



WATTS H2O-DWRO300 Reverse Osmosis System Installation Guide

[Home](#) » [WATTS](#) » WATTS H2O-DWRO300 Reverse Osmosis System Installation Guide 

Contents

- 1 WATTS H2O-DWRO300 Reverse Osmosis System
- 2 Installation, Operation and Maintenance Manual
- 3 Overview
- 4 Operational Parameters
- 5 Plumbing Diagram and Parts List
- 6 Drill a Hole for the Reverse Osmosis Faucet
- 7 Faucet Installation
- 8 Adapt-a-Valve Installation
- 9 Rear View of 3 stage Reverse Osmosis System
- 10 Product Registration
- 11 Month System Maintenance
- 12 Annual Sanitization
- 13 GENERAL USE CONDITIONS
- 14 Troubleshooting
- 15 Limited Warranty
- 16 Documents / Resources
 - 16.1 References
- 17 Related Posts



WATTS H2O-DWRO300 Reverse Osmosis System



Specifications

- Model: H2O-DWRO300
- System Type: 3-Stage Reverse Osmosis System
- Filter Replacement: Push-Button
- Certifications: WQA certified against NSF/ANSI Standards 42, 58, and NSF/ANSI/CAN 372 for Lead Free Compliance
- Operating Parameters:
 - Operating Temperatures: Maximum 11°C
 - Operating Pressure: Minimum 35 psi (341 kPa)
 - pH Parameters: 0-14
 - Iron: < 0.2 ppm
 - TDS (Total Dissolved Solids): < 1800 ppm
 - Turbidity: < 5 NTU
 - Hardness: Maximum 10 Grains Per Gallon *

Product Usage Instructions

Overview of Reverse Osmosis System

Your Reverse Osmosis System utilizes a 3-stage filtration process to provide clean drinking water. The system employs semi-permeable membranes and carbon block filtration technology to remove contaminants such as arsenic and lead from your water supply.

1. Stage 1 – Sediment Filter

The sediment filter removes larger particles and impurities from the water. Replace this filter every 6 months for optimal performance.

2. Stage 2 – Carbon Block Filter

The carbon block filter further purifies the water by removing chlorine, odors, and organic compounds. Replace this filter every 6 months.

3. Stage 3 – Granular Activated Carbon Filter

The granular activated carbon filter acts as a final polishing filter, ensuring the highest quality drinking water.

Replace this filter every 12 months.

Q: Can I use the system with well water?

A: It is recommended to test your well water quality before using the system. Well water with high levels of contaminants may require additional pre-treatment.

Installation, Operation and Maintenance Manual

3-Stage Reverse Osmosis System

With Push-Button Filter Replacement

Model: H2O-DWRO300

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.

Keep this Manual for future reference.

System tested and certified by WQA against NSF/ANSI Standards 42, 58, and NSF/ANSI/CAN 372 for Lead Free Compliance. For specific performance and reduction claims verified and substantiated through test data see the performance data sheet.

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

Overview

Thank you for your purchase of a state-of-the-art Pure H2O 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 Pure H2O water treatment system has been designed 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 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.

Your system is a three stage Reverse Osmosis which is based upon separate treatment segments within the one complete water filtration system. These stages are as follows:

1. Stage 1 – Carbon Block Filter, recommended change every 6 months.

The first 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. It is independently tested and verified to trap matter like dirt, silt, and rust.

2. Stage 2- Reverse Osmosis Membrane, recommended change every 2-5 years.

The second stage is the heart of the reverse osmosis system, the 50GPD (Gallons Per Day) RO membrane.

This independently tested and verified semi-permeable membrane will effectively reduce TDS, Sodium and a wide range of contaminants such as Chromium, Arsenic, Copper, and 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.

3. Stage 3- Granular Activated Carbon filter, recommended change every 12 months.

The third stage is a Granular activated carbon (GAC) filter. This filter is used after the water storage tank, as a final polishing filter to the product water. There is an average of

4 gallons of reject water for every 1 gallon of product water produced. That is why the life of the GAC filter is extended to 12 months vs the 6 months Carbon block.

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

WARNING

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

IMPORTANT

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

CAUTION

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.

System Maintenance

It is important to change filters at the recommended interval indicated in this manual. Many contaminants are not detectable by taste. In addition, other bad tastes and odors may become apparent over time if filters are not replaced.

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 call our retail customer service at [888-321-0500](tel:888-321-0500).

Operational Parameters

NOTICE

Installation must comply with state and local plumbing regulations.

NOTICE

System is intended to be installed using the cold water supply only.

Operating Temperatures:	Maximum 100°F (37.8°C)	Minimum 40°F (4.4°C)
Operating Pressure:	Maximum 100 psi (690 kPa)	Minimum 35 psi (341 kPa)
pH Parameters:	Maximum 11	Minimum 2
Iron:	Maximum 0.2 ppm	
TDS (Total Dissolved Solids)	< 1800 ppm	
Turbidity	< 5 NTU	
Hardness	Maximum 10 Grains Per Gallon *	

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 35psi.

WARNING

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 retail customer service at [888-321-0500](tel:888-321-0500) prior to installing.

- Tank
- Module – Carbon Block , Reverse Osmosis Membrane, Granular Activated Carbon Filters (attached to filter head)
- Part bag – Water line tubing, Drain saddle, Adapt-a-valve with brass adapters, drain saddle, tank ball valve, mounting screws and PTFE thread seal tape
- Faucet with all assembly parts

If any of the items are missing please contact retail customer service at [888-321-0500](tel:888-321-0500) prior to installing.

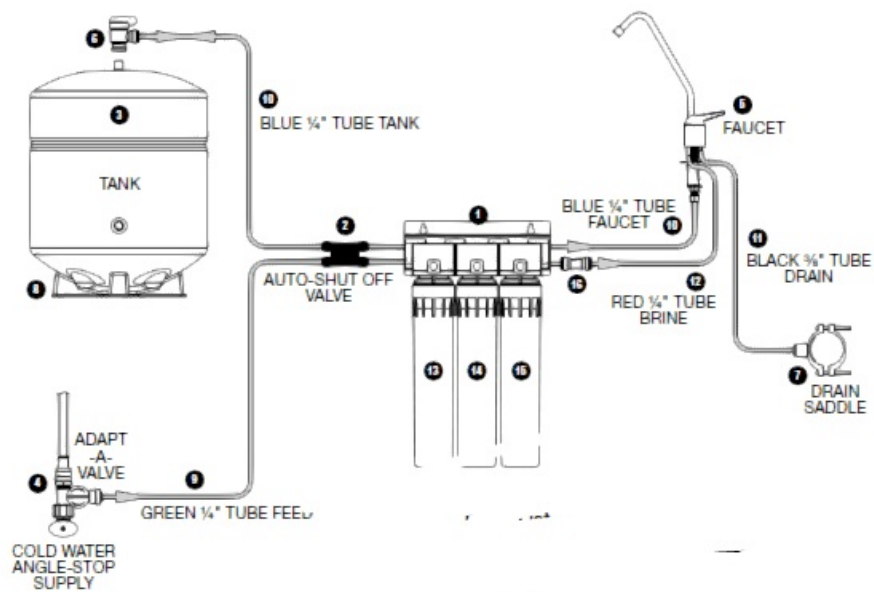


Recommended Tools For Installation

- 1 1/4" Diamond Tipped Hole Saw bit for faucet opening (Counter Tops/Porcelain and Stainless Sinks)
- 1 1/4" adjustable wrench
- Phillips bit for electric drill
- 1/2" open end wrench
- Needle nose pliers
- 5/8" open end wrench
- Adjustable pliers
- Electric drill
- Sharp knife or tube cutter
- 1/8" diamond tip bit, pilot hole
- Phillips screw driver
- 1/4" drill bit for drain saddle hole



Plumbing Diagram and Parts List



Item	Description
1	Filter Module
2	Automatic Shut off Valve
3	Storage Tank – 3 Gallons
4	Adapt-a-Valve
5	Faucet – Standard A/G Chrome
6	Tank Valve – 1/4" FNPT x 1/4" C
7	Drain Saddle – 3/8 QC – Kit
8	Tank Stand
9	1/4" Green Tubing
10	1/4" Blue Tubing
11	3/8" Black Tubing – 3ft. X 1
12	1/4" Red Tubing
13	Carbon Block Filter (H2O-F12)
14	Reverse Osmosis Membrane Filter (H2O-F16)
15	Granular Activated Carbon Filter (H2O-F17)
16	Union Fitting – 1/4" QC X 1/4" QC

Drill a Hole for the Reverse Osmosis Faucet

NOTICE

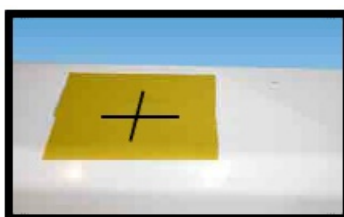
For Marble and granite Counter-tops, we recommend contacting a qualified contractor for drilling a hole in a marble and granite counter-top.

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.

1. Step 1 – Determine desired location for the 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.
2. Step 2 – Using a variable speed drill set on the slowest speed, drill a 1/8" pilot hole with the 1/8th in diamond drill bit 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).



3. Step 3 – Using a 1¼" 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.
4. Step 4 – After drilling, remove all sharp edges and make sure the surroundings of the sink are cooled before mounting the faucet.

Or Punch a Hole for the Faucet in a Stainless Steel Sink

NOTICE

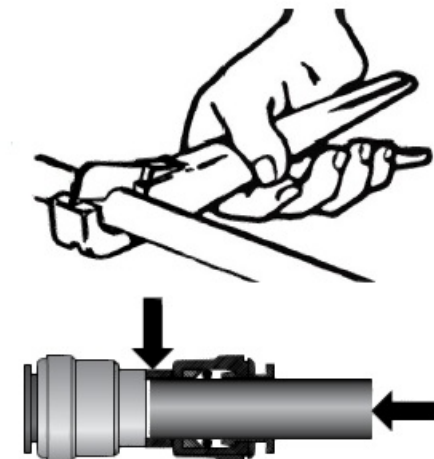
If mounting faucet to a Stainless Steel Sink you will need a 1¼" Hole Punch. The faucet opening should be centered between the back splash and the edge of the sink, ideally on the same side as the vertical drain pipe.

1. Step 1 – Drill a 1¼" pilot hole. Use a 1¼" Hole Punch and an adjustable wrench to punch the hole in the sink.
2. Step 2 – The Faucet can now be installed



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. The system must be tested prior to leaving the site and/or before use.

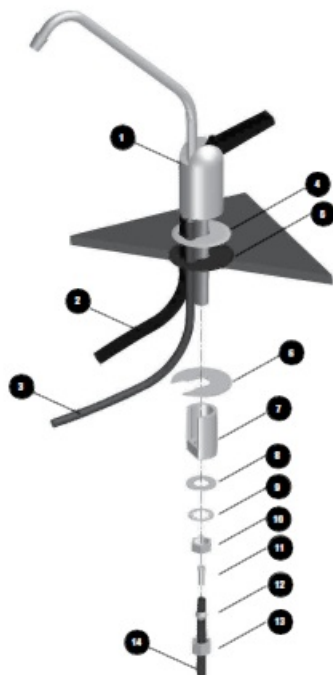
Disconnecting

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.



Faucet Installation

Parts List



Item	Description
1	Faucet
2	Black Drain Tube (3/8" Black)
3	Red Tube 1/4"
4	Escutcheon Plate
5	Full Circle Rubber Gasket
6	Slotted Metal Washer
7	Plastic Sleeve
8	Plain Washer
9	Hex Nut Washer
10	Hex Nut
11	Plastic Tube Insert
12	White Plastic Delrin Sleeve
13	Water Connector Nut
14	Blue Tube 1/4"

1. Step 1 – Remove water connector nut (Item 13) and blue tubing (Item 14) from faucet. (Leave the plastic tube insert and plastic delrin sleeve (Item 11 and 12) on the blue tube).

2. Step 2 – Feed both the red (Item 3) and black tubing (Item 2) through the pre-drilled hole in the sink/counter until faucet is seated.

Step 3 – Under the sink – on to the threaded faucet stem (in order) first slide on the slotted metal washer (Item 6), the plastic sleeve (Item 7) with the open end UP, the plain washer (Item 8), the hex nut washer (Item 9) and

lastly secure with hex nut (Item 10).

3. Step 4 – Make sure the plastic delrin sleeve (Item 12) is on the end of the blue tube; push the white plastic tube insert (Item 11) into the end of blue tubing with the delrin sleeve. Insert the blue tube (Item 14) into the faucet stem and secure with water connector nut with wrench (Item 13).

NOTICE

Secure the nut with a wrench but do not over tighten it.

Adapt-a-Valve Installation

NOTICE

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

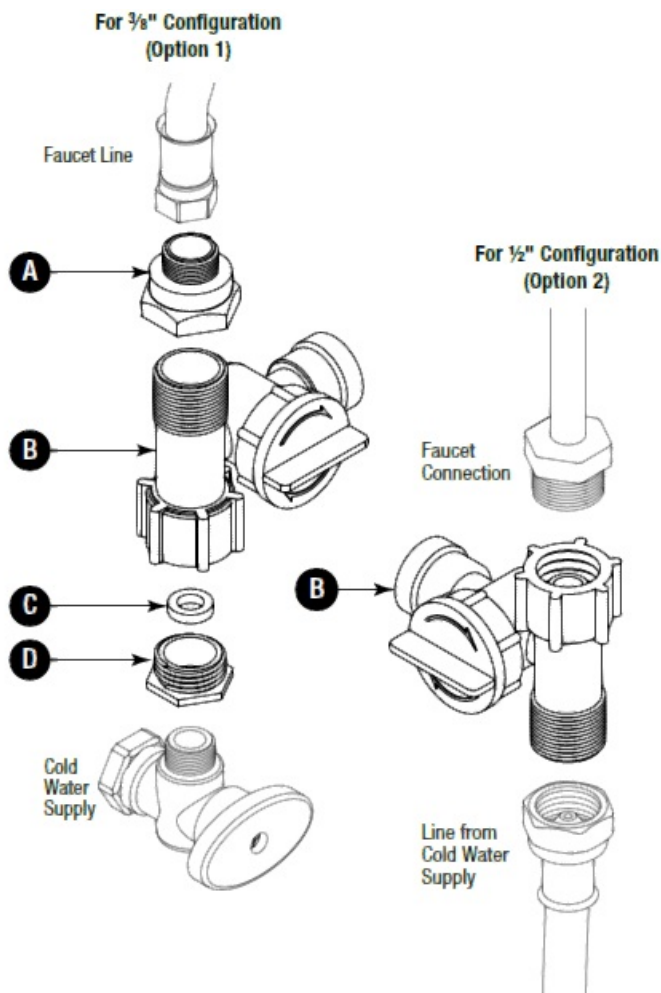
NOTICE

Do not use PTFE thread seal tape with the Adapt-a-Valve™.

NOTICE

Make sure that the black collet is installed into 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.

Parts List for Adapt-a-Valve	
Item	Description
A	Brass Adapter with black washer
B	Plastic Adapt-a-Valve and black collet
C	White Rubber Washer
D	Brass Adapter with no washer



1. Step 1 – Turn off the cold water supply to the faucet by turning the angle stop valve completely off.
2. Step 2 – Open cold water sink faucet to relieve pressure.
3. Step 3 – Disconnect the Faucet Line from the Cold water supply.
4. Step 4 – Choose the configuration that fits your plumbing needs and attach Adapt-a-Valve as instructed and illustrated below.

Option 1: 3/8" Configuration (diagram to left)

- Insert the White Rubber Washer (C) into the opening of Brass Adapter with no washer (D)
- Attach the female end of the Brass Adapter / White rubber washer assembly (C&D) into the male end of the cold water supply
- Attach the female end of the plastic Adapt-a-Valve and Black Collet (B) to the Brass Adapter/White Rubber Washer Assembly (C&D)
- Attach the female end of the Brass Adapter (A) to the male end of the Plastic Adapt-a-Valve and black Collet (B)
- Attach the faucet line to the Brass adapter (A)

Option 2: 1/2" Configuration (diagram to left)

- Attach the Male end of Adapt-a-Valve and Black Collet (B) into the Female end of the cold water supply
- Attach the Male End of the Faucet Connection into the Female end of the Adapt-a-Valve and Black Collet (B)

Drain Saddle Installation

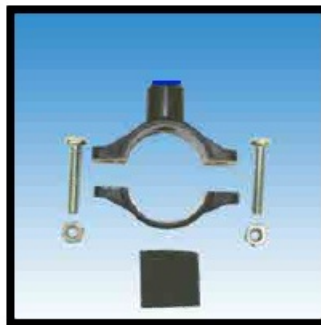
Drain Saddle fits standard 1¼" – 1½" drain pipe

CAUTION

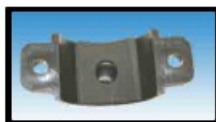
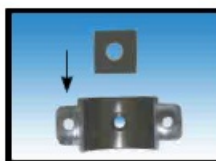
If you have a garbage disposal, do not install the drain saddle near it. Installation of the drain saddle must be either above the garbage disposal, or if a second sink drain is available, install it above the cross bar on the second drain. Installation of the drain saddle near a garbage disposal may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

1. Step 1 – Gather the pieces of the drain saddle

1 Semicircle bracket with opening	2 Screws
1 Foam gasket	2 Nuts for screws
1 Semicircle bracket	



2. Step 2 – 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.
3. Step 3 – The drain saddle must be installed at least 11/2" above the nut of the P-Trap elbow or cross bar from the garbage disposal to insure proper drainage. Using the 1/4" drill bit, drill into the drain pipe at best available location as specified above, for drain saddle installation. Take extreme caution to only drill through one side of the drain pipe.



CAUTION

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

4. Step 4 – Assemble the drain saddle around the drain pipe and align drain saddle fitting opening with the hole drilled in the previous step – you may use a small screwdriver to feed through the drain saddle into the drain

pipe to aid with the alignment. Using a Phillips screw driver tighten the drain saddle bolts evenly and securely on both sides.

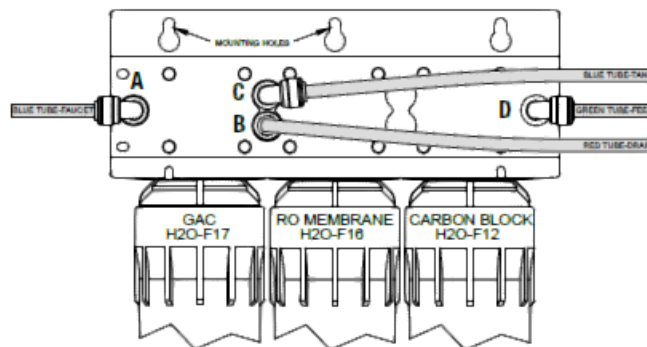
NOTICE

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.

5. Step 5 – 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.
6. Step 6 – Connect the black tube to the open quick connect fitting on the drain saddle by pushing the tube all the way to the tube stop.



Rear View of 3 stage Reverse Osmosis System



Blue Tube Connection (From FAUCET To The Reverse Osmosis (RO) Module)

1. Step 1 – Locate the 1/4" BLUE tube from the RO faucet. Position the module as indicated in the "rear view" picture. Insert the Blue Faucet tube into the 1/4" quick connect fitting (position A) located behind the GAC Filter head making sure the tube is pushed in all the way to the tube stop.

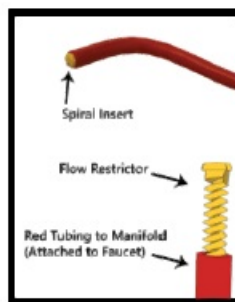
Red Tube Connection (From FAUCET To The Reverse Osmosis (RO) Module)

1. Step 1 – Locate the 1/4" RED tube attached to the RO faucet. Insert the end of the red tube into the 1/4" quick connect fitting attached to the red tubing that's connected to the RO fitting (position B). Make sure the tube is pushed in all the way to the tube stop



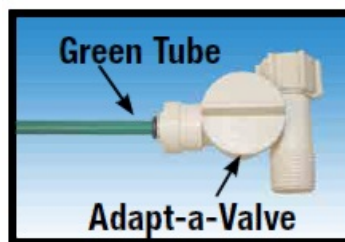
NOTICE

The Flow Restrictor is installed inside of the red tube at the bent end. DO NOT DISCONNECT OR CUT THE RED TUBING NEAR THE BENT END AS IT WILL DAMAGE THE FLOW RESTRICTOR.



Green Tube Connection

1. Step 1 – Insert the open end of the green 1/4" tube from AUTO-SHUT OFF VALVE into the Black Collet of the Adapt-a-Valve making sure the tube is pushed in all the way to the tube stop. See Diagram on the right



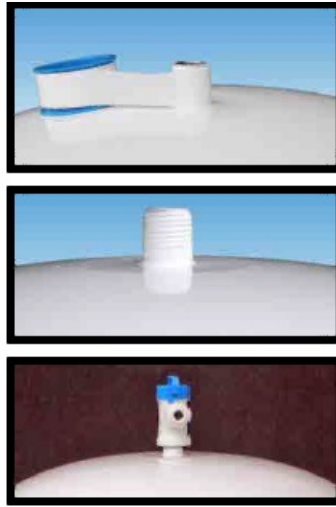
Reverse Osmosis Module

1. Mounting Step 1 – Determine best location for the RO module to be mounted to allow for future system maintenance. Recommended best location is 6" away from the cabinet side walls, and 10" from the bottom of the cabinet for ease of installation and filter change. The parts bag has 2 self tapping screws. Using an electric drill with a Phillips bit, secure the screws to the cabinet wall at locations that align with the hole spacing on the module bracket.



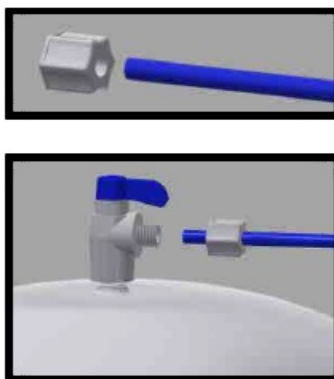
Tank Ball Valve Installation

1. Step 1 – PTFE thread seal 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.
2. Step 2 – Thread the compression tank ball valve (supplied in the parts bag) onto the stainless steel connector on the tank.



Blue Tube Connection (From The Tank to Shut off Valve and from Shut off Valve to the Reverse Osmosis Module)

1. Step 1 – 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.
2. Step 2 – To the Blue tank tube (from position C) apply the compression fitting to the cut edge side of the tube. Make sure the compression fitting threaded opening is facing the cut end of the tube as shown in the figure.
3. Step 3 – Insert the square edge cut end of the blue tube into the Tank Valve opening. Using clockwise rotation, tighten the compression fitting to the Tank Valve securing the tube in place.



See Diagram to right.

NOTICE

Set the blue Tank valve knob in-line with the blue tube, this is the “open” position.

Start up Instructions

Congratulations! You have completed the installation of your new water filtration system.

Please Follow the Startup Instructions.

1. Step 1 – Turn on the incoming cold water at the angle stop valve and the Adapt-a-Valve. Check ON the system for leaks and tighten any fittings as necessary. (Check frequently over the next 24 hours to ensure no leaks are present).



NOTICE

If you have connected your RO system to a refrigerator / ice maker, make sure the ice maker is off (do not allow water to flow to the ice maker) until flushing (Step 4) 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.

2. Step 2 – Open the RO faucet and leave it open until water begins to trickle out (this may take a few minutes and the water will come out slowly).
3. Step 3 – Close the RO faucet allowing the storage tank to fill with water. It may take 3 to 6 hours to fill the tank completely depending on the production capability of the membrane, local water temperature and water pressure. You will know that the water tank is filled when you no longer hear the water flow sound from the tank.
4. Step 4 – After the storage tank has filled open the RO Faucet to flush the tank completely. You will know that the tank is empty when the flow rate from the RO faucet is down to a trickle. Repeat this step two more times. The fourth tank can be used for drinking.
The flushing process should take about a day to complete.

NOTICE

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

Product Registration

To Register your product, please visit www.watts.com/pureh2o and select "Register Now". Watts is concerned for the safety of your personal information. Watts collects personal information when you register with Watts. 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 will send you certain types of communications such as direct mail, email, or by telephone relating to our products or products that you have purchased only with your prior permission. 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.

See our privacy policy at – <http://www.watts.com/privacy.asp> See Terms of Use at – <http://www.watts.com/terms.asp>

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 and cartridges may be

swiveled up to 90 degrees as shown in the pictures to the right.

To buy replacement part(s) please visit the retail store or their website or contact Watts retail customer service at [888-321-0500](tel:888-321-0500)

Month System Maintenance

Replace:

- Carbon Block Filter.....H2O-F12 (PN # 88005217)
Capacity- 6 months / 2000 Gallons

Annual Maintenance –

(Sanitization Recommended See page – 12)

- Carbon Block Filter.....H2O-F12 (P/N # 88005217)
Capacity- 6 months / 2000 Gallons
- Granular Activated Carbon Filter...H2O-H17 (P/N # 88005219)
Capacity- 12 months / 2000 Gallons

TIP: This is a good time to check the air pressure in your storage tank. For instructions please see page 13.

NOTICE

Flush first tank after completing the annual maintenance.

Membrane Replacement (2 – 5 Years)

Replace:

- Reverse Osmosis Membrane Filter...H2O-F16 (P/N 88005218) Capacity- 2-5 years

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. Pure H2O recommends replacing the membrane when TDS reduction falls below 75%.

1. Step 1 – Place a towel under the RO module to catch any excess water that may drip out from the filters during the changeover.
2. Step 2 – To remove a filter cartridge: Push and hold the button on the valve head above the filter. Twist filter counter-clockwise for about 45 degree while pulling downward (from the head). Release button and discard old filter.
3. Step 3 – To install a filter cartridge: Remove the seal cap and insert the cartridge into the filter head, push upward and twist the filter clock-wise for about 45 degree until you hear an audible “click” (the button does not need to be pressed to install new filters)

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 H2O-F16 as defined by Pure H2O to assure the same efficiency and contaminant reduction performance.

Step 2



Step 3-1



Step 3-2



Step 3-3



NOTICE

Tubing not shown in above pictures. Do not remove the tubing while changing the filter. Photographs for reference purposes only. Your system may contain 1, 2, or 3 filter cartridges.

Annual Sanitization

NOTICE

Do not change your Granular Activated Carbon filter until the sanitization has been completed. The Carbon Block and Reverse Osmosis Membrane can be changed before the sanitization.

1. 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.
2. Step 2 – Locate the tube that runs between your filter module and the storage tank and disconnect at both ends.
3. Step 3 – Drain any remaining water in the tube.
4. 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.

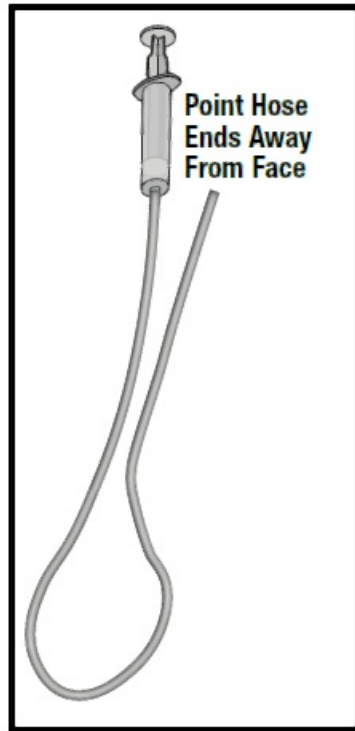
WARNING

Do not use needle syringe

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

5. 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.
6. Step 6 – Turn the incoming water back on and let the system fill for approximately 3 to 6 hours.
7. Step 7 – Turn off the incoming water and let the system sit for 1 minute.
8. Step 8 – Drain the system completely and then follow the startup procedure – filling then draining three full tanks of water.
9. Step 9 – Replace the Granular Activated Carbon filter once complete.



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.

3. 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)
4. Step 4 – Follow startup procedure on page 10.

Procedure for Extended Non-Use

(More than 2 months)

Turn off the water supply to your RO system at the Adapt-a-Valve and open the RO faucet to drain the storage tank. Once the storage tank is empty, remove all filter cartridges as shown in the 'Changing The Filter Cartridges' section on page 11 (order not important), place them into a sealed plastic bag and store in your refrigerator.

NOTICE

DO NOT FREEZE.

To Restart System:

1. Step 1 – Install the filters as shown in the 'Changing The Filter Cartridges' section on page 11.
2. Step 2 – Turn on water supply to the system at the Adapt-a- Valve. (Check frequently over the next 24 hours to ensure no leaks are present).

NOTICE

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

3. Step 3 – Open the RO faucet and leave it open until water begins to trickle out (it will come out slowly).
4. Step 4 – Close the RO faucet allowing the storage tank to fill with water. It may take 3 to 6 hours to fill the tank completely depending on the production capability of the membrane, local water temperature and water pressure.
5. 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.

Performance Data Sheet

Pure H2O

- In U.S.-Watts Regulator Co., N. Andover, MA 01845 (Watts.com)
- In Canada-Watts, Water Technologies (Canada), Inc. Burlington, ON L7L 5H7 (Watts.ca)

3-Stage Reverse Osmosis System – H2O-DWRO300

GENERAL USE CONDITIONS

1. 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.
2. Operating Temperature: Maximum: 100°F (37.7°C) Minimum 40°F (4.4°C)

3. Operating Water Pressure: Maximum 100-psi (690 kPa) Minimum: 35 psi (341 kPa)
4. Rated service flow: 0.5 GPM
5. pH 2 to 11
6. Maximum Iron present in incoming water supply must be less than 0.2 ppm.
7. Hardness of more than 10 grains per gallon (170 ppm) may reduce RO membrane life expectancy.
8. Recommend TDS (Total Dissolved Solids) not to exceed 1800 ppm.

Recommended Replacement Parts and Change Interval		
Note: Depending on incoming feed water conditions replacement time frame may vary.		
Description	Model / Part Number	Change Time Frame
Carbon Block Filter	H2O-F12 / 88005217	6 Months or 2000 Gallons
Reverse Osmosis Membrane	H2O-F16 / 88005218	2 to 5 years
Granular Activated Carbon Filter	H2O-F17 / 88005219	12 Months or 2000 Gallons

This system has been tested according to NSF/ANSI 58 for 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 as specified in NSF/ANSI 58 and 42. This system has been tested for the treatment of water containing pentavalent arsenic (also known as As (V), As (+5), or arsenate) at concentrations of 0.30 mg/L or less. This system reduces pentavalent arsenic, but may not remove other forms of arsenic. This system is to be used on water supplies containing a detectable free chlorine residual at the system inlet or on water supplies that have been demonstrated to contain only pentavalent arsenic. Treatment with chloramine (combined chlorine) is not sufficient to ensure complete conversion of trivalent arsenic to pentavalent arsenic. Please see the Arsenic Facts section of the Performance Data Sheet for further information.

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

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)	0.30	0.004	98.8%	7.77	50psi	0.009	0.30±10%	0.010 mg/L
Barium Reduction	9.7	0.19	98.0%	7.21	50psi	0.27	10.0±10%	2.0
Cadmium Reduction	0.03	0.0013	95.7%	7.61	50psi	0.0008	0.03±10%	0.005
Chlorine	2.05	0.03	97%	7.0 – 8.0	N/A	2.4	2.0 mg/L ± 10%	2.2
Chromium (Hexavalent)	0.29	0.002	95.8%	7.77	50psi	0.002	0.03±10%	0.1
Chromium (Trivalent)	0.33	0.004	98.9%	7.21	50psi	0.004	0.03±10%	0.1
Copper Reduction	3.1	0.0056	96.3%	7.61	50psi	0.062	3.0±10%	1.3
Cysts	92,000/ml	3/ml	99.97%	7.44	50psi	18	minimum 50,000/mL	N/A
Fluoride Reduction	8.5	0.3	96.5%	7.24	50psi	0.3	8.0±10%	1.5
Lead Reduction	0.15	0.002	98.8%	7.39	50psi	0.005	0.15±10%	0.0107
Radium 226/228	25pCi/L	5pCi/L	98.0%	7.21	50psi	5pCi/L	25pCiL±10%	5pCiL
Selenium	0.11	<0.001	>99.1%	7.37	50psi	<0.001	0.10±10%	0.05
TDS	727	13.7	98.1%	7.28	50psi	19.9	750±40mg/L	187
Turbidity	11	<0.1 NTU	99.1%	7.67	50psi	<0.1 NTU	11±1mg/L	0.5NTU
Recovery – 24.7%			Production Rate – 23.4 GPD			Efficiency – 12.7%		

Troubleshooting

Problem	Cause	Solution
Low/Slow Production	Low Water Pressure	Assure a minimum of 35 psi incoming water pressure. Watts 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.
	Crimps in tubing	Check tubing and straighten or replace as necessary.
	Clogged Carbon Block Filter	Replace Carbon Block Filter.
	Fouled Reverse Osmosis Membrane	Replace membrane.
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.
Water constantly running, unit will not shut off	Low water pressure	See #1 Above
	Crimp in supply tube	Check tubing and straighten or repair as necessary
	High water pressure	Check incoming water pressure to make sure it does not exceed 100 psi. A pressure regulator will be required (not included with the system).
	High pressure in Tank	Empty storage tank of water. Set tank air pressure between 5-7 psi. See previous page.
	Low Pressure in Tank	Use a Digital Air Gauge for best results. The empty tank pressure should be 5-7 psi. See page 13.
Water from faucet vent hole or noise from drain	Crimp or restriction in drain line	Check tubing and straighten or repair as necessary. Straighten all drain lines. Clear blockage. Cut off any excess tubing from the drain line and reinstall the drain line per the instructions. Check for leaks
	Drain tube clogged	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. Check for leaks. blowing air through the line will not always remove the clog.
Small amount of water in storage tank	System starting up	Normally it takes 3 hours to fill tank. Note: low incoming water pressure and/or temperature can drastically reduce production rate.
	Low water pressure	See #1 above.
	Too much air in tank	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.
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 13.

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 Pure H2O 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 Pure H2O has conducted additional field testing on our reverse osmosis units to determine trivalent arsenic reduction capabilities. Based upon Pure H2O 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 [888-321-0500](tel:888-321-0500).

Service Record

- Date of Purchase: _____
- Date of Install: _____
- Installed by: _____
- NOTES:
- Model Number: _____
- Serial Number

Date	Carbon Block Filter H2O-F12 (6 months)	Reverse Osmosis Membrane H2O-F16 (2-5 years)	Granular Activated Carbon Filter H2O-F17 (12 months)

NOTES:

Limited Warranty

What Your Warranty Covers:
 Watts warrants your H2O-DWRO300 (excluding replaceable filters) to be free from defects in material and workmanship under normal usage for a period of one year from the date of original purchase. If any part of this system is found to be defective within the warranty period, return the system after obtaining a return authorization from Watts (see below), and Watts will repair, or at Watts’ option, replace the system at no charge.

How to Obtain Warranty Service:

To obtain warranty service, call [888-321-0500](tel:888-321-0500) for a return authorization number. Then, ship your system to our factory, freight and insurance prepaid, with proof of the date of original purchase. Please include a note stating the warranty problem. Watts will repair, or at Watts' option, replace the system and ship it back to you at no charge.

What this Warranty Does Not Cover:

This warranty does not cover defects resulting from improper installation (installation contrary to Watts printed instructions), abuse, misuse, misapplication, improper maintenance, neglect, alteration, accidents, casualties, fire, flood, freezing, environmental factors, water pressure spikes, adverse water conditions or other events or conditions beyond Watts' control.

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 2 or higher than 11.
3. The incoming water pressure must be between 35 and 100 pounds per square inch.
4. Incoming water to the system cannot exceed 100 degrees F (38 degrees C.)
5. The hardness of the water should not exceed 10 grains per gallon, or 170 ppm.
6. Maximum incoming iron must be less than 0.2 ppm.
7. Incoming TDS/Total Dissolved Solids not to exceed 1800 ppm. 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.

Other Conditions:

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

Limitations and Exclusions:

THE WARRANTY SET FORTH HEREIN IS GIVEN EXPRESSLY AND IS THE ONLY WARRANTY GIVEN BY WATTS WITH RESPECT TO THE SYSTEM. WATTS MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED. WATTS HEREBY SPECIFICALLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. The warranty remedy described above shall constitute the sole and exclusive remedy for breach of warranty, and Watts shall not be responsible for an incidental or consequential damages, including travel expense, telephone charges, loss of revenue or profits, loss of time, inconvenience, loss of use of the equipment, or loss or damage caused by this system and its failure to function properly. This warranty sets forth all of Watts responsibilities regarding this system.

Your Rights Under State Law:


Some states do not allow the exclusion or limitation of incidental or consequential damages and some states do not allow limitations on how long implied warranties may last. Therefore, the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights, which vary from state to state. SO FAR AS IS CONSISTENT WITH APPLICABLE STATE LAW, ANY IMPLIED WARRANTIES THAT MAY NOT BE DISCLAIMED, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED IN DURATION TO ONE YEAR FROM THE DATE OF ORIGINAL PURCHASE.

USA: T: [888-321-0500](tel:888-321-0500) • Watts.com

Canada: T: [905-332-4090](tel:905-332-4090) • Watts.ca

Latin America: T: (52) 55-4122-0138 • Watts.com

Documents / Resources

	<p>WATTS H2O-DWRO300 Reverse Osmosis System [pdf] Installation Guide H2O-DWRO300 Reverse Osmosis System, H2O-DWRO300, Reverse Osmosis System, Osmosis System, System</p>
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References

- [Watts | Plumbing, Heating and Water Quality Solutions](#)
- [Watts | Plumbing, Heating and Water Quality Solutions](#)
- [Pure H2O by Watts](#)
- [User Manual](#)

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