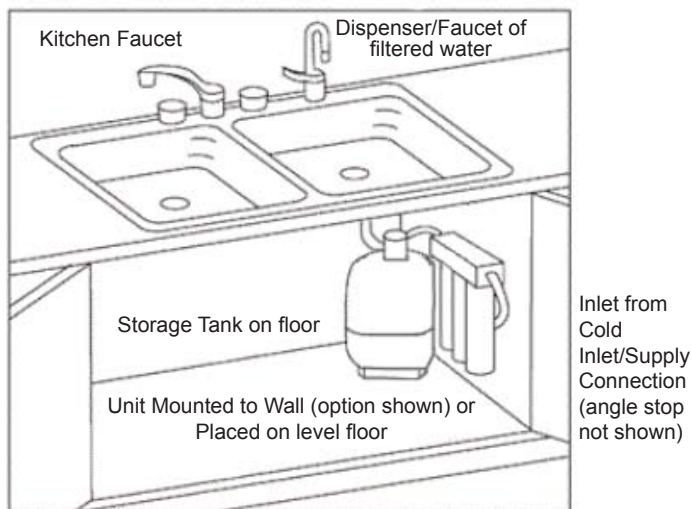
Helpful Hint:

Take a note of the Model # for the required warranty registration of this unit. This Service Guide will come in very handy when it's time for filter replacement and restarting your reverse osmosis system.

Please Note:

Water flows from Left (Labeled: FEED) to Right (Labeled FAUCET)

In order by color from Left to Right:
Orange, Blue, Green

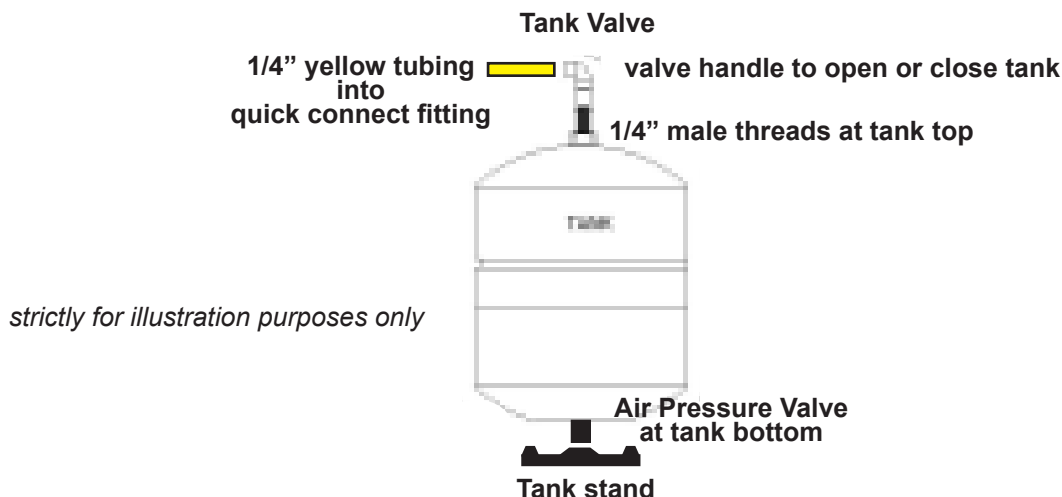


strictly for illustration purposes only

Placement or Locating the Storage Tank

Open the box containing the storage tank and plastic base.

Place storage tank on the plastic base near the system and allow for room for connections.
Locate the Tank Valve in the parts box



Storage Tank:

The storage tank holds up to 3.2 gallons of product water. A bladder within the tank keeps water under pressure and away from bare metal. The tank has an air pre-charge of 5-7 psi (without water) from the factory. See Warning about tank pressure.

Storage Tank Preparation:

Locate the following:

plastic tank stand, tank valve, 1/4" male threads at top of tank, and the air pressure valve at bottom of tank

Step 1

Air pressure valve seats into tank stand when tank is in upright position. Place tank on stand.

Note: Tank may be placed on its side, if necessary. Use tank stand to prevent rolling.

Step 2

Use Teflon tape (not included). Wrap 1/4" male threads on storage tank using clockwise motion for at least three revolutions.

Step 3

Install tank valve on storage tank. Do this by hand tightening valve clockwise onto male threads of the storage tank.

Caution: Do Not Overtighten.

KEEP TANK VALVE CLOSED. DO NOT OPEN TO ANY WATER UNTIL INSTRUCTED TO DO SO.

Closed Valve 90° angle to the yellow tubing and connection

Open Valve In line/parallel with yellow tubing and connection

WARNING ABOUT TANK PRESSURE:

USE ACCURATE (0-20) GAUGE FOR LOWER READINGS TO MEASURE. IF NEEDED TO ADJUST, EMPTY TANK, USE A SIMPLE BICYCLE OR SPORT BALL PUMP ONLY. DO NOT OVER-INFLATE TANK PRESSURE.

The tank should be 5-7 psi without water for proper operation. Pressure variances due to higher elevations may occur. Under or over-inflation will prevent proper operation of system.

Drain Installation and Connection

10 o'clock position
on horizontal pipe

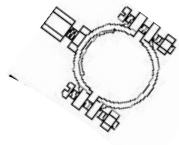
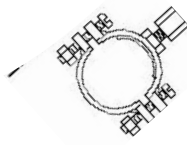


Illustration
A



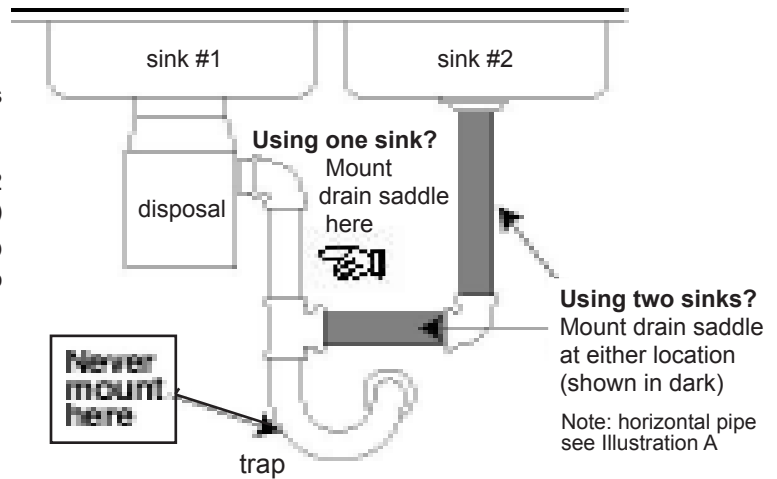
2 o'clock position
on horizontal pipe

When installing drain saddle on a horizontal pipe (that's the one that goes across shown in dark)

Install connection at the 10 o'clock or 2 o'clock position (as illustrated to the left). This allows for the proper flow of RO drain rejection water and will help to prevent any cross-contamination.

WARNING:

Avoid mount off the garbage disposal drain pipes.



strictly for illustration purposes only

Step 1

From the parts bag locate:

Drain saddle assembly and the 1/4" x quick connect fitting that is needed for the application

For use with a non-air gap installation: use (smaller) 1/4" quick connect fitting x 1/4" mpt

For use with an air gap installation: use (larger) 3/8" quick connect fitting x 1/4" mpt

Step 2

Place the drain saddle but do not tighten. Placement of drain saddle should be located on the vertical tail piece of the plumbing system at least 2" above the horizontal outlet or trap assembly.

NOTE: On the vertical pipe:

The higher the placement on this pipe, the greater the chance of increased noise in your waste line. Drain connection should be pointing out or towards you as you look into the cabinet.

On the horizontal pipe as an alternate location:

See illustration A, the drain saddle should be at a 10 o'clock or 2 o'clock position

Step 3

Once the drain saddle is placed, use a 1/4" drill bit, and drill a hole slightly above the drain saddle. Do not drill through the other side of the pipe. Make sure the one hole is complete with clean edges and clear of debris.

WARNING:

IF DRILLING METAL PIPE, PROTECT YOURSELF FROM SERIOUS INJURY OR FATAL SHOCK, USE A HAND DRILL OR A CORDLESS DRILL TO MAKE THE HOLE. IF YOU USE AN ELECTRIC DRILL, OUTLET MUST BE GROUNDED. USE SAFETY GLASSES OR OTHER EYE PROTECTION WHEN GRINDING TO PREVENT POSSIBLE EYE INJURY DUE TO FLYING PARTICLES.

Step 4

Loosen drain saddle and slide over the 1/4" hole. Make sure the hole in the drain pipe is aligned with the hole in the drain saddle. Tighten drain saddle using a screwdriver, alternating sides for even tightening.

Step 5

Using Teflon tape (not included) wrap 1/4" male threads on 1/4" x quick connect fitting (selected for air gap or non-air gap application) using clockwise motion for at least three revolutions. Hand tighten fitting clockwise into drain saddle.

Caution: Do Not Overtighten.

Connection of Tubing for Reverse Osmosis Systems

Step 1

This system may have come with sample plugs. If so, please remove correctly by following instructions below before installation.

WARNING:

NEVER ATTEMPT TO REMOVE TUBING OR SAMPLE PLUGS BY JUST PULLING.

Follow simple instructions illustrated below to remove properly.

INSPECT:

Inspect the fitting for any damage from shipping, handling and/or delivery. STOP, if collet is damaged in any way; call, fax or e-mail customer service for a replacement fitting.

Step 2

For all 3- Stage Systems: Connect the orange/red tubing from the installed Inlet/Supply Connection to the location on the unit labeled "FEED" to the left of Stage 1. This is the raw supply water into the system. Insert and press the tubing firmly and completely into the fitting.

For all 4-Stage Systems: Connect the orange/red tubing from the installed Inlet/Supply Connection to the location on the bottom of the Inline Pre-Sediment Filter prior to Stage 1. This is the raw supply water into the system. Insert and press the tubing firmly and completely into the fitting.

Step 3

Making the Connections from Faucet/Dispenser to Unit

Connect the blue tubing from the installed Dispenser/Faucet to the location on the unit labeled "FAUCET" to the right of Stage 3. This is the filtered water line. Insert and press the tubing firmly and completely into the fitting.

WARNING:

Install with the "FEED" (in) and "FAUCET" (out) as labeled. Make sure never to reverse directions.

Step 4

Making the Connections from Unit to the Storage Tank

Connect the yellow tubing from the location on the unit labeled "TANK" (If applicable, remove the sample yellow sample plug) to the installed tank valve on the storage tank. Valve remains closed. Firmly insert the tubing completely into the fitting. You may feel a resistance at the o-rings when you insert the tubing.

Step 5

Making the Connections from Unit to the Drain Connection(s)

Air Gap: Connect the black 1/4" tubing from the location on the unit labeled "DRAIN" (If applicable, remove the sample black sample plug) at the base of the Stage 2 RO membrane cartridge to the 1/4" barb on the air gap adaptor. Connect the black 3/8" tubing from the 3/8" barb on the air gap adaptor to the 3/8" quick connect fitting installed on the drain saddle.

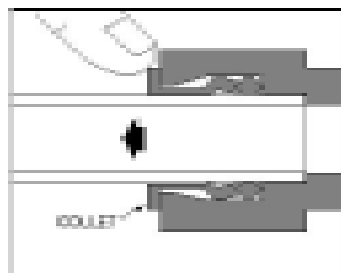
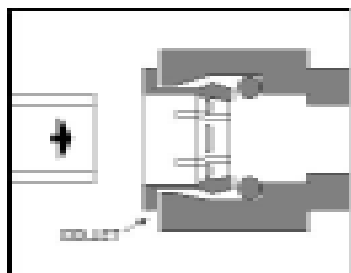
Non Air Gap: Connect the black 1/4" tubing from the location on the unit labeled "DRAIN" (If applicable, remove the sample black sample plug) at the base of the Stage 2 RO membrane cartridge to the 1/4" quick connect fitting installed on the drain saddle.

Never Pull Tube Out To Remove

Push Collet In To Release

To Insert, Press Tubing In
Firmly and Completely

Make sure tubing end is straight
and not flattened



Test Integrity of Fitting:

Give a Gentle "Tug" To
Insure Proper Connection

See All Cautions,
Warnings and
Inspections

WARNING:

UPON INSTALLATION SYSTEM MAY HAVE TO BE "BURPED" OF ANY AIR IN THE LINES. UPON COMPLETION OF THE "SYSTEM START-UP AND OPERATION PROCEDURES". PLEASE REVIEW THIS WARNING AND DIRECTIONS

Note:

The interconnection between the inlet, outlet, drain and tank lines can cause air in the unit at the control valve. Air in lines, and at this valve, will not allow system to function properly.

System Start-Up and Operation Procedures

Reverse Osmosis Systems have specific issues with air in system, proper pressure in tank, the proper draining of reject water, and proper connection between various components.

Follow these procedures for new installations and all filter/membrane replacements.

A proper start-up insures the system is without issues.

If anything is discovered, this is the time to discover it and correct any problems or questions that arise. Lack of a proper start-up will void the warranty.

Only For Units with Electrical Connection with UV Option, Model Nos. RO3-UV and RO4-UV

Step 1A:

Connect UV lamp cord and plug in transformer unit to typical 110v electric outlet.

NOTE:

Electrical outlet must be dedicated and unswitched. Be aware of any GFI outlets and the need to reset. Surge suppression highly recommended.

For All Units:

Step 2:

Keep inlet water supply to the system closed. Make sure to turn off water supply to other devices that may be connected to this unit.

Step 3:

Keep storage tank valve closed. Storage tank valve should be closed. Tank valve handle is perpendicular or at a 90° angle to the yellow tubing connected into the tank valve.

Step 4:

Pull up and lock dispenser/faucet handle in open position (if using another type of dispenser - put into open position).

Step 5:

Turn on any main water supply which was shut off earlier (usually for new install). Now open inlet water supply to the system.

NOTE:

Initially you may observe a sputtering. It may take up to 10-15 minutes for water to begin to drip from dispenser/faucet.

Step 6:

Once a steady flow is available (flows about a gallon of water for every 1/2 up to 1 hour), Close the dispenser/faucet

Step 7:

Open storage tank valve, so that tank valve handle is parallel or inline with the yellow tubing connected into the tank valve.

Step 8:

Allow system to fill the tank twice and drain both tanks of water produced before actual use*. This will wash carbon fines, membrane preservatives, and air** from the system.

NOTE:

This correct procedure of "fill then empty, fill then empty, and final fill" may be a morning, afternoon or an overnight procedure. This entire process may take in excess of 6 hours. This is the proper way this type of system is started up.

Continue with the proper start-up of the reverse osmosis system

System Start-Up and Operation Procedures - Continued

Continue with the proper start-up of the reverse osmosis system

Step 9:

Allow system to fill (this may take up 2 hours) and use as normal. If applicable, only open water supply to other devices connected to this unit after storage tank is filled.

Step 10:

Inspect for leaks at all connections, fittings and/or housings. If a problem exists, please shut off water supply to the system and consider the following solutions;

- Plumbing connections at the inlet/supply connection or angle stop. Please review all plumbing procedures and correct.
- Plumbing connections to dispenser/faucet and any other fixtures or cross-connections. Please review and correct.
- Inspect for leaks at all unit connections such as connections between housings. Report any issues for assistance or needed part(s).
- Inspect for leaks at all tubing connections and the labeled "Feed" and "Faucet" connections between the supplied tubing and the quick connect fittings. To insure proper connection, give a light "tug" (not a hard pull) on tubing to check the grip on all fittings.

***CAUTION:**

Do not drink water from system until start-up procedures have been completed and system has been flushed properly. Improper start-up may result in poor performance of the system. Proper procedure will rinse and purge system. Do not make water available to any ice-makers, refrigerators or any other devices*** until the system is completely flushed.

****WARNING:**

UPON INSTALLATION OR FILTER/MEMBRANE REPLACEMENT SYSTEM MAY HAVE TO BE "BURPED" OF ANY AIR IN THE LINES.

*****WARNING:**

Reverse osmosis may have warranty or restrictions with other devices, consult with other manufacturer's product information. Any length of total tubing in excess of 20 feet combined to tank, faucet, and all items will create issues with delivery rates. Tubing in excess of 20 feet is calculated by adding the length of yellow tubing from unit to tank and and blue tubing from "FAUCET" on unit to dispenser and/or the total length to another device(s). EWS, Inc. supplies 5 feet of each type of tubing.

YOU MAY HAVE TO FOLLOW THIS PROCEDURE TO FINALIZE THE INSTALLATION:

CLOSE THE TANK VALVE, CLOSE (if applicable) WATER SUPPLY TO OTHER DEVICES CONNECTED TO THIS UNIT, OPEN AND LOCK DISPENSER (observe sputtering from dispenser or a slow drip), THEN ROTATE THE UNIT 90 DEGREES CLOCKWISE AND HOLD IN VERTICAL POSITION, AFTER A MINUTE RETURN UNIT BACK TO HORIZONTAL POSITION, THEN ROTATE THE UNIT 90 DEGREES COUNTERCLOCKWISE AND HOLD IN THAT VERTICAL POSITION. AFTER 1 MINUTE, RETURN UNIT BACK TO HORIZONTAL POSITION. WATER SHOULD DRIP SHOULD BECOME A STEADY FLOW (about 1 1/2 gallons per hour) WITHOUT SPUTTERING OR ANY GURGING SOUND. REPEAT AS NEEDED. THEN CLOSE DISPENSER, OPEN TANK VALVE, OPEN (if applicable) WATER SUPPLY TO OTHER DEVICES.

NOTE:

Cloudy Water - If you draw your water into a glass and it appears to be cloudy, it's only air and nothing bad. Let the glass sit and watch the air rise and dissipate. The filter cartridges used are full bed depth. The carbon (GAC) cartridges have a great deal of surface area. It may take 24-48 hours for this to correct itself after you have filled and emptied the tank 2 times.

- If any damage was identified in shipping or handling. You'll need to make a claim with the shipper, as indicated on our Packing Materials, our Packing Slip and the published General Terms and Standard Conditions of Sale.
- If you have identified a problem, please contact our offices. Let us know if we can offer advice on a plumbing issue that may not be related to the actual unit, or a question or issue that may be unit related. If in need of a part under warranty we can readily send it. Parts (original only) needed out of warranty can be obtained through your contractor, local distribution or online

WARNING:

Maximum pressure is 75 PSI. Pressure unregulated can surge or exceed the maximum rating on this and many items in the home. High pressure creates a water hammer or banging pipes. It's also the reason to use stainless hoses for washer machine connections and not the rubber. A pressure reducing valve (PRV) at your main water service line (if not code) is greatly recommended by many manufacturers' of many different household items, plumbing products and appliances and must be checked annually. A point of use (sink location) pressure limiting valve is also available.

Register this Product - It is a Requirement for Warranty

- Familiarize yourself with the system, its' replacement filters and maintenance. To Register, take note of the Model # found on the unit's bracket,
- Understand your system's capabilities
- See your options in water treatment, for you , your family and your home by EWS, Inc.
- **Register Your System**

Replacement of Filter Cartridges and Membrane

It is recommended that filters be changed at least annually or more frequently based on usage and local water conditions. The quantity and quality of the water processed effects the life of the filters.

Step 1 Close inlet water supply to the system.

Step 2 Open dispenser/faucet. Lock handle in the up position and/or allow water to flow (water should stop in a short time) and keep open to relieve pressure.

CAUTION: WATER WILL BE PRESENT WHEN FILTERS ARE CHANGED.
A pan, towel, etc. should be placed under the system to catch any water.

Step 3 Turn cartridge counterclockwise until it stops. Pull down (Hint: it may benefit from a little "wiggle")

Step 4 Remove cartridge and dispose, preferably by recycling the cartridge.

Step 5 Locate the filter cartridges and single membrane. Starting from the left or "FEED" side, Stage 1 insert the Orange pre-filter, next (the middle) Stage 2 insert the Blue membrane (note drain connection at bottom) and lastly Stage 3 insert Green post-filter.

Applicable for 4-Stage units only: Inline 5 micron pre-sediment filter is clipped onto the Orange pre-filter cartridge inserted into Stage 1.

WARNING:

PLACING FILTERS AND MEMBRANE IN THE WRONG ORDER WILL ADVERSELY EFFECT THE OPERATION OF THE RO SYSTEM

Note: Inserting the all cartridges: At the blue top of each cartridge find the side with two (2) notches. Line the notches up and insert cartridge into the head assembly. Once cartridge is fully inserted into the head turn clockwise and completely lock into position.

CAUTION: Inspect o-rings at cartridge top. Make sure they are clean, free of any debris and not damaged or kinked. Make sure it is correctly seated into the channel before replacement.

Step 6 Follow system start-up procedures and make sure all tubing connections are correct.

WARNING: NOT FOLLOWING SYSTEM START-UP PROCEDURES WILL ADVERSELY EFFECT SYSTEM OPERATION

Annual Replacement of UV Lamp (Model No. RO3-UV or RO4-UV Only)

Step 1:
Unplug the transformer. Then disconnect the UV lamp cord.

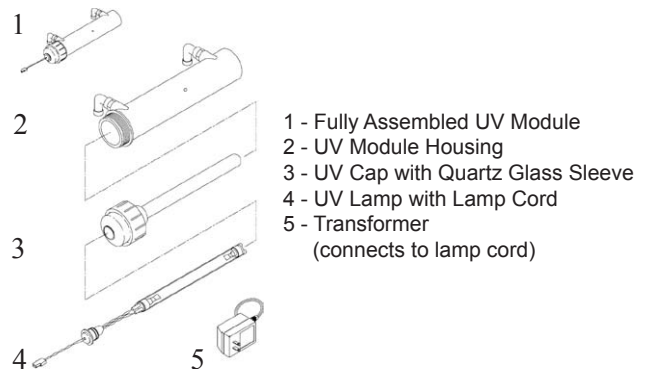
Step 2:
Pull firmly on the UV lamp tail only to remove the lamp.
Do Not remove cap at top of UV Module

Step 3:
Insert and firmly press new UV lamp into the top of the cap.
Reconnect UV lamp cord.

Step 4:
Reconnect UV lamp cord. Plug in unit transformer.

WARNING:
DO NOT DISCONNECT UV MODULE FROM THE FACTORY CONNECTIONS AND DO NOT OPEN UV CAP FROM UV MODULE FOR TYPICAL UV LAMP REPLACEMENT.

Caution - Please take note: Complete UV Housing replacement is recommended by manufacturer every 3 years. The part with lamp included can be purchased with filter replacements when applicable.



SCHEMATIC FOR ILLUSTRATION PURPOSES

Filter, Membrane and UV Lamp Replacements



Replacement set for RO3

Correct set of filters for Model No. RO3

F-GAC

Stage 1 - Pre-Filter Advanced Carbon Cartridge

F-MEM

Stage 2 - 50 GPD Membrane Cartridge

F-GAC-B

Stage 3 - Post-Filter Carbon Block Cartridge

Order Complete Set Model No. F.SET.RO3

(orange label)

(blue label)

(green label)



Replacement set for RO3-UV

Model No. RO3-UV additionally includes:

F-LAMP

UV Lamp Replacement

for upgraded system with UV Disinfection

Order Complete Set Model No. F.SET.RO3-UV



Replacement set for RO4

Correct set of filters for Model No. RO4

F-INLINE

Inline Pre-Sediment Filter clipped to Stage 1 Cartridge

F-GAC

Stage 1 - Pre-Filter Advanced Carbon Cartridge

F-MEM

Stage 2 - 50 GPD Membrane Cartridge

F-GAC-B

Stage 3 - Post-Filter Carbon Block Cartridge

Order Complete Set Model No. F.SET.RO4

(orange label)

(blue label)

(green label)



Replacement set for RO4-UV

Model No. RO4-UV additionally includes:

F-LAMP

UV Lamp Replacement

for upgraded system with UV Disinfection

Order Complete Set Model No. F.SET.RO4-UV

Replacement of all filters are based on local water conditions and usage and should be replaced as needed. Do not exceed one year. UV lamp replacement annually (or, as needed within the year)

Caution - Please take note:

Complete UV Housing replacement is recommended by manufacturer every 3 years.

The part (# P-H-UV-4PIN) with lamp included can be purchased with filter replacements when applicable.

Ordering Filters, Membrane, UV Lamp Replacements, and Parts

There are several ways to obtain and order filter replacements for your unit.

Contact your builder, plumbing contractor and/or your installer that provided the product.

Contact the kitchen & bath showroom, distributor, and/or retailer where you purchased the product

Use the internet in the following manner.

Go to our Corporate Site @ www.ewswater.com or contact EWS Customer Service and we can direct you to someone who may assist you. As a manufacturer, EWS, Inc. does not sell direct to consumers, only into distribution.

The most convenient way to purchase the correct filters or parts for your unit may be to visit an authorized web distributor such as www.waterontheweb.com

Thank you and we hope we have been of assistance in this matter.
EWS, Inc. and Environmental Water Systems – Customer Service

Waterontheweb is very similar to the EWS Corporate Site in order to provide the consumer with the most complete information and an e-commerce solution to the consumer's needs. This site is designed to be simple and prevents any confusion as to what items are needed for any particular unit. This distributor will place their order with EWS, Inc. (similar to any other distributor) and will ship your order directly to the address you designated in the online store.

Maintenance Guide - Reverse Osmosis Systems

INITIAL INSTALLATION

Follow the proper procedures for the set-up, installation and start-up of all systems. Problems (short and long-term) occur when the systems are installed incorrectly. If any questions arise after installation, consult the trouble shooting guide for assistance.

NOTE; ONCE INSTALLED CORRECTLY, THE MORE CONSISTENTLY THIS PRODUCT IS USED THE BETTER.

REPLACEMENT OF FILTERS, MEMBRANE, AND UV LAMPS (if applicable)

Follow the proper procedures for the shut-down of system, and the removal and replacement of the filters, membrane and/or uv lamp (if applicable). Once a replacement procedure has been completed, the proper start-up of all systems is again as important as it was when the system was first installed. If any questions arise after replacement procedures, consult the trouble shooting guide for assistance.

Note: If the system was fine and only started having issues after the replacement of filters, membrane, and/or uv lamp, than some procedure was not properly followed when re-starting the system.

MAINTENANCE

Reverse osmosis systems can be a sensitive product not applicable to other drinking water filtration systems because of these various issues;

- Interconnection of system to a storage tank to store production water
- Interconnection of system to a drain line for draining rejection water
- Need for proper line pressure over the membrane for proper water quality and overall function
- Limits to the quantity of available water due to production rates over a day (divide by 24 provides the RO production capacity over an hour) If you empty a tank it can take hours to refill before usage
- Interconnection to other devices, length of tubing for filtered water to travel and the potential for warranty issues with other items due to the aggressive nature of RO water

MONTHLY

■ Empty Storage Tank

This is a little trick you won't get from someone trying to sell you a service/maintenance agreement.

Empty water from and close any other devices connected to RO unit. Open and lock your dispenser in place in order to empty storage tank completely of water. If you have a dispenser that does not lock open than hold open until tank has been emptied. Wait until you see the water come to a very slow trickle or drip. Close dispenser and allow RO to manufacture a completely new and fresh tank of water. Do this overnight to allow RO to produce enough water before you rise the following day. Once tank is refilled than open other devices connected to RO. This procedure keeps the proper pressure on the tank bladder and on the RSR control valve and allows better water flow, quality and quantity.

■ Check System

Visually check dispenser connections, system connections and drain. Be aware of any excessive household water pressure or changes in your incoming water quality as well as changes in the production water.

YEARLY

■ Replacement of all filters and uv lamp (if applicable).

Note: Replace, as needed, due to local water conditions and usage but do not exceed one year.

■ Membrane can be replaced as a convenience with all other filters on an annual basis (Purchased as a set for your specific RO system). However, membrane may last longer based on local water conditions and usage.

STORAGE OF UNIT OR PROLONGED PERIODS OF INACTIVITY, if applicable

■ Empty tank completely, shut off water supply to unit, remove filters and membrane and store in a cool dry location or refrigerator.

■ Upon return, replace filters and membrane and begin start-up procedure as if it were a new unit.

Trouble Shooting Guide - Reverse Osmosis Systems

Problems with Start-Up &/or Filter Replacements	Possible Causes	Solution
No water after installing system	Improper start-up of the unit upon installation or filter replacement	Start with the start-up procedures and follow them as if the unit was just installed
No water after replacing filters, in-line filter, &/or membrane	It takes hours after a proper install to have a full tank for use	Make sure start-up was performed correctly and wait for tank to fill. Follow instructions for proper start-up
	Filters and membrane placed in the wrong order	Make sure membrane is in middle, Stage 2 and filters are in correct locations
	The interconnection between the inlet, outlet, drain and tank lines can cause air in the unit at the shutoff valve. Air in lines, and at this valve, will not allow RO to function properly.	Air in Lines "Burping Procedure" REPEAT AS NEEDED. Then close the dispenser, open tank valve, only open (if applicable) water supply to other connected devices once and only once the tank has filled completely.
	Tank valve is closed	Open valve, in line or parallel with yellow tubing, close other devices and begin proper start-up procedure.
	Tank pressure is off, Tank pressure too low or too high	The tank air pressure should be 5-7 psi without water in tank for proper operation. Pressure variances due to higher elevations may occur. Under or over-inflation will prevent proper operation of system. Check with accurate (0-20) gauge Empty tank and adjust (if needed) using a bicycle or sports ball pump. Begin proper start-up procedure
	Connections of tubing incorrect	Inspect and follow all connections of all tubing
Problem - Leaks Connections & Tubing	Drain line and/or drain hole restricted or clogged	Follow proper instructions for Air Gap installation and connections Check hole for proper draining and proper drain saddle installation Check for proper drain location
Any or All Leaks	Excessive pressure or pressure surges above 75 PSI	Pressure reducing valve (PRV) at main water supply to maintain pressure at or below 75 PSI or the addition of a Pressure Limiting Valve (item# FMP-60) on the inlet tube prior to the point of use unit
Leaks at any of the Tubing Connections:	Various causes to inspect See the Following: •If cut, is the tubing cut with a straight end to grab squarely? •Is the tubing inserted completely into fitting?	•Follow instructions for Connection of Tubing. Access the filter unit, remove tubing by depressing the collet and pulling tubing out. Using a utility razor knife, <u>squarely</u> cut 1/2" off tubing from the end. Make sure end of tubing is not flattened Reinsert the tubing into the fitting as far as possible. Check for leaks.
See colors below: Red - Incoming Supply Blue - to Dispenser Yellow - to Tank Black - to Drain	•Broken collect or fitting •Is there a problem with the collet and the quick-connect fitting? •Tubing incorrectly removed •Damaged in shipping, handling, and/or delivery	•Tug on tubing (do not pull hard) to check fitting and the integrity of the connection •Upon inspection, prior to install or a result of proper start-up and inspection and fitting is damaged, Replace simple part (call for proper fitting part)
Leak at FACTORY INSTALLED fittings	Same as above	Same as above
Leak at plastic compression fitting at UV Module (option, if applicable)	Damaged in shipping, handling, and/or delivery	Replace simple part (item# fc-uv-jaco)
Leak at Inlet Water Supply Connection	Various causes to inspect. Angle Stop valve may not be applicable or installed correctly	•Check connections and/or correct. •Follow the inlet supply water instructions in this manual and/or install the preferred inlet connection
Problem Leaks - Faucet		
Leak at the supplied faucet spout	Spout needs to be re-inserted	•Spout pulls out from faucet body that's why it swivels. Spout has 2 o-rings at base and is inserted completely into bottom of body to prevent leaking.
Leak at the supplied faucet base by handle (brass "T")	O-ring at inserted brass piece or "T" that holds and operates handle	•Replace the supplied faucet (item# depends on any finish option)
Leak at the connection to supplied faucet	Compression fitting & other connections need to be properly made	•Check connections at various locations and re-connect, re-insert, tighten and/or correct.
Leak at another Mfg's faucet or connection to another device	All connections need to be properly made	•Consult with Mfg of other product and/or installer to check connections at various locations and reconnect and/or correct.
Water running out of Air Gap adaptor of faucet	Black 1/4" & 3/8" tubing misinstalled or backwards Drain saddle not allowing water to drain into trap properly	Follow proper instructions for Air Gap installation and connections Check hole for proper draining and proper drain saddle installation Check for proper drain location

Trouble Shooting Guide - Reverse Osmosis Systems

Issue(s)	Possible Causes	Solution
Leak at cartridge housing, Leak at membrane housing, or UV housing (if applicable)	Misaligned, damaged or missing o-ring Cracked housing due to pressure issues or freezing	<ul style="list-style-type: none"> •Locate and align O-ring into groove on top of filter housing, •Inspect o-ring at uv housing cap •Replace simple o-ring part for correct housing •Replace filter and correct issue that caused the problem (no plumbing needed)
Water Flow Issues No water	Water supply is off	<ul style="list-style-type: none"> •Turn main water supply on •Turn water on at inlet connection
Not enough water	Low water pressure	<ul style="list-style-type: none"> •Unit may not operate properly at less than 35 PSI feed line pressure (max: 75 PSI)
	Filters and membrane placed in the wrong order	Make sure membrane is in middle, Stage 2 and filters are in correct locations
	Incorrect Tubing Connections	<ul style="list-style-type: none"> •Follow instructions to connect tubes to proper fittings
	Storage tank depleted	<ul style="list-style-type: none"> •Empty tank needs to fill over several hours
	Other devices connected to system demanding too much water, too many other devices	<ul style="list-style-type: none"> •Close other connected devices and allow tank to completely fill. •Maximum limit to storage tank and 2 other devices
Water flow is restricted	Lengthy plumbing run, vertical plumbing, unit in a remote location	<ul style="list-style-type: none"> •Total length of combined tubing to tank, faucet, and other devices not to exceed 20 feet. Vertical piping not applicable. Remote unit location is discouraged.
	Storage tank pressure is wrong Storage tank valve not opened	<ul style="list-style-type: none"> •Tank needs 5-7psi without water. Too much or too little and tank will not fill and dispense water properly. Check tank pressure with (0-20) gauge. Empty tank than use bicycle or sport ball pump to adjust
	"TDS" Creep See RO Maintenance	<ul style="list-style-type: none"> •Empty tank completely and allow system to produce a new tank of water, empty and repeat
Low flow from unit	Kinked or bent tubing	Make longer loop with tubing to remove kink or bend
Drain Issues No drain water	Clogged prefilter cartridge and/or other cartridges	If there is flow rate through unit without filters then there is a need to replace sediment and/or other filters based on water conditions and usage
Leaking drain assembly	Clogged brine restricter	Replace brine restricter
	Misalignment of hole in drain saddle.	Realign drain saddle, check for open drain hole
Leak from air gap opening in faucet or Water running out of Air Gap adaptor of faucet	Black 1/4" & 3/8" tubing misinstalled or backwards	Follow proper instructions for Air Gap installation and connections. Check hole for proper draining and proper drain saddle installation. Check for proper drain location
	Drain saddle not allowing water to drain into trap properly	Check hole for proper draining and proper drain saddle installation
Excessive drain noise or gurgling coming from faucet	Filters and membrane placed in the wrong order	Make sure membrane is in middle, Stage 2 and filters are in correct locations
	Drain assembly installed on bad or non-preferred part of your sink drain, Hole or drain tube is blocked or obstructed with debris	Check for proper drain location
	Excessive slack in drain tubing	Remove debris or restriction
	High feedwater pressure	Cut off excess drain tubing
	Air trapped in system echos the sound of water flow	Incoming pressure should not exceed 75 psi
More than usual or excessive drain noise or gurgling due to rapid water flow on older systems	Same issues with Low Water Quality Troubleshooting	Follow the warning in startup procedures and follow the "Burping" Procedure to remove air in the lines
	High or greater water usage	Follow troubleshooting for low water quality and fast filling tank, this creates greater drain water flow.
	Lamp damaged, lamp cord has not been connected,	Tank needs to fill more often due to greater usage
Electrical Issues UV not working	Transformer is not plugged in or connected to wrong type of outlet	<ul style="list-style-type: none"> •Connect lamp cord and/or Plug in transformer.
	Lamp has burned out	<ul style="list-style-type: none"> •Make sure unit plugged into an unswitched electrical outlet. Check GFI reset. Surge suppression is highly recommended
	Transformer not working	<ul style="list-style-type: none"> •Replace UV Lamp •Replace UV Transformer

Trouble Shooting Guide - Reverse Osmosis Systems

Problem Water Quality	Possible Causes	Solution
Water Cloudy	Air in system, System start-up Filter or membrane replacement New installation, changing filters, Open/close and open of water supply to home or in home	Air in system is a normal occurrence with initial start-up of RO system. This milky or cloudy look will disappear during normal use within 1-2 weeks. Condition can reoccur after any filter change-out Empty and fill tank 3 times to reduce air and fines from system and/or filter replacement start-up
	Hot or High feed water temperature	Water supplied to unit must be below 95°F
	High feedwater TDS	Feedwater TDS levels above 500 ppm can result in lower quantity and quality product water. 1 psi loss per every 100 ppm above 500 ppm. Treat the same as low feedwater pressure. Increase water line pressure or may need booster pump for system (see Model No. RU500T35/BP for well water)
Salty Taste or Whitish Ice Cubes TDS Test less than 75% Rejection	RO Membrane replace	Membrane replacement should occur when rejection rate has dropped below 70%
	High feedwater temperature	Feedwater temperatures above 95°F can produce problems, cool water or find another supply
	Post filter elements	New filters can release small air bubbles and small fines which show as additional TDS in the product water. Follow proper start-up instructions
	Pre- and Postfilters	Pre- and Post filters require replacement
	Pre-Treatment needed	Feedwater pretreatment may be necessary for water supplies with high levels of iron, hydrogen sulfide, water hardness, etc. which may be exceeding system tolerance parameters
Low Quality Water Taste, Odor	Filter/Membrane/UV issues Storage tank water issue	Replace as needed Empty tank, sanitize, empty, flush and refill
Unpleasant taste and/or odor Metallic flavor Discoloration	Need to replace filters System was idle, stored or misused for a long period of time. System under unfavorable conditions or changing water conditions	Replace filters and follow start up procedures Flush system by running water, replace filters and/or disinfect Determine what changed in your water supply and Flush, Replace or change type of water treatment system based on local water conditions. Call your municipality or have your well re-tested.
Rotten egg smell from water	Hydrogen sulfide, iron, manganese is in the household water supply, presence of iron/sulfur bacteria System misapplied	Hydrogen sulfide, iron and manganese must be removed from household water supply before filter system. Visit our web site for other systems.
High Total Dissolved Solids (TDS) in the Product Water	TDS "Creep" Tank has never been completely emptied and filled	At night before bedtime, open dispenser, close other devices, then empty all the water from the tank. Allow water to produce overnight. Open other devices after tank is completely filled. Do this quarterly or as needed.
Low Quality Water Taste, Odor	Clogged filter(s) Low water pressure	Replace filter(s) Feed water pressure must be above 40 psi. Check incoming water at supply
and/or Tank fills too fast	RO membrane is new RO membrane issues RO membrane is expended	New membrane has a preservative. Follow correct start-up procedure and empty tank 2 times before usage If membrane life is unusually short, find and correct the problem. Replace membrane.
	Product water and drain water tubing or connections are crossed	Correct tubing and plumbing connections
	No drain flow	Clear or replace drain restrictor. Drain line is clogged or restricted Clear or replace air gap line or faucet
	System shut off valve is not closing	Replace shutoff valve
	New filters not flushed properly	Flush with several full tanks of product water
Low Quality Water Taste, Odor		An increase in feed water TDS will give a corresponding increase in product water TDS
and/or Tank fills too fast	Restricted drain flow	Blocked brine line will foul membrane, decreasing production and rejection rate. Check the drain line for obstructions or restrictions blocking the flow into the drain pipe and air gap (if applicable). Feedwater below 60 psi will produce lower quantity and quality than the membrane specifications. Feedwater less than 35 psi should consider using a low pressure boost pump. Booster pump requirement, inquire with web site or our offices Feedwater above 75 psi should be regulated to a maximum of 75 psi into the system

Warranty Notification

Notification:

This warranty is referenced by EWS, Inc. in all literature, addressed in General Terms and Standard Conditions of Sale, and is published in its entirety in all EWS, Inc. product manuals, websites, and in all service guides supplied with all product.

Limited Warranty:

EWS, Inc., a Nevada corporation, hereby warrants all products to the original consumer purchaser to be free from defects in material and workmanship as stated in the following paragraphs:

- All residential point of use: countertop filtration, in-line filtration, undercounter drinking water filtration, shower filtration, residential reverse osmosis, and canister and filter cartridge point of entry pre-sediment and/or filtration units or systems for one year from date of purchase.
- All residential point of entry: pH decreasing and softener (resin and ion-exchange) systems, Environmental (EWS) Water Systems, Iron Removal units, CWL whole-home (filtration media) systems, pH increasing reagent (sacrificial media) units for 10 years on the tank and riser, 10 years on the ICN conditioner(s) (if applicable) and 5 years on the valve head from date of purchase.
- All commercial systems: Dependent on specification and application, please consult with EWS, Inc. upon specification.
- All filtration medias, resins, cartridges, uv lamps, and/or membranes are not covered by any warranty. Filter media, resin, cartridge, uv lamp, and/or membrane replacement or maintenance schedule will vary and must be replaced, as necessary, as determined by usage and local water conditions.

Product performance may vary based on local water conditions, proper product specification and application, proper plumbing application, setup, installation, startup, maintenance and/or usage. To ensure proper operation, follow all setup, installation, start-up and maintenance procedures as detailed in all service guides.

Not intended for use where water is microbiologically unsafe or with water of unknown quality without adequate disinfection before or after unit(s). The contaminants or other substances removed or reduced by these and any other water filtration or treatment devices are not necessarily in your water. To confirm the presence of any primary and secondary contaminants, have your water supply completely analyzed by an independent and approved facility or if applicable, contact your local water utility for information. Aesthetic, non-health related, or constituents without set federal standards may be part of water testing but are insufficient to determine proper application of any water filtration or treatment device.

EWS, Inc. will replace, free of charge, during the warranty period, any part which proves defective in material and/or workmanship under proper product and plumbing specification and application, normal and proper installation, use, service and proper care as published in detail in all service guides included with product. Labor charges are excluded from any warranty service or repair and are not the responsibility of EWS, Inc. Shipping charges may apply to delivered replacement parts or materials. Charges may also apply for the cost of any replacement media, resin, cartridges, uv lamp and/or membrane from any warranty service or repair. Information can be obtained at any time through a local dealer, distributor, representative or direct from EWS, Inc. and/or on-line at: www.ewswater.com. Replacement parts can be obtained from your local dealer, distributor, online or contractor.

This warranty is the exclusive warranty granted by EWS, Inc. and is in lieu of all other warranties of merchantability and fitness for a particular purpose and is further limited to defective parts replacement only. Labor charges and/or damage incurred in setup, installation, and startup, or repair, or replacement, as well as, incidental and consequential damages connected therewith, are excluded, and are not the responsibility of, and will not be paid by EWS, Inc.

This warranty is void for any damages due to improper product and/or plumbing specification and/or application, misuse, abuse, neglect, accident, acts of nature, action of any military or civil authorities, improper handling and transportation, or improper setup, installation, and/or startup, or any violation of instructions furnished by EWS, Inc., or any replacement parts other than genuine parts or replacements supplied by EWS, Inc.

This warranty is not a warranty of merchantability, fitness, taste, aesthetics, and/or performance that may be subject to improper product and/or plumbing specification and/or application, misuse, abuse, neglect, accident, acts of nature, action of any military or civil authorities, improper handling and transportation, or improper setup, installation, and/or startup, or any violation of instructions furnished by EWS, Inc.

This warranty is not a warranty of merchantability, fitness, taste, aesthetics, and/or performance that may be personal and of subjective opinion and that does not relate to the performance of any system.

Warranty Information and the Purchaser's Responsibility

Keep a record of the purchase receipt and/or installation receipt. Purchaser is required fill out warranty registration form(s) on applicable product(s) and register all product by either online @ www.ewswater.com, telephone, postal delivery, fax, e-mail (either register@ewswater.com or information provided to customerservice@ewswater.com). **Failure to do so voids the warranty unless restricted by state regulations.**

EWS, Inc. does not sell, show or make available any information on any consumer in our database. This database is to ensure, if needed, proper warranty service, and good customer service for years to come. Please see our privacy policy published in our website at www.ewswater.com.

Know Your Water:

• If on a municipal system, large or small, it is your right as a consumer to have access to the most recent test results and to expect adherence to federal guidelines, as well as any state or local requirements. Any problems should be reported to the appropriate agencies. Please acquire those municipal test results to become an informed consumer.

• If on an individual well, have your water completely and independently tested. Local code may require a simple test for coliform bacteria to approve a well, however you may be unaware of potential problems for you and/or your home. A local water salesman is looking to close a sale and is going to test for hardness minerals and a few simple and obvious issues, which may or may not be contamination problems. Their solution is almost always the same and yet may provide no resolution to any true problems. Obtain our "Guide for the Private Well Owner" on our website; www.ewswater.com. Review our section on well water testing and applications in our complete catalog with your local distributor, dealer, or our representative or visit our website.

• WARNING:

Some restrictions apply to the use of softeners. Contact your local municipal water district or Gov't Agency. Brine discharge is already restricted on, or may be a problem for, septic applications and waste water treatment facilities. Since some states have already restricted softeners to metered valves to prevent excessive brine discharge, EWS, Inc. only provides metered valving in its line of softeners.

Restrictions or an outright ban may also apply to hot-side only, salt-exchange tanks or services. Local water dealers and other organizations do not inform consumers of these issues and believe these rules are unenforceable. The consumer is ultimately responsible.

Softeners may also provide warranty issues with pools and spas, certain other products and finishes. Softened water should not be used for drinking, cooking, pets or plants and is usually bypassed or "looped away" from the cold side of the kitchen sink. Reverse osmosis, which also has its drawbacks and issues with other products and materials, may be used to remove the salt from the water that the softener put in at the kitchen sink, yet may be misapplied for the actual local water conditions.

Any problems of water quality, or the fitness of any EWS, Inc. product that is associated with any mechanical, construction, application, installation, and/or environmental issue(s) (ie: flow rates, line pressure, piping materials, broken supply lines, changing water conditions; well or municipal water quality, et. al.), known or unknown, of the home or facility will not be considered by EWS, Inc. until such issue(s) have been resolved.

Responsibility for the proper product and/or plumbing specification, application and/or installation of any device manufactured by EWS, Inc. lies with the consumer, their builder contractor, plumbing sub-contractor and any other installer of choice. Items do not specify and/or install themselves. EWS, Inc. has provided many sources to acquire information on the proper application of systems and their installation prior to any purchase. EWS, Inc. manufactures a complete product line of point of use water filtration systems and point of entry filtration, softening and/or conditioning systems and/or appliances.

EWS, Inc. and the distributors of EWS, Inc. will stand behind the warranties of materials and workmanship. However, EWS, Inc. and the distributors of EWS, Inc. and the Environmental Water Systems Product Line do not bear any responsibility for improper applications of product and/or improper installation. It is for this reason that EWS, Inc. provides complete information on all product for your understanding, specification, application and selection, and proper plumbing application and installation.

To obtain warranty service support, contact your local dealer or contractor from whom you obtained the product or contact EWS, Inc., Customer Service, via phone, fax, or email.



THE SPECTRUM IS THE RIGHT PRODUCT FOR YOU, YOUR FAMILY & YOUR HOME.

SPECTRUM – THE PROFESSIONAL SERIES

Our most versatile systems, showcased by the National Association of Home Builders (NAHB) and New American Showcase Home. World-class EWS performance in a contractor-friendly install package. All Spectrum Series systems utilize our advanced, user-friendly digital valve head and adjustable bypass, which fits over 90% of homes in the United States and accommodates line sizes 3/4" to 1 1/2" without inhibiting flow rate or pressure. A Spectrum installation is a simple process, much like installing a water heater. Once installed, the self-cleaning Spectrum systems provide maintenance-free filtration for years, allowing you to enjoy the convenience, protection, and health benefits of the highest quality filtered water at every tap, every day.

DO YOU HAVE HARD WATER?

YES

Some of us have harder water than others, and EWS generally considers 6 grains (102 ppm or mg/l) of hardness to be on the lower end of hard water. Select YES if you have hard water issues such as excessive spotting or mineral build-up in pipes, faucets and water heaters.

NO

DOES YOUR CITY USE CHLORINE OR CHLORAMINE?

EWS SERIES Whole Home Water Filtration and Conditioning for Hardness Minerals.

SELECT BY USAGE.**

CHLORAMINE

EWS CC 1465

Model #: EWS-CC-1465-7
Select this system if you have ALL of the following:**

- 3 bathrooms or less
- 4 people or less
- 1 water heater
- Up to 2 ppm chloramine

EWS CC 1865

Model #: EWS-CC-1865-7
Select this system if you have ANY of the following:**

- 3+ bathrooms
- 4+ people
- 1+ water heater
- 2+ ppm chloramine

CHLORINE

EWS SPECTRUM

Model #: CS-EWS-1354-7000
Pro Series. Our most versatile unit. Showcased by NAHB. Adjustable for 3/4" - 1 1/2" main water line. Up to 35 gpm.

The EWS Spectrum is the appliance that is applicable to the vast majority of homes on municipal water in the United States.

DOES YOUR CITY USE CHLORINE OR CHLORAMINE?

CWL SERIES Whole Home Water Filtration for Water Without Hardness Issues.

SELECT BY USAGE.**

CHLORINE

CWL SPECTRUM

Model #: CS-CWL-1354-7000
Pro Series. Our most versatile unit. Showcased by NAHB. Adjustable for 3/4" - 1 1/2" main water line. Up to 35 gpm.

CHLORAMINE

CWL CC 1465

Model #: CWL-CC-1465-7
Select this system if you have ALL of the following:**

- 3 bathrooms or less
- 4 people or less
- 1 water heater
- Up to 2 ppm chloramine

CWL CC 1865

Model #: CWL-CC-1865-7
Select this system if you have ANY of the following:**

- 3+ bathrooms
- 4+ people
- 1+ water heater
- 2+ ppm chloramine



About 22% of people have tap water treated with chloramine (a corrosive combination of chlorine and ammonia), which requires more contact time (vs. chlorine) through a specialized filtration media to effectively filter it out of the water. EWS has designed four systems specifically for handling chloramine, which use our Pro Series valve that accommodates 3/4" - 1 1/2" main water lines up to 35 gpm. **Not sure if you have chloramine? Call your water district or EWS Customer Service at 702.256.8182 for friendly assistance. **Important Note:** Our specialized chloramine removal media (CRM) is incredibly effective on chlorine as well, so when in doubt, err on the side of caution and select a Chloramine System.

STOP

ARE YOU ON WELL WATER?

If you are on private or community well water, you need information to determine any water issues and their solutions. Well water requires complete and independent testing. Call EWS Customer Service at 702.256.8182 or visit **EWSWATER.COM** for more information.



ENVIRONMENTAL WATER SYSTEMS®
The Leader in Whole Home Water Filtration Since 1987.

All Product Tearsheets Available Online @ ewswater.com



ESSENTIAL Reverse Osmosis

Introducing our new three-stage reverse osmosis system, offering true protection from toxic contaminants.

- World-class EWS quality and performance.
- Highest quality carbon pre- and post-filtration.
- High performance membrane – up to 50 gallons per day.
- Quick and easy installation.
- Made in the USA, meets or exceeds all compliances.
- Protects you from chloramine (chlorine and ammonia compound), chlorine, THMs, VOCs, pesticides, lead, cysts, rust, silt, sediment, bacteria and viruses¹, and more.²
- Removes inorganics, heavy metals, minerals, and total dissolved solids.

Chlorine (a common disinfectant used in USA tap water) and its byproducts are known carcinogens. Drinking them, or inhaling and absorbing them while showering or bathing, is not recommended. The New York State Dept. of Health and President's Cancer Panel recommend water filtration to reduce or eliminate our exposure to these substances.*



NO MORE WASTED MONEY. NO MORE PLASTIC BOTTLES.

With the **ESSENTIAL** at your sink, you will save at least \$500 every year in bottled water expenses and prevent plastic waste in our landfills and oceans. Simply fill up your reusable bottle at your sink and go!



MEETS ALL YOUR NEEDS.

Enjoy contaminant-free water that meets your preferences for taste (i.e. "flatter" taste) and removal of minerals, total dissolved solids, fluoride, and inorganics. Not sure if reverse osmosis is right for you? Call EWS customer service at 702.256.8182 for assistance.



PROTECTION FOR YOU, YOUR HOME, AND OUR PLANET.

The **ESSENTIAL** is designed for today's adverse water conditions and anticipated conditions in the future and is – without a doubt – the most advanced and highest quality filtration product available, capable of handling chloramine, chlorine, dyes, fuels, pharmaceutical residues, lead, cysts, bacteria¹ and more.² The result is truly clean water you can trust and enjoy.



ADVANCED FILTRATION AND PERFORMANCE.

The **ESSENTIAL** was designed from the ground up with our full bed depth, fully compliant, USA-made filters to handle difficult contaminants like chloramine (chlorine and ammonia compound). It is a new breed of reverse osmosis that effectively protects you from chloramine, chlorine, THMs, lead, cysts, bacteria¹ and much more.²



***FILTER ALL THE WATER IN YOUR HOME WITH ONE SYSTEM.** Every sink, shower, and bath in your home could provide you with chlorine-free & pollutant-free water. No hassle, no maintenance, no salts or chemicals, and trusted by hospitals, health care centers, military, and private homes worldwide. For more information on EWS Central Water Filtration, visit us online at www.ewswater.com or call EWS customer service at 702.256.8182 (Mon.-Fri. 8.30 am - 4.30 pm Pacific Time).

TECHNICAL INFORMATION

ESSENTIAL RO REVERSE OSMOSIS FILTRATION SYSTEMS

MODEL #s: RO3 and RO3-UV

All Product Tearsheets Available Online @ ewswater.com

SYSTEM SPECIFICATIONS

OPERATION TEMPERATURE: Maximum 100° F (38° C) / Minimum 40° F (4° C)

OPERATION PRESSURE: Maximum 75 psi / Minimum 40 psi

SYSTEM FLOW RATE: <1.0 gallons per minute (gpm)

Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system. Replace your filters and UV lamp annually or as needed (do not exceed 1 year). Install in cold water supply only. Install in compliance with local and state regulations.

All installation instructions, service manuals, technical and product information is available online at www.EWSWATER.com

MODEL # REPLACEMENT FILTER SET

RO3 **F.SET.RO3** (includes: F-GAC, F-MEM, F-GAC-B)

RO3-UV **F.SET.RO3-UV** (includes: F-GAC, F-MEM, F-GAC-B, F-LAMP)

SERVICE LIFE ON FILTERS:
UP TO 1 YEAR.* REPLACE YOUR
FILTERS ANNUALLY OR AS NEEDED.
DO NOT EXCEED 1 YEAR.

FILTER SPECIFICATIONS

STAGE 1 ITEM #: F-GAC

DESCRIPTION: Pre-Filter Advanced Carbon

PURPOSE: Filters chlorine, chloramine, and VOCs for clear, clean water. Reduces and/or eliminates bad tastes and odors.

FEATURES & BENEFITS: Increased surface area, almost no fines release, enhanced adsorption, excellent performance.

CONSTRUCTION: Advanced carbon.

SERVICE LIFE: 1 year†

MAX. FLOW: <1.0 GPM / 3.4 LPM

MAX. PRESSURE: 75 PSIG / 5.17 Bar

TEMPERATURE RANGE: 40-100° F / 4-38° C

Fully Compliant
with California
No-Lead Standards.



This filter element tested
and certified under ANSI/
NSF Standard 42 & 53 for
materials only.

STAGE 2 ITEM #: F-MEM

DESCRIPTION: Advanced RO Membrane

PURPOSE: Protection from inorganics, chloride, nitrates, nitrites, heavy metals, and more. Removes minerals and fluoride to meet your preferences.

FEATURES & BENEFITS: Completely "stripped" water for full protection and as a precaution against fluoride allergies.

CONSTRUCTION: Polyamide thin-film composite.

SERVICE LIFE: 1 year†

PERMEATE FLOW: 50 GPD / 189 LPD

MAX. PRESSURE: 125 PSIG / 8.6 Bar

TEMPERATURE RANGE: 40-113° F / 4-45° C

STAGE 3 ITEM #: F-GAC-B

DESCRIPTION: Post-Filter Carbon Block (1 Micron)

PURPOSE: Advanced final stage filter for chlorine, chloramine (chlorine and ammonia compound), lead, cysts, VOCs, and more.

FEATURES & BENEFITS: Increased surface area, enhanced adsorption, excellent performance in a carbon block form.

CONSTRUCTION: Activated carbon block.

SERVICE LIFE: 1 year†

MAX. FLOW: <1.0 GPM / 3.4 LPM

MAX. PRESSURE: 75 PSIG / 5.17 Bar

TEMPERATURE RANGE: 40-100° F / 4-38° C

ITEM #: F-LAMP** (OPTIONAL, INCLUDED WITH MODEL #: RO3-UV)

DESCRIPTION: Ultraviolet (UV) Disinfection**

PURPOSE: Kills bacteria, viruses, and other microorganisms.

FEATURES & BENEFITS: Independently tested to reduce E. coli by 99.99992% and micrococcus luteus by 99.93%.

CONSTRUCTION: UV lamp encased in glass and 316 bonded stainless steel interior housing.

SERVICE LIFE: 1 year†

MAX. FLOW: <1.0 GPM / 3.4 LPM

MAX. PRESSURE: 75 PSIG / 5.17 Bar

TEMPERATURE RANGE: 40-100° F / 4-38° C

†Filter service life is based on local water conditions and usage.

**UV upgrade is available pre-assembled as model# RO3-UV. A UV upgrade kit can be added to any RO system at any time.

¹ UV upgraded systems only.

² These substances may or may not be in your water. Please ensure this is the correct system for your needs. Please see included instructions for proper installation and usage.

SYSTEM SIZE: 5" deep x 13" wide x 16" tall (allow 4" clearance at the bottom of the unit for filter replacement maintenance)

TANK SIZE: 11" x 11" x 16" (3.2 gal capacity, other tank sizes available)

SHIPPING CARTON SIZE: 12" x 12" x 30"

SHIPPING CARTON WEIGHT: 20 lbs.

The ESSENTIAL comes fully assembled and complete with everything you need for a proper installation:
chrome faucet dispenser (finish options available), air gap, storage tank, angle stop valve connection, all fittings and tubings, mounting bracket, and all filters.

Pictured at Right:
The **ESSENTIAL**.

Our **ESSENTIAL** drinking water filtration systems are available to suit specific water conditions or personal preferences. Please contact EWS Customer Service for more information.



MADE IN THE USA

CALL EWS CUSTOMER SERVICE: 702.256.8182 (MONDAY-FRIDAY 8.30 AM-4.30 PM PACIFIC TIME)

FAX: 702.256.3744 EMAIL: CUSTOMERSERVICE@EWSWATER.COM

WWW.EWSWATER.COM



ENVIRONMENTAL WATER SYSTEMS®
The Leader in Whole Home Water Filtration Since 1987.

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ESSENTIAL Reverse Osmosis

Introducing our new four-stage reverse osmosis system, offering true protection from toxic contaminants.

- World-class EWS quality and performance.
- Highest quality carbon pre- and post-filtration.
- High performance membrane – up to 50 gallons per day.
- Pre-sediment stage for extra protection from particulates.
- Made in the USA, meets or exceeds all compliances.
- Protects you from chloramine (chlorine and ammonia compound), chlorine, THMs, VOCs, pesticides, lead, cysts, rust, silt, sediment, bacteria and viruses¹, and more.²
- Removes inorganics, heavy metals, minerals, and total dissolved solids.

Chlorine (a common disinfectant used in USA tap water) and its byproducts are known carcinogens. Drinking them, or inhaling and absorbing them while showering or bathing, is not recommended. The New York State Dept. of Health and President's Cancer Panel recommend water filtration to reduce or eliminate our exposure to these substances.*



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With the **ESSENTIAL** at your sink, you will save at least \$500 every year in bottled water expenses and prevent plastic waste in our landfills and oceans. Simply fill up your reusable bottle at your sink and go!



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Enjoy contaminant-free water that meets your preferences for taste (i.e. "flatter" taste) and removal of minerals, total dissolved solids, fluoride, and inorganics. Not sure if reverse osmosis is right for you? Call EWS customer service at 702.256.8182 for assistance.



PROTECTION FOR YOU, YOUR HOME, AND OUR PLANET.

The **ESSENTIAL** is designed for today's adverse water conditions and anticipated conditions in the future and is – without a doubt – the most advanced and highest quality filtration product available, capable of handling chloramine, chlorine, dyes, fuels, pharmaceutical residues, lead, cysts, bacteria¹ and more.² The result is truly clean water you can trust and enjoy.



ADVANCED FILTRATION AND PERFORMANCE.

The **ESSENTIAL** was designed from the ground up with our full bed depth, fully compliant, USA-made filters to handle difficult contaminants like chloramine (chlorine and ammonia compound). It is a new breed of reverse osmosis that effectively protects you from chloramine, chlorine, THMs, lead, cysts, bacteria¹ and much more.²

***FILTER ALL THE WATER IN YOUR HOME WITH ONE SYSTEM.** Every sink, shower, and bath in your home could provide you with chlorine-free & pollutant-free water. No hassle, no maintenance, no salts or chemicals, and trusted by hospitals, health care centers, military, and private homes worldwide. For more information on EWS Central Water Filtration, visit us online at www.ewswater.com or call EWS customer service at 702.256.8182 (Mon.-Fri. 8.30 am - 4.30 pm Pacific Time).



TECHNICAL INFORMATION

ESSENTIAL RO REVERSE OSMOSIS FILTRATION SYSTEMS

MODEL #s: RO4 and RO4-UV

All Product Tearsheets Available Online @ ewswater.com

SYSTEM SPECIFICATIONS

OPERATION TEMP.: Max. 100° F (38° C) / Min. 40° F (4° C) **OPERATION PRESSURE:** Max. 75 psi / Min. 40 psi **SYSTEM FLOW RATE:** <1.0 GPM
Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system. Replace your filters and UV lamp annually or as needed (do not exceed 1 year). Install in cold water supply only. Install in compliance with local and state regulations.

All installation instructions, service manuals, technical and product information is available online at www.EWSWATER.com

MODEL # REPLACEMENT FILTER SET

RO4 **F.SET.RO4** (includes: F-INLINE, F-GAC, F-MEM, F-GAC-B)

RO4-UV **F.SET.RO4-UV** (includes: F-INLINE, F-GAC, F-MEM, F-GAC-B, F-LAMP)

SERVICE LIFE ON FILTERS:
UP TO 1 YEAR.* REPLACE YOUR
FILTERS ANNUALLY OR AS NEEDED.
DO NOT EXCEED 1 YEAR.

FILTER SPECIFICATIONS

ITEM #: F-INLINE (5 MICRON PRE-SEDIMENT FILTER)

PURPOSE: Protects you and the system from particulate matter, down to 5 micron.

FEATURES & BENEFITS: Removes tiny particles for enhanced performance and protection to the following filters.

CONSTRUCTION: Advanced carbon.

MAX. FLOW: <1.0 GPM / 3.4 LPM

MAX. PRESSURE: 75 PSIG / 5.17 Bar

SERVICE LIFE: 1 year†

TEMPERATURE RANGE: 40-100° F / 4-38° C

Fully Compliant
with California
No-Lead Standards.



This filter element tested
and certified under ANSI/
NSF Standard 42 & 53 for
materials only.

STAGE 1 ITEM #: F-GAC

DESCRIPTION: Pre-Filter Advanced Carbon

PURPOSE: Filters chlorine, chloramine, and VOCs for clear, clean water. Reduces and/or eliminates bad tastes and odors.

FEATURES & BENEFITS: Increased surface area, almost no fines release, enhanced adsorption, excellent performance.

CONSTRUCTION: Advanced carbon.

MAX. FLOW: <1.0 GPM / 3.4 LPM

MAX. PRESSURE: 75 PSIG / 5.17 Bar

SERVICE LIFE: 1 year†

TEMPERATURE RANGE: 40-100° F / 4-38° C

STAGE 2 ITEM #: F-MEM

DESCRIPTION: Advanced RO Membrane

PURPOSE: Protection from inorganics, chloride, nitrates, nitrites, heavy metals, and more. Removes minerals and fluoride to meet your preferences.

FEATURES & BENEFITS: Completely "stripped" water for full protection and as a precaution against fluoride allergies.

CONSTRUCTION: Polyamide thin-film composite.

PERMEATE FLOW: 50 GPD / 189 LPD

MAX. PRESSURE: 125 PSIG / 8.6 Bar

SERVICE LIFE: 1 year†

TEMPERATURE RANGE: 40-113° F / 4-45° C

STAGE 3 ITEM #: F-GAC-B

DESCRIPTION: Post-Filter Carbon Block (1 Micron)

PURPOSE: Advanced final stage filter for chlorine, chloramine (chlorine and ammonia compound), lead, cysts, VOCs, and more.

FEATURES & BENEFITS: Increased surface area, enhanced adsorption, excellent performance in a carbon block form.

CONSTRUCTION: Activated carbon block.

MAX. FLOW: <1.0 GPM / 3.4 LPM

MAX. PRESSURE: 75 PSIG / 5.17 Bar

SERVICE LIFE: 1 year†

TEMPERATURE RANGE: 40-100° F / 4-38° C

ITEM #: F-LAMP** (OPTIONAL, INCLUDED WITH MODEL #: RO4-UV)

DESCRIPTION: Ultraviolet (UV) Disinfection**

PURPOSE: Kills bacteria, viruses, and other microorganisms.

FEATURES & BENEFITS: Independently tested to reduce E. coli by 99.99992% and micrococcus luteus by 99.93%.

CONSTRUCTION: UV lamp encased in glass and 316 bonded stainless steel interior housing.

SERVICE LIFE: 1 year†

MAX. FLOW: <1.0 GPM / 3.4 LPM

MAX. PRESSURE: 75 PSIG / 5.17 Bar

TEMPERATURE RANGE: 40-100° F / 4-38° C

†Filter service life is based on local water conditions and usage.

**UV upgrade is available pre-assembled as model# RO4-UV. A UV upgrade kit can be added to any RO system at any time.

¹ UV upgraded systems only.

² These substances may or may not be in your water. Please ensure this is the correct system for your needs. Please see included instructions for proper installation and usage.

SYSTEM SIZE: 5" deep x 16" wide x 16" tall (allow 4" clearance at the bottom of the unit for filter replacement maintenance)

TANK SIZE: 11" x 11" x 16" (3.2 gal capacity, other tank sizes available)

SHIPPING CARTON SIZE: 12" x 12" x 30"

SHIPPING CARTON WEIGHT: 22 lbs.

Pictured at Right:
The **ESSENTIAL**.

Our **ESSENTIAL** drinking water filtration systems are available to suit specific water conditions or personal preferences. Please contact EWS Customer Service for more information.



The **ESSENTIAL** comes fully assembled and complete with everything you need for a proper installation:
chrome faucet dispenser (finish options available),
air gap, storage tank, angle stop valve connection,
all fittings and tubings,
mounting bracket, and all filters.



MADE IN THE USA

CALL EWS CUSTOMER SERVICE: 702.256.8182 (MONDAY-FRIDAY 8.30 AM-4.30 PM PACIFIC TIME)
FAX: 702.256.3744 EMAIL: CUSTOMERSERVICE@EWSWATER.COM

WWW.EWSWATER.COM

The EWS, Inc./Environmental Water System Product available through:

Authorized Kitchen & Bath Showrooms, Appliance Showrooms, Building & Plumbing Wholesale Supply Locations and their building, plumbing, HVAC and service contractors, and Authorized Online Distributors.



Contact Information:

EWS, INC. **Environmental Water Systems**

ewswater.com

O: 702.256.8182 (M-F 8:30am-4:30pm PST)

E: customerservice@ewswater.com

F: 702.256.3744

Mailing Address:

9101 W. Sahara Ave., #105-J8, Las Vegas, NV. 89117

Got a Question..?

Seriously.... Give us a call. We're here to help.

ALL FILTRATION PRODUCT PROUDLY MADE & ASSEMBLED IN THE USA



**EWS is a Proud Contributor and Sponsor of Organizations Dedicated to Improving
Health, Well-Being and the Environment**

- Heart • Lung & Respiratory • Allergy & Asthma • Dermatology & Skin • Digestive: Crohn's & Colitis •
- Oceans • Inland Water Ways • Wetlands • Forestry • Soil • Air •

