

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



#### **!** 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
- "Y" Plastic Tubing, at least 4 feet in length, and assorted "y" 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 Water Treatment System and check exterior for damage.

#### **Flush Filters**



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

The **CUBE Water Treatment Systems** are supplied with a filter. 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.

2. 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**

Sanitize using a Household Bleach (5.25% Sodium Hypochlorite 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).

- 3. Remove the two screws at the rear of the machine that hold the Top Cover in place.
- 4. Remove the Top Cover by placing your hands on the Top in the picture and push it backwards and then lift it up to remove.







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

- 5. Visually inspect all electrical and water connections for signs of wear or damage. The *CUBE* should not be energized during inspection at this point.
- 6. Insert finger into the round hole of the filter head. Pull to vertical position.





7. Pull the lever straight up to remove the filter assembly. Slight force may be required.











- 8. Unscrew the filter body from the filter head by turning the base in a clockwise direction
- 9. Remove the filter cartridge from the filter head by pulling it out.
- 10. Add the required amount of sanitizing fluid to the empty filter housing.
- 11. Reinstall the filter body to the filter head by turning the base in counter-clockwise direction. Tighten firmly to ensure proper seal.
- 12. Reinstall filter body containing sanitizer in machine and locking the filter in place by until it "clicks" in place.
- 13. Reinstall Top Cover and secure with two screws holding Top Cover in place.
- 14. Connect 40-60 psi regulated, potable water supply to the water inlet bulkhead fitting located on the back of the Cube Water Treatment System. Turn on water supply and check for leaks.



# **DANGER!** ELECTRICAL SHOCK HAZARD.

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

15. Connect *Cube Water Treatment System* to power.

CAUTION! NEVER TURN ON HEATER BEFORE FILLING HOT TANK. Green Heater and Compressor Power Switch must be in the O=OFF position while the hot tank is empty. Damage could occur within one minute and the overload (high limit) will require manual reset if heater is turned on with an empty Hot Tank.





# Fill the Cold Circuit with Sanitizer

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



## **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).

17. Leave the sanitation fluid to stand in the Cold Tank for 10 minutes.

## Flushing the Sanitizer from the Machine

- 18. Select the dispense button and flush 10 liters of cold water and 4 liters of ambient water through the machine to dilute and remove the sanitizer from the cold circuit. You can use chlorine test strips to evaluate the water.
- 19. Once the sanitizer odor/taste has been flushed out of the cold side of the machine, the sanitization process for the Cold Circuit is complete.
- 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.











25. 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.

The sanitization process for the Cold Circuits is now complete.





#### **ENABLING HOT TANK**

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



CAUTION! NEVER TURN ON HEATER BEFORE FILLING HOT TANK. Green Heater and Compressor Power Switch must be in the O=OFF position while the hot tank is empty. Damage could occur within one minute and the overload (high limit) will require manual reset if heater is turned on with an empty Hot Tank.



- 26. Connect Cube Water Treatment System to power.
- 27. Turn the Red Power Switch on back of CUBE Water Treatment System. I=ON
- 28. Ensure green heater / compression switch is in the O=OFF.





# CAUTION! NEVER TURN ON HEATER BEFORE FILLING HOT TANK. Green

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

- 29. Press the Hot Select Icon for 2 seconds until it illuminates.
- 30. Press the Dispense Button continuously for a minimum of 10 seconds. The dispense backlight will turn Red Indicating Hot Water.
- 31. Continue to dispense until water comes out the faucet to ensure the Hot Tank is full before turning on the heater circuit.
- 32. Turn on the Green Heater/Compressor switch. I = ON. This ensures the Hot Water is full of water before the Heat Circuit will enable.





# **CUBE DRAINING INSTRUCTIONS**

## **Draining Notes**

There are 2 tanks that must be drained in the CUBE Water Treatment System.



Prior to draining the Hot Tank, turn off Green Heater/Compressor Switch (O=OFF) located on back of the CUBE Water Treatment System

Dispense 2 liters (0.5 gallons) 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.



MARNING! VERY HOT WATER. Unit produces Very Hot Water up to 203°F. Water above 125°F can cause severe burns or scalding. Hot water should be dispensed carefully into insulated container to avoid injury.

#### **Disable Cold and Hot Tanks**

1. Turn off the Green Power Heater and Compressor 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. Unit produces Very Hot Water up to 203°F. Water above 125°F. can cause severe burns or scalding. Hot water should be dispensed carefully into insulated container to avoid injury.

#### **Turn off Water Supply and Bleed Water Pressure**

- 3. Isolate the 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 and 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.

- <u>WARNING!</u> ELECTRICAL SHOCK HAZARD. Always unplug (isolate from power supply) to prevent electrical shock except where electrical tests are specified.
- <u>WARNING!</u> 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.
- MARNING! 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 97°F (3°6C) or below 50°F (10°C). Install indoors and keep unit away from excessive humidity. Never expose to freezing temperatures. Ensure there is adequate clearance around the unit to allow refrigeration system condenser to dissipate heat. Warmer environments require more clearance around the unit. Minimum clearance around all surfaces of the machine is 2-inches. Installs where the ambient temperature exceeds 80°F require a minimum of 4-inches clearance for proper heat dissipation and efficient operation.
- <u>CAUTION!</u> 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.
- <u>CAUTION!</u> USE UV STABILIZED 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.
- <u>WARNING!</u> 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 Water Treatment System*.



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

1. Attach the ¼" flexible tubing to the bulkhead located at lower rear of unit.

Attach the Pressure Reducer located in the drip tray with the Flow Arrow in correct orientation to the tubing already attached to the Cube.

Connect ¼" flexible tubing to the Reducer and the Water Supply.



**Direction of Flow Arrow** 

Pressure Reducer is shipped in Drip Tray Factory PN PU-0013-L00-00



*Waterlogic* requires the use of a water pressure regulator. Water feed pressure must be between 40-60 psi.

- 2. Turn on the water supply and check all of the connections for leaks.
- 3. Connect the power cord to the back of the *Waterlogic CUBE Water Treatment System* and to a 120 Volt supply.
- 4. Turn the Red Power Switch on *I=ON* position.
- 5. The unit will run through a self-test cycle. Once the self-test cycle has completed the icon will stop flashing.





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



7. Turn off both the Red Power and the Green Heater / Compressor Switch's. O=OFF



**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.

- 8. 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.
- 9. 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.
- 10. Prime the Cold Circuit. Holding a container under the dispensing faucet, Select and hold the coldwater 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.
- 11. 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.
- 12. Turn on the Green Heater/ Compressor switch at the rear of the machine.





- 13. The *CUBE Water Treatment System* 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.
- 14. Taste test the water, if there is any hint of taste in the water, flush an 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.
- 15. Verify that the UV Lamp operates as expected (no UV Lamp alarm will sound on the display).
  - <u>WARNING!</u> ULTRAVIOLET RADIATION. Protect your skin and eyes against ultraviolet rays. Never look directly at an operating UV light. Always disconnect before removal.
- 16. Move the *Waterlogic CUBE Water Treatment System* into its final operating position. Be sure that a minimum of 2" clearance is maintained around both the sides and the back of the unit. This is important to allow proper airflow and heat exchange of refrigeration system.
- 17. 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.
- 18. Once the unit is at the target temperature(s), sample the water to ensure water meets expectations an additional rinsing or adjustment is not required.
- 19. Check the unit for any leaks. External Leak Protection is always recommended.