

WL250 MANUAL



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WL250 MANUAL

Congratulations on your choice of the **Waterlogic WL250 Water Treatment System**. The **WL250** model dispenses cold, and hot. Every **WL250 Water Treatment System** includes:



Bio-Cote Anti-Microbial Protection



Advanced In-Tank Ultraviolet (UV) Purification



Filter configuration can be optimized for all water conditions

The **Waterlogic WL250 Water Treatment System** provides exceptional quality and great tasting water with every use.

INTRODUCTION

Carefully read and follow all instructions to ensure proper and efficient operation of your **WL250 Water Treatment System**. Contact **Waterlogic** or an **Authorized Waterlogic Dealer** if you have any questions.

Waterlogic and **Authorized Waterlogic Dealers** employ trained service personnel who are experienced in the installation, function and repair of **Waterlogic** equipment. This publication is written for use by these qualified individuals. **Waterlogic** encourages users to learn about products, however, we believe that product knowledge and service is best obtained by consulting **Waterlogic** or an **Authorized Waterlogic Dealer**.

Waterlogic Water Treatment Systems should be combined with selected water treatment components to create a system specifically tailored for each application by trained and qualified personnel.

Products manufactured and marketed by **Waterlogic** and its affiliates are protected by patents issued or pending in the United States and other countries.

Waterlogic reserves the right to change the specifications referred to in this literature at any time, without prior notice. Changes or modifications not expressly approved by **Waterlogic** could void the warranty and user's authority to operate the equipment.

TABLE OF CONTENTS

USER GUIDE

- Safety Alert Symbols 4
- Safety Precautions 4
- Features and Benefits 6
- Certifications 7
- Model Designations and General Specifications 8
- Electrical and Shipping Specifications 9
- Operating Instructions 10
- Warranty 11

SERVICE GUIDE

- Service Requirements 12
- LG Compressor Upgrade 14
- Hot Tank Principles of Operation 15
- Resetting the Hot Tank Overload (High Limit Safety) 16
- Hot Tank Descaling 18
- Replacement Components (Consumables) 20
- Countertop Drawings and Parts List 21
- Tower Drawings and Parts List 29
- Counter Top Flow Diagram 37
- Tower Flow Diagram 38
- Adjusting Cold Water Set Point 39
- Electrical Schematic 40

INSTALLATION GUIDE

- Pre-Installation Procedures 41
- Countertop Draining Procedure 45
- Tower Draining Procedure 46
- Installation Instructions 48

TROUBLESHOOTING GUIDE

- Fault Code 51
- Power Troubleshooting 53
- Dispense Troubleshooting 55
- Cold Water Troubleshooting 67
- Hot Water Troubleshooting 68



SAFETY ALERT SYMBOLS

Read and follow all safety information carefully. The signal words used in this manual are selected as shown below and based on an assessment of the degree of potential injury or damage (severe or minor) and the occurrence of injury (definitely occurs or has the potential to occur) when the warning is ignored:

⚠ DANGER!

Indicates a situation which, when not avoided, results in death or severe injury.

⚠ WARNING!

Indicates a situation which, when not avoided, has the potential to result in death or severe injury; and/or severe property damage.

⚠ CAUTION!

Indicates a situation which, when not avoided, results or has the potential to result in minor injury; and/or minor property damage.

SAFETY PRECAUTIONS

Basic safety precautions should be followed, including the following:

Ensure all Local, State, and Federal Laws and Codes including health and safety guidelines are met when installing **Waterlogic** Equipment. Only qualified service technicians should attempt installation and service of **Waterlogic** Equipment. Always read the entire operating instructions before using the appliance and save these instructions for future use.

⚠ DANGER! *This product can cause death or severe injury if incorrectly operated, installed or maintained. The installation, maintenance, sanitizing and any repair must be performed by qualified persons trained by Waterlogic International or their approved distributors only. Do not remove any panel or cover to protect against electrical shock and exposure to UV radiation.*

⚠ DANGER! **ELECTRICAL SHOCK HAZARD.** *Always use a dedicated and properly grounded outlet. Unit should be protected by ground-fault circuit interrupter (GFCI) or residual current device (RCD) having a rated residual operating current not exceeding 30mA. Use only Waterlogic supplied power cord. Never use extension cords or power strips to connect unit. Do not use if the power supply cord is damaged. Always unplug from power supply prior to servicing.*

⚠ WARNING! **AUTHORIZED USE ONLY.** *This appliance is to be used for its intended purpose as described in this manual and untrained individuals who use this manual assume the risk of any resulting property damage or personal injury. This appliance can't be used by children and persons with reduced physical, sensory or mental capabilities or lack of experience.*

⚠ WARNING! **UV-C EMITTER (UV LAMP).** *This appliance contains a UV-C emitter (UV Lamp). UV-C radiation may, even in little doses, cause harm to the eyes and skin. Unintended use or damage to the housing may result in the escape of dangerous UV-C radiation. Never operate the UV-C emitter if damaged or removed from enclosure. Do not touch or look directly into the faucet.*

- ⚠ WARNING! DO NOT OPERATE IF DAMAGED.** *Unplug and isolate water supply if abnormal conditions exist. Contact Waterlogic or authorized dealer for repair, service, and installation to avoid hazards.*
- ⚠ WARNING! HOT WATER. Unit produces Hot Water in excess of 80°C (175°F).** *Water above 52°C (125°F) can cause severe burns or scalding. Keep unauthorized people and children away from the unit to avoid accidental dispensing of hot water.*
- ⚠ WARNING! CONNECT TO POTABLE WATER SUPPLY.** *This system is to be used for water only and is not intended for use where water is microbiologically unsafe or with water of unknown quality without adequate disinfection before or after the system.*
- ⚠ WARNING! TIP HAZARD.** *Dispenser could tip or fall causing serious injury. Always install unit on a firm, flat, and level surface and secure unit to cabinet, wall, or floor if needed. Never place heavy items on top of unit and never climb, stand, or hang on unit or storage cabinet to prevent injury and damage.*
- ⚠ WARNING! UNIT IS HEAVY. TWO PERSON LIFT REQUIRED.** *Transport unit empty and always use material handling equipment or two people with proper lifting technique to reduce injury risk.*
- ⚠ WARNING! STORE AND TRANSPORT UNIT EMPTY. ALWAYS SANITIZE BEFORE USE.** *The unit must be completely drained before storing to avoid stagnation and reduce microbiological contamination (potential bacterial growth). Always sanitize before use to eliminate any potential microbiological contaminants.*
- ⚠ CAUTION! INDOOR USE ONLY.** *Intended for Household Use. Never expose to direct sunlight, heat sources, or ambient air temperature above 37°C (100°F) or below 2°C (35°F). Install indoors and keep unit away from excessive humidity. Never expose to freezing temperatures. Ensure there is adequate clearance around the unit to allow refrigeration system condenser to dissipate heat. Warmer environments require more clearance around the unit. Minimum clearance around all surfaces of the machine is 2-inches. Installs where the ambient temperature exceeds 27°C (80°F), require a minimum of 4-inches clearance for proper heat dissipation and efficient operation.*
- ⚠ CAUTION! USE A WATER PRESSURE REGULATOR.** *Waterlogic will not be responsible for injury or damage caused by excessive water pressure. Input or feed pressure must be 40 psi to 60 psi. Be aware of any potential pressure surges caused by building/municipal pumping stations.*
- ⚠ CAUTION! USE UV STABILIZED SUPPLY LINES.** *Feed the unit with a potable ambient or cold water supply only. Feed water over 37°C (100°F) can damage the treatment components. Water block devices and external leak detectors are strongly recommended. Locate the unit as close to the water supply and the electrical connections as possible. Locate the unit as close to the water supply and the electrical connections as possible. Immediately isolate or close water supply valve and contact service representative if leak is noticed.*

Contact Waterlogic for assistance or help finding an Authorized Service Representative.

WL250 FEATURES AND BENEFITS

Cold and Hot Water

Counter Top and Tower Models come standard with Cold and Hot Selections to meet a wide range of customer demands. The Tower Model is also available in Cold Only Water Version. Cold Water Temperature is adjustable.

High Volume Storage and Water Capacity

Tower Model has 4 liters of Cold Water Capacity and 1.6 Liters of Hot Water Capacity. Counter Top has 2 liters of Cold Water Capacity and 1.6 Liters of Hot Water Capacity.

BioCote® Anti-Microbial Protection

Certain plastic, silicon, and painted surfaces surrounding the dispensing areas and drip tray are infused with an exclusive additive called BioCote®. BioCote® provides an effective barrier against microbes like bacteria and mold, which may cause odors or staining



Large Dispense Area with Recessed Faucet

8.5 inch dispense height with BioCote® recessed faucet to protect from cross-contamination.

Leak Prevention

WL250 Water Treatment Systems are supplied with an extra solenoid to provide redundant protection and reduces accident potential.

Child Safeguard

The **WL250 Water Treatment System** with Hot Water requires the Hot Water selection to be held until the Red-Light flashes for 4 seconds, followed by the Main Dispense button for Hot Water and defaults back to the Cold selection after 3 seconds of inactivity to prevent accidental dispensing of Hot Water.

In-Tank UV Purification

Industry leading In-Tank UV Purification prevents the growth of bio-film within the Stainless Steel Cold Tank.

Auxiliary Port

Auxiliary Port to feed Coffee Machines or other Appliances on the Counter Top Model.



MODEL/PART DESIGNATIONS

BRAND NAME	DESCRIPTION	MODEL - PART NUMBER
WL250 Counter Top	Waterlogic WL250 Counter Top - Cold and Hot	12-CHCMU3
	F-6002-M-HC-UT-CS-INN	
	Serial Number Prefix: 27 or HJ2H221CS	
WL250 Tower	Waterlogic WL250 Tower - Cold and Hot	12-CHCU3
	F-6002-FS-HC-UT-CS-INN	
	Serial Number Prefix: 21 or HJ1H221CS	

SPECIFICATIONS

<u>ITEM</u>	<u>WL250 Counter Top</u>	<u>WL250 Tower</u>
Water Connection	¾" Quick Connect	
Cold Water Temperature	Cold Water Temperature – Factory Set Point 5°C (41°F) Adjustable - 1.1° - 12.2°C (34° - 54° F.)	
Cold Tank Size	Tower: 4 Liters (1.1 Gallons) Counter Top: 2 Liters (.53 Gallons)	
Hot Water Temperature	85°C (185°F) Factory Set Point	
Hot Water Manual Reset Overload	97°C (206°F)	
Hot Tank Size	1.6 Liters (.42 Gallons)	
Recommended Service Pressure	40-60 psi (275-414 kPa) – Use Pressure Regulator	
Maximum Service Pressure	100 psi (689 kPa) – Use Pressure Regulator	
Rated Service Flow	1.89 Liters per Minute (0.5 gallons per minute)	
Environmental Temperature	2° - 37°C (35° - 100°F)	
UV Lamp	4 Watts	8 Watts
Heater	500 W	
Refrigerant Gas Compressor: CO-0020-L000	R134a, 43g, 1.52 ounces	R134a, 53g, 1.87 ounces
Refrigerant Gas Compressor: 10-2200(CO-9001A)	R134a, 40g, 1.41 ounces	R134a, 65g, 2.29 ounces
R134a Pressures	High (230 psi), Low (90 psi)	

SHIPPING SPECIFICATIONS

ITEM	WL250 Counter Top	WL250 Tower
Width/Depth/Height	34cm x 37cm x 45cm 13.5" x 14.5" x 17.75" #	34cm x 41cm x 103cm 13.5" x 14.5" x 40.5"
Weight (dry)	19.5 kg (42 pounds)	26.5 kg (58 pounds)

#WL250 Counter Top is 17.75 in. tall and may not fit between countertops and cabinets - Check installation to ensure adequate clearance.



ELECTRICAL SPECIFICATIONS

ELECTRICAL SUPPLY	120V/60Hz, 1PH	15 Amp Service
COMPONENT	POWER (approximate)	AMP DRAW (approximate)
Heater	504	4.2 Amps
Compressor	216	1.8 Amps
UV Lamp System	18	0.15 Amps
WL250 TOTAL	738	6.15 Amps

OPERATING INSTRUCTIONS



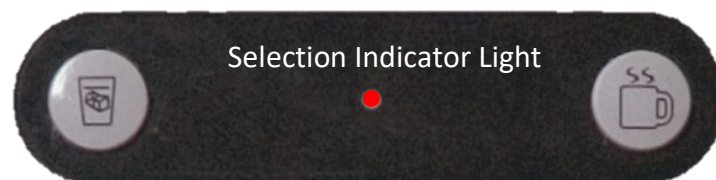
The above picture shows front LCD display and control panel for the *Waterlogic WL250 Water Treatment System*.

For Cold Water: Press and hold the Dispensing Button.

For Hot Water: Press and HOLD the Hot Water Dispense Button until hot water dispenses.

NOTE: Default selection mode is Cold Water. Selection will return to default after 3 seconds of inactivity.

NOTE: Selection indication light will turn red when the Hot Water Select button is activated and will switch back to the default green within 3 seconds after dispensing the Hot Water.



WATERLOGIC MANUFACTURED WATER TREATMENT SYSTEM LIMITED WARRANTY
UNITED STATES AND CANADA ONLY

Waterlogic water treatment systems are guaranteed to the original purchaser to be free of defects in materials and workmanship for a period of three (3) years from the date of purchase, but in no event longer than forty-eight (48) months from the date of manufacture. Waterlogic Commercial Products, LLC (“Waterlogic”) based in the U.S.A. and its affiliated companies are not liable for any cost of removal, installation, transportation, or any other charges which may arise in connection with a warranty claim.

This warranty does not cover damage or wear to products caused by abnormal operating conditions, accident, abuse, misuse, unauthorized or improper alteration or repair, damage caused by or resulting from shipping or accident, damage caused by hot water, freezing, flood, fire, or acts of God. The effects from chlorine corrosion, scaling and normal wear are specifically excluded from this warranty. This warranty does not cover products used outside the countries where the unit was purchased, and does not cover products that were not installed in accordance with Waterlogic printed installation and operating instructions obtained in training or from www.waterlogic.us. Failure to follow all instructions for operation and maintenance voids the warranty. This warranty is not transferable.

To obtain warranty repairs or replacement, you must obtain a Return Authorization from Waterlogic. To obtain a Return Authorization, you must submit a Return Authorization form with supporting documentation to Waterlogic for evaluation. The form is available at www.waterlogic.us. Supporting documentation must include, but is not limited to; proof of purchase, installation date, failure date, and supporting installation and maintenance data. After you submit a Return Authorization form and supporting documentation, Waterlogic will determine whether a reasonably apparent defect in materials or workmanship covered by this limited warranty exists. If Waterlogic determines the claimed defect is covered by this warranty, Waterlogic will, at its sole discretion, determine whether to correct the defect or replace the unit, free of charge to you. If Waterlogic determines that the unit should be returned for warranty service, Waterlogic will approve of return in writing and will issue a Return Authorization which you must obtain prior to shipping the product. You are responsible for the cost of freight in to Waterlogic.

Waterlogic and its affiliated companies hereby limit the duration of any and all implied warranties to a maximum period of three (3) years from the date of purchase including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. Consequential and incidental damages are not recoverable under this warranty. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which may vary from state to state.

New Warranty Policy issued by Waterlogic Commercial Products LLC, USA - January 10, 2014

Waterlogic Commercials Products LLC
3175 Bass Pro Drive
Grapevine, Texas 76051

Tel: (800) 288-1891
Website: waterlogic.us

SERVICE REQUIREMENTS

⚠ WARNING! Read and understand the contents of this manual before attempting to service WL250 Water Treatment System. Failure to follow the instructions in this manual could result in death, serious personal injury, or severe property damage. Only trained and qualified technicians should attempt to install, maintain, or service Waterlogic Equipment.

1. Visually inspect all electrical and water connections for signs of wear or damage.

⚠ DANGER! HIGH VOLTAGE ELECTRICAL HAZARD. Unplug before inspection and service.

2. Waterlogic recommends changing the UV Lamp every 12 months.

NOTE: When replacing the UV Lamp Assembly*, the UV Lamp wiring harness must also be replaced.

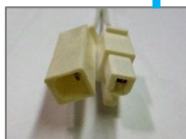
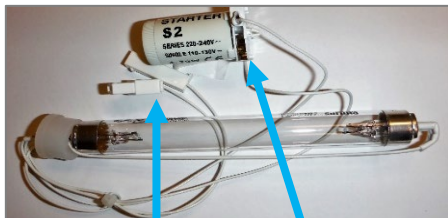
NOTE: The Glow Starter shown to the right may appear blackened which is normal.



* If the WL250 Water Treatment System has an S2 Starter, it is fully interchangeable with the UV Lamp with Glow Starter.

Switching from S2 Starter to existing Glow-Starter UV Lamp Assembly Instructions

UV Lamp Assembly with S2 Starter:
Not available as a repair part

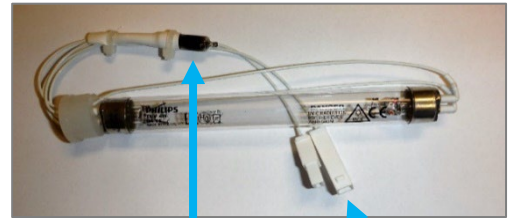


UV Lamp Connectors



S2 Starter

UV Lamp Assembly with Glow Starter Part #'s:
4-Watt Bulb 12-2350 (CT-2084)
8-Watt Bulb 10-2350 (CT-2083)



Glow Starter



UV Lamp Connectors

- A. Disconnect Lamp Male and Female Connection Clips from Ballast.
- B. Remove the S2 Starter by pulling upwards.
- C. Remove UV Lamp.

- D. Install Glow Starter UV Lamp.
- E. Connect UV Lamp Male and Female Connection Clips to Ballast.

⚠ WARNING! ULTRAVIOLET RADIATION. Protect your skin and eyes against ultraviolet rays. Never look directly at an operating UV light. Disconnect before removing UV Lamp.

⚠ CAUTION! UV LAMPS ARE HAZARDOUS. Lamps are considered Hazardous Waste and must be disposed of accordingly. Refer to Product MSDS sheet for details.

3. Clean the quartz sleeve that surrounds the UV lamp with a non-abrasive cloth, descaling solution, or ultrasonic bath if needed when changing UV lamps.

⚠ CAUTION! UV SYSTEM IS FRAGILE. Never handle the UV lamp or Quartz Sleeve with bare hands. UV Lamp and quartz sleeve must be free of oils and contaminants to ensure proper operation. Use a soft non-abrasive cloth to clean.

4. Inspect the Quartz Sleeve O-ring for wear or damage and replace as necessary.

5. Ensure there is adequate (minimum of 2") clearance around the **WL250 Water Treatment System** and clean the condenser grill and compressor fan to provide efficient cooling system operation.

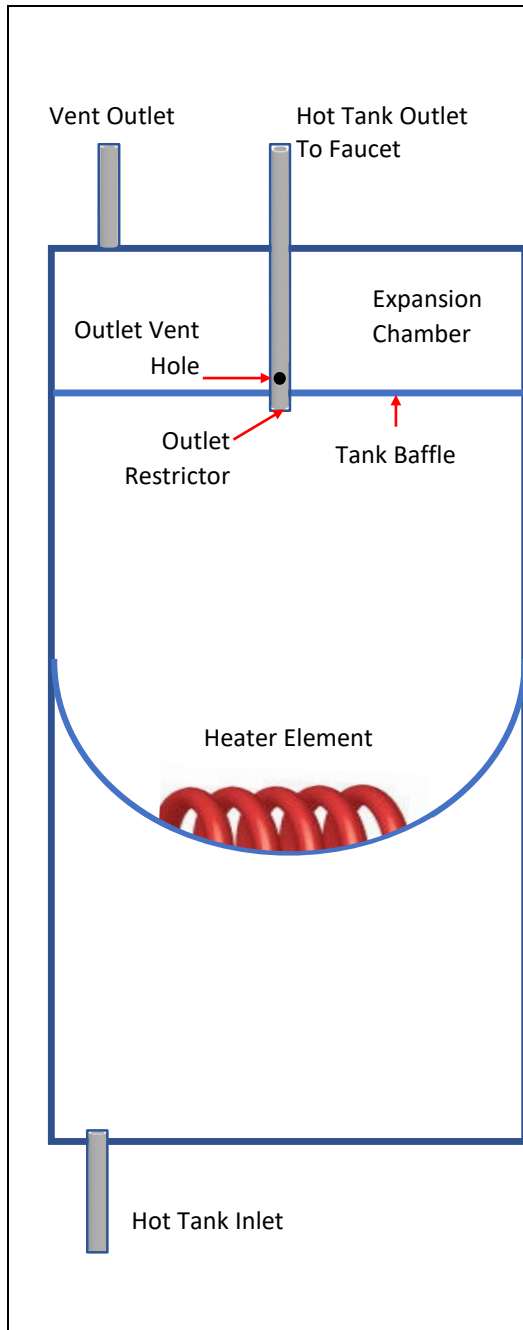
6. Sanitize the cold tank per instructions in the pre-installation procedures.

7. Clean and sanitize external surfaces of the **WL250 Water Treatment System**. Use soap and water or chemicals that are compatible with ABS plastic and will not damage or degrade the product surfaces.

8. Remove and clean the Faucet. Replace as needed.

⚠ WARNING! SANITIZER MAY CONTAIN HAZARDOUS CHEMICALS. Use of proper personal protective equipment such as rubber gloves and eye protection is required.

HOT TANK PRINCIPLES OF OPERATION



All **Waterlogic** Hot Tanks have a built in Vent or Expansion Chamber in the top of the tank except for WL270 (GF) units.

The Vent Chamber allows for expansion of the water when it is heated.

The chambers are separated by a welded-in tank baffle.

Water always flows into the bottom of the tank and out the top to the faucet.

The hot tank outlet tube has a restrictor in its base. This ensures the reservoir is always full by allowing more water in than out.

There is a small hole in the side of the tank outlet tube that allows air and water to pass into the vent chamber as it is heated.

Water in the vent chamber is suctioned back through the outlet tube vent hole when water is dispensed.



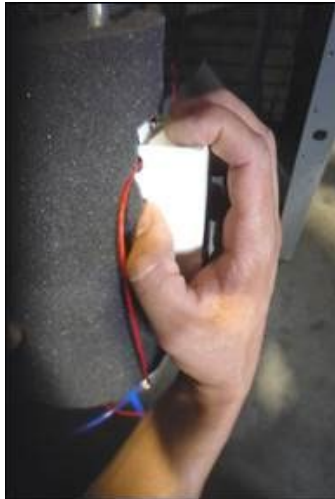
Expansion of water as it is heated in the reservoir will push the water out the faucet when the outlet tube vent hole becomes plugged with debris or scale.

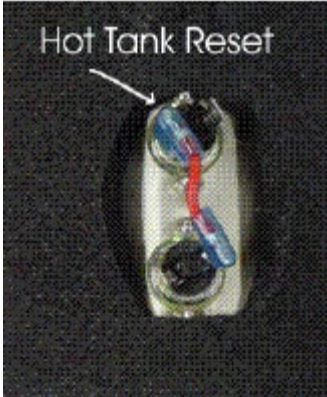


The small Outlet Vent Hole is susceptible to scale build up and is a key indicator that descaling is required.

It is critical to descale the Hot Tank through the vent line and outlet line on a regular basis to prevent this problem.

Descaling through the inlet and/or outlet lines only will not clean the vent chamber and outlet vent hole properly.

RESETTING THE HOT TANK OVERLOAD OR HIGH LIMIT SAFETY

1.	<p>Red Heater and Compressor Switch must be in the OFF position</p> <p><i>O=OFF</i></p>	
2.	<p>Unplug the Power Cord from rear of WL250 Water Treatment System.</p>	
3.	<p>Tower Model: Remove the <u>Lower Front Panel</u> by removing the Phillips Head Screws underneath the Lower Front Panel.</p> <p>Counter Top Model: Remove the <u>Side Panel</u> by removing Phillips Head Screws from Side Panel.</p>	
4.	<p>Locate the protective metal box on the rear of the Hot Tank.</p> <p>As you look through the condenser coils on the rear of the unit, you will see the Hot Tank located on the right-hand side.</p>	
5.	<p>Reach up behind the Hot Tank and take hold of the Protective Metal Box covering the Thermostat and Overload on the Hot Tank.</p> <p>There are nuts that secure the metal box to the Hot Tank. However, the nuts are loose enough to allow you to remove the metal box.</p> <p>If the nuts on the metal box are too tight, loosen the nuts securing the Hot Tank to the upper base of the unit and lower the hot tank so you can remove the metal box.</p> <p><i>For demonstrative purposes, photos below have lowered the Hot Tank from the unit.</i></p>	

6.	<p>Press the reset button</p>  <p>The image shows a white rectangular button with two circular indentations. The top one is labeled 'Hot Tank Reset' with a white arrow pointing to it. The button is connected to red and blue wires.</p>	 <p>A close-up photograph showing a person's hand using a finger to press the reset button on the side of a dark grey cylindrical unit. Wires are visible near the button.</p>
7.	<p>Reattach the metal box by depressing the top flap of the Metal Box so it snaps back into its original position on the Hot Tank.</p>	 <p>A close-up photograph showing a person's hand holding a white rectangular metal box and snapping it onto the side of the dark grey cylindrical unit. Wires are visible.</p>
8.	<p>Replace Panel on unit using Phillips head screws.</p>	
9.	<p>Plug in the Power Cord.</p>	
10	<p>Make sure the Hot and Cold Tanks are filled with water BEFORE turning on the Red Heater and Compressor Switch.</p> <p>Verify the cooler is fully operational before installing it at the customers' site.</p>	

HOT TANK DESCALING INSTRUCTIONS

The hot tank requires removal of mineral deposits (descaling) on a regular basis. Typically descaling should take place every 6 to 12 months to preserve the long-term health of your unit.

Use non-toxic cleaner such as ScaleKleen, DEZCAL, 20% Citric Acid Solution, or Undiluted Vinegar Solution to remove mineral deposits as directed by the manufacturer depending upon filtration and local water conditions.

Descaling is an important process that removes calcium deposits, or scale, that can build up inside a tank over time. Calcium and scale is non-toxic but left unattended will hinder your unit's performance.

Materials Needed:

- Personal Protective Equipment. Rubber or Nitrile Safety Gloves and Protective Eyewear
- Phillips Screwdriver
- Temperature Gauge
- Water Pitcher or Container to collect water from the faucet
- 5-gallon container or drain basin
- Citric Acid Based Cleaner
- ¼" Plastic Tubing, at least 4 feet in length, and assorted ¼" quick connect fittings
- Squeeze Bottle with Nozzle
- Red Food Coloring (optional)

⚠ WARNING! HOT WATER. *The WL250 Water Treatment System produces Hot Water up to 87°C (188°F). Water above 52°C (125°F) can cause severe burns or scalding. Hot water should be dispensed carefully into insulated container to avoid injury. Always use insulated and chemically compatible containers and let unit cool down before draining the Hot Tank to avoid injury.*

1. Turn the Red Switch at the back of the unit to OFF. (Switch is lit when ON)



2. With a Pitcher or Container ready to catch dispensed water, press and hold the Hot Water Dispense button, and allow about a half-gallon of hot water to dispense from the machine.
3. Remove the two screws at the back of the top cover and remove the cover. Set aside.
4. Prepare a Squeeze Bottle with Nozzle and fill with Descaling solution. If desired, add several drops of food coloring to the solution as a visual indicator.
5. Pull the nozzle out of the front panel.
6. Insert the nozzle of the squeeze bottle into both ports shown and squeeze the descaling solution into the hot tank.
7. Let this solution sit in the hot tank for 10 minutes.

8. Place faucet back into its position on the front panel.
9. With a Pitcher or Container ready to catch water, press and hold the Hot Water Dispense button. Allow the pitcher or container to fill with water from the hot tank. You will need to dispense 1.5-2 gallons of water from the hot tank to fully flush all descaling solution out. If food coloring was added to the descaling solution, the water will run clear once all descaling solution has been flushed out.
10. Turn the Red Switch at back of unit back to ON. (Switch is lit when ON)
11. The unit is ready for use.

REPLACEMENT COMPONENTS (CONSUMABLES)

Component	WLCP Part No.	Frequency of Replacement
UV Light, 4 Watts Assembly Counter Top	12-2350	Every 12 months, or as required CT-2030-100-00
UV Light, 8 Watts Assembly Tower	10-2350	Every 12 months, or as required CT-2001-100-00
Hot Tank 1.6 Liter (.42 Gallons) 87°C (189°F) - Counter Top	12-1406	Replace every 3-5 years depending on usage HT-3018-A
Hot Tank 1.6 Liter (.42 Gallons) 87°C (189°F) - Tower	12-1405	Replace every 3-5 years depending on usage HT-3018
GAC Filter - 10" Carbon Activated Inline Filter – Optional <i>*Filter Element PN FT-0038-WLT</i>	FT-0035	Every 6-months or as required. Local water conditions will determine proper filter type and maintenance schedule. FT-0035-IL-WLT
Carbon Block - 10" CBC 1 Micron Lead and Cyst Reduction Inline Filter – Optional <i>*Filter Element PN FT-0064-WLT</i>	FT-0063	Every 6-months or as required. Local water conditions will determine proper filter type and maintenance schedule. FT-0063-IL-WLT
Sediment Filter - 10" Sediment 20 Micron Inline Filter – Optional <i>*Filter Element PN FT-0055-WLT</i>	FT-0053	Every 6-months or as required. Local water conditions will determine proper filter type and maintenance schedule. FT-0053-IL-WLT

⚠ CAUTION! Use only Waterlogic Replacement parts that can be obtained from *Waterlogic* or an *Authorized Waterlogic Dealer*, failure to do so will void the Warranty.

See Installation and Service Manual for additional information.

Hot Tank Service

Hot Tanks (with controls) must be replaced at least every 3-5 years depending on usage. Descaling hot tank may be required on a regular basis depending upon filtration and local water conditions. See Installation and Service Manual for further details.

Surface Cleaning

Clean on a regular basis with damp lint free cloth. Never use harsh chemicals (alcohol or acid based) or abrasive agents on any part of the product to avoid damage. A mild cleaner such as Simple Green or equivalent is recommended.

PRE-INSTALLATION PROCEDURES



DANGER! ELECTRICAL SHOCK HAZARD.

*Only qualified personnel who have read and understand this entire manual should attempt to install, or service this **WL250 Water Treatment System**, failure to do so could result in death or serious injury. DO NOT plug into an electrical supply until specifically instructed.*



WARNING! ALWAYS SANITIZE BEFORE USE.

Sanitize before use to eliminate any potential microbiological contaminants.

Materials Needed:

- Personal Protective Equipment. Rubber or Nitrile Safety Gloves and Protective Eyewear
- Phillips Screwdriver
- Temperature Gage
- Water Pitcher or Container to collect water from the faucet
- 5-gallon container or drain basin
- Sanitizer - Household Bleach (5.25% Sodium Hypochlorite) or Citric Acid Based Cleaner
- ¼" Plastic Tubing, at least 4 feet in length, and assorted ¼" quick connect fittings
- TDS Meter and Test Strips for measuring chlorine - Optional

1. Unpack the **Waterlogic WL250 Water Treatment System** and check exterior for damage.

Flush Filters



CAUTION! FILTER FLUSH REQUIRED.

WL250's Water Treatment Systems are not supplied with filters. Filters should be configured to optimize your system. Filters need to be configured and specified to do the job given the local water conditions, usage, maintenance schedule, and placement restrictions. For our filters to perform as represented and to provide the best quality water possible, it is essential that filters be replaced periodically. The frequency of filter changes depends upon your water quality and your water usage. For example, if there is a lot of sediment and/or particles in your water, then you will have to change your filters more frequently than a location with little to no sediment. Be sure to replace your filters whenever you notice a decline in the performance, whether it is a drop in flow rate and/or pressure or an unusual taste in the water.

2. Flush thoroughly per filter manufacturers' recommendation with fresh water to drain.
3. Once flushed, install the filters. Following the flow direction on the filter.

NOTE: Filters should not be flushed prior to 24 hours before installation to limit Microbial Growth.

Sanitizing

Sanitize using a Household Bleach (5.25% Sodium Hypochlorite solution) or other approved cleaner throughout the cold and water circuits. Follow all instructions on the sanitizer and flush with fresh water through the faucet until odor and taste is acceptable.

⚠ WARNING! USE PROPER PERSONAL PROTECTIVE EQUIPMENT

Always ensure proper ventilation and use proper personal protective equipment such as gloves and eye protection when using chemicals. Refer to Material Safety Data Sheet for specific requirements of each chemical product. Take all necessary precautions to prevent sanitizer from contacting eyes, clothing, and any other surfaces in could damage (carpets).

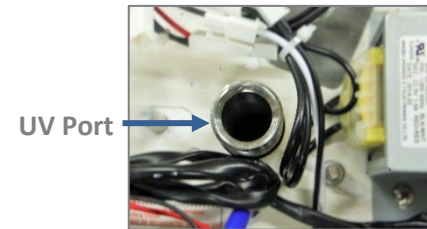
4. Disconnect the UV Lamp wiring harness and carefully remove the UV Lamp from the quartz sleeve.

⚠ CAUTION! UV SYSTEM IS FRAGILE. *Never handle the UV System with bare hands. UV Lamp and Quartz Sleeve must be free of oils and contaminants to ensure proper operation.*

5. Unscrew Cold Tank/Quartz Sleeve retaining cap and remove the Quartz Sleeve. This will require Top Cover to be removed to access properly and facilitate removal.



Retaining Cap



6. Mix ½ gallon of sanitizer per directions or use Bleach Solution (1 teaspoon = 1/6 oz. = 5 ml = ½ cap full) of household bleach (Sodium Hypochlorite 5 - 10% Concentration) with 1/2 gallon of water. Always ensure sanitizer is compatible with stainless steel and acetyl plastic.
7. Pour sanitizer solution through UV Port into Cold Tank with a funnel or spout. You may add concentrated sanitizer (½ cap bleach) directly into empty cold tank instead of premixing.
8. Inspect and clean Quartz Sleeve and O-ring.
9. Reinstall the Quartz Sleeve and Quartz Sleeve Retaining Nut. Tighten firmly to ensure proper seal. Over-tightening can cause damage.

⚠ CAUTION! DO NOT INSTALL THE UV LAMP AT THIS TIME

The UV will interact with the sanitizer and could potentially cause taste.

10. Connect 40-60 psi regulated, potable water supply to the water inlet bulkhead fitting located on the back of the **WL250 Water Treatment System**. Turn on water supply and check for leaks.

⚠ DANGER! ELECTRICAL SHOCK HAZARD.

Do not plug in unit unless qualified. Only qualified personnel who have read and understand this entire manual should attempt to install or service this unit.

11. Connect **WL250 Water Treatment System** to power.

⚠ CAUTION! NEVER TURN ON HEATER BEFORE FILLING HOT TANK.

Red Heater and Compressor Power Switch must be in the O=OFF position while the hot tank is empty. Damage could occur within one minute and the overload (high limit) will require manual reset if heater is turned on with an empty hot tank.



Fill the Cold Circuit with Sanitizer

12. Depress the main dispensing button on the front control panel until cold water/sanitizing solution comes out the faucet. **NOTE:** Container and drain basin will be required to catch the water from the faucet.

⚠ WARNING! *Use Personal Protective Equipment. Gloves and Eye Protection Required. The first 2 or 3 gallons of water will contain concentrated sanitizer. Use extreme care!*

Flushing the Sanitizer from the Machine

13. Place a pitcher, catch basin, or other container under the faucet of the **WL250 Water Treatment System**.
14. Flush the Cold Tank. Run several gallons of water through the faucet by dispensing cold water to dilute and remove the sanitizer from the cold circuit. You can use chlorine test strips to evaluate the water.
15. Once the sanitizer odor/taste has been flushed out of the cold side of the machine the sanitization process for the Cold Circuit is complete.

Fill the Hot Tank

16. Press the Hot Water Select Button, followed by the main dispensing button to fill the hot tank. Water will dispense from the faucet once the hot tank is full. Flush until water is clear.

⚠ WARNING! HOT CIRCUIT IS NOT SANITIZED.

Water in the hot circuit is not sanitary until the temperature exceeds 77°C (171°F) for at least 5 minutes.

UV System Functional Test

⚠ WARNING! ULTRAVIOLET RADIATION. *Protect your skin and eyes against ultraviolet rays. Never look directly at an operating UV light. Disconnect wiring before removing.*

17. Reinstall the UV Lamp and connect the wiring.
18. Dim or shield the overhead lights and peer into the machine, on top of the Cold Tank, at the UV connector and retaining cap. The blue glow indicates that the lamp is lit.

Compressor Test

19. Switch Red Compressor / Heater to *I=ON* position. Always ensure tanks are full of water before turning on the heater or the overload (high limit) will open and require manual reset. If the wire condenser at back of the **WL250 Water Treatment System** is warm, the refrigeration system is working.



20. Once the machine reaches its target temperature, the compressor will shut off. Draw a glass of cold water and verify it has been chilled to proper temperature.

Heater Test

21. Always ensure tanks are full of water before turning on the heater or the overload (high limit) will open and require manual reset. It will take the heater approximately 10 minutes to heat the water from ambient 24°C (75°F) to the factory set point of 85°C (185°F). Dispense a cup of hot water to ensure the temperature/odor/taste is acceptable.

⚠ WARNING! HOT WATER. *Unit produces Hot Water up to 87°C (188°F). Water above 52°C (125°F) can cause severe burns or scalding. Hot water should be dispensed carefully into insulated container to avoid injury.*

WL250 COUNTER TOP DRAINING INSTRUCTIONS

Draining Notes

Drain the **WL250 Water Treatment System** for transportation.

⚠ WARNING! STORE UNIT EMPTY. ALWAYS SANITIZE BEFORE REUSE.
The unit must be completely drained and sealed before storing to avoid stagnation and reduce microbial growth).

Prior to draining the hot tank, turn off the Red Heater and Compressor Power Switch (O=OFF), and dispense 2 liters of hot water from the machine. As hot water is dispensed from the faucet of the **WL250 Water Treatment System**, colder water will be introduced into the hot tank. Since the Red Heater and Compressor Power Switch is turned off, the heater will not energize and heat the incoming tap water. Following this precaution prevents exposing personnel and equipment (drains, catch basin, etc.) to scalding hot water.



Disable Cold and Hot Tanks

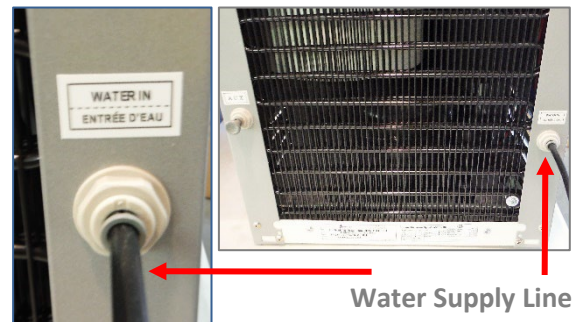
1. Turn off the Red Heater and Compressor Power Switch (O=OFF) to disable the heater and compressor.
2. Dispense 2 liters (1/2 Gallon) of water through the hot tank to cool the water temperature in the hot tank and avoid burns.



⚠ WARNING! HOT WATER. *The WL250 Water Treatment System produces Hot Water up to 87°C (188°F). Water above 52°C (125°F) can cause severe burns or scalding. Hot water should be dispensed carefully into insulated container to avoid injury.*

Turn off Water Supply and Bleed Water Pressure

3. Isolate the **WL250 Water Treatment System** from feed water by turning off the supply.
4. Dispense cold still water to relieve any pressure built up in the system.
5. Remove the water supply line from the inlet line bulkhead fitting at back of the **WL250 Water Treatment System**.



Water Supply Line

6. Depress Cold Water Dispense Button until all Cold Water has drained from the **WL250 Water Treatment System**.
7. Depress Hot Water Dispense Button until all Hot Water has drained from the **WL250 Water Treatment Machine**.

WL250 TOWER DRAINING INSTRUCTIONS

Draining Notes

Drain the **WL250 Water Treatment System** for transportation.

⚠ WARNING! STORE UNIT EMPTY. ALWAYS SANITIZE BEFORE REUSE.

The unit must be completely drained and sealed before storing to avoid stagnation and reduce microbial growth).

Prior to draining the Hot Tank, turn off the Red Heater and Compressor Power Switch (*O=OFF*), and dispense 2 liters of hot water from the machine. As hot water is dispensed from the faucet of the **WL250 Water Treatment System**, colder water will be introduced into the hot tank. Since the Red Heater and Compressor Power Switch is turned off, the heater will not energize and heat the incoming tap water. Following this precaution prevents exposing personnel and equipment (drains, catch basin, etc.) to scalding hot water.



Disable Cold and Hot Tanks

1. Turn off the Red Heater and Compressor Power Switch (*O=OFF*) to disable the heater and compressor.
2. Dispense 2 liters of water through the Hot Tank to cool the water temperature in the hot tank and avoid burns.



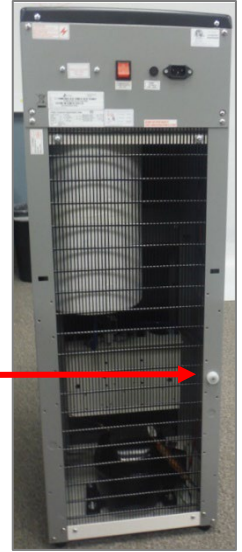
⚠ WARNING! HOT WATER. *The WL250 Water Treatment System produces Hot Water up to 87°C (188°F). Water above 52°C (125°F) can cause severe burns or scalding. Hot water should be dispensed carefully into insulated container to avoid injury.*

Turn off Water Supply and Bleed Water Pressure

3. Isolate the **WL250 Water Treatment System** from feed water by turning off the supply.

4. Dispense cold still water to relieve any pressure built up in the system.
5. Insert approx. 3 inches of blue tubing into the Line Bulkhead fitting at back of the **WL250 Water Treatment System** to allow water to drain.
6. Depress Cold Water Dispense Button until all Cold Water has drained from the **WL250 Water Treatment System**.
7. Depress Hot Water Dispense Button until all Hot Water has drained from the **WL250 Water Treatment System**.

Bulkhead Fitting



INSTALLATION PROCEDURES

Safety and Installation Guidelines

Ensure all Local, State, and Federal Laws and Codes including health and safety guidelines are met when installing **Waterlogic** Equipment. Only qualified service technicians should attempt installation and service of **Waterlogic** Equipment.

⚠ WARNING! ELECTRICAL SHOCK HAZARD. *Always unplug (isolate from power supply) to prevent electrical shock except where electrical tests are specified.*

⚠ WARNING! IMPROPER SUPPLY OR CONNECTION CAN RESULT IN RISK OF SHOCK. *Connect to a 15 amp, 120V 60Hz properly grounded outlet (GFI is recommended). Ensure polarity is correct and always use a 3-prong outlet. Consult a qualified electrician if you have any questions.*

⚠ WARNING! USE ONLY Waterlogic SUPPLIED POWER CORD. *Locate system within 5 feet of power supply. Never use an extension cord or adapter. Do not use a damaged power cord or plug. Keep power cord out of heavy traffic areas and away from heat sources. Do not, under any circumstances, remove ground prong or alter the power cord. Never pull the power plug from the outlet with a wet hand or allow the plug to get wet. Failure to use the supplied power cord will void UL Certification and Warranty.*

⚠ CAUTION! INDOOR USE ONLY. *Never expose to direct sunlight, heat sources, or ambient air temperature above 38°C (100°F) or below 2°C (35°F). Install indoors and keep unit away from excessive humidity. Never expose to freezing temperatures. Ensure there is adequate clearance around the unit to allow refrigeration system condenser to dissipate heat. Warmer environments require more clearance around the unit. Minimum clearance around all surfaces of the machine is 2-inches. Installs where the ambient temperature exceeds 80°F, require a minimum of 4-inches clearance for proper heat dissipation and efficient operation.*

⚠ CAUTION! USE A WATER PRESSURE REGULATOR. *Waterlogic will not be responsible for injury or damage caused by excessive water pressure. Operating pressure must be 40 psi to 60 psi. Be aware any of potential pressure surges caused by building/municipal pumping stations.*

⚠ CAUTION! USE UV STABILIZED SUPPLY LINES. *Feed the unit with a potable ambient or cold-water supply only. Feed water over 100° F (37°C) can damage the treatment components. Water block devices and external leak detectors are strongly recommended. Locate the unit as close to the water supply and the electrical connections as possible.*

⚠ WARNING! STORE AND TRANSPORT UNIT EMPTY. ALWAYS SANITIZE BEFORE USE. *The unit must be completely drained and sealed before storing to avoid stagnation and reduce microbiological contamination (potential bacterial growth). Sanitize before use to eliminate any potential microbiological contaminants*

Pre-installation and sanitization procedures as prescribed in this manual must be performed before installing the **WL250 Water Treatment System**.

Always install indoors and place the **Waterlogic WL250 Water Treatment System** on a firm, flat and stable surface.

1. Attach the water supply line to the 1/4" feed water inlet bulkhead fitting on the back of the **WL250 Water Treatment System**. **Waterlogic** requires the use of a water pressure regulator. Water feed pressure must be between 40-60 psi. Turn on the water supply and check for leaks.
2. Check to ensure that the Red Heater and Compressor Power Switch is the *O=OFF* position.

NOTE: Switches have internal LED that illuminates when placed in *I=ON* position.



3. Connect the power cord to the back of the **Waterlogic WL250 Water Treatment System** and to a 120 Volt supply.
4. Fill the Cold Tank. Hold a container under the dispensing faucet, press and hold the main dispensing button until a continuous flow of water is obtained. Once a continuous flow is obtained, release the dispensing button. Cold tank is now full.
5. Fill the Hot Tank. Hold a container under the dispensing faucet. Press the Hot Select Button followed by the main dispensing button until a continuous flow of water is obtained. Once a continuous flow is obtained, release the main dispensing button. Hot tank is now full.

⚠ CAUTION! NEVER TURN ON HEATER BEFORE FILLING HOT TANK.

Red Heater and Compressor Power Switch must be in the O=OFF position while the Hot Tank is empty. Damage could occur within one minute and the overload (high limit) will require manual reset if heater is turned on with an empty Hot Tank.



6. Verify that the UV Lamp operates as expected.
- ⚠ WARNING! ULTRAVIOLET RADIATION.** *Protect your skin and eyes against ultraviolet rays. Never look directly at an operating UV light. Always disconnect before removal.*
7. Move the **Waterlogic WL250 Water Treatment System** into its final operating position. Be sure that a minimum of 2" clearance is maintained around both sides and the back of the **WL250 Water Treatment System**.
8. This is important to allow proper airflow and heat exchange of refrigeration system.

9. Level **WL250 Water Treatment System** using the adjustable feet to level if necessary. Never install on incline.
10. Turn the Red Heater and Compressor Power Switch to *I=ON* position.
11. When the **WL250 Water Treatment System** has reached its Hot Temp Set Point, the heater will cycle off. When the **WL250 Water Treatment System** has reached its Cold Temp Set Point Temperature, the compressor will cycle off.
12. Once the **WL250 Water Treatment System** is at the target temperature(s), sample the water to ensure water meets expectations and additional rinsing or adjustment is not required.
13. Check the **WL250 Water Treatment System** for any leaks. External Leak Protection is always recommended.



FAULT CODE TROUBLESHOOTING INDEX

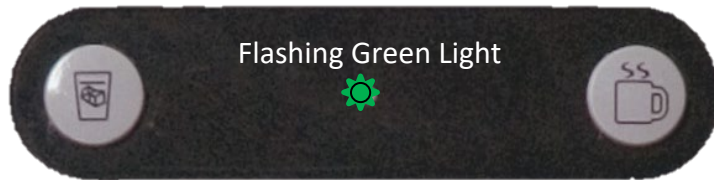
1. Red Flashing LED Light and Audible Alarms indicate there is a Leak Detected for the Counter Top Model
2. Green Flashing LED light indicates the PCB CDS DIP switch turned to OFF

1. **FAULT CODE: Red Flashing LED Light and Audible Alarms are the Leak Detector Alarms for Counter Top Model**

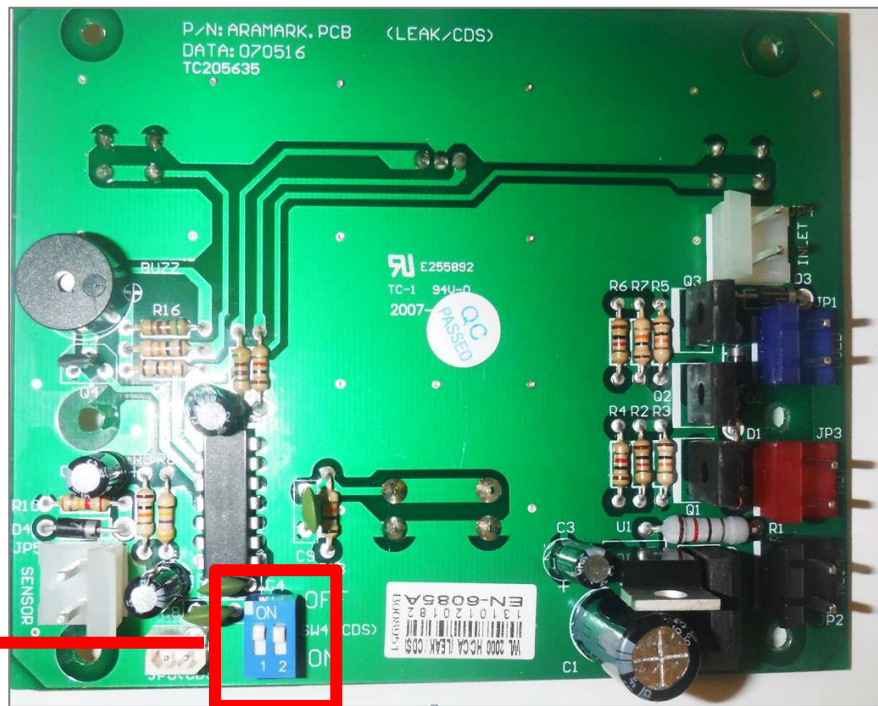
Possible Reason	Solution
Water exiting drip tray due to being full	Empty Drip Tray. Remove Top cover and Front Panel prior to drying out inside of the unit.
Leak in WL250 Counter Top	Water is in the bottom of the unit. Open up unit to determine where the leak is. Check for source of leak. Dry out inside of unit.



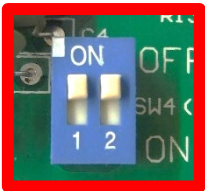
2. FAULT CODE: Green Flashing LED light indicates the PCB CDS DIP switch turned to OFF



Possible Reason	Solution
CDS Sensor switched to OFF	Change CDS DIP Switch's on the PCB for Leak Detection Part Number 12-3115 (Factory PN EN-6085A) to ON.



Both switches to be in ON position as shown



POWER TROUBLESHOOTING INDEX

1. Red Heater and Compressor Power Switch won't light, and the Red LED on the Front won't light
2. Red Power Switch is lit but the red LED on the Front is not lit
3. Compressor Runs but does Not Chill
4. Compressor is Not Running

1. Red Heater and Compressor Power Switch won't light and the Red LED on the Front won't light

Possible Reason	Solution
Circuit Breaker	Check the Circuit Breaker
Fuse is Blown	Replace Fuse
Defective / Loose Power Cord	Check that power cord is properly plugged in. If it is properly plugged in, use a different power cord to verify.
Failed Power Line Noise Filter, ElectroMagnetic Interference filter (EMI)	Replace Power Line Noise Filter, ElectroMagnetic Interference filter (EMI)
Defective Red Heater / Compressor Switch	Replace Red Heater / Compressor Switch



2. Red Power Switch is lit but the Red LED on the Front is not lit

Possible Reason	Solution
Bad Transformer	Replace Transformer
Black Power Connector to the PCB is not properly connected	Properly connect.
Bad Front PCB	Replace Front PCB Hot and Cold – P/N EN-6085 WLCP PN 12-8103 Cold Only – P/N EN-6086 WLCP PN 12-8615
Defective Red Heater / Compressor Switch	Replace Red Heater / Compressor Switch

3. Compressor Runs but Does Not Chill

Possible Reason	Solution
Condenser is dirty	Clean the condensing coil of any obstructions or dust.
Reduction of airflow into unit.	Make sure unit is not under minimum ventilation requirements (2 to 4 inches).
Compressor is running very hot.	Low or lost refrigerant. Refrigerant recharge required.

4. Compressor is Not Running

Possible Reason	Solution	
Red Heater and Compressor Switch button on unit is in the off position	Turn Red Heater and Compressor Switch on. <i>I = ON</i>	
Compressor Starting Circuit	Turn Red Heater and Compressor Switch off. <i>O = OFF</i> . Remove the compressor cap on side of the compressor; Disconnect the black and red terminal connectors; Inspect the starter and overload relay for any defects. Replace components(s) as needed. Turn Red Heater and Compressor Switch on <i>I = ON</i> and retest compressor operation.	

DISPENSING TROUBLESHOOTING INDEX


1. Dispensing won't stop when not holding the Dispensing Button
2. Water does not dispense from unit
3. Steady Drip out of Faucet
4. Irregular / Intermittent Dispensing
5. Small amount of water periodically dispenses from faucet automatically
6. Low Flow of Water – Rated Service Flow is 1.89 Liters (0.5 gallons) per Minute
7. Hot Water Intermittently Forced Through the Faucet, or a Dual Stream Out of the Faucet
8. Hot Water coming out of both the Faucet and the Vent Hole
9. Hot Water Drip out of Faucet
10. Dispenses Hot and Cold Water at the same time
11. No Cold Water Available
12. Cold Water dispenses from Faucet and Vent Outlet Simultaneously
13. Dispense Buttons stick
14. Run-On Water continues to dispense out of faucet after releasing the dispense button

Also includes related instruction for Hot Tank Descaling

1. Dispensing Won't Stop when Not Holding the Dispensing Button

Possible Reason	Solution
<p>Too much water pressure. Recommend 40-60 psi for the WL250 Water Treatment System to operate properly.</p>	<p>The correct input water pressure is critical to the performance of the unit to allow solenoids to open.</p> <p>Check water pressure at the inlet bulkhead with a water pressure gauge.</p> <p>Additional method of verification is to turn off water to unit and press the dispense button. Does the solenoid open without water pressure to the unit? Listen for solenoid to activate, not button "click".</p> <p>Adjust water pressure to 40-60 psi.</p>
<p>Bad Display PCB</p>	<p>Replace Front PCB Hot and Cold – P/N EN-6085 WLCP PN 12-8103 Cold Only – P/N EN-6086 WLCP PN 12-8615</p>
<p>Debris in the Solenoid</p>	<p>Inspect Solenoid for debris and clean out as needed.</p>
<p>Dispensing Button Stuck</p>	<p>Dirt or Foreign material is filling the gap around the push-buttons. Inspect the push buttons and clean surrounding area. Inspect faucet assembly inside the unit and clean as necessary.</p>

2. Water does not dispense from Unit

Possible Reason	Solution
<p>Too much water pressure. Recommend 40-60 psi for the WL250 Water Treatment System to operate properly.</p>	<p>The correct input water pressure is critical to the performance of the unit to allow solenoids to open.</p> <p>Check water pressure at the inlet bulkhead with a water pressure gauge.</p> <p>Additional method of verification is to turn off water to unit and press the dispense button. Does the solenoid open without water pressure to the unit? Listen for solenoid to activate, not button “click”.</p> <p>Adjust water pressure to 40-60 psi.</p>
Closed water supply valve	Open the water supply valve.
The unit is not properly plugged into electrical outlet	Check electrical outlet connection, or for blown circuit breaker.
Red Heater and Compressor Switch on unit is in the off position	<p>Turn Red Heater and Compressor switch on. <i>I = ON</i></p> 
15 Amp Fuse Blown	Replace the 15 Amp Fuse as needed.
<p>Water is present in the bottom tray, causing the leak detection to trigger.</p> <p><i>*Leak Detection is on the Counter Top Model only.</i></p>	Remove the Top Cover and Front Panel. Tip the unit slightly to drain, dry bottom tray completely.
Hot and Cold Solenoid connections into the Display PCB are loose.	<p>Turn power off; unplug the unit and visually inspect solenoid connections into the Display PCB. Verify the soldering points on connections are secure into the board.</p> <p>Remove the PCB to inspect the front of the board.</p>
Exhausted Filter	Replace filters as needed.

3. Steady Drip Out of Faucet

Possible Reason	Solution
Debris in Solenoid	Inspect Solenoid for debris and clean out as needed.

4. Irregular / Intermittent Dispensing

Possible Reason	Solution
Too much water pressure. Recommend 40 to 60 psi for WL250 Water Treatment System to operate properly.	<p>Check water pressure at the inlet bulkhead with a water pressure gauge.</p> <p>Additional method of verification is to turn off water to unit and press the dispense button. Does the solenoid open without water pressure to the unit? Listen for solenoid to activate, not button “click”.</p> <p>Adjust water pressure to 40-60 psi.</p>
Loose or bad connection on the Front Dispensing PCB or Solenoid Connector	Check that they are connected properly and tightened.
Solenoid	<p>If both the Water Pressure and PCB have been ruled out, then it is the Solenoid.</p> <p>Replace Solenoid.</p>
Dispensing button is broken on PCB	Check PCB for loose or damaged button. Replace PCB as necessary.

5. Small Amount of Water Periodically Dispenses from Faucet Automatically

Possible Reason	Solution
Cold or Hot Water Solenoid Valve malfunction`	Inspect valve components for proper function. Replace as necessary.
Obstruction in Solenoid housing is preventing proper sealing of component	<p>Pre-determine whether water being dispensed is Hot / Cold. Isolate the water supply; push the DISPENSE button to release the line pressure, and remove the coil affixed to the Solenoid stem.</p> <p>Remove the stem from the solenoid housing and allow water from the tank to flush out the contaminate(s).</p>

6. Low Flow of Water – Rated Service Flow is 1.89 Liters (0.5 gallons) per Minute

Possible Reason	Solution
Determine Flow of Water	Rated Flow Rate is 1.89 Liters (0.5 gallons) per Minute. Check Flow Rate by dispensing into a container for one minute. Measure the amount of water that has been dispensed.
Feed Lines too small	Feed lines can restrict flow if run long distances from the supply. It may be necessary to increase the supply line (e.g. use 3/8" feed line versus 1/4").
Elbows and turns in the feed line	Minimize elbows and turns in the feed line.
Filters	Filters with high pressure drop due to fouling or just by design. Change filters more frequently or go to higher micron size filter for local water conditions.
Restrictions	Flow path to ensure there are no undiscovered restrictions due to debris or malfunctioning valves, including the supply valve at the source.
Booster Pump	Add a booster pump to the supply line if the feed is slower than needed.

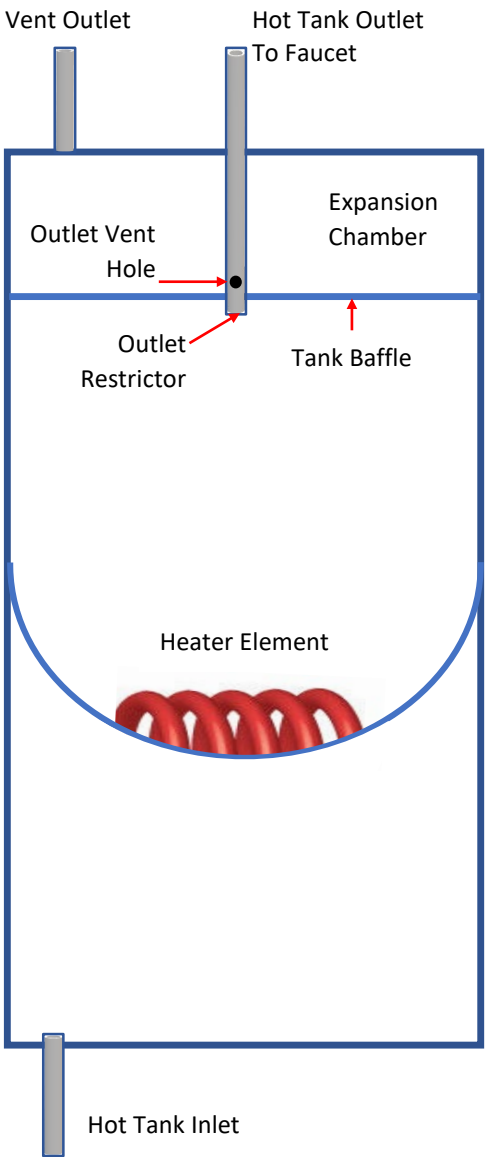
7. Hot Water Intermittently Forced Out through the Faucet, or a Dual Stream out of the Faucet

Possible Reason	Solution
Mineral deposits on the expansion slot inside the Hot Tank vent chamber which blocks the normal path of water to expand.	Descale the Tank. <u>See Hot Tank Descaling Instructions that are included further below in this Troubleshoot Section.</u>

8. Hot Water Coming out of Faucet Vent Hole

Possible Reason	Solution
<p>Too much water pressure. Recommend 40 to 60 psi for WL250 Water Treatment System to operate properly.</p>	<p>Check water pressure at the inlet bulkhead with a water pressure gauge.</p> <p>Additional method of verification is to turn off water to unit and press the dispense button. Does the solenoid open without water pressure to the unit? Listen for solenoid to activate, not button “click”.</p> <p>Adjust water pressure to 40-60 psi.</p>
<p>Improper tubing attachment from the tank to faucet or vice versa.</p>	<p>Verify tubing is connected properly from tank outlets to correct faucet attachments.</p>
<p>Hot Tank outlet hole is scaled over.</p>	<p>Inspect and Descale Tank as needed.</p> <p><u>See Hot Tank Descaling Instructions that are included further below in this Troubleshooting Section.</u></p> <p>See instructional video on the Partner Area of the Waterlogic.com website for more information.</p>
<p>Expansion chamber is not sealed properly.</p>	<p>Replace the Hot Tank.</p>


9. Hot Water Drip out of Faucet

Possible Reason	Solution
<p>Small Outlet Vent Hole susceptible to scale build up.</p>	<p>Descale Tank.</p> <p><u>See Hot Tank Descaling Instructions that are included further below in this Troubleshooting Section.</u></p> <p>See instructional video on the Partner Area of the Waterlogic.com website for more information.</p>
	<p>All Waterlogic Hot Tanks have a built in Vent or Expansion Chamber in the top of the tank except for WL270 (GF) units.</p> <p>The Vent Chamber allows for expansion of the water when it is heated.</p> <p>The chambers are separated by a welded-in tank baffle.</p> <p>Water always flows into the bottom of the tank and out the top to the faucet.</p> <p>The hot tank outlet tube has a restrictor in its base. This ensures the reservoir is always full by allowing more water in than out.</p> <p>There is a small hole in the side of the tank outlet tube that allows air and water to pass into the vent chamber as it is heated.</p> <p>Water in the vent chamber is suctioned back through the outlet tube vent hole when water is dispensed.</p> <p>Expansion of water as it is heated in the reservoir will push the water out the faucet when the outlet tube vent hole becomes plugged with debris or scale.</p> <p>The small Outlet Vent Hole is susceptible to scale build up and is a key indicator that descaling is required.</p> <p>It is critical to descale the hot tank through the vent line and outlet line on a regular basis to prevent this problem.</p> <p>Descaling through the inlet and/or outlet lines only will not clean the vent chamber and outlet vent hole properly.</p>

10. Dispenses Hot and Cold Water at the Same Time

Possible Reason	Solution
<p>Too much water pressure. Recommend 40 to 60 psi for WL250 Water Treatment System to operate properly.</p>	<p>Check water pressure at the inlet bulkhead with a water pressure gauge.</p> <p>Additional method of verification is to turn off water to unit and press the dispense button. Does the solenoid open without water pressure to the unit? Listen for solenoid to activate, not button “click”.</p> <p>Adjust water pressure to 40-60 psi.</p>
<p>Hot or Cold solenoid is stuck open.</p>	<p>Remove Top cover.</p> <p>Check Hot Solenoid: Dispense cold water and visually inspect tubing for water flow from both tanks.</p> <p>Check Cold Solenoid: Disconnect elbow from outlet of cold solenoid. Select hot water and dispense (quickly releasing dispensing button to avoid much water coming out of cold solenoid).</p> <p>Replace solenoid as necessary.</p>

11.No Cold Water Available

Possible Reason	Solution
Too much water pressure. Recommend 40 to 60 psi for WL250 Water Treatment System to operate properly.	<p>Check water pressure at the inlet bulkhead with a water pressure gauge.</p> <p>Additional method of verification is to turn off water to unit and press the dispense button. Does the solenoid open without water pressure to the unit? Listen for solenoid to activate, not button “click”.</p> <p>Adjust water pressure to 40-60 psi.</p>
Closed Water Supply Valve	Open the Water Supply Valve
Cold Water Solenoid Valve malfunction	Inspect the valve components for proper functionality.
Red Heater and Compressor Switch on unit is off.	<p>Turn Red Heater and Compressor Switch on. <i>I = ON</i></p> 
Loose connection(s) on the Display PCB	<p>Turn power off; unplug the unit and visually inspect solenoid connections into the Display PCB. Verify the soldering points on connections are secure into the board.</p> <p>Remove the PCB to inspect the front of the board.</p>
Exhausted Filter	Replace filters as needed.

12.Cold Water Dispenses from Faucet and Vent Outlet Simultaneously

Possible Reason	Solution
Improper tubing attachment from the tank to faucet or vice versa	Verify tubing is connected properly from tank outlets to correct faucet attachments.
Scale has formed inside cold tank outlet tube.	Remove cold water outlet tube from tank to faucet. Pour some scale remover into cold tank.
Expansion chamber in Cold Tank is not sealed properly.	Replace Cold Tank.

13. Dispense Buttons Stick


Possible Reason	Solution
Dirt or Foreign material is filling the gap around the push-buttons.	Inspect the push buttons and clean surrounding area. Inspect faucet assembly inside the unit and clean as necessary.

14. Run On – Water continues to dispense out of faucet after releasing the dispense button

Reason																														
<p>“Run On” or “Carry On” is present in all Waterlogic pressure fed units without outlet solenoids.</p> <p>“Run On” is defined is the amount of water that continues to dispense out of the faucet after releasing the dispense button.</p> <p>Run On exists because the tanks pressurize as water is being dispensed. Every Waterlogic tank has an outlet restrictor to ensure the tanks remain full of water and water is controlled as it is released to the faucet. The inlet solenoid controls flow into the tanks. The tanks will “depressurize” once the dispense button is released the inlet solenoid closes. A small amount of water will “Run On” through the faucet as the tank depressurizes to atmospheric conditions.</p> <p>Typical “Run On” is 2-3 seconds.</p> <p>“Run On” can be reduced by installing a pressure limiting device.</p> <p>The amount of inlet or supply pressure directly impacts the amount of “Run On” as quantified below.</p> <table border="1"> <thead> <tr> <th colspan="5">WLCP Lab Testing of Rn On 7-31-2013</th> </tr> <tr> <th>Pressure</th> <th>Pressure</th> <th>Time</th> <th>Flow Rate</th> <th>Run On</th> </tr> <tr> <th>Static PSI</th> <th>Dynamic PSI</th> <th>4 Liters</th> <th>l/min</th> <th>Seconds</th> </tr> </thead> <tbody> <tr> <td>68</td> <td>40</td> <td>61</td> <td>2.9508197</td> <td>3</td> </tr> <tr> <td>50</td> <td>30</td> <td>72</td> <td>2.5</td> <td>2.5</td> </tr> <tr> <td>32</td> <td>20</td> <td>92</td> <td>1.956217</td> <td>2</td> </tr> </tbody> </table> <p>Pressure measured at inlet line to unit. Static with unit closed. Dynamic with unit dispensing cold water.</p> <p>No filters were installed in unit.</p>	WLCP Lab Testing of Rn On 7-31-2013					Pressure	Pressure	Time	Flow Rate	Run On	Static PSI	Dynamic PSI	4 Liters	l/min	Seconds	68	40	61	2.9508197	3	50	30	72	2.5	2.5	32	20	92	1.956217	2
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COLD WATER TROUBLESHOOTING INDEX

1. Cold Water is not Cold (41° +/- 5° F)

Possible Reason	Solution
No power or refrigeration elements	<p>Check that the Red Heater and Compressor switch is on.</p> <p>Turn Red Heater and Compressor Switch on. <i>I = ON</i></p> 
<p>Tank has run out of cold water.</p> <p><i>Cold tank capacity is 4 liters for Tower and 2 liters for Counter Top.</i></p>	<p>Wait for cold tank to chill water to temperature prior to dispensing more cold water.</p> <p>A greater capacity of Waterlogic Water Systems is available.</p>
Cold Water Thermostat	Check continuity of thermostat with multimeter. Replace thermostat as required.
Refrigerant has run out	Run compressor for at least ten minutes. If condenser is not warm, then refill the refrigerant.
Compressor problem	If Compressor is not running, repair or replacement is needed.

HOT WATER TROUBLESHOOTING INDEX

Hot Water Problems

1. Hot Water is not Hot 85°C +/- 15°C (185°F +/- 5°F)

Also includes related instructions for Resetting the Hot Tank Overload or High Limit Safety

Hot Water is not Hot 85 +/- 15°C (185° +/- 5° F)


NOTE: The **WL250 Water Treatment System** does NOT have Sleep or Power Saving Mode and the hot water should be a of 85 +/- 15°C (185° +/- 5° F) under normal operating conditions.

The Hot temperature set point is 85°C +/- 15°C (185°F +/- 5° F) and is controlled by a thermostat on the side of the tank.

There is a resettable overload or high limit safety above the thermostat on the side of the tank that will trip to prevent damage to the unit if the tank is dry heated (turned on without water in it).



The **WL250 Water Treatment** does NOT have Extra Hot capability and the maximum hot temperature is 87°C (189°F).


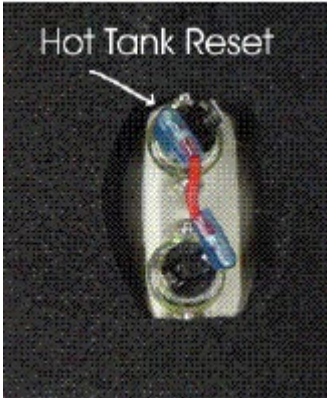

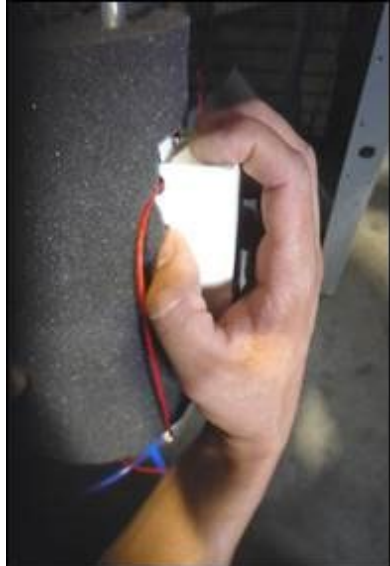
It typically takes 10 minutes for the 500W to heat the 1.6 Liter of room temperature (ambient) water to the 85°C (185°F) set point.

Possible Reason	Solution
No power to heater elements	Check that the Red Heater and Compressor switch is on. Turn Red Heater and Compressor Switch on. <i>I = ON</i> 
Hot Tank Overload Tripped <i>Overload is a safety feature to ensure the tank does not overheat.</i>	Overload will “click” when pushed. The overload is automatically reset when pressed. <u>See Resetting the Hot Tank Overload or High Limit Safety Instructions that are included further below in this Troubleshooting Section</u>
Thermostat or overload “open” on Hot Tank	Turn Power off. Check OHM’s resistance across terminals on each Thermostat and Overload separately.

	<p>Good components will indicate a closed circuit or zero OHM's on the meter.</p> <p>Replace components as necessary.</p>
<p>Heating Coil Not Working</p>	<p>Turn Power off; Drain hot tank; Use multi-meter to check heater element for approximately 26 OHM's resistance.</p> <p>Hot Tank must be empty if you are checking for continuity.</p> <p>Replace Hot Tank as necessary.</p>
<p>Loose or improperly connected wire(s) to the Heating Element / Hot Tank.</p>	<p>Visually inspect wire leads going to the hot tank; confirm proper connections to the heating elements.</p> <p>Hot tank life is 3-5 years, depending on usage.</p> <p><i>*Typically, dealers swap out the Hot Tank at site, take back to the shop to repair.</i></p>

RESETTING THE HOT TANK OVERLOAD OR HIGH LIMIT SAFETY

1.	<p>Red Heater and Compressor Switch must be in the OFF position</p> <p><i>O=OFF</i></p>	
2.	<p>Unplug the Power Cord from rear of WL250 Water Treatment System.</p>	
3.	<p>Tower Model: Remove the <u>Lower Front Panel</u> by removing the Phillips Head Screws underneath the Lower Front Panel.</p> <p>Counter Top Model: Remove the <u>Side Panel</u> by removing Phillips Head Screws from Side Panel.</p>	
4.	<p>Locate the protective metal box on the rear of the Hot Tank.</p> <p>As you look through the condenser coils on the rear of the unit, you will see the Hot Tank located on the right-hand side.</p>	

<p>5.</p>	<p>Reach up behind the Hot Tank and take hold of the Protective Metal Box covering the Thermostat and Overload on the Hot Tank.</p> <p>There are nuts that secure the metal box to the Hot Tank. However, the nuts are loose enough to allow you to remove the metal box.</p> <p>If the nuts on the metal box are too tight, loosen the nuts securing the Hot Tank to the upper base of the unit and lower the hot tank so you can remove the metal box.</p> <p><i>For demonstrative purposes, photos below have lowered the Hot Tank from the unit.</i></p>	
<p>6.</p>	<p>Press the reset button</p> 	
<p>7.</p>	<p>Reattach the metal box by depressing the top flap of the Metal Box so it snaps back into its original position on the Hot Tank.</p>	

8.	Replace Panel on unit using Phillips head screws.
9.	Plug in the Power Cord.
10	Make sure the Hot and Cold Tanks are filled with water BEFORE turning on the Red Heater and Compressor Switch. Verify the cooler is fully operational before installing it at the customers' site.