Installation Instructions and Maintenance Manual

Watts Quick-Change (QC) Reverse Osmosis System

Models: WQC4RO11-50MTNF
WQC4RO13-100MT

⚠ WARNING

THINK SAFETY FIRST

Please read carefully before proceeding with installation. Your failure to follow any attached instructions or operating parameters may lead to the product's failure.
Keep this Manual for future reference.

⚠ WARNING

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

IMPORTANT

If you are unsure about installing your WATTS water filter, contact a WATTS representative or consult a professional plumber.

⚠ CAUTION

Test the water periodically to verify that the system is performing satisfactorily. Discard small parts remaining after the installation.

NOTICE

Failure to install the system correctly voids the warranty.
Handle all components of the system with care. Do not drop, drag or turn components upside down.
Be sure the floor under the water filter system is clean, level and strong enough to support the unit.

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System tested and certified by WQA against NSF/ANSI Standard 58 for the reduction of the claims specified on the performance data sheet and NSF/ANSI Standard 372 for lead free.

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WATTS®

Introduction

Thank you for your purchase of a state of the art Watts Reverse Osmosis (RO) water treatment system. Water quality concerns are becoming more of a focus for the public. You may have heard about contaminants in the drinking water, such as Arsenic, Chromium. There may also be some local water issues such as high levels of Lead and Copper. This Watts water treatment system has been designed and tested to provide you with high quality drinking water for years to come. The following is a brief overview of the system.

Your Reverse Osmosis System:

Osmosis is the process of water passing through a semi-permeable membrane in order to balance the concentration of contaminants on each side of the membrane. A semi-permeable membrane is a barrier that will pass some particles like clean drinking water, but not other particles like arsenic and lead.

Reverse osmosis uses a semi-permeable membrane; however, by applying pressure across the membrane, it concentrates contaminants (like a strainer) on one side of the membrane, producing crystal clear water on the other. This is why RO systems produce both clean drinking water and waste water that is flushed from the system. This reverse osmosis system also utilizes carbon block filtration technology and can, therefore, provide a higher quality drinking water than carbon filtration systems alone.

Your system is a 4-Stage RO which is based upon separate treatment segments within the one complete water filtration system. These stages are as follows:

Stage 1 – **Sediment filter**
Recommended change 6 months.
The first stage of your RO system is a five-micron sediment filter that traps sediment and other particulate matter like dirt, silt and rust which affect the taste and appearance of your water.

Stage 2 – **Carbon filter**
Recommended change 6 months.
The second stage contains a five-micron carbon block filter. This helps ensure that chlorine and other materials that cause bad taste and odor are greatly reduced.

Stage 3 - **Membrane**
Recommended change 2-5 years.
Stage 3 is the heart of the reverse osmosis system, the RO membrane. This semi-permeable membrane will effectively take out TDS, sodium and heavy metals such as arsenic, copper, and lead. Because the process of making this high quality drinking water takes time, your RO water treatment system is equipped with a storage tank.

Stage 4 - **GAC Filter**
Recommend change 12 months.
The final stage is a granular activated carbon (GAC) filter. This filter is used after the water storage tank, and is used as a final polishing filter.

NOTICE

Filter & Membrane life may vary based upon local water conditions and/or use patterns.

System Maintenance

Just because you can not taste it, does not mean that it is not there. Contaminants such as lead, chromium and arsenic (to name a few) are undetectable to the taste. Additionally, over time if you do not replace the filter element, other bad tastes and odors will be apparent in your drinking water.

This is why it is important to change out your filter at the recommended intervals as indicated in this system manual. When replacing the filter elements, pay special attention to any cleaning instructions. Should you have any further questions please contact the dealer that you purchased the unit from.

With proper installation and maintenance, this system will provide you with high quality water for years to come. All of Watts water enhancement products are rigorously tested.

NOTE: This manual is used for several variations of the same system. Your system may vary slightly from the pictures or descriptions contained in this manual.

It is the end users responsibility to ensure that this system is installed according to all local codes and regulations.

Installation

Operating Parameters

Operating Temperatures	Maximum 100°F (37.8°C)	Minimum 40°F (4.4°C)
Operating Pressure	Maximum 100 psi (6.0 kg/cm2)	Minimum 40psi (2.80 kg/cm2)
pH Parameters	Maximum 11	Minimum 2
Iron	Maximum 0.2 ppm	
TDS (Total Dissolved Solids)	< 1800 ppm	
Turbidity	< 5NTU	

Hardness: Recommended hardness not to exceed 10 grains per gallon, or 170ppm. System will operate with hardness over 10 grains but the membrane life may be shortened. Addition of a water softener may lengthen the membrane life.

Water Pressure: The operating water pressure in your home should be tested over a 24-hour period to attain the maximum pressure. If the incoming water pressure is above 85psi, a pressure regulator is recommended and if over 100psi, then a pressure regulator is required.

Copper Tubing: Reverse Osmosis water should not be run through copper tubing as the purity of the water will leach copper causing an objectional taste in water and pin holes may form in the tubing. Watts supplies speciality filters that can be used if copper tubing follows the Reverse Osmosis unit. Be sure to follow any state or local regulations during installation.

Contents of Reverse Osmosis (RO) System

1 Tank

1 RO Module with Filters

1 Parts Bag

1 Faucet Box (WQC4RO13 Only)

1 Manual

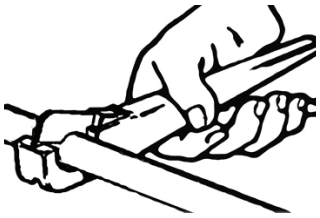
If any of the items are missing please contact prior to installing.

Tools Recommended for Installation

- 1¼" Hole Saw Bit for Faucet opening
- Adjustable Wrench
- Sharp Knife
- Phillips Screwdriver
- Flat-head Screwdriver
- Needle Nose Pliers – Adjustable Pliers
- Variable Speed Drill
- Phillips driver bit for drill
- ⅛" Drill Bit
- ¼" Drill Bit

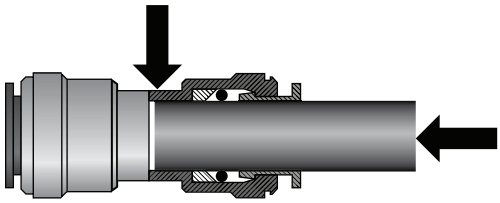
Using Quick-Connect Fittings

Cutting



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

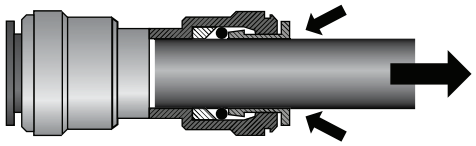
Connecting



Make certain to push the tubing completely into the connector until it comes into contact with the internal tubing stop. The collet (gripper) has stainless steel teeth which hold the tube firmly in position while the O-ring provides a permanent leak proof seal.

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

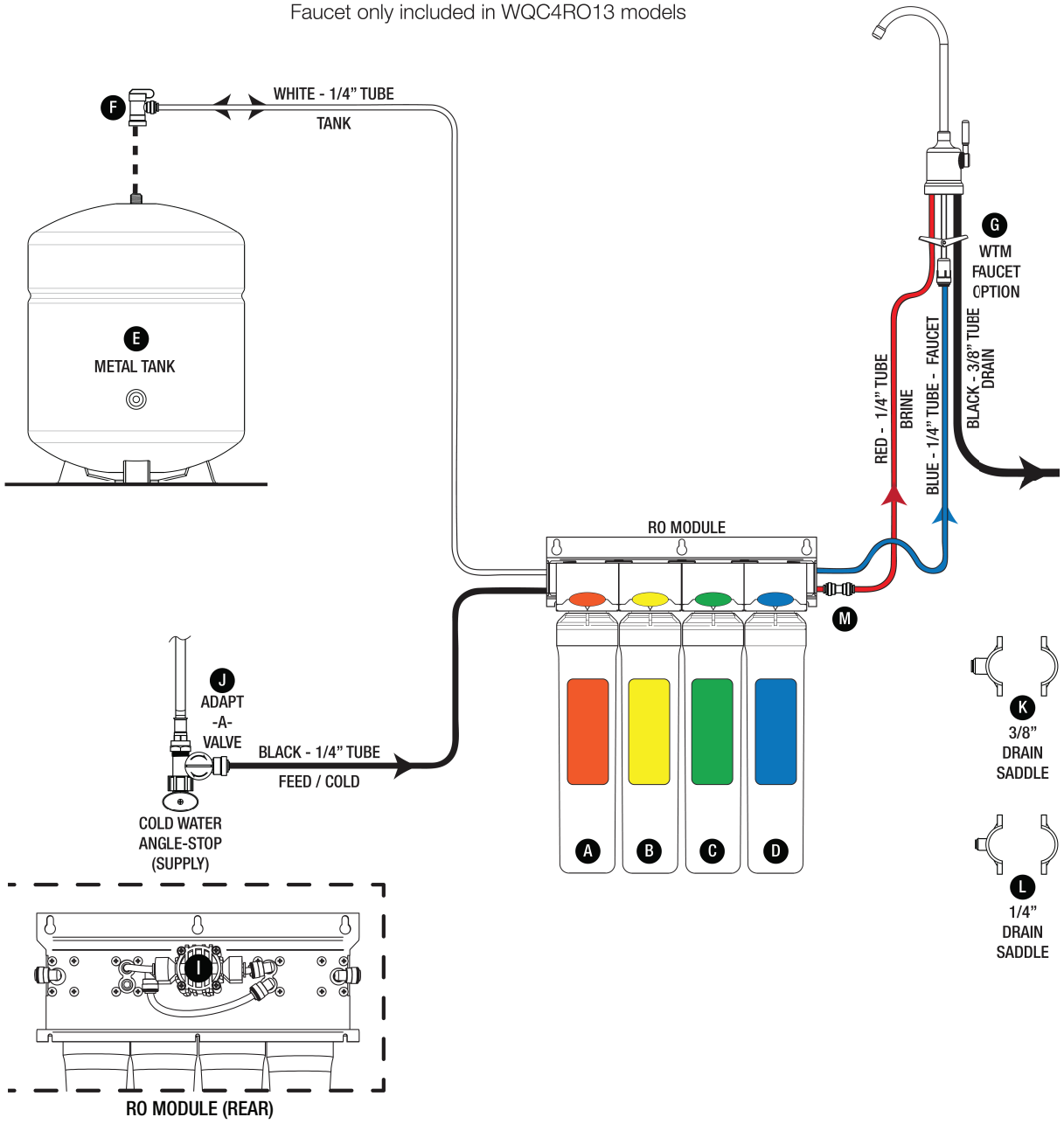
Disconnecting



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

WQC4RO Diagram & Parts List

Faucet only included in WQC4RO13 models



Parts List			
Item	Model #	Part #	Description
A	WQCSC11	68108818	Sediment Filter (11 inch)
A	WQCSC13	68108819	Sediment Filter (13 inch)
B	WQCCC11	68108777	Pre-Carbon Filter (11 inch)
B	WQCCC13	68108779	Pre-Carbon Filter (13 inch)
C	WQCM11-50	68108809	RO Membrane Filter (11 inch-50 GPD)
C	WQCM13-100	68108810	RO Membrane Filter (13 inch-100 GPD)
D	WQCGAC11	68108795	Post Carbon Filter (11 inch)
D	WQCGAC13	68108796	Post Carbon Filter (13 inch)
E	FRO-132-W	68102431	Metal RO Storage Tank
F	PPSV500822W	68106280	Tank Valve
G	WTMFAG-C	68109023	Air Gap WTM Chrome Faucet (WQC4RO13)
H	F122051	68101496	50 GPD Flow Restrictor (Not Shown)
H	F123001	68101499	100 GPD Flow Restrictor (Not Shown)
I	F134003	68101504	Automatic Shut-Off Valve (ASOV)
J	F560080	68101841	Adapt-A-Valve Kit
K	WE-CU138B-Q	68108672	3/8" QC Drain Saddle
L	SC500B14	68107689	¼" Compression Drain Saddle
M	CI0408W	68101030	¼" Quick Connect Union

STEP 1

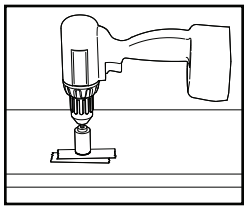
Drill a Hole for the Reverse Osmosis Faucet

Note: Most sinks are predrilled with 1½" or 1¼" diameter hole that you can use for your Drinking Water faucet. (If you are already using it for a sprayer or soap dispenser, see Step A).

NOTICE

Porcelain sinks are extremely hard and can crack or chip easily.

Use extreme caution when drilling. Watts accepts no responsibility for damage resulting from the installation of faucet.



Step A – Determine desired location for the RO faucet on your sink and place a piece of masking tape on over where the hole is to be drilled. Mark the center of the hole on the tape.

Step B – Using a variable speed drill set on the slowest speed, drill a ⅛" pilot hole through both porcelain and metal casing of sink at the marked center of the desired location. Use lubricating oil or liquid soap to keep the drill bit cool (If drill bit gets hot it may cause the porcelain to crack or chip).

Step C – Using a 1¼" diamond-tip hole saw. Keep drill speed on the slowest speed and use lubricating oil or liquid soap to keep the hole saw cool during cutting.

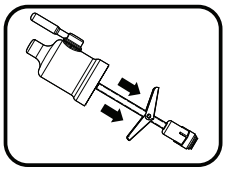
Step D – Make sure the surroundings of the sink are cooled before mounting the faucet to the sink after drilling and remove all sharp edges.

STEP 2

Watts Top Mount Faucet Installation (WQC4RO13 Only)

This RO faucet is equipped with quick connect fittings for easy tube installation. To connect tubes, simply push them firmly into their corresponding fitting on the RO faucet until fully seated.

NOTE: A 1" to 1¼" mounting hole is required for the faucet installation



Step A – During shipping/handling the toggle bolt on your new faucet may push up out of position. Prior to the install, hold the faucet as shown in the picture and pull down on the wing nut. This will ensure that the O-rings are in their proper position and that your faucet will have a good seal.

NOTICE

The quick-connect ports on the faucet are color coded. Make sure the tube being inserted matches the color of the port.

Step B – In the parts bag, locate one ⅜" Stem x ¼" Quick connect fitting adapter, one ¼" red tube, one ¼" blue tube and one ⅜" black tube.

Step C – Insert the ⅜" Stem adapter into the ⅜" fitting located on the end of the toggle bolt assembly.

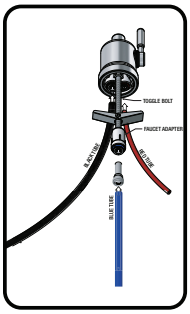
NOTICE

Approximately ¾" of ALL tubing must go into the fitting.

Step D - Connect one end of the ¼" BLUE tube firmly into the stem adapter.

Step E – Connect the ⅜" BLACK tube into the bottom of the faucet.

Step F – Connect one end of the ¼" RED tube firmly into the faucet fitting.



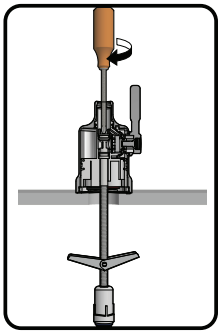
Step G – From above the sink, feed the faucet tubing & toggle bolt down through the mounting hole in the sink. Test fit the faucet placement.

Step H – Peel the white backing paper off the seal on the bottom of the faucet base and press firmly over the mounting location

Step I – Insert your Phillips head screwdriver through the spout hole of the RO faucet and then turn the toggle bolt until the faucet is secure.

NOTICE

Do not overtighten



Step J – Insert spout into the faucet base until fully seated.

Step K – Pull the Battery Safety Tab out to activate the faucet monitor. Make sure that the clear drawer is firmly seated in the faucet base. The monitor will flash briefly once activated.

⚠ DANGER

KEEP AWAY FROM CHILDREN

This product contains a button (coin) cell battery. If swallowed, it could cause severe injury or death in just 2 hours. Seek immediate medical help. Contact a Poison Control Center.

STEP 3

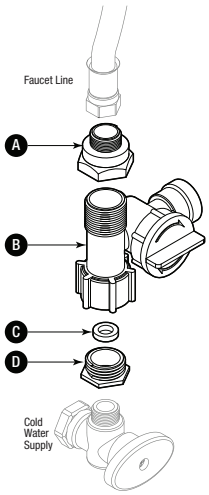
Adapt-A-Valve Installation

NOTICE

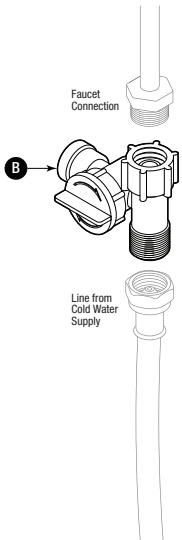
Water supply line to the system must be from the cold water supply line only. Hot water will severely damage your system.

NOTICE

Do not use PTFE thread seal tape with the Angle Stop Valve



For ⅜" Configuration



For ½" Configuration

Parts List for Angle-Stop Valve (verify contents prior to installation)	
Item	Description
A	Brass Adapter with black washer
B	Plastic Adapt-A-Valve & black collet
C	White Rubber Washer
D	Brass Adapter with no washer

Step A - Turn off the cold water supply to the faucet by turning the angle stop valve completely off.

Step B - Open cold water sink faucet to relieve pressure.

Step C - Choosing the configuration that fits your plumbing, attach the Adapt-A-Valve as illustrated in the diagram above.

NOTICE

Make sure that the black collet is installed in to the ¼" opening on the Adapt-a-valve. Don't forget to install the white compression washer with the ⅜" configuration. Brass adapters do not need to be tightened with a wrench, only finger tight.

STEP 4

Drain Saddle Installation

NOTICE

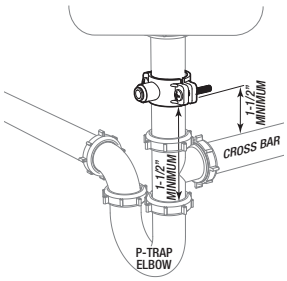
If you have a garbage disposal, do not install the drain saddle near it. Installation of the drain saddle must be either above the garbage disposal, or if a second sink drain is available, install it above the cross bar on the second drain. Installation of the drain saddle near a garbage disposal may cause the drain line to plug.

Step A - Determine if a ¼" tube connection or ⅜" tube connection drain saddle should be installed. For Air-Gap RO Faucets (3 tubes) use larger ⅜" tube connection drain saddle. For non air-gap RO faucets (1 tube) use ¼" tube connection drain saddle.

Step B - Gather the pieces of the drain saddle:
(1) Saddle - Front Portion
(1) Saddle - Rear Portion
(1) Foam Gasket
(2) Screws
(2) Nuts (for Screws)

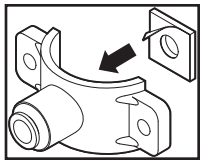
NOTICE

The drain saddle must be installed at least 1½" above the nut of the P-Trap elbow or cross bar from the garbage disposal to ensure proper drainage.

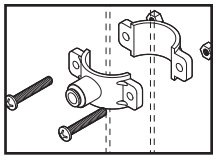


Step B - Using a ⅜" drill bit for ⅜" drain saddle or ¼" drill bit for ¼" drain saddle, drill into the drain pipe at best available location as specified above, for drain saddle installation. Take extreme caution to only drill through one side of the drain pipe.

Step C - The small square black foam gasket with a circle cut out of the middle must be applied to the inside of the drain saddle. Remove sticky tape backing and stick to the drain saddle as shown.



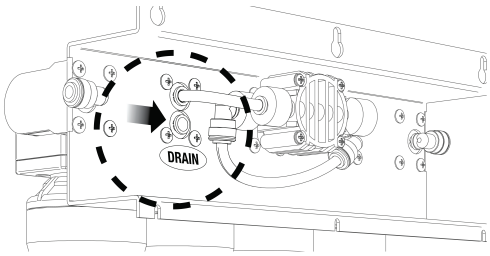
Step D - Assemble the drain saddle around the drain pipe and align drain saddle fitting opening with the hole drilled in the previous step - you may use a small screwdriver to feed through the drain saddle into the drain pipe to aid with the alignment. Using a Phillips screw driver tighten the drain saddle bolts evenly and securely on both sides.



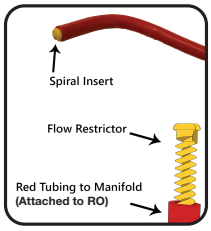
NOTICE

Do not over tighten the screws. It may crack the drain saddle.

NOTICE



The Flow Restrictor is installed inside of the red tube at the bent end connected to the Drain port on the back of the RO module. DO NOT REMOVE THE FLOW RESTRICTOR OR CUT THE RED TUBING AS IT WILL DAMAGE THE FLOW RESTRICTOR.

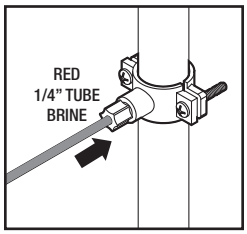


STEP 5 - Option 1

¼" Drain Saddle Option (For Use with Non-Air Gap Faucets)

Step 1.A - In the parts bag, locate the ¼" red tube. Connect the tube to the union fitting attached to the ¼" red tube that is connected to the back of the RO Module fitting labeled Drain. Make sure the tube is pushed in all the way to the tube stop.

Step 1.B - Push the ¼" red drain tube open end through the black compression nut included in the drain saddle kit. Insert the drain tube into the opening in the drain saddle, hand tighten the black nut and add ¼" turn with a wrench. Continue to Step 6.



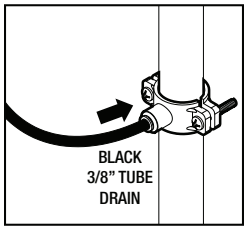
STEP 5 - Option 2

⅜" Drain Saddle Option (For Use with Air Gap Faucets)

Step 2.A - Locate the ¼" red tube attached to the RO Faucet. Connect the tube to the union fitting attached to the ¼" red tube that is connected to the back of the RO Module fitting labeled Drain. Make sure the tube is pushed in all the way to the tube stop.

Step 2.B - Measure the 3/8" black tube from faucet to the drain saddle on the drain pipe and make a straight cut to the correct length.

Step 2.C - Connect the black tube to the open quick connect fitting on the drain saddle by pushing the tube all the way to the tube stop. Continue to Step 6.



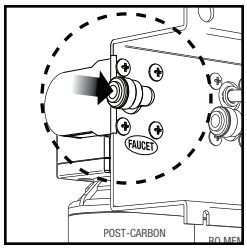
NOTICE

The black 3/8" drain tube must be as SHORT and STRAIGHT as possible to the drain saddle, making a downward slope from faucet to drain saddle to allow for proper drainage. This is a gravity fed line and if there is any bend or dip in the tube, the rinse water will not flow into the drain properly. Water may back up and come out the air gap hole in the back of the faucet.

STEP 6

Blue ¼" Tube Connection - Faucet Connection

Step A - Locate the ¼" blue tube connected to the RO Faucet. Connect the open end to the ¼" elbow fitting on the back of the RO Module behind the Post-Carbon Filter. Make sure the tube is pushed in all the way to the tube stop.

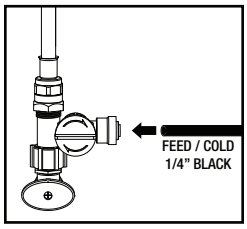


STEP 7

Black ¼" Tube Connection - Inlet Water

Step A - Locate the ¼" black tube from the parts bag and insert one end into the plastic Adapt-A-Valve. Make sure the tube is pushed in all the way to the tube stop.

Step B - Insert the other end of the ¼" black tube into the elbow behind the sediment filter next to the "IN" label.

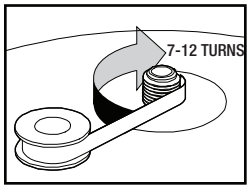


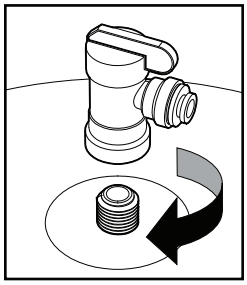
STEP 8

Tank Valve Installation

Step 1.A - PTFE thread seal tape must be applied in a clockwise direction. Wrap 5 to 7 turns around the male pipe threads (MPT) on the stainless steel fitting on top of the tank.

Step 1.B - Thread the plastic valve onto the tank fitting





NOTICE

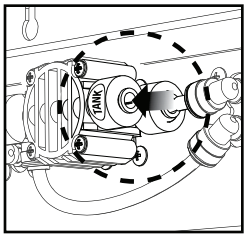
DO NOT over-tighten or the valve could crack

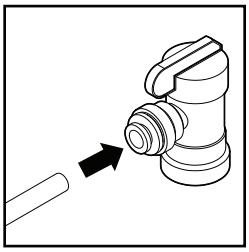
STEP 9

White ¼" Tube Connection - Storage Tank

Step A- Locate the ¼" white tube from the parts bag. Plug one end into the RO Module at the open port of the ASO Valve marked "Tank"

Step B - Plug the other end of the ¼" white tube into the valve at the Storage Tank.

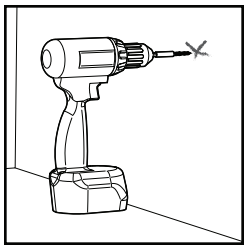




STEP 10

Reverse Osmosis Module Mounting

Step A - Determine the best location for the RO Module to be mounted to allow for future system maintenance. The parts bag has 2 self-tapping screws. Using an electric drill with a phillips-driver bit, screw them into the cabinet wall approximately 10 5/8" apart and 16" from the bottom of the cabinet.

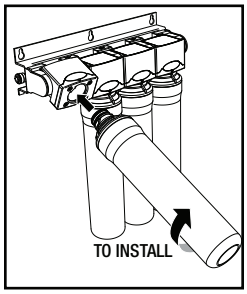


STEP 11

Install the Filter Cartridges

Step A - Identify each cartridge and the proper location on the system by matching the colors and descriptions.

Step B - Insert each cartridge with a ¼-turn in a counter-clockwise direction. The cartridge is installed properly when the label is facing toward the front of the unit.



Operation

Startup Instructions

Step A - Turn on the water supply at both the cold water supply valve and Adapt-A-Valve. Check the system for leaks and tighten any fittings as necessary. (Check frequently over the next 24 hours to ensure no leaks are present).

NOTE: If you have connected your RO system to a refrigerator / ice maker, make sure the ice maker is off (do not allow water to flow to the ice maker) until flushing (Step D) is complete and the tank has been allowed to fill completely. Connection from the RO to the ice maker system should have an in-line valve installed before the ice maker so it can easily be closed to prevent water flowing to the ice maker during start up and periodic maintenance. Your storage tank must be allowed to fill up fully in order for the ice maker system to work properly.

Step B - Open the RO faucet and leave it open until water begins to trickle out (this may take a few minutes and the water will come out slowly).

Step C - Close the RO faucet allowing the storage tank to fill with water. It may take 3 to 6 hours to fill the tank completely depending on the production capability of the membrane, local water temperature and water pressure.

NOTE: During the fill period you may hear water trickling which is a normal occurrence.

Step D - After the storage tank has filled open the RO Faucet to flush the tank completely. You will know that the tank is empty when the flow rate from the RO faucet is down to a trickle. Repeat this step two more times. The fourth tank can be used for drinking.

NOTE: The flushing process should take about a day to complete.

NOTE: Flushing of the tank 3 times is only necessary during the initial startup and after replacing the membrane.

Maintenance

NOTICE

Your RO module is equipped with valved heads which will automatically turn off the water supply to each filter when the filter is released, thus you do not need to turn off the incoming water supply at the Adapt-a-Valve. The RO faucet must be off when filters are replaced.

6 Month System Maintenance

Determine if you have an 11 inch or 13 inch product and replace in 6 mos.

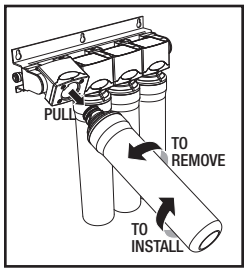
Model #	Part #	Description
WQCSC11	68108818	Sediment Filter (11 inch)
WQCSC13	68108819	Sediment Filter (13 inch)
WQCCC11	68108777	Pre-Carbon Filter (11 inch)
WQCCC13	68108779	Pre-Carbon Filter (13 inch)

Annual Maintenance

Determine if you have an 11 inch or 13 inch product and replace in 12 mos.

Model #	Part #	Description
WQCSC11	68108818	Sediment Filter (11 inch)
WQCSC13	68108819	Sediment Filter (13 inch)
WQCCC11	68108777	Pre-Carbon Filter (11 inch)
WQCCC13	68108779	Pre-Carbon Filter (13 inch)
WQCGAC11	68108795	Post Carbon Filter (11 inch)
WQCGAC13	68108796	Post Carbon Filter (13 inch)

Tip: This is a good time to check the air pressure in your storage tank. For instructions please see page 9.



Step A - Place a towel under the RO module to catch any excess water that may drip out from the filters during the changeover.

Step B - To remove a filter cartridge: Turn the cartridge ¼-turn to remove.

Step C - To install a filter cartridge: Remove the seal cap and insert the cartridge into the valve head with the label facing to the left (9 o'clock position) and then rotate it ¼-turn.

Step D - If performing the annual maintenance, flush the first tank full after completing the annual maintenance.

This reverse osmosis system contains a replaceable component (the RO membrane) which is critical to the efficiency of the system. Replacement of this reverse osmosis membrane should be with one of identical specifications as defined by Watts to assure the same efficiency and contaminant reduction performance.

RO Membrane Replacement

Determine if you have an 11 inch or 13 inch product and replace in 2-5 years.

Model #	Part #	Description
WQCM11-50	68108809	RO Membrane Filter (11 inch-50 GPD)
WQCM13-100	68108810	RO Membrane Filter (13 inch-100 GPD)

Membranes have a life expectancy between 2 and 5 years, depending on the incoming water conditions and the amount the RO system is used. This reverse osmosis membrane is critical for effective reduction of total dissolved solids (TDS). The product water should be tested periodically to verify that the system is performing satisfactorily.

Normally, a membrane would be replaced during a semiannual or annual filter change. However, if at any time you notice a reduction in water production or an unpleasant taste in the reverse osmosis water, it could be time to replace the membrane. Watts recommends replacing the membrane when TDS reduction falls below 75%.

Refer to Instructions above filter change instructions

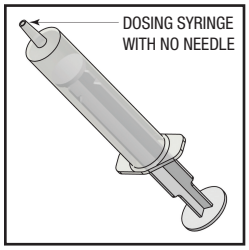
Step A - To change your membrane, follow the instructions for the Annual Maintenance (previous section). The procedure to remove and change the membrane cartridge is the same as all the other filter cartridges on the RO module.

Step B - Check over the next 24 hours to ensure no leaks are present.

Annual Sanitization

NOTICE

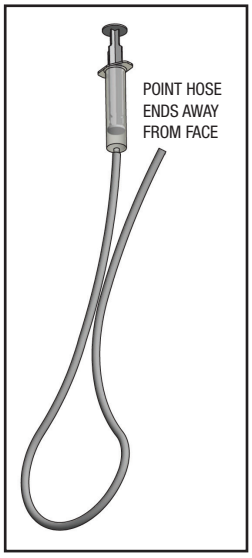
Do not change your post-carbon filter until the sanitization has been completed. The pre-filters and membrane can be changed before the sanitization



Step A - Turn off the water supply to your RO system at the Adapt-A-Valve and open the RO faucet to drain the storage tank.

NOTICE

If you have connected your RO system to a refrigerator/ice maker, make sure the connection has been turned off. Do not re-open the connection until the sanitization process is complete.



Step B - Locate the tube that runs between your filter module and the storage tank and disconnect at both ends.

Step C - Drain any remaining water in the tube

Step D - Hold both ends of the tube together with the ends pointed away from your face. Using a dosing syringe (see figure) slowly insert 1 teaspoon (5 mL) of common household bleach into the tube.

⚠ WARNING

Do not use needle syringe

Step E - While covering one end of the tube with your finger, insert the other into the tank. Then insert the open end into the filter module.

Step F - Turn the incoming water back on and let the system fill for approximately 10 minutes

Step G - Turn off the incoming water and let the system sit for 1 minute.

Step H - Drain the system completely and then follow the startup procedure - filling then draining two full tanks of water.

Step I - Replace the post-carbon filter once complete.

⚠ DANGER

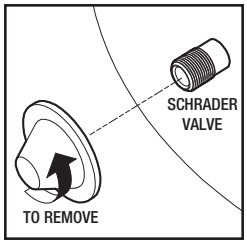
IF BLEACH GETS IN EYES: Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Check Air Pressure in the Tank

NOTICE

Check air pressure only when tank is empty of water!

Check air pressure in the storage tank when you notice a decrease in available water from the RO system. Air can be added with a bicycle pump using the schrader valve that is located on the lower side of the tank behind the blue plastic cap.



Step A - Turn off the incoming water supply to the RO.

Step B - Open the RO Faucet and allow water to drain from the tank until it is completely empty.

TIP: **When water from the RO faucet slows to a trickle, with the faucet still in the open position, you may add air to the tank to purge any left over water, this will ensure that the tank is completely empty.**

Step C - Once all water in the tank is purged, check air pressure using an air pressure gauge, it should read between 5 - 7 PSI. (Digital air pressure gauge is recommended)

Step D - Follow startup procedure on page 8.

Procedure for Extended Non-Use (More than 2 months)

Step A - Turn off the water supply to your RO system at the Adapt-A-Valve and open the RO faucet to drain the storage tank. Once the storage tank is empty, remove all filter cartridges (order not important), place them into a sealed plastic bag and store in your refrigerator.

NOTICE

DO NOT FREEZE

Restart Instructions

Step A - Reinstall all filters on to the RO unit. Filters are color coded to match the filter heads they snap in to. Refer to page 7, Step 11 for cartridge installation procedure.

Step B - Turn on water supply to the system at the Adapt-a-Valve. Check frequently over the next 24 hours to ensure no leaks are present.

NOTICE

If you have connected your RO system to a refrigerator / ice maker, make sure the ice maker is off (do not allow water to flow to the ice maker) until the tank has been allowed to completely fill.

Step C - Open the RO faucet and leave it open until water begins to trickle out (it will come out slowly).

Step D - Close the RO faucet allowing the storage tank to fill with water. It may take 3 to 6 hours to fill the tank completely depending on the production capability of the membrane, local water temperature and water pressure.

Step E - After the Tank has filled, open the RO Faucet to flush the tank completely. You will know that the tank is empty when the flow rate from the RO faucet is down to a trickle. The second tank can be used for drinking.

Troubleshooting

Problem	Possible Causes	Solution
Low / Slow Production	Low Water pressure	Incoming water pressure to unit must be at least 40 psi.
	Old Adapt-A-Valve	If you have recently installed the system, make sure any old Adapt-A-Valves, from previous systems, have been replaced
	Crimps in tubing	Check tubing and straighten or replace as necessary
	Clogged pre-filters	Replace pre-filters
	Fouled Membrane	Replace Membrane.
	Clogged Post-Carbon Filter	Replace Post-Carbon filter
Milky colored water	Air in system	Air in the system is a normal occurrence with the initial start-up after RO installation or filter replacement. This will disappear during normal use within 1-2 weeks. If it continues, check incoming water.
System is constantly running.	Crimps in tubing	Check tubing and straighten or replace as necessary
	Clogged pre-filters	Replace prefilters
	Fouled Membrane	Replace Membrane.
	Other	Turn off the valve at the top of the tank and check water production from faucet. The system should produce at least 3-4 ounces (89-118 mL) per minute with the tank off. If it is producing less, check for clogged pre-filters or a fouled membrane.
Small amount of water in storage tank	System is starting up	Normally it takes 4-6 hours to fill tank. Note: low storage tank pressure, incoming water pressure, and/or temperature can drastically reduce production rate.
	Low water pressure	See Item 1
	Air pressure in tank is too high	Repressurize Tank - See Page 9
	Low air pressure in tank	Repressurize Tank - See Page 9
Low flow from faucet.	Low air pressure in tank	Repressurize Tank - See Page 9

Troubleshooting (cont.)

Problem	Possible Causes	Solution
Leak at Fitting	Damaged Tubing	Disconnect the tube (See Section “Using Quick-Connect Fittings” at beginning of manual) then cut about 1" from the tube or replace tube and then re-insert. Replace tubing if necessary.
	Damaged Fitting	Replace fitting
Unpleasant taste from water	Tank needs to be sanitized	Sanitize your system
	Filters are Fouled	Replace Filters
	Filters weren’t removed prior to an extended period of non-use	Replace filters and Sanitize your system
Leaking at faucet	Faulty o-rings on lower faucet assembly	Check o-rings. Lubricate o-rings or replace lower faucet assembly if damaged.
TDS Levels are high	Fouled Membrane	Replace RO Membrane
	Damaged Automatic Shut-Off Valve	Replace the Automatic Shut-Off Valve

Performance Data Sheet

Watts • 815 Chestnut Street • N. Andover, MA 01845 • Phone: 800-659-8400

Model: WQC4RO11-50MTNF, and WQC4RO13-100MT

System tested and certified by WQA against NSF/ANSI Standard 58 for the reduction of the claims specified on the performance data sheet and NSF/ANSI Standard 372 for lead free.

C US

GENERAL USE CONDITIONS:

1. Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system. Systems certified for cyst reduction may be used on disinfected waters that may contain filterable cysts.
2. Operating Temperature: Maximum 100° F (38° C) Minimum 40° F (4.4° C)
3. Operating Water Pressure: Maximum 85 psi (5.98 kg/cm^2) Minimum 20 psi (1.41 kg/cm^2)
3. Maximum flow Rate: 0.50 gpm (1.89 lpm)

RECOMMENDED REPLACEMENT PARTS AND CHANGE INTERVAL:

Note: Depending on incoming feed water conditions replacement time frame may vary.

Determine if you have an 11 inch or 13 inch product.

Model #	Part #	Description		Replacement Interval
WQCSC11	68108818	Stage 1:	Sediment Filter (11 inch)	6 months
WQCSC13	68108819	Stage 1:	Sediment Filter (13 inch)	6 months
WQCCC11	68108777	Stage 2:	Pre-Carbon Filter (11 inch)	6 months
WQCCC13	68108779	Stage 2:	Pre-Carbon Filter (13 inch)	6 months
WQCM11-50	68108809	Stage 3:	RO Membrane Filter (11 inch-50 GPD)	2-5 Years
WQCM13-100	68108810	Stage 3:	RO Membrane Filter (13 inch-100 GPD)	2-5 Years
WQCGAC11	68108795	Stage 4:	Post Carbon Filter (11 inch)	12 months
WQCGAC13	68108796	Stage 4:	Post Carbon Filter (13 inch)	12 months

Performance Data Sheet (cont.)

This system has been tested according to NSF/ANSI 58 for reduction of the substances listed below, and to NSF /ANSI 372 for lead free compliance. The concentration of the indicated substances in water entering the system was reduced to a concentration less than or equal to the permissible limit for water leaving the system as specified in NSF/ANSI 58. This system has been tested for the treatment of water containing pentavalent arsenic (also known as As (V), As (+5), or arsenate) at concentrations of 0.30 mg/L or less. This system reduces pentavalent arsenic, but may not remove other forms of arsenic. This system is to be used on water supplies containing a detectable free chlorine residual at the system inlet or on water supplies that have been demonstrated to contain only pentavalent arsenic. Treatment with chloramine (combined chlorine) is not sufficient to ensure complete conversion of trivalent arsenic to pentavalent arsenic, Please see the Arsenic Facts section of the Performance Data Sheet for further information.

SUBSTANCE	Avg In. (mg/L)	Avg. Eff. (mg/L)	% Reduction	pH	Pressure	Max. Eff. (mg/L)	Inf. Challenge concentration (mg/L)	Max. Allowable concentration (mg/L)
Arsenic (Pentavalent)	0.310	0.001	98.8	7.24	50 psi	0.002	0.30 ± 10%	0.010
Barium Reduction	9.2	0.08	98.0	7.64	50 psi	0.12	10.0 ± 10%	2.0
Cadmium Reduction	0.031	0.0004	95.7	7.49	50 psi	0.0008	0.03 ± 10%	0.005
Chromium (Hexavalent)	0.030	0.002	98.8	7.24	50 psi	0.004	0.03 ± 10%	0.1
Chromium (Trivalent)	0.030	0.001	98.0	7.64	50 psi	0.002	0.03 ± 10%	1.3
Copper Reduction	3.2	0.02	98.8	7.40	50 psi	0.04	3.0 ± 10%	1.3
Fluoride Reduction	8.7	0.19	96.5	7.24	50 psi	0.3	8.0 ± 10%	1.5
Lead Reduction	0.15	0.002	95.7	7.39	50 psi	0.3	0.15 ± 10%	0.0107
Radium 226/228	25 pCi/L	5 pCi/L	98.0	7.24	50 psi	0.005	25pCi/L ± 10%	5 pCi/L
Selenium	94.85	<0.2	96.5	7.24	50 psi	5 pCi/L	0.10 ± 10%	0.05
TDS	770	35	95.0	7.28	50 psi	26.0	750 ± 40mg/L	187
Turbidity	11.3	0.1	99.1	7.43	50 psi	0-1	11 ± 1mg/L	0.5 NTU

WQC4RO11-50MTNF DPR - 14.8 GPD, % Recovery - 17.6%, Efficiency - 11.2%

WQC4RO13-100MT DPR - 40.1 GPD, % Recovery - 18.8%, Efficiency - 12.7%

Depending on water chemistry, water temperature, and water pressure Watts R.O. Systems production and performance will vary. Efficiency rating means the percentage of the influent water to the system that is available to the user as reverse osmosis treated water under operating conditions that approximate typical daily usage. Recovery rating means the percentage of the influent water to the membrane portion of the system that is available to the user as reverse osmosis treated water when the system is operated without a storage tank or when the storage tank is bypassed. There is an average of 4 gallons of reject water for every 1 gallon of product water produced.

REFER TO OWNER'S INSTALLATION/SERVICE MANUAL FOR FURTHER MAINTENANCE REQUIREMENTS AND WARRANTY INFORMATION.

Arsenic Fact Sheet

Arsenic (As) is a naturally occurring contaminant found in many ground waters. Arsenic in water has no color, taste or odor. It must be measured by an arsenic test kit or lab test.

Public water utilities must have their water tested for arsenic. You can obtain the results from your water utility contained within your consumer confidence report. If you have your own well, you will need to have the water evaluated. The local health department or the state environmental health agency can provide a list of test kits or certified labs.

There are two forms of arsenic: pentavalent arsenic (also called As (V), As (+5)) and trivalent arsenic (also called As (III), As (+3)). In well water, arsenic may be pentavalent, trivalent, or a combination of both. Although both forms of arsenic are potentially hazardous to your health, trivalent arsenic is considered more harmful than pentavalent arsenic.

RO systems are very effective at removing pentavalent arsenic. A free chlorine residual will rapidly convert trivalent arsenic to pentavalent arsenic. Other water treatment chemicals such as ozone and potassium permanganate will also change trivalent arsenic to pentavalent arsenic. A combined chlorine residual (also called chloramine) where it does convert trivalent arsenic to pentavalent arsenic, may not convert all the trivalent arsenic in to pentavalent arsenic. If you get your water from a public water utility, contact the utility to find out if free chlorine or combined chlorine is used in the water system.

This reverse osmosis system is designed to remove up to 98% of pentavalent arsenic. It will not convert trivalent arsenic to pentavalent arsenic. Under laboratory standard testing conditions, this system reduced 0.30 mg/L (ppm) pentavalent arsenic to under 0.010 mg/L (ppm) (the USEPA standard for drinking water). Actual performance of the system may vary depending on specific water quality conditions at the consumer's installation. In addition to the independent laboratory standard testing conditions we have conducted additional field testing on our reverse osmosis units to determine trivalent arsenic reduction capabilities. Based upon field testing, it has been determined that the RO units are capable of reducing up to 67% of trivalent arsenic from the drinking water.

This reverse osmosis system contains a replaceable component critical to the efficiency of the system. Replacement of the reverse osmosis component should be with one of identical specifications, as defined by the manufacturer, to ensure the same efficiency and contaminant reduction performance. Specific component identification and ordering information can be found in the maintenance section of this manual.

Service Record

Date of Purchase: _____ Model Number: **WQCRO4** Serial Number: _____

Date of Install: _____ Installed by: _____

Date Changed:	Sediment Pre-Filter (6 Months) ☑	Carbon Pre-Filter (6 Months) ☑	Membrane (2-5 Years) ☑	GAC Post-Filter (12 Months) ☑

Limited Warranty

This Drinking Water Filter Unit is warranted against defects in material and workmanship for a period of one year from the date of installation, not to exceed 2 years from the date of manufacture. Expendable items such as filter cartridges and membranes are not covered by this warranty.

How to obtain Warranty Service: Contact the dealer that you purchased the system from. Watts will work in conjunction with our dealer to repair or replace at our discretion any unit that is determined to be defective. No returns will be accepted with out the proper return authorization number.

What this warranty does not cover: This warranty does not cover defects resulting from improper installation, from abuse, misuse, misapplication, improper maintenance, neglect, alteration, accidents, casualties, fire, flood, freezing, environmental factors, water pressure spikes or other such acts of God.

Return shipping charges are not included in this warranty and are the responsibility of the end user.

This warranty will be void if defects occur due to failure to observe the following conditions:

1. The Drinking Water Filter Unit must be hooked up to a potable municipal or well cold water supply.
2. The hardness of the water should not exceed 10 grains per gallon, or 170 ppm.
3. Maximum incoming iron must be less than 0.2 ppm.
4. The pH of the water must not be lower than 2 or higher than 11
5. The incoming water pressure must be between 40 and 100 pounds per square inch.
6. Incoming water to the filter system cannot exceed 100 degrees F (38 degrees C.)
7. Incoming TDS/Total Dissolved Solids not to exceed 1800 ppm.
8. Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

This warranty does not cover any equipment that is relocated from the site of its original installation.

This warranty does not cover any equipment that is installed or used outside the United States of America and Canada.

LIMITATIONS AND EXCLUSIONS:

WATTS WILL NOT BE RESPONSIBLE FOR ANY IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. WATTS WILL NOT BE RESPONSIBLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING WATER DAMAGE, TRAVEL EXPENSE, TELEPHONE CHARGES, LOSS OF REVENUE, LOSS OF TIME, INCONVENIENCE, LOSS OF USE OF THE EQUIPMENT, AND DAMAGE CAUSED BY THIS EQUIPMENT AND ITS FAILURE TO FUNCTION PROPERLY. THIS WARRANTY SETS FORTH ALL OF WATTS RESPONSIBILITIES REGARDING THIS EQUIPMENT.

OTHER CONDITIONS:

If Watts chooses to replace the equipment, it may be replace with reconditioned equipment. Parts used in repairing or replacing the equipment will be warranted for 90 days from the date the equipment is returned to you or for the remainder of the original warranty period, whichever is longer. This warranty is not assignable or transferable.

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