# Installation, Operation and Maintenance Manual

2-Stage LCV Under Counter System Model PWDWLCV2



### A 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.

#### A WARNING

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



PWDWLCV2

## IMPORTANT

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

#### A CAUTION

Test the water periodically to verify that the system is performing satisfactorily.

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 tested and certified by WQA against NSF/ANSI Standard 372 for lead free compliance.

# **Table of Contents**

Maintenance Record
Operational Parameters
Contents of LCV System
Tools Recommended For Installation
Drill / Punch a Hole for Watts Top Mount Faucet
Standard Faucet Installation
Drinking Water Module Mounting5
Adapt-A-Valve™ Installation5
Start Up
Filter Change
Parts Listing7
Technical Data Sheet
Limited Warranty



# Thank you for your purchase of a state of the art Watts<sup>®</sup> Pure Water Treatment system.

# PWDWLCV2 Water Treatment System:

Watts Pure Water PWDWLCV2 water treatment system contains a heavy duty lead, and VOC filter block. This specialty formulated block is capable of reducing lead, as well as harmful Volatile Organic Chemicals. It is estimated that VOC's are present in one-fifth of the nation's water supplies. These water contaminants can enter ground water from a variety of sources including localized use of herbicides and pesticides, gasoline or oil spills, leaking underground fuel tanks, septic system cleaners, and chemicals used in the dry-cleaning industry.

# System Maintenance

Just because you can not taste it, does not mean that it is not there. Many contaminants in the drinking water 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 any of 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/purewater or call our customer service department at 1-800-244-1299.

# Maintenance Record

# NOTICE

This system has been designed to fit under most kitchen sinks. Please read carefully before proceeding with installation.

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# **Operational Parameters**

Installation needs to comply with state and local plumbing regulations. This system is intended to be installed on the cold supply line only.

	MAXIMUM	MINIMUM
Operational Temperature	100°F (37.8°C)	40°F (4.4°C)
Operating Pressure	85psi (5.98 kg/cm <sup>2</sup> )	20psi (1.406 kg/cm <sup>2</sup> )
pH Parameters	10	5
Flow Rate	0.5 GPM @ 60 psig	

# **Contents of Under Counter System**

1 LCV Unit

2 Filters

1 Parts Bag

1 Faucet Assembly

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

# **Tools Recommended For Installation**

A small knife

Variable speed drill

1/8" (3mm), 1/4" (6.4 mm) and 7/16" (11.0mm) drill bits

 $1^{1}\!\!/\!\!4"$  hole saw (for porcelain sinks) or  $1^{1}\!\!/\!\!4"$  hole punch (for stainless steel sinks)

 $1\!\!/_2$  and  $5\!\!/_8$  open-end wrenches (or adjustable wrenches)

Phillips screwdriver



# Drill a Hole for the Faucet in a Porcelain Sink

### NOTICE

Most sinks are predrilled with  $1\frac{1}{2}$ " or  $1\frac{1}{4}$ " diameter hole that you can use for your RO faucet. (If you are already using it for a sprayer or soap dispenser, see Step 2).

#### 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.

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 1/3" 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 1¼" 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

#### 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.





The faucet can now be installed.



## STEP 2



- **Step a** Under the sink on to the threaded faucet stem in order first slide on the plastic spacer (Item 7), the washer (Item 8), the slotted washer (Item 9), and lastly secure with nut (Item 10).
- Step D Locate the blue 1/4" tube in the faucet parts bag. Remove a brass nut (Item 13), plastic sleeve (Item 12) and insert (Item 11) from the parts bag. To assemble, place the brass nut on the blue tube first, then the sleeve (small tapered end of sleeve must point to the end of tube) and then push the insert all the way into the end of the tube.
- **Step E** Insert the blue tube into the end of the faucet shank and use a wrench to tighten the brass nut securely.

NOTICE

DO NOT overtighten nut.



## **Drinking Water Module Mounting**

Step A – Determine best location for the Drinking Water system 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.



### NOTICE

Do not cut any Drinking Water system tubes at this time

## STEP 4

### Adapt-A-Valve<sup>™</sup> Installation

Verify contents prior to installation:

- (1) Plastic Adapt-a-Valve™ & Black Collet
- (1) Brass Adapter no washer
- (1) Brass Adapter with black washer
- (1) White rubber washer



#### NOTICE

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

Do not use Teflon tape with the Adapt-A-Valve™.

## For <sup>3</sup>/<sub>8</sub>" Configuration





(With Brass Fittings) \* Insert White Washer

## For <sup>1</sup>/<sub>2</sub>" Configuration



(Without Brass Fittings) 1/2" Configuration

Hot Cold Supply Supply



- Step A Turn off the cold water supply to the faucet by turning the angle stop valve completely off.
- **Step B -** Open cold water sink faucet to relieve pressure.
- Step C Choosing the configuration that fits your plumbing, attach the Adapt-A-Valve<sup>™</sup> as illustrated in the four photos above.

# Start Up Instructions

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

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 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 B Turn faucet handle to the open position to start the flow of water through the unit. Run 7 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.
- Step C Check for leaks. If you have any leaks, shut off the water supply to your system, repair and restart unit.

# **Filter Change**

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

Watts recommends changing the filter element every 6 months.

Use Watts replacement cartridge only. Other filters may look the same, but only filters by Watts are manufactured to fit your LCV filter unit in order to ensure proper reduction of water contaminants.

#### Replacement **Filters Pack**

	MODEL	FREQUENCY	DESCRIPTION
	PWFPKLCV	6 Months	PWMB10M5 (5-micron sediment filter) & PWCB10LCV (1 micron carbon filter)

#### NOTICE

Water conditions may require more frequent cartridge replacement

- A. Turn off incoming water supply to the LCV unit by turning the KNOB on the Adapt-A-Valve™ clockwise. Note: There will be water in the filter housing. Lift the faucet handle to relieve the water pressure.
- B. Remove filter housing from lid by turning it to the left, as shown in Figure D.
- C. Remove used filter cartridge and discard.

#### NOTICE

#### Do not discard filter-housing O-ring.

- D. Clean inside of filter housing with warm soapy water and rinse to remove soap
- E. Lubricate O-ring with water-soluble lubricant (i.e. K-Y Jelly® or Silicone lubricant).

#### NOTICE

#### Do not use Petroleum based lubricants such as Vaseline®.

- F. Seat O-ring in groove in filter housing and insert new filter cartridges into filter housing.
- G. Screw filter housing onto lid as shown in Figure D.
- H. Turn on water supply to filter unit by turning knob on Adapt-A-Valve<sup>™</sup> counterclockwise
- I. Check system for







# Parts List



ITEM	EDP	DESCRIPTION
1	7300068	ADAPT-A-VALVE™
2	7300031	ELBOW - 1/4" C X 1/4" M
3	7300081	FILTER HOUSING - LID - 1/4" PORTS
4	7300044	FILTER HOUSING - BOWL - 10" - WHITE
5	7300060	0-RINGS FOR FILTER HOUSING
6	7100331	SEDIMENT FILTER
7	7100451	LEAD, VOC Carbon Block
8	7100188	FAUCET - CHROME
9	7300066	1/4" GREEN TUBING
10	7300065	1/4" BLUE TUBING

# Technical Data Sheet PWDWLCV2

#### **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 micro biologically unsafe or of unknown quality without adequate disinfection before or after the system.				
Systems certified for cyst reduction may be used on disinfected waters that may contain filterable cysts.				
2: Operating Temperature:	Maximum	100° F (37.8° C)		Minimum 40° F (4.4° C)
3: Operating Water Pressure:	Maximum	85psi (5.98 kg/c	2m <sup>2</sup> )	Minimum 20psi (1.406 kg/cm <sup>2</sup> )
4: Maximum flow Rate:	0.50 gpm	(1.89 lpm)		
5: Rated Capacity:	600 Gallons	s (2,200 liters)		
RECOMMENDED REPLACEMENT PARTS AND CHANGE INTERVAL:				
Note: Depending on incoming feed water conditions replacement time frame may vary.				
Description	Pa	art Number	Change	time Frame
Stage 1: Sediment filter	71	00331	6 Month	s or 600 gallons of water
Stage 2: Lead, VOC Carbon block	71	00451	6 Month	s or 600 gallons of water
-				-

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.



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