



# WL500 – Sparkling

OPERATING, INSTALLATION, AND SERVICE MANUAL



Waterlogic Commercial Products, LLC  
11710 Stonegate Circle  
Omaha, NE 68164  
(800) 288-1891  
[www.waterlogic.us](http://www.waterlogic.us)

## **WL500 OPERATING, INSTALLATION, AND SERVICE MANUAL**

Congratulations on your choice of the **Waterlogic WL500** water treatment system. The **WL500** is a fully programmable self-contained model that dispenses cold, hot, extra-hot, and premium sparkling water. Every **WL500** includes:



**High Performance Multi-Stage Filtration**



**Bio-Cote® Anti-Microbial Protection**



**Advanced In-Tank Ultraviolet (UV) Purification**

The **Waterlogic WL500** provides exceptional quality and great tasting water with every use.

### **TABLE OF CONTENTS**

- Features and Benefits.....3
- Certifications .....5
- Introduction.....6
- Safety Alert Symbols.....6
- Safety Precautions.....7
- Model and Part Designations .....8
- Specifications.....8
- Operating Instructions.....9
- Principles of Operation.....10
- Flow Diagram.....13
- Programming Menu and Instructions .....14
- Quick Start Guide.....16
- Pre-Installation Procedures.....17
- Draining Procedure.....21
- Installation Procedures.....24
- Service Requirements.....27
- Replacement Components .....29
- Hot Tank Descaling Instructions .....30
- Layout Drawing and Part Numbers.....32
- Main Parts Drawing and Part Numbers.....33
- Wetted Parts Drawing and Part Numbers.....36
- Electrical Diagram.....39
- Fault Codes and Troubleshooting .....40
- Base Cabinet & Cup Dispenser Instructions .....49
- Warranty .....53



## **WL500 FEATURES AND BENEFITS**



### **Premium Sparkling Water**

Unlimited Premium Sparkling Water produced through innovative *Mizzling Technology*.

### **Cold, Hot, and Extra Hot Water**

Pressure Fed Cold, Hot, and Extra Hot Selections to meet a wide range of customer demands.

### **High Volume Storage and Water Capacity**

3 liters of Cold, 1 liter of Sparkling, and 1.6 liters of Hot Water Storage.

### **BioCote® Anti-Microbial Protection**

Plastic surfaces surrounding dispensing areas and drip tray are infused with an exclusive silver additive called BioCote®. Silver is a natural anti-microbial that inhibits the growth of microorganisms providing additional surface protection.



### **Large Dispense Area with Recessed Faucet**

6-3/4 inch dispense height with BioCote® recessed faucet to protect from cross-contamination.

### **Drip Tray with Sensor and Alarm**

Two-piece BioCote® drip tray for easy cleaning. Drip Tray Sensor and Drip Tray Full Fault Mode that halts supply to prevent overflow and sounds alarm to reduce accident potential.

### **Child Safeguard**

**WL500** requires selection followed by main dispense and defaults back to cold/sparkling water selection after 3 seconds of inactivity to prevent accidental dispensing of hot water.

### **Digital Display**

**WL500** has an innovative user interface utilizing a LCD display for easy use and programming.

### **Advanced Programming**

Customizable settings for optimizing each **WL500** including; Cold Temp Set Point, Hot Temp Set Point, Static or Ranging Temperature Display, UV Timer, F/C Display, Multiple Languages, Filter Timer Setting, Filter Life Monitor, Sleep Mode, and Default Selection Mode.

### **Energy Saving Sleep Mode**

Energy saving Sleep Mode can be programmed to turn off heater after 3 hours of inactivity.

### **In-Tank UV Purification**

Industry leading In-Tank UV Purification sterilizes water within Stainless Steel Cold Tank. UV Indicator and Fault Mode Protection to alert user and stop water supply.

### **Add-On Base Cabinet with Optional Cup Holder**

Matching base cabinet with optional cup holder provides the flexibility to meet all installation requirements while minimizing inventory costs.





## WATERLOGIC WL500 PREMIUM SPARKLING OVERVIEW

**Waterlogic WL500** produces Premium Sparkling Water which is made in a batch and contains a fine, dense carbonation as compared to other “soda water” products in the market. Optimum sparkling water is generated in the **WL500** with 41°F cold water and food grade CO<sub>2</sub> at 42.5 psi (3 Bar).

Please ensure customer’s carbonation expectations are clear before installing a **WL500**. Waterlogic Premium Sparkling Water is very similar to Perrier and Pellegrino.

The premium fine dense sparkling water produced by the **WL500** may not meet user's expectations if they are looking for large bubble soda stream type of carbonation.

A blind taste test using Pellegrino/Perrier is a great way to demonstrate the expectations and quality of the Waterlogic Premium Sparkling Water. Open two bottles and empty one and fill with Premium Waterlogic Sparkling Water from a freshly regenerated tank operating at optimum conditions (41°F / 43 psi). Recap both and mark the bottles accordingly. Ensure the bottles are sampled at the same temperature by refrigerating if necessary for later use and comparison. Most users will prefer the great taste of the Waterlogic Premium Sparkling Water at a fraction of the cost of the bottled counterparts.

You may purchase a carbonation tester from a company such as Taprite to measure the level of carbonation if you wish to quantify the results and check the output of the **WL500**. The level of carbonation is very consistent as long the test conditions are repeatable and proper testing procedures are followed.

Temperature of the water in the **WL500** has the largest impact on the taste and carbonation levels and the cold tank must be below 46°F (prefer 41°F) before injecting water into the sparkling chamber (carbonator) to produce proper results.

The temperature inside the cold tank can be displayed on the LDC screen by setting the temp display function to "Ranging" mode. See the programming section to adjust this setting.

Allow a minimum of an hour for the **WL500** to chill the cold circuit to the 41°F set point temperature before sampling the sparkling water. Once the water is chilled, the sparkling tank should be "Regenerated" by completely and continuously dispensing the initial batch (0.8 liters) of product from the carbonator until only Co<sub>2</sub> gas is dispensing from the faucet. The initial batch of sparkling product will be flat because it was injected into the carbonator at ambient temperature when initiating the **WL500**. Always remember that the water must be below 46° F to make premium sparkling water.

Do not set the cold temperature set point below 41°F or you increase the risk of freezing the sparkling tank. The thermistor that controls the refrigeration system is located in the well in the UV cold tank and does not monitor water temperature in the sparkling tank (carbonator). The refrigeration system chills both tanks simultaneously and is either on/off based up on feedback from the thermistor. Frequent or continuous use of the cold still water results in refrigeration system running and continuously chilling the sparkling product in the carbonator below freezing point. This can result in a frozen sparkling tank and sparkling product will not be dispensed even with proper gas supply.

## WL500 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.

### WL500 Certifications Include



#### UL399 – Certified Drinking Water Cooler

Intertek Labs (ETL) Certified the **WL500** to ANSI/UL 399 Standard for Drinking Water Coolers.



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

*Waterlogic* is certified to ISO 9001 – Quality Management Systems (certified by Moody International). 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.

## **INTRODUCTION**

Carefully read and follow all instructions to ensure proper and efficient operation of your **WL500**. 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.

## **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:

**⚠ DANGER!** *If incorrectly installed, operated or maintained, this product can cause death or severe injury. Those who install, operate, or maintain this product should be trained in its proper use, warned of its dangers, and should read the entire manual before attempting to install, operate, or maintain this product.*

**⚠ WARNING!** *Unit 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.*

**⚠ WARNING!** **HOT WATER.** *Unit produces Very Hot Water up to 203°F. Water above 125°F can cause severe burns or scalding. Keep unauthorized people and children away from the unit to avoid accidental dispensing of hot water. Children should not use without supervision.*

**⚠ DANGER!** **ELECTRICAL SHOCK HAZARD.** *Always unplug from power supply prior to servicing equipment to prevent electrical shock.*

**⚠ WARNING!** *This system 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. The system is designed for the supplemental bactericidal treatment of either treated and disinfected public drinking water, or other drinking water, which has been tested and deemed acceptable for human consumption by the state or local health agency having jurisdiction. The system is designed to reduce normally occurring non-pathogenic or nuisance microorganisms only. System is not intended for treatment of contaminated water.*

**⚠ WARNING!** **Dispenser Could Tip or Fall causing serious injury.** *Always install unit on a firm, flat, and level surface and secure the WL500 to the base cabinet with the screw provided to lock the components together. Never place heavy items on top of unit and never climb, stand, or hang on unit or storage cabinet to prevent injury and damage.*

**⚠ DANGER!** **HIGH PRESSURE CO<sub>2</sub> GAS.** *CO<sub>2</sub> cylinders (tanks) contain high pressure compressed gas. Always use caution when handling and use a proper pressure regulator. Never expose tanks to temperature over 125 F and always secure the cylinder vertically. Follow all local and state transportation and safety standards. Always ensure proper ventilation.*

**⚠ CAUTION!** **INDOOR USE ONLY.** *Do not install outdoors or where unit is in direct sunlight. Do not install where ambient temperature goes below 50F or above 97F. Avoid high humidity and moisture. Product life and performance will be impacted and warranty could be voided.*

## MODEL/PART DESIGNATIONS

BRAND NAME	DESCRIPTION	MODEL – PART NUMBER
<i>WL500</i>	<i>Waterlogic WL500</i> - Cold, Sparkling, Hot, Extra Hot F-6004-M-HCS-DT-CS-INN	10-VMHCS3
AK-0005	Optional Base Cabinet for <i>Waterlogic WL500</i>	10-7000
AK-0007	Optional Cup Dispenser for Base Cabinet	10-7001

## SPECIFICATIONS

ITEM	<i>WL500</i> (w/o BASE CABINET)	<i>WL500</i> (with BASE CABINET)
Water & CO <sub>2</sub> Connection	¾" Quick Connect	
Cold Water Temperature	Cold Water Temperature – Factory Set Point 41° - 5°C (Adjustable) 34° - 54° F. (1.1° - 12.2°C)	
Hot Water Temperature	158° - 203° F (70° - 95°C) Programmable	
Recommended Service Pressure	40-60 psi (275-414 kPa) – Use Pressure Regulator	
Maximum Working Pressure	60 psi (414 kPa) – Use Pressure Regulator	
CO <sub>2</sub> Supply Requirement (400 Glasses/ 1lb CO <sub>2</sub> ) <sup>^</sup>	Food Grade CO <sub>2</sub> - Regulated to 35-45 psi	
Environmental Temperature	35° - 100°F (2° - 37°C)	
Refrigerant Gas	R134a – 2.29 oz. (65 grams) - Hi (280 psi) Low (90 psi)	
R134a Pressures	High (230 psi), Low (90 psi)	

## SHIPPING SPECIFICATIONS

ITEM	<i>WL500</i> (w/o BASE CABINET)	<i>WL500</i> (with BASE CABINET)
Width/Depth/Height <sup>#</sup>	17 in. x 18 in. x 18.5 in. <sup>#</sup>	17 in. x 18 in. x 49.25 in.
Weight – Dry (w/o packaging)	65 lb. (29.5 kg)	100 lb. (45.4 kg)
Shipping Information (length x width x height)	20 in. x 22 in. x 22 in. 8 units per pallet	AK-0005 33 in. x 18 in. x 10 in. AK-0007 32 in. x 12 in. x 7 in.
Shipping Weight – Dry	70 lb. (32 kg)	AK-0005 35 lb. / AK-0007 9 lb.

## ELECTRICAL SPECIFICATIONS

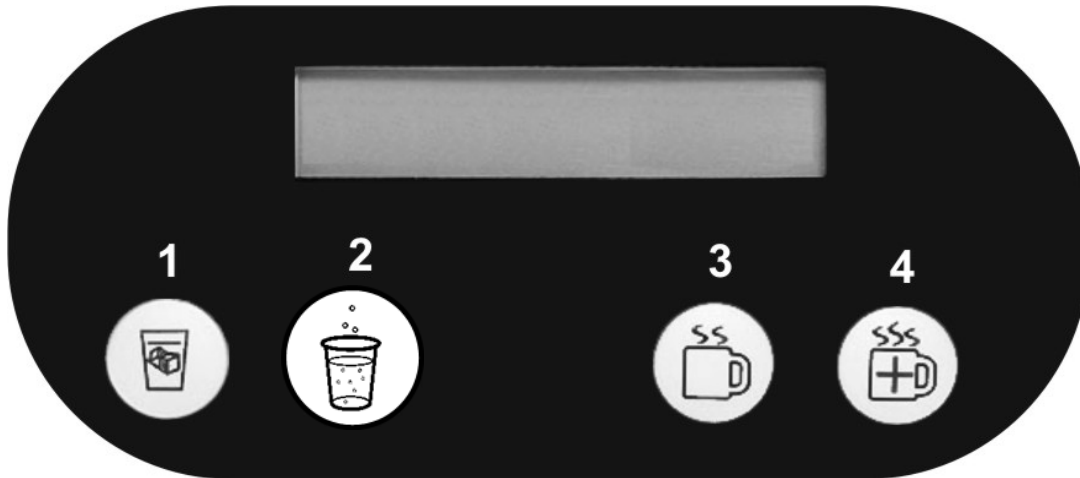
ELECTRICAL SUPPLY	120V/60Hz	15 Amp Service <sup>+</sup>
<b>COMPONENT</b>	<b>POWER (approximate)</b>	<b>AMP DRAW (approximate)</b>
Heater	500 Watts	4.2 Amps
Compressor	210 Watts	1.75 Amps
Fan Motor	18 Watts	0.15 Amps
UV Lamp System	18 Watts	0.15 Amps
Pump	26 Watts	0.22 Amps
<b>WL500 TOTAL</b>	<b>772 Watts</b>	<b>6.47 Amps</b>

#*WL500* is 18.5 in. tall and may not fit between countertops and cabinets - Check installation to ensure adequate clearance.

<sup>^</sup>400 12oz Cups of Premium Sparkling Water per pound of CO<sub>2</sub> under normal conditions. <sup>+</sup>G F I recommended - See Installation Instructions.



## OPERATING INSTRUCTIONS



The above picture shows front LCD display and control panel for the *Waterlogic WL500* .

Button	Operational Use	Programming Mode
1	Select Cold Water	Scroll the Menu Down
2	Select Sparkling Water	Scroll the Menu Up
3	Select Hot Water	Enter (select) an Option on the Menu
4	Select Extra Hot water	Escape to Main Menu/Exit Programming Mode
Main Dispense Button (larger -not shown above)	Dispense Selection	N/A

For Cold Water: Press Cold (Button 1) followed by the Main Dispense Button.

For Sparkling Water: Press Sparkling (Button 2) followed by the Main Dispense Button.

For Hot Water: Press Hot (Button 3) followed by the Main Dispensing Button.

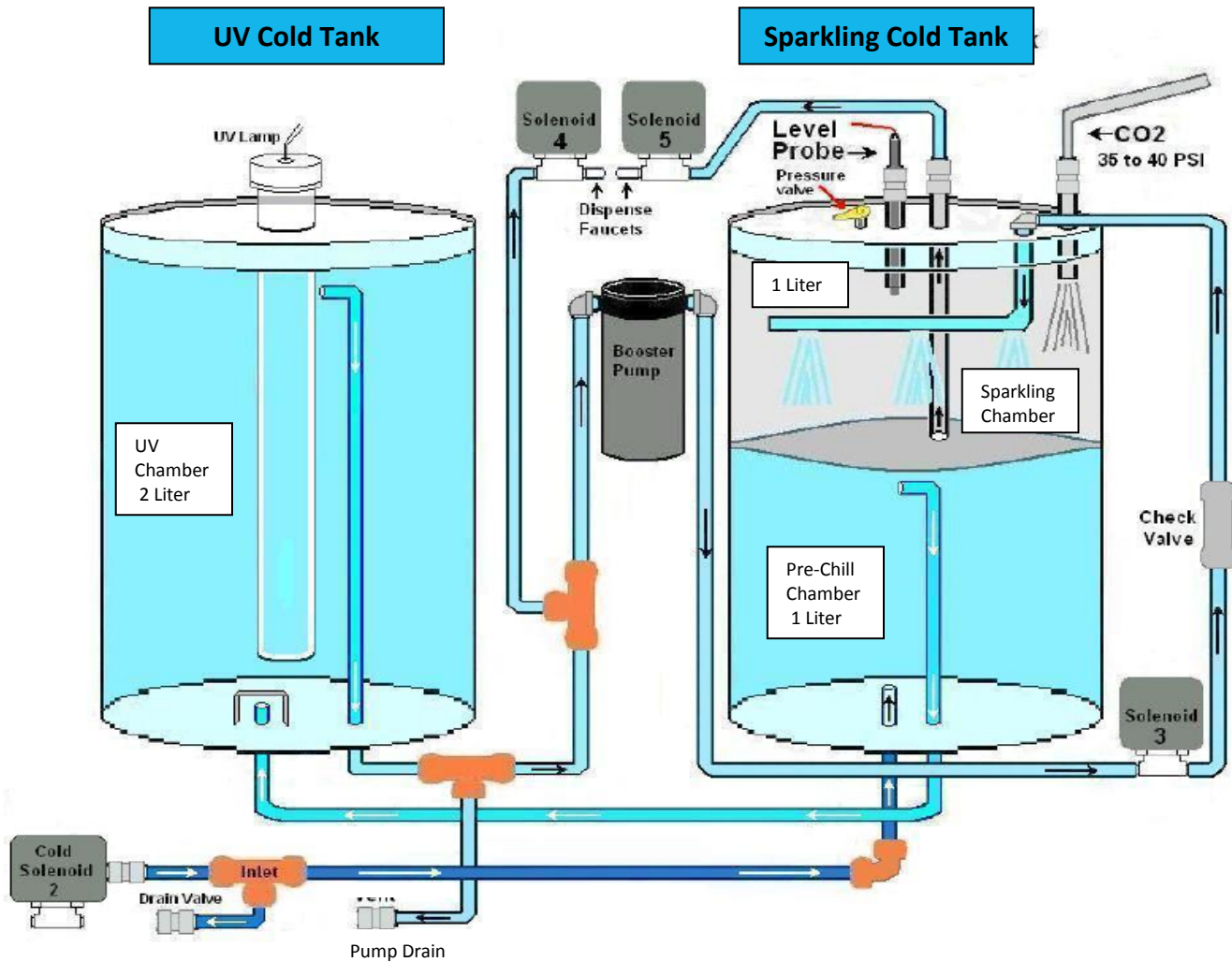
For Extra Hot Water: Press Extra Hot (Button 4), wait approximately 30 seconds. Then press Hot (Button 3) and the Main Dispensing Button. This procedure will raise the hot water temperature approximately 2° F. Repeating the process over again will raise the temperature about 2° F more until the desired temperature is reached up to a maximum limit of 203° F.

**NOTE:** Default selection mode is Cold Water. Selection will return to default after 3 seconds of inactivity. The default selection can be programmed to Cold or Sparkling. See Programming section of this manual.

## WL500 PRINCIPLES of OPERATION

It will take the **WL500** approximately 10 minutes to heat 1.6 liters of water in the hot circuit and 45 minutes to chill the 4 liters of water in the cold circuit to set point temperatures after all tanks have been properly filled. The **WL500** has two cold tanks; a 2 liter UV Cold Tank and a 2 liter Sparkling Cold Tank which is separated by a baffle/divider plate that isolates a 1 liter Sparkling Water Chamber from a 1 liter Pre-Chill Chamber within.

## WL500 PRINCIPLES of OPERATION LAYOUT



### Dispensing Cold Still Water from the WL500

The **WL500** defaults to cold water selection when idle. "COLD" will appear on the display and cold water will be dispensed when the Main Dispense Button is pressed. Selecting COLD (Button 1) and then pressing the Main Dispense Button opens Solenoids 2 and 4, which allows supply water to push into the Pre-Chill Chamber of the Sparkling Cold Tank. Pressurize feed water pushes into the bottom of the pre-chill chamber and forces pre-chilled water through the tall draw tube into the bottom of the UV Cold Tank. UV treated, cold, still water is forced out through the tall draw tube, through Solenoid 4, out the faucet of the dispenser. When the main dispense button is released, both Solenoid 2 and 4 will close, thus stopping cold, still water output. The **WL500** is a pressure fed unit and output is dependent on supply.

### Dispensing Hot Water from the WL500

To dispense hot water, select the small HOT (Button 3) and release. HOT will appear in the display, and press the Main Dispense Button. This will open the hot input solenoid (Solenoid 1– not shown above) and allow hot water to dispense through the faucet. The **WL500** can be programmed to default back to COLD or Sparkling after 3 seconds of inactivity as a safety feature to prevent accidental dispensing of hot water.

### Dispensing Extra Hot Water from the WL500

Typically, the **WL500** hot water temperature is set to 189° F. In some cases, extra hot water is desired for making soups and teas. To temporarily raise the hot water temperature, users can depress and release the EXTRA HOT select button (button 4). The word HEATING will appear in the display for 10-seconds, which will raise the hot water temperature about 2 degrees. If the user presses the EXTRA HOT select button again after 30-seconds have expired, the word HEATING will appear in the display, and the temperature in the hot tank will be raised another 2° F. Eventually, as the process is repeated, the hot tank temperature will reach up to 203° F, and the extra heating will be disabled. At this point, 203° F hot water can be dispensed from the **WL500**, which is a desired temperature for soups/teas. The **WL500** will return to the hot temperature set point after the extra hot water is dispensed.

### Dispensing Premium Sparkling Water from the WL500

To dispense sparkling water, press and release Sparkling (Button 2). SPARKLING will appear in the display. From this point, the user has 3-seconds to press the Main Dispensing Button for Premium Sparkling Water. The unit will default back to COLD water after 3 seconds unless the Default Set is changed to Sparkling. (See Programming Section)

When the Main Dispensing Button is pressed, Solenoid 5 will open, and the CO<sub>2</sub> gas supply from the bottle will push sparkling water out of the sparkling water chamber to the faucet. The CO<sub>2</sub> supply is what forces sparkling water out of the sparkling chamber. The sparkling water chamber is 1 liter in size and a maximum of 1 liter of sparkling water can be dispensed to the glass at a time. Once the sparkling tank empties of sparkling water, only CO<sub>2</sub> gas will dispense to the glass. At this point, the main dispensing button must be released to allow the **WL500** to make another batch of Premium Sparkling Water.

When the Main Dispensing Button is released, Solenoid 2 and 3 will open, and the Booster Pump will start the *Mizzling Process*. The Booster Pump will draw cold, still water from the Cold Tank, forcing that water through Solenoid 3 and the check valve into the spray header inside of the sparkling chamber. The spray will enter the sparkling chamber as a fine mist that will absorb the CO<sub>2</sub> gas that is present in the chamber. Once the sparkling tank fills with water, the level probe mounted in the top of the sparkling tank will detect the water and signal the PCB to shut down the booster pump, as well as close Solenoid 2 and 3. Note that the booster pump can supply this spray up to approximately 70 psi, and if the CO<sub>2</sub> gas pressure is too high, the booster pump will not be able to overcome the gas pressure, and will “dead-head”. If the booster pump runs for 10 minutes without a signal from the level sensor, the PCB will shut down the sparkling water process and signal a NO WATER SUPPLY FAULT will be displayed.

Once the level sensor detects the tank is full of water, the PCB will shut down sparkling water generation (*Mizzling Process*). The **WL500** will return to the COLD default selection after 3 seconds. Cold and Hot water can be dispensed while sparkling water is being generated. The sparkling water generation will stop as soon as sparkling water is dispensed or the chamber fills. The **WL500** will make 1 liter (34 ounces) of sparkling water in approximately 1 minute, 20 seconds. Typically, users will only dispense up to ½ liter (17 ounces) of sparkling water at a time, and the **WL500** takes about 40 seconds to regenerate sparkling water tank accordingly.

**Waterlogic WL500** produces Premium Sparkling Water which is made in a batch and contains a fine, dense carbonation as compared to some “soda water” products. Optimal sparkling water is generated with cold water under 46° F.

**WL500** Sparkling Level Sensor Probe requires inspection and service. See Service Section.

#### [WL500 Sleep Mode](#)

The **WL500** has programmable sleep mode. When sleep mode is ON the **WL500** will shut down the heater circuit to conserve energy after the machine is idle for 3 hours. The heater circuit will awake once any button is depressed and it will reheat the hot tank to set point temperature. “SLEEP MODE” will be displayed. Always check Sleep Mode setting if unit does not produce hot water as expected.

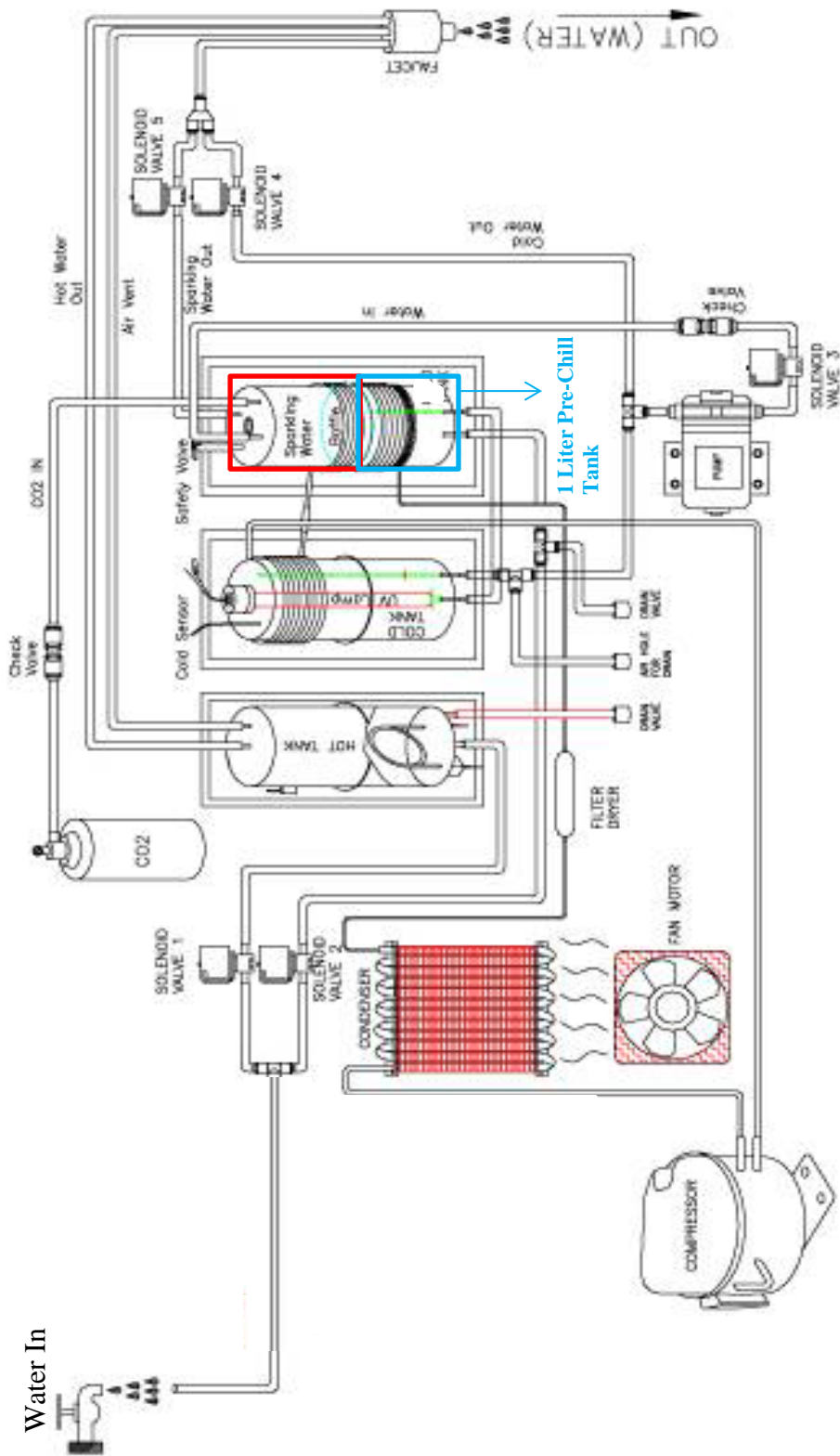
#### [WL500 UV Protection](#)

The **Waterlogic WL500** contains a germicidal ultraviolet (UV) lamp that sterilizes water in the cold tank and requires annual replacement.

The **WL500** has a UV CDS Sensor located in the Cap of the UV Tank. UV Fault Mode Protection will alert the user with a 20 second audible alarm and display UV FAULT on screen when UV light is not detected. UV Fault Mode Protection will shut off cold/sparkling water to avoid potentially dispensing unsafe water.



## WL500 FLOW DIAGRAM



## PROGRAMING MENU AND INSTRUCTIONS

Menu	Options	Brief Description
Cold Temp Set	3° - 12°C	The cold temperature can be set between 3°C and 12°C or 37°F and 54°F, depending on which units are selected (°C or °F) in the F/C option. <b>Recommended/Default Setting is 5°C/41°F.</b>
	37° - 54°F	
Hot Temp Set	70°C - 95°C	The hot temperature can be set between 70°C and 95°C or 158°F and 203°F, depending on which units are selected (°C or °F) in the F/C option. <b>Recommended/Default Setting is 87°C/189°F.</b>
	158°F - 203°F	
Temp Display	Static	The display indicates the STATIC (SET POINT) temperature. <b>Default</b>
	Ranging	The display indicates the ACTUAL tank temperature
UV Timer	<b>3 minutes</b>	The UV lamp lights every time you take a drink of cold water, and stays on for 3 minutes. <b>Recommended/Default Setting is 3 minutes</b>
	10 minutes	The UV lamp lights every time you take a drink of cold water, and stays on for 10 minutes.
	Constant	The UV lamp stays on when power is on. <b>Not Recommended</b>
F/C	°F	Temperatures are displayed in degrees Fahrenheit. <b>Default is °F</b>
	°C	Temperatures are displayed in degrees Centigrade.
Language	<b>English</b>	The display will read in English. <b>Default is English</b>
	Spanish	The display will read in Spanish
	French, Etc...	The display will read in French, and many others...
Flow Counter	Liters (4000-9000)	<b>DO NOT USE.</b> "NO WATER SUPPLY" Fault will occur. Use Filter Timer Instead.
	Gallons (1000-3000)	<b>DO NOT USE.</b> "NO WATER SUPPLY" Fault will occur. Use Filter Timer Instead.
Filter Timer	3 months	Timer for Filter Life set at 3 months. Displays "Change Filter" after 3 months
	6 months	Timer for Filter Life set at 6 months. Displays "Change Filter" after 6 months
	9 months	Timer for Filter Life set at 9 months. Displays "Change Filter" after 9 months
	<b>None</b>	Timer for Filter Life is turned off. <b>Default is None</b>
Filter Life	<b>00 DAYS</b>	Indicates amount of water flowed(gal/liters) or days elapsed since last reset Ensure Filter Timer is enabled and Filter Life indicates DAYS
Sleep Mode	<b>On</b>	Shuts heater down (hot water) if not used in 3 hours. – <b>Default Sleep is ON</b>
	Off	Hot water remains powered indefinitely.
Default Set	<b>Cold</b>	Defaults Display & Dispense Selection to Cold after 3 seconds. <b>Default is Cold</b>
	Sparkling	Defaults Display & Dispense Selection to Sparkling after 3 seconds.
Reset	OK?	Resets the Filter Life to zero. Confirm by selecting Button 3 (Hot) to Save and Exit. This resets the timer.

## PROGRAMMING INSTRUCTIONS

Access the programming menu by depressing Buttons No. 1 and No. 2 simultaneously for three seconds until the Password Message appears on the display: Password \* \* \* \*

**PASSWORD IS: 1 1 1 1**

Press Button No. 1 until the number 1 is displayed

Press Button No. 2 to move to next field

Press Button No. 1 until the number 1 is displayed

Press Button No. 2 to move to next field and continue...until all 4 fields display 1 1 1 1

Press Button No. 3 to enter the password and access the programming mode.

Note: Unit will exit programming mode if no buttons are pressed within 5 seconds and return to display mode.

---

### **Programming Example: Change Language**

---

1. Press Buttons No. 1 and No. 2 for three seconds until “**Password \*\*\*\*\***” appears on the display. Enter 1 1 1 1 Password as shown above.
2. Press Button No. 2 repeatedly to scroll through the menu until the option “**Language**” appears on the display.
3. Press Button No. 3 to select the Language option.
4. Press Button No. 2 repeatedly to scroll down through the languages until Spanish is displayed).
5. Press Button No. 3 to select “**Spanish.**” This saves the selection.
6. Press Button No. 4 to exit programming mode.

---

### **Programming Example: Change Language and Lower Cold Temp**

---

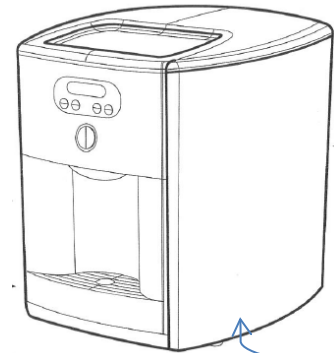
1. Press Buttons No. 1 and No. 2 for three seconds until “**Password \*\*\*\*\***” appears on the display. Enter 1 1 1 1 Password as shown above.
2. Press Button No. 2 repeatedly until the menu scrolls to the option “**Language**” on the display.
3. Press Button No. 3 to select the Language option.
4. Press Button No. 1 repeatedly to scroll up through the language. (Spanish, French, English, and others).
5. Press Button No. 3 to select “**English.**”
6. Press Button No. 1 repeatedly until the menu scrolls up to the option “**Cold Temp Set**” on the display.
7. Press Button No. 3 to select the “Cold Temp Set” option.
8. Press Button No. 1 repeatedly until “**39F**” is displayed.
9. Press Button No. 3 to select “**39F.**”
10. Press Button No. 4 to exit Programming mode.

## **WL500 QUICK START GUIDE**

### Critical Requirements

Establish Food Grade **CO<sub>2</sub> Supply and regulate to 35-45 psi.** This will produce optimum sparkling water and CO<sub>2</sub> concentration when combined with 46 F degree or cooler water. Regulate the **Water Supply to 40–60 psi.** ALWAYS use a pressure regulator.

- 1) Prior to setting the **WL500** machine, open the knock-out on the back panel of the base cabinet to allow running the CO<sub>2</sub> pipe from the base cabinet to the **WL500** machine.
- 2) Unpack the **WL500** and set on top of base cabinet so that the side panels of the machine align with the side panels of the base cabinet.
- 3) Secure the **WL500** to the base cabinet using the bolt provided in the base cabinet. Note that the connection point is accessed from the underside of the base cabinet. The bolt threads into the **WL500** base plate and locks the unit together.
- 4) Install a regulator onto a 5lb or 10lb food grade CO<sub>2</sub> bottle and purge some gas from the bottle. Regulate output to 35-45 psi. Close the regulator outlet valve, and secure in the base cabinet.
- 5) Route a ¼-inch pipe from the outlet fitting of the CO<sub>2</sub> regulator through the knock-out up to the CO<sub>2</sub> IN bulkhead fitting on the back of the **WL500**.
- 6) Slowly open and supply CO<sub>2</sub> to the **WL500** prior to establishing water supply and power.
- 7) Establish 40–60 psi 0.5 gal/min or greater potable water supply. Leak Protection is recommended.
- 8) Supply power to the **WL500**, and turn on the RED power switch (GREEN power switch MUST remain OFF until the **WL500** tanks are filled or hot tank overload will trip).
- 9) Fill the hot, cold, and sparkling tanks by dispensing until water flows from each. The sparkling tank will self-fill after the cold tank is filled. Once tanks are full, turn on the green power switch to allow the heating and chilling systems to function.
- 10) Regenerate the sparkling tank by dispensing the initial batch of 1 liter from the chamber. Remember that the water in the cold tank needs to be cold (below 46 F) to make premium tasting sparkling water.



Mounting Bolt Here



## 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. DO NOT plug into an electrical supply until specifically instructed.

### **⚠ WARNING!** *ALWAYS SANITIZE BEFORE USE.*

Sanitize before use to eliminate any potential microbiological contaminates.

### 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
  - 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
  - 1/8 NPT Female Thread to ¼" Compression Fitting (Used to connect hose to drain fittings)
1. Unpack the **Waterlogic WL500** and check exterior for damage.

### **⚠ WARNING!** *WL500 IS HEAVY.*

Use proper lifting aids and handling techniques to avoid injury. Use assistance as single person lift could cause injury. Always drain before handling and transporting and handling to reduce the weight of the unit.

2. Remove the Retaining Screw that is located directly in front of the faucet nipple. Refer to **Figure 1**. Removing this screw will allow access to the inside serviceable components (filters and UV lamp).
3. Open the front hatch cover by lifting up and hinging outward. Front hatch cover can be removed by carefully squeezing panel base and pulling over hinge pins.



Figure 1: Location of Access Cover Screw

### Flush Filters

### **⚠ CAUTION!** *FILTER FLUSH REQUIRED.*

*WL350's 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.*

4. Flush thoroughly per filter manufacturers' recommendation with fresh water to drain.
5. 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 solution or other approved cleaner throughout the cold and sparkling 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).*

6. Remove the UV Cover Plate and set aside – 2 Screws.
7. Disconnect the UV Lamp 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.*
8. Remove UV Sensor from the side of the cold tank/quartz sleeve retaining cap.
9. Unscrew cold tank/quartz sleeve retaining cap and remove the quartz sleeve. This may require top cover to be removed to access properly and facilitate removal.
10. 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 acetal plastic.
11. Pour sanitizer solution into cold tank thru funnel or spout. You may add concentrated sanitizer (½ cap bleach) directly into empty cold tank instead of premixing.
12. Inspect and clean quartz sleeve and O-ring. Reinstall the quartz sleeve and quartz sleeve retaining nut. Tighten firmly to ensure proper seal. Over-tightening can cause damage.
13. Reinstall the UV Lamp and UV Sensor. Take care not to touch with fingers.
14. Connect 40-60 psi regulated, potable water supply to the water inlet bulkhead fitting located on the back of the unit. Turn on water supply and check for leaks.
15. Connect CO<sub>2</sub> gas line to **WL500** bulkhead inlet fitting. Regulate to 35-45 psi. Turn on CO<sub>2</sub>.

**⚠ WARNING! HIGH PRESSURE CO<sub>2</sub> GAS.** *Use/Handle in accordance with all safety standards.*

**⚠ 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.*

16. Connect **WL500** to power, and turn I=ON the Red Power Switch.

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

*Green Compressor/Heater 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

17. Wait 10 seconds for the unit to perform its diagnostics checks, 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!*

### Fill the Sparkling Chamber with Sanitizer

18. The sanitizer solution will be injected into the sparkling tank by the booster pump once unit is turned on and the cold tank is full. Dispense 1 liter of sparkling water into container and let sparkling chamber regenerate to ensure the sparkling tank is full of sanitizer.

**⚠ CAUTION!** *USE SANITIZER COMPATIBLE WITH STAINLESS STEEL AND ACETAL PLASTIC. Do not allow the sanitizer solution to remain in the system for more than 10-15 minutes unless otherwise directed by the sanitizer manufacturer.*

### Flushing the Sanitizer from the Machine

19. Place a pitcher, catch basin, or other container under the faucet of the **WL500**.
20. 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. Once the sanitizer odor/taste has been flushed out of the cold side of the machine, move to the sparkling circuit.
21. Flush the Sparkling Chamber. Dispense sparkling water until only gas comes out. Let the sparkling tank regenerate. This should take approximately 1 minute, 20 seconds. Listen for the booster pump to turn off. Repeat the sparkling water regeneration until the sanitizer odor/taste has been flushed out.
22. The sanitization process for the Cold and Sparkling Circuits is now complete.

### Fill the Hot Tank

23. Press the Hot Button (Button 3), 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 MUST EXCEED 171° F**

*Water in the hot circuit is not sanitary until the temperature over 171°F for 5 minutes.*

*Do Not Ingest and avoid contact until heater is turned on 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 before removing.*

24. 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.

25. Find the white wires delivering power to the top of the lamp assembly. Follow the wires back until the electrical connector is found. Disconnect the electrical connector and verify that the UV lamp alarm annunciates.

26. Reconnect the UV lamp wire connector, and cycle the red power switch to clear the alarm.

### Compressor Test

27. Switch on the green power switch (turns on the compressor and heater). Always ensure tanks are full of water before turning on the heater or the overload (high limit) will open and require manual reset. Once the compressor starts, the fan condenser also will start. Verify the fan has started by feeling for the discharge of air at the rear grill of the machine. Heat exchange is a signal that the refrigeration system is working.

28. Monitor the cold tank temperature on the front display of the unit by changing the Temp Display to RANGING. It will take about 45 minutes for the unit to chill down to the default set point temperature of 41°F assuming ambient inlet water of 75°F.

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

### Heater Test

30. 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 75°F to the factory set point of 189°F. You can monitor the hot tank temperature by selecting the hot button when the Temp Display is RANGING. Dispense a cup of hot water to ensure the temperature/odor/taste is acceptable.

**⚠ WARNING! VERY HOT WATER CAN BURN OR SCALD.**

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

### Drain the WL500 for Transport

31. Drain the **WL500** for transportation per the Draining Instructions in this manual.

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

*The unit must be completely drained and sealed before storing to avoid stagnation and reduce microbiological contamination (potential bacterial growth).*

## WL500 Draining Instructions

**⚠ WARNING! WL500 IS A HEAVY OBJECT.**

*Use proper lifting aids and handling techniques to avoid injury. Use assistance as single person lift could cause injury. Always drain before handling to reduce weight.*

### Draining Notes

There are 3 tanks and a booster pump circuit that must be drained in the **WL500**. The cold still water circuit of the **WL500** consists of a 2 liter cold tank, a 1 liter pre-chill chamber and a booster pump circuit that is sealed and must be vented to drain. The booster pump will have some water in the circuit that must be purged to remove it. The sparkling chamber does not have a vent or drain port and must be dispensed until empty (pushing CO<sub>2</sub> gas only out of the faucet) to clear the water from the sparkling chamber. It is critical to clear the cold still water before draining the sparkling chamber to ensure the pump does not inject water back into the sparkling chamber. The hot tank has a drain port and is the only tank that is open to atmosphere through the vent and faucet.

Prior to draining the hot tank, turn off the green compressor/heater switch, 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 green 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 green 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! VERY 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 unit.
6. Install dust cap or plug into water supply line bulkhead fitting.

### Drain the Cold Still Water Tanks and Circuit

7. Open front hatch panel by unscrewing the retaining screw in front of the faucet until it is flush with the faucet. Slide front hatch panel up and out.
8. Remove the UV light cover plate and access the UV lamp and quarts sleeve.

**⚠ WARNING! ULTRAVIOLET RADIATION. Protect your skin and eyes against ultraviolet rays.**

*Never look directly at an operating UV light. Disconnect UV lamp before removing.*

9. Unplug the UV lamp and remove UV lamp.
10. Remove the UV indicator sensor from the quartz sleeve retaining nut.
11. Unscrew the quartz sleeve retaining nut and remove quartz sleeve to vent the cold circuit.
12. Remove the cold tank drain line cap and drain the 2 liters into a container.
13. Remove the pre-chill drain line cap and drain the 1 liter of water from the pre-chill chamber and the booster pump circuit.
14. A total of 3 liters of cold still water will drain from the unit.

#### **Drain the Sparkling Water Chamber**

15. Dispense all sparkling water out of the sparkling chamber through the faucet of the **WL500** into the drip tray (holds 1.5 liters) or other container until only CO<sub>2</sub> gas is dispensed. The sparkling chamber holds a maximum of 1 liter of water.
16. Release the dispense button and let the booster pump cycle on to inject any remaining water from the still water feed circuit and pump into the sparkling tank for 30 seconds.
17. Dispense sparkling water to clear any remaining water from the sparkling tank through the faucet until only CO<sub>2</sub> gas is coming out.
18. Turn off the red power switch. This will kill power to the pump ensuring that no water is injected back into the sparkling chamber and shut off the all solenoid valves. CO<sub>2</sub> should stop dispensing.
19. Turn off the CO<sub>2</sub> gas supply at the bottle (screw shut off valve all the way in).
20. Release gas pressure in the sparkling tank by opening (flipping up) the Pressure Relief Valve (PRV) on top of the sparkling chamber to vent the system. May remove top cover to access.
21. Remember to close the Pressure Relief Valve once all pressure is relieved.
22. Remove the CO<sub>2</sub> supply line from the unit.
23. Install dust cap or plug CO<sub>2</sub> gas inlet bulkhead fitting.

#### **Drain the Hot Water Tank**

24. Remove the hot tank drain cap from the rear of the unit.
25. Drain 1.6 liters of hot water into suitable container.

#### **Reassemble the Unit**

26. Reinstall all drain caps.
27. Reinstall the quartz sleeve.

28. Reinstall the quartz sleeve retaining cap firmly. Do not over tighten O-ring seal.
29. Reinstall the UV lamp. Be careful not to touch UV lamp surface as oils from your hands can cause dark spots and impact the performance of the system. Always wipe off lamp with alcohol wipe or equivalent if needed. Ensure lamp wires are not crossed and never force lamp into the sleeve to avoid damage.
30. Reconnect UV lamp.
31. Reinstall the UV sensor into the retaining cap.
32. Reinstall top cover and the UV lamp cover plate.
33. Ensure the front display PCB ribbon connectors are securely attached and completely seated to avoid problems.
34. Close front hatch panel and tighten the locking screw to secure.

## **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 (EL-5001-A).** 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 exposed to direct sunlight, heat sources, or ambient air temperature above 97F (36C) or below 50F (10C). 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 exceed 80F, 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 105 F (40C) 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! HIGH PRESSURE CO<sub>2</sub> GAS.** Use/Handle in accordance with all safety standards.

**⚠ WARNING! STORE 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

**WL500** can be combined with RO Filtration Systems. RO will require a drain connection. Refer to all applicable plumbing codes and standards in your area for these requirements (air gap connections and back flow prevention may be necessary).





Pre-installation and sanitization procedures as prescribed in this manual must be performed before installing the **WL500**.

Always install indoors and place the **Waterlogic WL500** on a firm, flat and stable surface.

Attach the water supply line to the 1/4" feed water inlet bulkhead 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.

1. Check to ensure that both the red and green power switches are in the O=OFF position. **NOTE:** Switches have internal LED that illuminates when placed in I=ON position.
2. Connect the power cord to the back of the **Waterlogic WL500** and to a 120 Volt supply.
3. Turn the Red Power Switch to I=ON position.

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

*Green Compressor/Heater 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.*

4. Prime the Cold Circuit. Holding 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 tanks are now full.
5. Prime the Hot Tank. Holding a container under the dispensing faucet, press the hot button (Button 3) 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.
6. Prime the Sparkling Circuit. Holding a container under the dispensing faucet, press the sparkling button (Button 2) followed by the main dispensing button until all water is dispensed and a continuous flow of gas is obtained. Once a continuous flow of gas is obtained, release the main dispensing button and the Sparkling tank will regenerate itself.
7. Verify that the UV lamp operates as expected (no alarm annunciated on the display).

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

8. Press the cold button and dispense cold water into the drip tray to test the alarm. Ensure that the drip tray alarm will sounds for 15 seconds, Drip Tray Fault is present on the LCD display, and the unit cuts off water supply. Empty the drip tray and wipe dry. While the drip tray is unattached from the front panel dry the alarm sensor connectors. Carefully install drip tray to avoid damage to the metal sensor clips. Do not jam drip tray back into the unit and make sure it is properly seated.
9. Move the **Waterlogic WL500** 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.

10. Level unit using the adjustable feet to level if necessary. Never install on incline.
11. Turn the green compressor switch to I=ON position. Check for fan and compressor operation. This can be done by listening to the unit when the green compressor switch is turned on and/or visibly checking the fan. All tanks must be full.
12. Change the Temp Display to Ranging to monitor the cold and hot water temperatures in the tanks. After 15 minutes, the cold water should drop approximately one degree every 1-1/2 minutes. The hot water will heat rapidly and should reach set point in 10 minutes.
13. 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.
14. 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.
15. Regenerate the sparkling water by dispensing until a continuous flow of gas is obtained and release to let the pump inject cold water (below 46° F) into the chamber. This provides Premium Sparkling Water. Sample the sparkling water to ensure it meets expectation.
16. Check the unit for any leaks. External Leak Protection is always recommended.
17. If you choose, reconfigure the temperature display back to the original Static setting and Verify Default Program Settings (refer to Programming Instructions):
  - **Cold Temp Set** = 41°F – Do not turn down as it may freeze the sparkling chamber.
  - **Hot Temp Set** = 189°F – May need to be adjusted downward at high elevation.
  - **Temp Display** = Static – Display's set point temperatures
  - **UV Timer** = 3 minute - do not recommend using constant
  - **F/C Set** = F -Fahrenheit Temperature Display
  - **Language** = English
  - **Flow Counter** = Disable by Using Filter Timer. DO NOT USE. See Filter Timer Note
  - **Filter Timer** = NONE - See Filter Timer – Programming Note below
  - **Filter Life** = 00 Days. Ensure it displays “Days” to confirm Filter Counter is disabled.
  - **Sleep Mode** = On – Unit comes set with Sleep Mode On

#### **Filter Timer - Programming Note:**

Always enable the Filter Timer by selecting 3, 6, 9 Months or NONE. Enabling the Filter Timer will disable the Flow Counter and the Filter Life will be displayed in Days rather than Gallons.

#### **⚠ CAUTION! NEVER ENABLE THE FLOW COUNTER.**

*A “NO WATER SUPPLY” Fault will occur if the Flow Counter is Enabled.*

## SERVICE REQUIREMENTS

**⚠ WARNING!** *Read and understand the contents of this manual before attempting to service WL500. 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.

**⚠ 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.*

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

4. Test UV lamp and UV sensor (CDS) is working by removing the sensor from the retaining nut and covering the end to produce an audible alarm (continuous beep) and “UV Fault” on the display.
5. The filters should be replaced every 6 months, or 2000 gallons, whichever comes first. Local water conditions will dictate your exact filter requirements and service intervals. Flush 5 gallons of water through the filters to rinse carbon fines. Do not rinse the filters through the unit solenoid valve(s) and tanks if at all possible to avoid contamination.
6. Reset Filter Life Timer if enabled. See programming instructions for details.
7. **WL500** sparkling tank has a level sensor probe that needs to be maintained and descaled at every filter change.

**⚠ WARNING!** ***HIGH PRESSURE COMPRESSED GAS HAZARD.** Isolate CO<sub>2</sub> gas supply and relieve pressure in tank by opening PRV (pressure relief valve) before attempting to remove the level sensor probe or any other component under pressure.*

8. 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.
9. Test the drip tray overflow function. Clean and dry off the drip tray and sensors.
10. Sanitize the cold and sparkling tanks per instructions in the pre-installation procedures.
11. 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.
12. 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.*

## REPLACEMENT COMPONENTS

Component	Part No.	Frequency of Replacement
UV Light, TUV-8W	CT-2001	Every 12 months, or as required WLUSA# 10-7020
UV Quartz Sleeve	CT-2002	Clean every 12 months, replace as needed WLUSA# 10-1400
10" Twist Carbon Block Filter, 1-Micron, Reverse Threaded	PU-4029	Every 6-months, or 2,000 gallons, whichever comes first. <i>Local water conditions will determine proper filter type and maintenance schedule.</i> WLUSA# 10-2801
10" Twist GAC filter, with Polyphosphate Additive to Reduce Scaling, Reverse Threaded	PU-4076	Every 6-months, or as required. <i>Local water conditions will determine proper filter type and maintenance schedule.</i> WLUSA# 10-7002

Replacement parts can be obtained from **Waterlogic** or an **Authorized Waterlogic Dealer**.

See **Parts Layouts, Drawings, and Lists** for additional repair parts.

### Hot Tank HT-3021 Service

Hot Tank (with controls) must be replaced at least every 5 years. Descaling hot tank may be required on a regular basis depending upon filtration and local water conditions. See Service Section. Hot Tank Assembly Part Number is HT-3021 (WLUSA # 10-7082)

### Sparkling Chamber Level Sensor Probe Assembly CT-2023

**WL500** Sparkling chamber has a level sensor probe that needs to be maintained and descaled at every filter change. Replace if needed. Level Sensor Probe Part Number is CT-2023-A (WLUSA# 10-7250)

### 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.



### CO<sub>2</sub> Pressure Regulator Part Number AK-0003-L00

**Waterlogic** CO<sub>2</sub> Pressure Regulator with tamper proof adjuster, preset to 35-45 psi, single output pressure gauge, inline shut-off valve, ¼ quick connect fitting, safety relief, and CO<sub>2</sub> CGA-320 thread adapter.



## **DESCALING the HOT TANK**

1. The hot tank requires removal of mineral deposits (descaling) on a regular basis, 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, it will hinder your unit's performance.

**Hot Tank Troubleshooting:** Hot water intermittently forced out through the faucet is an indicator that descaling is needed. This occurs when scale has deposited on the expansion slot inside the hot tank vent chamber and blocks the normal path for water to expand.

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.

**⚠ 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.*

See Hot Tank Descaling Video and training procedure located on the **Partner Area of the Waterlogic Website** for more detailed instructions. [www.waterlogic.us](http://www.waterlogic.us)

### **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
2. Put descaler per directions and 3 drops of food coloring into the descaling cartridge.
  3. Connect descaling cartridge to the inlet water supply and connect to inlet bulkhead fitting on the back of the unit. Turn on Water Supply.
  4. Select Hot Water and depress the Main Dispensing Button on the Front Control Panel until descaling solution (colored water) comes out of the faucet. Container and drain basic will be required to catch water from the faucet.

5. Turn off water supply and remove sanitizing cartridge from inlet water supply. Reconnect water supply to inlet fitting.
6. Allow descaling solution to remain in the Hot Tank for 15 minutes (length of time may vary depending on water conditions).
7. Place a pitcher, catch basin or other container under the faucet of the **WL500**.
8. Flush the Hot Tank until water runs clear.
9. Once clear Water dispenses from the faucet the Hot Tank has been descaled.

**⚠ 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.*

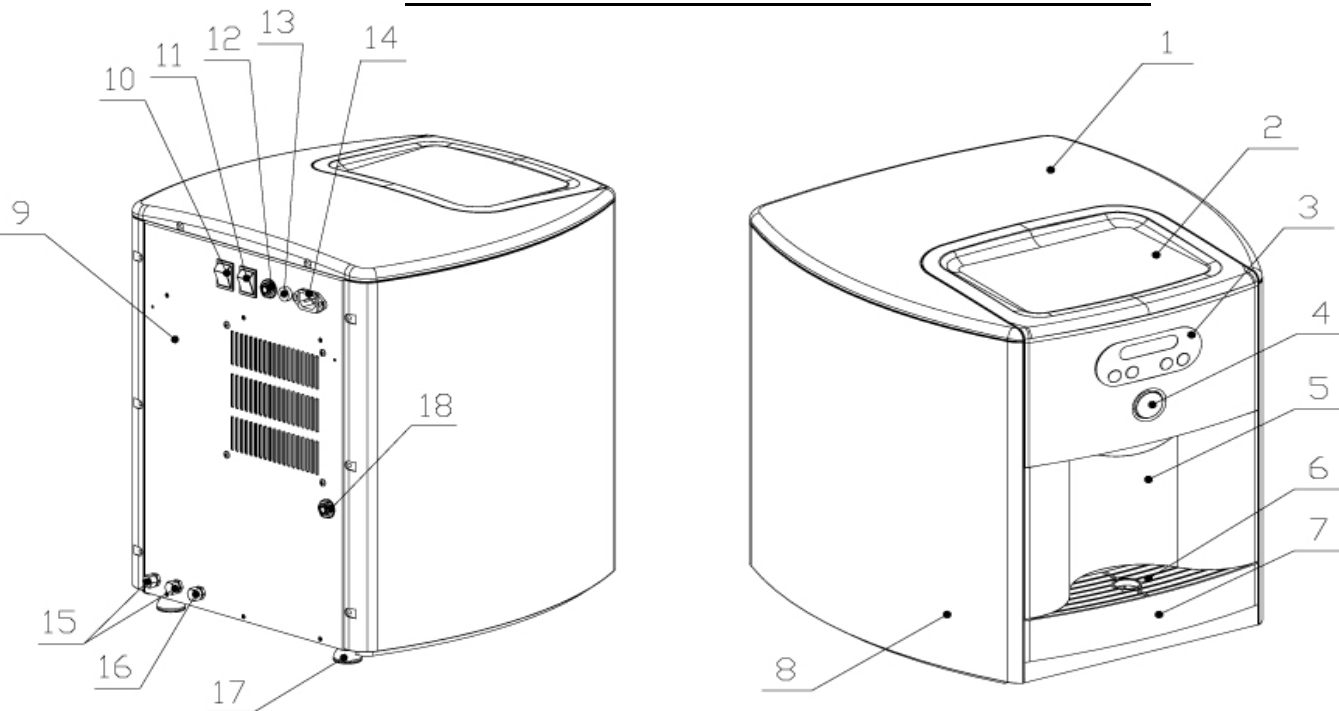
**⚠ CAUTION! REPLACE HOT TANK (HT-3021) EVERY 5 YEARS.** *The hot tank and it's controls should be replaced a minimum of every five years to ensure efficient operation.*

10. Always ensure unit is performing to the customer's satisfaction.

**⚠ CAUTION! RIBBON CONNECTORS MUST BE FULLY ENGAGED.** *Ensure ribbon connectors are properly engaged and fully seated in front PCB (Printed Circuit Board) to avoid intermittent/connectivity issues any time the front hatch panel is accessed.*

**⚠ 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.*

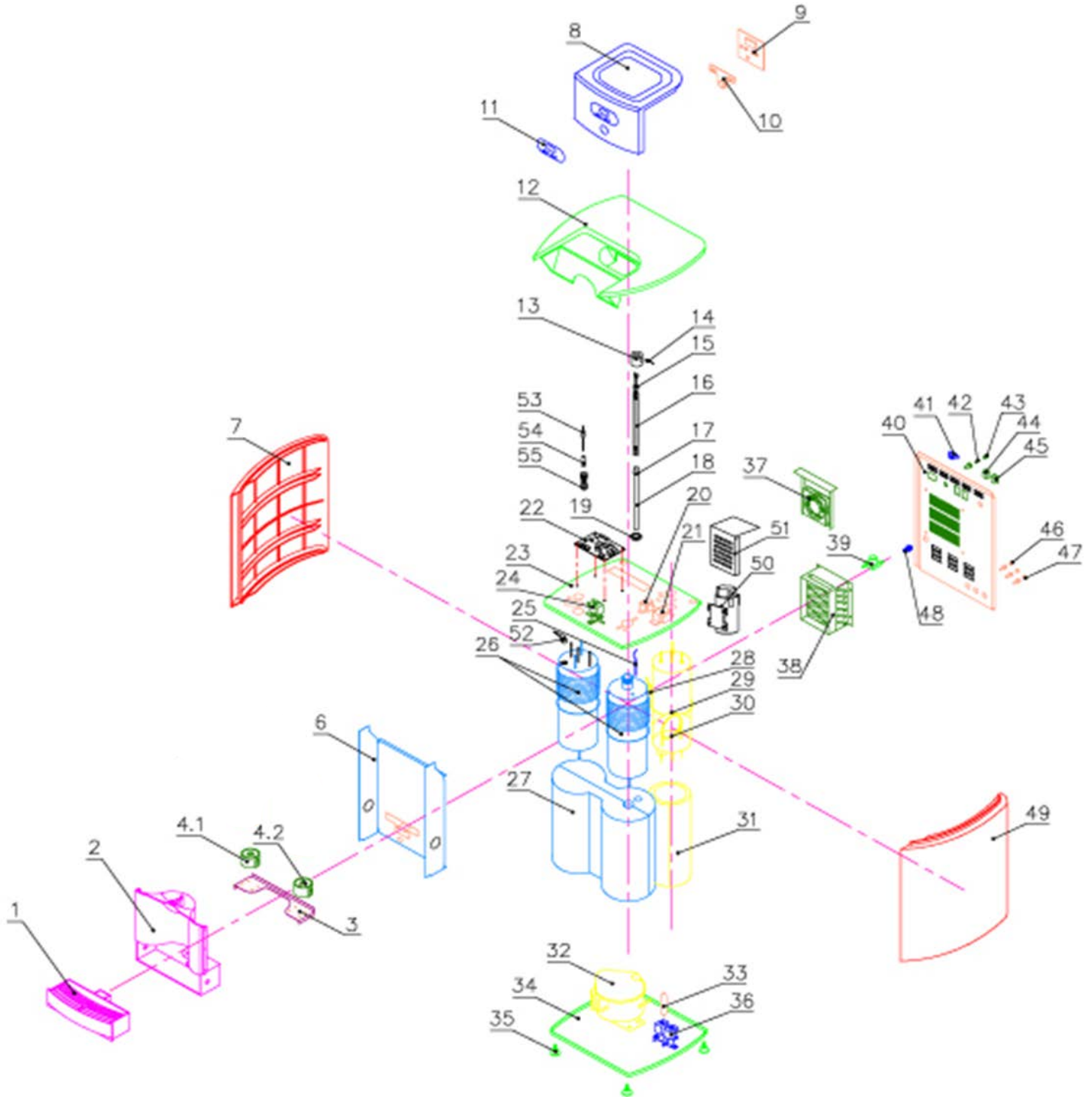
### WL500 LAYOUT DRAWING with PART NUMBERS



No	Part No	Description	WLUSA Part No.
1	PL-1095	Top Cover Gray	10-7073
2	PL-1092	Front Hatch Panel Gray – BioCote®	10-7070
3	PL-1102	LCD Lenses Insert Label Black (4 button holes)	10-7077
4	PL-1098	Dispense Silicon 4 Button Key Mat	10-7225
5	PL-1093	Front Panel for Drip Tray Insert Silver	10-7071
6	PL-1152	Drip Tray Grill – BioCote®	12-8150
7	PL-1127A	Drip Tray Body Only – BioCote®	10-7074
8	PL-1094	Side Panel Silver Plastic	10-7072
9	ST-8094-A	Back Metal Panel	NA
10	EL-5005	Switch - Heater/Compressor (Green) I=ON O=OFF	10-3009
11	EL-5004	Switch - Power (Red) I=ON O=OFF	10-3008
12	PU-4028	CO <sub>2</sub> Inlet Bulkhead Connector 1/4"(JG#PI1208S)	10-3067
13	EL-5012	Fuse Holder & Fuse 120V/15A	10-3014
14	EL-5016	Socket with EMI Filter 120V/60Hz	10-4013
15	CT-2039-A	Drain Valve Body ¼"	CT-2039-A
16	CT-2031-A	Drain – 5/16" Cap – Pre Chill/Pump Drain	14-5011
17	ST-8016	Unit Adjustable Rubber Feet	10-3083
18	PU-4028	Water Inlet Bulkhead Connector 1/4" (JG#PI1208S)	10-3067



**WL500 MAIN PARTS DRAWING**

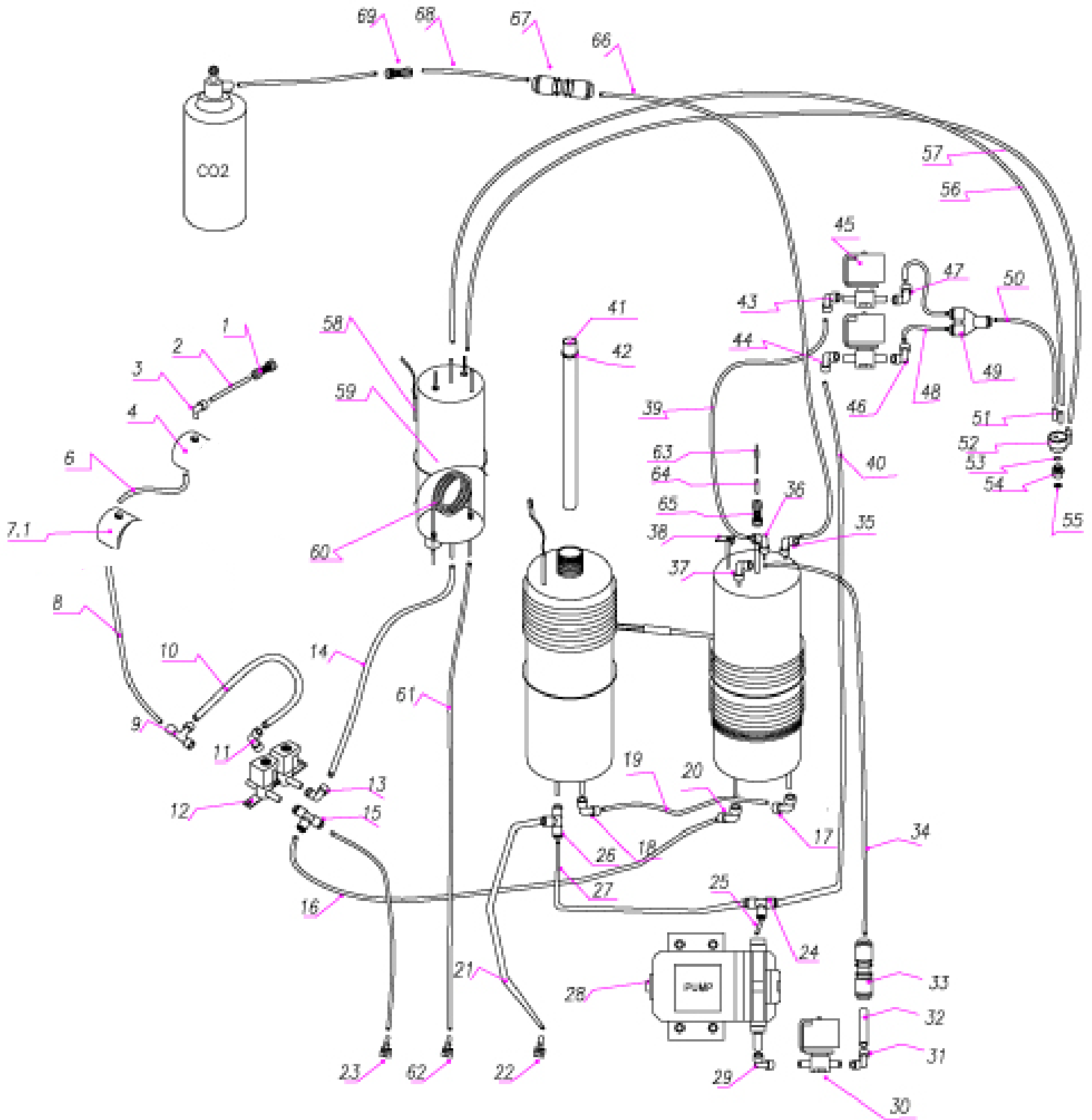


## WL500 MAIN PARTS LIST

No	Part No.	Description	WLUSA Part No.
1	PL-1152	Drip Tray Grill – BioCote®	12-8150
	PL-1127A	Drip Tray Body Only – BioCote® <i>Waterlogic</i> Logo	10-7074
2	PL-1093	Front Panel for Drip Tray Insert Silver	10-7071
3	ST-8097	Filter Housing Fixing Bracket	NA
4.1	PU-4022	Filter Head Valved with stop valve	10-3101
4.2	NA	Non-Valved Head	10-7003
6	ST-8093	Front Frame Metal Panel	NA
7	PL-1094	Side Panel Silver	10-7072
8	PL-1092	Front Door Panel Gray BioCote®	10-7070
9	EN-6073-	PCB	10-7097
10	PL-1098	Silicon Button Key Mat BioCote®	10-7225
11	PL-1102	LCD Lenses Insert Label Black (4 button holes)	10-7077
12	PL-1095	Top Cover Gray	10-7073
13	PL-1027	UV Lamp Retaining Nut	10-4008
14	EL-5007	UV Lamp Sensor (CDS) with wire	10-3011
15	CT-2001-B	UV Lamp Fixing Rubber (Silicon)	10-3004
16	CT-2045	UV Lamp with wires	10-7020
17	CT-2006	O-ring (Black Quartz Sleeve)	10-2500
18	CT-2002	Quartz Sleeve D310mm for 8W Lamp	10-1400
19	CT-2001-C	Cold Tank Retaining Nut	10-3096
20	EL-5006-A	UV Lamp Ballast 120V/60Hz 8, 6, 4 W Metal Cover	10-3010
21	EL-5094	Power Transformer 120v/2A for Sparkling	10-7220
22	EN-6067	Main PCB with Ribbon connectors	10-7090
23	ST-8095	Upper Base - Inner	NA
24	PU-4016	Solenoid Valve DC24V 1000mm	12-1500
25	CT-2057	Cold Water Sensor	10-2650
26	NA	Cold Tank Assembly - 4L Sparkling Double Tank, without Insulation	NA
27	NA	Cold Tank Insulation (EPS)	NA
28	HT-3016	Hot Sensor	10-3030
29	HT-3002	Stainless Hot Tank 1.6 Liter 120V 500W (Sensor Type) with drain	10-7082
30	NA	Heater Element – 500 W	NA
31	HT-3012	Hot Tank Overload (high limit) Manual Resettable Thermostat	12-1360
32	CO-9001A	Compressor (R134a 1/8HP) 120V/60Hz	10-2200
33	CO-9025	Filter Dryer 15.88*6.35*2.1(10g)	10-1100
34	ST-8096	Down Base – Inner	NA

No	Part No.	Description	WLUSA Part No.
35	ST-8016	Unit Control Rubber Feet	10-3083
36	PU-4056B	Double Solenoid valve (C&S) with wire harness assembled	10-7060
37	CT-2011	Fan Motor 120V (AC Axial fan) UF12B-11B-WL	10-1500
38	CO-9023A	Cooling Fan Condenser only	NA
40	ST-8094-A	Sparkling Back Metal Panel	NA
41	EL-5016	Socket with EMI Filter 120V/60Hz	10-4013
42	EL-5010	Fuse 120 / 15A	10-3013
43	EL-5012	Fuse holder	10-3014
44	EL-5004	Switch - Power (Red)	10-3008
45	EL-5005	Switch - Heater/Compressor (Green)	10-3009
46	CT-2031-A	Hot and Cold Tank Drain Valve	14-5011
47	CT-2039-A	Drain valve body only for 1/4" – Pump Drain Only	CT-2039-A
	CT-2028	Drain valve Cap Only for both 1/4" – 5/16" Drains	CT-2028
48	PU-4028	JG Bulkhead Connector Union 1/4" * 1/4"(PI1208S)	10-3067
49	PL-1094	Side Panel Silver	10-7072
50	CT-2035-E	Booster Pump – Sparkling	10-7235
51	ST-8098	Pump Retaining BKT	10-7240
52	CT-2037	Upper Safety Valve 1/4" for Sparkling Unit	10-7245
53	CT-2036-A	Level Probe Assembly (Probe, Sleeve, O-Ring)	10-7250
54	AK-0014-B	Flow Restrictor - Sparkling Output (1.8 mm hole)	AK-0014-B
	EL-5001-A	UL Approved Power Cord – 6 ft. - 3 Prong Grounded	10-3007
	AK-0003-L00	CO <sub>2</sub> Regulator Assembly – Preset to 35-45psi (3 Bar)	AK-0003-L00
	AK-0005	<b>WL500</b> Base Cabinet Assembly	10-7000
	AK-0007	<b>WL500</b> Base Cabinet Cup Holder Assembly	10-7001

### WL500 WETTED PARTS DRAWING



### WL500 WETTED PARTS LIST

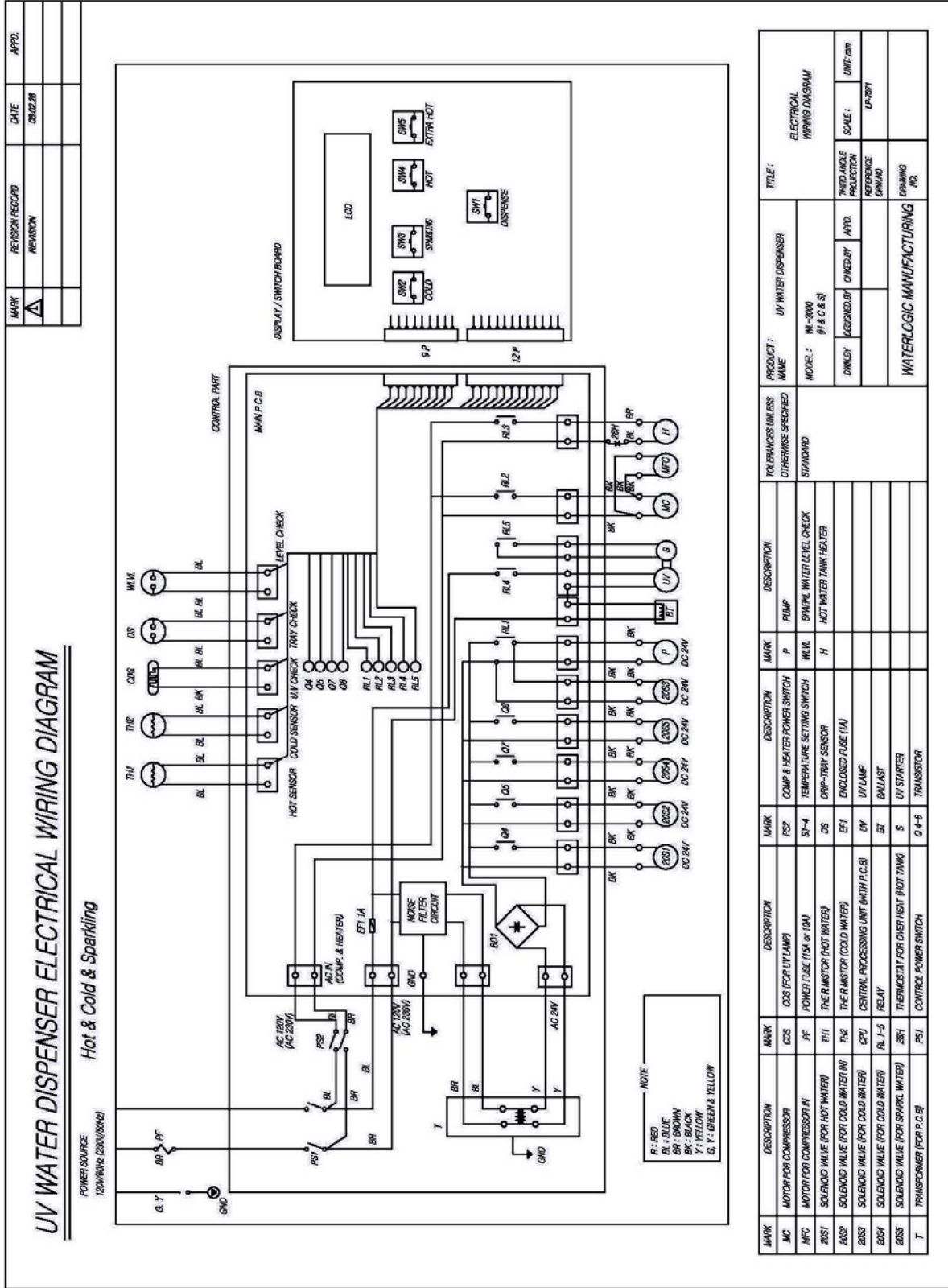
No	Part No	Description	WLUSA Part No.
1	PU-4028	JG Bulkhead Connector Union 1/4" * 1/4"(PI1208S)	10-3067
2	PU-4031	JG LLD PE Tube - Blue O.D.1/4"(PE-08-BI-1000F-B)	NA
3	PU-4066	JG Stem Elbow Connector 1/4" * 1/4" (PI220808S)	NA
4	PU-4022	Filter Head Valved	10-3101
5	NA	Filter Twist GAC 10" with Polyphosphate (WL5540-P)	10-7002
6	PU-4031	JG LLD PE Tube - Blue O.D.1/4"(PE-08-BI-1000F-B)	NA
7.1	PU-4075	Filter Non-Valved Head	NA
7.2	PU-4029	Carbon Block Filter	10-2801
8	PU-4031	JG LLD PE Tube - Blue O.D.1/4"(PE-08-BI-1000F-B)	NA
9	PU-4011	JG Equal Tee Connector 1/4" (PI0208S)	NA
10	PU-4031	JG LLD PE Tube - Blue O.D.1/4"(PE-08-BI-1000F-B)	NA
11	PU-4008	JG Equal Elbow Connector 1/4" (PI0308S)	NA
12	PU-4056	Double Solenoid valve (C&S) with wire harness assembled	10-7060
13	PU-4007	JG Reducing Elbow Connector 5/16" * 1/4" (PI211008S)	PU-4007
14	PU-4014	JG LLDPE Tube - Blue 8mm(PE-0806-100M-B)	10-3062
15	PU-4011	JG Equal Tee Connector 1/4" (PI0208S)	NA
16	PU-4031	JG LLD PE Tube - Blue O.D.1/4"(PE-08-BI-1000F-B)	19-1054
17	PU-4008	JG Equal Elbow Connector 1/4" (PI0308S)	NA
18	PU-4008	JG Equal Elbow Connector 1/4" (PI0308S)	NA
19	PU-4031	JG LLD PE Tube - Blue O.D.1/4"(PE-08-BI-1000F-B)	NA
20	PU-4008	JG Equal Elbow Connector 1/4" (PI0308S)	NA
21	PU-4031	JG LLD PE Tube - Blue O.D.1/4"(PE-08-BI-1000F-B)	19-1054
22	CT-2039-A	Drain valve body only for 1/4"	CT-2039-A
23	CT-2039-A	Drain valve body only for 1/4"	CT-2039-A
24	PU-4011	JG Equal Tee Connector 1/4" (PI0208S)	NA
25	PU-4031	JG LLD PE Tube - Blue O.D.1/4"(PE-08-BI-1000F-B)	19-1054
26	PU-4011	JG Equal Tee Connector 1/4" (PI0208S)	NA
27	PU-4031	JG LLD PE Tube - Blue O.D.1/4"(PE-08-BI-1000F-B)	19-1054
28	CT-2035-E	AQ&Q Pump With Connector & Fitting	10-7235
29	PU-4008	JG Equal Elbow Connector 1/4" (PI0308S)	NA
30	PU-4016	Solenoid Valve DC24V 1000mm	12-1500
31	PU-4008	JG Equal Elbow Connector 1/4" (PI0308S)	NA
32	PU-4031	JG LLD PE Tube - Blue O.D.1/4"(PE-08-BI-1000F-B)	19-1054
33	PU-4057-A	JG Non-Return Valve 1/4"(1/4SCV)	12-5690
34	PU-4031	JG LLD PE Tube - Blue O.D.1/4"(PE-08-BI-1000F-B)	NA

No	Part No	Description	WLUSA Part No.
35	PU-4008	JG Equal Elbow Connector 1/4" (PI0308S)	NA
36	PU-4008	JG Equal Elbow Connector 1/4" (PI0308S)	NA
37	PU-4008	JG Equal Elbow Connector 1/4" (PI0308S)	NA
38	CT-2037	Upper Safety Valve 1/4" for Sparkling Unit	10-7245
39	PU-4031	JG LLD PE Tube - Blue O.D.1/4"(PE-08-BI-1000F-B)	19-1054
40	PU-4031	JG LLD PE Tube - Blue O.D.1/4"(PE-08-BI-1000F-B)	19-1054
41	CT-2002	Quartz Sleeve D310mm for 8W Lamp	10-1400
42	CT-2006	O-ring (Black Quartz Sleeve)	10-2500
43	PU-4008	JG Equal Elbow Connector 1/4" (PI0308S)	NA
44	PU-4008	JG Equal Elbow Connector 1/4" (PI0308S)	NA
45	PU-4056	Double Solenoid valve (C&S) with wire harness assembled	10-7060
46	PU-4007	JG Reducing Elbow Connector 5/16" * 1/4" (PI211008S)	NA
47	PU-4007	JG Reducing Elbow Connector 5/16" * 1/4" (PI211008S)	NA
48	PU-4014	JG LLDPE Tube - Blue 8mm(PE-0806-100M-B)	10-3062
49	NA	JG "Y" Two Way Divider 5/16" (PM2308S)	NA
50	PU-4014	JG LLDPE Tube - Blue 8mm(PE-0806-100M-B)	10-3062
51	PL-1011-A	Stainless Steel Insert for Faucet	10-2701
52	PL-1081-BO	Faucet HC & CA	10-2700
53	CT-2007A	Natural Faucet O-Ring (Silicon White)	10-7203
54	PL-1013	Faucet Nipple Blue	10-3048
55	PL-1013-G	Stainless Steel Gauze for Faucet	NA
56	PU-4064	Silicon Tube 5/16" for hot water	10-7040
57	PU-4014	JG LLDPE Tube - Blue 8mm(PE-0806-100M-B)	10-3062
58	HT-3002	Hot Sensor	10-3030
59	HT-3021	Stainless Tube Hot Tank 1.5 Liter 120V (Sensor Type) w	10-7082
60	NA	Sheath Heater	NA
61	PU-4014	JG LLDPE Tube - Blue 8mm(PE-0806-100M-B)	10-3062
62	CT-2031	Drain valve body only for 5/16"	14-5011
63	CT-2036-L00-00	Level Probe	NA
63a	CT-2092	Level Probe O-Ring	NA
63b	CT-2036-A	Level Probe Insulating Tubing (10cm)	NA
64	NA	U2 4*2.5 Tube (N/A)	NA
65	PU-4010	JG Equal Straight Connector 1/4"	NA
66	PU-4031	JG LLD PE Tube - Blue O.D.1/4"(PE-08-BI-1000F-B)	NA
67	PU-4057-A	JG Non-Return Valve 1/4"(1/4SCV)	12-5690
68	PU-4031	JG LLD PE Tube - Blue O.D.1/4"(PE-08-BI-1000F-B)	NA

# WL500 ELECTRICAL DIAGRAM



gh



MARK	REVISION RECORD	DATE	APPD.
A	REVISION	03.02.20	

## FAULT CODES

### Display indicates “Change Filter”

Enter Programming Mode

Menu	Options	Brief Description
Filter Timer	3 months	Timer for Filter Life set at 3 months. Displays “Change Filter” after 3 months
	6 months	Timer for Filter Life set at 6 months. Displays “Change Filter” after 6 months
	9 months	Timer for Filter Life set at 9 months. Displays “Change Filter” after 9 months
	<b>None</b>	Timer for Filter Life is turned off. <b>Default is None</b>
Filter Life	00 <b>DAYS</b>	Indicates amount of water flowed(gal/liters) or days elapsed since last reset Ensure Filter Timer is enabled and Filter Life indicates DAYS
Reset	OK?	Resets the Filter Life to zero. Confirm by selecting Button 3 (Hot) to Save and Exit. This resets the timer.



## FAULT CODES

### Display indicates “Drip Tray Full” - Continuous Alarm will Sound

Action
Empty and clean the drip tray. Make sure the metal clips on the tray are clean.


## FAULT CODES

### Display indicates “Hot Fault”

<b>Action</b>
Indicates a hot tank sensor fault. Check to make sure the sensor is plugged in to the main PCB properly.

## FAULT CODES

### Display indicates “Cold Fault”

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 <b>Waterlogic</b> 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.

## FAULT CODES

### Display indicates “No Water Supply”

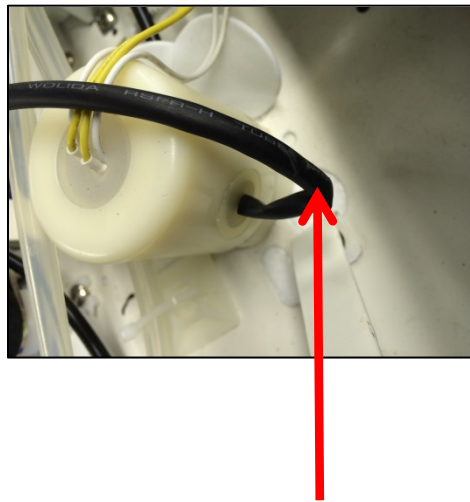
**NOTE:** “NO WATER SUPPLY” fault appears when the booster pump runs for 10 minutes and there is not a signal from the level sensor to shut off the pump. This is a safety feature to prevent the pump from being damaged. When operating properly, it should take about 1-1/2 minutes for the pump to inject enough water to completely fill the 1 liter sparkling chamber.

Possible Reason	Solution
Water supply has been shut off	Turn water supply on
The filters have become fouled and plugged, thereby starving the booster pump of make-up water	Change Filters
The CO <sub>2</sub> gas pressure is above 45 psi, and the booster pump has dead-headed and cannot fill the sparkling chamber.	Turn CO <sub>2</sub> gas pressure to 45 psi, verify with pressure regulator.
The sparkling water level sensor has faulted and is not properly signaling the pcb to turn off the water injection pump once water fills to the probe level in the tank. No Water Supply error message will displayed and the pump will shut down after 10 minutes to prevent damage.	Remove the probe and clean. Disconnect from power, shut off CO <sub>2</sub> gas to isolate sparkling chamber and relieve pressure in tank through the Pressure Relief Valve before removing the probe.
Filter Counter is enabled and there is no signal.	Disable the Filter Timer.

## FAULT CODES

### Display indicates “UV Fault” – Audible Alarm will sound for 15 Seconds

Possible Reason	Solution
UV Lamp has Failed	Replace lamp. Check UV Sensor Indicator function.



## FAULT CODES / TROUBLESHOOTING

### Display is intermittent or Unit is dispensing water intermittently / irregularly

Possible Reason	Solution
Ribbon Connectors are not fully engaged	Verify ribbon connectors are properly engaged and fully seated in front PCB (Printed Circuit Board) to avoid intermittent / connectivity issues anytime the front hatch panel is accessed.

## TROUBLESHOOTING

### Sparkling is Weak, Low Carbonation

*Waterlogic WL500* produces Premium Sparkling Water which is made in a batch and contains a fine, dense carbonation as compared to other “soda water” products in the market. Optimal sparkling water is generated with cold water and food grade CO<sub>2</sub> set at 42.5 psi (3 Bar).

Waterlogic Sparkling Water is very similar to Perrier and Pellegrino Sparkling Water. Temperature of the water in the *WL500* has the largest impact on the taste and carbonation levels and the cold tank must be below 46F (prefer 41F) before injecting water into the sparkling chamber (carbonator) to produce proper results.

Warning! Do not turn up CO<sub>2</sub> pressure beyond recommended setting of 45psi attempting to produce stronger carbonation level as the injection pump used in the carbonator will not be able to compress gas in the sparkling chamber and a "No Water Supply" error will result.

The temperature inside the cold tank can be displayed on the LDC screen by setting the temp display function to "Ranging" mode. See the programming section to adjust this setting.

### Setting Customer Sparkling Water Expectation

Please ensure your customers expect a Premium Sparkling Water similar to Perrier and Pellegrino versus a Soda Water or Soda Club type of product before installing a *WL500*. The *WL500* sparkling water will not meet user's expectations if they expect a large bubble soda stream type of product.

A blind taste test using Pellegrino/Perrier is a great way to demonstrate the expectations and quality of the Waterlogic Premium Sparkling Water. Open two bottles and fill one with cold Waterlogic Sparkling Water from a freshly regenerated tank operating at optimum conditions. Recap and mark the bottles accordingly. Please ensure the bottles are sampled at the same temperature you can refrigerate them for later use and comparison. Most users will prefer the great taste of the Waterlogic Sparkling Water at a fraction of the cost of the bottled counterparts.

You may purchase a carbonation tester from a company such as Taprite to measure the level of carbonation if you wish to quantify the results and check the output of the *WL500*. The level of carbonation is very consistent as long the test conditions are repeatable and proper testing procedure is followed. User taste preferences will vary and it is critical that expectations are clear before installing a *WL500*.



Always allow the *WL500* to chill the cold water to set point temperature (allow up to 45 minutes to chill all 4 liters of water in the unit) before sampling the sparkling water. You or your customer must "Regenerate" the sparkling tank by completely dispensing the initial batch of 0.8 liters of product from the sparkling chamber once the unit has chilled to set point of 41F. The initial batch of sparkling product will be flat because it was injected into the carbonator (sparkling chamber) at ambient temperature when initiating the *WL500*. Always remember that the water in the UV treated cold tank needs to be cold (below 46 F) to make premium good tasting sparkling water.

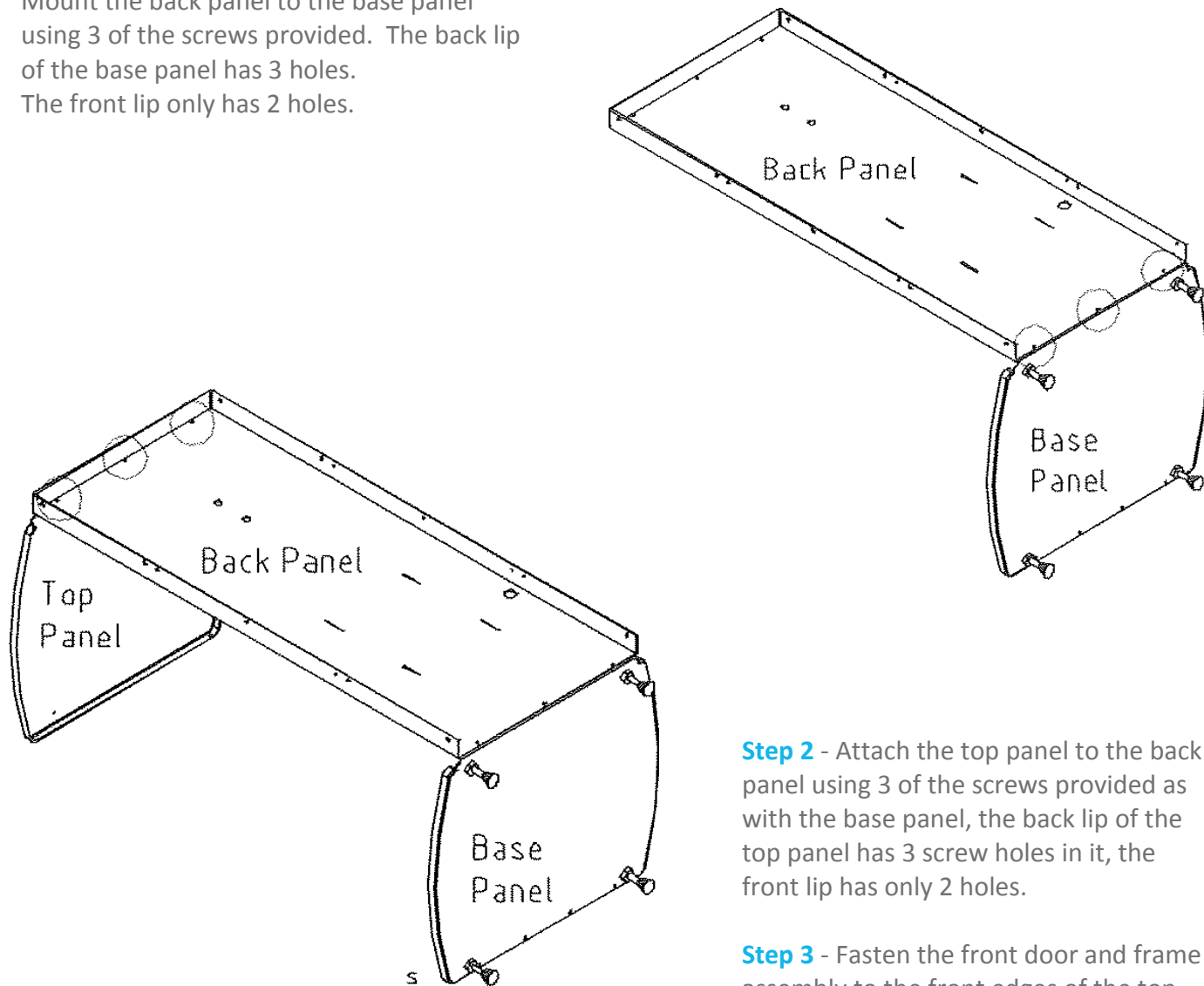
Do not set the cold temperature set point below 41F or you increase the risk freezing the sparkling tank. The thermistor that controls the refrigeration system is located in the well in the UV cold tank and does not monitor water temperature in the sparkling tank (carbonator). The refrigeration system chills both tanks simultaneously and is either on/off based up on feedback from the thermistor. Frequent or continuous use of the cold still water side results in refrigeration system running and continuously chilling the sparkling product in the carbonator to the point at or below freezing. This can result in a frozen sparkling tank and sparkling product will not be dispensed even with proper gas supply.



## BASE CABINET (AK-0005) ASSEMBLY INSTRUCTIONS

### Step 1

Mount the back panel to the base panel using 3 of the screws provided. The back lip of the base panel has 3 holes. The front lip only has 2 holes.



**Step 2** - Attach the top panel to the back panel using 3 of the screws provided as with the base panel, the back lip of the top panel has 3 screw holes in it, the front lip has only 2 holes.

**Step 3** - Fasten the front door and frame assembly to the front edges of the top

and base panels. Top panel and base panel edges fit inside of door assembly edges.

### Screw Locations

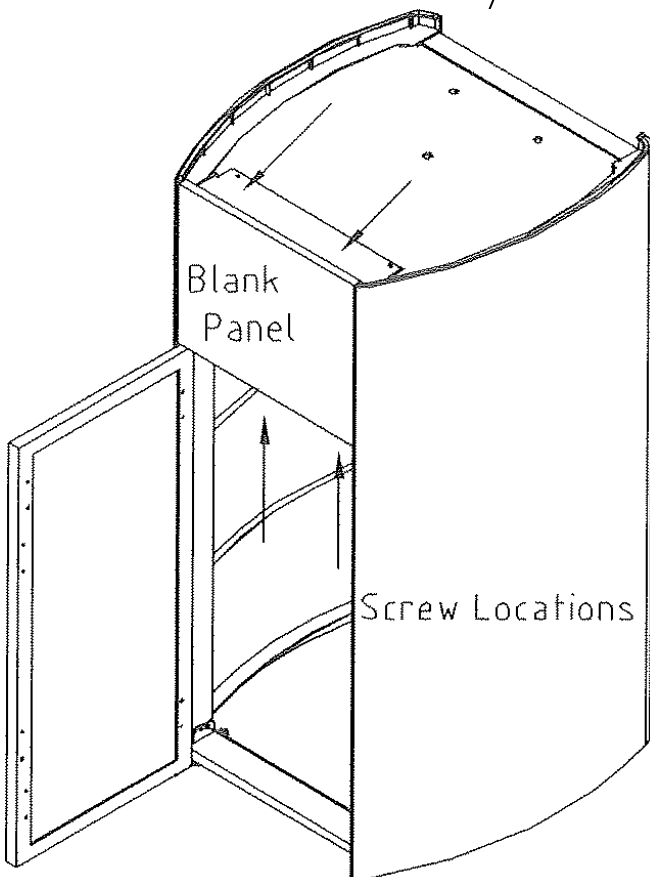
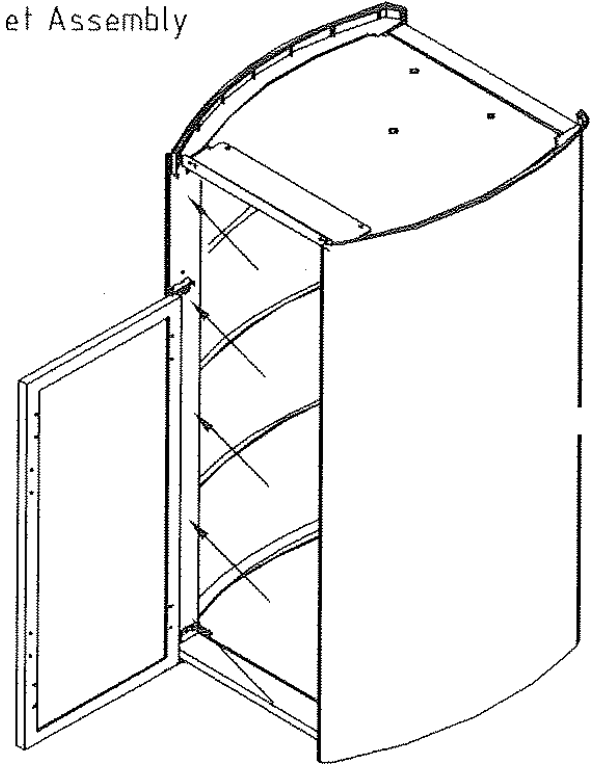
5 screws per edge front and back  
 11 screws per side panel  
 20 screws total

**⚠ WARNING! DISPENSER COULD TIP OR FALL.** Install unit on a firm, flat, and level surface and secure the **WL500** to the base cabinet with the screw provided to lock the components together. Never place heavy items on top of unit and never climb, stand, or hang on unit or storage cabinet to prevent injury and damage.

**Step 4** - Fasten the side panels to the frame. The side panels fit either side, with the sharper curved edge placed toward the rear. Align the side panels using the plastic tabs which will protrude through the metal frame.

Base Cabinet Assembly  
Step 4

**WL500 to Base Cabinet Attachment Point (Use locking screw provided or #ST-8016 = adjustable foot).**



**Step 5** – Front Blank Panel Installation:  
Skip this step if you intend to install optional cup holder.

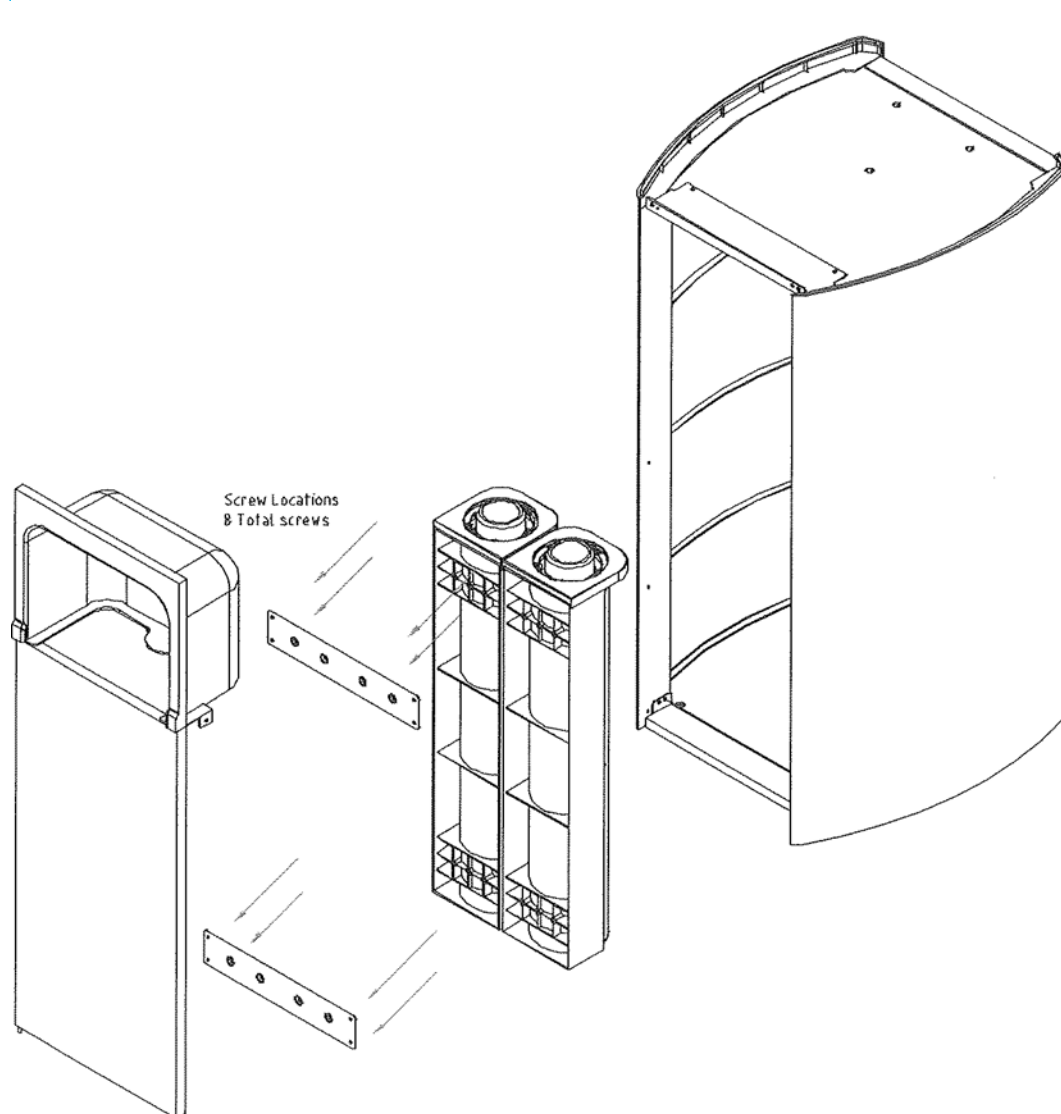
Install and fasten the blanking panel using 4 screws provided.

## **CUP HOLDER (AK-0007) ASSEMBLY INSTRUCTIONS**

**Step 1** - Fasten support brackets to back-side of cup holder as shown. Requires 8 total screws (provided in box).

**Step 2** - Fasten the insert panel into the base cabinet. Note that this task will require a little maneuvering of the insert panel for proper alignment. Take care not to break the plastic tabs on the insert panel.

**Step 3** - Fasten the cup holder assembly to the front door.



### **Waterlogic Cup Dispenser (AK-007)**

Accept cups from 4 oz. to 14 oz.

Cup Opening Minimum Diameter is 2-1/2 in. or 64 mm

Cup Opening Maximum Diameter is 3-1/4 in. or 84 mm

## TROUBLESHOOTING

### Run On

“Run On” or “Carry On” is present in all Waterlogic pressure fed units without outlet solenoids.

“Run On” is defined as the amount of water that continues to dispense out of the faucet after releasing the dispense button.

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.

Typical “Run On” is 2-3 seconds.

“Run On” can be reduced by installing a pressure limiting device.

The amount of inlet or supply pressure directly impacts the amount of “Run On” as quantified below.

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
Pressure measured at inlet line to unit. Static with unit closed. Dynamic with unit dispensing cold water.				
No filters were installed in unit.				



## **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](http://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](http://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 Commercial Products LLC**  
11710 Stonegate Circle  
Omaha, NE 68164

**Tel:** (800) 288-1891  
**Website:** [waterlogic.us](http://waterlogic.us)