

Installation, Operation and Maintenance Manual

Ultra Filtration Membrane Water Filtration System

Model PWSYS-UF-KC3

PURE WATER

Important

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

Save manual for future reference.



PWSYS-UF-KC3

Table of Contents

Operational Parameters	3
Contents of PWSYS-UF-KC3	3
Tools Recommended for Installation	3
Drill a Hole for the Faucet in a Porcelain Sink	3
Punch a Hole for the Faucet in a Stainless Steel Sink	3
How To Use Quick-Connect Fittings For Tubing Connections	4
Faucet Installation	5
Adapt-A-Valve™ Installation	5
Green Tube Connection	6
UF Drinking System Module Mounting	6
Blue Tube Connection	6
System Start up.	6
6-Month System Maintenance.	7
Annual Maintenance	7
Parts List / Unit Drawing	8
Limited Warranty	8

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

Introduction

Thank you for your purchase of a state of the art Watts water treatment system. Your new system is equipped with a unique swivel valve in head assembly. This allows for a simple and sanitary twist off filter change that does not require you to turn off the water source to the filtration system.

This 3-Stage system is equipped with a Sediment Prefilter, a high quality Carbon Block Filter and the Ultra Filtration Membrane.

The sediment filter reduces sand, silt, sediment and rust particles that may be in your water. The second stage is a high quality carbon block filter for chlorine, taste and odor reduction. The third stage is our state of the art UF Hollow Fiber Technology membrane for the removal of cysts like Crypto and Giardia.

Ultra filtration is a membrane filtration process which uses standard home water pressure to push water through its semi-permeable membrane. Suspended particles and materials of high molecular weight are unable to pass through the 0.2 micron UF membrane, allowing only fresh clean water and dissolved minerals to pass through. Historically this separation process has been used in large municipal water treatment plants and hospitals; however through advances in technology it is now available to you as a powerful under sink water filtration plant in your home.

Ultra filtration is capable of running at low water pressures, does not require a separate water holding tank, does not alter the pH of your water and does not require electricity. Due to this, the PWSYS-UF-KC3 provides a continuous supply of premium quality drinking water directly to your tap.

System Maintenance

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

This is why it is important to change out your filter at the recommended intervals as indicated in this system manual. When replacing the filter elements, pay special attention to any cleaning instructions. Should you have any further questions please refer to our website at www.watts.com or call our customer service department at **1-800-244-1299**.

With proper installation and maintenance, this system will provide you with high quality water for years to come. If you have any questions or concerns, please contact our Customer Service department at 1-800-244-1299 or refer to our on-line troubleshooting at www.watts.com.

Service Record

Model Number: _____ Serial Number: _____

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

DATE	SEDIMENT FILTER (6 MONTHS)	CARBON BLOCK (6 MONTHS)	UF MEMBRANE (12 MONTHS)	DATE	SEDIMENT FILTER (6 MONTHS)	CARBON BLOCK (6 MONTHS)	UF MEMBRANE (12 MONTHS)

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 85psi (6.0 kg/cm ²)	Minimum 20psi (2.80 kg/cm ²)
pH Parameters	Maximum 10	Minimum 5
Flow Rate	0.5 GPM @ 60psi	

Contents of UF Under Counter System

- 1 Filtration System
- 1 Parts Bag
- 3 Filters - Attached
- 1 Faucet Assembly

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

Tools Recommended for Installation

- Small knife
- Variable Speed Drill
- ½" & ⅝" Open End Wrenches
- ½" Hole Punch (for stainless steel sinks)
- ½" Diamond Tip Drill Bit (for porcelain sinks)
- ⅛" Drill Bit
- ¼" Drill Bit
- 7/16" Drill Bit
- Phillips Screw Driver

STEP 1

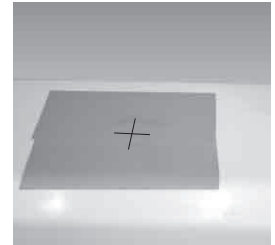
Drill a Hole for the Faucet in a Porcelain Sink

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

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

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

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



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



Step C – Using a ½" 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 D – Make sure the surroundings of the sink are cooled before mounting the faucet to the sink after drilling and remove all sharp edges.

OR

Punch a Hole for the Faucet in a Stainless Steel Sink

Note: If mounting faucet to a Stainless Steel Sink you will need a ½" 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 A – Drill a ¼" pilot hole. Use a ½" Hole Punch and an adjustable wrench to punch the hole in the sink.

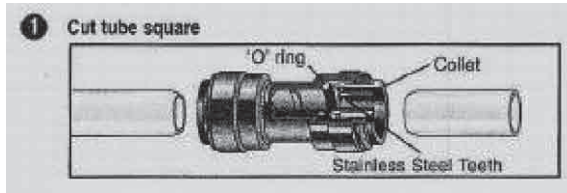


The faucet can now be installed.

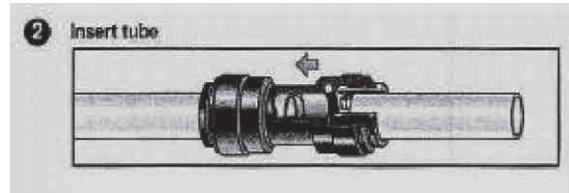
How to use the Quick-Connect fittings on the UF Module

To make a connection, the tube is simply pushed into the fitting. Place a piece of tape 1/2" from end of tube to indicate how far the tube should be inserted. The unique patented Quick-Connect lock-

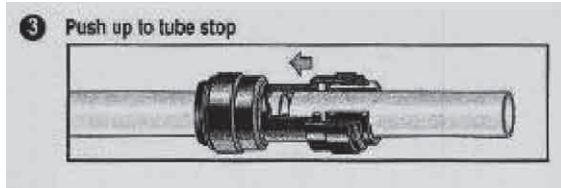
ing system holds the tube firmly in place without deforming it or restricting flow.



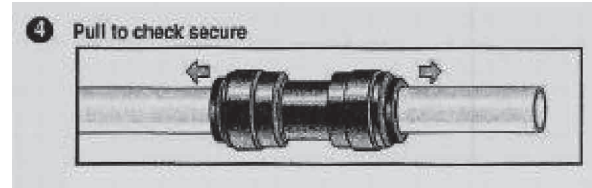
Cut the tube square. It is essential that the outside diameter be free of score marks and that burrs and sharp edges be removed before inserting into fitting.



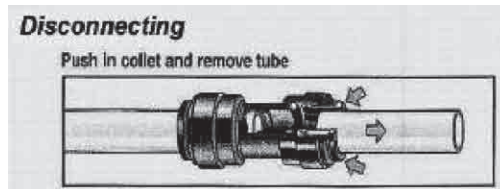
Fitting grips before it seals. Ensure tube is pushed into the tube stop.



Push the tube into the fitting, to the tube stop. The collet (gripper) has stainless steel teeth which hold the tube firmly in position while the O-ring provides a permanent leak proof seal.



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



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

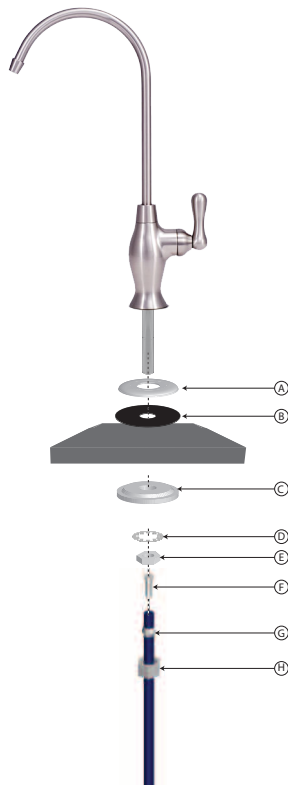
STEP 2

Faucet Installation

PARTS LIST FOR FAUCET	
ITEM	DESCRIPTION
A	Escutcheon Plate
B	Black Rubber Washer
C	Black Locating Washer (use where a 1/2" hole is available, reverse when mounting on stainless steel or when using drilled hole)
D	Lock Washer
E	Nut
F	Brass Insert (sleeve)
G	Plastic Sleeve
H	1/4" Compression Nut

Gather and identify the faucet pieces.

- Step A** - Place the escutcheon chrome plate and the black rubber washer on the faucet shank. (Parts found in faucet parts bag).
- Step B** - Insert the faucet shank through the hole in sink and let it rest on the sink top.
- Step C** - From the underside of the sink, slide on the location washer, lock washer and brass nut onto the shank. Check for orientation the tighten brass nut securely.
- Step D** - Locate the Blue tube from the UF module. Measure the tube from the unit over to the faucet and cut it to the 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 the sleeve must point to the end of tube) and then insert the brass insert all the way into the end of the tube.
- Step E** - Push the assembled blue tube into the faucet until it stops. Slide brass nut and plastic sleeve down until you can thread nut onto the faucet. Use a wrench to securely tighten the brass nut while continuing to push the tube into the faucet.



STEP 3

Adapt-A-Valve™ Installation

Caution: Water supply line to the system must be from the cold water supply line only.

Hot water will severely damage your system.

Configuration for 1/2 inch valve
(using no brass fittings)

Figure 1



Configuration for 3/8 inch valve
(using brass fittings)

Figure 2

(Do not use Teflon tape on this fitting.)
Both sides of this fitting are compression seals.



Figure: 2

Placement diagram for Adapt-A-Valve™

Figure 3



Hot Supply **Cold Supply**

Figure: 3

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

Step B – Attach the Adapt-A-Valve™ as illustrated in Fig 2, Fig 3, choosing the configuration that fits your plumbing needs

Step C – Completed Valve installation Figure: 3.

STEP 4

Green Tube Connection

Step A – Locate green tube attached to the Filter Module. Insert the open end of the green 1/4" tube into the open 1/4" Quick-Connect fitting on the Adapt-A-Valve™ making sure the tube is pushed in all the way to the tube stop.



Step B – Connect the green tube from the Filter module to the Adapt-A-Valve™ that is connected to the angle stop valve. Leave enough tube so it is not kinked and cut the tube to the desired length.

STEP 5

UF Drinking System Module Mounting

Step A – Determine best location for the UF Filter 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 UF system tubes at this time

System Start Up

Step A– Turn on water supply at angle stop and open the Adapt-A-Valve™. Turn faucet handle to the open position to start the flow of water through the unit. Run 3 gallons of water through the unit in order to flush out the normal black carbon fines (it will “sputter” until the air is purged out) from the unit. Initially, the water may appear cloudy which is due to tiny air bubbles and it will clear up shortly. Close the faucet when finished.

Step B – Check for leaks. If you have any leaks, shut off the water supply to your system, tighten any fittings / housings and restart unit.

Check frequently over the next 24 hours to ensure no leaks are present

6-Month System Maintenance

Order filter by calling Watts at 1-800-224-1299

Item Needed: EDP# 7100116

Includes:

- (1) Sediment Filter
- (1) Carbon Block Filter

Note: Your UF Drinking Water Module is equipped with valved heads which will automatically turn off the water supply to each filter when the filter is released, thus you do not need to turn off the incoming water supply at the Adapt-A-Valve™. The faucet must be off when filters are replaced.

Step A – Place the towel under the UF Drinking Water Module to catch any excess water that drips out from the filters during the changeover.

Step B – To make the removal of the filter housings easier, the heads & housings may be lifted up to 90 degrees as shown in the pictures to the right. Starting with the sediment filter, lift the cartridge up to 90 degrees. Rotate the cartridge a ¼ turn counterclockwise, remove and dispose of used cartridge.



Step C – Make sure to remove the cap off of the new replacement filter. Insert the new filter cartridge into the head and rotate it clockwise ¼ turn until it stops. Return cartridge to the vertical position.



Step D – Repeat this procedure for the 2nd filter cartridges. When finished, flush your tank completely once to remove any natural carbon fines from the UF Drinking system. Check over the next 24 hours to ensure no leaks are present.



Photographs for reference purposes only for Kwik-Change™ drinking water systems. Your system may contain 2, 3, or 4 filter cartridges.



Annual Maintenance

Order filter by calling Watts at 1-800-224-1299

Item Needed: EDP# 7100118

Includes:

- (1) Sediment Filter
- (1) UF Membrane
- (1) Carbon Block Filter

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

Step A – Place the towel under the UF Drinking water module to catch any excess water that drips out from the filters during the changeover.

Step B – To make the removal of the filter housings easier, the heads & housings may be lifted up to 90 degrees as shown in the pictures to the right. Starting with the sediment filter, lift the cartridge up to 90 degrees. Rotate the cartridge a ¼ turn counterclockwise, remove and dispose of used cartridge.



Step C – Make sure to remove the cap off of the new replacement filter. Insert the new filter cartridge into the head and rotate it clockwise ¼ turn until it stops. Return cartridge to the vertical position.



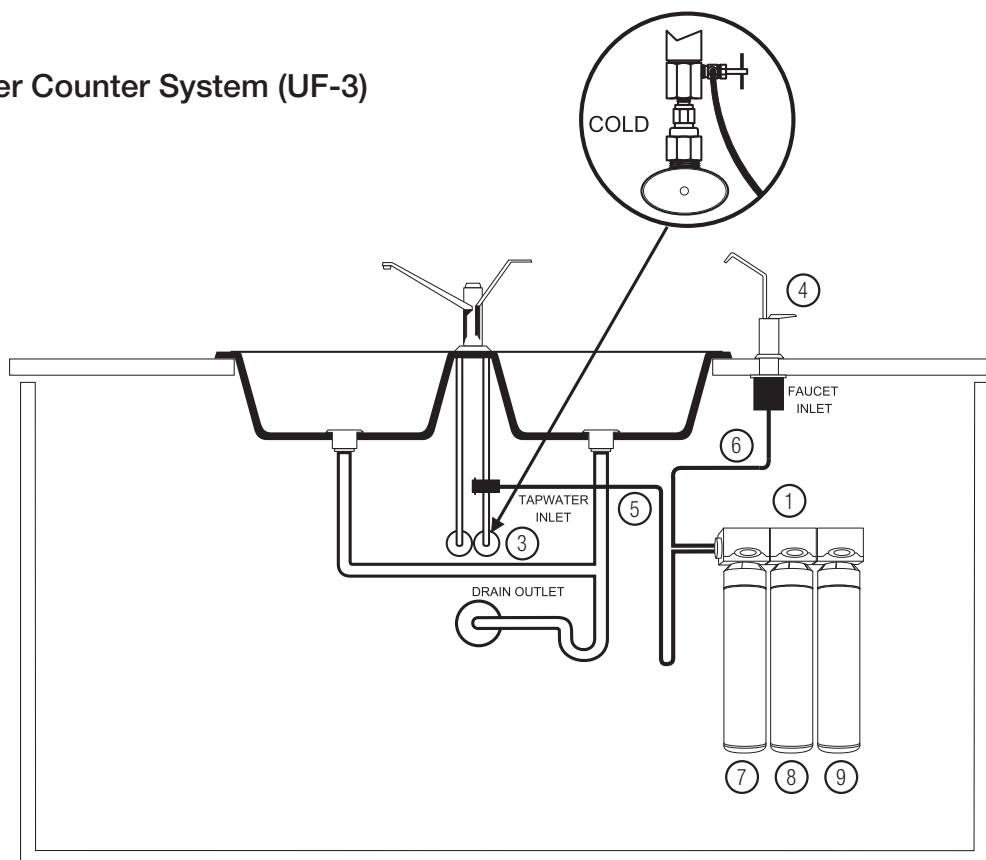
Step D – Repeat this procedure for the 2nd and 3rd filter cartridges. When finished, flush your tank completely once to remove any natural carbon fines from the UF Drinking Water system. Check over the next 24 hours to ensure no leaks are present.



Photographs for reference purposes only for Kwik-Change™ drinking water systems. Your system may contain 2, 3, or 4 filter cartridges.

Parts List

3-Stage Under Counter System (UF-3)



ITEM #	EDP #	DESCRIPTION
1	7300051	MODULE
2	7300034	ELBOW - 1/4" QC X 1/4" STEM (NOT SHOWN)
3	7300068	ADAPT-A-VALVE™
4	7100216	NON-AIRGAP FAUCET - BRUSH NICKEL
5	7300066	1/4" GREEN TUBING
6	7300065	1/4" BLUE TUBING
7	7100469	SEDIMENT FILTER
8	7100109	CARBON BLOCK FILTER
9	7100470	UF FILTER
10	7300087	TUBE INSERT (NOT SHOWN)
11	7300086	DELRIN SLEEVE (NOT SHOWN)

CALIFORNIA PROPOSITION 65 WARNING

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. (California law requires this warning to be given to customers in the State of California.)

For more information: www.watts.com/prop65

LIMITED WARRANTY: Certain Watts Pure Water products come with a limited warranty from Watts Regulator Co. Other products may have no warranty or are covered by the original manufacturer's warranty only. For specific product warranty information, please visit www.watts.com or the published literature that comes with your product. Any remedies stated in such warranties are exclusive and are the only remedies for breach of warranty. **EXCEPT FOR THE APPLICABLE PRODUCT WARRANTY, IF ANY, WATTS MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED. TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, WATTS HEREBY SPECIFICALLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND IN NO EVENT SHALL WATTS BE LIABLE, IN CONTRACT, TORT, STRICT LIABILITY OR UNDER ANY OTHER LEGAL THEORY, FOR INCIDENTAL, INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR PROPERTY DAMAGE, REGARDLESS OF WHETHER IT WAS INFORMED ABOUT THE POSSIBILITY OF SUCH DAMAGES.**

WATTS®

A Watts Water Technologies Company

USA: North Andover, MA • Tel. (800) 224-1299 • www.watts.com

Canada: Burlington, ON • Tel. (888) 208-8927 • www.wattscanada.ca