

WL290

MANUAL



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WL290 MANUAL

Congratulations on your choice of the **Waterlogic WL290 Water Treatment System**. The **WL290 Water Treatment System** model dispenses Cold, and Hot Water. Every **WL290 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 WL290 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 **WL290 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.

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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! 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! DO NOT OPERATE IF DAMAGED. *Unplug if abnormal case occurs. Contact Waterlogic or authorized dealer for repair, service, and installation to avoid hazards.*

⚠ WARNING! HOT WATER. *Unit produces Hot Water in excess of 87°C (188°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 the **WL290 Water Treatment System** to the base cabinet with the screw provided to lock the components together. 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 and sealed before storing to avoid stagnation and reduce microbiological contamination (potential bacterial growth). Sanitize before use to eliminate any potential microbiological contaminants.*
- ⚠ CAUTION! INDOOR USE ONLY.** *Intended for household use only. 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.

WL290 FEATURES AND BENEFITS

Cold, and Hot Water

The **WL290 Water Treatment System** unit comes standard with Cold and Hot Selections to meet a wide range of customer demands. Cold Water temperature is adjustable.

High Volume Storage and Water Capacity

The **WL290 Water Treatment System** unit has 4 liters (1 Gallon) in Cold Tank and 11.2 Liters (3 Gallons) in the Cold-Water Reservoir (total of 15 Liters of Ice Cold Water) and 1.6 Liters (.42 Gallons) 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

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

Leak Detection

The **WL290 Water Treatment System** unit is supplied with a Sensor in the Leak Tray that halts water supply to prevent overflow.

Energy Saving Sleep Mode

If no input of water for 3 hours, the **WL290** goes into Energy Saving Sleep and turns off the Hot Tank. The **WL290 Water Treatment System** can be programmed to turn off the Sleep Mode.

Advanced Programming Customizable settings for optimizing each **WL290 Water Treatment System** including; Cold Temp Set Point, Hot Temp Set Point, Filters Timer Setting, and Energy Saver Sleep Mode

Child Safeguard

The **WL290 Water Treatment System** unit requires two separate buttons to be held down in the correct sequence 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.



WL290 CERTIFICATIONS

Waterlogic Water Treatment Systems have been tested, and certified to rigorous NSF and UL Standards. We believe that performance testing and certifications validate *Waterlogic* as a world-leader in water treatment systems.

WL290 Certifications Include



UL399 – Certified Drinking Water Cooler

Intertek Labs (ETL) Certified the *WL290 Water Treatment System* to ANSI/UL 399 Standard for Drinking Water Coolers.

Intertek

CSA C22.2 No. 120 CSA Standard for Refrigeration.



BPA Free - *Waterlogic* tests for BPA and declares that all of its products are Bisphenol-A FREE and contain no harmful BPA plastics.



NSF/ANSI-61 – Certified Drinking Water System Components

NSF / ANSI 372 – Drinking Water System Components – Lead Content

CSA B483.1 - Drinking Water Treatment Systems

This System has been tested and certified in accordance with NSF/ANSI-61 – Certified Drinking Water System Components, NSF / ANSI 372 – Drinking Water System Components for low Lead Content, and CSA B483.1 - Drinking Water Treatment Systems by the Water Quality Association (WQA)

Waterlogic is certified to ISO 9001:2015 – Quality Management Systems (certified by Intertek). ISO 9001 is the internationally accepted standard for well managed organizations that have adopted the key quality management principles to its operations to bring consistent quality products and a culture of continuous improvement.



Safe Drinking Water Act

Waterlogic water treatment systems conform to the Safe Drinking Water Act (SWDA) “lead-free” amendment effective January 4, 2014.

MODEL/PART DESIGNATIONS

BRAND NAME	DESCRIPTION	MODEL PART NUMBER
WL290	<i>Waterlogic WL290</i> – Cold and Hot	GF Max
	F-1010-FS-HC-UT-CS-WLU	
	Serial Number Prefix - 19	

SPECIFICATIONS

<u>ITEM</u>	
Water Connection	¼" Quick Connect
Cold Water Temperature	Cold Water Temperature – Factory Set Point 5°C (41°F) (Programmable) 3° - 7°C (37° - 45° F.)
Cold Tank and Cold-Water Reservoir Size	4 Liter (1 Gallon) Cold Tank plus 11.2 Liter (3 Gallons) Cold Tank Reservoir Total of 15.2 Liters (4 Gallons) of Ice Cold Water capacity
Cold-Water Reservoir	11.2 Liter (3 Gallons)
Hot Water Temperature	Hot Water Temperature – Factory Set Point 85°C (185°F) (Adjustable) 80°C – 93°C (176° - 199°F)
Hot Tank Size	1.6 Liters (0.4 Gallons)
Resettable Hot Tank Overload Devices (High Limit Safety)	105°C (221°F)
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 Out	1.89 Liters per Minute (0.5 gallons per minute)
Environmental Temperature	2° - 37°C (35° - 100°F)
UV Lamp	8 Watts
Heater	500 W
Pump	24V DC – 120 psi – Flow 1000ml/min
Refrigerant Gas	R134a, 58 grams, 2.05 ounces
R134a Pressures	High (230 psi), Low (90 psi)

SHIPPING SPECIFICATIONS

<u>ITEM</u>	<u>WL290</u>
Width/Depth/Height	15.4" x 14.4" x 45.7" 391 x 366 x 1161 mm
Weight (dry)	62 pounds (28 kg)



ELECTRICAL SPECIFICATIONS

ELECTRICAL SUPPLY	120V/60Hz, 1PH	15 Amp Service
COMPONENT	POWER (approximate)	AMP DRAW (approximate)
Heater	500	4.2 Amps
Compressor	207	1.75 Amps
UV Lamp System	8	0.07 Amps
Pump	0.5	0.004 Amps
WL290 TOTAL	716	6.03 Amps

OPERATING INSTRUCTIONS



The above picture shows the Front Water Dispense Buttons for the *Waterlogic WL290 Water Treatment System*.

Place appropriate receptacle under the Hot or Cold areas for dispensing water.

For Hot Water:

1. Press and hold down the Red-Hot Safety Button (LEFT hand side)
2. Press the Red Hot Dispense Button (RIGHT hand side)

*Both buttons must be held at the same time to dispense Hot Water. **This is a safeguard when dispensing hot water to prevent accidental dispensing of hot water.**

For Cold Water: Press Blue Cold Water Select Button



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, TX 76051

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

SERVICE REQUIREMENTS

⚠ WARNING! *Read and understand the contents of this manual before attempting to service WL290 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 Assembly and Wiring Harness must be replaced every 12 months.

8UV Lamp Assembly
Part Number CT-2083 WLCP Part Number 10-2350



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



⚠ 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.*

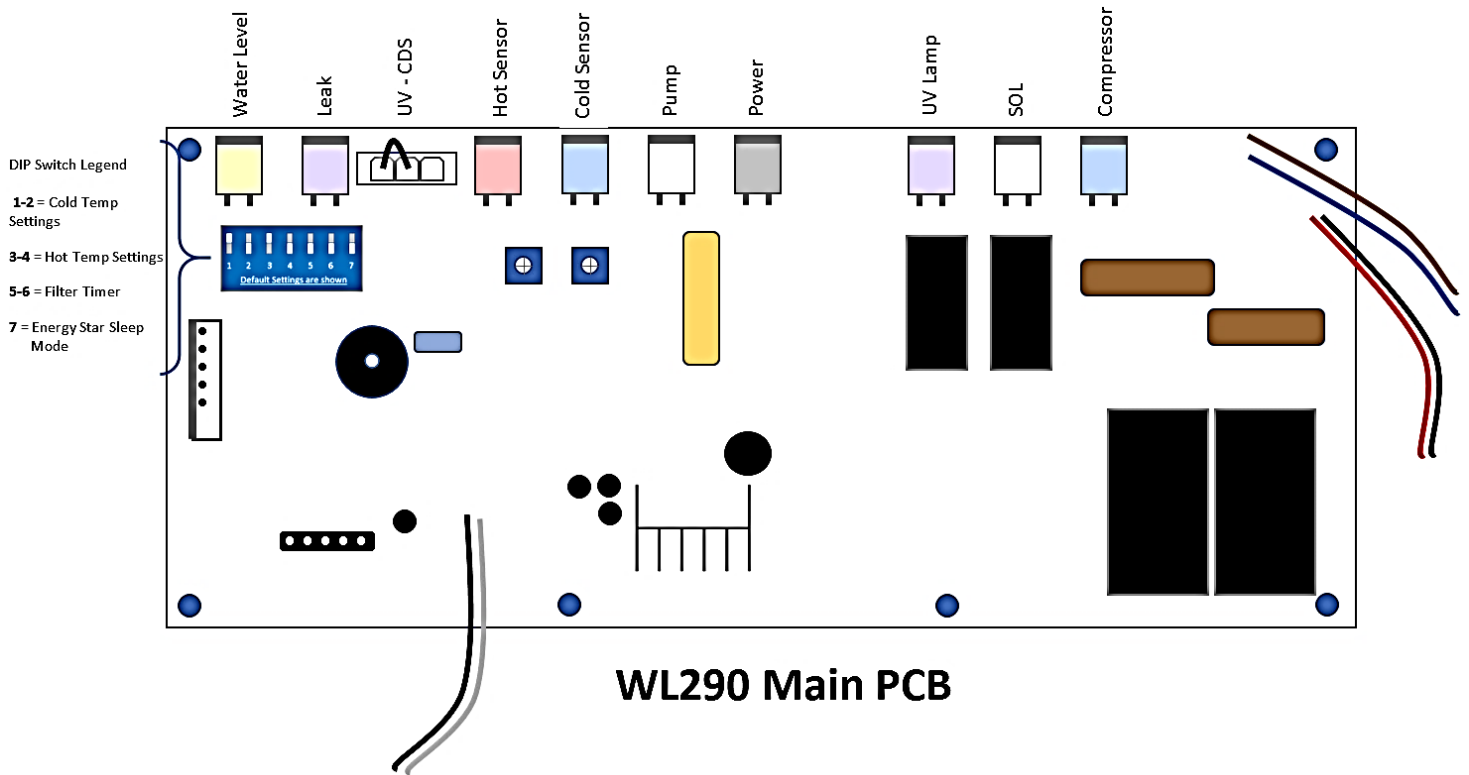
3. Clean the Quartz Sleeve that surrounds the UV lamp with a non-abrasive cloth, descaling solution, or ultrasonic bath if needed when changing UV Lamps.

⚠ 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 unit 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 unit. 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.*

MAIN PCB WIRE DRAWING



LED INDICATOR LIGHTS

● Heating	● Chilling	● Power
● Sleep	● UV	● Filter



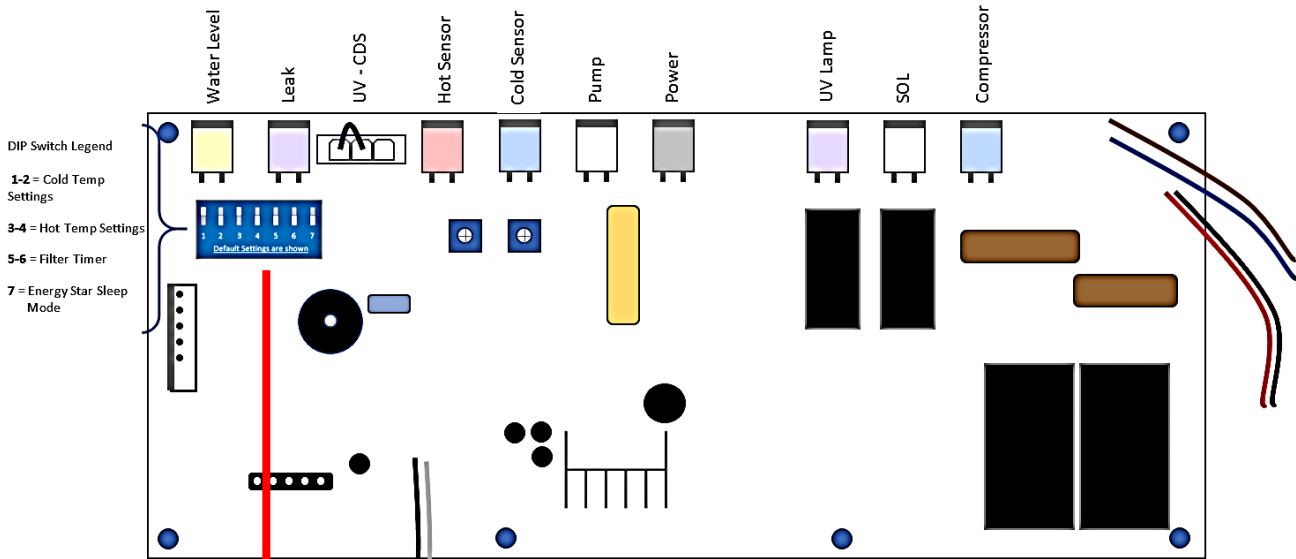
● Power	Green Power LED = Power is ON; No Power LED = Power is OFF
★ Power	Flashing Green Power LED = <u>Circulation Pump Fault</u>
● Filter	Green Filter LED = <u>Filter Timer Alarm</u>
● Chilling	Blue Chilling LED = WL290 is chilling water and the Compressor is ON. No Blue Chilling LED = Water is chilled to temperature and the Compressor is OFF.
★ Chilling	Flashing Blue Chilling LED = <u>Cold Fault Alarm</u> (see troubleshooting section of this manual)
● UV	Blue UV LED = UV is in operation.
● Heating	Red Heating LED = Water is heating.
○ Heating	No Red Chilling LED = Water is heated to temperature.
★ Heating	Flashing Red Heating LED = <u>Hot Fault Alarm</u> (see troubleshooting section of this manual)
● Sleep	Red Sleep LED = Unit is in Sleep Mode (Energy Saver) is ON; No Red LED = Unit is not in Sleep Mode.

All but the Green Power LED Light Flashing indicates the **WL290** has detected a leak. (see troubleshooting section of this manual)

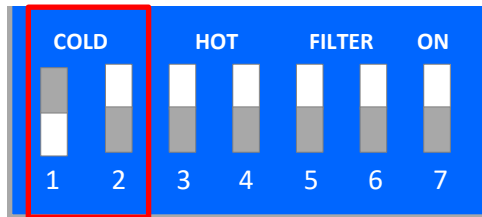
★ Heating	★ Chilling	● Power
★ Sleep	★ UV	★ Filter

PROGRAMMING INSTRUCTIONS

DP SET-UP COLD WATER TEMPERATURE



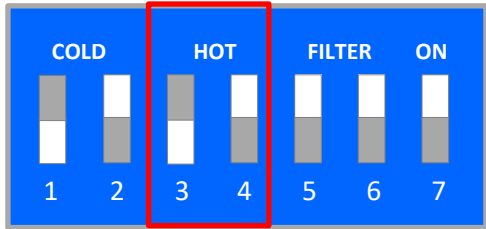
WL290 Main PCB







1	2	COLD TEMPERATURE SETTING
		3°C (37°F)
		5°C (41°F)
		5°C (41°F)
		7°C (45°F)

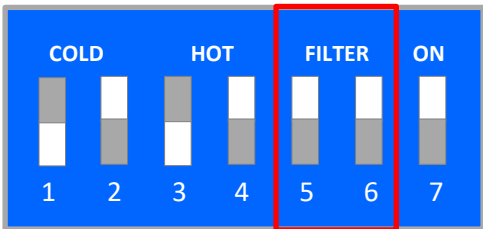
] DEFAULT SETTING - 5°C (41°F)

DP SET-UP HOT WATER TEMPERATURE



3 4	HOT TEMPERATURE SETTING	
	80°C (176°F)	
	85°C (185°F)] DEFAULT SETTING - 85°C (185°F)
	85°C (185°F)	
	93°C (199°F)	

DP SET-UP FILTER TIMER

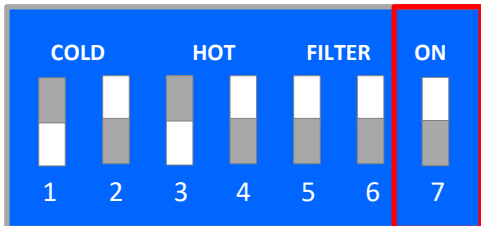


Filters should be configured to optimize your system. Filters need to be configured and specified to do the job given the local water conditions, usage, maintenance schedule, and placement restrictions.

In order 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 on 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.



DP SET-UP SLEEP MODE (ENERGY SAVER) When in Sleep Mode when there is no incoming water for more than three hours, the **WL290 Water Treatment System** will go to sleep mode automatically and the Red Sleep LED light is on and the heater is turned OFF.



HOT TANK DESCALING INSTRUCTIONS

The Hot Tank requires removal of mineral deposits (descaling) on a regular basis. Typically descaling should take place every 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.

⚠️ WARNING! ***PERSONAL PROTECTIVE EQUIPMENT REQUIRED.** Always ensure proper ventilation and use rubber or nitrile gloves and eye protection when using chemicals. Refer to Material Safety Data Sheet for specific requirements of each product.*

⚠️ CAUTION! ***STAINLESS STEEL TANK DESCALING.** The Hot Tank is made from stainless steel. Ensure descaling solution is compatible with stainless and always flush the unit completely. Dispose in an environmentally safe manner.*

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
- Sanitizing Cartridge
- Food Coloring

1. Check to ensure that the Red Heater and Compressor Power Switch is the *O=OFF* position.

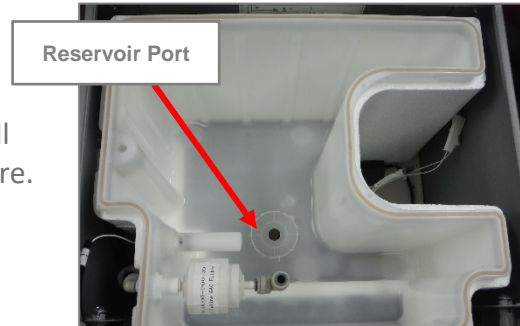
NOTE: Switches have internal LED that illuminates when placed in *I=ON* position.



2. Turn off the water supply and unplug the unit.
3. Remove Top Cover
4. Remove Reservoir Lid
5. Remove Hot Tank Drain cap on back of unit and allow all water to drain from unit. It is not necessary to drain the Cold Tank.

6. When unit has finished draining, replace Hot Tank drain cap.
7. Mix descaler per instructions.

8. Add descaling mixture to Reservoir Port until filled (to ensure the Reservoir Port is full, the descaling mixture starts to overflow into the Reservoir. This will ensure that the Hot Tank is full of the descaling mixture.



9. Turn on water supply and plug in unit.
10. Allow reservoir to fill.
11. Turn on the Red Heater and Compressor Power Switch. *I=ON* position.



12. Allow descaling mixture to remain in Hot Tank for 15 minutes (exposure time may be affected by local water conditions).
13. Flush Cold and Hot Tanks unit until all descaler is removed.



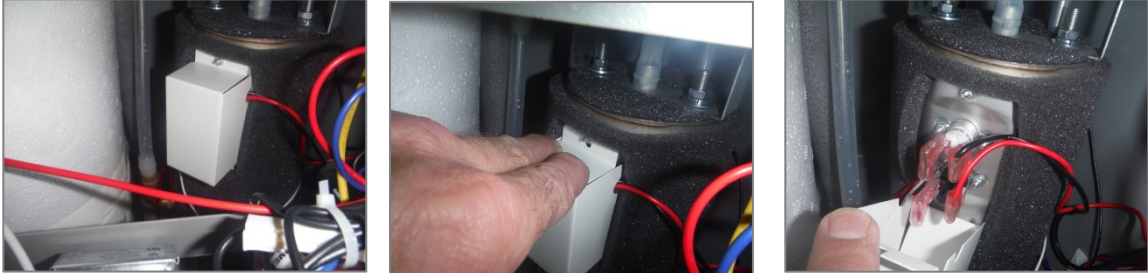

TIP: Adding food coloring to water prior to flushing can assist determining if the descaler has been flushed from the Hot Tank. When water runs clear it is an indication that the descaling mixture has adequately flushed.



⚠ WARNING! HOT WATER HAZARD. *Unit Produces Very Hot Water and Steam. Always use insulated and chemically compatible containers and let unit cool down before draining the Hot Tank to avoid injury.*

⚠ CAUTION! MUST REPLACE HOT TANK 3-5 YEARS DEPENDING ON USAGE. *The Hot Tank and its controls must be replaced a minimum of every 3-5 years depending on usage to ensure efficient and dependable operation.*

⚠ WARNING! REINSTALL ALL PANELS AND COVERS. *Always reinstall all panels, protective covers, and fasteners after servicing equipment. Failure to do so could result in severe personal injury and will void the certifications and warranty of the equipment.*

RESETTING THE TWO HOT TANK OVERLOAD DEVICES (HIGH LIMIT SAFETY)

1.	Turn off Red Heater and Compressor Power Switch <i>O = OFF</i> on rear of unit.	
2.	Unplug the Power Cord from rear of unit.	
3.	Remove 4 Phillip Screws from the Access Panel on rear of unit and Lower Access Panel.	
4.	Locate protective metal box on rear of Hot Tank. Push down on top of metal box to access the two Overload Reset Devices.	
5.	Press the Overload Reset Devices.	
6.	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.	

7.	Replace the Access Panel and 4 Philips screws.	
8.	Plug in the Power Cord.	
9.	<p>Make sure the hot and cold tanks are filled with water BEFORE turning on the Red Heater and Compressor Power Switch</p> <p>⚠ 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.</p>	
10.	Verify the cooler is fully operational before installing it at the customers' site.	

REPLACEMENT COMPONENTS (CONSUMABLES)

Component	WLCP Part No.	Frequency of Replacement
UV Lamp Assembly, 8 Watt	10-2350	Every 12 months Part No CT-2083
Carbon Air Filter	19-1052	Every 12 months Part No. PU-4108
Recirculation GAC Filter	AK-0005-L00-00	Every 12 months Part No. AK-0005-L00-00
Hot Tank Assembly 1.6 Liter with Sensor 500W	HT-0010-I00-00	Every 3-5 Years depending on usage Part No. HT-0010-I00-00
GAC Filter - 10" Carbon Activated Inline Filter - Optional	FT-0035 <i>Element Only PN FT-0038</i>	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	FT-0063 <i>Element Only PN FT-0064</i>	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	FT-0053 <i>Element Only PN FT-0055</i>	Every 6-months or as required. Local water conditions will determine proper filter type and maintenance schedule. FT-0053-IL-WLT

Replacement parts can be obtained from **Waterlogic** or an **Authorized Waterlogic Dealer**. See Parts Layouts, Drawings, and Lists for additional repair parts.

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 Service Section.

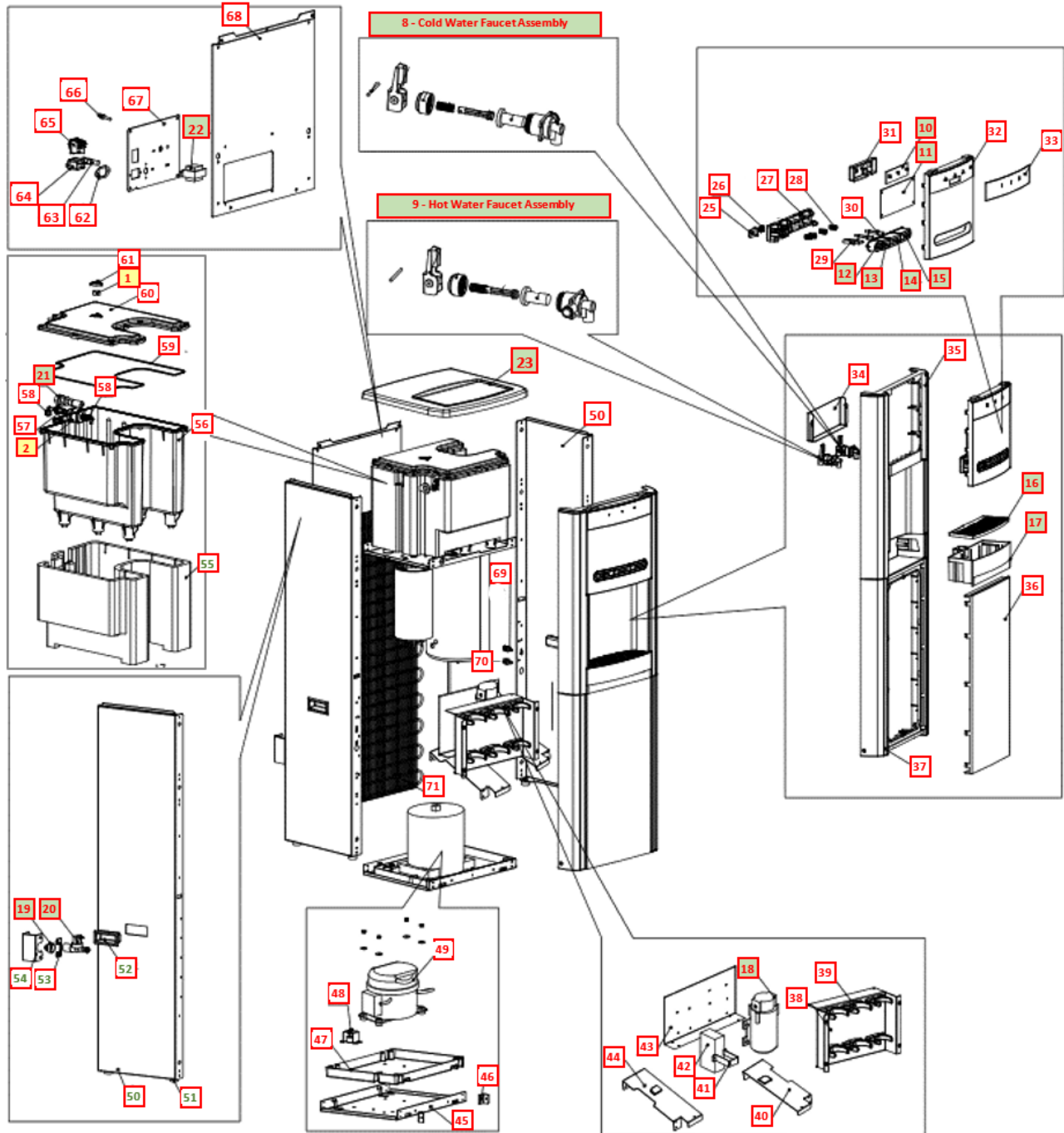
NOTE:

At the **end of this product's life**, ensure that it is disposed of in an environmentally friendly manner which is fully compliant **with all Federal/State/Local Requirements and Guidelines**.

WL290 DRAWINGS AND PARTS LISTS

Yellow = Consumables

Green = Recommended spare parts

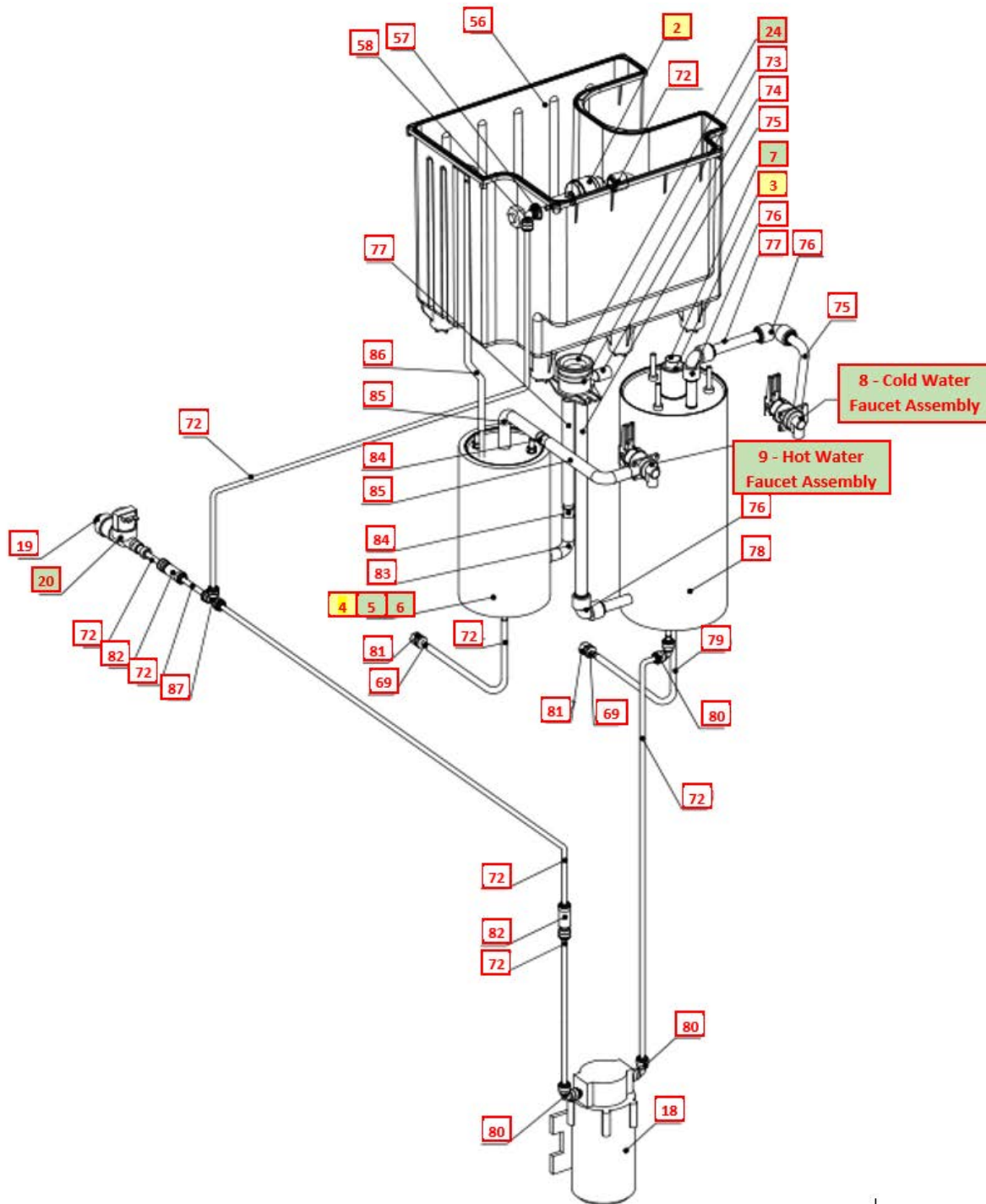


WL290 DRAWINGS AND PARTS LISTS













Wetted Drawing

Yellow = Consumables

Green = Recommended spare parts



No	WLCP Part Number	Description	Factory Part Number	Stocked?	
Consumables					
1	19-1052	Carbon Air Filter	PU-4108	Yes	
2	AK-0005-L00-00	Small Inline GAC Filter	AK-0005-L00-00	Yes	
3	10-2350	8W UV Lamp Assembly with Starter	CT-2083	Yes	
4	HT-0010-I00-00	Hot Tank with Sensor <i>Replace every 3-5 years depending on usage</i>	HT-0010-I00-00	Yes	
Not Shown	FT-0035	GAC Filter - 10" Carbon Activated Inline Filter – Optional *Element is P/N FT-0038	FT-0035-IL-WLT	Yes	
Not Shown	FT-0063	Carbon Block - 10" CBC 1 Micron Lead and Cyst Reduction Inline Filter – Optional *Element is P/N FT-0064	FT-0063-IL-WLT	Yes	
Not Shown	FT-0053	Sediment Filter - 10" Sediment 20 Micron Inline Filter – Optional *Element is P/N FT-0055	FT-0053-IL-WLT	Yes	
Not Shown	01-2076	Scale Kleen	NA	Yes	
Recommended Spare Parts					
5	12-1360	Hot Tank Overload Devices (High Safety Limit). - 105°C (221°F) <i>Recommend stocking 1 each per every 10 units purchased</i>	HT-3012	Yes	
6	12-6900	Hot Tank Overload Devices (High Safety Limit). Metal Cover <i>Recommend stocking 1 each per every 10 units purchased</i>	ST-8289	Yes	

7.1	10-1400	Quartz Sleeve for 8W Lamp <i>Recommend stocking 1 each per every 10 units purchased</i>	CT-2002	Yes	
7.2	10-2500	Black O-Ring for Quartz sleeve <i>Recommend stocking 1 each per every 10 units purchased</i>	CT-2006	Yes	
8	19-1051	Cold Water Faucet Assembly <i>Recommend stocking 1 each per every 10 units purchased</i>	PL-1260-E	Yes	
9	19-1050	Hot Water Faucet Assembly <i>Recommend stocking 1 each per every 10 units purchased</i>	NA	Yes	
8.1 9.1	19-1063	Faucet Silicon Stopper <i>Recommend stocking 1 each per every 10 units purchased</i>	PU-4117	Yes	
10	EN-0046-L00-00	Display PCB <i>Recommend stocking 1 each per every 10 units purchased</i>	EN-0046-L00-00	Yes	
11	EN-0045-L00-00	Main PCB <i>Recommend stocking 1 each per every 10 units purchased</i>	EN-0045-L00-00	Yes	
12	19-1043	Hot Water Safety Push <u>Button</u> (Left) <i>Recommend stocking 1 each per every 10 units purchased</i>	PL-1265-L00-BK	Yes	
	LP-0425-L00-00	Hot Water Safety Mechanical Dispense <u>Sticker</u> <i>Recommend stocking 2 each for every 10 units purchased</i>	LP-0425-L00-00	Yes	
13	19-1040	Hot Water Push <u>Button</u> <i>Recommend stocking 1 each per every 10 units purchased</i>	PL-1262-L00-BK	Yes	
	LP-0423-L00-00	Red Mechanical Dispense <u>Sticker</u> – for Hot (Right) <i>Recommend stocking 2 each for every 10 units purchased</i>	LP-0423-L00-00	Yes	
14	19-1041	Middle <u>Button</u> <i>Recommend stocking 1 each per every 10 units purchased</i>	PL-1264-L00-BK	Yes	

	LP-0429-L00-00	Clear Middle Button <u>Sticker</u> <i>Recommend stocking 2 each for every 10 units purchased</i>	LP-0429-L00-00	Yes	
15	19-1042	Cold Water Push <u>Button</u> <i>Recommend stocking 1 each per every 10 units purchased</i>	PL-1263-L00-BL	Yes	
	LP-0430-L00-00	Blue Mechanical Dispense <u>Sticker</u> - for Cold <i>Recommend stocking 2 each for every 10 units purchased</i>	LP-0430-L00-00	Yes	
16	19-2015	Drip Tray Grill <i>Recommend stocking 2 each per every 10 units purchased</i>	PL-1270-C	Yes	
17	19-2020	Drip Tray Body <i>Recommend stocking 2 each per every 10 units purchased</i>	PL-1289-B	Yes	
18	CT-0021-L00-00	Self-Suction Pump <i>Recommend stocking 1 each per every 10 units purchased</i>	CT-0021-L00-00	Yes	
19	Purchase from John Guest	Inlet Solenoid Valve JG Adaptor 1/4 (CI320816S) <i>Recommend stocking 1 each per every 10 units purchased</i>	PU-4104-DP	Purchase from John Guest	
20	19-1001	Inlet Solenoid Valve 120V <i>Recommend stocking 1 each per every 10 units purchased</i>	PU-4096	Yes	
21	19-1004	Water Level Controller with Wire <i>Recommend stocking 1 each per every 10 units purchased</i>	PU-4100	Yes	
22	EL-5006-A CN	UV Lamp Ballast 110V/60Hz <i>Recommend stocking 1 each per every 10 units purchased</i>	10-3010	Yes	
23	19-5005	Black Top Cover <i>Recommend stocking 1 each per every 10 units purchased</i>	PL-1254	Yes	
24	19-1057	Silicon Seal for Inlet Port to Tanks <i>Recommend stocking 1 each per every 10 units purchased</i>	PU-4109	Yes	

Remainder of parts

25	19-1045	Hot Safety Push Button Safety Lock	PL-1267	Yes	
26	NA	Hot Water Safety Lock Spring	CST-8327	No	
27	19-1047	Faucet Bracket	PL-1269	Yes	
28	NA	Faucet Push Pin Spring	CST-8326	No	
29	19-1044	Hot Water Safety Button Pin	PL-1266	Yes	
30	19-1046	Faucet Push Pin	PL-1268	Yes	
31	NA	Display PCB Cover	PL-1347	No	
32	NA	Front Hatch Panel	PL-0147-L00-00	No	
33	NA	LED Label	LP-0335-L00-00	No	
34	NA	Main Printed Circuit Board (PCB) Cover	ST-0143-L00-00	No	
35	19-1034	Top Front Panel for Drip Tray <i>*Request to be shipped with Hot Water Safety Sticker P/JN LP-7169 WLCP PN 12-1001.</i>	PL-1255	Yes	
35.1	12-0001	Hot Water Safety Sticker	LP-7169	Yes	
36	19-5015	Lower Front Insert Panel	PL-1149-A	Yes	
37	19-1035	Bottom Panel	PL-1256	Yes	

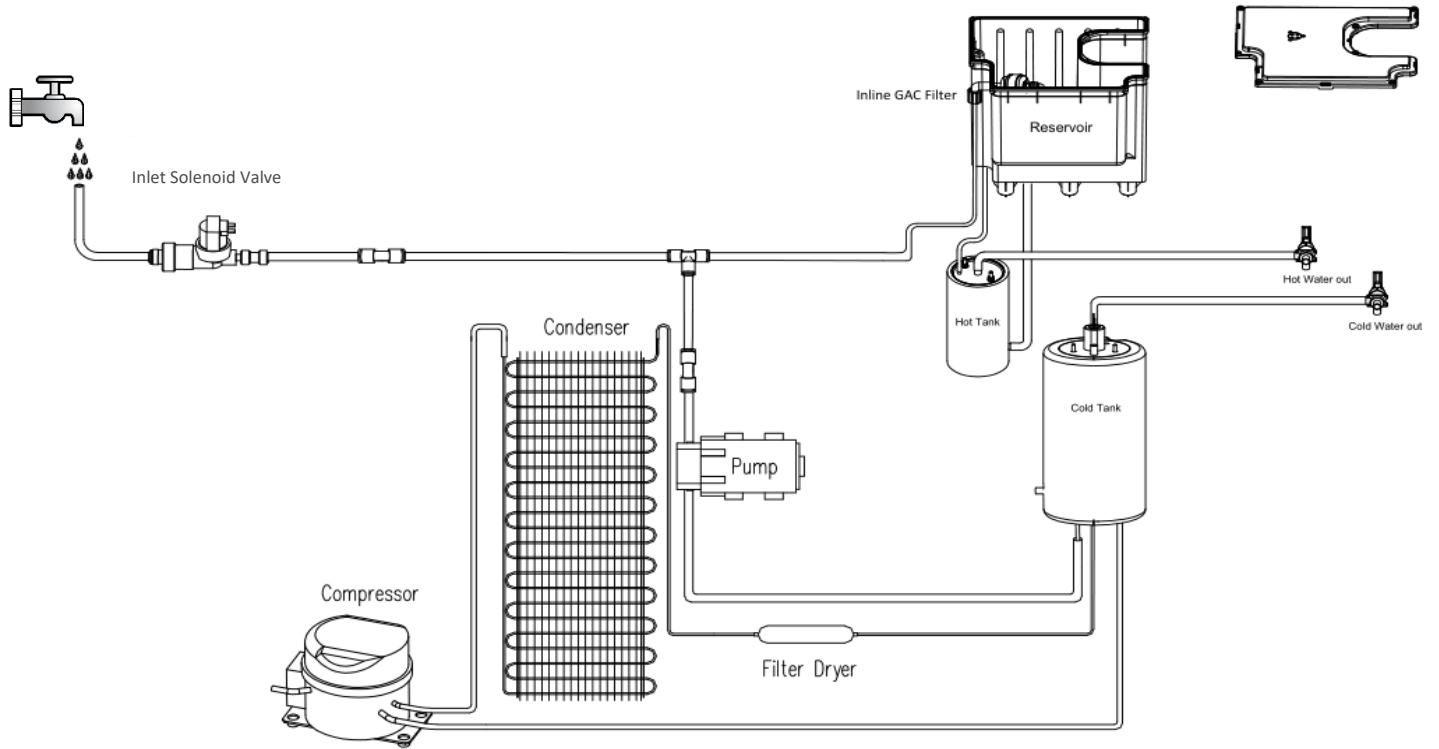
38	NA	Filter Bracket	ST-0145-L00-00	No	
39.1	10-3099	2 ½" Filter Clip	PU-4024	Yes	
39.2	10-3098	2" Filter Clip	PU-4025	Yes	
40	NA	Rail Bracket – Right	ST-0172-L00-00	No	
41	NA	Adaptor Bracket	ST-8315	No	
42	NA	Power Adaptor	EL-0126-L00-00	No	
43	NA	Pump Bracket	ST-0173-L00-00	No	
44	NA	Rail Bracket – Left	ST-0171-L00-00	No	
45	NA	Bottom Base	ST-0174-L00-00	No	
46	19-1021	Side Panel Bracket	ST-8229	Yes	
47	NA	Leak Tray	PL-0149-L00-00	No	
48	19-1025	Level Sensor Bracket	ST-8232	Yes	
49	NA	Compressor 120V	CO-0011-L00-00	No	

50	19-1019	Side Panel	ST-8212	Yes	
51	10-3083	Rubber Feet	ST-8016	Yes	
52	12-8058	Side Panel Plastic Handle	PL-1123	Yes	
53	19-1020	Inlet Solenoid Valve Bracket	ST-8214	Yes	
54	19-1026	Inlet Solenoid Valve Cover	ST-8233	Yes	
55	NA	Reservoir Thermal Insulation	PL-0090-L00-BL	No	
56	19-1037	3 Gallon Plastic Reservoir	PL-1258	Yes	
57	10-3067	Bulkhead Union 1/4" x 1/4" John Guest P/N PI1208S	PU-4028-A	Yes	
58	Purchase from John Guest	JG Stem Elbow Connector 1/4" * 1/4" - Acetal PI220808S)	PU-4066-A	No	
59	19-1056	Reservoir Cover Silicon Seal	PU-4099	Yes	
60	19-1038	Reservoir Cover	PL-1259	Yes	
61	19-1076	Air Filter Silicon Cap	PL-1290	Yes	
62	19-1015	Gasket for Power Socket	ST-8052	Yes	
63	10-3014	Fuse Holder and Fuse 120V / 15A with One Wire	EL-5053	Yes	

64	19-1090	Power Line Noise Filter, ElectroMagnetic Interference filter (EMI)	EL-5029	Yes	
65	10-3008	Red Compressor and Heater Switch	EL-5004	Yes	
66	NA	Switch and Wire to Filter Reset Timer	EL-0131-L00-00	No	
67	NA	Access Metal Cover	ST-0181-L00-00	No	
68	19-1017	Back Panel	ST-8210	Yes	
69	14-5011	Drain Valve Body for 5/16" *14-5011 includes Drain Valve Body and Cap *See #81	CT-2031-A	Yes	
70	NA	Drain Valve Nut for 1/4" and 5/16"	CT-2082	No	
71	NA	Wire Condenser	CO-0009-L00-00	No	
71.1	12-1001	Filter Dryer	CO-9008	Yes	
72	Purchase from John Guest	JG LLD PE Tube - Blue O.D.1/4"John Guest P/N PE-08-BI-1000F-B	PU-4031-A	No	
73	19-1039	Water Inlet to Port to Tanks	PL-1261	Yes	
74	NA	Silicon Stopper Cap Blocks Ambient Port	PU-4117	No	
75	19-1099	1/2" Pipe White Tubing - John Guest PN PE-16-GI-0250F-W	PU-4126-KR	Yes	

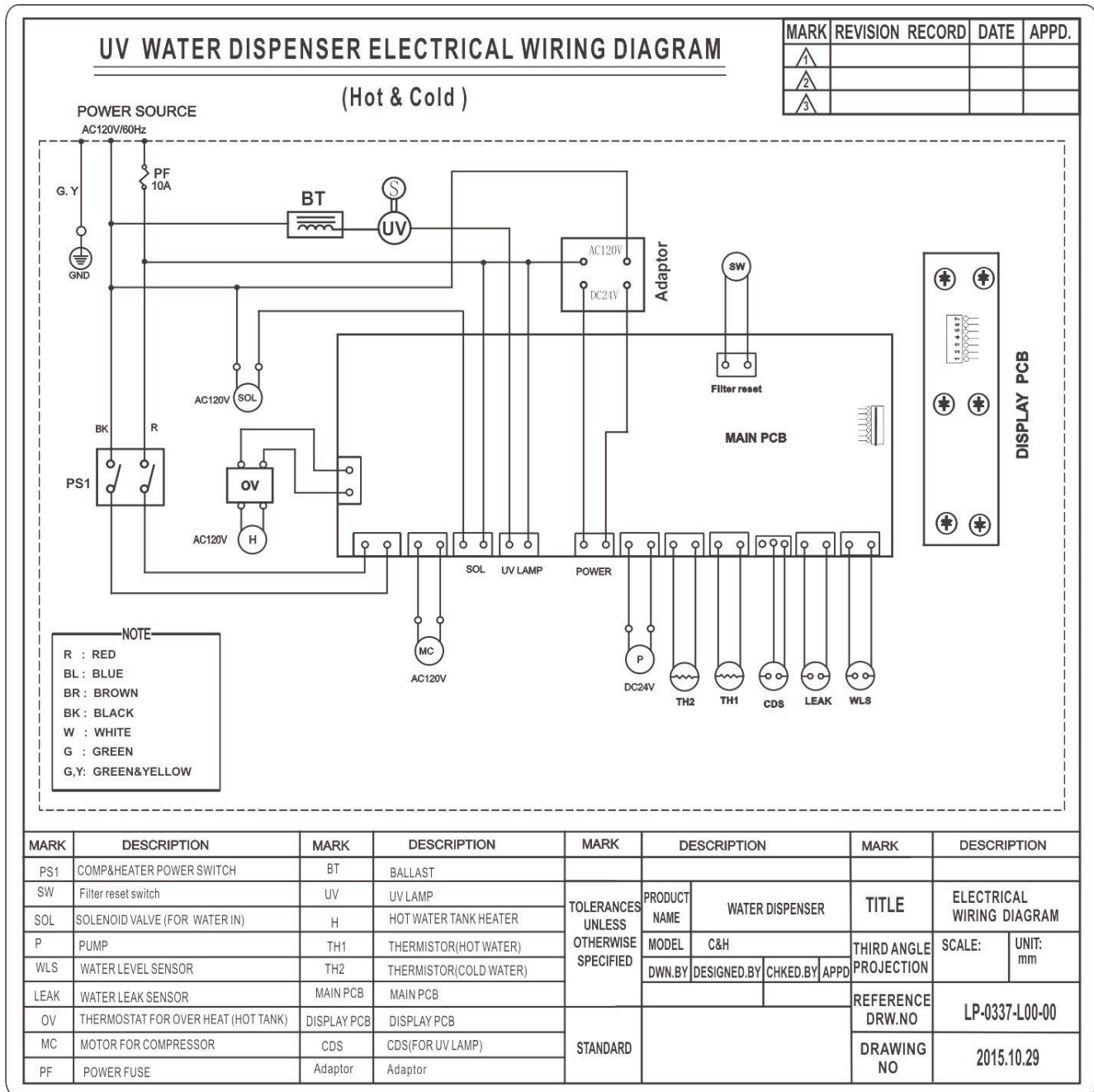
76	Purchase from John Guest	JG 1/2" Elbow fitting (PP0316W)	PU-4141-KR	No	
77	NA	HK silicone 1/2" pipe (natural)	PU-4126-B	No	
78	NA	Cold Tank with Thermistor	CT-0013-L00-00	No	
78.1	10-2650	Cold Thermistor - Sensor	CT-2081	Yes	
79	10-3062	JG LLDPE Tube - Blue 8mm John Guest P/N PE-0806-100M-B	PU-4014-A	Yes	
80	NA	JG Equal Elbow Connector 1/4" (PI0308S)	PU-4008	Purchase from John Guest	
81	14-5011	Drain Valve Cap for 5/16" – 1/4" *14-5011 includes Drain Valve Body and Cap - See #69	CT-2028	Yes	
82	12-5690	JG Non-Return Valve 1/4"(1/4SCV)	PU-4057	Yes	
83	19-1058	Silicon Elbow Tube Pipe 25*40	PU-4110	Yes	
84	NA	Silicon Pipe Straight Connector	PU-4101	Yes	
85	19-1060	Silicon Pipe 48.5*155 Elbow	PU-4112	Yes	
86	NA	Silicon Pipe 5/16"	PU-4064-L00-00	No	
87	Purchase from John Guest	JG Equal Tee Connector 1/4" (PI0208S)	PU-4011-A	No	
Not Shown	10-3007	Power Cord 120V – 1840 mm	EL-5001-B	Yes	

WL290 WATER FLOW DIAGRAM



WL290 ELECTRICAL DIAGRAM

⚠ DANGER! HIGH VOLTAGE ELECTRICAL HAZARD. PCB (Printed Circuit Board) contains High Voltage. Only trained and qualified technicians should attempt live testing.



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 unit, failure to do so could result in death or serious injury.

⚠️ WARNING! ALWAYS SANITIZE BEFORE USE.

Sanitize before use to eliminate any potential microbiological contaminants.

Red Compressor/Heater Switch must be in the O=OFF position while the Hot Tank is empty. Damage could occur within one minute and the two Hot Tank Overload Devices (High Safety Limit) require manual reset if heater is turned on with an empty Hot Tank.



⚠️ CAUTION! DRIP TRAY DRAIN.

If you intend to provide a drip tray drain for your customer, be aware that you will be called multiple times per month to service and unclog the tubing leading away from the drip tray to drain. Users will clog the drain with paper clips, erasers, napkins, tea bags, gum, and various other intended items. Waterlogic recommends you establish a minimum of weekly visits to the machine for cleaning of the drip tray drain.

Sanitization of Machine

Materials Needed:

- Personal Protective Equipment. Rubber or Nitrile Safety Gloves and Protective Eyewear
- Phillips Screwdriver
- Sanitizer - Household Bleach (5.25% Sodium Hypochlorite) or Citric Acid Based Cleaner
- Unused sponges or paper towels
- Dish Soap
- Clean water

1. Unpack the **Waterlogic WL290 Water Treatment System** and check exterior for damage.

⚠️ CAUTION! ALWAYS WASH THE INTERNAL PLASTIC RESERVOIR, LID AND FLOATS PRIOR TO INSTALLATION.

The internal wetted surfaces of the machine have been handled multiple times in the process of manufacturing. By following the steps below, you will ensure the cleanliness and sterility of the drinking water

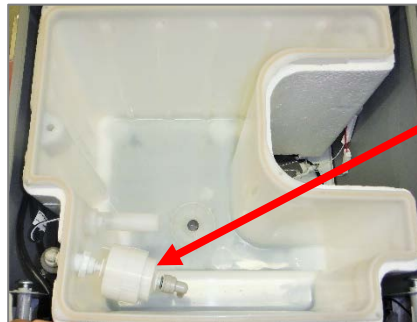
2. Remove the Top Cover of the **WL290 Water Treatment System**. The two screws securing the Top Cover are located in each rear corner.



- Remove the Reservoir Tank Cover to access the Reservoir Tank.



Reservoir Tank Cover



Reservoir Tank

Recirculating Filter

This filter must be NOT be installed at the inlet of the machine

- CAUTION!** *Prior to sanitizing the reservoir and system, make sure the recirculating filter on the inlet port to the reservoir is NOT installed! This filter is to be installed AFTER sanitizing the machine is complete, and the system has been flushed of all sanitizer.*

- 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). Always ensure sanitizer is compatible with stainless steel and acetyl plastic.

- 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!*

- Start filling the Reservoir Tank with clean water, after approximately ½ full add in the sanitizer. Continue to fill the Reservoir Tank with water until full.

- The Circulation Pump will turn on when adding water to the Reservoir. Allow the water with bleach to circulate in the Reservoir Tank for 10 minutes.

- Drain the water with bleach by removing the Drain Valve Caps at rear of **WL290**. *Do not reinstall the Drain Valve Nuts at this time.*

- With a minimum of 10 liters of clean water, rinse out the Reservoir Tank to remove all bleach.



- Clean Reservoir Lid with Dish Soap and Water. Rinse thoroughly.

10. Install the Hose Adaptor fitting that is packed in the accessories bag found in the drip tray onto the water inlet fitting on the back of the machine.



⚠ CAUTION! DO NOT OVERTIGHTEN

11. Install the metal stand-off plate from the accessories bag and install over the water inlet. Connect a section of the ¼" plastic tubing from the water supply line into the hose adaptor fitting at the back of the unit.



⚠ CAUTION! DO NOT TURN ON THE WATER YET

⚠ CAUTION! FILTER FLUSHES REQUIRED.

WL290 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.

In order 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.

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

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

If you intend to use the Waterlogic RO System, you must remove the filter plate supplied behind the lower front panel (four screws total). The RO System then mounts on the rails just above the compressor. Route the RO drain line through the port that is protected by the rubber grommet on the back of the machine.

Red Compressor/Heater Switch must be in the O=OFF position while the Hot Tank is empty. Damage could occur within one minute and the two Hot Tank Overload Devices (High Safety Limit) require manual reset if heater is turned on with an empty Hot Tank.



14. Replace the Reservoir Cover and Top Cover.

Note: *If the machine is being installed first time, new out of the box, place the recirculating filter into the fill port of the reservoir. This filter has a limited capacity and is installed primarily to filter the plastic tastes from the new machine. The filter is not required after initial install.*

15. Turn on the Red Compressor / Heater Switch. This will start the chilling and heating processes.

Red Compressor/Heater Switch must be in the I=ON position.



16. Verify the compressor starts by feeling the head of the compressor for vibration. The temperature in the cold tank should reach its target temperature within 45 minutes. When the unit has reached target cold temperature, the compressor will cycle off. The Hot Tank will take considerably less time to reach its target temperature of 85°C (185°F).
17. After the cold and hot water temperatures, have been reached, turn the Red Heater/Compressor Switch off.

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 two Hot Tank Overload Devices (High Safety Limit) require manual reset if heater is turned on with an empty Hot Tank.



DRAINING INSTRUCTIONS

Drain the **WL290** 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 unit, colder water will be introduced into the Hot Tank. Since the Red 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 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 CAN BURN OR SCALD.

Hot water should be dispensed carefully into insulated container to avoid injury.

Turn off Water Supply and Bleed Water Pressure

3. Isolate the unit 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 hose adaptor.

Drain the Cold Water Tank and Circuit

6. Remove Hose Adaptor.
7. Remove both Drain Caps located on back of unit.
8. After unit drains, replace drain caps.

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 100°F (37°C) or below 35°F (2°C). 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 **WL290 Water Treatment System**.

Always install indoors and place the **Waterlogic WL290 Water Treatment System** on a firm, flat and stable surface.

1. Attach the water supply line to the 1/4" feed water hose adaptor fitting on the back of the unit. **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. Verify 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.



⚠ 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 two Hot Tank Overload Devices (High Safety Limit) require manual reset if heater is turned on with an empty Hot Tank.

3. Connect the power cord to the back of the **Waterlogic WL290 Water Treatment System** and to a 120 Volt supply.
4. Turn on water supply and allow reservoir to fill.
5. Fill the Cold Tank. Hold a container under the dispensing faucet, press and hold the cold 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.
6. Fill the Hot Tank. Hold a container under the dispensing faucet. Press and hold down the Red-Hot Safety Button (LEFT hand side) dispensing button followed by the Pressing and Holding down the Hot Dispensing Button at the same time until a continuous flow of water is obtained. Once a continuous flow is obtained, release the hot water dispensing button. Hot Tank is now full.
7. 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.

8. Move the **Waterlogic WL290 Water Treatment System** into its final operating position. Be sure that a minimum of 2" clearance is maintained around both the sides and



the back of the unit. This is important to allow proper airflow and heat exchange of refrigeration system.

9. Level unit 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 unit has reached its Hot Temp Set Point, the heater will cycle off. When the unit has reached its Cold Temp Set Point Temperature, the compressor will cycle off.
12. Once the unit 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 unit for any leaks. External Leak Protection is always recommended.

FAULT CODES

Fault Code Index

1. Blue Chilling LED Flashing - Cold Sensor Fault
2. Red Heating LED Flashing - Hot Sensor Fault
3. Green LED Flashing - Filter Service Alert
4. All but Power Button LEDs Flashing - Leak Detection
5. Green Power LED Flashing - Pump Fault
6. All LED's Flash and Machine Turns Off – Pump drawing too much power

Included in this section are instructions to Reset the two Hot Tank Overload Devices (High Safety Limit).

1. Blue Chilling LED Flashing - Cold Sensor Fault

Alarm: User Interface Blue Chilling LED flashing, Compressor is OFF and unit will alarm 20 times.



The factory Cold Water temperature set point is 5°C (41°C). The Thermistor that controls the refrigeration system is located in the well in the UV Cold tank.

Possible Reason	Solution
Cold Water Thermistor	Check continuity of thermistor with multimeter. Replace Thermistor as needed.

2. Red Heating LED Flashing Hot Sensor Fault

Alarm: User Interface Red Heating LED flashing, and unit will alarm 20 times.

Heating

The Hot temperature set point is 85°C (185° F) and is controlled by a thermistor in the well in the Hot Tank.

There are two resettable Hot Tank Overload Devices (High Safety Limit) 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).

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
Hot Water Thermistor	Check continuity of thermistor with multimeter. Replace Thermistor as needed.

3. Green LED Flashing - Filter Service Alert

Alarm: User Interface Green Filter LED flashing, and unit will alarm 20 times.

Filter

Factory Setting Timer for Filters Life is turned off. When the Filter Life Timer has been programmed to 6, 9 or 12 months the Filter Service Alert will alarm to recommend replacing the filters.

Possible Reason	Solution
Filter Life Time programmed has been exceeded.	Change Filters. Reset Filter Life Timer by pressing the Red Reset button located at the back panel on rear of unit for 3 seconds. Unit will alarm 3 times to indicate that Filter Timer has been reset. <div style="text-align: center;">  </div>

4. All but Power Button LEDs Flashing - Leak Detection Fault

Alarm:

- All but the User Interface Green Power LED flashing,
- Compressor turns off
- UV Lamp and Ballast are off
- Pump is off
- Solenoid Valves are all off.
- Alarm will sound 20 times.

 Heating

 Chilling

 Power

 Sleep

 UV

 Filter

Possible Reason	Solution
Water Leak	<p>Most leaks will be detected by the internal <i>WL290 Water Treatment System</i> leak detection system that will trigger or turn off the inlet solenoid valve.</p> <p>Isolate the supply and start normal fault-finding procedures.</p>

5. Green Power LED Flashing - Pump Fault

Alarm:

- User Interface Green Power LED flashing
- Pump is Off
- Compressor Off
- UV Lamp
- Ballast is Off


 Power

Possible Reason	Solution
Pump ran for over 8 hours	<p>Power Off Machine</p> <p>Power On Machine</p>

6. All LED's Flash and Machine Turns Off - Pump drawing too much power

Alarm:

- Machine turns on and fills
- Pump turns on
- All LED's flash (indication that the Main PCB is rebooting)
- Machine turns off

 Heating

 Chilling

 Power



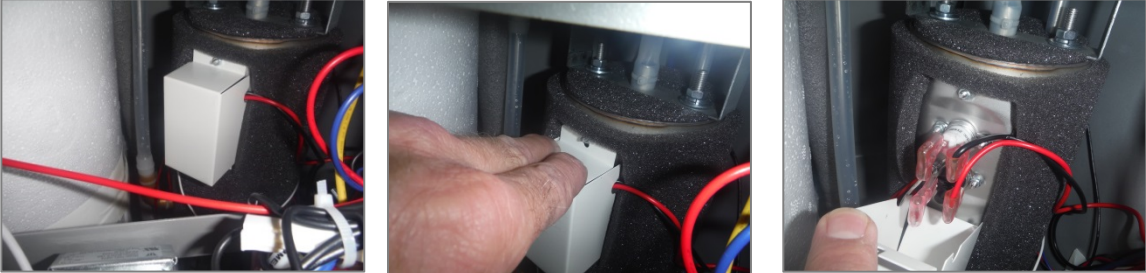

 Sleep



 UV

 Filter

Possible Reason	Solution
Pump drawing too much power	To verify that the pump is locked up: Disconnect pump Turn machine on. If machine stays on, then it is the pump that is drawing too much power. Replace the Pump

RESETTING THE TWO HOT TANK OVERLOAD DEVICES (HIGH LIMIT SAFETY)

1.	Turn off Red Heater and Compressor Power Switch <i>O = OFF</i> on rear of unit.	
2.	Unplug the Power Cord from rear of unit.	
3.	Remove 4 Phillip Screws from the Access Panel on rear of unit and Lower Access Panel.	
4.	Locate protective metal box on rear of Hot Tank. Push down on top of metal box to access the two Overload Reset Devices.	
5.	Press the Overload Reset Devices.	
6.	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.	

7.	Replace the Access Panel and 4 Philips screws.	
8.	Plug in the Power Cord.	
9.	<p>Make sure the hot and cold tanks are filled with water BEFORE turning on the Red Heater and Compressor Power Switch</p> <p>⚠ CAUTION! NEVER TURN ON HEATER BEFORE FILLING HOT TANK. <i>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.</i></p>	
10.	Verify the cooler is fully operational before installing it at the customers' site.	

POWER TROUBLESHOOTING INDEX

1. No Power
2. Water is not being Heated or Chilled
3. Compressor Runs but does Not Chill
4. Compressor is Not Running

1. No Power

Possible Reason	Solution
No power supplied	Verify the building electrical supply to the WL290 Water Treatment System unit is on. Verify the power cord is plugged in. Verify the power indicator light is on. Test the fuse. Start normal electrical fault-finding procedures using the electrical diagram located in this manual

2. Water is Not being Heated or Chilled



Possible Reason	Solution
Red Heater and Compressor Switch on unit is off.	Turn Red Heater and Compressor Switch on. <i>I = ON</i>



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 Power Switch button on unit is in the off position	Turn Red Heater and Compressor Power Switch on. <i>I = ON</i>	
Compressor Starting Circuit	<p>Turn Red Heater and Compressor Power Switch off. <i>O = OFF</i>.</p> <p>Remove the compressor cap on side of the compressor;</p> <p>Disconnect the black and red terminal connectors;</p> <p>Inspect the compressor starter and overload relay for any defects.</p> <p>Replace components(s) as needed.</p> <p>Turn Red Heater and Compressor Power Switch on <i>I = O</i> and retest compressor operation.</p>	
Check the Cold-Water Thermistor	Check continuity of thermistor with multimeter. Replace Thermistor as needed.	

DISPENSING TROUBLESHOOTING INDEX

1. Hot Water flow, Cold Water does not flow
2. Cold Water flows, Hot Water does not flow
3. Low Flow of Water
4. Restricted Flow of Hot Water
5. No Water Will Dispense from Unit
6. Small Amount of Water Periodically Dispenses from Faucet Automatically
7. Dispense Buttons Stick
8. Water Leaks

Included in this section are the Draining Instructions.

1. Hot Water flows, Cold Water does not flow.

Possible Reason	Solution
Cold tank frozen	Disconnect power supply for one hour to allow tank to defrost. Flush the cold-water system. Check that the cold thermistor settings are correct Cold-Water Temperature Factory Set Point 5°C (41°F) Adjustable 3°- 7°C (37°F - 45°F)
Mechanical Water Outlet Faucet Valve	Check that the mechanical water outlet faucet valve is operating correctly and that water flows through it.

2. Cold Water Flows, Hot Water does not flow.

Possible Reason	Solution
No Hot Water	<p>Verify the pipes feeding the Hot Water Tank.</p> <p>Check that the mechanical water outlet faucet valve is operating and the water flows through it.</p>

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

Possible Reason	Solution
Determine Flow of Water	<p>Rated Flow Rate is 1.89 Liters (0.5 gallons) per minute.</p> <p>Check flow rate by dispensing into a container to measure for one minute and measure the amount of water that was dispensed.</p>
Feed Lines too small	<p>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 vs. 1/4").</p>
Elbows and turns in the feed line	<p>Minimize elbows and turns in the feed line.</p>
Filters	<p>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.</p>
Restrictions	<p>Follow flow path to ensure there are no undiscovered restrictions due to debris or malfunctioning valves, including the supply valve at the source.</p>
Booster Pump	<p>Add a booster pump to the supply line if the feed is slower than needed.</p>

4. Restricted Flow of Hot Water

Possible Reason	Solution
Partially closed water supply valve to the unit.	Open water supply valve.
Hot Tank outlet hole is scaled over.	Descale Tank. <u>See Hot Tank Descaling Instructions that are included further below in this Troubleshooting Section.</u>
Feed lines restricted	Feed lines can restrict flow if run long distances from the supply and it may be necessary to increase the supply line size (e.g., use 3/8" vs. 1/4")
Faucet nipple screen mesh has obstruction(s)	Unscrew faucet nipple from faucet and remove any obstruction(s) from screen mesh.
Exhausted Filter	Replace the Filter
Solenoid connection to the Display PCB	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. Remove the PCB to inspect the front of the board.
Solenoid Valve is Malfunctioning	Inspect valve components for proper function. Replace as necessary.

5. No Water Will Dispense from Unit

Possible Reason	Solution
Too much water pressure. Recommend 40 to 60 psi for the WL290 Water Treatment System to operate properly.	The correct input water pressure is critical to the performance of the unit to allow solenoids to open. Check water pressure at the inlet bulkhead with a water pressure gauge. 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". Adjust water pressure to 40-60 psi.

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 button on unit is in the off position	Turn Red Heater and Compressor switch on. <i>I = ON</i>
Fuse Blown	Replace the Fuse as needed.
Water is present in the bottom tray, causing the leak detection to trigger. .	Remove the top cover and front panel. Tip the unit slightly to drain, dry bottom tray completely.
Exhausted Filter / Membrane	Replace filters / membrane as needed.



6. Small Amount of Water Periodically Dispenses from Faucet Automatically

Possible Reason	Solution
Too much water pressure. Recommend 40 to 60 psi for the WL290 Water Treatment System to operate properly.	<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>
Obstruction in solenoid housing is preventing proper sealing of component.	<p><u>Drain unit according to Drain Instructions that are included further below in this Troubleshooting Section.</u></p> <p>Remove Reservoir Tank</p> <p>Open Faucet Housing and check for Debris.</p> <p>Put faucet back together, replace reservoir and fill unit. If faucet continues to drip, replace the faucet.</p>

7. Dispense Buttons Stick

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

8. Water Leaks

Possible Reason	Solution
Water Leak	<p>Most leaks will be detected by the internal WL290 Water Treatment System leak detection system that will trigger or turn off the inlet solenoid valve.</p> <p>Isolate the supply and start normal fault-finding procedures.</p>

DRAINING INSTRUCTIONS

Drain the **WL290** 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 unit, colder water will be introduced into the Hot Tank. Since the Red 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 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 CAN BURN OR SCALD.

Hot water should be dispensed carefully into insulated container to avoid injury.

Turn off Water Supply and Bleed Water Pressure

3. Isolate the unit 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 hose adaptor.

Drain the Cold-Water Tank and Circuit

6. Remove Hose Adaptor.
7. Remove both Drain Caps located on back of unit.
8. After unit drains, replace drain caps.

HOT WATER TROUBLESHOOTING INDEX

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


Included in this section are the Two Resettable Hot Tank Overloads (High Limit Safety) Instructions.

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

The Hot temperature set point is 85°C (185° F) and is controlled by a thermistor in the well of the Hot Tank.



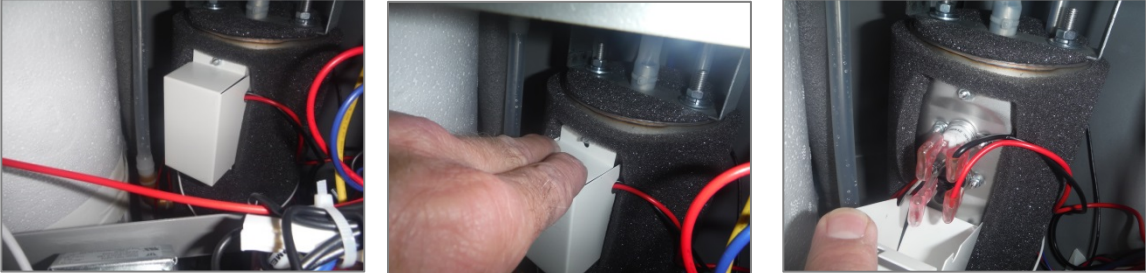

There are two Hot Tank Overload Devices (High Safety Limit) on the side of the Hot Tank that will trip to prevent damage to the unit if the tank is dry heated (turned on without water in it).



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 Devices (High Safety Limit) tripped <i>Hot Tank Overload Devices (High Safety Limit) is a safety feature to ensure the tank does not overheat.</i>	Hot Tank Overload Devices (High Safety Limit) will “click” when pushed. The Hot Tank Overload Devices (High Safety Limit) are automatically reset when pressed. <u>See Resetting Hot Tank Overload Devices (High Safety Limit) Instructions that are included further below in this Troubleshooting Section</u>
Hot Tank Overload Devices (High Safety Limit) “open” on Hot Tank	Turn Power off. Check OHM’s resistance across terminals on each of the Hot Tank Overload Devices (High Safety Limit) separately. Good components will indicate a closed circuit or zero OHM’s on the meter. Replace components as necessary.
Loose or improperly connected wire(s) to the heating element / hot tank.	Visually inspect wire leads going to the hot tank; confirm proper connections to the heating elements. Hot tank life is 3-5 years, depending on usage.

	<p><i>*Typically, dealers swap out the hot tank at site, take back to the shop to repair.</i></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>

RESETTING THE TWO HOT TANK OVERLOAD DEVICES (HIGH LIMIT SAFETY)

1.	Turn off Red Heater and Compressor Power Switch <i>O = OFF</i> on rear of unit.	
2.	Unplug the Power Cord from rear of unit.	
3.	Remove 4 Phillip Screws from the Access Panel on rear of unit and Lower Access Panel.	
4.	Locate protective metal box on rear of Hot Tank. Push down on top of metal box to access the two Overload Reset Devices.	
5.	Press the Overload Reset Devices.	
6.	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.	

7.	Replace the Access Panel and 4 Philips screws.	
8.	Plug in the Power Cord.	
9.	<p>Make sure the hot and cold tanks are filled with water BEFORE turning on the Red Heater and Compressor Power Switch</p> <p>⚠ CAUTION! NEVER TURN ON HEATER BEFORE FILLING HOT TANK. <i>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.</i></p>	
10.	Verify the cooler is fully operational before installing it at the customers' site.	

TASTE / ODOR ISSUE TROUBLESHOOTING

1. Bad or Plastic Taste

Possible Reason	Solution
Reservoir not flushed properly	If the unit is new, it may need flushing for a longer time.