

## 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 and possible damage to property.

# MODEL Ultra-UV-R





System Tested and certified by NSF International against ANSI/NSF Standard 53 for the reduction of claims specified on the performance data sheet.

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

Peoria, AZ 85381

Fax: 623-866-5666

Watts Premier, Inc. Phone: 800-752-5582 8716 W Ludlow Drive Suite #1 www.premierH2o.com

Manual #: 199334 Manual Date:8/06/05

## **Service Record**

## **Table of Contents**

Operational Par Contents of Ultr Tools Recomme Installation Faucet Installati Adapt A Valve II UV Lamp Repla UV-R Diagrahm Preformance Da	rametersra UV-R Systemended For Insta ion nstallation acement	nllation			
Date of Purcha	ase:	_ Date of Instal	li:	Installed by:	
DATE	FILTER	DATE	FILTER	DATE	FILTER
				<u>-</u>	
NOTES:					

Thank you for your purchase of a UV-R system. With proper installation and maintenance, this system will provide you with high quality water for years to come. All of Watts 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 online troubleshooting at www.premierH2o.com.

## **Operational Parameters**

Do not use with water that is microbiologically unsafe or of unknown quality, without adequate disinfection before or after the system. Installation needs to comply with state and local plumbing regulations.

	Maximum	Minimum		
Operational Temperature	100°F (37.8°C)	40°F (4.4°C)		
Operating Pressure	100 psig (7.43 g/cm <sup>2</sup> )	20 psig (1.406 kg/cm <sup>2</sup> )		
pH Parameters	10	5		
Flow Rate	0.5 GPM @ 60 psig			

## **Contents of Ultra- UV-R System**

- 1 Ultra-UV-R system
- 1 120V/60Hrz Transformer
- 1 Manual and Warranty Card

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

## **Tools Recommended For Installation**

- √ small knife
- √ variable speed Drill
- $\sqrt{1/8}$ " (3 mm), 1/4" (6.4 mm) and 7/16" (11.0 mm) drill bits
- $\sqrt{1/2}$ " and 5/8" open-ended wrenches (or adjustable wrenches)
- √ Phillips screwdriver

#### Installation

- Locate a space under the sink that allows the unit to be mounted close to the cold water supply and allows for easy access during maintenance and filter changes. System must be installed to the cold water supply only. Allow 2" (5cm) clearance between the bottom of the filter housing and the floor of the sink cabinet. Using the mounting hole on the bracket, mark the location for the mounting screws on the cabinet wall under the sink.

  Screw the (2) screws into the wall at the marked location. The Ultra-UV-R bracket is designed to be mounted without removing the screws. Hang the Ultra-UV-R-2 module on the screws using the mounting holes in the bracket.
- Step 2. Special Note: Porcelain sink surface material is extremely hard and can crack or chip quite easily. Use extreme caution if drilling. Watts Premier accepts no responsibility for consequential damage resulting from the installation of faucet to the sink or counter top.

Colored faucets can be ordered through Watts/Premier's toll-free customer service department by calling 1-800-752-5582 in the Continental United States, online at www. premierH2o.com or 480-675-7995 outside the United States.

A. Remove faucet kit from plastic bag and locate each of the following parts (as shown in Figure A)

Note: Remove plastic tubing from faucet body before inserting long reach spout into faucet body.

### Note: If using existing hole (sprayer or soap dispenser) go to Step G.

- A. Determine desired location for the faucet on your sink surface.
- B. Place a piece of masking tape or duct tape on location where the hole is to be drilled. Mark the center of the hole on the tape.

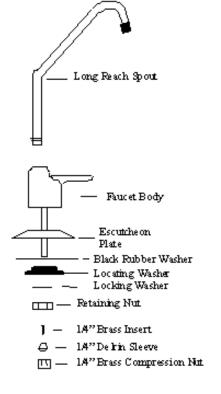
Note: Stainless steel sinks go to Step F.

#### **Porcelain Sinks**

- C. Using the variable speed drill on the slowest speed, drill a 1/8" (3.0 mm) pilot hole at the center of the desired location. Use lubricating oil or liquid soap to keep the drill bit cool while drilling. Note: If drill bit gets hot it may cause the porcelain to crack or chip. Pilot hole must be drilled through both porcelain and metal casing of the sink before proceeding to the next step.
- D. Enlarge pilot hole to ½" (6.4 mm). Keep drill speed on the slowest speed and use lubricating oil or liquid soap to keep drill bit cool.
- E. Enlarge the <sup>1</sup>/<sub>4</sub>" hole to 7/16" (11.13 mm). Keep drill speed on the slowest speed and use lubricating oil or liquid soap to keep drill bit
- F. Pass the Escutcheon plate and black rubber washer over threaded mounting tube at the base of the faucet body.
- G. From top of sink pass the threaded mounting tube through the hole drilled in the sink. Align the faucet body.
- H. From under the sink, slide the locating washer and the lock-washer Figure B: Faucet tube connection over the threaded part of the faucet tube. Screw on retaining nut. Tighten with wrench.

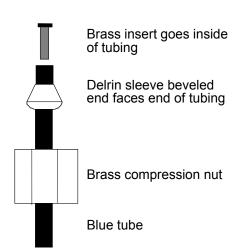
Connect the loose end of the 1/4" blue plastic tubing from the filtration unit to the threaded mounting tube of the faucet as shown in Figure B.

Figure A: Faucet tube connection



Faucet threaded

mounting tube



# **Installation of Upgraded Adapta Valve**#134007

For 3/8" Plumbing

For ½" Plumbing





Hot water supply line



Cold water supply line

- Step 1 Turn off the cold water supply to the faucet by turning the angle stop valve off.
- Step 2 Attach the Adapta Valve as illustrated in the photo above. When attaching to straight pipe threads, use Teflon tape on the threads.
- Step 3 Attach the Green tube into the Adapt Valve Securing the connection

- Step 4 Lift black faucet handle up on faucet to start flow of water through unit. Run 7 gallons of water through unit. Close faucet. **Note: You may hear some noise as air is being purged from the unit and the first few glasses of water through the unit may be dark in color due to carbon fines.** 
  - B. Check for leaks. If you have any leaks, shut-off water supply to system, repair and restart unit.
  - C. Connect plastic electrical connector from UV unit to the plastic electrical connector from AC adapter.
  - D. Plug adapter into GFCI electrical outlet. You will see a pale blue light from the view port on the UV Housing body. The light indicates that the UV lamp is on and working.

## Important guidlines

Do not unplug UV unit from power supply. Turning system off & on will shorten the life of the UV lamp. UV should be on continuously for maximum effectiveness.

The system requires a warm-up period for proper operation. Wait 20 minutes after plugging in the system before using water.

Water not drawn from unit for a period of time may have a taste or odor and will be warm. To avoid this, allow water to run through the system for one minute before using.

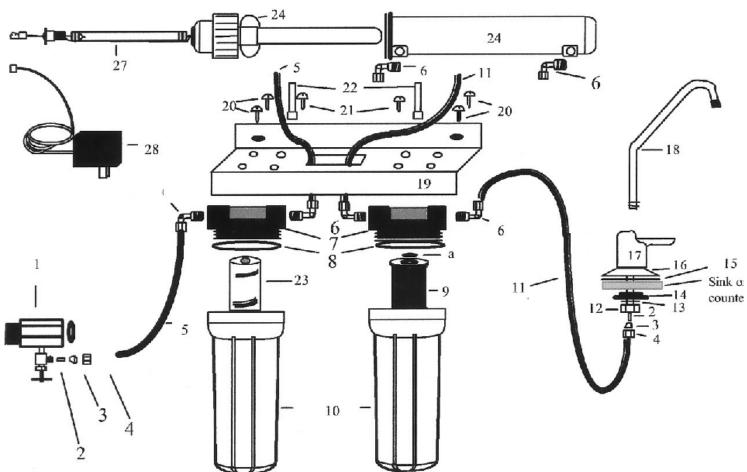
Replacement filters for this and many other filtration systems can be purchased directly from Watts Premier. Ordering options include mail order, telephone ordering, and online filter replacement. Additionally, Watts Premier sells filtration and reverse osmosis systems suitable for almost any individual or commercial application.

## Replacing UV lamp, Cap & Quartz Tube

Warning: Do not touch UV Lamp or Quartz Tube with bare fingers or hands. Fingerprints on the lamp or tube may reduce lamp effectiveness. Handle with clean cloth or gloves.

- A. Unplug ballast from GFCI electrical outlet.
- B. Unplug the plastic electrical connector from ballast to UV Lamp.
- C. Turn off water supply to the unit. Lift faucet handle to relieve water pressure.
- D. Disconnect both 1/4" plastic tubes from the UV housing body by turning the white plastic nuts counter clockwise. Remove the UV housing from the single mounting clip.
- E. Unscrew UV cap counter clockwise.
- F. Using a flat bladed screwdriver remove UV lamp from cap and discard. Discard cap & quartz tube if replacing at the same time as lamp.
- G. Clean inside of UV housing with warm soapy water. Rinse with warm clean water to remove soap.
- H. Lubricate UV housing o-ring with a water-soluble lubricant (i.e. K-Y Jelly ® or Silicone lubricant) NOTE: Do not use Petroleum based lubricants such as Vaseline ®.
- I. Carefully slide new UV lamp into the cap and make sure the end plug is sealed. Water cannot come into direct contact with the UV lamp.
- J. Screw UV cap back on to UV housing body carefully by turning clockwise.
- K. Snap UV housing body back into single mounting clip. Reconnect the ¼" blue tubing back on to the UV housing body.
- L. Repeat Step 4: Startup.

Figure E: UV Tube Assembly & Exploded View



Item	Part #	Description	Item	Part #	Description
1	134008	Easy Tap Adapter	17		Faucet Body
2	131017	Insert Brass 114"	18	116032	L/R Spout
3	131012	Sleeve Delrin 114"	19	137046	UV- Bracket
4	131002	Nut Brass 114"C	20	146001	#10-3/4" Philip Pan Head Screws (6)
5	140007	Tubing 114"Green (4ft)	21	146004	# 10-1" Philip Pan Head Screw (2)
6	125034	Elbow 90° 1I4"Cx 1/4" MPT (6)	22	164004	Single Mounting Clip
7	113004	Lid Black 114"FPT	23	104015	CTG-10" 5 Micron Sediment
8	113029	0- Ring For Filter Housing	24		Module Includes:
9	101015	P-CB-I I-Micron Carbon Block		170001	Body, Cap, Quartz tube, O-ring
а		Gasket for Carbon Block (2)			& UV lamp
10	113017	Filter Housing 10" Blue	27	170019	UV-Rep1acement Lamp(ST-200 UV lamp)
11	140004	Tubing 114"Blue (4ft)	28		Ballast
12		Nut		170007	100v./50Hz.
13		Lock Washer		170010	120v./60Hz.
14		Black Locating Washer		170014	220v./50Hz.
15	116047	Black Rubber Washer		170015	240v./50Hz.
16	116053	Escutcheon Plate			

## Watts Premier, Inc. 8716 W Ludlow Drive Suite #1 Peoria, AZ 85381 – USA

# Performance Data Sheet for specific claims to NSF Std-53. CT-1, UC-1, UC-2 & Ultra-UV-R

#### **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 (40.5° C) Minimum 40° F (4.4° C) 3: Operating Water Pressure: Maximum 100-psi (7.43 kg/cm²) Minimum 20-psi

4: Turbidity: < 5 NTU 5: pH: 5 to 10

6: Maximum flow Rate: **0.50 gpm (1.89 lpm)** 

#### RECOMMENDED REPLACEMENT PARTS AND CHANGE INTERVAL:

Note: Depending on incoming feed water conditions replacement time frame may vary.

Description Units Change time Frame

Stage 1: sediment: 5M-10 UC-2 & Ultra-UV-R 6 Months or 1350 gallons of water 1 Micron Carbonblock P-CB-1: CT-1, UC-1, UC-2 & Ultra-UV-R 6 Months or 1350 gallons of water

170019 UV Replacement Lamp Ultra-UV-R 12 months or 9000 hours

Testing parameters:	Flow rate 0.5 gpm	pH 6.5 and 8.5		Water pressure: 50 psi.			
Cyst Reduction		Gallons		Influent	nfluent Effluent 1 Effluent 2		
Influent Avg.	155500 count/ml	Fourth C	ycle	98000	15	44	
Effluent Avg.	28 count/ml	25%		94000	4	15	
Percent Reduction	99.98 % 50%		0%		9	39	
Maximum Effluent	81 count/ml	75%		270000	17	81	
Lead Reduction 6.5 pH		Gallons	Sample P	t Influent	Effluent 1 Effluent 2		
Influent Avg.	0.16 mg/l	0	Start-up	0.16	0.001	0.0013	
Effluent Avg.	0.0024 mg/l	675	75%	0.16	0.001	0.001	
Percent Reduction	98.5 %	1350	100%	0.16	0.0031	0.001	
Maximum Effluent	0.0088 mg/l	2025	150%	0.17	0.0047	0.001	
		2430	180%	0.17	0.0088	0.001	
Lead Reduction 8.5 pH		Gallons	Sample P	Sample Pt Influent		Effluent 1 Effluent 2	
Influent Avg.	0.16 mg/l	0	Start-up	0.16	0.0017	0.01	
Effluent Avg.	0.0032	675	75%	0.16	0.001	0.001	
Percent Reduction	98 %	1350	100%	0.17	0.001	0.001	
Maximum Effluent	0.01 mg/l	2025	150%	0.14	0.0033	0.0058	
	-	2430	180%	0.16	0.0058	0.0011	

That the systems conform to ANSI/NSF 53 for specific performance claims as verified and substantiated by test data.

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

Phone: 480-675-7995 Fax: 623-866-5666



## 8716 W Ludlow Drive Suite #1 • Peoria, AZ 85381 Limited Warranty

#### **What your Warranty Covers:**

If any part of your WATTS PREMIER Ultra UV-R is defective in workmanship (excluding replaceable filters, and uv-bulbs), return unit after obtaining a return authorization (see below), within 3 year of original retail purchase, WATTS PREMIER will repair or, at WATTS PREMIER'S option, replace the system at no charge.

#### **How to obtain Warranty Service:**

For warranty service, call 1-800-752-5582 for a return authorization number. Then, ship your unit to our factory, freight and insurance prepaid, with proof of date of original purchase. Please include a note stating the problem. 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 Ultra UV-R System must be hooked up to a potable municipal or well cold water supply.
- 2. The pH of the water must not be lower than 5 or higher than 10
- 5. The incoming water pressure must be between 20 and 100 pounds per square inch.
- 6. Incoming water to the Ultra UV-R cannot exceed 100 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 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 MERCHANTIBILITY AND FITNESS FOR A PARTICULAR PURPOSE. WATTS 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 WATTS PREMIER chooses to replace the equipment, WATTS PREMIER may replace it with reconditioned equipment. Parts used in repairing or replacing the equipment will be warranted for 90 days from the date the equipment is returned to you or for the remainder of the original warranty period, whichever is longer. This warranty is not assignable or transferable.

#### YOUR RIGHTS UNDER STATE LAW:

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



Peoria, AZ 85381

Fax: 623-866-5666