DISPENSING TROUBLESHOOTING INDEX

This section also includes related instructions for Hot Tank Descaling

1. Irregular / Intermittent Dispensing

Possible Reason	Solution
Too much water pressure. Recommend 40 to 60 psi for ***WL400 Water Treatment System*** to operate properly.	Check water pressure at the inlet bulkhead with a water pressure gauge. Additional method of verification is to turn off water to unit and press the dispense button. Does the solenoid open without water pressure to the unit? Listen for solenoid to activate, not button "click". Adjust water pressure to 40-60 psi.
Loose or bad connection on the Front Dispensing PCB or Solenoid Connector	Check that they are connected properly and tightened.
Solenoid	If both the Water Pressure and PCB have been ruled out, then it is the Solenoid. Replace Solenoid.
Dispensing button is broken on PCB	Check PCB for loose or damaged button. Replace PCB as necessary.
Mineral deposits on the expansion slot inside the Hot Tank vent chamber which blocks the normal path of water to expand.	Descale Hot Tank. **See Hot Tank Descaling Instructions that are included further below in this Troubleshooting Section.**

2. Steady Drip Out of Faucet

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

3. Hot Water or Steam Coming out of both the Faucet and Vent Hole

Possible Reason	Solution
Improper tubing attachment from the hot tank to faucet or vice versa.	Check that the tubing is connected from tank outlets to correct faucet attachments. Connect tubing to outlets as needed.

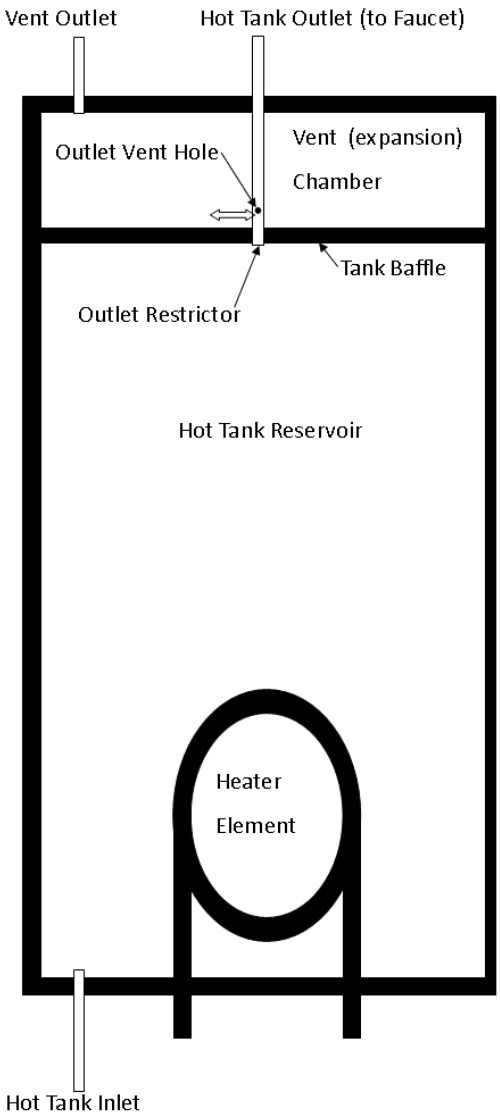
4. Hot Water Coming out of Faucet Vent Hole

Possible Reason	Solution
Improper tubing attachment from the tank to faucet or vice versa.	Verify tubing is connected properly from tank outlets to correct faucet attachments.
Hot Tank outlet hole is scaled over.	Inspect and Descale Tank as needed. **See Hot Tank Descaling Instructions that are included further below in this Troubleshooting Section.** See instructional video on the Partner Area of the Waterlogic.com website for more information.
Expansion chamber is not sealed properly.	Replace the Hot Tank.

5. Restricted Flow of Hot Water

Possible Reason	Solution
Partially closed water supply valve to the unit.	Open water supply valve.
Hot Tank outlet hole is scaled over.	Descale Tank. **See Hot Tank Descaling Instructions that are included further below in this Troubleshooting Section.** See instructional video on the Partner Area of the Waterlogic.com website for more information. See instructional video on the Partner Area of the Waterlogic.com website for more information.
Tubing is creased or has a "kink" in it.	Inspect and replace tubing as necessary.
Faucet nipple screen mesh has obstruction(s)	Unscrew faucet nipple from faucet and remove any obstruction(s) from screen mesh.
Exhausted Filter	Replace the Filter
Solenoid connection to the Display PCB	Turn power off; unplug the unit and visually inspect solenoid connections into the Display PCB. Verify the soldering points on connections are secure into the board. Remove the PCB to inspect the front of the board.
Solenoid Valve is Malfunctioning	Inspect valve components for proper function. Replace as necessary.

6. Hot Water Drip out of Faucet

Possible Reason	Solution
Small Outlet Vent Hole susceptible to scale build up.	Descale Tank. **See Hot Tank Descaling Instructions that are included further below in this Troubleshooting Section.** See instructional video on the Partner Area of the Waterlogic.com website for more information.
	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.

7. Dispenses Hot and Cold Water at the Same Time

Possible Reason	Solution
Hot or Cold solenoid is stuck open.	Remove Top cover. Check Hot Solenoid: Dispense cold water and visually inspect tubing for water flow from both tanks. Check Cold Solenoid: Disconnect elbow from outlet of cold solenoid. Select hot water and dispense (quickly releasing dispensing button to avoid much water coming out of cold solenoid. Replace solenoid as necessary.

8. No Cold Water Available

Possible Reason	Solution
Closed Water Supply Valve	Open the Water Supply Valve
Cold Water Solenoid Valve malfunction	Inspect the valve components for proper functionality.
Green Heater and Compressor Switch on unit is off.	Turn Green Heater and Compressor Switch on. *I = ON* 
Loose connection(s) on the Display PCB	Turn power off; unplug the unit and visually inspect solenoid connections into the Display PCB. Verify the soldering points on connections are secure into the board. Remove the PCB to inspect the front of the board.
Exhausted Filter	Replace filters as needed.

9. Water does not dispense from Unit

Possible Reason	Solution
Closed water supply valve	Open the water supply valve.
The unit is not properly plugged into electrical outlet	Check electrical outlet connection, or for blown circuit breaker.
Green Heater and Compressor Switch button on unit is in the off position	Turn Green Heater / Compressor Switch on. *I = ON* 
15 Amp Fuse Blown	Replace the 15 Amp Fuse as needed.
Water is present in the bottom tray, causing the leak detection to trigger.	Remove the top cover and front panel. Tip the unit slightly to drain, dry bottom tray completely.
Hot and Cold Solenoid connections into the Displace PCB are loose.	Turn power off; unplug the unit and visually inspect solenoid connections into the Display PCB. Verify the soldering points on connections are secure into the board. Remove the PCB to inspect the front of the board.
Exhausted Filter	Replace filters as needed.

10. Cold Water Dispenses from Faucet and Vent Outlet Simultaneously

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

11. Small Amount of Water Periodically Dispenses from Faucet Automatically

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

12. Dispense Buttons Stick

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

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

Reason

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

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

Run On exists because the tanks pressurize as water is being dispensed. Every Waterlogic tank has an outlet restrictor to ensure the tanks remain full of water and water is controlled as it is released to the faucet. The inlet solenoid controls flow into the tanks. The tanks will "depressurize" once the dispense button is released the inlet solenoid closes. A small amount of water will "Run On" through the faucet as the tank depressurizes to atmospheric conditions.

Typical "Run On" is 2-3 seconds.

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

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

WLCP Lab Testing of Run On 7-31-2013				
Pressure	Pressure	Time	Flow Rate	Run On
Static PSI	Dynamic PSI	4 Liters	l/min	Seconds
68	40	61	2.9508197	3
50	30	72	2.5	2.5
32	20	92	1.956217	2
Pressure measured at inlet line to unit. Static with unit closed. Dynamic with unit dispensing cold water.				
No filters were installed in unit.				

HOT TANK DESCALING INSTRUCTIONS

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

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

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

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

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

Materials Needed:

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

9. Put descaler per directions and 3 drops of food coloring into the descaling cartridge.

10. Connect descaling cartridge to the inlet water supply and connect to inlet bulkhead fitting on the back of the unit. Turn on Water Supply.

11. Select Hot Water and depress the Main Dispensing Button on the Front Control Panel until descaling solution (colored water) comes out of the faucet. Container and drain basin will be required to catch water from the faucet.

12. Turn off water supply and remove sanitizing cartridge from inlet water supply. Reconnect water supply to inlet fitting.

13. Allow descaling solution to remain in the Hot Tank for 15 minutes (length of time may vary depending on water conditions).

14. Place a pitcher, catch basin or other container under the faucet of the ***WL400 Water Treatment System.***

15. Flush the Hot Tank until water runs clear.

16. Once clear water dispenses from the faucet the Hot Tank has been descaled. Always ensure unit is performing to the customer's satisfaction.

⚠ **WARNING!** ***HOT WATER HAZARD. WL400 Water Treatment System produces VERY HOT WATER up to 203°F (95°C). Water above 125°F (52°C) can cause severe burns or scalding.*** *Hot water should be dispensed carefully into insulated container to avoid injury.*

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

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