



## INSTALLATION, OPERATION AND MAINTENANCE MANUAL

### Warning

Please read carefully before proceeding with installation. Failure to follow attached instructions or operating parameters may lead to the product's failure.

\*\*\*\*\*

**Save manual for future reference.**

**Model ZRO-4**

## ZERO WASTE REVERSE OSMOSIS SYSTEM



System Tested and certified by NSF International against NSF/ANSI Standard 58 for the reduction of the claims specified on the performance data sheet.



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

**Thank you for your purchase of a state of the art Watts Premier Zero Waste Reverse Osmosis (RO) water treatment system.** Water quality concerns are quickly becoming more of a focus for the public. Lately you may have heard about contaminants in the drinking water, such as arsenic, perchlorate, chromium, cryptosporidium or Giardia. There may also be some local water issues in your area such as high levels of lead, radium and copper. This Watts Premier water treatment system has been designed and tested to provide you with high quality water for years to come. The following is a brief overview of the system.

### **Your Zero Waste 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 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. In an effort to provide high quality drinking water while meeting the water supply challenges across the country, Watts Premier has patented this Zero Waste RO system. This Zero Waste RO is 100% effective in providing high quality reverse osmosis drinking water while not wasting any water down the drain.

This Zero Waste 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 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 filters, 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 RO membrane. This semi permeable membrane will effectively take out TDS, Sodium and heavy metals such as arsenic, copper, and lead, as well as Cysts, such as Giardia and cryptosporidium. 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- Carbon inline filter, recommend change 6 - 12 months.**

The final stage is an inline granular activated carbon (GAC) filter. This filter is used after the water storage tank, and is used as a final polishing filter.

### **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 elements, other bad tastes and odors will be apparent in your drinking water.

This is why 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 website at [www.wattspremier.com](http://www.wattspremier.com) or call our customer service dept. at **1-800-752-5582**.

**\*\* Before installation, please take a moment to fill out the warranty card on page 21-22.**

Thank you for your purchase of a Watts Zero Waste Reverse Osmosis system. 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 by independent laboratories for safety and reliability. If you have any questions or concerns, please contact our customer service department at 1-800-752-5582 (outside USA 623-931-1977).

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# Operational Parameters

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

<b>Operating Temperatures:</b>	Maximum 100°F (37.8°C)	Minimum 40°F (4.4°C)
<b>Operating Pressure:</b>	Maximum 85 psi (6.0 kg/cm <sup>2</sup> )	Minimum 40 psi (2.80 kg/cm <sup>2</sup> )
<b>pH Parameters:</b>	Maximum 11	Minimum 2
<b>Iron:</b>	Maximum 0.2 ppm	
<b>TDS (Total Dissolved Solids)</b>	< 1800 ppm	
<b>Turbidity</b>	< 5 NTU	

**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 85 psi a pressure regulator is recommended and if over 100 psi 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 Premier supplies speciality filters (part number 107008) that can be used if copper tubing follows the Reverse Osmosis unit. Be sure to follow any state or local regulations during installation.

**\* Note: RO unit must be installed a minimum of 25 Pipe feet from water heater \***



**System includes:**

RO module, 24 volt Pump, 3 gal Storage tank, Long reach faucet, Manual, Warranty Card, Parts Bag (2 Water line fitting valves, 2 Washers, Transformer, 2 Mounting screws, 1 Teflon tape roll, 2 Brass inserts, 2 Plastic sleeves, 1 Ball valve)

**If any of the items are missing please contact Watts at 1-800-752-5582 prior to installing**

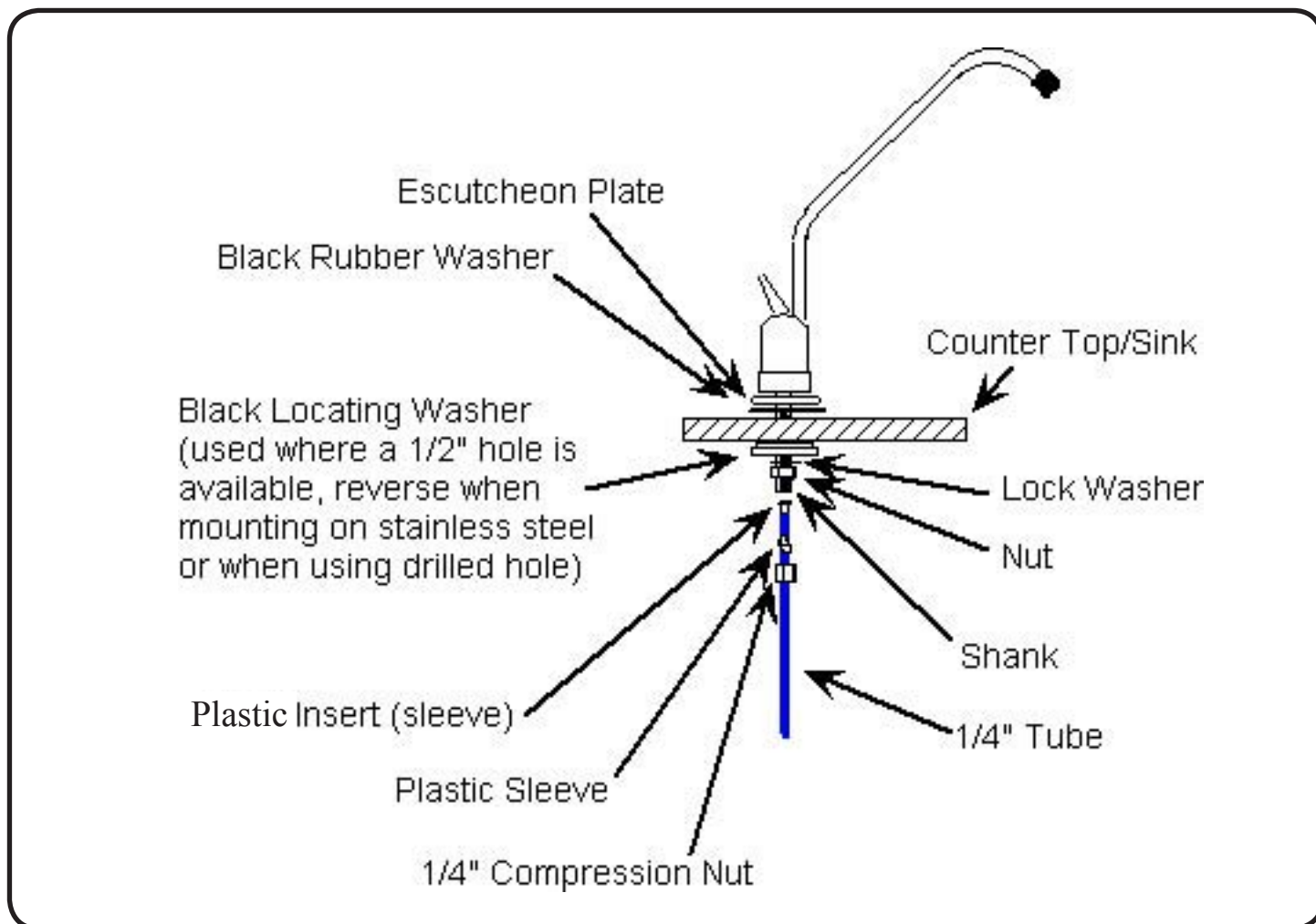
## Tools recommended for installation



- 7/16" Drill bit for faucet
- Channel lock pliers
- Phillips Screw Driver
- 1/2" - 5/8" Open End Wrench
- Adjustable Wrench
- Sharp knife
- Electric Drill

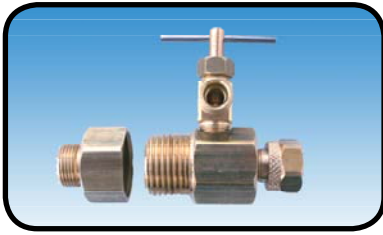
## Installation of Faucet

**Caution: Porcelain sink surface material is extremely hard and may crack or chip. Use extreme caution when drilling. Watts recommends the use of a professional for this, and accepts no responsibility for damage resulting from the installation of the faucet.**

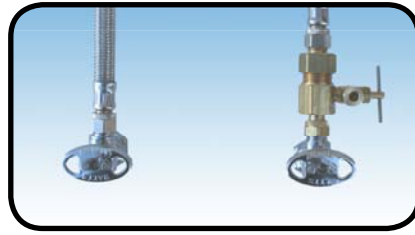


- Step 1 Determine desired location to drill a hole for the faucet on your sink.
- Step 2 Using a variable speed drill on the slowest speed, drill a 7/16" hole for the faucet. Use water to keep the drill bit cool while drilling. (If the drill bit gets hot it may cause the porcelain to crack or chip).
- Step 3 Place the escutcheon chrome plate and the black rubber washer on the faucet shank. (Parts found in faucet parts bag).
- Step 4 Insert the faucet shank through the hole in sink and let it rest on the sink top.
- Step 5 From the underside of the sink, slide on the locating washer, lock washer and brass nut onto the shank. Check orientation of faucet then tighten brass nut securely.

# Installation of hot and cold water supply line valves



Configuration for 3/8" compression fittings



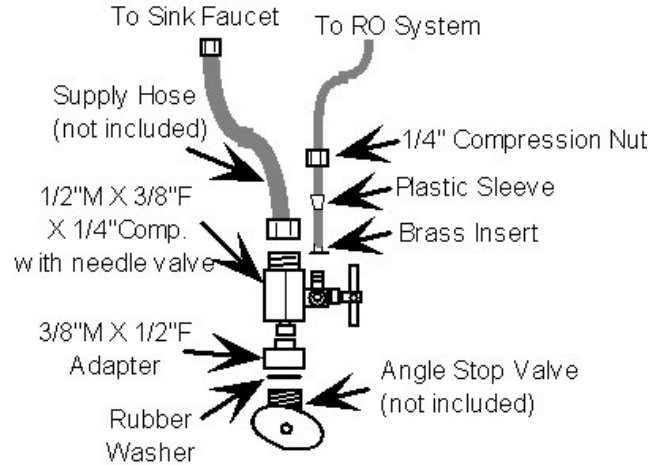
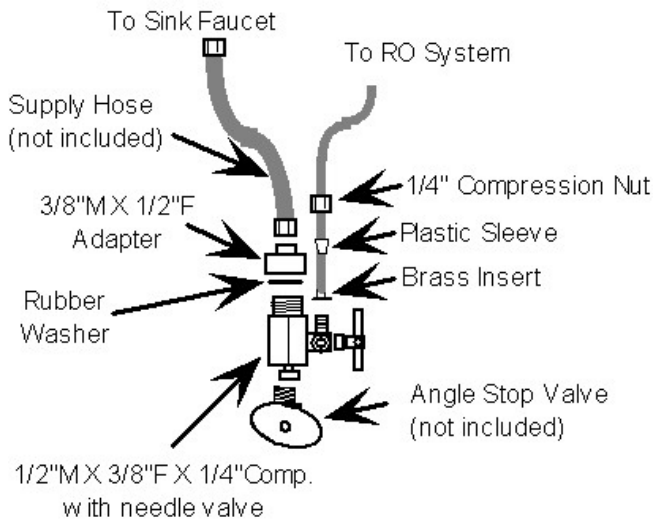
Hot Supply

Cold Supply



Configuration for 1/2" compression fittings

**Hand tighten brass adapters then apply 1/4 turn with a wrench.**



**RO Tubes will be connected on page 7**

- Step 6 Turn off the hot and cold water supply to the faucet by turning the angle stop valves off.
- Step 7 Remove water supply line at faucet to the angle stop valves.
- Step 8 Attach the water supply line valves as illustrated in the drawings above.
- Step 9 Re-attach the water supply line to the fittings attached to the angle stop valves.

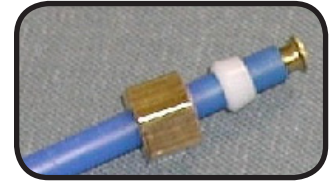
## Mounting the RO module

- Step 10 Determine the best location for the RO Module to be mounted and allow for future system maintenance. Use a Phillips screwdriver and secure the screws 5 3/4" apart and 16" from the bottom of the cabinet.  
**Note:** There will be (2) Blue, (1) Green and (1) Black tubes coming from the module. Do not cut these tubes at this time.



## Connecting to the faucet

- Step 11 Connect blue tube from the in-line filter over to the faucet shank. Place the brass nut onto the tube, followed by the plastic sleeve (tapered end pointing to the end of tube) and then place the plastic insert into the end of the tube.



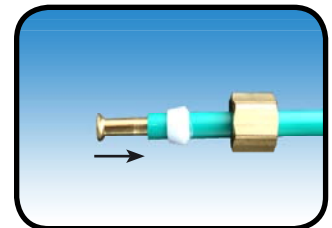
- Step 12 Insert the blue tube into the end of the faucet shank and use a wrench to tighten the brass nut securely.



## Connect the hot and cold water supply line valves

### Assemble the Black and Green tube connections:

Remove a brass nut, plastic sleeve and brass insert from the parts bag. To assemble, place the brass nut on the tube first, then the sleeve (small tapered end of sleeve must point to the end of tube) and then push the brass insert all the way into the end of the tube. (See Picture)



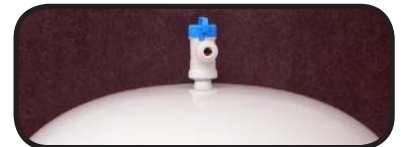
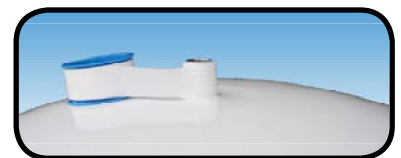
- Step 13 Insert the Green tube into the Cold water needle valve fitting 1/4" tube compression fitting until it stops. Slide the Nut and Plastic Sleeve down to where you can thread them onto the male pipe threads. Use a 1/2" wrench to securely tighten.



- Step 14 Insert the Black tube into the Hot water needle valve fitting 1/4" tube compression fitting until it stops. Slide the Nut and the Plastic Sleeve down to where you can thread them onto the male pipe threads. Use a 1/2" wrench to securely tighten.

## Tank Ball Valve Installation - Part#: 134018

- Step 15 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 16 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.



## Blue Tube Connection (From The RO Module To TANK)

Step 17 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 RO module 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 9 for quick connect fitting use directions).



**Note:** Set the blue ball valve knob in-line with the blue tube, this is the "open" position.

## Start up 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.

Step 1 Turn on the incoming hot **and** cold water angle stop valves. Turn on the water line needle valves by turning counter clock-wise. Check the system for leaks and tighten fittings as necessary.



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

Step 2 Plug the (24 volt) transformer power cord connector into the RO system wire harness connector (labeled transformer.)

Step 3 Plug the transformer into the electrical outlet under the sink.

Step 4 Ensure ball valve on 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 approximately 4 hours to fill.

**Note:** *If no water comes out of the RO faucet after a few minutes check the power outlet! It is possible that the power outlet you used for the RO unit is controlled by the garbage disposal switch. To test - Unplug the garbage disposal and flip the garbage disposal switch to "on". If the RO pump turns on and water starts to drip out of the RO faucet you will need to connect the system to a different power outlet socket.*

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

**Note:** 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. This process should take about one day to complete. The fourth tank can be used for drinking water.

**This flushing procedure is only necessary after the initial installation and after replacing the RO membrane.**



# 6 Month System Maintenance - Filter Kit #560038

\*Order filters by calling 1-800-752-5582 or buy online at [www.wattspremier.com](http://www.wattspremier.com).

## Items needed:

- √ Stage 1 - Sediment Filter (part #: 104017)
- √ Stage 2 - Carbon Block Filter (part #: 101009-White End Caps)

**Note:** *The filter wrench pictured (Part # 164003) may be purchased from Watts Premier to aid with twisting off filter housings but is not required.*

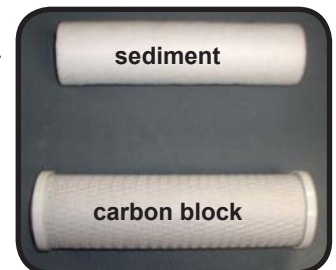
Step 1 Close the ball valve on the RO storage tank and open the RO Faucet.

Step 2 Turn off the incoming water supply to the RO by turning the needle valve on the cold water adapt-a-valve clockwise until it stops and unplug the power transformer from the electrical outlet.

Step 4 For more leverage you may leave the RO module attached to wall of cabinet. If you are unable to access the module while it is mounted, remove it prior to changing filters. Starting with the closest housing (Stage 1), remove it by turning it clockwise (left), empty water, then discard filter and repeat for the 2<sup>nd</sup> housing (Stage 2).



Step 5 Clean the filter housings (bowls) with a mild soap solution and rinse with water. Check O-rings and lubricate with water soluble lubricant. *KY Jelly® or other water based lubricants may be used. Petroleum based lubricants (such as Vaseline®) must not be used.*



**Caution:** *Before re-installing the filter bowls back on to the system, check O-rings to make sure they are still in place. \**

Step 6 Insert a new sediment filter (cloth like appearance) into the 1st filter housing which is the one on the water inlet side (green tubing from the adapt-a-valve) of the RO system and re-install housing.



Step 7 Insert the new Carbon Block filter (White end caps & plastic netting) into the second filter bowl and re-install housing.



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

Step 8 Plug the power transformer back into the electric outlet and turn water supply on to the unit by turning the needle valve on the adapt-a-valve counter clock wise.

Step 9 Close the RO faucet and open the ball valve on the RO storage tank. Your system is ready for use.

# Annual Maintenance - Filter Kit #560032

## Items needed:

- √ Stage 1 - Sediment Filter (part #: 104017)
- √ Stage 2 - Carbon Block Filter (part #: 101009-White end caps)
- √ Stage 4 - 10" Final Polishing filter (part # 560010)
- √ 1/2 Cup of hydrogen peroxide or common household bleach - not included in filter kit.

**Note:** *Sanitizing of unit is recommended.*

Step 1 Perform steps 1 through 5 in the Six Month System Maintenance (Page 9).

**Note:** *If not sanitizing the system skip to step 8.*

Step 2 Remove the RO membrane from its housing and rest in a clean sanitary place. (Refer to "Membrane Replacement" section on page 11 for directions on removing the membrane). Replace cap onto empty membrane housing and re-connect green tubing.

Step 3 Leaving the filters out, replace stage 2 empty filter housing (hand tight) onto unit. Measure & pour either 1/2 cup of hydrogen peroxide or common household bleach into the 1st filter housing (Stage 1) and hand tighten onto unit. **Ball valve on RO tank should be open.**

Step 4 With the RO faucet in the closed position turn on the incoming water supply to the system by turning the adapt-a-valve counter clockwise. Plug in the power transformer back into the electrical outlet. Wait 1 minute for the unit to pressurize. Turn on the RO faucet and let the water run for 30 seconds. Turn off the RO faucet and let the unit rest for 2 minutes. Finally, open the RO faucet and let the water run for 5 more minutes.

Step 5 Unplug the Power Transformer. Turn off the incoming water supply to the system by turning the adapt-a-valve clockwise until it stops. Keep the RO faucet open until the storage tank is completely drained.

Step 6 Open the membrane housing and re-install the RO membrane while making sure not to kink the O-rings. (Refer to "Membrane Replacement" section on page 11 for directions on installing the membrane). Tighten the cap back on the housing and reconnect green tubing.

Step 7 Remove filter housings Stage 1 and 2 and empty of water.

**Caution:** *Before re-installing the filter bowls back on to the system , check O-rings to make sure they are still in place and lubricate with water soluble lubricant.*

Step 8 Insert the new sediment filter (cloth like appearance) into the 1<sup>st</sup> filter housing which is the one on the water inlet side (green tubing from the adapt-a-valve) of the RO system and re-install housing.

Step 9 Insert the new Carbon Block filter (White End Caps) into the 2nd housing and re-install housing.

Step 10 Remove the final filter from the two clips. Remove the white nuts from both ends of the filter. Remove the connectors from both ends (keep and reuse). Discard the old final filter and replace with new filter reusing the connectors .

**Note:** Flow arrow on final filter must be pointing in the direction of water flow to the RO faucet.

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

Step 11 Follow Start Up procedure on page 8. **You will need to flush a half a gallon of water before using the RO water .**

Your reverse osmosis system contains replaceable treatment components that are critical for effective contaminant reduction. Periodic inspection and following proper system maintenance is critical for continued performance.

## Membrane Maintenance

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

**A water sample may be sent to Watts Premier for a free diagnosis of your membrane performance. To send a water sample, use two (2) clean containers and fill ½ cup of tap water in one container and ½ cup of reverse osmosis water in 2nd container. Clearly label each sample. Send the samples to the address listed on the cover of this manual attention “Water Samples”. Watts Premier will test the water and mail or call you with the results.**

Step 1 Turn off the incoming water supply to the RO by turning the needle valve on the adapt-a-valves clockwise until it stops and unplug the power transformer..



Step 2 Open the RO Faucet and allow water to drain from the tank until it is completely empty.

### **Removing the membrane:**

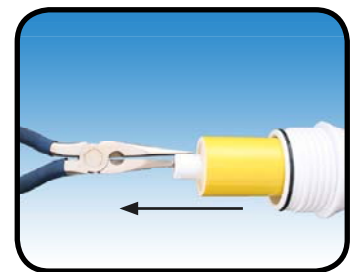
Step 1 Use a 5/8” wrench to remove the Green Tube fitting on the left side of the horizontal membrane housing (end with one elbow).

Step 2 Remove the cap from the membrane housing by turning it counter clockwise to loosen.



**Note:** *A double sided wrench may be purchased from Premier to aid with loosening the cap / filter housings. (Part # 164003)*

Step 3 Remove membrane housing from the holding clips. Using a pair of pliers, grip the PVC tube of the RO membrane and pull firmly on the membrane to remove from the housing and discard.



### **Installing the membrane:**

Step 4 Lubricate the O-rings on the new membrane with a water soluble lubricant such as KY Jelly ®. Insert the end with the two black O-rings first into the housing.

Step 5 Once membrane has been inserted into the housing you must take your thumbs and give a firm push to properly seat the membrane. Replace membrane housing cap and tighten.

Step 6 After replacing membrane housing into clips, attach the green tube to the elbow on cap using 5/8” wrench.



Step 7 Follow the Start Up Instructions on page 8.

# Check Air Pressure in the Tank

**Important:** 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 a blue plastic cap.

Step 1 Turn off the incoming water supply to the RO by turning the needle valve on the adapt-a-valve clockwise until it stops. (Follow the green tube away from the RO system to find the adapt-a-valve.)

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)

## Trouble shooting

Problem	Cause	Solution
Low/slow production	Excessive air pressure in tank	Relieve pressure at schrader valve on tank (set to 7 psi with the tank empty)
	Pump not operating	Wiring connection broken (plug 110 AC wall plug back in at wall and/or reconnect the 24 VAC wire harness connectors) Replace pump if needed
	Fouled membrane	Replace membrane
	Plugged pre-filters	Replace filters
	Crimped tubing	Check tubes to make sure they are not kinked
Milky colored water	Angle stop or water line valve not fully opened	Ensure valves are opened by turning valve handle counter clockwise until it stops
	Air in the system	Air in the system is a normal occurrence with initial start up of the RO system. This milky look will disappear during normal use within 1-2 weeks. If condition reoccurs after filter changes, drain tank 1 to 2 times.
Faucet Dripping	Needs adjustment	see page 12
Pump short cycles	Ball valve on tank closed	Open the ball valve on the top of the tank
	Blue tube blocked between the tank and RO system	Remove kinked/damaged section and replace if necessary
	Faulty pressure switch	Call for technical support
Bowl leaks at the top after changing the filters	Damaged/Dry O-ring	Lubricate with water soluble lubricant or replace O-ring as necessary (Do not use Vaseline or other petroleum based lubricants)
Pump constantly running	Electrical fault	Call for technical support
Plugged pre-filters	Faucet left on	Close faucet and let tank fill for 2 to 3 hours
		Replace filters

# Adjust Faucet

If the faucet has developed a drip it can be corrected by following the steps outlined below.

Step 1 Remove faucet Spout first. Position both thumbs on the back edge of the lever and push forward.



Step 2 Lever will slide forward and completely off of the faucet base.



Step 3 Small brass tee can be turned 1/2 turn, counterclockwise, to adjust the tension on the black lever. This adjustment may be necessary to stop slow drips from tip of faucet. You may need to repeat process until the faucet does not drip. Brass tee must always end up facing across body of faucet in order to slide black lever on.



# Performance Data Sheet

## ZRO-4 Zero Waste RO

Watts Premier Inc.  
 1725 W. Williams Drive C-20  
 Phoenix, AZ 85027 USA  
 (623) 931-1977 wpmail@wattsind.com

**GENERAL USE CONDITIONS:**

- System to be used with municipal or well water sources treated and tested on regular basis to insure bacteriological safe quality. Do not use with water that is microbiologically unsafe or unknown quality without adequate disinfection before and after the system. Systems certified for cyst reduction may be used on disinfected water that may contain filterable cysts.
- Operating Temperature: Maximum: 100°F (40.5°C) Minimum: 40° (4.4°)
- Operating Water Pressure: Maximum: 100 psi (7.0kg/cm2) Minimum: 40 psi (2.8kg/cm2)
- pH 2 to 11
- Hardness of more than 10 grains per gallon (170 ppm) may reduce TFM membrane life expectancy.
- Recommend TDS (Total Dissolved Solids) not to exceed 1800 ppm.



**RECOMMENDED REPLACEMENT PARTS AND CHANGE INTERVALS:**  
 Depending on incoming feed water conditions replacement time frame may vary.

Change Time	Description
6 months:	Sediment Pre-filter (5M-10); Carbon Pre-filters (5M-CTG)
12 months	Final Carbon filter (1M-10)
3 to 5 years	R.O. Membrane (TFM-25)



This system has been tested according to NSF/ANSI 58 for reduction of the substances 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 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 installation manual for further information.

	Avg. In.	Avg. Eff.	% Reduction	pH	Pressure	Max Eff.	Inf. challenge concentration mg/L	Max Allowable concentration mg/L
Arsenic (Pentavalent)	334.615 ug/L	5.0385 ug/L	98.4%		50psi	19 ug/L	0.30±10%	0.010
Barium Reduction	10.2 mg/L	0.207 mg/L	97.9%	7.24	50psi	0.3 mg/L	10.0±10%	2.0
Cadmium Reduction	0.036 mg/L	0.0005 mg/L	98.6%	7.49	50psi	0.0007	0.3±10%	0005
Chromium (Hexavalent)	0.15 mg/L	0.013 mg/L	91.3%	7.24	50psi	0.03	0.3±10%	0.1
Chromium (Trivalent)	0.17 mg/L	.01 mg/L	94.1%	7.24	50psi	0.01	0.03±10%	0.1
Copper Reduction	3.1 mg/L	0.03 mg/L	99.0%	7.64	50psi	0.04	3.0±10%	1.3
Cysts	222,077#/ml	10 #/ml	99.99%			58	minimum 50,000/mL	
Fluoride Reduction	8.0 mg/L	0.5 mg/L	93.9%	7.49	50psi	0.7	8.0±10%	1.5
Lead Reduction	0.15 mg/L	0.002 mg/L	98.6%	7.49	50psi	0.003	0.15±10%	0.010
Perchlorate	0.10 mg/L	0.003 mg/L	96.5%	7.39	50 psi	0.005 mg/L	0.10±10%	0.006
Radium 226/228	25 pCi/L	5 pCi/L	80.0%	7.24	50psi	5 pCi/L	25pCiL±10%	5 pCi/L
Selenium	0.10	0.008	92.0%		50psi	0.011	0.10±10%	0.05
TDS	752	27	96.4%	7.84	50psi	34 mg/L	750±40mg/L	187
Turbidity	10.2 mg/L	0.26 mg/L	97.5%			0.83	11±1 NTU	0.5 NTU

**RECOVERY - 16.75%**

**GALLONS - 24.8 GPD**

**EFFICIENCY - 12.0%**

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. Testing performed under standard laboratory conditions, actual performance may vary. Refer to owners manual for further maintenance requirements and warranty information.

Phone: (623) 931-1977

Fax: (623) 931-0191

Email: wpmail@wattsind.com

## Arsenic Fact Sheet

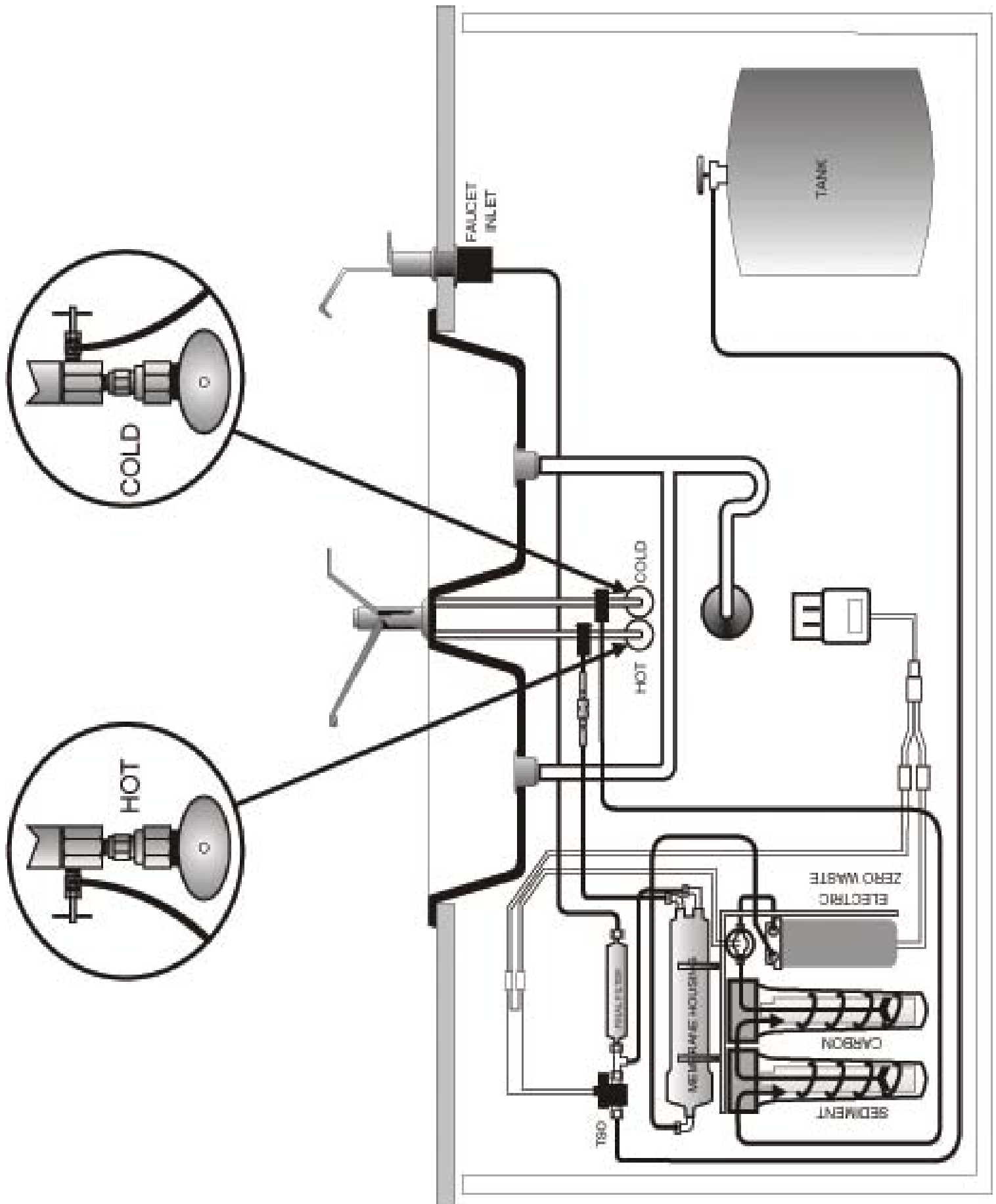
Arsenic (As) is a naturally occurring contaminant found in many ground waters. Arsenic in water has no color, taste or odor. It must be measured by an arsenic test kit or lab test. Public water utilities must have their water tested for arsenic. You can obtain the results from your water utility contained 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 non chlorinated well water, arsenic may be pentavalent, trivalent, or a combination of both.

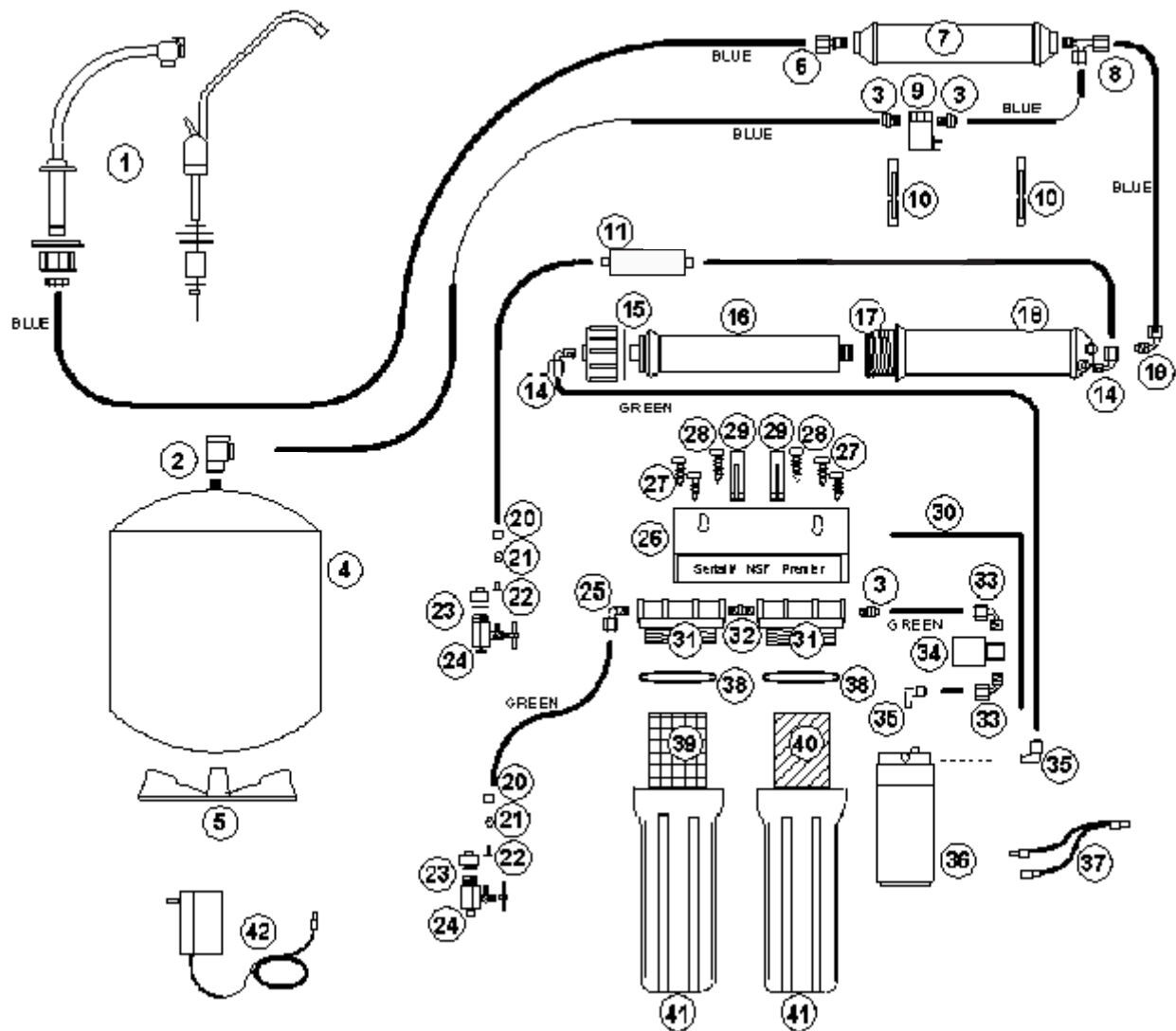
RO systems are very effective at removing pentavalent arsenic. A free chlorine residual will rapidly convert trivalent arsenic to pentavalent arsenic. Other water treatment chemicals such as ozone and potassium permanganate will also change trivalent arsenic to pentavalent arsenic. A combined chlorine residual (also called chloramine) may not convert all the trivalent 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 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.

The RO component of this Watts Premier reverse osmosis system must be maintained in order to ensure proper contaminant removal from your water. As detailed out on Page 2 of this manual, prefilters should be replaced every six months, the post filter once a year, and the RO element within two to five years. Specific component identification and ordering information can be found in the installation/operation manual maintenance section, by phone at 1-800-752-5582 or on-line [www.wattspremier.com](http://www.wattspremier.com).







Item #	Part #	Description	Item #	Part #	Description
1	116023	FAUCET-AG-CHROME	26	137013	BRACKET-4SV-STEEL WHITE
2	134018	VALVE-BALL-PLAS-ELB	27	146001	SCREW- #10-3/4" PHIL PAN HEAD
4	119007	TANK PRESS 3 GAL WHITE	28	146004	SCREW- #10-1" PHIL PAN HEAD
5	119028	TANK STAND	29	164006	CLIP-MTG-MEM-VESSEL
6	125017	CON-PL-1/4C X 1/4M	30	337002	BRACKET 16 GAUGE CRS
7	100017	GAC-IL-10" 1/4F	31	113007	LID-WHITE 1/4" FPT UNA
8	125064	TEE MALE RUN 1/4 X 1/4 M	32	131021	HEX NIPPLE-BR-1/4 HEAVY DTY
9	152032	SWITCH PRESSURE 60 PSI TSO	33	125088	ELB-90 - 1/4 X 1/8 M - WHITE
10	164010	CLIP-DOUBLE-MEM TO IL	34	152035	SOLENOID VALVE ELEC
11	610019	VALVE-CHECK QUICK CON	35	125089	ELB-90- 1/4 X 1/4 INSERT
14	125031	ELB-PL-1/4CX1/8M-90	36	152008	PUMP BOOSTER
15	125038	O-RING SET FOR VESSEL	37	152044	WIRE HARNESS FOR ESO
16	110005	MEM-TFM-25 GPD-DRY	38	113029	O-RING FILTER HOUSING
17	113038	O-RING SET FOR VESSEL	39	104017	SED-SPUN 10" CTG
18	113032	VESSEL-MEM-HOUSING-RES	40	101009	CARBON BLOCK 10" 5 MIC
19	134011	VALVE-CHECK-PLA-ELBOW1/4CX1/8M	41	113024	HOUSING FILTER 10" WHITE
20	146032	NUT- 8/32 STEEL	42	252004	TRANSFORMER
21	131012	DELTRIN SLEEVE - PLASTIC	43	146024	SCREW 8/32 X 1/4 PAN HEAD
22	131017	INSERT	44	610115	BLACK TUBING 1/4 X 3-1/2
23	146025	ADAPTA VALVE WASHER	45	610117	BLACK TUBING 1/4 X 4"
24	134007	VALVE-ADAPTA VALVE	46	610113	BLUE TUBING 1/4 X 4"
25	125034	ELB-PL-1/4C X 1/4M-90	47	610109	GREEN TUBING 1/4 X 4"

## Other Products from Watts Premier

Watts Premier has other fine water filtration products and accessories to enhance your water and to compliment your existing RO System. Listed on the next several pages are only a few of the items we offer. Visit our web site at [www.wattspremier.com](http://www.wattspremier.com) or call our Customer Service Representatives at 1-800-752-5582 (inside USA) 1-623-931-1977 (outside USA) for more products.

Watts Premier offers a filter change kit which includes all replacement filters needed. Call 1-800-752-5582 or buy on-line at [www.wattspremier.com](http://www.wattspremier.com).



### Top Mount Faucets by Watts Premier

These attractively designed faucets feature a long reach spout to compliment all styles of kitchen decor. The unique top mount design allows for easy above counter installation. The Monitored version of this faucet has an LED light that turns red to notify you for filter replacement.

Part No. 116091 - Chrome (Non-Monitored)	*\$47.95 each
116095 - Brushed Nickel (Non-Monitored)	*\$52.95 each
116094 - Chrome (Monitored)	*\$57.95 each
116093 - Brushed Nickel (Monitored)	*\$62.95 each



### Ice Maker Installation Kit

1/4 inch connection kit includes 30 feet of 3/8" tubing, ball valve, and fittings.

Part No. 500010	*\$16.95/ea
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### Watts Premier Hot Water Recirculation System

Bring convenience and saving to your home, giving you hot water instantly at every faucet, when you need it. This unique product is easy to install and not only provides you with the convenience of hot water when you need it, but saves an average of over 15,000 gallons per year.

Part No. 500800	*\$229.99 each
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### Tank Ball Valve

Eliminates the need to drain the tank during normal filter changes. This easy to install valve attaches to the top of your water tank. The tank should always be drained after the membrane is changed.

Part No. 134023	*\$ 6.75/ea
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**\*All prices subject to change without notice.**



### Replacement Filter Kit

Compatible with Watts Premier Zero Waste Reverse Osmosis system. These filters provide an extra level of filtration by allowing for more contact between the carbon media and your water. Includes a 10" Final in-line Filter, Sediment Filter and a Carbon Block Filter.

Part No. 560032

\*\$24.95 each



### PERMEATE PUMP KIT - For Standard RO Systems (Non Zero Waste)

Using only the available energy from the brine water (otherwise lost to the drain), the pump forces product water into the storage tank. This process effectively reduces membrane back pressure to less than 5 psi and allows the membrane to maximize its use of the available feed pressure.

- Fills product tank up to 4 times more rapidly
- Reduces waste water by as much as 80%
- Lowers "TDS creep"
- NSF approved (Standard 58)

Part No. 560041

\*\$65.95/ea



### Pocket Total Dissolved Solids (TDS) Monitor

Test water electronically to verify reverse osmosis membrane effectiveness. Carrying case included.

Part No. 273001

\*\$39.95/ea



### Water Pressure Gauge

This gauge mounts onto your outside hose connection to accurately show your home's water pressure up to 300 psi. A red needle shows peak overnight pressure, which may exceed readings during the day. High pressure readings may indicate the need for pressure regulator to prevent damage to appliances.

Part No. 261003

\*\$14.95 each



### Whole House Filter

Great for sediment problems such as in well water supply or areas where dirt and rust particles are a problem. Includes three 50 micron sediment filters and wrench (3/4" ports)

Part No. 500223

\*\$42.95/ea

Replacement filter

Part No. 304007

\*\$ 4.50/ea



### Whole House High Performance Water Pressure Regulator

Provides water pressure control solutions for residential, commercial, and industrial applications. Offers durability and years of continuous trouble free operation.

Part No. 107001

\*\$69.95/ea

**\*All prices subject to change without notice.**

# Removing chlorine from your shower

Special Chlorgon & KDF media – More effective than carbon medias with hot water applications in the removal of the following.

- √ Free Chlorine (CL-)
- √ Combined Chlorine (Sodium Hypochlorite)
- √ Hydrogen Sulfide (Rotten egg smell)
- √ Plus, its pH balanced.
- √ Iron oxide (rust water)
- √ Dirt, sediment
- √ Odors



## Deluxe Shower Handle with Built in Filter

5-Way Massaging Spray  
72" Reinforced Hose  
High Strength Bracket  
Triple Plated Finish  
Reversible Filter Cartridge (Model HHC)  
Cartridge Life Rating: 3 months

**Part No. 107070 WHITE \*\$38.95**  
**Part No. 107091 CHROME \*\$44.95**  
**Part No. 107092 GOLD \*\$44.95**

## Replacement filters 2PK



**Part No. 107075 \*\$15.95/pk**



## Shower Falls Deluxe Shower Handle with Built in Filter

Curved Ergonomic Shower Handle  
Filter Handle Extension  
Dual Swivel Adjustment  
Ultra Deluxe 5 Way Massaging Spray  
72" Reinforced Hose  
Chrome Plated Brass Bracket & Swivel Ball Extension  
Triple Plated Finish  
Reversible Filter Cartridge (Model HHC)  
Cartridge Life Rating: 3 months

**Part No. 107095 CHROME \*\$55.95**

## Replacement filters 2PK



**Part No. 107075 \*\$15.95/pk**



## All-In-One reversible High-Flow Filter

### Deluxe 5-Way Massaging Spray

Soft-Touch Adjustment Pads  
Anti-Scaling Spray Nozzle  
High Strength Housing  
Triple Plated Finish  
Cartridge Life Rating: 6 months

**Part No. 107098 White/Chrome \*\$39.95**

## Replacement filter



**Part No. 107080 \*\$13.95/ea**

**\*All prices subject to change without notice.**







# Limited Warranty



## What your Warranty Covers:

If any part of your WATTS PREMIER Zero Waste Reverse Osmosis System is defective in workmanship (excluding replaceable filters and membranes), return unit after obtaining a return authorization (see below), less tank, within 1 year of 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 1-800-752-5582 for a return authorization number and write your RA number on the outside of the box. Then, ship your Zero Waste unit (less tank) to our factory, freight and insurance prepaid, with proof of date of original purchase. Please include a note stating the problem. 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's 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 Zero Waste System must be hooked up to a potable municipal or well cold water supply.
2. The hardness of the water should not exceed 7 grains per gallon, or 120 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 RO cannot exceed 105 degrees F (40 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 PREMIER WILL NOT BE RESPONSIBLE FOR ANY IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. PREMIER 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 PREMIER'S RESPONSIBILITIES REGARDING THIS EQUIPMENT.

## OTHER CONDITIONS:

If 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.