



INSTALLATION, OPERATION AND MAINTENANCE MANUAL

Save manual for future reference

ZeroWaste® Reverse Osmosis Unit Model: Zero Pure Plus



IMPORTANT

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

CAUTION

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.

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.

Refer to enclosed warranty for operating parameters to ensure proper use with your water supply.

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Overview

Thank you for your purchase of a state of the art Premier ZeroWaste® Reverse Osmosis 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, and Chromium. There may also be some local water issues such as high levels of Lead and Copper. This Premier 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.

About Reverse Osmosis

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 only certain 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 rinse 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

What Makes This Unit ZeroWaste®

Normally, reverse osmosis sends more water to the drain than what ends up as drinking water. This flushing is necessary for reverse osmosis to work. This unit features a ZeroWaste® component that takes the water that would normally be sent to the drain and redirects it into your hot water connection where it can be re-used.

The Stages of Filtration

Your system is a four 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 5 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 three is the heart of the reverse osmosis system, the 50GPD (Gallons Per Day) RO membrane. This semi permeable membrane will effectively remove Total Dissolved Solids (TDS), Sodium and a wide range of contaminants such as Chromium, Arsenic, Copper, and Lead. Because the process of extracting this high quality drinking water takes time, your RO water treatment system is equipped with a storage tank.

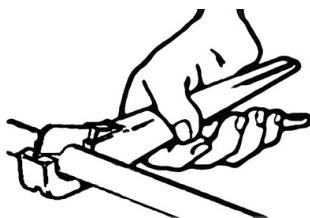
Stage 4- VOC Block filter, recommend change 12 months.

Through the specialty (VOC) like MTBE's, Atrazine, Benzene, 2,4-D, Lindane and others from your drinking water. It is estimated that VOC's are present in one-fifth of the nation's water supplies. These water contaminants can enter ground water from a variety of sources including localized use of herbicides and pesticides, gasoline or oil spills, leaking underground fuel tanks, septic system cleaners, and chemicals used in the dry-cleaning industry. See performance data sheet for individual contaminants and reduction performance.

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

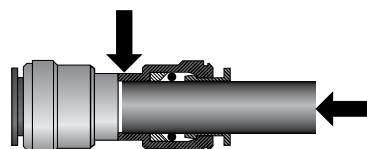
Using Quick-Connect Fittings

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.

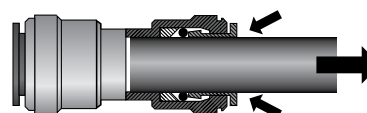
Connecting



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 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.

System Maintenance

Just because you cannot taste it, does not mean that it is not there. Contaminants such as Lead, Chromium and Arsenic are undetectable to the taste. Additionally, over time if you do not replace the filter elements, other bad tastes and odors will be apparent in your drinking water.

It is important to change out your filters 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 refer to our web site at www.premierH2o.com or call our customer service department at 1-800-752-5582.

Installation Notes

- Not recommended for use on homes equipped with tankless water heaters. Contact Watts Premier for specific details regarding this unit and tankless water heaters.
- System was tested in a laboratory setting utilizing a hot water heater of 40 gallons set at 120° F. Performance may vary if your heater is smaller than 40 gallons or set above 120° F, contact the manufacturer for additional details.
- System should not be used on homes equipped with a backflow prevention device on the hot water heater.
- RO unit must be installed a minimum of 25 Pipe feet from water heater
- A non-switched outlet is needed to provide power to the pump.

Operational Parameters

NOTICE Installation must comply with state and local plumbing regulations.

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

	Maximum	Minimum
Operating Temperature:	100°F (37.8°C)	40° F (4.4°C)
Operating Pressure:	100 psi (5.98 g/cm ²)	40 psi (1.40 kg/cm ²)
pH Parameters:	10	5
Iron	0.2 ppm	
TDS (Total Dissolved Solids)	< 1800 ppm	
Turbidity	< 5 NTU	
Hardness	Maximum 10 Grains Per Gallon (gpg)*	

* Hardness: Recommended hardness not to exceed 10 grains per gallon, or 170 parts per million. 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 100 psi then a water pressure regulator is required. A booster pump is needed for incoming water pressure under 40psi.

Copper Tube: Reverse Osmosis water should not be run through copper tube as the purity of the water will leach copper causing an undesired taste in water and pin holes may form in the tube.

Contents of the Reverse Osmosis (RO) System

Please make sure all of the items listed below are contained in the box. If any of the items are missing please contact Watts Premier at 800-752-5582 prior to installing.

- ☐ Tank - White
- ☐ RO Module (complete with filters)
- ☐ Pump Assembly
- ☐ Transformer (Power Plug)
- ☐ Parts Bag
- ☐ Faucet
- ☐ Manual

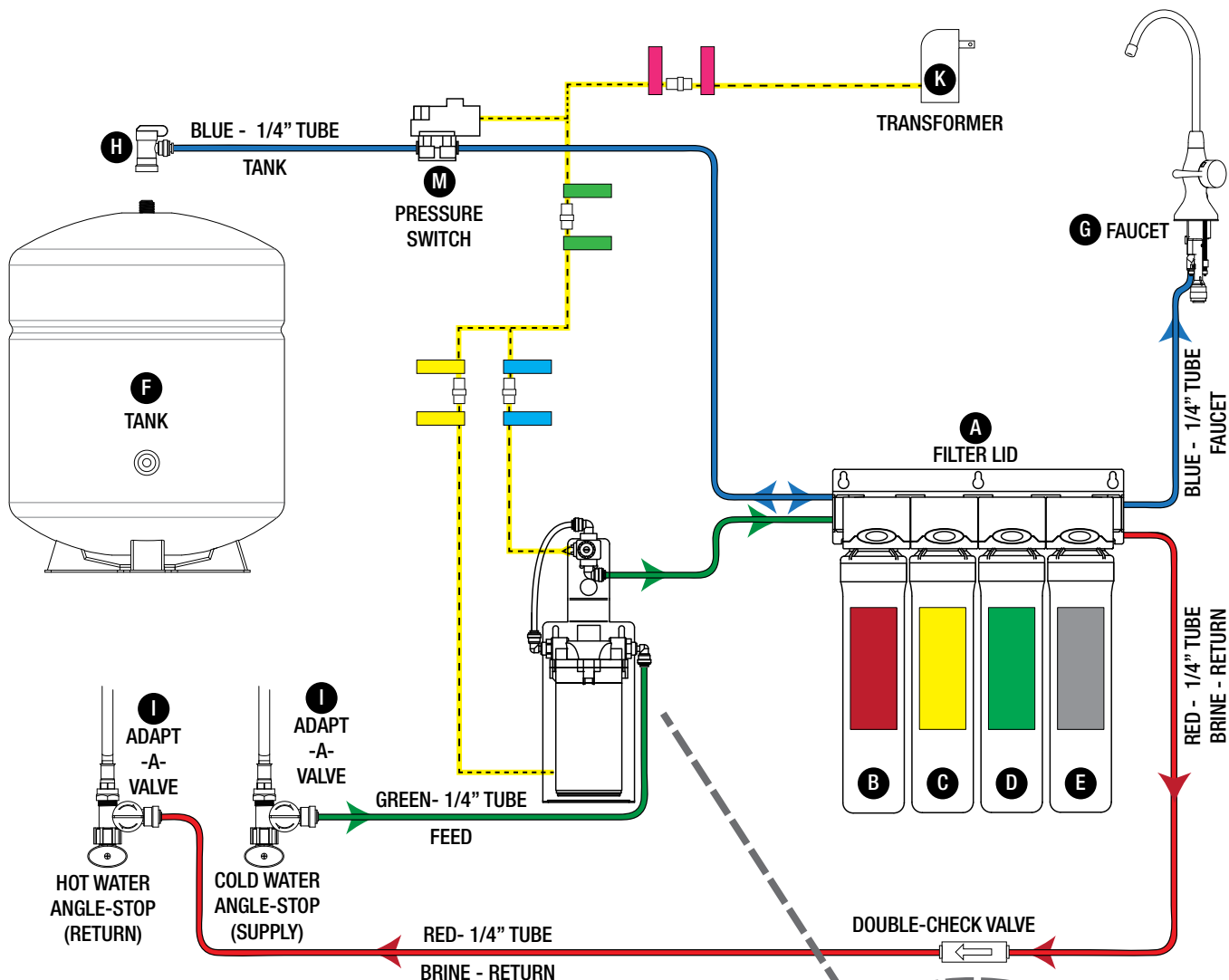


Tools Recommended For Installation

- ☐ Small knife
- ☐ Variable speed drill with Phillips bit
- ☐ 1/8" (3mm) drill bit
- ☐ Phillips screwdriver
- ☐ 1 1/4" Diamond Tipped Hole Saw bit for faucet opening

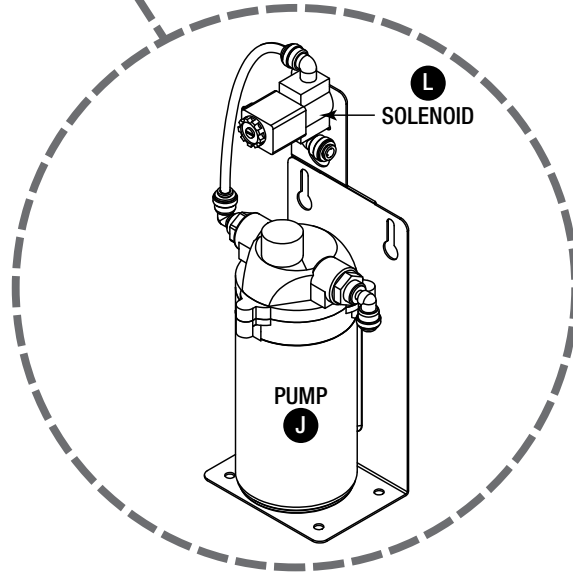


System Diagram



Parts List

Item	Part#	Description
A	115304	FILTER LID
B	105311	SEDIMENT FILTER
C	105351	CARBON PRE-FILTER
D	105331	REVERSE OSMOSIS MEMBRANE
E	105381	POST-CARBON VOC FILTER
F	119007	3 GALLON METAL TANK
G	116187	BRUSHED NICKEL TMT FAUCET
H	134018	TANK VALVE
I	560080	ADAPT-A-VALVE
J	152012	BOOSTER PUMP
K	152018	TRANSFORMER
L	152035	SOLENOID (W/O ELBOWS)
M	152032	PRESSURE SWITCH



Drill a Hole for the Faucet in a Porcelain Sink

NOTICE For Marble Counter-tops, we recommend contacting a qualified contractor for drilling a hole in a marble counter-top.

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 1).

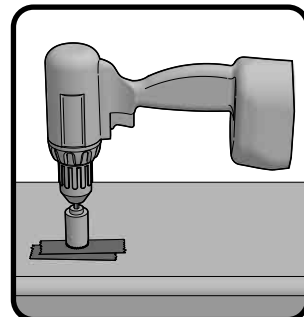
NOTICE Porcelain sinks are extremely hard and can crack or chip easily. Use extreme caution when drilling. Watts accepts no responsibility for damage resulting from the installation of faucet. Diamond tip bit recommended.

Step 1: Determine desired location for the RO faucet on your sink and place a piece of masking tape over where the hole is to be drilled. Mark the center of the hole on the tape.

Step 2 : Using a variable speed drill set on the slowest speed, drill a 1/8" 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 3: Using a 1.25" diamond tip hole saw, proceed to drill the large hole. Keep drill speed on the slowest speed and use lubricating oil or liquid soap to keep the hole saw cool during cutting.

Step 4: After drilling, remove all sharp edges and make sure the surroundings of the sink are cooled before mounting the faucet.



Top Mount Twist Faucet Installation

NOTICE *The faucet being used is an air-gap faucet, but is being used for this non air-gap installation. The red and black color coded ports on the faucet will remain unused. ONLY the blue port will be used.*

This RO Faucet is equipped with quick-connect fittings for easy tube installation. Refer to the guide on Page 2 for more information on how to use these type of fittings.

Connect the Tubing

Step 5 Locate the 1/4" tube that is already connected to the filter lid, labeled "Faucet") and connect to the 1/4" blue quick-connect fitting at the bottom of the faucet. Make sure the tube is inserted the full 3/4" into the fitting.

Mount the faucet

NOTICE *A 1.25" mounting hole is required for faucet installation*

Step 6 Make sure the Locking Tabs are "tucked". Feed the tubes and the lower faucet assembly through the mounting hole in the sink. Test fit faucet placement.

Step 7 Make sure the lower faucet assembly is seated properly inside of the rubber washer groove

NOTE: *Arrow on base indicates FRONT of faucet.*

Step 8 Using a Phillips screwdriver, tighten the two screws until snug. Then, tighten each screw alternately until faucet is secure. Do not overtighten!

Step 9 Inspect O-rings on lower faucet assembly. Lubricate with water-soluble lubricant if needed.

Assemble the faucet

Step 10 Align the release button on the back of the upper faucet assembly approximately 45° left off the back of the lower faucet assembly.

Step 11 Press the upper faucet assembly firmly on-to the lower faucet assembly and twist clockwise until locked into place. Remove battery cover on faucet handle, pull battery tab and replace battery cover.

NOTICE *To Remove Upper Assembly press in the release button and twist upper faucet assembly counter-clockwise.*

CAUTION *Do not remove upper faucet assembly until all water has been drained from the system and system has been fully depressurized.*

NOTE: This faucet is equipped with a filter change indicator. The indicator light will flash BLUE while the water is being dispensed. After approximately six months or 2000 gallons of filtered water used the light will change to RED, indicating that filters should be changed. After filter change you must reset the monitor (Follow the Faucet Indicator Battery Replacement procedure on page 13).

DANGER *This product contains a button cell battery. If swallowed, it could cause severe injury or death in just 2 hours. Seek medical attention immediately.*

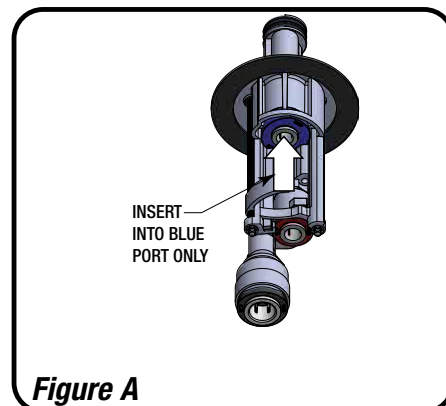


Figure A

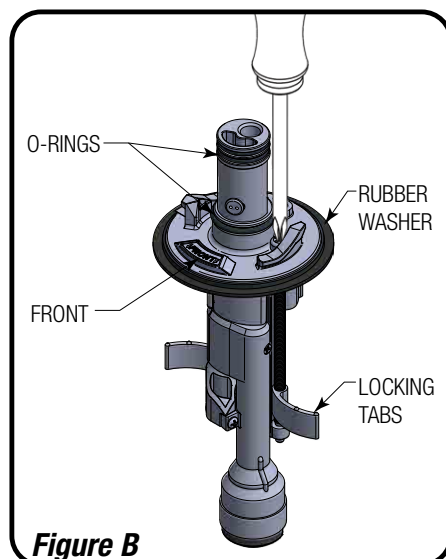


Figure B

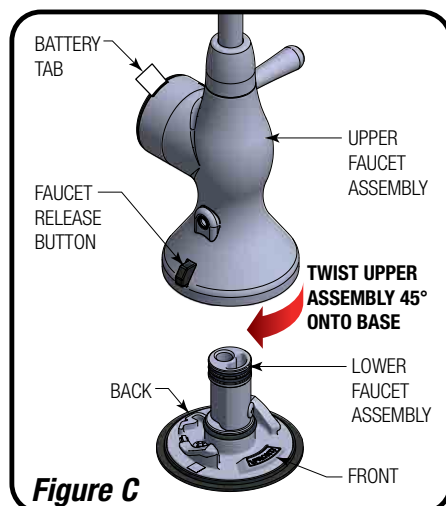
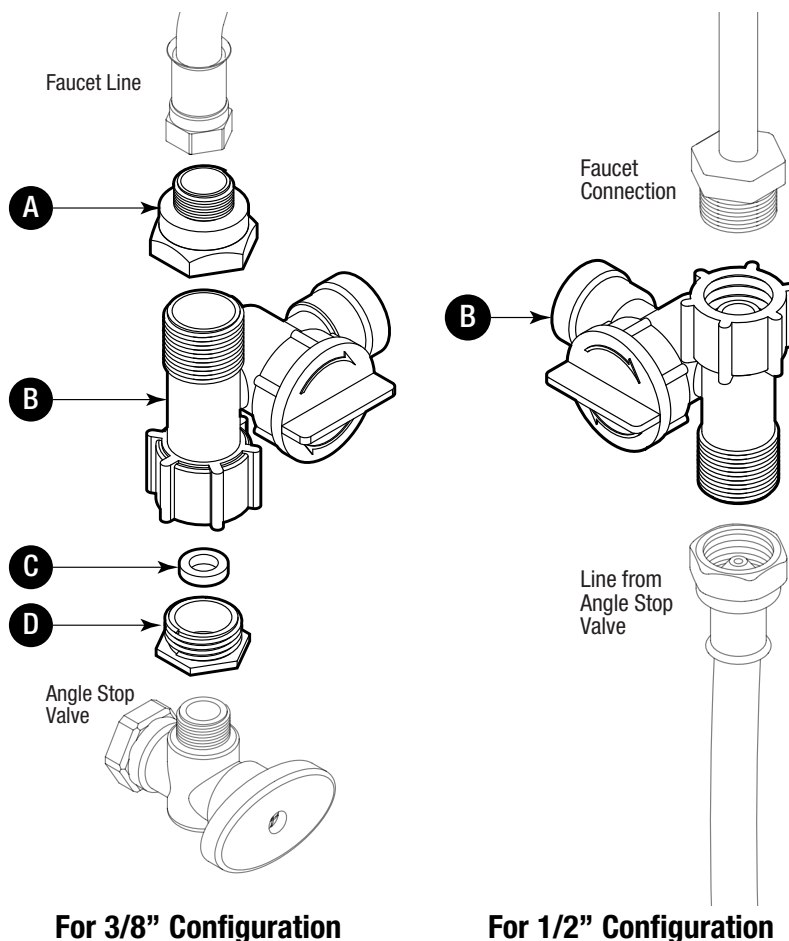


Figure C

Adapt-a-Valve Installation

NOTICE Do not use Teflon tape with the Adapt-A-Valve™.



Parts List for Adapt-A-Valve	
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 12: Turn off the hot and cold water valves to the faucet by turning the angle stop valve completely off.

Step 13: Open sink faucet to relieve pressure from both the hot and cold water side.

Step 14: Choosing the configuration that fits your plumbing, attach the Adapt-A-Valve™ as illustrated in the diagrams above for both the hot and cold valves.

NOTICE Make sure that the black collet is installed in to the 1/4" opening on the Adapt-a-valve. Don't forget to install the white compression washer with the 3/8" configuration. The Brass Adapters do not need to be tightened with a wrench, only finger tight.

Green Tube Connection (Cold Supply)

Step 15: Locate the 1/4" Green tube in the parts bag. Insert one end of the green tube into the plastic adapt-a-valve that is attached to the cold water supply.

Connections at Pump Assembly

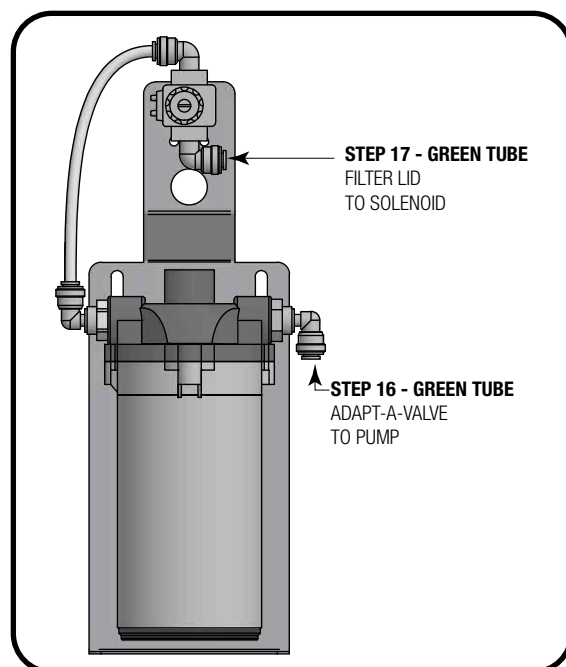
NOTICE Make sure all tubes are pushed in all the way to the tube stop

Green Tube - Adapt-A-Valve to Pump

Step 16: Insert the open end of the 1/4" green tube from the Cold Water Adapt-a-valve into the quick-connect fitting on the inlet (right) side of the booster pump. (see diagram)

Green Tube - Filter Lid to Solenoid

Step 17: Insert the 1/4" green tube from the RO Module (Labeled "Cold") into the Open quick-connect fitting on the solenoid (see diagram)



Blue Tube Connection at Pressure Switch

Blue Tube - Filter Lid to Pressure Switch

Step 18: Insert the 1/4" blue tube from the RO System (Labeled "Tank") into the quick-connect fitting on the pressure switch

Blue Tube - Tank to Pressure Switch

Step 19: In the parts bag, locate the 1/4" blue tube and Insert one end into the quick-connect fitting on the pressure switch.

NOTICE The pressure switch can be installed in either direction.

Electrical Connections

Step 20: Locate the wire harness in the parts bag and connect the wires between the transformer to pressure switch, pressure switch to wire harness and wire harness to pump and solenoid. You will connect the wires so the color of the stickers on the wires match up.

NOTICE Do not plug in the transformer (plug) into the outlet yet.

Red Tube Connection (Return Line)

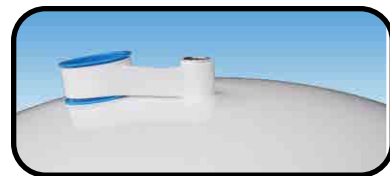
Step 21: Locate the 1/4" red tube that is already connected to the back of the filter lid and connect the open end into the HOT water return adapt-a-valve. Make sure the tube is pushed in all the way to the tube stop.

Tank Ball Valve Installation

Step 22: Teflon tape must be applied in a clockwise direction. Wrap (7 to 12 turns) around the male pipe threads (MPT) on the stainless steel fitting on top of the tank.

Step 23: Thread the quick connect ball valve (supplied in the parts bag) onto the stainless steel connector on the tank.

Note: Do not over-tighten plastic connections.



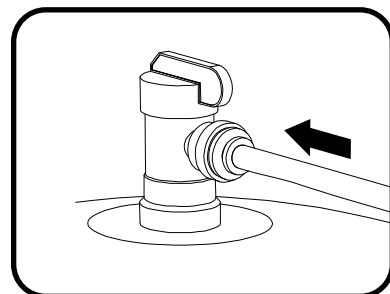
Reverse Osmosis Module & Pump Assembly Mounting

Step 24: The parts bag has 4 self-tapping screws. The first two are for mounting the RO Module and the last two are for mounting the pump assembly. Using an electric drill with a phillips bit, screw the first two screws into the cabinet wall approximately 7-7/8" apart and 16" from the bottom of the cabinet. This will be for the RO Module. The pump assembly can either be hung on the cabinet wall or it can be left standing on the cabinet floor. If you hang the pump bracket, place another two screws into the cabinet wall approximately 3" apart and 10" from the bottom of the cabinet. Make sure that the hoses will reach between the pump and RO Module



Tank Valve Connection

Step 25: Position tank in desired location. Stand it upright or lay it on its side (using the black plastic stand). Measure the blue tube (marked "TANK") from the pump assembly to the tank and cut it to length leaving a straight, square edge. Insert the tube into the quick connect fitting on the tank ball valve. Make sure the tube is pushed in all the way to the tube stop (see page 2 for quick connect fitting use directions).



Startup Instructions

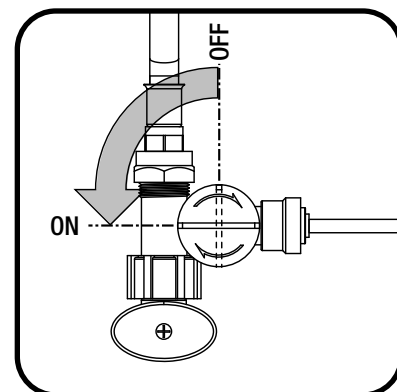
⚠ WARNING *To prevent the possibility of electrical shock, clean up any water on cabinet floor and dry all water from outside of RO unit.*

Congratulations! You have completed the installation of your new Reverse Osmosis system. Please Follow the Startup Instructions.

Step 1: Turn on the incoming hot and cold water angle stop valves.

Step 2: Turn both of the adapt-a-valves on and check the system for leaks and tighten fittings as necessary.

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 flushing (Step 9) 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 3: Plug the transformer into the electrical outlet under the sink.

Step 4: Make sure the ball valve on the tank is open

Step 5: Open the RO faucet and leave it open until water begins to drip. Then close the faucet. The tank will take between 2 - 4 hours to fill.

NOTICE *If the pump doesn't start, make sure there is power at the electrical outlet and that it is not controlled by the garbage disposal switch.*

Step 6: After the tank has filled once, open the RO faucet and drain the tank.

NOTICE *Water may be cloudy or milky due to air in the system and carbon particles flushing out of the final polishing filter. This condition will resolve itself after flushing a couple of tanks of water.*

Step 7: Complete step #6 two more times. The process of flushing the system first three times should take about one day to complete. The fourth tank can be used for drinking water.

NOTICE *Check daily over the next week to ensure no leaks are present.*

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

Changing the Filter Cartridges

Your RO module is equipped with valve 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. To make the removal of the filter cartridges easier, the heads & cartridges may be swiveled up to 90 degrees as shown in the pictures below.

6 Month System Maintenance

Replace:	Sediment Filter	(Red Label PN# 105311)
	Carbon Pre-Filter	(Yellow Label PN# 105351)

Annual Maintenance

Replace:	Sediment Filter	(Red Label PN# 105311)
	Carbon Pre-Filter	(Yellow Label PN# 105351)
	VOC Carbon Post-Filter	(Silver Label PN# 105381)

Tip: This is a good time to check the air pressure in your storage tank. For instructions please see page 12.

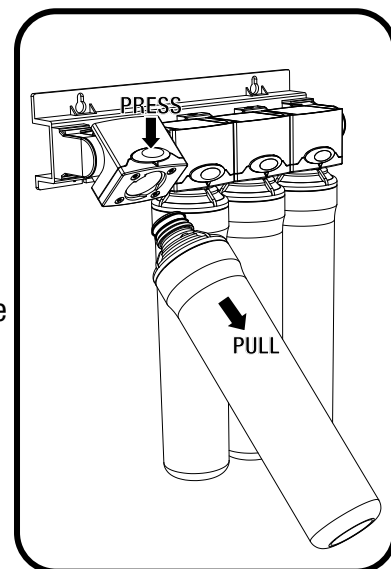
- Step 1: Unplug the transformer from the electrical outlet
- Step 2: Place a towel under the filters to catch any excess water that may drip out from the filters during the changeover.
- Step 3: To remove a filter cartridge: Push & hold the button on the valve head above the filter. Pull cartridge downward (from the head) to remove. Release button and discard old filter.
- Step 4: To install a filter cartridge: Remove the seal cap and insert the cartridge into the valve head until you hear an audible “click” (the button does not need to be pressed to install new filters).
- Step 5: If performing the annual maintenance, flush the first tank full after completing the annual maintenance.

TIP: If the new filter cartridge won't snap in easily or pops off, relieve pressure to the system by turning off the water supply using the adapt-a-valve and then install the cartridge. Once the cartridge is seated, turn the water supply back on to your RO unit.

⚠ WARNING

To prevent the possibility of electrical shock, clean up any water on cabinet floor and dry all water from outside of the RO unit before plugging in the transformer.

- Step 6: Plug the transformer back into the electrical outlet.



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 Premier to assure the same efficiency and contaminant reduction performance.

RO Membrane Replacement (2 - 5 Years)

Replace: RO Membrane - 50 GPD (Green Label PN# 105331)

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. Premier recommends replacing the membrane when TDS reduction falls below 75%.

A water sample may be sent to Premier for a free diagnosis of your membranes performance. To send a water sample, use 2 clean containers and fill 1/2 cup of tap water in one container and 1/2 cup of RO water in 2nd container. Clearly label each sample. Send the samples to the address listed on the cover of this manual attention "Water Samples". Premier will test the water and mail or call you with the results.

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 1: Turn off the water supply to your RO system at the adapt-a-valve and open the RO faucet to drain the storage tank.

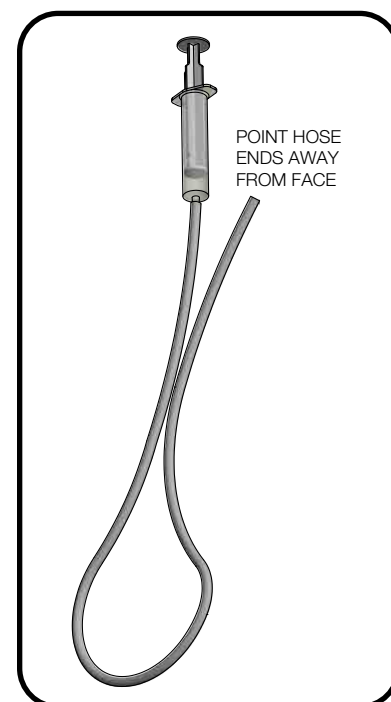
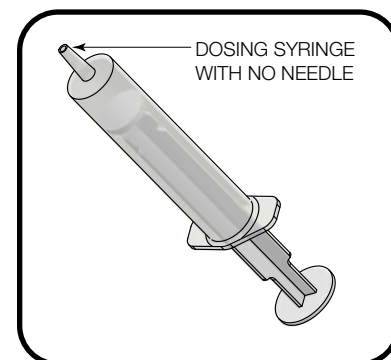
NOTICE *If you have connected your RO system to a refrigerator/ice maker, make sure the connection has been turned off. Do not re-open the connection until the sanitization process is complete.*

Step 2: Locate the tube that runs between your filter module and the storage tank and disconnect at both ends.

Step 3: Drain any remaining water in the tube

Step 4: 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*



⚠ 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.

Step 5: 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 6: Turn the incoming water back on and let the system fill for approximately 10 minutes

Step 7: Turn off the incoming water and let the system sit for 1 minute.

- Step 8: Drain the system completely and then follow the startup procedure - filling then draining two full tanks of water.
- Step 9: Replace the post-carbon filter once complete.

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.

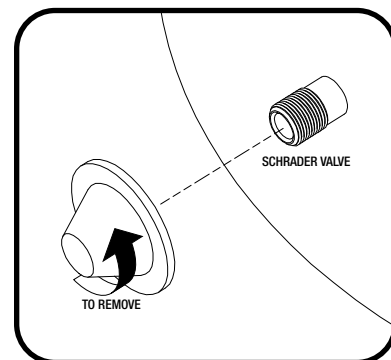
Step 1: Turn off the incoming water supply to the RO.

Step 2: 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.*

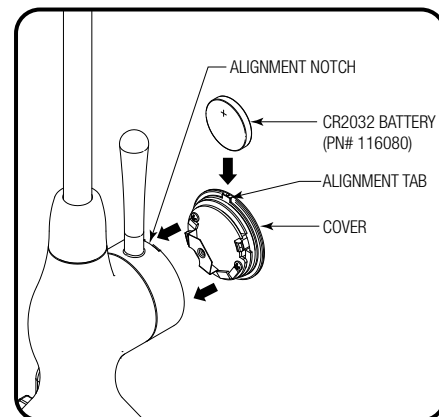
Step 3: Once all water in the tank is purged, check air pressure using an air pressure gauge, it should read between 5 - 7 PSI. (Digital air pressure gauge is recommended)

Step 4: Follow startup procedure on page 10.



Replacing the Faucet Battery

- Step 1: Turn the handle on the storage tank ball valve to the “off” position and lower faucet handle to “on” position.
- Step 2: Remove the faucet handle cover at the slot - (A). Note: Water will dribble out of the spout, use caution when handling the electronic components.
- Step 3: Slide the old battery out and replace with new battery. Once the battery is pushed into the clip a red and blue light will flash indicating proper installation.
- Step 4: Replace cover assembly onto the faucet handle while aligning the tab on the cover with the notch on the faucets handle.



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

- Step 1: Unplug transformer from electrical outlet
- Step 2: Turn off the hot and cold water valves to your RO system and open the RO faucet to drain the storage tank.
- Step 3: Once the storage tank is empty, remove all filter cartridges (order not important),
- Step 4: Place filters into a sealed plastic bag and store in your refrigerator.

To Restart System:

- Step 1: Reinstall all filters on to the RO unit. Filters are color coded to match the filter heads they snap in to. Refer to page 11 step three for cartridge installation procedure. If you choose to Sanitize your system now, refer to page 12.

- Step 2: Turn on the incoming hot and cold water angle stop valves.

- Step 2: Turn both of the adapt-a-valves on and check the system for leaks and tighten fittings as necessary.

NOTICE *Check daily over the next week to ensure no leaks are present.*

- Step 4: Plug in the transformer into the electrical outlet

NOTICE *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 the tank has been allowed to completely fill.*

- Step 3: Open the RO faucet and leave it open until water begins to trickle out (it will come out slowly).

- Step 4: Close the RO faucet allowing the storage tank to fill with water. It may take 2 to 4 hours to fill the tank completely depending on the production capability of the membrane, local water temperature and water pressure.

- Step 5: 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

NOTICE Before disconnecting any tubes, make sure to unplug the power then turn off the water valves and depressurize the system

Problem	Possible Causes	Solution
1. 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. Make sure hot water return has been turned on
	Clogged Post-Carbon Filter	Replace Post-Carbon filter
2. 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.
3. System is constantly running or pump won't turn off	Crimps in tubing	Check tubing and straighten or replace as necessary
	Clogged pre-filters	Replace prefilters
	Fouled Membrane	Replace Membrane. Make sure hot water return has been turned on
	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.
4. Pump won't turn on	No power at outlet	Make sure the outlet is not controlled by the garbage disposal switch. Switch to a different outlet.
	Electronic Connections are loose	Make sure connections at controller and wire harness are secure.
	Transformer is burned out	Make sure filters aren't clogged which can cause the pump to draw extra amperage and burn out the transformer. Replace transformer.

5. Noise from pump	Pump is vibrating against adjacent object	Make sure the pump is attached to the bracket and standing on the rubber feet at the bottom of the bracket. If pump is hanging on wall, add padding (such as foam) between bracket and wall to dampen vibration.
	Pump is damaged	Replace pump
6. Small amount of water in storage tank	System is starting up	Normally it takes 4-6 hours to fill tank. Note: low storage tank 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 12
	Low air pressure in tank	Repressurize Tank - See Page 12
7. Low flow from faucet.	Low air pressure in tank	Repressurize Tank - See Page 12
8. Hot water from RO system	System is too close to the hot water heater	Make sure the system is at least 25 feet away from the hot water heater.
9. 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
10. 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
11. Leaking at faucet	Faulty o-rings on lower faucet assembly	Check o-rings. Lubricate o-rings or replace lower faucet assembly if damaged.
12. TDS Levels are high	Bad membrane or connection to hot water outlet is off	The system flushes out the waste/brine water to the hot water connection under the sink. If this connection is turned off, that can foul an RO Membrane and clog or cause higher TDS levels.

Performance Data Sheet

Watts Premier
8716 W Ludlow Drive Suite #1
Peoria, AZ 8538

Model: Zero Pure Plus

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/cm²) Minimum 20 psi (1.41 kg/cm²)
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.

Description	Part Number	Change Time Frame
Stage 1: Sediment	105311	6 Months
Stage 2: Pre-Carbon	105351	6 Months
Stage 3: RO Membrane	105331	2 to 5 years
Stage 4: VOC Post-Carbon	105381	12 Months

This membrane has been tested by an independent laboratory for the reduction of the substances listed below. 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. Testing performed under standard laboratory conditions, actual performance may vary.

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	99.6%	7.24	50 psi	0.002	0.30 ± 10%	0.010
Barium Reduction	9.2	0.08	99.0	7.64	50 psi	0.12	10.0 ± 10%	2.0
Cadmium Reduction	0.031	0.0004	98.0	7.49	50 psi	0.0008	0.03 ± 10%	0.005
Chromium (Hexavalent)	0.030	0.002	99.0	7.24	50 psi	0.004	0.03 ± 10%	0.1
Chromium (Trivalent)	0.030	0.001	99.0	7.64	50 psi	0.002	0.03 ± 10%	1.3
Copper Reduction	3.2	0.02	99.0	7.40	50 psi	0.04	3.0 ± 10%	1.3
Fluoride Reduction	8.7	0.19	97.0	7.24	50 psi	0.3	8.0 ± 10%	1.5
Lead Reduction	0.15	0.002	98.8	7.39	50 psi	0.3	0.15 ± 10%	0.0107
Radium 226/228	25 pCi/L	5 pCi/L	80	7.24	50 psi	0.005	25pCi/L ± 10%	5 pCi/L
Selenium	94.85	<0.2	97.0	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	99.0	7.43	50 psi	0-1	11 ± 1mg/L	0.5 NTU

Depending on water chemistry, water temperature, and water pressure Premier's R.O. Systems production and performance will vary.

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

VOC Performance Data Sheet

SUBSTANCE	PERCENT REDUCTION	INFLUENT CHALLENGE CONCENTRATION (MG/L UNLESS NOTED)	MAXIMUM PERMISSIBLE IN PRODUCT WATER
ALACHLOR	>98%	0.05	0.001
ATRAZINE	>97%	0.1	0.003
BENZENE	>99%	0.081	0.001
BROMODICHLOROMETHANE (TTHM)	>99.8%	0.300 +/- 0.30	0.015
BROMOFORM (TTHM)	>99.8%	0.300 +/- 0.30	0.015
CARBOFURAN (Furadan)	>99%	0.19	0.001
CARBON TETRACHLORIDE	98%	0.078	0.002
CHLOROBENZENE (Monochlorobenzene)	>99%	0.077	0.001
CHLOROPICRIN	99%	0.015	0.000
CHLOROFORM (TTHM)	>99.8%	0.300 +/- 0.30	0.015
2, 4-D	98%	0.11	0.002
DBCP (see Dibromochloropropane)	>99%	0.052	0.000
1,2-DCA (see 1,2-DICHLOROETHANE)	95%	0.088	0.005
1,1-DCE (see 1,1-DICHLOROETHYLENE)	>99%	0.083	0.001
DIBROMOCHLOROMETHANE (TTHM; Chlorodibromomethane)	>99.8%	0.300 +/- 0.30	0.015
DIBROMOCHLOROPROPANE (DBCP)	>99%	0.052	0.000
o-DICHLOROBENZENE (1,2 Dichlorobenzene)	>99%	0.08	0.001
p-DICHLOROBENZENE (para-Dichlorobenzene)	>98%	0.04	0.001
1,2-DICHLOROETHANE (1,2-DCA)	95%	0.088	0.005
1,1-DICHLOROETHYLENE (1,1-DCE)	>99%	0.083	0.001
CIS-1,2-DICHLOROETHYLENE	>99%	0.17	0.001
TRANS-1,2- DICHLOROETHYLENE	>99%	0.086	0.001
1,2-DICHLOROPROPANE (Propylene Dichloride)	>99%	0.08	0.001
CIS-1,3- DICHLOROPROPYLENE	>99%	0.079	0.001
DINOSEB	99%	0.17	0.000
EDB (see ETHYLENE DIBROMIDE)	>99%	0.044	0.000
ENDRIN	99%	0.053	0.001
ETHYLBENZENE	>99%	0.088	0.001
ETHYLENE DIBROMIDE (EDB)	>99%	0.044	0.000
Furadan (see CARBOFURAN)	>99%	0.19	0.001
HALOACETONITRILES (HAN)			
BROMOCHLOROACETONITRILE	98%	0.022	0.001
DIBROMOACETONITRILE	98%	0.024	0.001
DICHLOROACETONITRILE	98%	0.010	0.000
TRICHLOROACETONITRILE	98%	0.015	0.000
HALOKETONES (HK):			
1,1-DICHLORO-2-PROPANONE	99%	0.007	0.000
1,1,1-TRICHLORO-2-PROPANONE	96%	0.008	0.000
HEPTACHLOR	>99%	0.25	0.000
HEPTACHLOR EPOXIDE	98%	0.011	0.000
HEXACHLOROBUTADIENE (Perchlorobutadiene)	>98%	0.044	0.001
HEXACHLOROCYCLOPENTADIENE	>99%	0.06	0.000
LINDANE	>99%	0.055	0.000
METHOXYCHLOR	>99%	0.05	0.000
Methylbenzene (see TOLUENE)	>99%	0.078	0.001
Monochlorobenzene (see CHLOROBENZENE)	>99%	0.077	0.001
PCE (see TETRACHLOROETHYLENE)	>99%	0.081	0.001
PENTACHLOROPHENOL	>99%	0.096	0.001
Perchlorobutadiene (see HEXACHLOROBUTADIENE)	>98%	0.044	0.001
Propylene Dichloride (see 1,2 -DICHLOROPROPANE)	>99%	0.08	0.001
SIMAZINE	>97%	0.12	0.004
Silvex (see 2,4,5-TP)	99%	0.27	0.002
STYRENE (Vinylbenzene)	>99%	0.15	0.001
1,1,1-TCA (see 1,1,1 - TRICHLOROETHANE)	95%	0.084	0.005
TCE (see TRICHLOROETHYLENE)	>99%	0.18	0.001
1,1,2,2- TETRACHLOROETHANE	>99%	0.081	0.001
TETRACHLOROETHYLENE	>99%	0.081	0.001
TOLUENE (Methylbenzene)	>99%	0.078	0.001
2,4,5-TP (Silvex)	99%	0.27	0.002
TRIBROMOACETIC ACID		0.042	0.001
1,2,4 TRICHLOROBENZENE (Unsymtrichlorobenzene)	>99%	0.16	0.001
1,1,1-TRICHLOROETHANE (1,1,1-TCA)	95%	0.084	0.005
1,1,2-TRICHLOROETHANE	>99%	0.15	0.001
TRICHLOROETHYLENE (TCE)	>99%	0.18	0.001
TRIHALOMETHANES (TTHM) (Chloroform; Bromoform; Bromodichloromethane; Dibromochloromethane)	>99.8%	0.300 +/- 0.30	0.015
Unsym-Trichlorobenzene (see 1,2,4-TRICHLOROBENZENE)	>99%	0.001	
Vinylbenzene (see STYRENE)	>99%	0.15	0.001
XYLENES (TOTAL)	>99%	0.07	0.001

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 Watts Premier 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, Watts Premier has conducted additional field testing on our reverse osmosis units to determine trivalent arsenic reduction capabilities. Based upon Watts Premier 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, by phone at 1-800-752-5582 or online at www.premierH2o.com

Service Record

Date of Purchase: _____ Model Number: **ZERO PURE PLUS** Serial Number: _____

Date of Install: _____ Installed by: _____

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Limited Warranty

What your Warranty Covers:

If any part of your ZERO PURE PLUS is defective in workmanship (excluding replaceable filters), return unit after obtaining a return authorization (see below), within 1 year of the original retail purchase, Watts Premier will repair or, at Watts Premier's option, replace the system at no charge.

How to obtain Warranty Service:

For warranty service, call 800-752-5582 for a return authorization number. Then, ship your unit to our factory, freight and insurance prepaid, with proof of date of original purchase. Please include a note stating the problem. Watts Premier will repair it, or replace it, and ship it back to you prepaid.

What this warranty does not cover:

This warranty does not cover defects resulting from improper installation, (contrary to Watts Premier printed instructions), from abuse, misuse, misapplication, improper maintenance, neglect, alteration, accidents, casualties, fire, flood, freezing, environmental factors, water pressure spikes or other such acts of God.

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

1. The System must be hooked up to a potable municipal or well cold water supply.
2. The pH of the water must not be lower than 5 or higher than 10.
3. The incoming water pressure must be between 20 and 85 pounds per square inch.
4. Incoming water to the system cannot exceed 100 degrees F (38 degrees C.)

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

This warranty does not cover any charges incurred due to professional installation.

LIMITATIONS AND EXCLUSIONS:

WATTS PREMIER 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 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 PREMIER'S RESPONSIBILITIES REGARDING THIS EQUIPMENT.

Other Conditions:

If Watts Premier chooses to replace the equipment, Watts Premier may replace it 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.

Your Rights Under State Law:

Some states do not allow limitations on how long an implied warranty lasts, and some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply. This warranty gives you specific legal rights, and you may have other legal rights which vary from state to state.

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

For more information: www.watts.com/prop65