



INSTALLATION, OPERATION AND MAINTENANCE MANUAL

Warning

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

Save manual for future reference

MODELS

DELUXE PLUS

RO-TFM-4SV

PREMIER 25

RO-TFM-5SV

ULTRA 5

PUR-TEK



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



EPA / ETV Test verified performance.
Physical removal of microbial
contamination agents in drinking water.

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

Watts Premier, Inc.
Phone: 800-752-5582

8716 W Ludlow Drive Suite #1
www.premierH2o.com

Peoria, AZ 85381
Fax: 623-866-5666

This page has been left blank intentionally.

Thank you for your purchase of a state of the art Watts Premier 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, Cryptosporidium or Giardia. There may also be some local water issues such as high levels of Lead and Copper. This Watts 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.

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 four or five 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 and 3 – Carbon filters, recommended change 6 months.

The second and third stages each contain a 5 micron carbon block filter. This helps ensure that chlorine, chloramines and other materials that cause bad taste and odor are greatly reduced.

Stage 4- Membrane, recommended change 2-5 years.

Stage four is the heart of the reverse osmosis system, the RO membrane. This semi permeable membrane will effectively take out TDS & Sodium and a wide range of contaminants such as Perchlorate, Chromium, Arsenic, Copper, Lead as well as Cysts, such as Giardia and Cryptosporidium. Because the process of extracting this high quality drinking water takes time, your RO water treatment system is equipped with a storage tank.

Stage 5- Carbon in-line filter, recommended change 6 - 12 months.

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

Note: 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 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**.

***** Before installation, please take a moment to fill out the warranty card on page 25.***

With proper installation and maintenance, this system will provide you with high quality water for years to come. All of Premier's 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 480-675-7995) or refer to our on-line troubleshooting guide at www.premierH2o.com.

Table of Contents

Operational Parameters	5
Contents of Reverse Osmosis System.....	5
Tools Recommended For Installation	5
Drill a Hole for the Faucet in a Porcelain Sink.....	6
Punch a Hole for the Faucet in a Stainless Steel Sink	6
Watts Premier Standard Faucet Installation	7
Feed Water Valve Installation	8
Drain Saddle Installation.....	8
Drill hole and Connect 3/8" Black Tube from Faucet to the Drain Saddle	9
Green Tube Connection	9
Reverse Osmosis Module Mounting.....	9
Red 1/4" Tube Connection (From Faucet)	10
Tank Tee Installation	10
Blue Tube Connection (From System)	10
Blue Tube Connection (From Faucet)	11
Final Filter Installation.....	11
Start up Instructions.....	12
Six Month Maintenance	13
Annual Maintenance	14
Membrane Replacement	15
Check Air Pressure in the Tank	16
Procedure for Extended Non-Use (More than 2 months).....	16
Trouble Shooting	17
5 Stage Reverse Osmosis System (Diagram).....	18
California Certification	19
Performance Data Sheet.....	20
Arsenic Fact Sheet	21
Other Products from Watts Premier	22-24
Warranty Registration.....	25-26
Service Record	27
Limited Warranty	28

Operational Parameters

Do not use with water that is micro biologically unsafe or of unknown quality without adequate disinfection before or after the system. System is intended to be installed on the cold water line only.

Operating Temperatures:	Maximum 100°F (37.8°C)	Minimum 40°F (4.4°C)
Operating Pressure:	Maximum 85 psi (6.0 kg/cm ²)	Minimum 40 psi (2.80 kg/cm ²)
pH Parameters:	Maximum 11	Minimum 2
Iron:	Maximum 0.2 ppm	
TDS (Total Dissolved Solids)	< 1800 ppm	
Turbidity	< 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. Should you need a gauge to check your water pressure, see page 23 (item no. 261003).

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.

Contents of Reverse Osmosis (RO) System

5 Stage RO System has 3 vertical bowls. 4 Stage RO System has 2 bowls.

- 1 Tank – Blue or White
- 1 Module – Blue or White (Filters Pre-Installed)
- 1 Parts Bag – With a 6" or 10" Final Filter
- 1 Faucet Bag
- 1 Manual

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



Tools Recommended For Installation

- ✓ 1 1/4" Hole Saw Bit for Faucet opening
- ✓ Round Knock out Punch for Stainless Sinks 1/2" & 1/4"
- ✓ Adjustable Wrench
- ✓ Sharp Knife
- ✓ 1 / 2" & 5/8" Open End Wrenches
- ✓ Phillips Screw Driver and bit
- ✓ Needle Nose Pliers – Adjustable Pliers
- ✓ Electric Drill
- ✓ 1/8", 1/4" & 3/8" Drill Bits



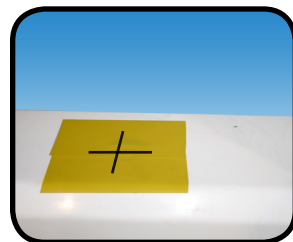
Drill a Hole for the Faucet in a Porcelain Sink

Note: *Most sinks are pre drilled with 1 ½" or 1 ¼" diameter hole that you can use for your RO faucet. (If you are already using it for a sprayer or soap dispenser, see step 1)*

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

Use extreme caution when drilling. Watts Premier 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 ¼" 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 Make sure the surroundings of the sink are cooled before mounting the faucet to the sink after drilling and remove all sharp edges.



Punch a Hole for the Faucet in a Stainless Steel Sink

Note: *If mounting faucet to a Stainless Steel Sink you will need a 1/2" & 1 ¼" Hole Punch. The faucet opening should be centered between the back splash and the edge of the sink, ideally on the same side as the vertical drain pipe.*

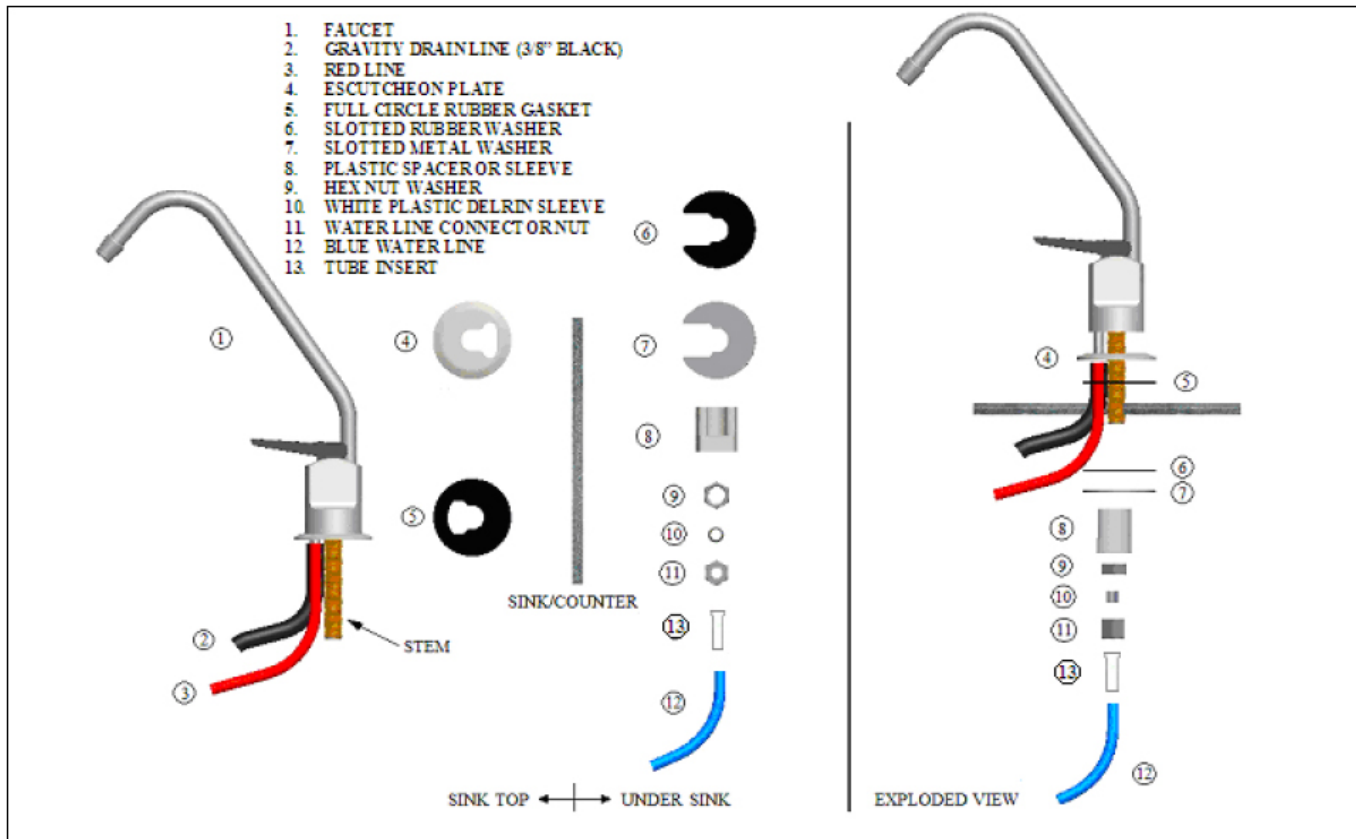


Step 5 Drill a 1/4" pilot hole. Use a 1/2" Hole Punch and an adjustable wrench to punch the hole in the sink. Change to the 1 ¼" Hole Punch to enlarge the hole.

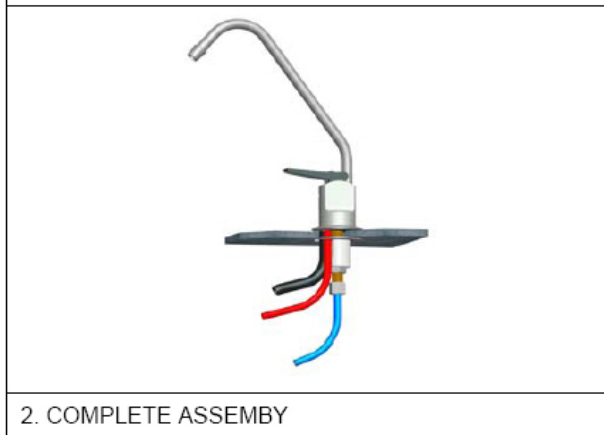
The faucet can now be installed.



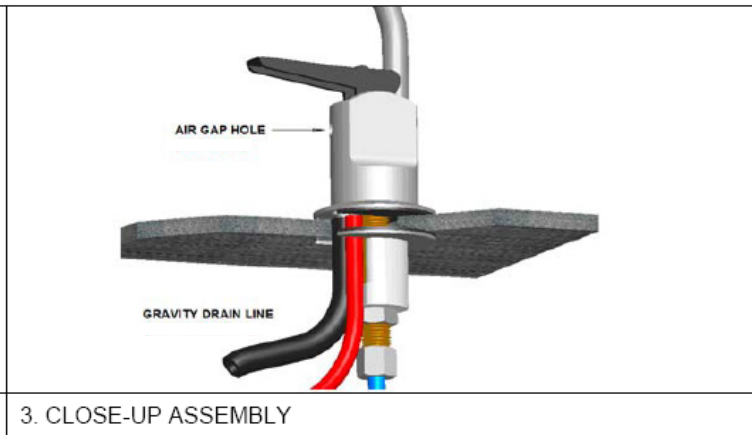
WATTSPremier Standard Faucet Installation - Part# 116001



1. LIST OF PARTS and ASSEMBLY IN EXPLODED VIEW



2. COMPLETE ASSEMBLY



3. CLOSE-UP ASSEMBLY

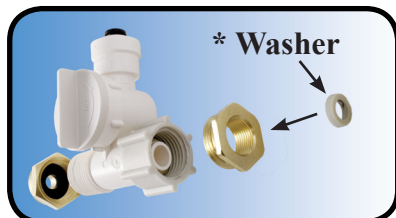
- Step 6 Remove nut (item 11) and blue tubing (item 12) from faucet (Leave the nut and plastic delrin sleeve (item 10) on the blue tube).
- Step 7 Feed both the red and black tubing through the pre drilled hole in the sink/counter until faucet is seated.
- Step 8 Under the sink - on to the threaded faucet stem in order first slide on the rubber gasket (item 6), the slotted washer (item 7), the white spacer with the open end UP (item 8), the hex nut washer (item 9), and lastly secure with nut (item 11).
- Step 9 Make sure the plastic delrin sleeve (item 10) is on the end of the blue tube, push the white plastic insert (item 13) into the end of blue tubing with the delrin sleeve, insert the blue tube (item 12) into the faucet stem and secure with nut (item 11).

Note: **DO NOT overtighten nut.**

Feed Water Valve Installation

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

Plastic Valve Configuration:



Configuration for 3/8"
(With Brass Fittings)
* Insert White Washer

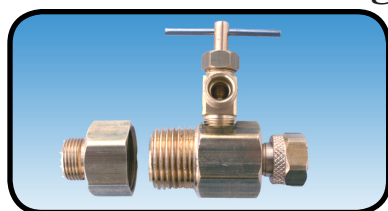


Hot Supply Cold Supply

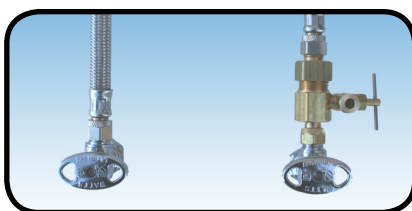


Configuration for 1/2"
(Without Brass Fittings)

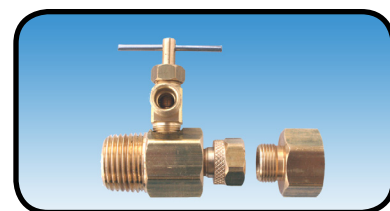
Brass Valve Configuration:



Configuration for 3/8"
compression fittings



Hot Supply Cold Supply



Configuration for 1/2"
compression fittings

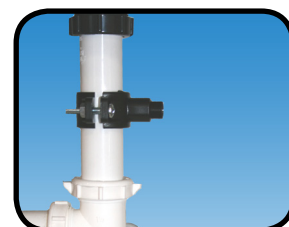
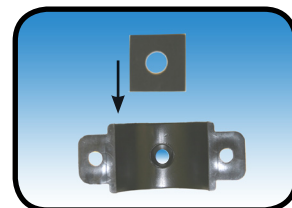
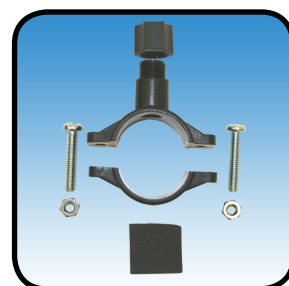
- Step 10 Turn off the cold water supply to the faucet by turning the angle stop valve completely off.
- Step 11 Attach the adapt-a-valve as illustrated in the three photos above, choosing the configuration that fits your plumbing.

Drain Saddle Installation

Drain Saddle fits standard 1 1/4" – 1 1/2" drain pipes

Caution: 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. If no other installation of drain line is available, Watts Premier offers drain line installation kit (part number 164020) that can be used with garbage disposals.

- Step 12 Gather the pieces of the drain saddle
- Step 13 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 14 The drain saddle must be mounted at least 1 1/2" above the nut of the P-trap or cross bar from the garbage disposal to insure proper drainage. Assemble the drain saddle around the drain pipe at the best available location. Using Phillips screw driver tighten screws evenly and securely on both sides of the drain saddle. Keep the plastic compression nut off at this time.



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

Drill hole and Connect 3/8" Black Tube from Faucet to the Drain Saddle

IMPORTANT:

*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 15 With the drain saddle secured onto the drain pipe, using a 1/4" drill bit installed in your electric drill, insert the drill bit through the opening in the drain saddle and drill through the drain pipe.

Caution: *It is very important to keep the drill centered to prevent damage of the drain saddle while drilling.*

- Step 16 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 17 Slip black tube through black compression nut. Insert black tube into the opening in the drain saddle and hand tighten the black nut, and add 1/4 turn with a wrench.

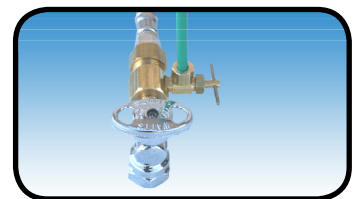
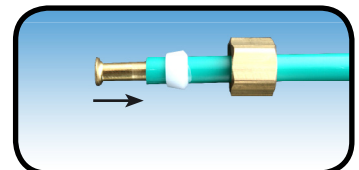


Green Tube Connection - Feed Water

Brass Valve:

- Step 18 Connect the green tube to the RO Module open elbow on the left side of the unit. Remove a brass nut, plastic sleeve and brass insert from the parts bag. To assemble, place the brass nut on the green 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 19 Insert the green tube into the 1/4" opening on the adapt-a-valve until it stops. Slide the brass nut and sleeve down and thread onto the male pipe threads. Use a 1/2" wrench to securely tighten the nut.



Plastic Valve:

- Step 20 Connect the green tube to the RO Module open elbow on the left side of the unit. Insert the open end of the green 1/4" tube into the open 1/4" quick connect fitting on the plastic water feed valve making sure the tube is pushed in all the way to the tube stop.

Reverse Osmosis Module Mounting

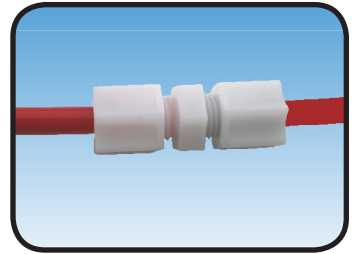
- Step 21 Determine best location for the RO module to be mounted to allow for future system maintenance. The parts bag has 2 self tapping screws. Using an electric drill with a Phillips bit, screw them into the cabinet wall 6" apart and 16" from the bottom of the cabinet.

Note: *Do not cut any RO system tubes at this time*



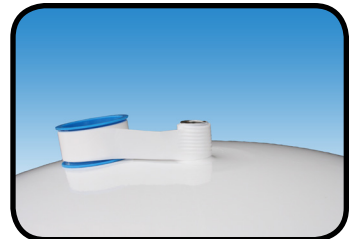
Red 1/4" Tube Connection (from faucet)

- Step 22 Using the white plastic union found in the parts bag, determine where the 1/4" red tubing from the faucet and the 1/4" red tubing from the RO membrane housing would join together comfortably. Cut red tube from RO faucet to length leaving a straight cut edge. Insert the red tube from RO faucet in one end of the white plastic union and the red tube from RO membrane housing in the other end. Use a 5/8" wrench to tighten both of the white plastic nuts securely.

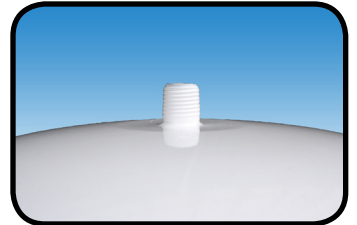


Tank Tee Installation - Part# 131023

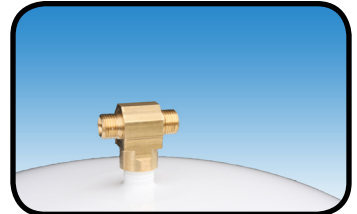
- Step 23 Teflon tape must be applied in a clockwise direction. Wrap 5 to 7 turns around the male pipe threads (MPT) on the Stainless Steel fitting on top of the tank.



- Step 24 Thread the brass tee (supplied in the parts bag) onto the brass connection on the top of the tank and tighten using an adjustable wrench.



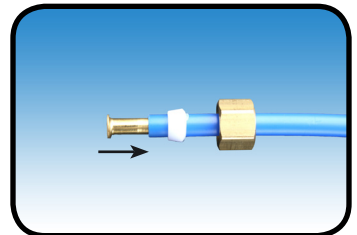
Caution: *Do not apply Teflon tape to the tee's compression fitting threads. If taped, it will leak.*



Blue Tube Connection (From System)

- Step 25 Position the RO storage tank in a desired location. You may stand it upright or lay it on its side (using the black plastic stand included).

- Step 26 Locate the blue tube from the RO module. Measure the tube from the unit over to the storage tank and cut it to desired length. 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 insert the brass insert all the way into the end of the tube. (See Picture)

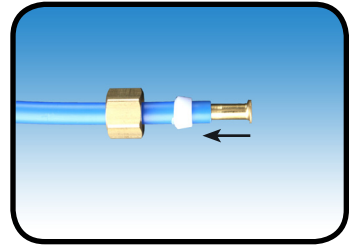


- Step 27 Push the assembled blue tube into the brass tank tee until it stops. Slide brass nut and plastic sleeve down until you can thread nut onto the tee. Use a wrench to securely tighten the brass nut while continuing to push the tube into the tee.

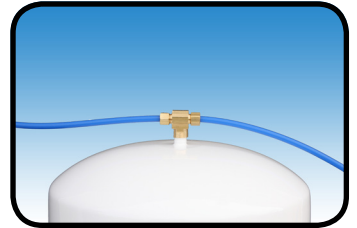


Blue Tube Connection (From Faucet)

Step 28 Locate the blue tube from the RO faucet. Measure the tube from the faucet over to the storage tank and cut it to desired length. 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 insert the brass insert all the way into the end of the tube. (See Picture)



Step 29 Push the assembled blue tube into the open brass tank tee until it stops. Slide brass nut and plastic sleeve down until you can thread nut onto the tee. Use a wrench to securely tighten the brass nut while continuing to push the tube into the tee.



Final Filter Installation

Step 30 Remove the seal caps from both ends of the final filter.



Step 31 Thread the two white plastic connectors into the final filter and tighten with a wrench.

Note: *Do not overtighten these connectors as it may damage them or the final filter.*



Step 32 Cut the blue tubing between the RO faucet and the storage tank at a desired location to splice in the in-line final filter.

Step 33 With directional flow arrow on the filter pointing towards the faucet, insert blue tubing from faucet into the fitting on the final filter (make sure tube is pushed all the way into the fitting). Tighten with a 5/8" wrench securely. Repeat this step to connect the blue tube from the tank into inlet side of the final filter.



Note: *A connection to a refrigerator / ice maker may be tee'd into this blue tube and should be spliced in between the final filter and the RO faucet.*

Watts Premier offers an ice maker install kit part # 500010 (See Page 22).

Congratulations!

You have completed the installation of new your Reverse Osmosis system.

Please Follow the Startup Instructions.

Start up Instructions

Step 1 Turn on the incoming cold water at the angle stop valve. Open the feed water 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 5) 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 RO tank must be allowed to fill up fully in order for the ice maker system to work properly.*

Step 2 Open the RO faucet and leave it open until water begins to trickle out (it will come out slowly).

Step 3 Close the RO faucet allowing the storage tank to fill with water. It may take 4 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 due to the Reverse Osmosis Process.*

Step 4 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. Repeat this step two more times. The fourth tank can be used for drinking.

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.*

Don't Forget To Register!

Register by phone, fax, mail or internet. Watts Premier uses this information only to provide you with a filter change reminder service. Pre-filters should be changed every 6 months and the final in-line filter annually. You may register your system via our web site at www.premierH2o.com or call 1-800-752-5582 (within USA only) / FAX#: 450-675-7995. For Warranty card Please see page 25-26.

6 Month System Maintenance

*Order filters by calling 1-800-752-5582 or buy online at www.premierH2o.com.

Items needed:

- ✓ Stage 1 - Sediment Filter (part #: 104017)
- ✓ Stage 2 & 3 - 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 Turn off the incoming water supply to the RO at the feed water valve. (Follow the green tube away from the RO system to find the valve.)

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

Note: *Water may be saved in a container for drinking or to rinse system parts.*

Step 3 Let system sit for one minute after the tank is empty to let the system depressurize before attempting to remove filter housings.

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. Continue on to the 2nd housing (Stage 2) and 3rd housing (Stage 3).

Note: *If you own a four stage system it will not have the third stage. A four stage system has two vertical housings instead of three.*

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 feed water 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 and third filter bowls and re-install housings.

Step 8 Turn water supply on to the unit.

Step 9 Open the RO faucet and leave it open until water begins to trickle out (it will come out slowly).

Step 10 Close the RO faucet allowing the storage tank to fill with water. It may take 4 to 6 hours to fill the tank completely depending on the production capability of the membrane, local water temperature and water pressure.



Annual Maintenance

*Order filters by calling 1-800-752-5582 or buy online at www.premierH2o.com.

- ✓ Stage 1 - Sediment Filter (part #: 104017)
- ✓ Stage 2 & 3 - Carbon Block Filter (part #: 101009-White end caps)
- ✓ Stage 5 - 10" Final Polishing filter (part # 560010)
- ✓ 1/2 Cup of hydrogen peroxide or common household bleach.

Note: *Sanitizing of unit is recommended.*

Step 1 Perform steps 1 through 5 in the Six Month System Maintenance (Page 13).

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 15 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 and 3 empty filter housings (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.

Step 4 With the RO faucet in the closed position turn on the incoming water supply to the system. 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 Turn off the incoming water supply to the system. 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 15 for directions on installing the membrane). Tighten the cap back on the housing and reconnect green tubing.

Step 7 Remove filter housings Stage 1, 2 and 3 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 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 9 Insert the new Carbon Block filter (White End Caps) into the 2nd and 3rd housing and re-install housing.

Step 10 The final in-line filter is located on the blue tube between the storage tank and the RO faucet. Remove it by loosening the compression fittings on both ends of the filter and replace with new filter. (Discard used final filter after sanitizing)

Note: *The arrow on the final filter must be pointing towards the RO faucet / away from the RO storage tank.*

Tip: *This is a good time to check the air pressure in your storage tank. For instructions please see page 16.*

Step 11 Follow Steps 8 through 10 in the Six Month System Maintenance (Page 13) for startup directions.

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 Premier to assure the same efficiency and contaminant reduction performance.

Membrane Replacement

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%.

Note: *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.

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.

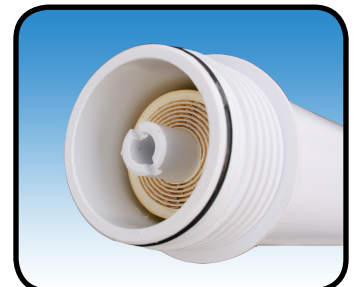
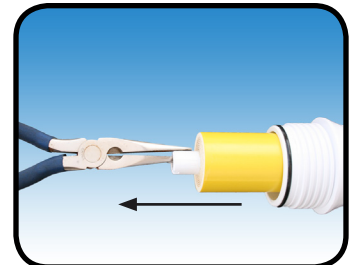
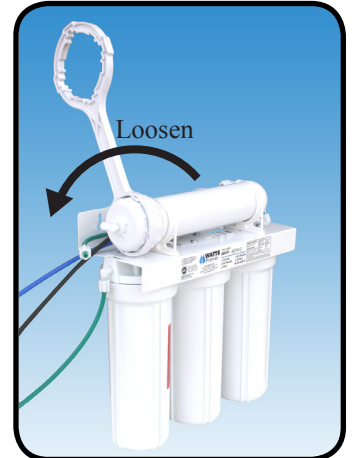
Installing the membrane:

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 12.



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 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 12.

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

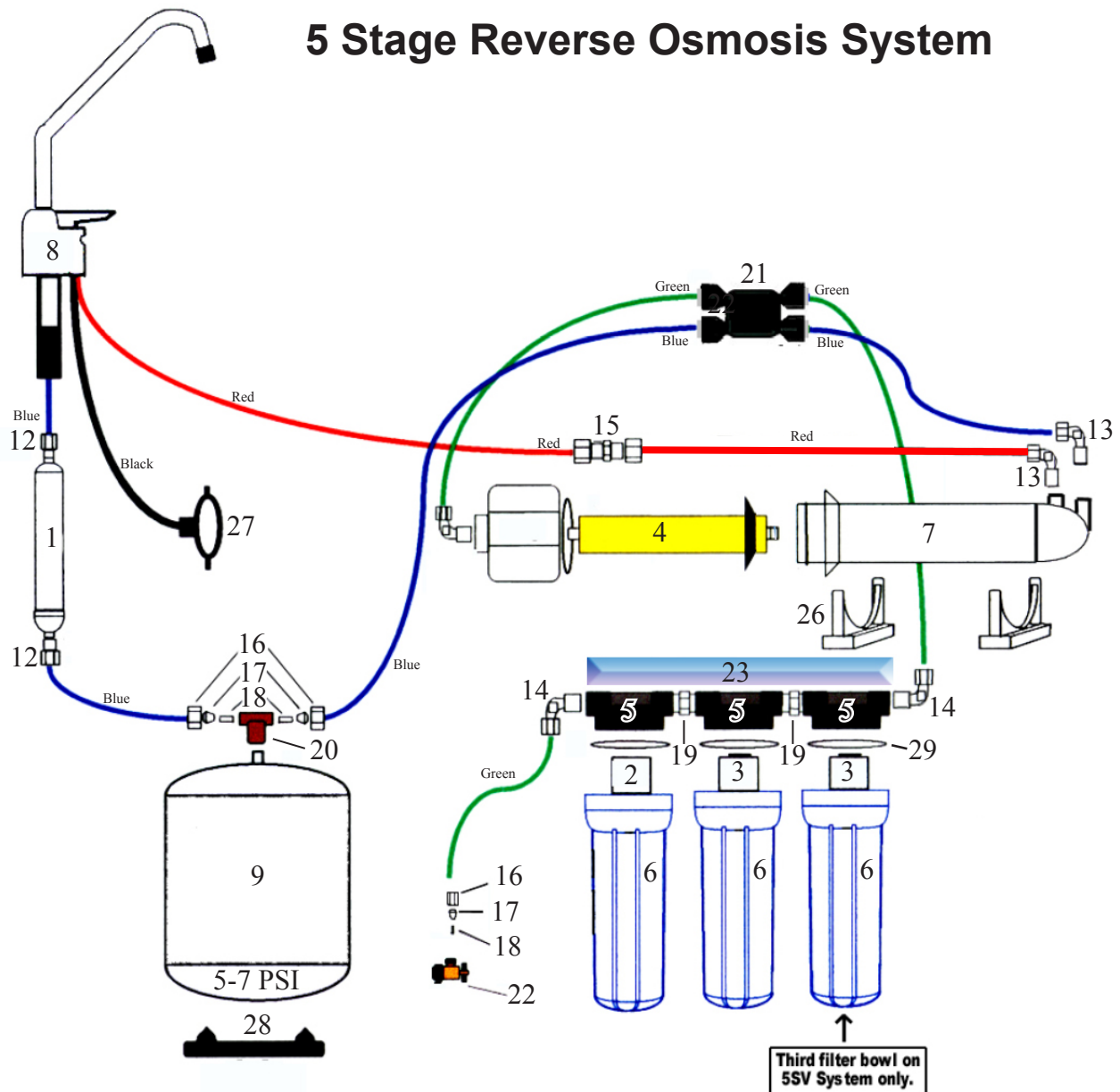
Turn off the water supply and open the RO faucet to empty the storage tank (Save a few ounces of RO water). Once the storage tank is empty, remove the membrane and place it in a sealed plastic bag with the RO water saved earlier and store in your refrigerator.

For restart, reinstall membrane (See page 15 for membrane installation procedure) and follow startup procedure on page 12.

TROUBLE SHOOTING

Problem	Cause	Solution
1. Low/Slow Production	Low Water Pressure Crimps in tubing Clogged pre-filters Fouled membrane	Assure a minimum of 40 psi incoming water pressure. Premier sells a booster pump if home water pressure is low. Make sure water supply is turned on and feed water valve is all the way open. Check tubing and straighten or replace as necessary. Replace pre-filters. Replace membrane and flow restrictor.
2. Milky colored Water	Air in 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 change, drain tank 1 to 2 times.
3. Water constantly running, unit will not shut off	Low water pressure Crimp in supply tube High water pressure High pressure in Tank Low Pressure in Tank	See #1 Above Check tubing and straighten or repair as necessary. Check incoming water pressure to make sure it does not exceed 80 psi. A pressure relief valve may be necessary. Empty storage tank of water. Set tank air pressure between 5-7 psi. See previous page. Use a Digital Air Gauge for best results. The empty tank pressure should be 5-7 psi. See page 16.
4. Noise / Water from faucet vent hole or noise from drain.	Crimp or restriction in drain line Drain tube clogged	Check tubing and straighten or repair as necessary. Straighten all drain lines. Clear blockage. Cut off any Excess tubing Caused from dishwasher or garbage disposal. Disconnect the 3/8" black line at the drain, clean the 3/8" black line out with a wire, then reconnect. Blowing air through the line will not always remove the clog.
5. Small amount of water in storage tank	System starting up Low water pressure Too much air in tank	Normally it takes 4-6 hours to fill tank. Note: low incoming water pressure and/or temperature can drastically reduce production rate. See #1 above. Tank air pressure should be 5-7 psi when empty of water. If below 5 psi add air or bleed if above 7 psi. Check only when tank is empty of water. See previous page.
6. Water leaks from the blue or white filter housing	Not properly tightened Kinked O-ring	Tighten the bowl. Turn off the water supply and release the pressure. Replace the O-ring if necessary. Then lubricate it and make sure the O-ring is seated in the filter bowl properly before reinstalling the filter bowl.
7. Low water flow from faucet	Check air pressure in tank	Use a Digital Air Gauge for best results. The empty tank pressure should be 5-7 psi. See page 16.

5 Stage Reverse Osmosis System



Item #	Part #	Description
1 a	100004	GAC-IL-6"-1/4 F
1 b	100014	GAC-IL-10"-1/4 F
2	104017	SED-SPUN-10"-5M-CTG
3 a	101009	CARBONBLOCK-10"-5M-CTG
3 b	100036	GAC 10" - 56 Cu In
4 a	110004	*MEM-18 GPD
4 b	110009	*MEM-25 GPD
5 a	113002	LID-BLACK 1/4" FPT
5 b	113005	LID-WHITE 1/4" FPT
6 a	113019	HOUSING-FILTER 10" BLUE
6 b	113021	HOUSING-FILTER 10" WHITE
7	113032	VESSEL-MEMBRANE-HOUSING
8 a	116001	FAUCET-AG-CHROME
9 a	119004	TANK-PRESURE-3 GAL-BLUE
9 b	119007	TANK-PRESURE-3 GAL WHITE
12	125017	CONNECTOR-PLASTIC-1/4CX1/4M
13	125031	ELBOW-PLASTIC-1/4CX1/8M-90
14	125034	ELBOW-PLASTIC-1/4CX1/4M-90
15	125041	UNION-PL-1/4CX1/4C
16	131002	NUT-BR-1/4C"

Item #	Part #	Description
17	131012	SLEEVE-PLASTIC-1/4"
18	131017	INSERT-BRASS-1/4"
19	131021	HEX NIPPLE-BRASS-1/4
20	131023	TEE-TANK-BRASS-1/4CX1/4CX1/4F
21	134003	VALVE-SHUT OFF 1/4MPT QUICK CONNECT
22	134007	ADAPTA VALVE
22 a	146025	ADAPTA VALVE WASHER
23 a	137013	BRACKET-4SV-STEEL-WHITE
23 b	137026	BRACKET-5SV-STEEL-WHITE
24	146001	SCREW-#10-3/4" PHIL PANHEAD X 6 (Filter Lid)
25	146004	SCREW-#10-1" PHIL PANHEAD X 2 (Mem. Clip)
26	164006	CLIP-MTG-MEM-VESSEL
27	164016	DRAIN SADDLE 3/8"
28	119028	TANK STAND
29	113029	O-RING FILTER HOUSING
30	199348	MANUAL 4SV & 5SV PR-14
31	610109	GREEN TUBING 1/4"
33	610117	BLUE TUBING 1/4"

Third filter bowl on
5SV System only.

WARRANTY REGISTRATION

Thank you for selecting Watts Premier for your water filtration needs.

4 Ways to Register

1. On-line at www.wattspremier.com

Register your product on-line and receive a 5% discount on your next on-line order, Plus receive reduced shipping.

2. Call in your information 1-800-752-5582

Call and we will enter your information.

3. Fax in your information 623-866-5666

Fax this form directly to us.

4. Mail in the information.

Please complete the form below. Mail to: **Watts Premier**
8716 W Ludlow Drive Suite #1
Peoria, AZ 85381

Registering will
insure you re-
ceive Watts
FREE
Filter
Reminder
Service

Watts Premier Inc. is concerned for the safety of your personal information. Watts Premier collects personal information when you register with Watts Premier. This information is stored in our data base and we do not rent, sell, or share personal information with other people or nonaffiliated companies. We reserve the right to send you certain types of communications such as direct mail, email, or by telephone relating to our products or products that you have purchased. We limit access to your personal information to those employees who will directly provide you with services or products in order to do their jobs. We want to offer you four ways to communicate with us. 1. Online, 2. Fax, 3. Telephone, and 4. Mail the form below. By registering your product you will receive the full benefit of our warranty. Watts Premier will also send you a semiannual filter change reminder beginning six months from date of installation. To insure the highest quality of your water, filters should be replaced every 6 months. If you have any questions or comments please give us a call at 1-800-752-5582 M-F 8:00am -5:00pm MST.



First Name: _____ Last Name: _____

Address: _____ City: _____

State: _____ Zip Code: _____

Country: ☐ USA ☐ CANADA ☐ MEXICO ☐ OTHER _____

Phone # _____ - _____ - _____ Email Address: _____

Date of Purchase: _____ Date of Install: _____

Installed By: ☐ SELF ☐ Plumbing Professional Where Purchased: _____

Model Number: _____ Serial Number: _____ - _____
XXXXXX - XXXXXX

Watts Premier, Inc.
Phone: 800-752-5582

8716 W Ludlow Drive Suite #1
www.premierH2o.com

Peoria, AZ 85381
Fax: 623-866-5666

WARRANTY REGISTRATION

Please Fill out and keep for your Records

First Name: _____ Last Name: _____

Address: _____ City: _____

State: _____ Zip Code: _____

Country: ☐ USA ☐ CANADA ☐ MEXICO ☐ OTHER _____

Phone # _____ - _____ - _____ Email Address: _____

Date of Purchase: _____ Date of Install: _____

Installed By: ☐ SELF ☐ Plumbing Professional Where Purchased: _____

Model Number: _____ Serial Number: _____ - _____
XXXXXX - XXXXXX

Iowa Department of Public Health - Sales in Iowa require this to be completed, signed and returned.
These signatures will be retained on file for two years.



Insert into envelope and return to Watts Premier

Watts Premier
8716 W Ludlow Drive Sutie #1
Peoria, AZ 85381

Service Record

Date of Purchase: _____ Date of Install: _____ Installed by: _____

Date	1st stage Sediment (6 months)	2 nd stage Carbon (6 months)	3rd stage Carbon (6 months)	Final Filter Carbon (1 year)	TFM Membrane (2-5 years)

NOTES:

Limited Warranty

What your Warranty Covers:

If any part of your WATTS PREMIER Reverse Osmosis System is defective in workmanship (excluding replaceable filters and membranes), return unit after obtaining a return authorization (see below), less tank, within 3 years 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 documentation and a return authorization number. Once the return authorization number has been created, ship your Reverse Osmosis unit (less tank) to our factory, freight and insurance prepaid, with proof of date of original purchase. Include a note stating the problem experienced and include your name, address and your return authorization number. No returns will be accepted without the proper return authorization number. 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 Reverse Osmosis System 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 85 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 micro biologically 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 charges incurred due to professional 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.