

Free Flow



Tankless Reverse Osmosis System

CS-R0800



**Installation &
User Guide**

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ABOUT YOUR SYSTEM

The CS-RO800 Reverse Osmosis System utilizes a two-stage purification process to produce high-quality drinking water at a production rate of 800 gallons per day (approximately 0.55 gallons per minute), providing the flow and pressure necessary to supply not only drinking water but appliances such as ice makers and refrigerators with in-door water dispensers. The CS-RO800 incorporates an internal booster pump to maintain proper membrane operating pressure, helping improve production rates and filtration efficiency. It is highly efficient compared to conventional RO systems, producing nearly twice as much clean water as it wastes.

The first stage consists of a twist-out composite pre-filter designed to reduce sediment, chlorine, rust, dirt, and other particulate matter that may be present in the incoming water supply. Removing these contaminants helps protect the reverse osmosis membrane and extends overall system performance.

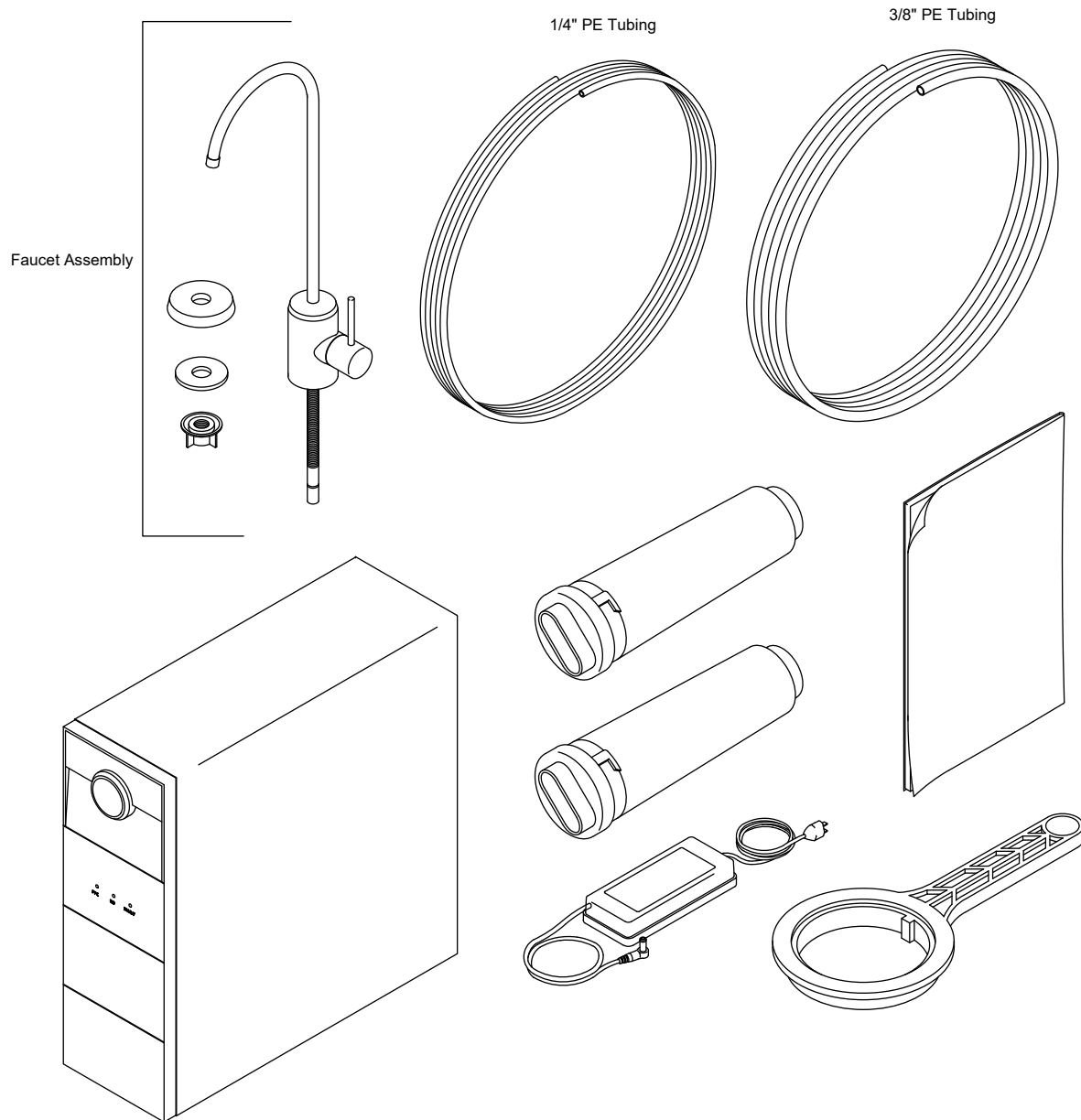
The second stage utilizes a high-efficiency reverse osmosis membrane capable of filtering contaminants down to approximately 0.0001 microns. During this process, water is forced through the semi-permeable membrane, allowing purified water molecules to pass while rejecting dissolved minerals, heavy metals, bacteria, pesticides, pharmaceuticals, fluoride, and other unwanted substances. The result is purified drinking water with improved taste, odor, and clarity.

The CS-RO800 uses integrated electronic controls to monitor system operation and automatically perform membrane flushing cycles, helping maintain membrane performance and extend service life. A front panel display alternates between incoming and outgoing TDS readings, providing a continuous indication of water quality. Pressing the cartridge status button displays the remaining service life percentage for the installed filter cartridge, allowing timely replacement before performance is affected. Both filter stages are accessible via a magnetically secured front panel and are replaced using a simple twist and slide motion requiring no tools.

The CS-RO800 is a self-contained unit requiring no wall mounting. It may be placed on a counter top or inside a cabinet, with all external connections limited to three ports located on the rear of the unit.

CONTENTS OF CARTON

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Leak Detector



Drain Line Flow Control



1/4" 90° Fitting



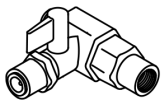
3x 3/8" Push Lock Collet
*Spare Part



2x 3/8" 90° Fitting



3x 1/4" Push Lock Collet
*Spare Part



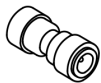
Inlet Water Tee Valve



3x 3/8" O-Ring
*Spare Part



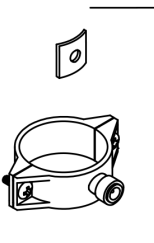
2x 1/4" O-Ring
*Spare Part



Faucet Adapter



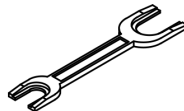
4x 3/8" Locking Clip



Drain Saddle Clamp &
Gasket



5x 1/4" Locking Clip



5x 1/4" Push Lock Retainer

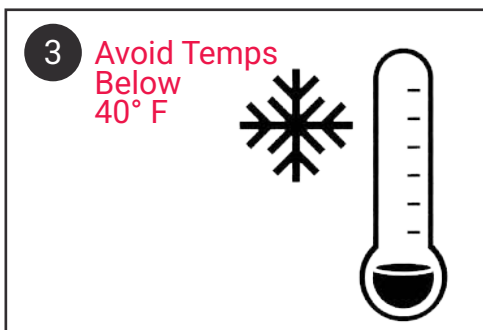
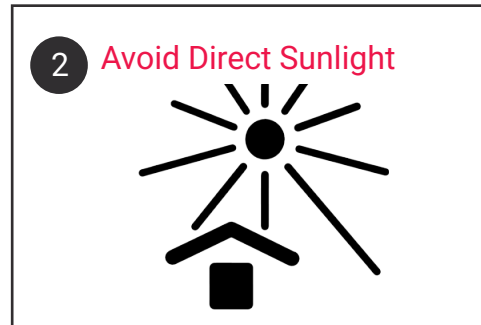
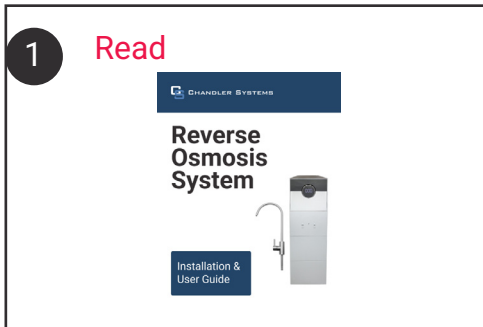


Teflon Tape

NOTICE:

This unit comes with replacement O rings and Collets. These are spare parts and will not be used for the installation.

WARNINGS



Read carefully the product installation & operation instructions. Failure to follow the instructions and warnings in the manual could void the product warranty.

If a leak occurs, immediately shut off power and the water supply.

Do not disassemble the machine without the guidance of professional personnel to avoid leakage or damage. Only professional personnel can repair and maintain this system. Attempts to repair a Chandler Systems RO System in the field will void the warranty. Please contact the factory if you believe repairs are needed.

The RO System should be used in 40° F - 100° F temperatures.

Only use the accessories and cartridges from Chandler Systems.

INSTALLATION REQUIREMENTS

Installation Location Requirements

- Install indoors only.
- Install on a flat, stable surface.
- Protect the system from freezing temperatures.
- Avoid direct sunlight and excessive heat sources.
- Do not install near furnaces, water heaters, or other high-temperature equipment.
- Allow sufficient clearance for future cartridge replacement and servicing.
- Ensure the installation area remains dry and well ventilated.

Water Supply Requirements

- Use only potable water.
- Water should be free from excessive sediment and microbiological contamination.

Water Pressure (min/max)	15 - 100 psi
Efficiency Ratio	3:1
Maximum Raw Water TDS (ppm)	1,000 ppm
Temperature Range (min/max)	40-100° F
Maximum Hardness (grains)	< 10
Maximum Iron (ppm)	< 0.1
Maximum Manganese (ppm)	< 0.05
Space Required	15.6 × 5.4 × 15.5 in.

Electrical Requirements

- A dedicated electrical outlet must be available near the installation location. To avoid unexpected interruption, make sure the outlet is not controlled by a switch.
- The outlet should remain accessible after installation.
- Use only the power supply provided with the CS-R0800.
- Do not use extension cords or damaged power adapters.

NOTICE: Installation must comply with all applicable local and state plumbing codes.

INSTALLATION OVERVIEW

STEP 1: Install the feed water adapter

STEP 2: Install the drain saddle assembly

STEP 3: Install the dedicated drinking water faucet

STEP 4: Connect all tubing and fittings

STEP 5: Install cartridges

Before you Begin:

- Choose the location and make sure there is adequate clearance for the installation.
- Shut off the cold-water supply.
- Disconnect electrical power from nearby equipment as necessary.
- Verify all components are present.
- Inspect tubing and fittings for shipping damage.

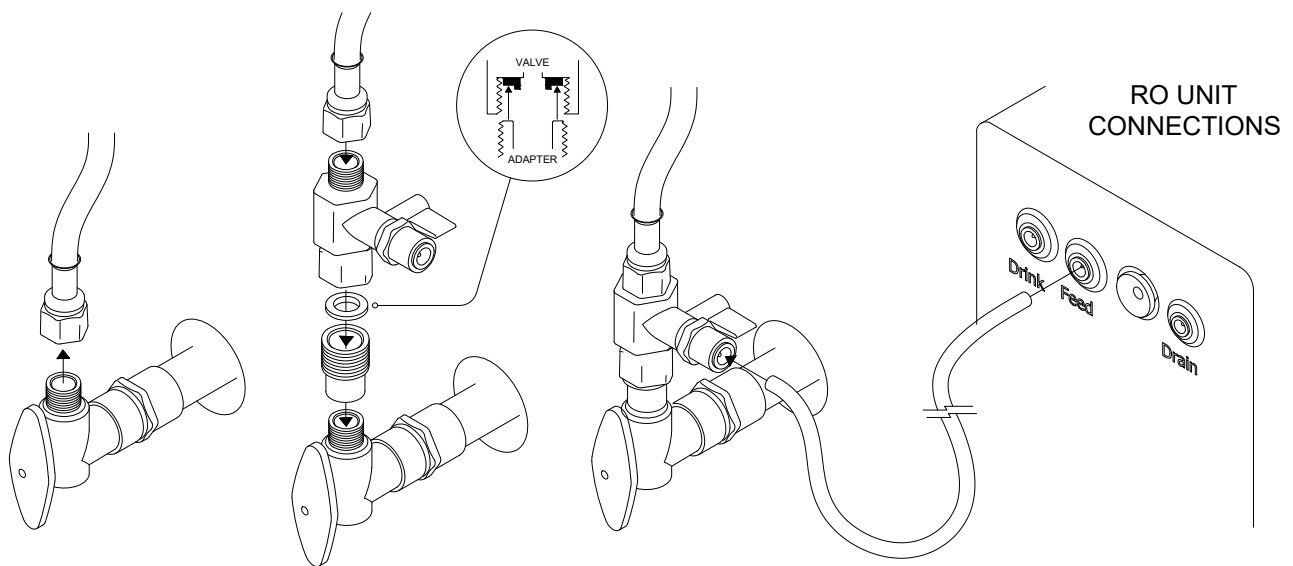
IMPORTANT: All tubing cuts should be square and free of burrs to ensure proper sealing within quick-connect fittings.

STEP 1

Install Feed Water Adapter

1. Prepare the Cold-Water Supply

Turn off the cold-water supply valve under the sink. Open the kitchen faucet to relieve pressure and place a towel or small container under the cold-water connection.



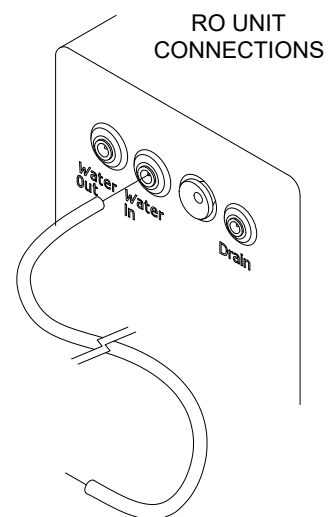
2. Install the Feed Water Adapter

Disconnect the cold-water supply line from the shutoff valve. Thread the feed water adapter onto the shutoff valve, reconnect the kitchen faucet supply line to the top of the adapter, and tighten all connections securely.

3. Connect Feed Water Tubing

Remove blue plugs and insert optional 90° elbows (see pg. 12). Connect the feed water tubing to the adapter outlet. Confirm the adapter valve is in the closed position.

Leave the cold-water supply turned off until all tubing connections are complete.



STEP 2

Install Drain Saddle Assembly

1. Select and Prepare the Drainpipe Location

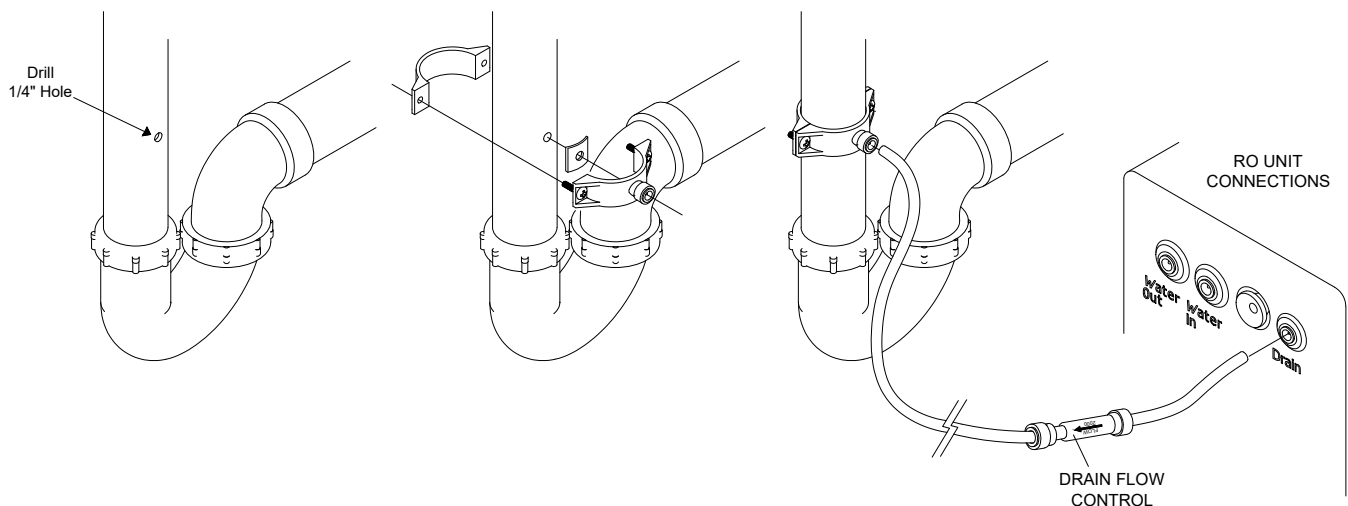
Select a straight section of drainpipe above the P-trap. Mark the installation location, drill a 1/4-inch hole through one side of the drainpipe only, and remove any burrs from the drilled hole.

2. Install the Drain Saddle

Position the drain saddle gasket over the hole. Place the drain saddle over the gasket, align the saddle port with the drilled hole, install the rear saddle clamp, and tighten both screws evenly.

3. Connect Drain Tubing

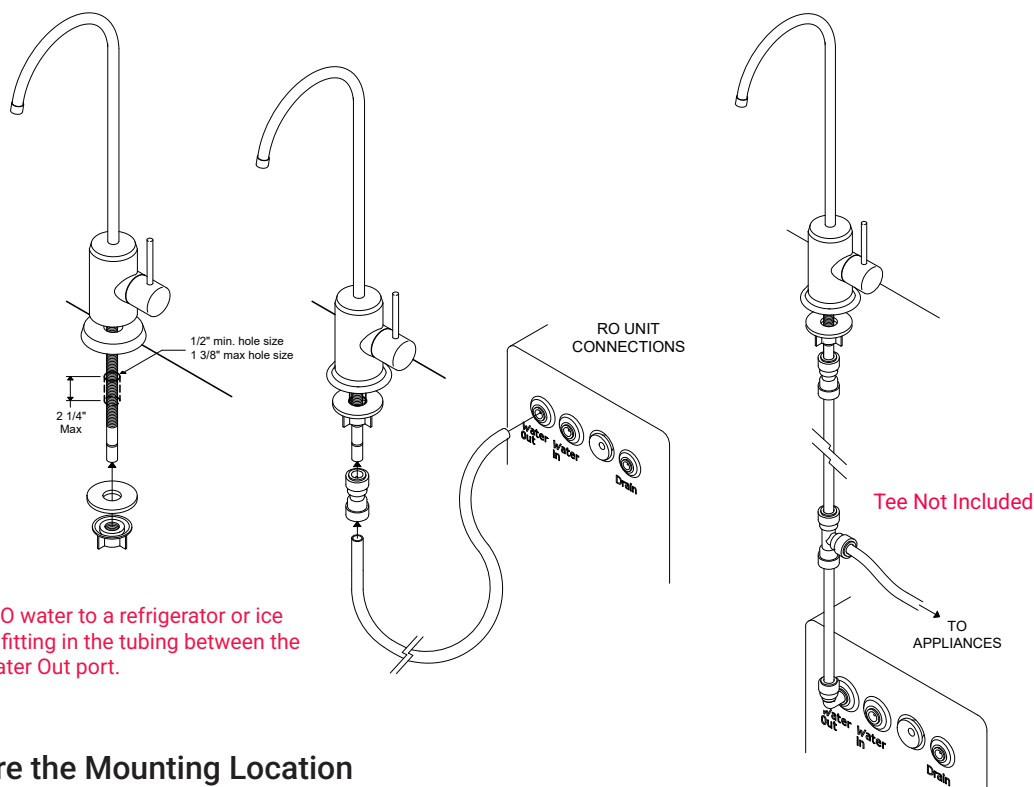
Connect the drain tubing to the drain saddle fitting and route the tubing to the RO system.



Do not install the drain saddle near a garbage disposal outlet. Do not overtighten the saddle clamp. Route tubing without kinks or sharp bends.

STEP 3

Install Dedicated Drinking Faucet



* Note: If supplying RO water to a refrigerator or ice maker, install the tee fitting in the tubing between the RO faucet and the Water Out port.

1. Prepare the Mounting Location

Select the faucet mounting location and confirm there is adequate clearance above and below the sink or counter top. Use an existing accessory hole if available. If necessary, drill a mounting hole sized between 1/2 inch and 1-3/8 inches. Clean the mounting surface.

2. Install the Faucet

Place the faucet base gasket on the mounting surface. Insert the faucet stem through the mounting hole, install the washer and mounting nut from below, align the faucet in the desired direction, and tighten the mounting nut securely.

3. Connect Faucet Tubing

Connect the purified water tubing to the faucet fitting using the supplied push-lock connection. Push the tubing and faucet connection fully into the fitting until it bottoms out, then pull gently on the tubing to confirm it is fully seated. Confirm the faucet handle operates smoothly.

Ensure the tubing is fully inserted into the push-lock connection before testing operation.

STEP 4

Connect All Tubing, Fittings, and Leak Detector

1. Prepare the Tubing

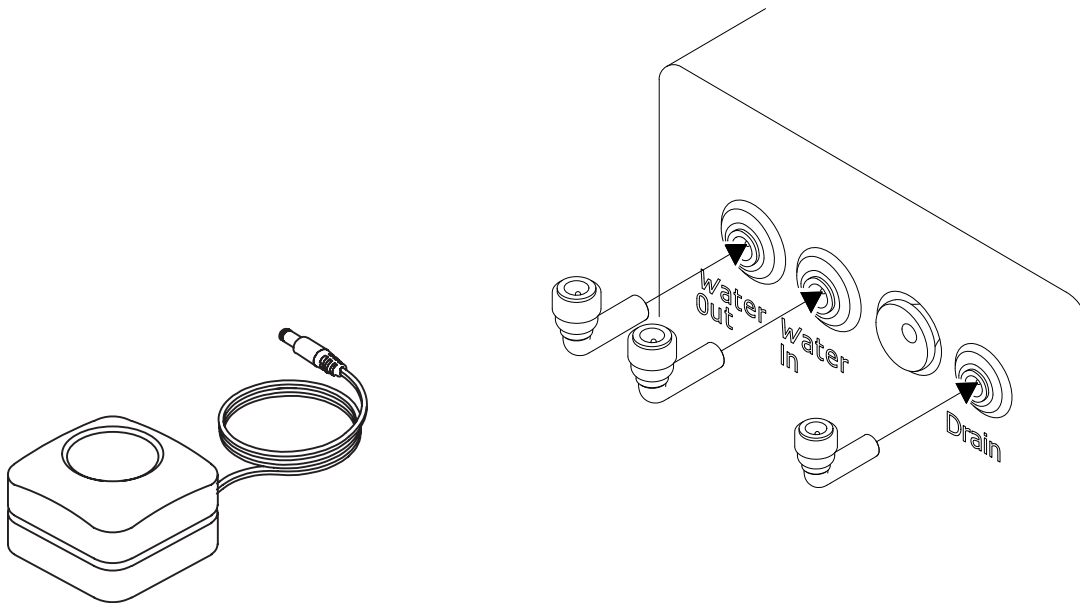
Identify each tubing connection before cutting. Measure tubing lengths carefully, allow enough tubing for future service access, and cut tubing squarely using a sharp tubing cutter.

2. Install Tubing Connections

Insert tubing fully into each push-lock connection until it bottoms out. For 1/4-inch tubing, insert approximately 5/8 inch. For 3/8-inch tubing, insert approximately 7/8 inch. Pull gently on each tube to confirm it is locked in place and install locking clips where supplied.

3. Connect to the RO System

Route tubing between all connection points. Connect the feed water line to the Water IN port on the back of the RO. Connect the drinking water faucet line to the Water OUT port on the back of the RO. Connect the drain line to the Drain port on the back of the RO. Confirm all lines are connected to the correct ports before startup. If needed, use the right angle connectors on the back of the unit. Plug the leak detector into the port in the back of the unit labeled Leak Detector.



Ensure tubing ends are clean, round, and free of burrs before installation. Do not use crushed, scratched, or damaged tubing. Route tubing away from sharp edges, hot surfaces, and moving parts, and avoid kinks, twists, or tight bends that may restrict water flow. Tubing must pass through the internal O-ring of each push-lock connection.

STEP 4

Push-Lock Connections

Chandler Systems push-lock connections provide a secure, leak-resistant seal when tubing is properly prepared and fully inserted. Follow these guidelines to ensure reliable operation and prevent leaks.

1. Prepare the Tubing

Cut tubing squarely using a sharp tubing cutter. The tubing end must be clean, round, and free of burrs, scratches, or deformation. An uneven cut may prevent the internal O-ring from sealing properly.

2. Insert the Tubing

Push the tubing firmly into the push-lock connection until it bottoms out against the internal tube stop. The tubing must pass completely through the internal O-ring to create a proper seal.

Tubing Size	Minimum Insertion Depth
1/4 in.	5/8 in.
3/8 in.	7/8 in.

3. Verify the Connection

Pull gently on the tubing to confirm it is fully seated and locked into the push-lock connection. Install the locking clips after verifying the connection.

4. Removing Tubing

Shut off the water supply and relieve system pressure before removing tubing. Press the release collar on the push-lock connection with wrench provided evenly toward the fitting while pulling the tubing straight out. Before reconnecting, cut approximately 1/4 inch from the tubing end to provide a fresh sealing surface.

STEP 5

Install Cartridges

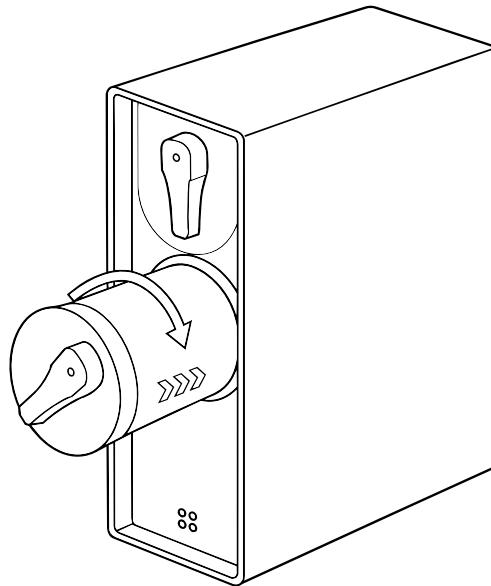
1. Install the Cartridges and Membrane

Remove all packaging from the cartridges and membrane. Remove the front panel of the RO by pulling the panel towards you to access the cartridge compartment. Insert the PPC filter into the top slot and rotate clockwise until locked. Insert the RO membrane into the lower slot and rotate clockwise until locked. Confirm all cartridges are fully seated before placing the front panel back on the unit.

Cartridge part numbers:

PPC-800

MEM-800



Verify cartridge locations before installation. Do not operate the system until all tubing and cartridge connections are complete.

New units will have cartridges already installed.

SYSTEM STARTUP

Following installation, the CS-R0800 must be flushed before the purified water is consumed. Initial flushing removes manufacturing residues, carbon fines, and trapped air from the filtration system.

Initial Startup Procedure

Open the feed water supply valve slowly.
Inspect all fittings and tubing connections for leaks.
Connect power to the CS-R0800.
Allow the system to begin its automatic startup sequence.
Open the drinking water faucet.
Allow water to flow continuously through the system.
Continue flushing for 1 minute.
Discard all water produced during the flushing process.

During Startup

- Cloudy water may be present initially due to dissolved air.
- A brief burst of water pressure to the drain after water shutoff is normal.
- The internal booster pump may cycle during startup.
- Small amounts of water flowing to the drain are normal.

NOTICE: Water produced during the initial flushing process should not be consumed.

Automatic Rinse Cycle

The CS-R0800 automatically performs a 30-second rinse cycle under any of the following conditions:

- When the system is powered on.
- When the system has not been used for 24 hours.
- When the accumulated water purification time reaches 30 minutes.

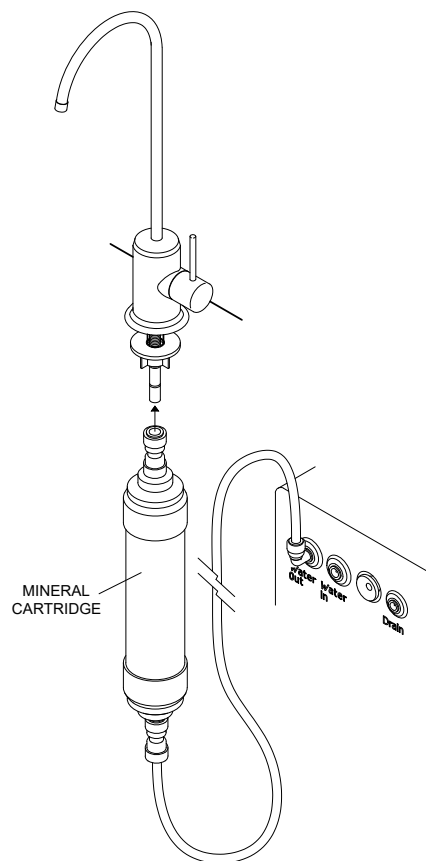
NOTICE: Water dispensing is temporarily disabled during the 30-second rinse cycle. Normal operation will resume automatically once the rinse cycle is complete.

RO-MPC INSTALLATION

Optional RO-MPC Cartridge

The optional RO-MPC Remineralization Cartridge is designed to enhance the quality and taste of reverse osmosis water by increasing pH and adding beneficial minerals, including magnesium and calcium. The cartridge helps produce water with a typical pH range of 7.5–8.0, depending on source water conditions and system operation.

The RO-MPC cartridge is compatible with feed water temperatures between 40°F and 100°F (5°C–35°C). Installation is simple using the system's push-lock connections. The cartridge is installed inline between the RO system outlet and the dedicated drinking water faucet, allowing treated water to pass through the remineralization media before dispensing. While it may be mounted directly beneath the faucet as shown, the cartridge can be positioned anywhere along the supply line that is convenient for the installation, including under the sink, on a cabinet wall, or wherever space allows. Standard push-connect fittings and tubing may be used to extend or reposition the cartridge as needed.



Note: The resulting pH level and mineral content may vary depending on source water quality, operating conditions, and water usage. The RO-MPC cartridge is an optional accessory and is not required for normal operation of the reverse osmosis system.

LIGHTS AND DISPLAY

DISPLAY:

Shows the system's current TDS reading. Press the PPC or RO status button to view the remaining cartridge life as a percentage.

PPC:

Solid White Light: PPC cartridge is operating normally.

Flashing Red Light: PPC cartridge has reached the end of its service life and should be replaced.

Reset: After replacing the cartridge, press and hold the reset button for 10 seconds.

STATUS:

Light Off: System is operating normally.

Flashing White Light: System is performing an automatic rinse cycle.

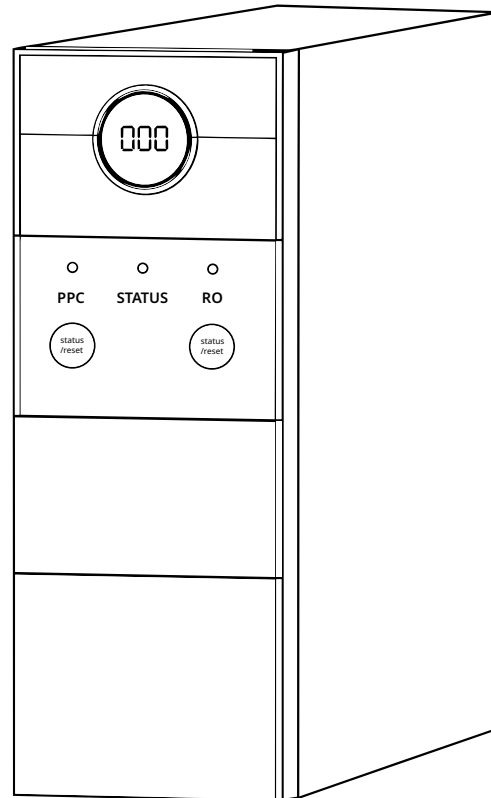
Solid Red Light: System has detected a fault condition, such as no incoming water supply, continuous water flow for more than 20 minutes, or a rinse cycle running longer than 20 minutes. Unplug the power supply for 10 seconds, then plug it back in to clear the fault and restart the machine. If fault returns contact Chandler Systems.

RO:

Solid White Light: RO membrane is operating normally.

Flashing Red Light: RO membrane has reached the end of its service life and should be replaced.

Reset: After replacing the membrane, press and hold the reset button for 10 seconds.



FILTER & MEMBRANE REPLACEMENT

Routine cartridge replacement is essential for maintaining water quality and protecting the reverse osmosis membrane. Actual replacement intervals may vary depending on water quality and usage patterns.

Recommended Replacement Schedule:

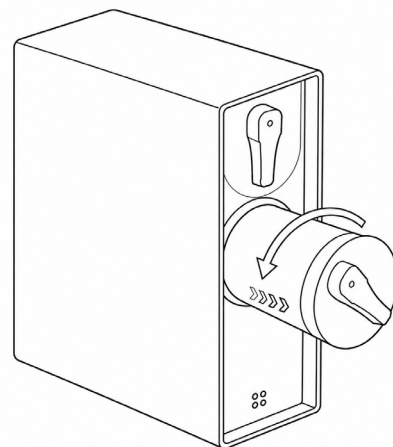
Component	Recommended Service Life
Composite Pre-Filter (PPC-800)	12 Months
RO Membrane (MEM-800)	24 Months

Scan QR Code to watch tutorial on replacing your Free Flow RO Filters



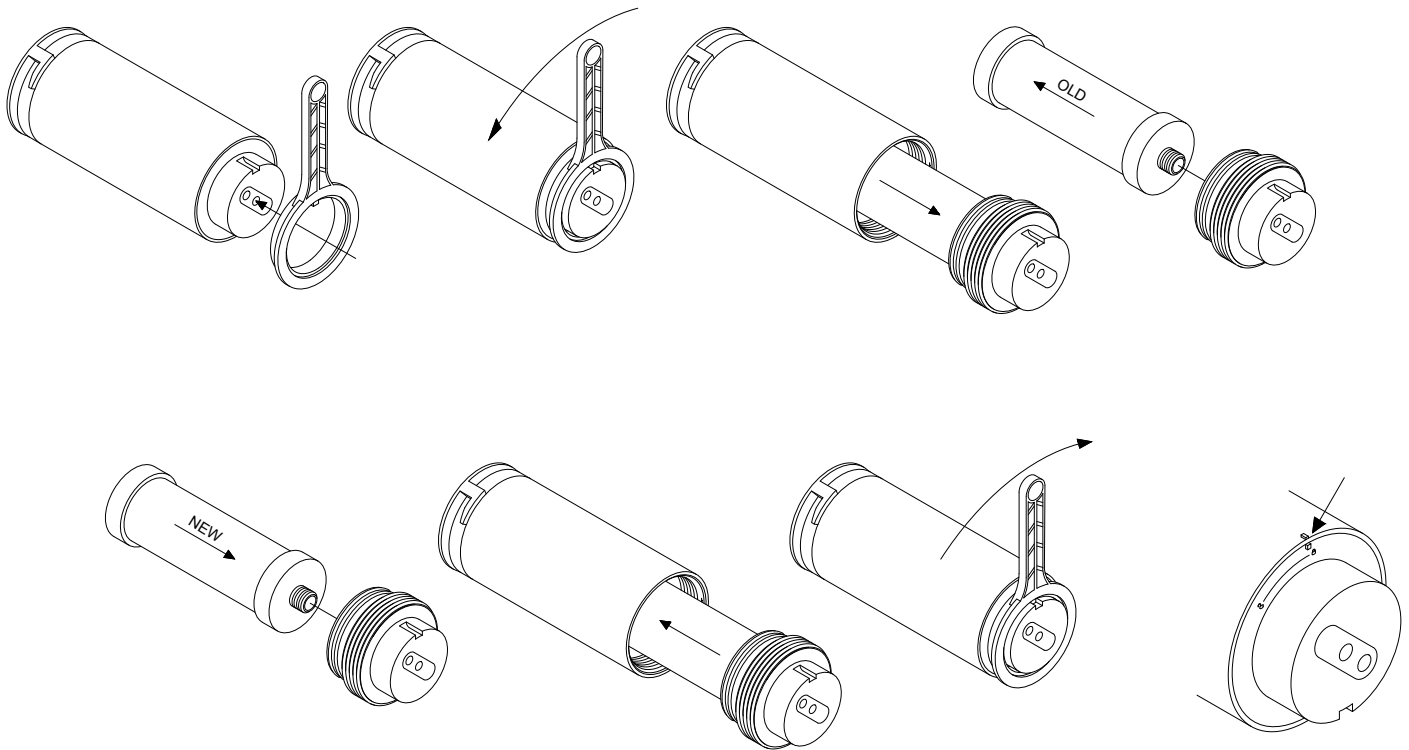
Cartridge Replacement Procedure

Shut off the feed water supply.
Disconnect electrical power to the system.
Remove front panel on RO system.
Rotate the cartridge counterclockwise.
Remove the expired cartridge from housing (see pg.19).
Insert the replacement cartridge.
Rotate clockwise until fully locked.
Restore water pressure.
Check for leaks.
Flush system for 1 minute.



FILTER & MEMBRANE REPLACEMENT

Removing Cartridge From Housing



IMPORTANT:

Always use genuine Chandler Systems replacement cartridges to ensure proper performance and system protection.

Cartridge life estimates shown are approximate. Actual service life depends on water quality, water consumption, and operating conditions.

TROUBLESHOOTING

Problem	Possible Cause	Recommended Action
System Will Not Operate	No electrical power	Verify power supply
	Closed feed water valve	Confirm feed water valve is open
	Loose electrical connection	Inspect electrical connections
Low Water Flow	Restricted pre-filter	Replace pre-filter
	Low incoming water pressure	Verify incoming water pressure
	Fouled RO membrane	Replace RO membrane
	Kinked tubing	Inspect tubing routing
Poor Water Quality	Expired RO membrane	Replace RO membrane
	Expired pre-filter	Replace pre-filter
	Excessive incoming TDS	Verify source water quality and flush system thoroughly
Leaks	Tubing not fully inserted	Re-seat tubing connections
	Damaged O-ring	Replace damaged fitting or O-ring
	Loose fitting	Tighten fittings as needed
	Moisture detected by leak sensor	Dry the leak sensor completely before restarting the system
	System fault not reset	Disconnect power for 10 seconds and reconnect to reset the controller

If operational issues persist after completing the recommended troubleshooting steps, contact Chandler Systems or an authorized service provider for assistance.

LIMITED WARRANTY

For Residential Water Treatment Equipment

This warranty applies only to the original purchaser and first user of the product. Please read all terms, conditions, exclusions, and limitations before installation and operation.

Warranty Coverage

This Limited Warranty is extended only to the original purchaser and first user of the product and is not transferable. By purchasing, accepting, and retaining this product, you agree to the warranty terms, conditions, exclusions, and limitations of liability described in this document.

This warranty applies only to Chandler Systems Water Treatment Equipment installed in and serving a single-family residence occupied by the original purchaser. Equipment purchased for commercial, industrial, multi-family, rental, or other non-residential applications may be subject to different warranty terms.

This Limited Warranty is subject to all conditions, exclusions, and limitations contained herein. Please read this warranty carefully to fully understand your rights and responsibilities.

IMPORTANT:

Read the Chandler Systems Installation, Operation, and Maintenance Manual before installing or operating this equipment. Failure to follow the installation, operation, and maintenance instructions may result in personal injury, property damage, improper system performance, and may void this warranty.

What Is Covered

Chandler Systems, Inc. warrants that, at the time of manufacture, the equipment will be free from defects in material and workmanship, subject to the terms, conditions, exclusions, and limitations contained in this Limited Warranty.

PRODUCT	WARRANTY
Residential Mineral Tank	10 Years
Control Valves	5 Years
Pump Controllers	5 Years
Brine Tank	5 Years
Reverse Osmosis System	1 Year
Other Accesories / Parts	1 Year
Brine Tank Components	1 Year

What Chandler Systems Will Do

If a defect in material or workmanship is determined to be covered by this Limited Warranty, Chandler Systems, Inc., at its sole discretion, will repair the defective product or component or provide a replacement using new or reconditioned parts.

This warranty covers repair or replacement of the defective product or component only. Chandler Systems will not reimburse or pay for labor, travel, shipping, removal, reinstallation, administrative fees, or any other associated service costs unless otherwise required by applicable law.

LIMITED WARRANTY

Warranty Conditions

To remain eligible for warranty coverage, the equipment must:

- Be installed in accordance with the Chandler Systems Installation, Operation, and Maintenance Manual and all applicable local plumbing codes.
- Be operated and maintained as instructed in the product documentation.
- Be properly sized and selected for the intended application.
- Be supplied with potable water that meets the published operating specifications.
- Be operated within the recommended pressure, temperature, and water quality limits.
- Be protected from freezing, flooding, and other environmental conditions that may damage the equipment.

What Is Not Covered

This Limited Warranty does not cover failures or damage resulting from any of the following:

- Improper installation, operation, repair, or maintenance.
- Failure to follow the Installation, Operation, and Maintenance Manual.
- Incoming water quality or operating conditions outside the published system specifications.
- Improper system sizing or application.
- Abuse, misuse, negligence, accident, alteration, or unauthorized repair.
- Freezing, lightning, flooding, fire, or other environmental or natural events.
- Storage or operation outside the recommended temperature or pressure limits.
- Sediment, scale, or other water conditions that restrict proper system operation.
- Damage occurring during shipping or handling by anyone other than Chandler Systems.
- Labor charges, service calls, shipping costs, delivery expenses, administrative fees, or costs associated with removing or reinstalling the equipment.
- Consumable media, filter cartridges, or other items specifically identified as excluded from warranty coverage.

Warranty claims must be submitted within 30 days after expiration of the applicable warranty period. Prompt notice of any warranty claim must be provided to an authorized Chandler Systems Dealer or Chandler Systems, Inc., and reasonable access to the equipment must be provided for inspection.

Disclaimer of Other Warranties

This Limited Warranty is provided in lieu of all other express warranties. No dealer, distributor, representative, installer, or other person is authorized to modify, extend, or create any warranty on behalf of Chandler Systems, Inc. except as expressly stated in this Limited Warranty.

Limitations of Implied Warranties

Any implied warranties, including the implied warranties of merchantability and fitness for a particular purpose, are limited to the duration of the applicable express warranty periods described in this Limited Warranty.

Some states do not allow limitations on the duration of implied warranties, so this limitation may not apply to you.

LIMITED WARRANTY

Limitation of Remedies and Liability

The remedies provided under this Limited Warranty are the purchaser's exclusive remedies. Under no circumstances shall Chandler Systems, Inc. or the seller of the product be liable for more than the original purchase price of the product.

To the fullest extent permitted by law, Chandler Systems, Inc. shall not be liable for any special, incidental, contingent, indirect, or consequential damages arising from the purchase, installation, use, failure, or inability to use the product.

Examples of damages not covered under this Limited Warranty include, but are not limited to:

- Inconvenience or loss of use
- Damage to property or buildings
- Consequential mold damage
- Loss of profits, savings, or revenue
- Downtime or interruption of service
- Damage to associated equipment or facilities
- Claims made by third parties, including customers
- Telephone, travel, labor, shipping, delivery, or administrative expenses associated with warranty service

Some states do not allow the exclusion or limitation of incidental or consequential damages. Therefore, some of the above limitations or exclusions may not apply to you.

How to Obtain Warranty Service

If you believe your product is covered under this Limited Warranty, contact the authorized Chandler Systems Dealer from whom the product was purchased. All warranty claims must be authorized by Chandler Systems, Inc. before any repair or replacement is performed.

The dealer will assist in evaluating the claim and, if necessary, obtain authorization from Chandler Systems for warranty service. Chandler Systems or its authorized representative must be provided reasonable access to the equipment for inspection and evaluation.

If your product is new, unused, and you wish to return it, contact the Chandler Systems Dealer from whom the product was purchased.

This Limited Warranty gives you specific legal rights. You may also have other rights that vary from state to state.

Questions About Your Warranty?

Contact your authorized Chandler Systems Dealer or visit:

www.chandlersystemsinc.com

Customer Support: 1.888.363.9434

Email: support@chandlersystemsinc.com



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