

# Installation, Operation and Maintenance Manual

## 2-Stage LCV Under Counter System

Model PWDWLCV2

**PURE WATER**



PWDWLCV2

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**Note:** Do not use with water that is microbiologically 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.

# Thank you for your purchase of a state of the art Watts Pure Water Treatment system.

## PWDWLCV2 Water Treatment System:

Watts Pure Water PWDWLCV2 water treatment system contains a heavy duty lead, cyst and VOC filter block. This specialty formulated block is capable of reducing lead, cryptosporidium, Giardia, Entamoeba 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.

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

## 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](http://www.watts.com) or call our customer service department at 1-800-244-1299.

## Maintenance Record

DATE OF PURCHASE	DATE OF INSTALL	INSTALLED BY
<b>Notes:</b>		

# 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 Premier 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

### STEP 1

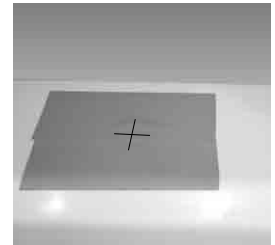
## Drill a Hole for the Faucet in a Porcelain Sink

**Note:** Most sinks are predrilled with 1 1/2" or 1 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).

**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.

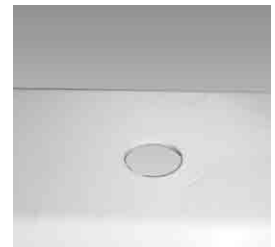


**Step B** – Using a variable speed drill set on the slowest speed, drill a 1/8" pilot hole through both porcelain and metal casing of sink at the marked center of the desired location. Use lubricating oil or liquid soap to keep the drill bit cool (If drill bit gets hot it may cause the porcelain to crack or chip).



**Step C** – Using a 1 1/4" 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 1 1/4" 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 1/4" pilot hole. Use a 1/2" Hole Punch and an adjustable wrench to punch the hole in the sink. Change to the 1 1/4" Hole Punch to enlarge the hole



The faucet can now be installed.

## STEP 2

### Standard Faucet Installation

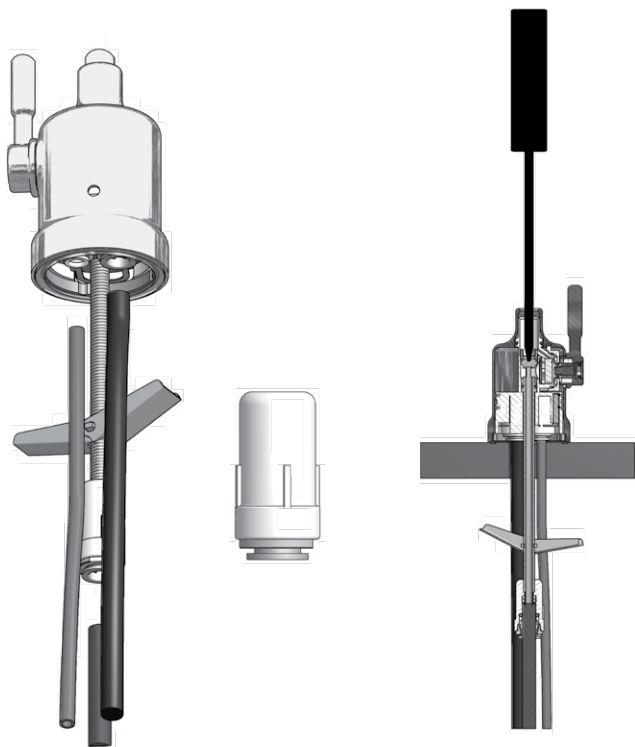
**Step A** – Remove nut (item 11) and blue tubing (item 12) from faucet (Leave the nut and plastic delrin sleeve (item 10) on the blue tube).

**Step B** – Feed both the red and black tubing through the pre drilled hole in the sink/counter until faucet is seated.

**Step C** – Under the sink - on to the threaded faucet stem in order first slide on the rubber gasket (item 6), the slotted washer (item 7), the white spacer with the open end UP (item 8), the hex nut washer (item 9), and lastly secure with nut (item 11).

**Step D** – Make sure the plastic delrin sleeve (item 10) is on the end of the blue tube, push the white plastic insert (item 13) into the end of blue tubing with the delrin sleeve, insert the blue tube (item 12) into the faucet stem and secure with nut (item 11).

**Note:** DO NOT overtighten nut.



### STEP 3

## 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.



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

### STEP 4

## Adapt-A-Valve™ 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



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

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

## For 3/8" Configuration



(With Brass Fittings)  
\* Insert White Washer

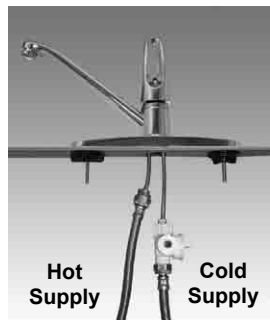


Hot Supply      Cold Supply

## For 1/2" Configuration



(Without Brass Fittings)  
1/2" Configuration



Hot Supply      Cold 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™ 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).

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

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.

**EDP# 7100111 Includes: (1) Sediment Filter  
(1) LCV Carbon Block Filter**

- 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.

**NOTE: 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).

**NOTE: Do not use Petroleum based lubricants such as Vaseline®.**

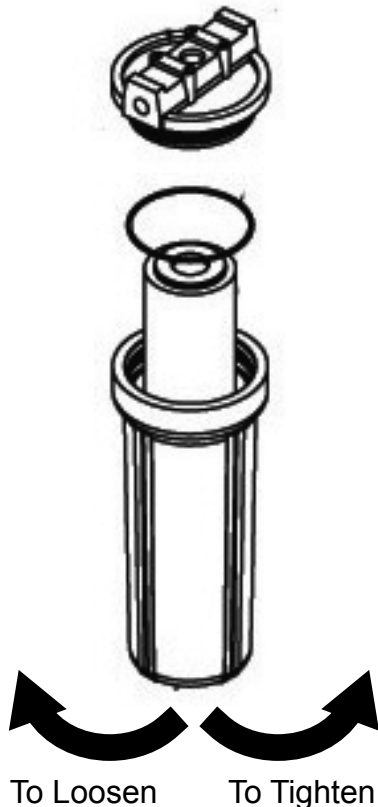
- F. Seat O-ring in groove in filter housing and insert new filter cartridges into filter housing.
- G. Screw filter housing onto lid as shown in Figure D.
- H. Turn on water supply to filter unit by turning knob on Adapt-A-Valve™ counterclockwise
- I. Check system for leaks.

## Replacement Filters Packs

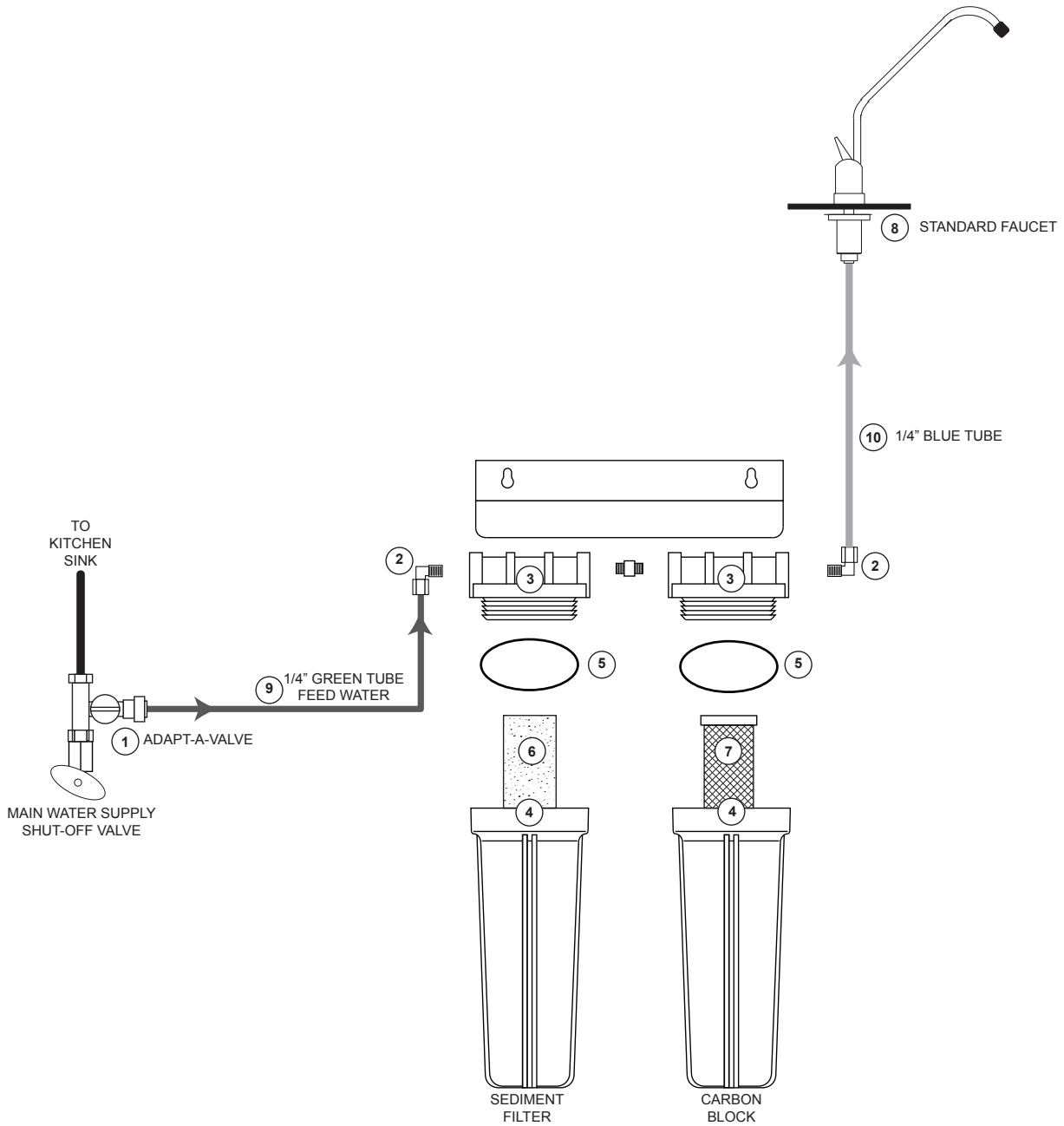
MODEL	FREQUENCY	DESCRIPTION
PWMB10M10	6 Months	5-micron sediment filter
PWCB10LCV	6 Months	1-micron carbon block filter

**Note:** Water conditions may require more frequent cartridge replacement

**Figure D**



# 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	O-RINGS FOR FILTER HOUSING
6	7100331	SEDIMENT FILTER
7	7100451	LEAD, CYST, VOC Carbon Block
8	7100188	FAUCET - CHROME
9	7300066	1/4" GREEN TUBING
10	7300065	1/4" BLUE TUBING

**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](http://www.watts.com/prop65)

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