WL Cube Firewall

OPERATING, INSTALLATION, AND SERVICE MANUAL

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

CUBE OPERATING, INSTALLATION, AND SERVICE MANUAL

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

High Performance Multi-Stage Filtration

Bio-Cote Anti-Microbial Protection

Firewall Advanced Purification

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

TABLE OF CONTENTS

CUBE FEATURES AND BENEFITS

Ambient, Cold, Hot, and Extra Hot Water

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

Volume Storage and Water Capacity

1.4 liters of Cold, 1.3 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

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

Child Safeguard

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

Digital Display

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

Advanced Programming

Customizable settings for optimizing each ***CUBE*** including; Cold Temp Set Point, Hot Temp Set Point, UV Timer, 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 hour or 72 hours of inactivity.

Filter Timer

Selection includes the choice of 3 different filter replacement settings variations programmed for 3, 6 or 12 months. The Filter Timer also has an open to be turned off.

Firewall™

Firewall is proprietary technology that places the UV lamp at the point of dispense. This point of dispense purification keeps the dispense nozzle free from external contamination as well as purifying the water, making the freshest water possible.

CUBE 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.

CUBE Certifications Include

NSF/ANSI-55 Class A –Ultraviolet Microbiological Water Treatment Systems

Water Quality Association is an international standards organization. Firewall™ Technology contains our latest, most innovative and patented breakthrough, "The Firewall™", the most comprehensive UV purification system for point-of-use water treatment systems ever developed. The Waterlogic Firewall components has been tested and certified by the Water Quality Association (WQA) to NSF/ANSI-55 Class A – Ultraviolet Microbiological Water Treatment Systems, and to NSF/P231 and the USEPA Standard for Microbiological Water Purifiers.

NSF P231 –Protocol for Microbiological Purifiers

The Public Health and Safety Organization establishes minimum requirements for health and sanitation characteristics of microbiological water purifiers. The requirements are based on the recommendations of the U.S. Environmental Protection Agency's Task Force Report.

NSF/ANSI-42 – Chlorine, Taste and Odor Reduction
NSF/ANSI-53 – Lead and Cyst Reduction

The Public Health and Safety Organization establishes minimum requirements for materials, design, construction, and performance of drinking water treatment units that are designed to reduce specific aesthetic-related contaminants in public or private water supplies.

UL399 – Certified Drinking Water Cooler

Intertek Labs (ETL) Certified the ***CUBE*** 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 manufacturing 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 ***CUBE***. 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 **CUBE** 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.*

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

MODEL/PART DESIGNATIONS

BRAND NAME	DESCRIPTION
CUBE	***Waterlogic CUBE*** – Ambient, Cold, Hot, and Extra Hot F-FWCU1-M-HCA-TT-SB-IN1

SPECIFICATIONS

ITEM	
Water	¼" Quick Connect
Cold Water Temperature	Cold Water Temperature – Factory Set Point 41°F - 5°C (Adjustable) 34° - 54° F. (1.1° - 12.2°C)
Hot Water Temperature	158° - 203° F (70° - 95°C) Programmable – Factory Set Point 87°F – 30.5C°
Recommended Service Pressure	40-60 psi (275-414 kPa) – Use Pressure Regulator
Maximum Working Pressure	60 psi (414 kPa) – Use Pressure Regulator
Environmental Temperature	35° - 100°F (2° - 37°C)
Refrigerant Gas	R134a – 1.94 oz. (55 grams) - Hi (280 psi) Low (90 psi)
R134a Pressures	High (230 psi), Low (90 psi)

SHIPPING SPECIFICATIONS

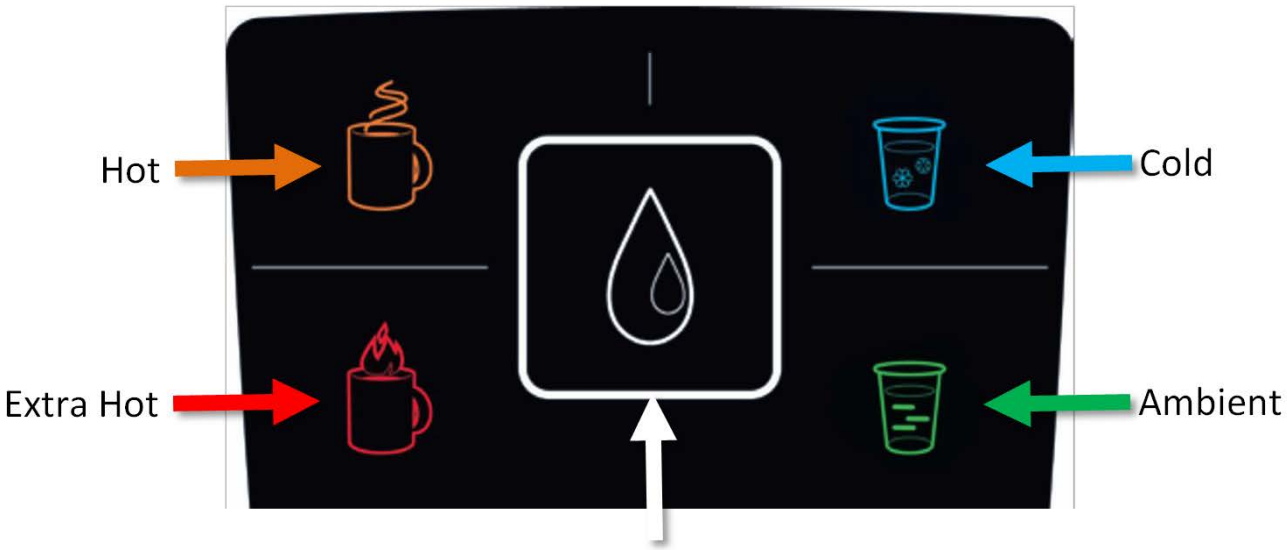
ITEM	
Width/Depth/Height [#]	14 in (356 mm), 19 in (483 mm) x 17 (432,m).[#]
Weight – Dry (w/o packaging)	30 lb. (15 kg)
Shipping Information (length x width x height)	20 in. x 22 in. x 22 in. 8 units per pallet
Shipping Weight – Dry	41 lb. (19 kg)

ELECTRICAL SPECIFICATIONS

ELECTRICAL SUPPLY	120V/60Hz	15 Amp Service[+]
COMPONENT	**POWER (approximate)**	**AMP DRAW (approximate)**
Heater	500 Watts	4.2 Amps
Compressor	210 Watts	1.75 Amps
UV Lamp System	13 Watts	0.11 Amps
Pump	10 Watts	0.08 Amps
CUBE **TOTAL**	**733 Watts**	**6.14 Amps**

#***CUBE*** is 17 in. tall and may not fit between countertops and cabinets - Check installation to ensure adequate clearance.

OPERATING INSTRUCTIONS



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

Button	Operational Use
	Select Cold Water Selection + Dispensing Button to start dispensing until desired fill.
	Select Ambient Water Selection + Dispensing Button to start dispensing until desired fill.
 Hold for 3 seconds	Press and Hold Hot Water Selection for 3 seconds, until the Hot Water Icon is illuminated. Press dispensing button until desired fill. *The delay is a safety feature that prevents hot water from being accidently dispensed.*
 Hold until Extra Hot Selection button stops flashing – indicates the temperature has been reached..	Press and Hold Extra Hot Water Selection. The Extra Hot Selection Button will flash red to indicate the water is heating. When the red flashing icon turns off, this indicates that the water is to the temperature. Press the Hot Water Selection Button + the Dispensing button until desired fill. ⚠ **WARNING!** ***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.***

Dispensing your choice of water is very simple.

1. Place your cup centrally in the dispensing area. Always use a cup suitable for use with hot water. Never hold cup or place hands in dispensing area while dispensing hot water. Never try to fill more than one cup at a time. The drip tray can be removed for filling bottles or other containers.

2. Select the type of water you wish to be dispensed by press/touching the cold, ambient or hot water select icon until it illuminates.

3. Select the dispense button in the middle of the panel to dispense water.

    a. Cold and ambient water are dispensed automatically via a Push-To-Dispense method through the FIREWALL UV purification system to ensure the safety of the water. Select and hold the dispense button to start the flow of ambient or ambient water, holding the dispensing button to stop the flow once your cup has reached the desired level.

    b. Hot Water is dispensed via a Push-To-Dispense method. Press and hold the dispense button until your cup has reached the desired level.

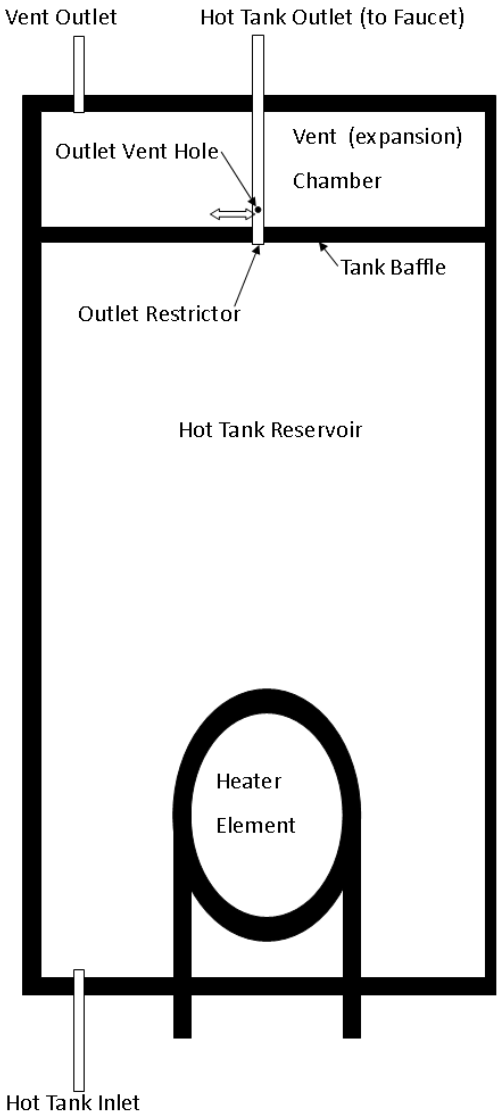
⚠ **WARNING!** ***Unit produces Very Hot Water up to 203°F. Water above 125°F can cause severe burns or scalding. Keep unauthorized people and children away from the unit to avoid accidental dispensing of hot water. Children should not use without supervision.***

⚠ **WARNING!** ***Always use a ceramic cup or a cup suitable for use with hot water.***

⚠ **WARNING!** ***Do not hold cup or place hands in dispensing area while dispensing hot water.***

⚠ **WARNING!** ***Never try to fill more than one cup at a time.***

HOT TANK PRINCIPLES OF OPERATION



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

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

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

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

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

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

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

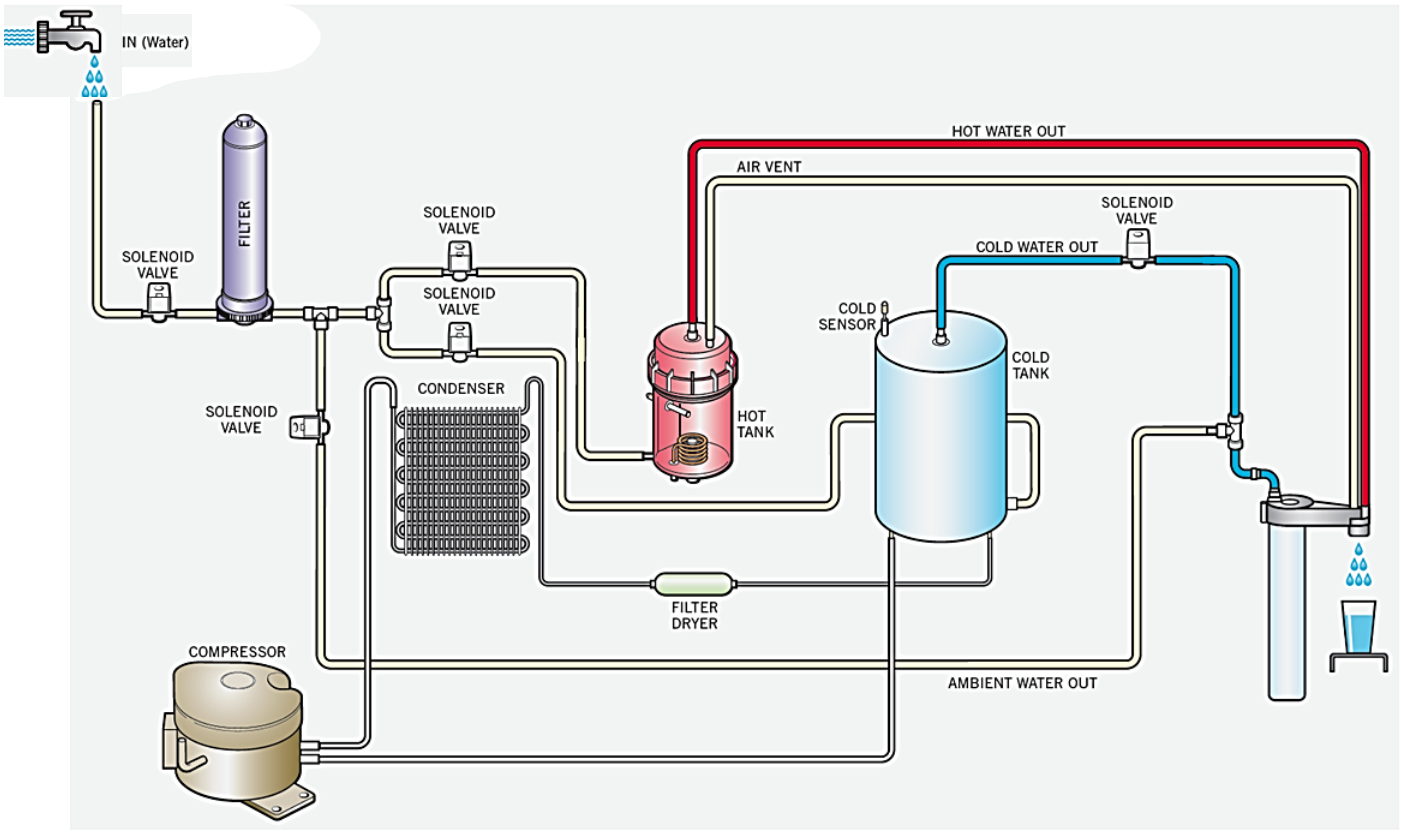
Expansion of water as it is heated in the reservoir will push the water out the faucet when the outlet tube vent hole becomes plugged with debris or scale.

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

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

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

CUBE **FLOW DIAGRAM**



PROGRAMMING MENU AND INSTRUCTIONS

PROGRAMMING: ENERGY SAVING SLEEP MODE

The ***Cube*** has an energy saving / sleep mode feature that minimizes power consumption by shutting down the heater circuit if the machine has not been operated for either 3 or 72 hours depending on the program setting. The ***Cube*** is shipped with default set to 3 hour energy saving mode.

1. Default is set to 3 hours.

   Press and hold Hot Water Icon for 10 seconds, until you hear the ***Cube*** beeps.

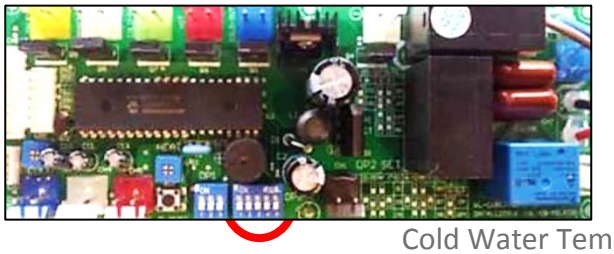
2. To set Sleep Mode to 72 hours, press and hold the Extra Hot water icon for 10 seconds
   Until the ***Cube*** beeps

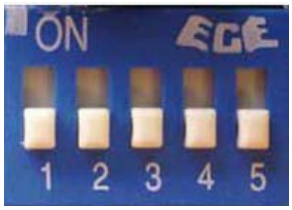
3. Wake up the ***Cube*** out of Energy Saving Mode.

   The ***Cube*** will wake up or come out of energy saving mode upon touching any of the main control buttons. Please note the hot water may take up to 10-12 minutes to reach Hot Temperature Set Point once the machine is taken out of energy saver mode.

PROGRAMMING: DIP SET-UP COLD WATER TEMPERATURE

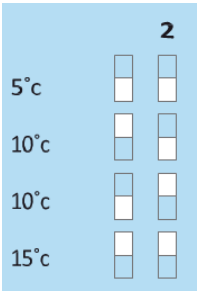
CUBE Main PCB - DIP Switch 2





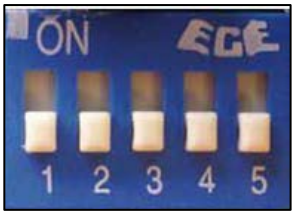
Cold Water Temp Range

41° F - 5°C
50° F - 10°C
59°F - 15°



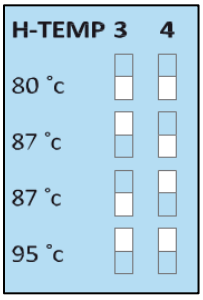
PROGRAMMING: DIP SET-UP HOT WATER TEMPERATURE

CUBE Main PCB - DIP Switch 2



Hot Water Temp Range

176°F - 80°C
189°F - 87° C
203°F - 95°C

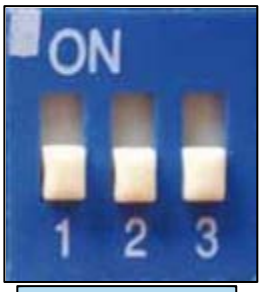


PROGRAMMING: DIP SET-UP FILTER REPLACEMENT TIMING

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.

CUBE Main PCB - DIP Switch 1



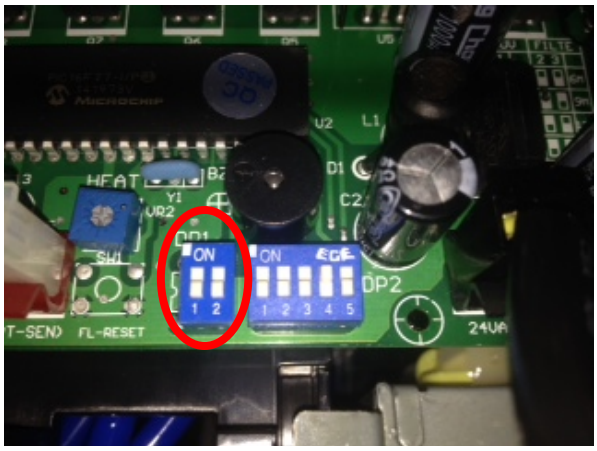
A combination of switches 2 and 3

FILTER	2	3
3M		
6M		
12M		
NO		

- 3 Months
- 6 months
- 12 months
- None

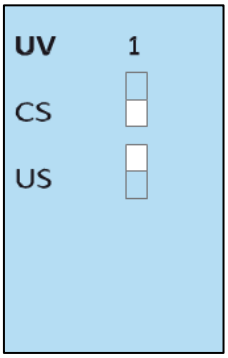
PROGRAMMING: DIP SET-UP FOR UV SETTINGS

CUBE Main PCB - DIP Switch 1

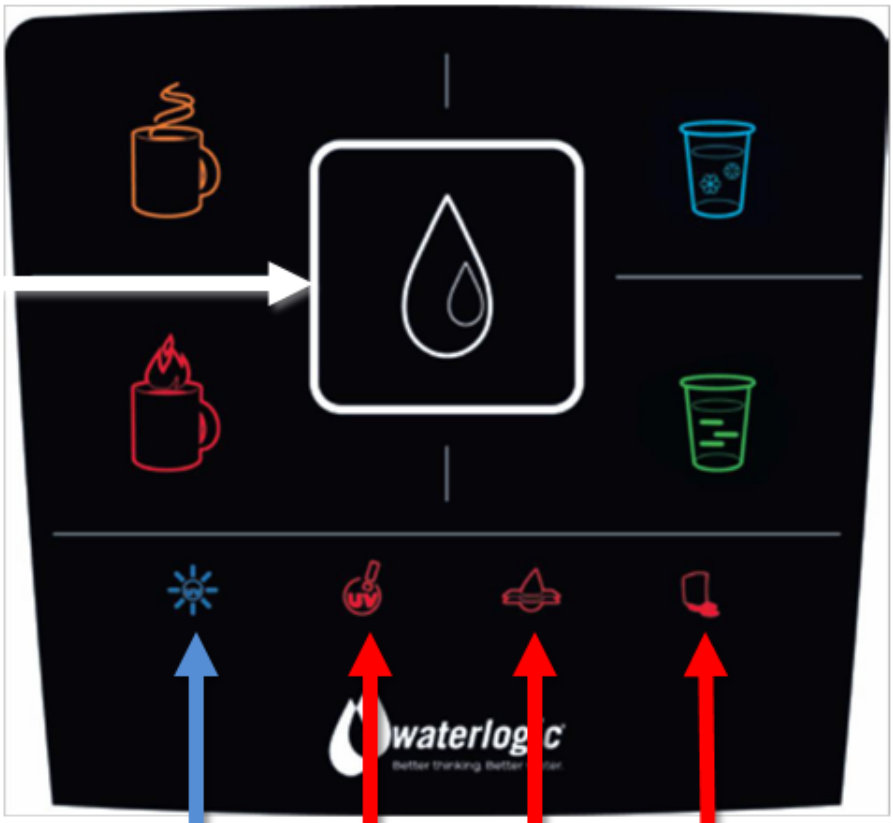


CS = CDS Sensor (used in Europe)

US = UV Sensor



PCB LED CODES



Energy Saving Active Mode
White Dispense Back Light is illuminated in when the ***Cube*** is in Energy Mode

No back light indicate the ***Cube*** is in Energy Saving Mode.

Power / UV OK

UV Purification Alert
The ***Cube*** will not dispense cold or ambient water without properly functioning FIREWALL UV purification that ensures the safety of the water. Replace UV Lamp if alert is on. Directions to replace UV lamp are included in this manual.

Filter Service Demand
Replace filter cartridge

A leak has been detected.
See troubleshooting portion of this Manual.

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 CUBE*** and check exterior for damage.

   ⚠ **WARNING!** ***CUBE 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. Open the top cover by removing the 2 screws that fix it in place.

3. Visually inspect all electrical connections and power lead.

4. Visually inspect all water connections.

5. Connect to a potable drinking water supply via a ¼" John Guest tube; the supply must be limited to 40-60 psi.

6. Connect the power cord to an appropriate power supply and the machine.

7. Turn on the Red Power Switch. I=ON

8. Replace the top cover and reinstall the screws.

   NOTE: Hot tank must be filled prior to filling cold tank.

9. Select the Hot Button and the Dispense Button to allow water to flow until water is clear.

10. Select the Cold Button and the Dispense Button to allow water to flow until water is clear.

11. Turn on the Green Heater / Compressor switch for approximately an hour for the ***Cube*** to heat and chill. I=ON

12. Test water temperatures and ensure the water tastes acceptable.

13. Verify all functions of the ***Cube*** work correctly.

14. Turn off the Red Power Switch and the Green Heater/Compressor Switch. O=OFF

15. Turn off the water.

16. Drain from rear drain valves.

17. Clean and repack for installation.

Flush Filters

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

The ***Cube*** is supplied with a filter. *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.

1. Select Ambient Water Selection + Dispensing Button. Dispense approximately 10 liters of water to remove the excess carbon fines and generate the filter.

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

Sanitizing

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

Materials Needed:

- Personal Protective Equipment. Rubber or Nitrile Safety Gloves and Protective Eyewear
- Phillips Screwdriver.
- Replacement filter cartridge(s)
- New 13 Watt UV lamp
- 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

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. Turn off the incoming water supply at the isolation point

4. Select the Cold Water icon and then select the dispense button.

   When the water stops flowing release the button

5. Switch Off the Red Power Switch and the Green Heater/Compressor switches at the rear of the machine and remove the power lead from the ***Cube.*** O=OFF

6. Use a Phillips-head screwdriver to remove the two screws at the rear of the machine that hold the top panel in place.

7. Remove the Top Panel by placing your hands on the top as shown in the picture and push it backwards and then lift it up to remove.

8. Insert your finger into the round hole of the lever and pull the lever up to the vertical position.

9. Pull the lever straight up to remove the filter assembly (some slight force may be required

10. Unscrew the filter body from the filter head by turning the base in an anti-clockwise direction.

11. Remove the filter cartridge from the filter head by pulling it out as shown.

12. Add the required amount of sanitizing fluid to the empty filter housing.

13. Securely tighten the filter body to the filter head.

14. Fit the filter assembly with the sanitation fluid into the machine:
    Insert the filter assembly back into its cradle, aligning the two male spigots with the female holes in the cradle

    Push it firmly until the filter sits snugly and is flush with the cradle top surface

    Lock the filter by closing the locking lever until it 'clicks' into place.

15. Reinstall the top cover and insert the two screws at the rear of the machine that secure it.

16. Reconnect the power lead and insert it into the rear of the machine. Turn on the Red Power Switch I=ON

17. Turn on the water supply at the isolation point

18. Place a container under the dispense area and dispense 2 cups of cold water and then 1 cup of ambient water.

    While you are dispensing the cold water hold a chlorine test strip under the dispense area and test the flow of water to check that the sanitation fluid is present in the cold tank.

19. Leave the sanitation fluid to stand in the cold tank for 10 minutes. Once this time has passed select the cold water icon and then select the dispense button and flush 10 liters of cold water and 4 liters of ambient water through the machine. Use the same method as before and check all the sanitation fluid has left the tank by using a chlorine test strip

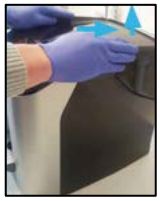
20. Turn off the water supply at the isolation point

21. Select the cold water icon and then the dispense button until no more water is being dispensed.

22. Switch off the Red Power Switch at the rear of the machine O=OFF and remove the power lead from the unit.

23. Use a Phillips-head screwdriver to remove the two screws at the rear of the machine that hold the top panel.

24. Remove the top panel by placing your hands on the top as shown in the picture and push it backwards and then lift it up to remove.



25. Insert your finger into the round hole of the lever, and pull the lever up to the vertical position.

26. Pull the lever straight up to remove the filter assembly (some slight force may be required)

27. Unscrew the filter body from the filter head by turning the base in an anti-clockwise direction.

28. Pour away the excess water.

29. Remove the new filter cartridge from the packaging and fit it by firmly pushing it into the filter head, making sure it is firmly and securely fitted.

30. The sanitization process for the Cold Circuits is now complete.

CUBE DRAINING INSTRUCTIONS

⚠ **WARNING!** ***CUBE 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 2 tanks and a booster pump circuit that must be drained in the ***CUBE***. The booster pump will have some water in the circuit that must be purged.

Prior to draining the hot tank, turn off both the Green Heater/Compressor Switch and the Red Power Switches located on back of the ***Cube*** and dispense 2 liters of hot water from the machine.

I = ON, O= Off

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.

⚠ **WARNING!** ***VERY HOT WATER CAN BURN OR SCALD.***
Hot water should be dispensed carefully into insulated container to avoid injury.

Disable Cold and Hot Tanks

1. Turn off the Green Power switch to disable the heater and compressor. O=OFF

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.
7. Remove the Hot and Cold drain line cap and always allow tanks to drain.
8. Reinstall all 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 IS 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 STABLIIZED SUPPLY LINES.*** *Feed the unit with a potable ambient or cold water supply only. Feed water over 105° F (40° 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 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 contaminates

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

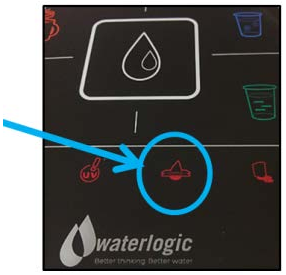
Always install indoors and place the ***Waterlogic CUBE*** on a firm, flat and stable surface.

1. Attach the water supply line to the 1/4” feed water inlet bulkhead fitting on the back of the 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 all of the connections for leaks.

2. Connect the power cord to the back of the ***Waterlogic CUBE*** and to a 120 Volt supply.

3. Turn the Red Power Switch to I=ON position.

4. The unit will now run through a self-test cycle. Once the self-test cycle has completed the icon will stop flashing.



5. Place a container in the dispense area for flushing process. The filter will now need to be flushed.

6. 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.

⚠ **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.

7. Select the Ambient Water Icon followed by the main dispensing button, dispense 10 liters of water. This will remove excess carbon fines and sufficiently generate the filter.

8. Prime the Hot Tank. Holding a container under the dispensing faucet, press the hot button until it lights up. While the hot water icon is lit, select and hold the central dispense button until a continuous flow of water is obtained (this could take 2 to 4 minutes). Once a continuous flow is obtained, flush 5 liters of water by continuing to hold the hot button. Hot Tank is now full.

9. Prime the Cold Circuit. Holding a container under the dispensing faucet, Select and hold the cold water icon until it lights up. While the cold water icon is lit, select the central dispense button to start filling the cold tank with water. After one minute, the machine will automatically un-select the central dispense button. Repeat selection of the central dispense button until the cold tank has filled and water is coming out of the faucet (this could take 2 to 4 minutes), 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.

10. Prime the Ambient Circuit. Holding a container under the dispensing faucet, Select and hold the Ambient water icon until it lights up. While the Ambient water icon is lit, select the central dispense button to start filling the Ambient line with water (this could take 10 – 20 seconds). Continue to dispense 15-20 fluid ounces more of water through the ambient option.

11. Turn on the Green Heater/ Compressor switch at the rear of the machine.

12. The ***Cube*** will now begin to heat / chill the water. The hot water should be up to operating temperature after 8 to 10 minutes and the old water will take between 60 to 90 minutes to chill.

13. Taste test the water, if there is any hint of taste in the water, flush and additional 1 ½ gallons of hot water, then 1 ½ gallons of cold water. Do another taste test and if necessary repeat the flush again.

14. Verify that the UV Lamp operates as expected (no UV Lamp alarm will sound 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.*

15. Move the ***Waterlogic CUBE*** 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.

16. 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.

17. 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.

18. Check the unit for any leaks. External Leak Protection is always recommended.

HOT TANK ENABLING PROCEDURE

During Initial Installation or anytime the unit loses power, you must follow the Hot Tank Enabling Procedure.

1. Plug in power cord to 15 amp 120VAC / 60Hz supply (GFCI recommended).
2. Turn the Red Power Switch on back of Cube. I=ON
3. Ensure green heater / compression switch is in the O=OFF.
4. Press the Hot Select Icon for 2 seconds until it illuminates.

5. Press the dispense button continuously for a minimum of 10 seconds. The dispense backlight will turn Red indicating Hot Water.
6. Always continue to dispense until water comes out the faucet to ensure the hot tank is full before turning on the heater circuit.
7. Turn on the Green Heater/Compression switch. Green switch into the (I) position and the switch illuminates.

This ensures the Hot Water is full of water before the Heat Circuit will enable.

⚠ **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.

YEARLY SERVICING PROCEDURE

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

Materials Needed:

- Personal Protective Equipment. Rubber or Nitrile Safety Gloves and Protective Eyewear
- Phillips Screwdriver.
- Replacement filter cartridge(s)
- New 13 Watt UV lamp
- 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

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. Turn off the incoming water supply at the isolation point

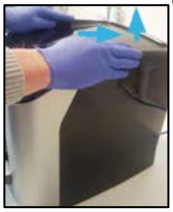
4. Select the cold water icon and then select the dispense button.

   When the water stops flowing release the button

5. Switch Off the Red Power Switch and the Green Heater/Compressor switches at the rear of the machine O=OFF and remove the power lead from the ***Cube***

6. Use a Phillips-head screwdriver to remove the two screws at the rear of the machine that hold the top panel in place

7. Remove the top panel by placing your hands on the top as shown in the picture and push it backwards and then lift it up to remove.




8. Replace the carbon block filter. Insert your finger into the top of the carbon block filter (the filter that is closer to the front of the machine) and pull the lever up to the vertical position.


9. Pull the lever straight up to remove the filter assembly (some slight force may be required)

10. Unscrew the filter body from the filter head by turning the base in an anti-clockwise direction.


11. Remove the filter cartridge from the filter head by pulling it out as shown.

12. Add the required amount of sanitation fluid to the empty filter housing.

13. Securely tighten the filter body to the filter head.

14. Fit the filter assembly with the sanitation fluid into the machine:

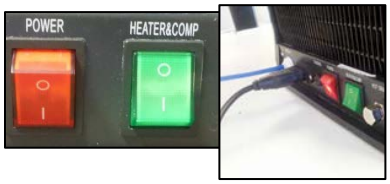
    Insert the filter assembly back into its cradle, aligning the two male spigots with the female holes in the cradle

    Push it firmly until the filter sits snugly and is flush with the cradle top surface

    Lock the filter by closing the locking lever until it 'clicks' into place.

15. Reinstall the top cover and insert the two screws at the rear of the machine that secure it.

16. Reconnect the power lead and insert it into the rear of the machine. *Turn On the Red Power Switch. I=ON*



17. Turn on the water supply at the isolation point

18. Place a container under the dispense area and dispense 2 cups of cold water and then 1 cup of ambient water.

    While you are dispensing the cold water hold a peroxide test strip under the dispense area and test the flow of water to check that the sanitation fluid is present in the cold tank.

19. Leave the sanitation fluid to stand in the cold tank for 20 minutes. Once this time has passed select the cold water icon and then select the dispense button and flush 10 liters of cold water and 4 liters of ambient water through the machine. Use the same method as before and check all the sanitation fluid has left the tank by using a peroxide test strip

20. Turn off the water supply at the isolation point

21. Select the cold water icon and then the dispense button until no more water is being dispensed.

22. Switch off the Red Power Switch O=OFF at the rear of the machine and remove the power lead from the unit.

23. Use a Phillips-head screwdriver to remove the two screws at the rear of the machine that hold the top panel.

24. Remove the top panel by placing your hands on the top as shown in the picture and push it backwards and then lift it up to remove.

25. Insert your finger into the round hole of the lever, and pull the lever up to the vertical position.

26. Pull the lever straight up to remove the filter assembly (some slight force may be required)

27. Unscrew the filter body from the filter head by turning the base in an anti-clockwise direction.

28. Pour away the excess water.

29. Remove the UV lamp by removing the screw fixing the UV lamp protective cover in place and removing the cover. Unplug the UV loom, and pull the lamp upwards to remove.

30. Examining the UV loom for any discoloration or wear. If there is any visible discoloration or wear, remove the loom and replace with a new one.

31. Reconnect and replace the UV lamp assembly. Take care to not touch the new UV lamp with bare hands, as this will shorten the life of the lamp. Replace the UV lamp protective cover.

> ⚠**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.*

32. Inspect all of the electrical and water connections on the machine. Take any action necessary to prevent a fault from occurring.

33. Remove the new filter cartridge from the packaging and fit it by firmly pushing it into the filter head, making sure it is firmly and securely fitted.

34. Screw the filter body to the filter head, making sure it's securely tightened.

35. Fit the filter assembly into the machine as follows:
    A. Insert the filter assembly back into its cradle, aligning the two male spigots with the female holes in the cradle

    B. Push it firmly until the filter sits snugly and is flush with the cradle top surface

    C. Lock the filter by closing the locking lever until it 'clicks' into place

36. Replace UV Lamp – *See separate section in this manual for directions on how to Replace the UV Lamp.*

37. Re-fit the top cover and insert the two screws at the rear of the machine that secure it

38. Turn on the water supply at the isolation point

39. Reconnect the power lead and insert it into the rear of the machine. Turn on the Red Power Switch.

40. Taste the water one final time, if you detect any hint of taste, flush 3 more gallons of water to further flush the ***Cube.***

41. Check the machine is heating and cooling the water by dispensing some hot and cold water and checking the temperatures.

REPLACING THE FILTER

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.

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

Materials Needed:

- Phillips Screwdriver.
- Replacement filter cartridge(s)
- Water Pitcher or Container to collect water from the faucet
- 5 gallon container or drain basin

1. Turn off the incoming water supply at the isolation point

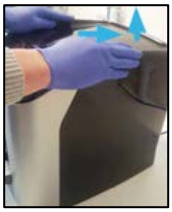
2. Select the cold water icon and then select the dispense button.

   When the water stops flowing release the button

3. Switch Off the Red Power Switch and the Green Heater/Compressor switches at the rear of the machine O=OFF and remove the power lead from the ***Cube***

4. Use a Phillips-head screwdriver to remove the two screws at the rear of the machine that hold the top panel in place

5. Remove the top panel by placing your hands on the top as shown in the picture and push it backwards and then lift it up to remove.




6. Replace the carbon block filter. Insert your finger into the top of the carbon block filter (the filter that is closer to the front of the machine) and pull the lever up to the vertical position.


7. Pull the lever straight up to remove the filter assembly (some slight force may be required)

8. Unscrew the filter body from the filter head by turning the base in an anti-clockwise direction.


9. Remove the filter cartridge from the filter head by pulling it out as shown.

10. Remove the new filter cartridge from the packaging and fit it by firmly pushing it into the filter head, making sure it is firmly and securely fitted.

11. Screw the filter body to the filter head, making sure it's securely tightened.

12. Fit the filter assembly into the machine as follows:

A. Insert the filter assembly back into its cradle, aligning the two male spigots with the female holes in the cradle
B. Push it firmly until the filter sits snugly and is flush with the cradle top surface

C. Lock the filter by closing the locking lever until it 'clicks' into place

13. Replace Top Cover and Screws.
14. Turn on the Water Supply
15. Turn on Red Power Switch *I=ON*

16. Select Cold Water and dispense until water flows clear. This step flushes the carbon fines from the filter.
17. Turn on Green Heater / Compressor Switch. *I=ON*

REPLACEMENT COMPONENTS

Component	Part No.	Frequency of Replacement
UV Light, TUV-13 Watt	EL-0073-I00-00	Every 12 months, or as required WLUSA# NA
UV Quartz Sleeve	FW-0008-L00-00	Clean every 12 months, replace as needed WLUSA# NA
10" 1 Micron Filter Assembly	FT-0004-L00-WLT	Every 12 months. *Local water conditions will determine proper filter type and maintenance schedule.* WLUSA# NA

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-0001-I00 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.

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.

UV LAMP REPLACEMENT

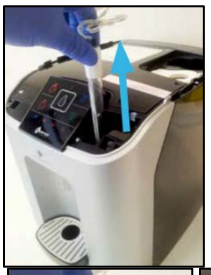
1. Remove the UV Lamp protective cover from the front right hand side of the machine by removing the fixing screw and lifting the cover up

2. Disconnect the UV Lamp Connector by pressing in the clip on the side of the machine as shown (#1)

   Pull the connector towards the front of the machine (#2)

3. Firmly pull the old UV Lamp up and out of the ***Cube***.

   Do not pull the lamp out an angle as it may break or damage the internal parts of the ***Cube***.



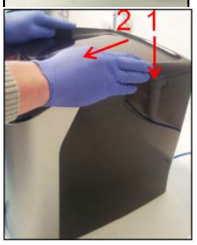
4. Insert the new UV Lamp while holding the white end caps only.

   Insert the UV Lamp, ensuring you have pushed it all the way down until it cannot go any further.

   Reconnect the UV lamp connector, making sure the connectors are lined up correctly as they will only fit when correctly aligned.

5. Reinstall the UV Lamp Protective Cover and Secure it in place with the fixing screw.

6. Install the Top Cover onto the machine by placing cover into position. Ensure the two fixing logs at the front are lined up with the grooves (#1) then pulling the cover firmly towards yourself until it clicks into place (#2)



7. Reconnect the power lead into the back of the machine and plug in to power source.

8. Visually verify that the UV Lamp is working correctly by checking the PCB LED. There should be no warning icons flashing.
9. Turn on Red Power Switch to the On Position *I = On*

10. Visually verify that the UV Lamp is working correctly by checking the PCB LED. There should be no warning icons flashing.

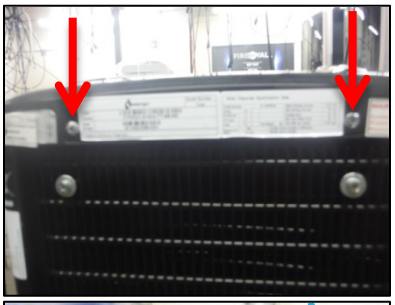
REPLACING QUARTZ SPIRAL

1. Turn off both the Green Heater/Compressor Switch and the Red Power Switches located on back of unit

   I = ON, O= Off

2. Unplug power to unit.

3. With a Phillips Head Screwdriver, remove the two screws at back of the Top Cover – as shown.



4. Remove top panel by placing your hands on the top and pushing the top panel towards the rear.

   Lift and remove as shown.

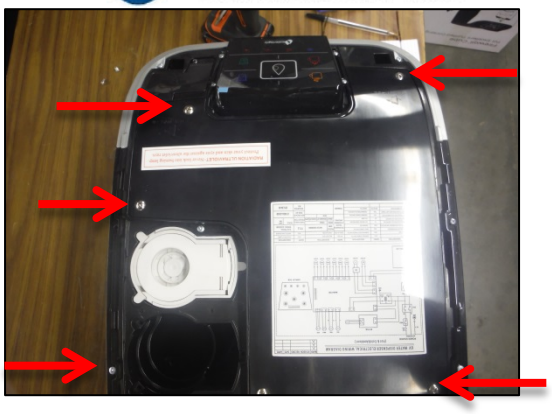
5. With a Phillips Head Screwdriver, remove the two screws on the Left Side Panel as shown. Remove Left Side Panel.

   Remove the two screws on the Right Side Panel as shown.

   Remove Right Side Panel.

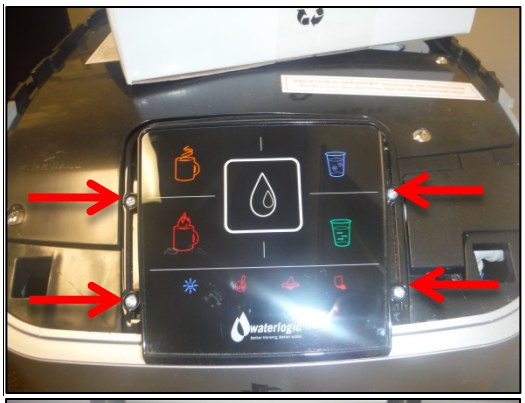
6. With a Phillips Head Screwdriver, remove the five screws on the electrical cover plate.

   Remove the electrical cover plate.



7. With a Phillips Head Screwdriver, remove the four screws that attach the Selection - Dispense PCB to the Mainframe.

   Remove the Selection - Dispense PCB.

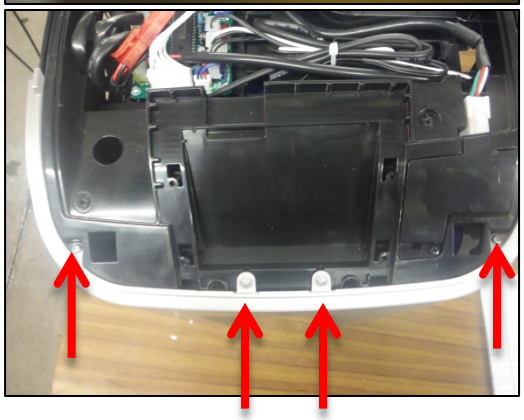


8. With a Phillips Head Screwdriver, remove the two screws from the faucet plate.

   Remove faucet plate.

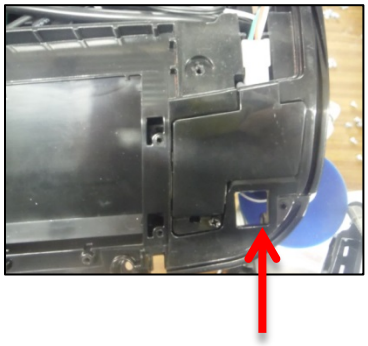
9. With a Phillips Head Screwdriver, remove the four screws that attach the Front Panel to the mainframe.

   Remove Front Panel.



10. With a Phillips Head Screwdriver, remove one screw from the UV Lamp Cover Plate.

Remove UV Lamp Cover Plate.

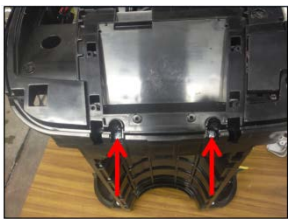


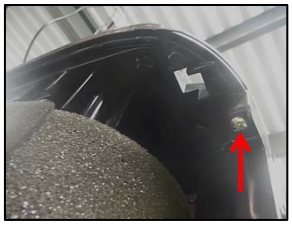
11. Disconnect the UV Lamp Connector by holding it and pressing in the clip. Pull the connector towards rear of the ***Cube*** as shown.

12. Firmly pull up the UV Lamp while only holding the lamp by the white end caps.

NOTE: Do not pull the UV lamp out at an angle, as it may break or damage the internal parts of the ***Cube***.

13. Remove Front Frame. Front Frame is attached using 6 Phillip Screws.



2 screws are located on the top of the frame.
2 screws are located at the bottom of the frame.
2 screws are located on both sides, underneath the upper part of the frame.

14. Disconnect elbow from tubing on the UV Lamp Assembly.

15. Remove firewall housing top cover.

16. Remove quartz sleep spiral from housing

17. Remove blue CDS fixing rubber and elbow from quartz spiral.

18. Put blue CDS final rubber and elbow on new quartz spiral.

Support when attaching rubber.

19. Place silicon cushion into bottom of housing assembly.

20. Insert quartz spiral into FIREWALL Housing.

21. Reassembly unit by using these steps in reverse order.

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***

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. Turn off the incoming water supply at the isolation point

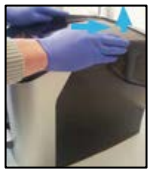
2. Select the cold water icon and then select the dispense button, when the water stops flowing release the button.

3. Switch off the Red Power and the Heater/Compressor Switches O=OFF rear of the machine and remove the lead from the unit.

Green at the power

4. Use a Phillips-head screwdriver to remove the two screws at the rear of the machine that secure the top panel.

5. Remove the top panel by placing your hands on the top as shown, and push it towards the rear of the ***Cube*** then lift to remove.



6. Insert your finger into the round hole of the lever, and pull the lever up to the vertical position.

7. Pull the lever straight up to remove the filter assembly (some slight force may be required)

8. Unscrew the filter body from the filter head by turning the base in an anti-clockwise direction.

9. Pour away the excess water.

10. Remove the filter cartridge from the filter head as shown.

11. Screw the filter body to the filter head, making sure it's securely tightened.

12. Fit the filter assembly into the machine as follows:
Insert the filter assembly back into its cradle, aligning the two male spigots with the female holes in the cradle

Push it firmly until the filter sits snugly and is flush with the cradle top surface

Lock the filter by closing the locking lever until it 'clicks' into place

13. Reinstall the top cover and insert the two screws at the rear of the machine that secure it

14. Turn on the water supply at the isolation point

15. Reconnect the power lead and insert it into the rear of the machine. Turn On the Red Power Switch. I=ON

16. Place a container under the dispense area. Select the Hot Water Icon and then the Dispense button.

Dispense 2 cups of Hot Water.

17. Leave the descale solution fluid to stand in the cold tank for 20 minutes.

    After 20 minutes, select the Hot Water Icon, select the Dispense button and flush 3 gallons of Hot water through the ***Cube***.

18. Turn off the water supply at the isolation point.

19. Select the Cold Water Icon, then the dispense button until no more water is dispensing from the ***Cube***.

20. Switch Off the Red Power Switch at the rear of the machine. O=OFF

21. Remove the power lead from the unit.

22. Use a Phillips-head screwdriver to remove the two screws at the rear of the machine that secure the top panel.

23. Remove the top panel by placing your hands on the top as shown, and push it towards the rear of the ***Cube*** then lift to remove.

24. Insert your finger into the round hole of the lever, and pull the lever up to the vertical position.

25. Pull the lever straight up to remove the filter assembly (some slight force may be required)

26. Unscrew the filter body from the filter head by turning the base in a counter-clockwise direction.

27. Pour away the excess water.

28. Replace the filter cartridge into the filter head as shown.

29. Screw the filter body to the filter head, making sure it's securely tightened.

30. Fit the filter assembly into the machine as follows:

Insert the filter assembly back into its cradle, aligning the two male spigots with the female holes in the cradle

Push it firmly until the filter sits snugly and is flush with the cradle top surface

Lock the filter by closing the locking lever until it 'clicks' into place

31. Use a Phillips-head screwdriver to reinstall the two screws at the rear of the machine that secure the top panel.

32. Turn on the water supply at the isolation point.

33. Reconnect the power lead and insert it into the rear of the machine. Turn On the Red Power Switch I=ON

34. The Green Heater/Compressor switch can now be turned on. Allow the ***Cube*** to heat and cool the water.

35. Clean the outside of the machine with the non-abrasive anti-bacterial wipe or cloth.

36. Taste the water one final time, if you detect hint of taste, flush 3 more galls of water through the Hot Tank.

⚠ **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 EVERY 5 YEARS****. The hot tank and its controls should be replaced a minimum of every five years to ensure efficient 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.*

BYPASSING COVER PIN

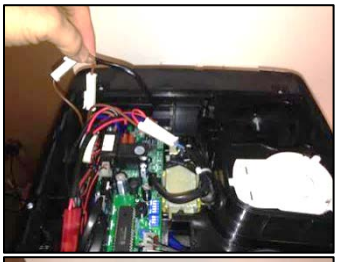
If pin on back of the cover breaks off, the unit will be disabled.

To bypass in the event this occurs:

1. Remove top cover

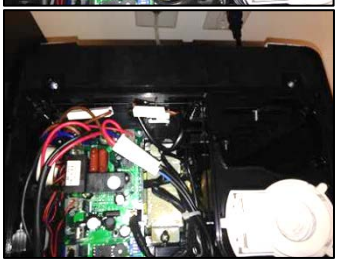
2. Remove 5 screws from inner top cover to access electronics:

3. Locate interlock switch at rear of unit two brown wires with white quick connects:

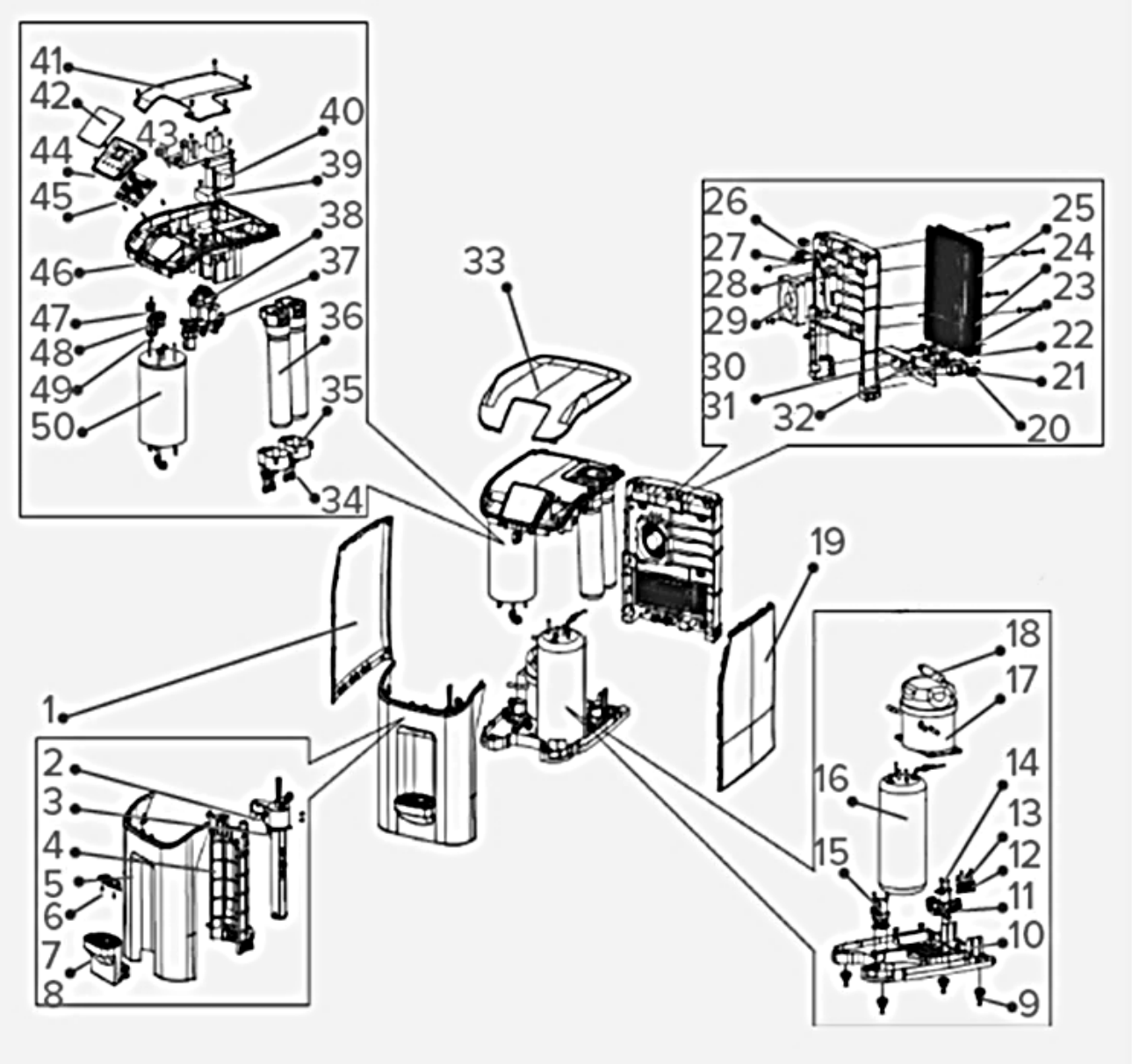


4. Bypass the interlock by looping the two brown wires that go to the interlock together and leave the switch unplugged:

5. Tuck wires back into place and reinstall covers:



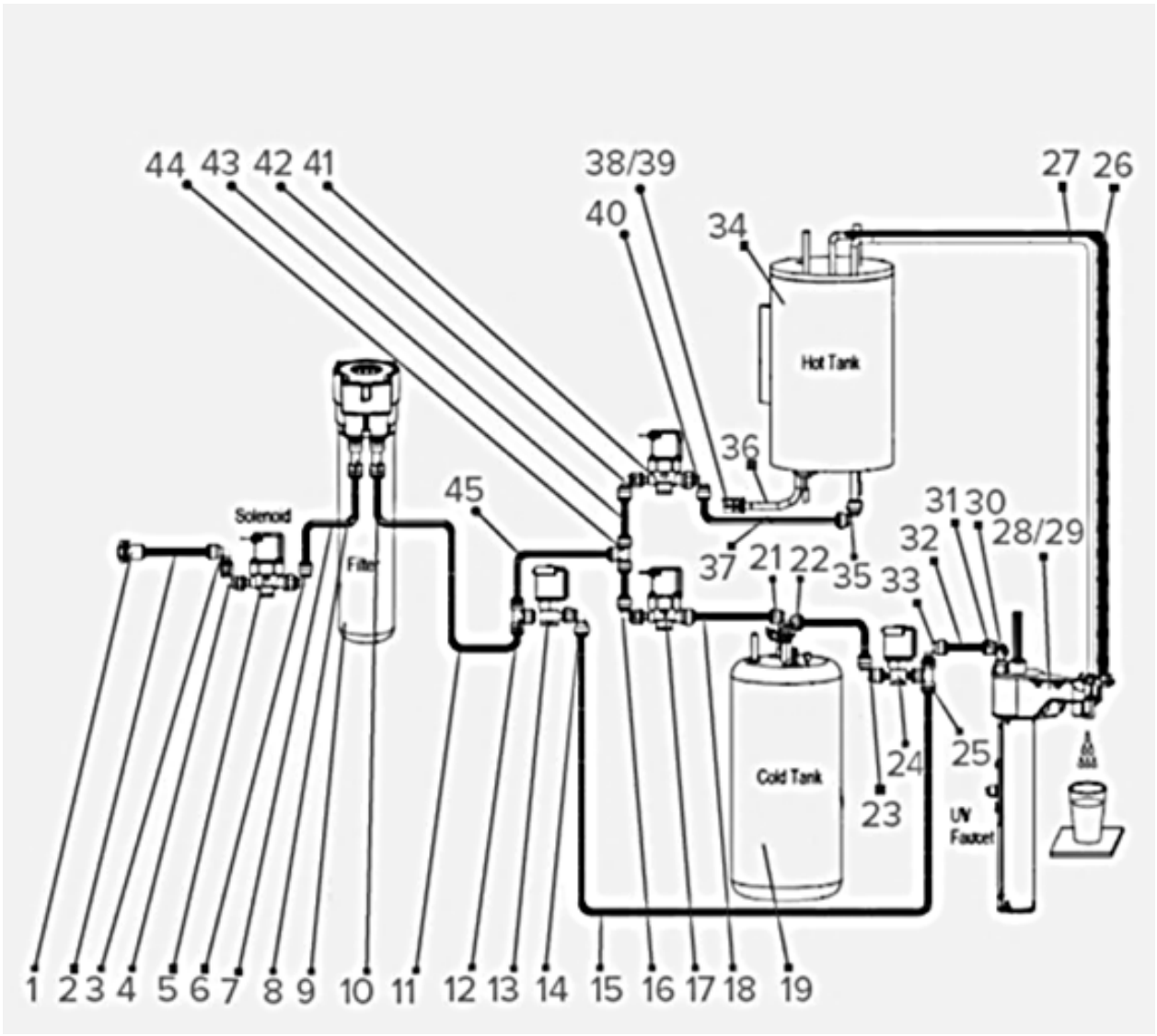
CUBE MAIN DRAWING AND PARTS LIST



No	Part No.	Description	WLUSA Part No.
1	PL-1389	Left Side Panel	NA
2	FW-0005-L00-00	Spout, Mirror, No Gauze – 18 mm	NA
3	FU-0012	UVC Sensor Fixing Metal Bracket	NA
4	PL-1391	Front Frame Panel	NA
5	PL-1390	Front Cover	NA
6	PL-1395	Spout Assembly Bracket with BioCote®	NA
7	PL-1392	Drip Tray Body with BioCote®	NA
8	PL-1393	Drip Tray Grill with BioCote®	NA
9	ST-8350	Rubber Feet	NA
10	PL-1387	Base Plate	NA
11	PU-4008	Equal Elbow Connector ¼" JG (PI0308S)	NA
12	PL-1311	Leak Detection Sensor Bracket	PL-1311
13	ST-8207-CN	Leak Containment Tray Clip – Sensor 0.5 mm	12-3180
14	PU-4066	Stem Elbow Connector ¼" * ¼" JG (PI220808S)	NA
15	PU-4164	Solenoid Valve 24 DC (Single Spring Load)	NA
16	CT-2093	Cold Tank 1.4 Liter	NA
17	CO-9001-A	Compressor	10-2200
18	CO-9008	Domestic Filter Dryer	12-1001
19	PL-1388	Side Panel – Right	NA
20	NA	Bulkhead Fitting ¼" x ¼" (ST)	NA
21	EL-5029	Socket for Plug Connection	19-1090
22	NA	AC Power Fuse Holder with Fuse	NA
23	EL-5004	Red Power Switch	10-3008
24	EL-5005	Green Heater / Compressor Switch	10-3009
25	CO-9050	Cooling Wire Condenser	NA
26	EL-5027	Micro Door Lock S/W Only	NA
27	PL-1396	Micro Switch Cover	NA
28	PL-1386	Back Panel	NA
29	CT-2094	Fan Motor – DC 24V	NA
30, 31	NA	Hot and Cold Tank Drain Valve (consists of P/N's CT-2031 Drain Body Valve 5/16" and CT-2025 Drain Valve Cap 5/16" – ¼")	14-5011
32	FU-0012	UCV Sensor Fixing Metal Bracket	NA
33	PL-1383	Top Cover	NA
34	NA	5/16" – ¼" Reducing Straight Connector	NA
35	FT-0008-L00-00	Filter Bracket	NA

36	FT-0004-L00-WLT	CBC 10” 1 Micron Filter Assembly	NA
37	PU-4017-B	Hot and Cold Solenoid Valve	PU-4017-B
38	NA	Equal Tee Connector ¼” ST	NA
39	EN-0008-L01-00	Electronic Ballast 15W 120V/60 Hz	NA
40	EL-0016-L00-00	Power Transformer 120v / 2A	NA
41	PL-1384	Electronics Cover	NA
42	LP-7326	UI Label with ***Waterlogic*** Logo	NA
43	EN-6140-L00-00	PCB – UVC	EN-6140-L00-00
44	PL-1394	PCB Fixing Frame	NA
45	EN-6141	Key and Display PCB	NA
46	PL-1385	Upper Shelf	NA
47	PL-1397	Silicon Tubing Guide A	NA
48	PU-4064	Silicon Tube 5/16" for Hot Water	10-7040
49	PL-1398	Silicon Tubing Guide B	NA
50	HT-0001-I00	Hot Tank 1.3 Liters 500 Watts - 189°F (87°C)	NA
Not Shown	EL-5001-A	Power Cord	10-3007

CUBE PARTS DRAWING AND PARTS LIST

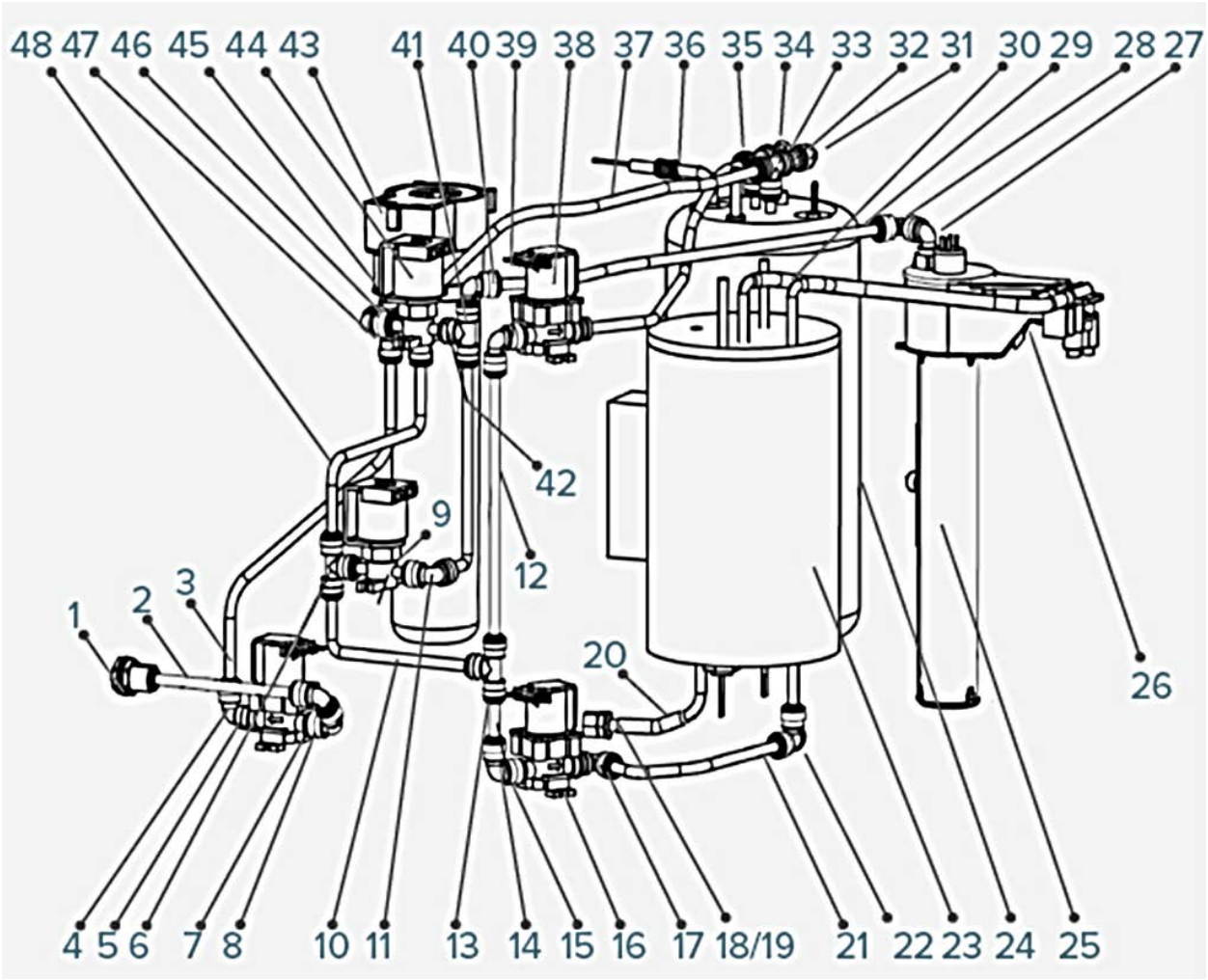


CUBE PARTS LIST

No	Part No	Description	WLUSA Part No.
1	PU-4028	Bulkhead Connector Union ¼" * ¼" JG (PI1208S)	10-3067
2	PU-4031	Tube - Blue O.D. ¼" JG (PE-08-BI-1000F-B)	NA
3	PU-4066	Stem Elbow Connector ¼" * ¼" JG (PI220808S)	NA
4	PU-4008	Equal Elbow Connector ¼" JG (PI0308S)	NA
5	PU-4164	Solenoid Valve 24 DC (Single Spring Load)	NA
6	PU-4066	Stem Elbow Connector ¼" * ¼" JG (PI220808S)	NA
7	PU-4031-B	Tube - Blue O.D. ¼" JG (PE-08-BI-1000F-B)	NA
8	NA	5/16" – ¼" Reducing Straight Connector	NA
9	FT-0004-L00-WLT	CICO CBC 1 Micron 10" Filter Assembly	NA
10	NA	5/16" – ¼" Reducing Straight Connector	NA
11	PU-4031	Tube - Blue O.D. ¼" JG (PE-08-BI-1000F-B)	NA
12	NA	Equal Tee Connector ¼" JG	NA
13	PU-4017-B	Hot and Cold Solenoid Valve 24V- 300mm	PU-4017-B
14	PU-4008	Equal Elbow Connector ¼" JG (PI0308S)	NA
15	PU-4031	Tube - Blue O.D. ¼" JG (PE-08-BI-1000F-B)	NA
16	PU-4008	Equal Elbow Connector ¼" JG (PI0308S)	NA
17	PU-4164	Solenoid Valve 24 DC (Single Spring Load)	NA
18	PU-4031	Tube - Blue O.D. ¼" JG (PE-08-BI-1000F-B)	NA
19	CT-2093	Cold Tank 1.4 Liter	NA
20	PU-4008	Equal Elbow Connector ¼" JG (PI0308S)	NA
21	PU-4008	Equal Elbow Connector ¼" JG (PI0308S)	NA
22	PU-4031	Tube - Blue O.D. ¼" JG (PE-08-BI-1000F-B)	NA
23	PU-4008	Equal Elbow Connector ¼" JG (PI0308S)	NA
24	PU-4017-B	Hot and Cold Solenoid Valve 24V- 300mm	PU-4017-B
25	NA	Equal Tee Connector ¼" JG	NA
26	PU-4064	Silicon Tube 5/16" for Hot Water	10-7040
27	PU-4064	Silicon Tube 5/16" for Hot Water	10-7040
28	FW-0005-L00-00	Firewall Housing	NA
29	FW-0008-L00-00	Firewall Quartz Spiral	NA
30	PU-4008	Equal Elbow Connector ¼" JG (PI0308S)	NA
31	PU-4066	Stem Elbow Connector ¼" * ¼" JG (PI220808S)	NA
32	PU-4031-B	Tube - Blue O.D. ¼" JG (PE-08-BI-1000F-B)	NA
33	PU-4066	Stem Elbow Connector ¼" * ¼" JG (PI220808S)	NA
34	HT-0001-I00	Hot Tank 1.3 Liters 500 Watts 189°F (87°C)	NA

35	PU-4008	Equal Elbow Connector ¼" JG (PI0308S)	NA
36	PU-4014	Tube - Blue 8mm - 5/16" JG (PE-0806-100M-B)	10-3062
37	PU-4031	Tube - Blue O.D. ¼" JG (PE-08-BI-1000F-B)	NA
38, 39	NA	Hot and Cold Tank Drain Valve (consists of P/N's CT-2031 Drain Body Valve 5/16" and CT-2028 Drain Valve Cap 5/16")	14-5011
40	PU-4066	Stem Elbow Connector ¼" * ¼" JG (PI220808S)	NA
41	PU-4164	Solenoid Valve 24 DC (Single Spring Load)	NA
42	PU-4008	Equal Elbow Connector ¼" JG (PI0308S)	NA
43	PU-4031	Tube - Blue O.D. ¼" JG (PE-08-BI-1000F-B)	NA
44	NA	Equal Tee Connector ¼" JG	NA
45	PU-4031	Tube - Blue O.D. ¼" JG (PE-08-BI-1000F-B)	NA
Not Shown	CT-2029	UV Sensor	CT-2029
Not Shown	CT-2090-A	UV Lamp	10-8075
Not Shown	NA	Cold Probe	NA

CUBE WETTED PARTS DRAWING AND PARTS LIST



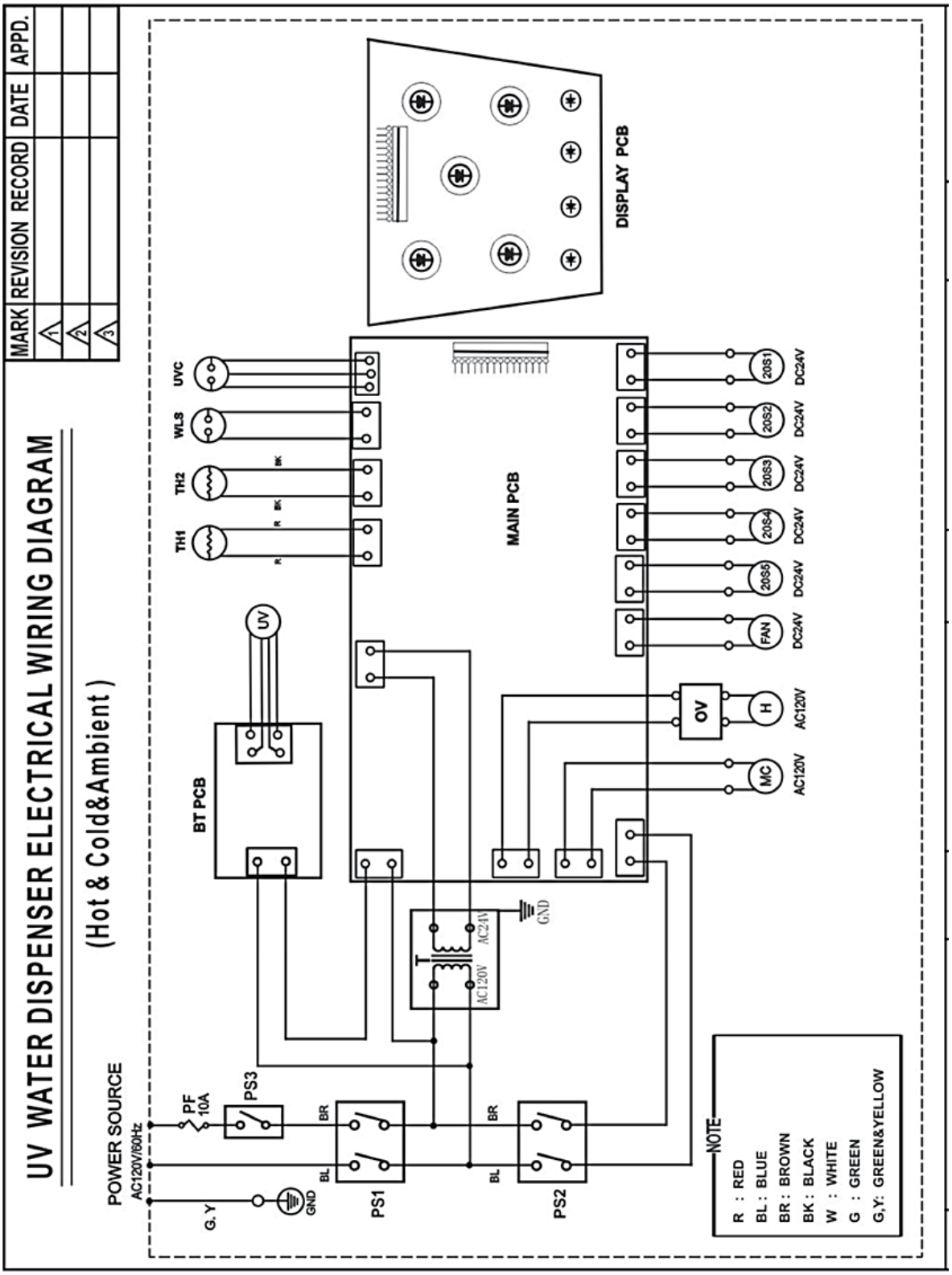
CUBE WETTED PARTS LIST

No	Part No.	Description	WLUSA Part No.
1	PU-4028	Bulkhead Connector Union ¼" * ¼" JG (PI1208S)	10-3067
2	PU-4031	Tube - Blue O.D. ¼" JG (PE-08-BI-1000F-B)	NA
3	PU-4031	Tube - Blue O.D. ¼" JG (PE-08-BI-1000F-B)	NA
4	PU-4066	Stem Elbow Connector ¼" * ¼" JG (PI220808S)	NA
5	PU-4164	Solenoid Valve 24 DC (Single Spring Load)	NA
6	NA	Equal Tee Connector ¼" JG	NA
7	PU-4008	Equal Elbow Connector ¼" JG (PI0308S)	NA
8	PU-4066	Stem Elbow Connector ¼" * ¼" JG (PI220808S)	NA
9	PU-4017-C	Hot and Cold Solenoid Valve 24V- 300mm	NA
10	PU-4031	Tube - Blue O.D. ¼" JG (PE-08-BI-1000F-B)	NA
11	PU-4008	Equal Elbow Connector ¼" JG (PI0308S)	NA
12	PU-4031	Tube - Blue O.D. ¼" JG (PE-08-BI-1000F-B)	NA
13	NA	Equal Tee Connector ¼" JG	NA
14	PU-4008	Equal Elbow Connector ¼" JG (PI0308S)	NA
15	PU-4031	Tube - Blue O.D. ¼" JG (PE-08-BI-1000F-B)	NA
16	PU-4164	Solenoid Valve 24 DC (Single Spring Load)	NA
17	PU-4066	Stem Elbow Connector ¼" * ¼" JG (PI220808S)	NA
18, 19	NA	Hot and Cold Tank Drain Valve (consists of P/N's CT-2031 Drain Body Valve 5/16" and CT-2028 Drain Valve Cap 5/16")	14-5011
20	PU-4014	Tube - Blue 8mm JG (PE-0806-100M-B)	10-3062
21	PU-4031	Tube - Blue O.D. ¼" JG (PE-08-BI-1000F-B)	NA
22	PU-4008	Equal Elbow Connector ¼" JG (PI0308S)	NA
23	HT-0001-I00	Hot Tank 1.3 Liters 500 Watts 189°F (87°C)	NA
24	CT-2093	Cold Tank 1.4 Liter	NA
25	FW-0008-L00-00	Spiral Quartz	NA
26	PU-4064	Silicon Tube 5/16" for Hot Water	10-7040
27	PU-4008	Equal Elbow Connector ¼" JG (PI0308S)	NA
28	PU-4066	Stem Elbow Connector ¼" * ¼" JG (PI220808S)	NA
29	PU-4031	Tube - Blue O.D. ¼" JG (PE-08-BI-1000F-B)	NA
30	PU-4064	Silicon Tube 5/16" for Hot Water	10-7040
31	PU-4086	¼" Stopper JG (PI0808S)	NA
32	PU-4031	Tube - Blue O.D. ¼" JG (PE-08-BI-1000F-B)	NA
33	NA	Equal Tee Connector ¼" JG	NA
34	PU-4086	¼" Stopper JG (PI0808S)	NA
35	NA	Equal Tee Connector ¼" JG	NA
36	PU-4031	Tube - Blue O.D. ¼" JG (PE-08-BI-1000F-B)	NA

37	PU-4031	Tube - Blue O.D. ¼" JG (PE-08-BI-1000F-B)	NA
38	PU-4164	Solenoid Valve 24 DC (Single Spring Load)	NA
39	NA	Equal Tee Connector ¼" JG	NA
40	PU-4066	Stem Elbow Connector ¼" * ¼" JG (PI220808S)	NA
41	NA	Equal Tee Connector ¼" JG	NA
42	PU-4031	Tube - Blue O.D. ¼" JG (PE-08-BI-1000F-B)	NA
43	FT-0004-L00-WLT	CICO CBC 1 Micron 10" Filter Assembly	NA
44	PU-4164	Solenoid Valve 24 DC (Single Spring Load)	NA
45	NA	5/16" – ¼" Reducing Straight Connector	NA
46	PU-4008	Equal Elbow Connector ¼" JG (PI0308S)	NA
47	PU-4162	5/16" – ¼" Reducing Straight Connector	NA
48	PU-4031	Tube - Blue O.D. ¼" JG (PE-08-BI-1000F-B)	NA

CUBE ELECTRICAL DIAGRAM

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



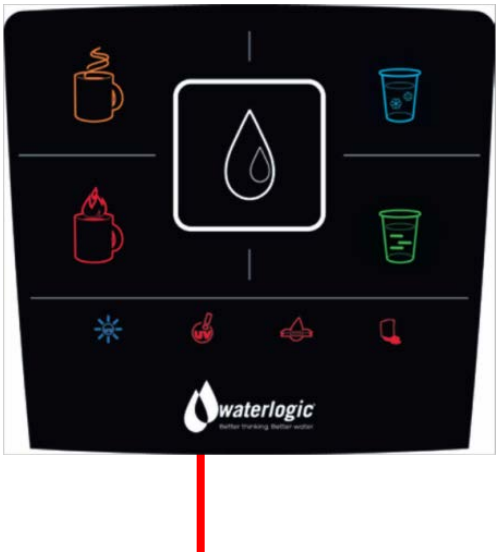
FAULT CODES

All Icons Flashing and Audible Alarm

Solution
An overheat fault has been detected. Switch the ***Cube*** off immediately and start fault finding procedures.

FAULT CODES

UV Purification Icon Flashing



UV Purification Icon
Replace UV Light

The Cube will not dispense cold or ambient water without properly functioning FIREWALL. UV Purification ensures the safety of the water.

UV LAMP REPLACEMENT

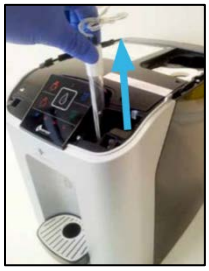
1. Remove the UV Lamp protective cover from the front right hand side of the machine by removing the fixing screw and lifting the cover up

2. Disconnect the UV Lamp Connector by pressing in the clip on the side of the machine as shown (#1)

   Pull the connector towards the front of the machine (#2)

3. Firmly pull the old UV Lamp up and out of the ***Cube***.

   Do not pull the lamp out an angle as it may break or damage the internal parts of the ***Cube***.



4. Insert the new UV Lamp while holding the white end caps only.

   Insert the UV Lamp, ensuring you have pushed it all the way down until it cannot go any further.

   Reconnect the UV lamp connector, making sure the connectors are lined up correctly as they will only fit when correctly aligned.

5. Reinstall the UV Lamp Protective Cover and Secure it in place with the fixing screw.

6. Install the Top Cover onto the machine by placing cover into position. Ensure the two fixing logs at the front are lined up with the grooves (#1) then pulling the cover firmly towards yourself until it clicks into place (#2)

7. Reconnect the power lead into the back of the machine and plug in to power source.

8. Visually verify that the UV Lamp is working correctly by checking the PCB LED. There should be no warning icons flashing.
9. Turn on Red Power Switch to the On Position *I = On*

10. Visually verify that the UV Lamp is working correctly by checking the PCB LED. There should be no warning icons flashing.

FAULT CODES

Filter Service Icon Flashing

Filter Service Icon

Filter Timer is enabled and has reached the designated service schedule (3, 6, or 12 months).

Audible alarm will sound for 15 seconds and Filter Service Light will flash until reset.

Water will continue to dispense unless filter is completely fouled and restricts output.

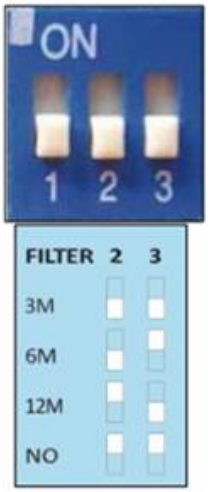
Solution
1. Change filter. *See Filter Replacement section in this manual.*
2. Reset filter service timer. Reset by selecting the hot and cold icons simultaneously and holding them for 10 seconds. The unit will beep and the filter service indicator light will turn off once reset is complete.

PROGRAMMING: DIP SET-UP FILTER REPLACEMENT TIMING

CUBE Main PCB - DIP Switch 1

A combination of switches 2 and 3

- 3 Months
- 6 months
- 12 months
- None



FAULT CODES

Leak Detection Icon Flashing

Leak Detection Indicator

Most leaks will be detected by either the internal leak detection system that will trigger an alarm, or will trip the Waterlogic block located in the installation kit

Solution
1. Turn off green heater/compressor switch and red power switch. 2. Unplug unit. 3. Remove top cover. 4. Remove right side panel (left side if standing behind unit). 5. Dry inside of unit. 6. Replace top cover (leave side panel off). 7. Connect power cord. 8. Turn on red power switch. 9. Dispense water and check for leak. 10. Once leak is located, correct issue. 11. Remove top cover. 12. Replace side panel. 13. Replace top cover. 14. Turn on green heater/compressor switch.

FAULT CODES

No Flow of Water

Action
Ensure that there is a water supply to the ***Cube*** from the building.
If an anti-leak has been installed in the ***Cube***, verify that it has not tripped.
Verify the water filters are not blocked and that they are in date and are screwed home securely into the filter head.

TROUBLESHOOTING

Hot Water is Not Hot and the Cold Water is Not Cold

Action	
Verify Green Heater Compressor Switch is turned on. I=ON	

TROUBLESHOOTING

Hot Water Flow but Cold Water is Not Flowing.

Action
Cold Water Tank Frozen. Disconnect power supply for one hour to allow the tank to defrost. Flush the cold water system.
Verify the temperature settings are correct.
If the cold tank is not frozen – verify the solenoid valve is operating correctly and being turned on and off when you select the cold option.

TROUBLESHOOTING

Cold Water is not Cold (41° +/- 5° F)

Possible Reason	Solution
No power or refrigeration elements	Check that the Green Heater and Compressor switch is on. Turn Green Heater and Compressor Switch on. *I = ON* 
Tank has run out of cold water. *Cold tank capacity is 1.4liters.*	Wait for cold tank to chill water to temperature prior to dispensing more cold water. A greater capacity of ***Waterlogic*** Water Systems is available.
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.

Note: The Waterlogic Firewall reduces 7-log of waterborne bacteria, 5-log of viruses, and 4-log of parasites potentially found in the drinking water. A small amount (about 2-ounces) of water remains in the Firewall device after dispensing. This water does not remain permanently chilled, and will eventually become room temperature after several hours. To ensure the next glass of water dispensed is adequately chilled, Waterlogic recommends dispensing one 5-ounce or more cup of water after long periods of inactivity. The first 2-ounces will be near room temperature, and the remaining 3+ ounces will be very cold. The mixture of these two temperatures will provide for an adequately refreshing, cold drink.

TROUBLESHOOTING

Cold Water Flow but No Hot Water is Flowing

Possible Reason	Solution
Calcium Build Up in the hot tank or the hot water outlet.	Descale the hot tank.
Hot Solenoid Valve	Verify the hot water solenoid valve functions correctly and turns on and off when you select the hot option.

TROUBLESHOOTING

Low Flow of Cold Water or Hot Water or Both

Possible Reason	Solution
Water Pressure	Verify the building water pressure is 40-60. Check with Pressure regulator.
Filters blocked	Verify the filters are not partially blocked.
Solenoid Valve	Verify the valves function correctly.
Calcium Build Up in the hot tank or the hot water outlet.	Descale the hot tank.

TROUBLESHOOTING

Bad or Plastic Taste

Possible Reason	Solution
Not Flushed Properly	If the ***Cube*** is new, it may need flushing for a longer period.

TROUBLESHOOTING

No Power

Solution
Verify the building electrical supply to the ***Cube*** is on and that the power cord is plugged in.
Verify the Red Power switch at the rear of the Cube is on. O=ON 
Test the ***Cube's*** fuse.
Verify the top cover isolation switch is being activated by the top cover being locked in place correctly. *See Bypassing Cover Pin section in this manual.*
Start normal fault finding procedures

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
11710 Stonegate Circle
Omaha, NE 68164

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