

SERVICE REQUIREMENTS

⚠ WARNING! *Read and understand the contents of this manual before attempting to service WL400. Failure to follow the instructions in this manual could result in death, serious personal injury, or severe property damage. Only trained and qualified technicians should attempt to install, maintain, or service Waterlogic Equipment.*

1. Visually inspect all electrical and water connections for signs of wear or damage.

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

2. **Waterlogic** recommends changing the UV Lamp Assembly and Wiring Harness must be replaced every 6 months.

13UV Lamp Assembly
Part Number CT-2090-C WLCP Part Number 10-8075



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

⚠ CAUTION! ***UV LAMPS ARE HAZARDOUS.** Lamps are considered Hazardous Waste and must be disposed of accordingly. Refer to Product MSDS sheet for details.*

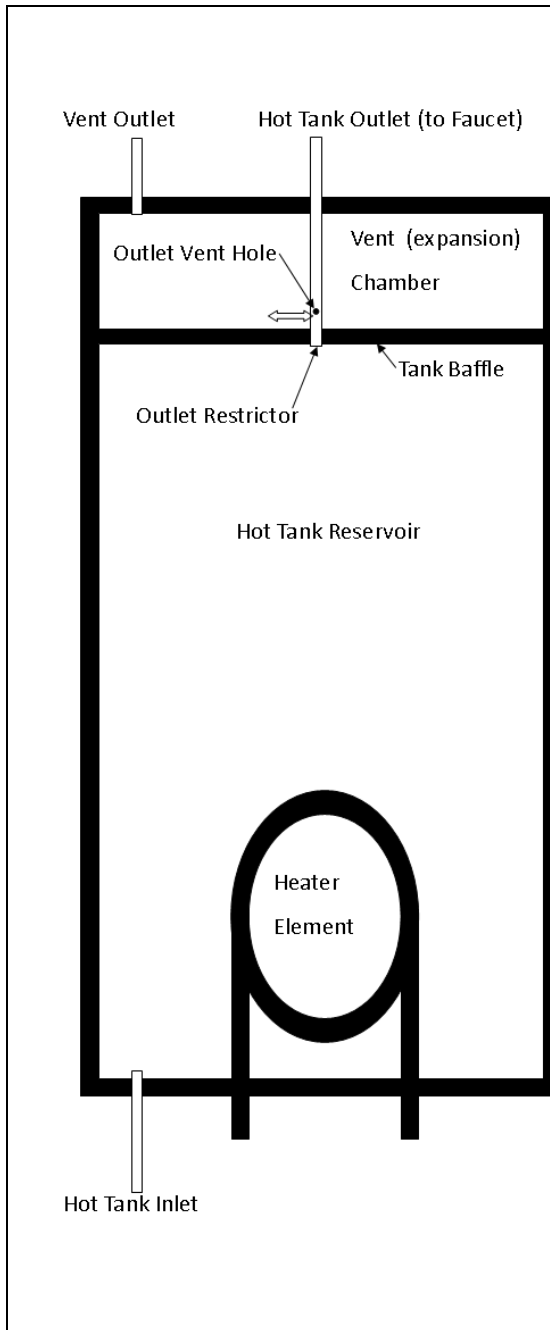
3. Clean the Quartz Sleeve that surrounds the UV lamp with a non-abrasive cloth, descaling solution, or ultrasonic bath if needed when changing UV Lamps.

⚠ CAUTION! ***UV SYSTEM IS FRAGILE.** Never handle the UV lamp or Quartz Sleeve with bare hands. UV Lamp and quartz sleeve must be free of oils and contaminants to ensure proper operation. Use a soft non-abrasive cloth to clean.*

4. Inspect the Quartz Sleeve O-ring for wear or damage and replace as necessary.
5. Ensure there is adequate (minimum of 2") clearance around the unit and clean the condenser grill and compressor fan to provide efficient cooling system operation.
6. Sanitize the Cold Tank per instructions in the Pre-Installation procedures.
7. Clean and sanitize external surfaces of the unit. Use soap and water or chemicals that are compatible with ABS plastic and will not damage or degrade the product surfaces.
8. Remove and clean the Faucet. Replace as needed.

⚠ WARNING! ***SANITIZER MAY CONTAIN HAZARDOUS CHEMICALS.** Use of proper personal protective equipment such as rubber gloves and eye protection is required.*

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.





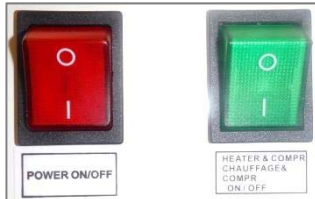
Expansion of water as it is heated in the reservoir will push the water out the faucet when the outlet tube vent hole becomes plugged with debris or scale.

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.

RESETTING THE HOT TANK OVERLOADS - HIGH LIMIT SAFETY

1.	Turn off Green Heater/Compressor Switch on rear of unit. <i>O=OFF</i>	
2.	Unplug the Power Cord from rear of unit.	
3.	Remove the Tower Cover Locking Screws and Slide Locks towards outside of unit to unlock both locks.	
4.	Slide Top Cover forward and lift in front of Top Cover to open.	
5.	Remove the 2 Phillips Screws from Left Side Panel (when standing behind unit) and remove side panel.	
6.	Check and press both Thermal Overload buttons on Hot Tank.	
7.	Close, lock and replace Top Cover Screws	
8.	Turn on Red Power Switch and Green Heater / Compressor Switch. <i>I=ON</i>	

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
1. Put descaler per directions and 3 drops of food coloring into the descaling cartridge.
 2. Connect descaling cartridge to the inlet water supply and connect to inlet bulkhead fitting on the back of the unit. Turn on Water Supply.
 3. 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.
 4. Turn off water supply and remove sanitizing cartridge from inlet water supply. Reconnect water supply to inlet fitting.

5. Allow descaling solution to remain in the Hot Tank for 15 minutes (length of time may vary depending on water conditions).
6. Place a pitcher, catch basin or other container under the faucet of the **WL400 Water Treatment System**.
7. Flush the Hot Tank until water runs clear.
8. Once clear water dispenses from the faucet the Hot Tank has been descaled. Always ensure unit is performing to the customer's satisfaction.


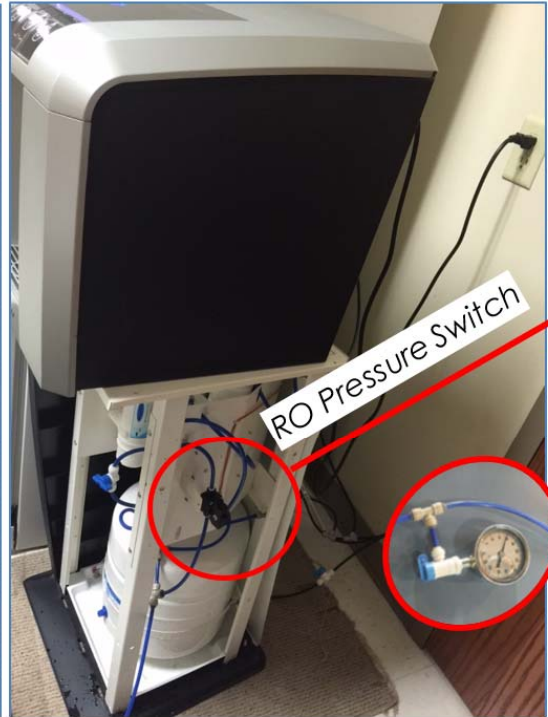
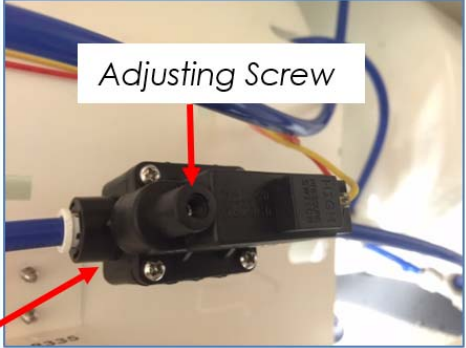

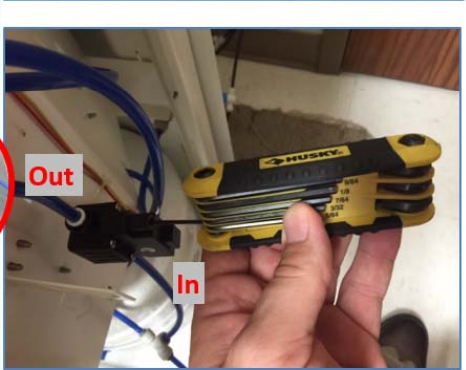
 **WARNING! HOT WATER HAZARD.** *WL400 Water Treatment System produces VERY HOT WATER up to 95°C (203°F). Water above 52°C (125°F) can cause severe burns or scalding. Hot water should be dispensed carefully into insulated container to avoid injury.*

 **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.*

INCREASING FAUCET FLOW

To increase flow from the WL400, you may turn up the RO pressure switch to 60 psi by removing the right lower panel of the base cabinet to access the switch. Turn adjusting screw in (clock wise) 6 turns or until output pressure is 60 psi, verify with pressure gauge.

		
		
<p>Remove the right lower panel of the base cabinet to access the RO pressure switch</p>		<p>Turn adjusting screw in (clock wise) 6 turns or until output pressure is 60 psi.</p>

DISPLAY PANELS AND ICONS



UV Lamp Has Failed
See troubleshooting section of manual



The UV Lamp is operating



Sleep Mode -
press any
button to
bring machine
out of sleep
mode



The Hot Tank is heating up



A leak has been
detected - *See
troubleshooting
section of manual*



Filter needs replacing



The Cold Tank is
Chilling



Extra hot water has been
selected



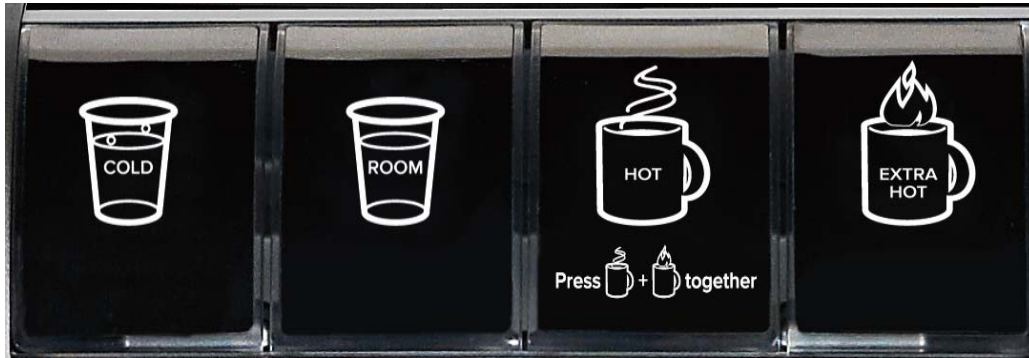
The Drip Tray is
Full – Please
empty the tray

DISABLING SLEEP MODE



Sleep Mode - press any button to bring machine out of Sleep Mode.

PROGRAMMING INSTRUCTIONS



The above picture shows front dispensing panel for the **Waterlogic WL400**.

Press and Hold all 4 dispensing buttons for 10 seconds.

There are 5 options in the menu.

Cold Button cycles down the menu

Room (Ambient) Button cycles up the menu

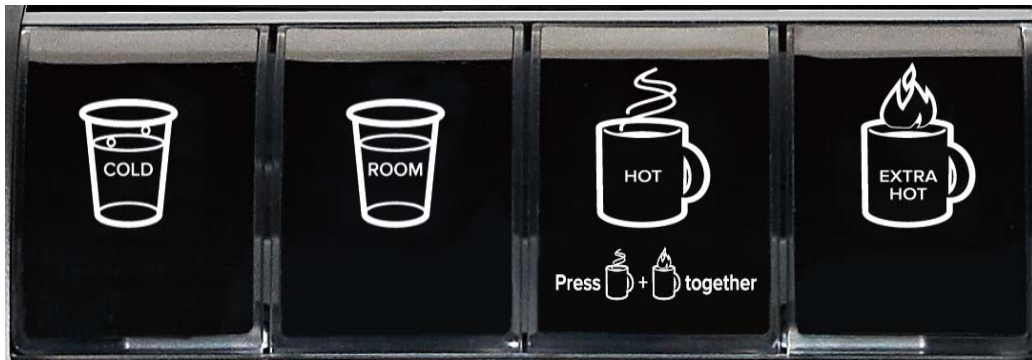
Hot Button Selects the Option

Extra Hot Button Exits the menu

Settings	Programming
F-S Filter Setting	Filter Setting can be adjusted between 1,000 to 9,000 gallons in 1,000 increments.
F-r Filter Resetting	Choices are Yes or No
C-S Cold Temperature Setting	Temperature Setting can be adjusted from 2.8°C to 12.2°C (37°F to 54°F)
H-S Hot Temperature Setting	Temperature Setting can be adjusted from 70°C to 95°C (158°F to 203°F)
S-S Sleep Mode	Choices are 3 Hour, 6 Hour, 12 Hour or No (Off)

PROGRAMMING INSTRUCTIONS

Reset the Display Counter (Gallons)



Reset Gallons Counter on the Display to “0000”

1. Press and Hold all 4 dispensing buttons for 10 seconds.
2. Release when programming mode is initiated and **F-s** is shown on screen
3. Press Cold to scroll down to the **F-r** (Filter Reset Menu)
4. Select **Hot button** to enter into the Filter Reset Menu Options
5. Scroll down to “Yes” by using the **Cold and Ambient Buttons** (up and down)
6. Select **Hot** to enter (Yes to Filter Reset)
7. Select **Extra Hot** to Exit and the Gallon Counter will be reset and will display 0000.

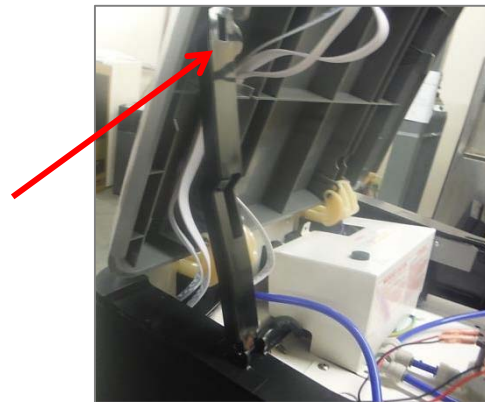
OPENING TOP COVER

1. Remove screws from slide locks located near dispenser.
2. Push Slide Locks inward toward dispensing area.



3. Pull Cover forward and lift from the front to open Top Cover.

4. Locate Top Cover Support Arm attached to left side panel.
5. Lift Support Arm from the front and align with top cover to hold top cover in place.



REPLACEMENT COMPONENTS

Component	WLCP PN	Frequency of Replacement
UV Light, 13 Watts	10-8075	Every 6 months, or as required Part No CT-2090-A
Spiral	10-8080	Clean every 12 months, replace as needed Part No -0007-A
Hot Tank 185°F (85°C)	HT-3037-A	Replace every 3-5 years depending on usage Part No HT-3037-A
Sediment Filter	10-8050	Every 6-months, or as required. Local water conditions will determine proper filter type and maintenance schedule. Part No. RO-0001-A
Pre-Carbon Filter	10-8055	Every 6-months, or as required. Local water conditions will determine proper filter type and maintenance schedule. Part No. RO-0002-A
RO Membrane Replacement Kit 75 GPD	10-8061	Every 6-months, or as required. Local water conditions will determine proper filter type and maintenance schedule.
Post Carbon Filter	10-8065	Every 6-months, or as required. Local water conditions will determine proper filter type and maintenance schedule. Part No. RO-0005-A

** One pre-installed. One required for NSF-53 and NSF P231 Certification.*

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

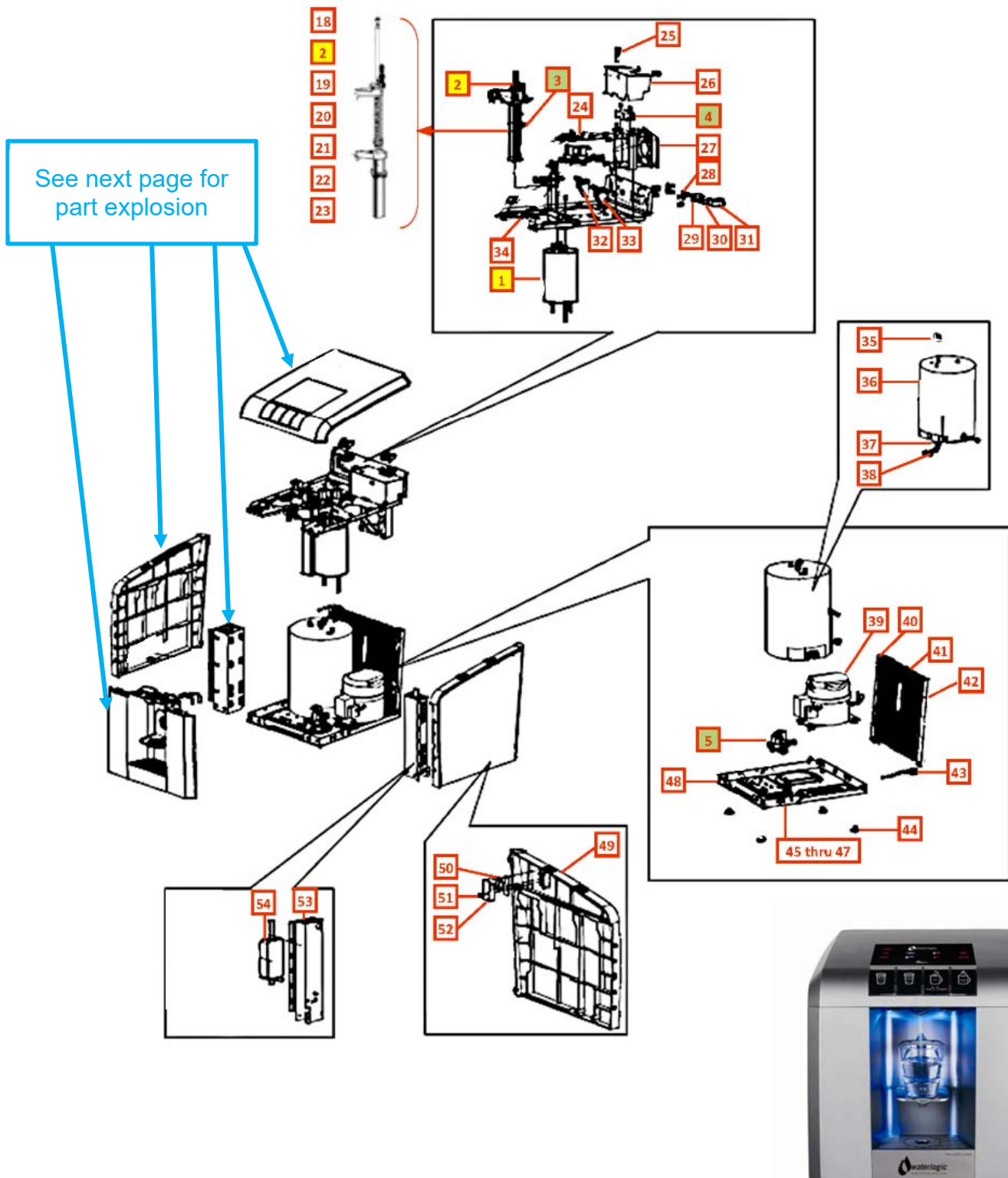
Hot Tank Service

Hot Tanks (with controls) must be replaced at least every 3-5 years depending on usage. Descaling hot tank may be required on a regular basis depending upon filtration and local water conditions. See Service Section.

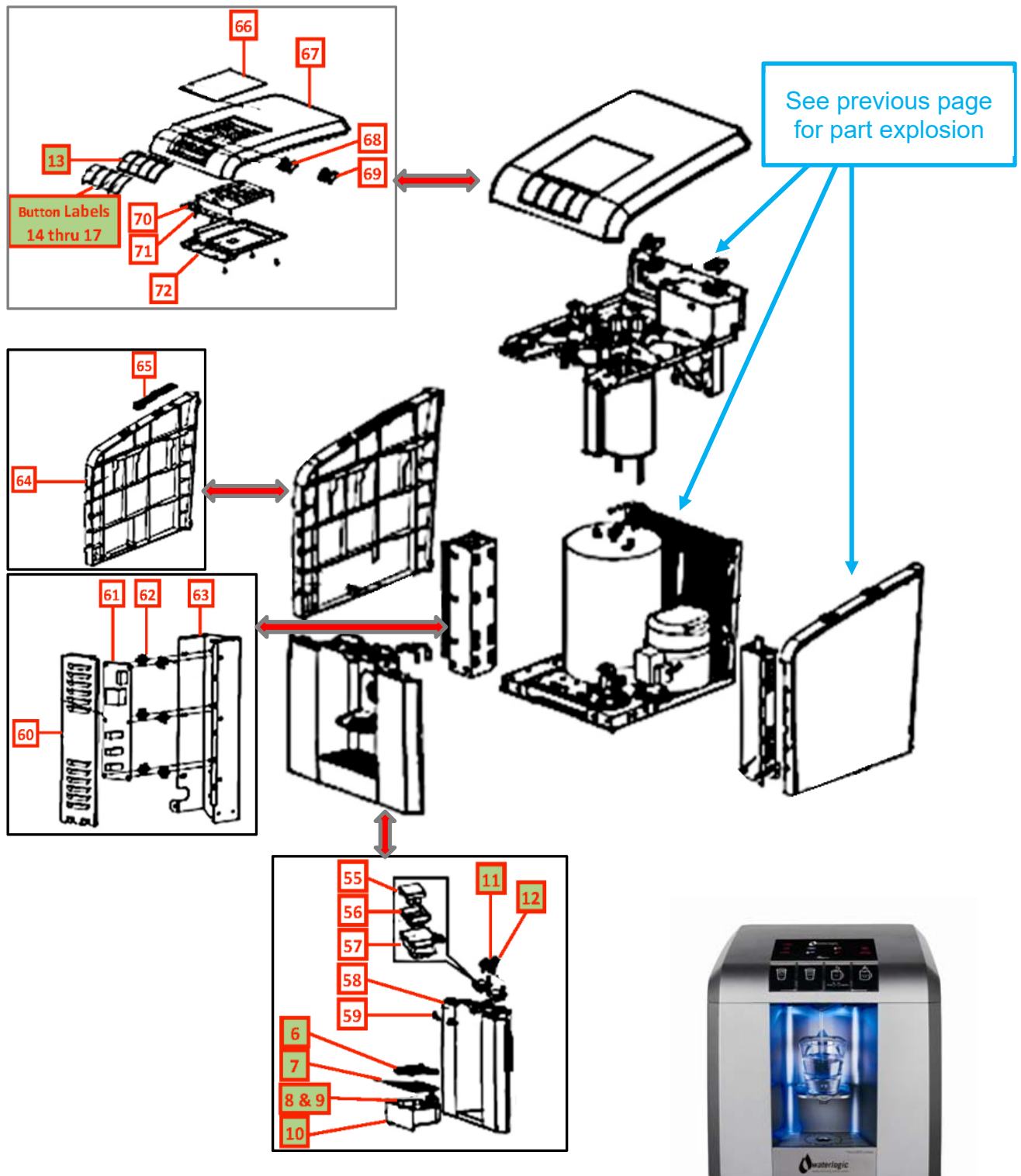
NOTE:

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

WL400 COUNTER TOP MAIN PARTS DRAWING AND PARTS LIST






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WL400 COUNTER TOP MAIN PARTS DRAWING AND PARTS LIST

No	WLCP Part No.	Description	Part No	Stocked?	
Consumables					
1	HT-3037-A	1.2L 120V 500W Steel Hot Tank	HT-3037-A	Yes	
2	10-8075	13W UV Lamp Assembly	CT-2090-C	Yes	
Not Shown	10-8061	75 GPD - RO Membrane Kit - Includes: 15-3001 RO Membrane, 15-3020 RO Membrane Housing, 2 each JG 480821S Fittings, and RO Membrane Instructions.	NA	Yes	
Not Shown	15-3001	RO Membrane	NA	Yes	
Not Shown	15-3020	RO Membrane Housing	NA	Yes	
Not Shown	10-8050	RO Sediment Filter	RO-0001-A	Yes	
Not Shown	10-8055	RO Pre-Carbon Filter	RO-0002-A	Yes	
Not Shown	10-8065	RO Post Carbon Filter	RO-0005-A	Yes	
Not Shown	01-2076	Scale Kleen	NA	Yes	
Recommended Spare Parts					
3	AK-0064	UVC Sensor	AK-0064	Yes	
4	NA	Ballast	EL-0010-L00-00	No	
5	PU-4016-C	Solenoid Valve DC24V FS Bitron	PU-4016-C	Yes	





5.1	CU-0001	Solenoid Cushion	CU-0001	Yes	
6	PL-1344-A	Adjustable Cup Tray	PL-1344-A	Yes	
7	PL-1320-A	Drip Tray Grill - Silver	PL-1320-A	Yes	
8	ST-8267-C	Drip Tray Sensor Pin - Left	ST-8267-C	Yes	
9	ST-8267-D	Drip Tray Sensor Pin - Right	ST-8267-D	Yes	
10	PL-1319-F	Drip Tray Body – Silver	PL-1319-F	Yes	
11	PL-1354	Firewall Hot Water Faucet	PL-1354	Yes	
12	PL-1354-A	Firewall Hot Water Faucet Insert Pipe	PL-1354-A	Yes	
13	PL-1323	Button Panel	PL-1323	Yes	
14	LP-7310	Cold Button Label	LP-7310	Yes	
15	LP-7311	Ambient Button Label	LP-7311	Yes	

16	LP-7312	Hot Button Label	LP-7312	Yes	
17	LP-7313	Extra Hot Button Label	LP-7313	Yes	
Remaining Parts					
18	10-8085	UV Lamp Fixing Rubber (Silicon)	CT-2001-B	Yes	
19	10-3095	CDS Fixing Rubber (Silicon)	CT-2010	Yes	
20	10-8095	Firewall UV Lamp Fixing Rubber	CT-2078-A	Yes	
21	10-8090	Spiral Quartz Spacer	CT-2077-A	Yes	
22	10-8080	Quartz Spiral for Firewall	FU-0007-A	Yes	
23	FU-0009-A	Firewall Assembly	FU-0009-A	Yes	
24	ST-8300	Firewall Fixing Bracket	ST-8300	Yes	
25	10-3014	Fuse Holder and Fuse 120V / 15A with One Wire	EL-5053	Yes	
26	ST-8283	Electronics Cover Bracket	ST-8283	Yes	
27	10-1500	Fan Motor 110V (AC Axial fan)	CT-2011	Yes	

27.1	NA	Fan Bracket	ST-8265	No	
28	10-3067	Bulkhead Union 1/4" x 1/4" John Guest P/N PI1208S	PU-4028	Yes	
29	10-4013	Socket with ElectroMagnetic Interference Filter (EMI)	EL-5016	Yes	
30	10-3008	Red Compressor and Heater Switch	EL-5004	Yes	
31	10-3009	Green Power Switch	EL-5005	Yes	
32	PL-1330	Back Panel Hinge (A-4)	PL-1330	Yes	
33	PL-1331	Back Panel Hinge (A-1)	PL-1331	Yes	
34	NA	Upper Shelf / Back Panel	ST-8259-H	No	
34.1	PL-1336	Upper Panel Wire Route Hole Silicon Cover	PL-1336	Yes	
35	Purchase from John Guest	JG Equal Elbow Connector 1/4" (PI0308S)	PU-4008	Purchase from John Guest	
36	NA	Cold Tank	CT-2072-A	No	
37	PU-4140	JG End Stop 1/4" (PI4608S)	PU-4140	No	
38	PU-4011-A	JG Equal Tee Connector 1/4" (PI0208S)	PU-4011-A	No	
39	10-2200	Compressor (R134a 1/8HP) 110V/60Hz	CO-9001-A	Yes	
39.1	10-3003	Compressor Starter Relay	CO-9016	Yes	

39.2	10-5018	Compressor Overload (LG Compressor)	CO-9015	Yes	
40	NA	Mini Front Support Frame - Left	ST-8255	No	
41	NA	Wire Condenser	CO-9041		
41.1	12-1001	Filter Dryer	CO-9008	Yes	
42	NA	Mini Front Support Frame - Right	ST-8256	No	
43	14-5011	Drain Valve & Cap 5/16"	CT-2028 and CT-2031-A	Yes	
44	12-3150	Unit Rubber Feet	PL-1251-CN	Yes	
45	PL-1375	Leak Containment Tray	PL-1375	Yes	
46	PL-1311	Leak Detection Sensor Bracket	PL-1311	Yes	
47	12-3180	Leak Containment Tray Clip (sensor 0.5mm)	ST-8207-CN	Yes	
48	NA	Mini Bottom Shelf	ST-8258	No	
49	PL-1327	Mini Side Panel - Right	PL-1327	Yes	
50	ST-8286	Micro Switch Metal Cover	ST-8286	Yes	
51	PL-1329	Safety Micro Switch Cover	PL-1329	Yes	
52	14-5006	Micro Door Lock S/W only	EL-5027	No	
53	NA	Adaptor Holding Bracket	ST-8261	No	

54	EL-5128	Power Adaptor with Fixing Bracket	EL-5128	Yes	
55	EN-6119	LED PCB	EN-6119	Yes	
56	PL-1335	LED PCB Holder Sealing Rubber	PL-1335	Yes	
57	NA	LED Holding Plate	PL-1318	No	
58	PL-1312-C	Front Upper Panel - Silver	PL-1312-C	Yes	
59	PL-1317	Top Cover Lock with screw hole	PL-1317	Yes	
60	NA	Main PCB Metal Cover	ST-8285	No	
61	EN-6137	Main PCB	EN-6137	Yes	
62	10-3017	Plastic PCB Support	EN-6059	Yes	
63	NA	PCB Holder Bracket	ST-8260	No	
64	PL-1321	Top Cover Safety Support	PL-1321	Yes	
65	PL-1328	Mini Side Panel - Left	PL-1328	Yes	
66	PL-1337-E	LCD Cover Panel (Word Printed for Each Icon)	PL-1337-E	Yes	
67	PL-1322-C	Silver Top Cover with Firewall Logo	PL-1322-C	Yes	
68	PL-1332	Back Panel Hinge (A-2)	PL-1332	Yes	
69	PL-1333	Back Panel Hinge (A-3)	PL-1333	Yes	
70	EN-6118	Dispense PCB	EN-6118	Yes	



71	EN-6136	Display PCB	EN-6136	Yes	
72	PL-1334	PCB Cover	PL-1334	Yes	
Not shown	PU-4031	JG LLD PE Tube - Blue O.D.1/4" John Guest P/N PE-08-BI-1000F-B	PU-4031	No	
Not shown	10-7040	Silicon Tube 5/16" for hot water	PU-4064	Yes	
Not Shown	10-3007	Power Cord 120V – 1825 mm	EL-5001-B	Yes	

WL400 BASE LAYOUT DRAWING AND PARTS LIST

No	WLCP Part No.	Description	Part No	Stocked?	
Consumables					
1	10-8055	RO Carbon Filter (PRE-FILTER)	RO-0002-A	Yes	
2	10-8050	RO Sediment Filter	RO-0001-A	Yes	
3	15-3001	75 GPD RO Membrane	NA	Yes	
3	10-8061	<i>75 GPD RO Membrane Kit - Includes: 15-3001 RO Membrane, 15-3020 RO Membrane Housing, 2 each JG480821S Fittings, and RO Membrane Instructions.</i>	NA	Yes	
4	10-8065	RO Carbon Block Filter (POST FILTER)	RO-0005-A	Yes	
Remaining Parts					
5	NA	Base Cabinet Upper Shelf	ST-8268	No	
6	PL-1342	Base Cabinet Door Lock Cover	PL-1342	Yes	
7	PL-1340	Base Cabinet Plastic Side Panel - Right	PL-1340	Yes	
8	PL-1343	Base Cabinet Cup Dispenser Cover	PL-1343	Yes	
9	ST-8272	Base Cabinet Door Lock Bracket	ST-8272	Yes	
10	ST-8336	Cup Dispenser Hole Metal Cover	ST-8336	Yes	
11	PL-1341-A	Base Cabinet Front Bottom Panel - Silver	PL-1341-A	Yes	
12	RO-0024	High Water pressure switch	RO-0024	Yes	
13	Purchase from John Guest	JG Equal Tee Connector 1/4" (PI0208S)	PU-4011	No	

14	RO-0011	Flow Restrictor Micro	RO-0011	Yes	
15	RO-0010-A	Flushing-Valve Micro	RO-0010-A	Yes	
16	RO-0009-A	T-connect (2) Micro	RO-0009-A	Yes	
17	12-6102	JG Shut Off Valve NPT 1/4" (PPSV500822W) 5/16" * 1/4"	PU-4082	Yes	
18	RO-0006-A	1/4" Rigid Elbow for RO Housing - Micro	RO-0006-A	Yes	
19	15-3020	RO Housing	NA	Yes	
20	Purchase from John Guest	JG Equal Elbow Connector 1/4" (PI0308S)	PU-4008	No	
21	10-3099	2 1/2" Filter Clip	PU-4024	Yes	
22	Purchase from John Guest	JG Equal Straight Connector 1/4"(PI0408S)	PU-4010	No	
23	10-7235	Water Pressure Pump	CT-2035-E	Yes	
24	ST-8298-A	Firewall Fixing Bracket	ST-8298-A	Yes	
25	PU-4017-B	Solenoid Valve DC24V 300mm	PU-4017-B	Yes	
26	ST-8334	RO Filter Bracket Support	ST-8334	Yes	

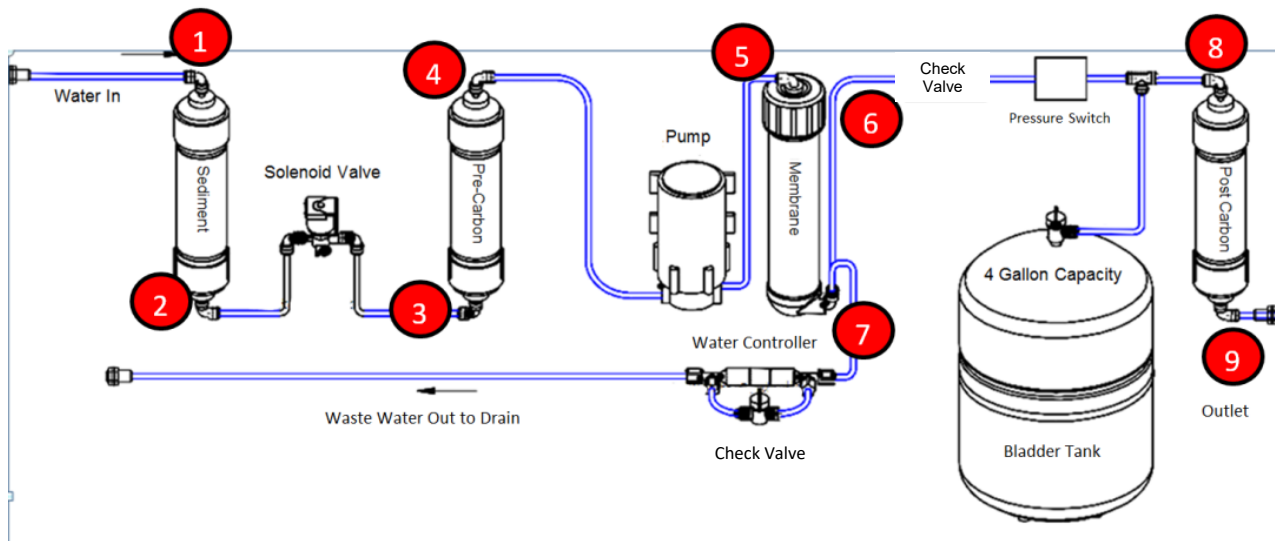
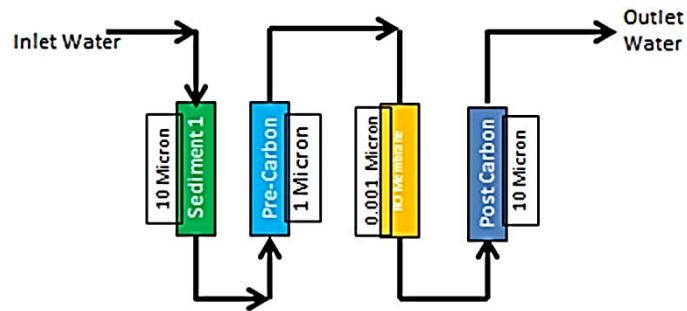
27	ST-8333	RO Filter Bracket	ST-8333	Yes	
28	CT-2056-A	RO Bladder Tank (4 gallon)	CT-2056-A	Yes	
29	ST-8337	RO Bladder Tank (4 Gallon) - Holding Bracket 1	ST-8337	Yes	
30	ST-8338	RO Bladder Tank (4 Gallon) - Holding Bracket 2	ST-8338	Yes	
31	10-3083	Unit Rubber Feet	ST-8016	Yes	
32	NA	Base Cabinet Bottom Shelf	ST-8269	No	
33	PL-1375	Leak Containment Tray	PL-1375	Yes	
34.1	12-3180	Leak Containment Tray Clip (sensor 0.5mm)	ST-8207-CN	Yes	
35	PL-1339	Base Cabinet Plastic Side Panel - Left	PL-1339	Yes	
36	NA	Base Cabinet Support Frame	ST-8270	No	
37	NA	Base Cabinet Back Panel	ST-8273	No	
38	10-3067	Bulkhead Union ¼" x ¼" John Guest P/N PI1208S	PU-4028	Yes	
38.1	AK-0014-B	Flow Restrictor for Sparkling Water (1,8 mm hole)	AK-0014-B	Yes	
39	NA	Base Cabinet Back Panel	ST-8342	No	
Not shown	PU-4031	JG LLD PE Tube - Blue O.D.1/4" John Guest P/N PE-08-BI-1000F-B	PU-4031	No	

Not shown	10-7040	Silicon Tube 5/16" for hot water	PU-4064	Yes	
Not Shown	10-3007	Power Cord 120V – 1825 mm	EL-5001-B	Yes	

WL400 STANDARD WATER FLOW DIAGRAM

There is a 100 Gallons per day (Gpd) / 378.5 Liters per day (Lpd) flow restrictor inline after the Main Unit bulkhead inlet fitting on all **WL400 Treatment Systems**.

Flow Restrictor
Part Number AK-0014-B



WL400 COUNTER TOP ELECTRICAL DIAGRAM

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

