Ultima Classic

Operator's Manual

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Important Safety Information

Pure Water Ultima Classic Owners Manual

- If you are not sure that your electrical outlet is properly grounded or that the circuit protection is correct, have it checked by a qualified electrician.
- Operate indoors only.
- The area **MUST** be well ventilated.
- **WARNING:** Disconnect the distiller from the power supply before assembling, adjusting or servicing the distiller.
- **NEVER** immerse the distiller in water or any other liquid.
- **NEVER** operate the distiller with a damaged cord or allow the cord to become exposed to hot surfaces.
- **DO NOT** let children play with the distiller.
- **DO NOT** touch the top of the distiller when it is operating because it may be hot.
- Exercise care when removing the boiling tank and/or the boiling tank lid.
- Never remove boiling tank or lid when the distiller is operating.
- Extension cords are not preferred, but may be used if care is exercised in their use.
- If an extension cord is used, (a) the marked electrical rating of the extension cord should be at least as great as the electrical rating of the product; (b) as the product is of the grounded type, the extension cord should be a grounding type 3-wire cord; and (c) the longer cord should be arranged so that is will not drape over the countertop or tabletop where it can be pulled on by children or tripped over unintentionally; (d) the extension cord cannot be covered by carpet or rugs.
- The installation and use of this product must comply with all applicable state and local laws and regulations.
- **IMPORTANT:** This distiller is designed to be used only with Ultima Classic brand accessories and replacement components.

Introduction

Congratulations on purchasing the finest water distillation system on the market. With proper care and attention, the Pure Water Ultima Classic will give you many years of top performance and high-quality drinking water. Please read this manual thoroughly before installing and operating your Pure Water Ultima Classic.

Record Important Information

The serial number is found on the back panel. You should record all of the information below for future reference.

Date of Purchase: _____

Model: Pure Water Ultima Classic

Heating Element Wattage: _____

Storage Tank Size: _____

Serial Number: _____

Purchased from: _____

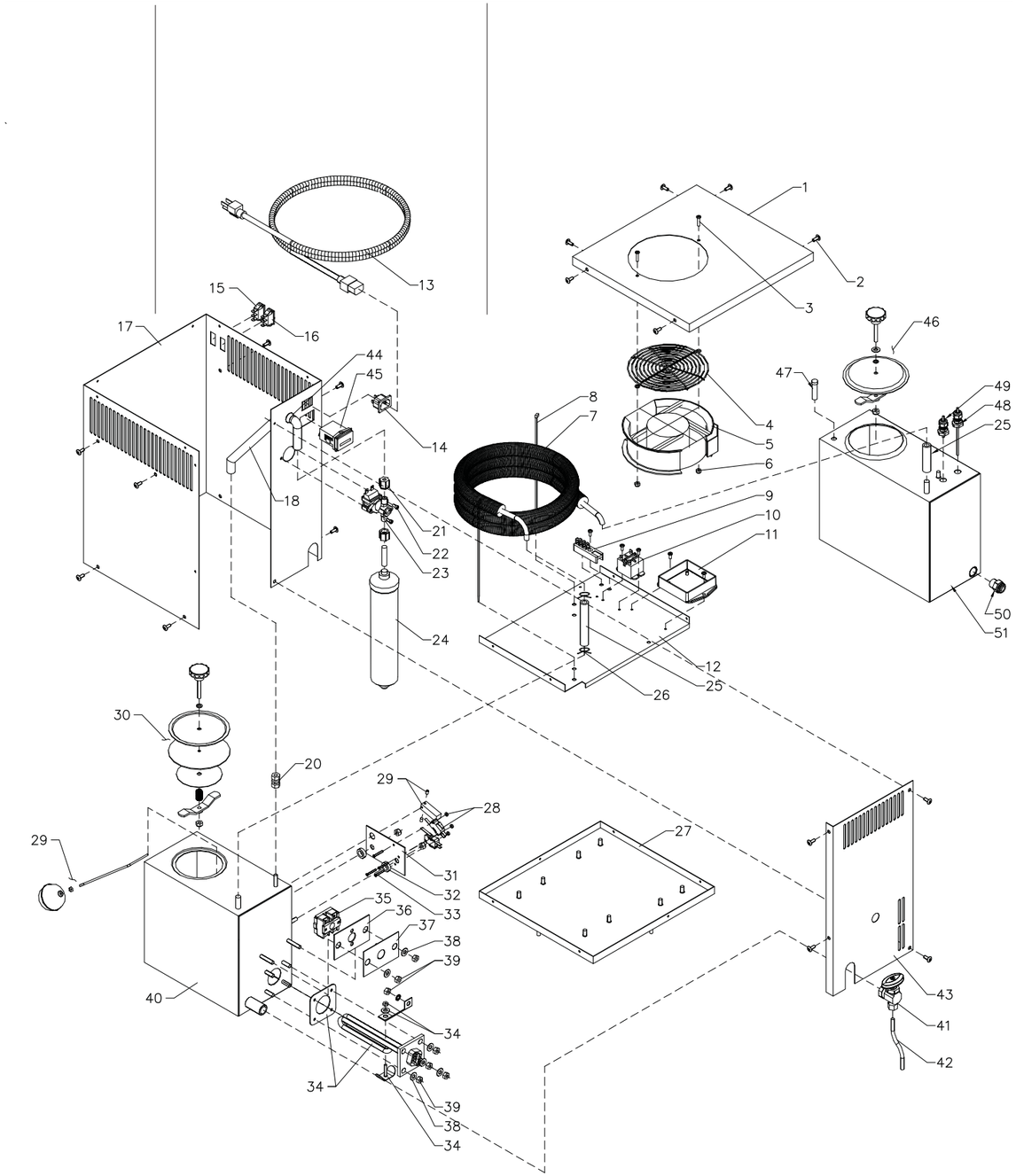
Included With Your Distiller

In addition to your Pure Water Ultima Classic distiller, your box contains:

- Saddle tapping valve (#9514)
- 25 feet of 1/4” food-grade tubing (#9526-25R)
- Carbon Pre-filter (#21061)
- Drain extension tube (#611)
- (4) Wing Nuts
- (2) 1/4” Elbows
- Owners Manual
- Warranty Card
- Power Cord*

* power cord may not be included in some 240V units.

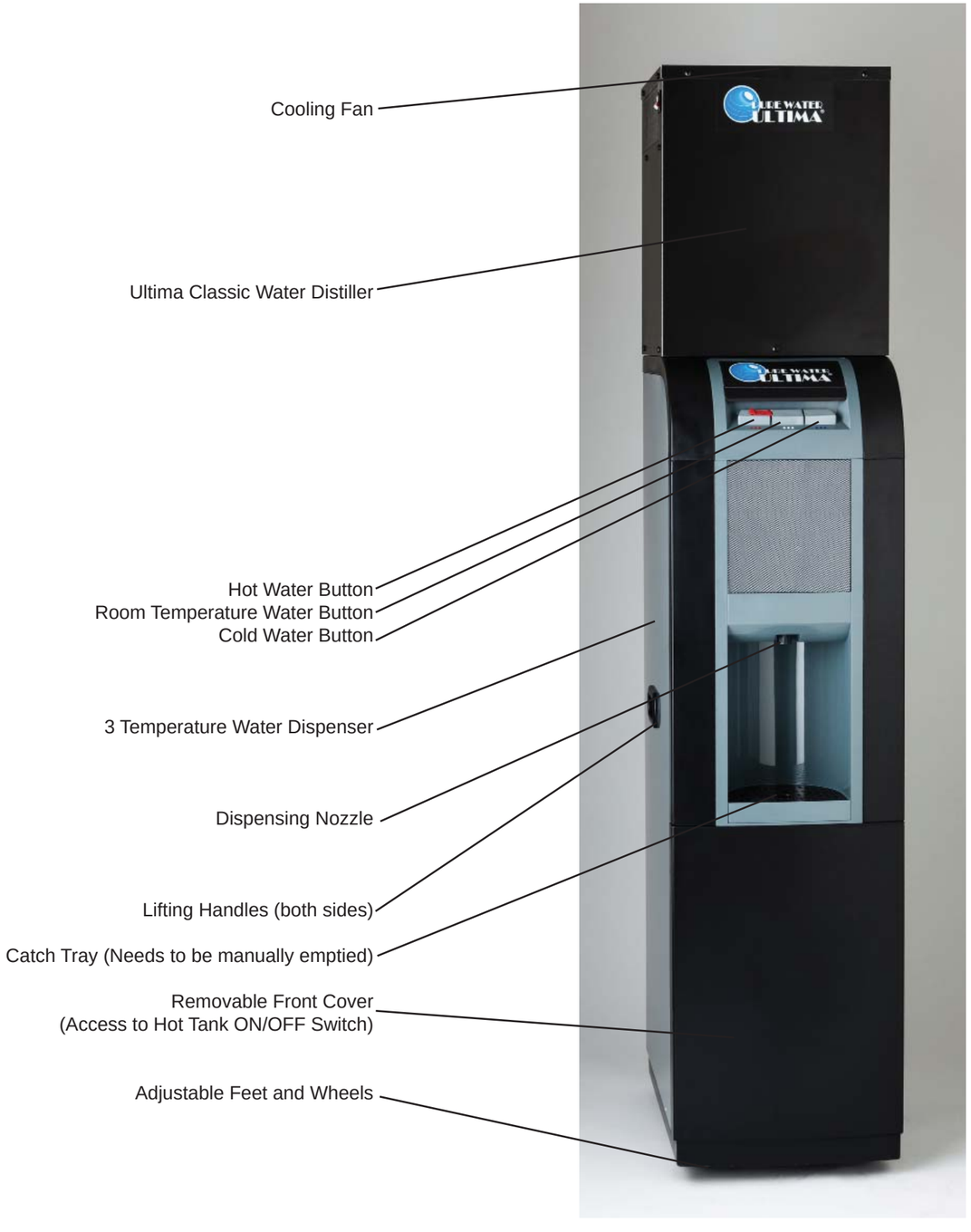
Ultima Classic Distiller Exploded Drawing



Ultima Classic Distiller Parts List

Item #	100V	120 V	240V	Description
1	21005B	21005B	21005B	PANEL, TOP, ULTIMA CLASSIC, BLACK
2	9029B	9029B	9029B	SCREW, #10-16 X 1/2", SHT.MTL.
3	9019	9019	9019	SCREW, #8-32 X 3/4",PHD, PLPS
4	9342	9342	9342	GUARD, FAN, 6", METAL
5	9344J	9344B	9344B	FAN, AXIAL, 170CFM, 110/220V
6	9003	9003	9003	NUT, #8-32, NYLOCK, HEX, S.S.
7	21020	21020	21020	COIL, CONDENSING, U2 AQUANUI
8	7246	7246	7246	TIE, CABLE, HIGH TEMP 14.7"BLK
9	9111	9111	9111	BLOCK, TERMINAL, 3 X 2 X 4
10	7206	7206	7206V	RELAY, POWER, SPDT, 120VAC 15A
11	9106	9106	9106	RELAY, LIQUID LEVEL CONTROL 120/240V
12	21503	21503	21503	TRAY, ELECTRICAL,120V ULTIMA CLASSIC, SS
13	7276	7276	7276	CORD, POWER, IEC, 15 AMP
14	7275	7275	7275	CONNECTOR, IEC FEMALE, SNAP-IN
15	7232	7232	7232	SWITCH, LIGHTED, RED,
16	7228	7228	7228	SWITCH, ON/OFF, W/O BEZAL, 15A
17	21006B	21006B	21006B	CLADDING, WRAPAROUND, ULTIMA CLASSIC
18	21059	21059	21059	TUBING, HIGH TEMPERATURE 1/4”
20	63419	63419	63419	UNION, BRASS, 1/4” COMP. (USE DELRIN SLEEVES)
21	9550	9550	9550	NUT, COMP, 1/4", PLASTIC
22	9019	9019	9019	SCREW, #8-32 X 3/4",PHD, PLPS
23	7197	7231	70106	VALVE, SOL, 1/4"COMP, N/C,120V
24	21061	21061	21061	FILTER, VOC, ULTIMA CLASSIC
25	9541	9541	9541	TUBING, 5/8" OD x 3/8" ID,
26	9921	9921	9921	CLAMP, HOSE, WIRE SPRING, 5/8"
27	21007A-02	21007A-02	21007A-02	PAN, BOTTOM, STUDDED, STAINLESS STEEL
28	654	654	654	MICROSWITCH KIT
29	21063	21063	21063	FLOAT AND ACTUATING ARM KIT
30	406	406	406	BOILING TANK LID KIT
34	633J	633	633V	1000 WATT HEATER KIT
34	738J	738	738V	1200 WATT HEATER KIT
34	764J	764	764V	1500 WATT HEATER KIT
35	7069	7069	7069	RESET, 66T, 220F(+8F/-0)
36	510	510	510	PLATE, RETAINER, RESET, PC
37	424A	424A	424A	ASSY., RESET RETAINER PLATE
38	9009	9009	9009	WASHER, 1/4" X 5/8"OD, FLAT
39	9045	9045	9045	NUT, 1/4-20, HEX, S.S.
40	21501-02	21501-02	21501-02	TANK, STUDDED, BOILING ULT 2
41	9508	9508	9508	VALVE, DRAIN, BRASS STEM, 1/2"
42	611	611	611	TUBE, DRAIN EXTENSION
43	21009B	21009B	21009B	PANEL, BACK, ULTIMA CLASSIC, BLACK
44	21041	21041	21041	GROMMET, 1/2" ID BLACK RUBBER
45	219-0227	219-0227	219-0227	METER, HOUR, 120V/240V
46	410A	410A	410A	LID, STORAGE TANK
47	8014	8014	8014	FILTER, AIR, 80 MICRON, HDPE
48	21025	21025	21025	PROBE, ASSY, MID, ULTIMA CLASSIC, 4.25"
49	21021	21021	21021	PROBE, ASSY, HIGH, ULTIMA CLASSIC, 1.8"
50	221-0308	221-0308	221-0308	CONN., SPEEDFIT, 1/4"T X 3/8"M
51	21502-02	21502-02	21502-02	TANK, STUDDED, INT STORAGE, 2 GALLON
*	21036	21036	21036	Carboard Box
*	21033	21033	21033	Packing Inserts (2 Needed)

Getting to Know Your Ultima Classic System (Front View)



Getting to Know Your Ultima Classic System (Rear View)

Power Cord Receptacle
Hour Meter
Boiling Tank Electrcial Connector
Condensing Coil
Raw Water Valve
Steam Tube
High Temperature Tubing
Raw Water Connection
Boiling Tank
Thermal Safety
Heating Element
Distilled Water Outlet
Dispenser Water Inlet
Manual Contaminant Drain
Dispenser Hot Tank
Dispenser Drain
Dispenser Hot Tank Drain
Power Cord

Hot Tank On/Off Switch
(behind removable lower panel
on the front of the dispenser.)

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The boiling tank fills to normal operating level, but the heating element will not heat or bring water to a boil.

- If the heater reset is not popped or the fan is running and the boiling tank is full of water, you may have a defective heating element.
- If water continues to fill the boiling tank after draining the tank, and the fan isn't operating either, then you may have a defective outside boiling tank microswitch. Check with a volt/ohm meter.
- Make sure the float is operating correctly and not stuck at bottom of tank.
- Check all wiring connections on the control relay. Inspect for any burnt or damaged wires on the relay. Check the relay with a volt/ohm meter.

6

The boiling tank overflows with water.

- If the float actuating arm is depressing the inside microswitch and the float rod is moving freely and floats accordingly with the water level, you may have a defective microswitch. Check with a volt/ohm meter.

  If the microswitch checks out ok, and the heating element and fan come on, then you need to replace the relay. Check with a volt/ohm meter.
- If the microswitch and relay check out ok, then you may have a defective solenoid. Turn the power switch to "OFF". If water continues to flow into the boiling tank, then you need to replace the solenoid.
- If the float ball is heavy and has scale build-up, clean the boiling tank and, if necessary, replace the float.
- If the float is not moving freely, you may need to install a new bushing and o-ring or float repair kit.
- If the float ball is full of water, replace the float ball.

7

Machine does not shut off when storage tank is full.

- Check that the Storage Tank 3 pin wire harness is properly connected.
- Connect the 3 storage tank probes together. If the unit does not shut down, then replace the level control circuit board.

8

The unit runs a short time and the heater reset pops.

Note: *If the reset is popped, use the eraser end of a pencil to reset it.*

- If the boiling tank water level is below the heating element, the float may be sticking and you may need to adjust the float or install a new bushing and o-ring or float repair kit.
- If the unit starts up after it is cooled, you may have a faulty reset.

Troubleshooting

1 The machine will not operate at all.

Note: *The water level in the storage tank must be below 3/4 full before the distiller will start.*

- Make sure the power cord is plugged into the wall outlet and inserted fully into the “Power Cord Plug” outlet. Make sure the outlet is working properly.
- Make sure the power switch is ON. *Note: The power switch has a light to indicate that power is on to the unit. If the switch is ON and the power switch light is not luminated, the ON/OFF switch may be defective and needs to be replaced.*
- If the power light is luminated, check to see if the heater reset on the back of the unit has popped. If it has, press the reset button with the eraser end of a pencil.
- Make sure the incoming water supply is turned on and is flowing into the boiling tank.
- Check all wiring connections on the control relay. Ensure you have voltage to the relay using a volt/ohm meter.

2 The boiling tank will not fill with water automatically.

Note: *Make sure the saddle tapping valve or utility hook-up valve is open to supply the feed water.*

Note: *The water level in the internal storage tank must be below 3/4 full before the distiller will start.*

- If the float ball inside the boiling tank is resting against the heat tab and is fully depressing the low level (top) microswitch, you probably need to replace the micro-switch. Check with a volt/ohm meter.
- If the microswitch checks out ok, and the heating element and fan come on, then you may need to replace the relay. Another indication of a bad relay is the heater reset will likely be popped.
- If the float inside the boiling tank is not moving freely, install a new float repair kit, with bushing and o-ring.

3 The unit boils the water, but the fan is not working.

- Make sure the fan switch is set to “ON”.
- The fan switch may be defective. Check with a volt-ohm meter.
- The fan motor may be defective. Check with a volt-ohm meter.

4 The fan will not operate or is making excessive noise.

- Make sure the fan switch is in the ON position. If so, then you may have a defective switch. Check with a volt/ohm meter.

How Your Distiller Works

The Pure Water Ultima Classic is designed to produce high purity distilled water. There are three production levels depending on the model that was ordered:

1000 Watt Boiling Tank..... approximately 8 gallons per day.

1200 Watt Boiling Tank..... approximately 10 gallons per day.

1500 Watt Boiling Tank ..... approximately 12 gallons per day.

The Pure Water Ultima Classic is a fully automatic unit. The water level in the boiling tank is controlled by a float and microswitches and the internal storage tank is controlled by level sensing probes.

The boiling tank operates on a modified batch approach. Feedwater is automatically added until a high level is reached and this triggers the heating element and fan to operate. This begins the distillation cycle.

As the unit distills, the water level in the boiling tank falls. When the water level gets close to the heating element, the low-level microswitch is triggered, causing feedwater to be added until the high level is reached. If, for some reason, no water enters the boiling tank when needed, the fan and heating element will turn off until the condition is corrected.

Once the storage tank is full of distilled water, the unit will automatically shut down. The Ultima Classic will begin distilling again once the water level in the storage tank drops by approximately 0.5 Gallons. It continues to operate until the storage tank is full again.

The distilled water from the internal stainless steel tank feeds by gravity into the stainless steel tanks in the water dispenser. The room/cold tank holds approximately 4 gallons and the hot tank holds an additional 0.75 gallons of water. The distilled drinking water is drawn through the faucets on the front of the dispenser.

The Ultima Classic is equipped with a Manual Drain Valve, which allows the residue from the boiling tank to be drained periodically.

Installation

Special Feature

The Ultima Classic is designed with a removable boiling chamber. It can be removed for cleaning or servicing.

Things to consider when installing your Pure Water Ultima Classic :

- Select an area that will allow the distiller to remain level. Improper leveling could affect the production rate.
- The distiller must be located in close proximity to a water supply and an appropriate electrical supply source. The distiller should also be located in a well ventilated room.
- Electrical requirements:

  8 Gallon per day model:Isolated 115 VAC, 15 amp circuit (220 VAC, 7.5 amp). Check the electrical rating on the label on the rear of the distiller.

  10 or 12 Gallon per day model:Isolated 115 VAC, 20 amp circuit (220 VAC, 10 amp). Check the electrical rating on the label on the rear of the distiller.

CAUTION: The Pure Water Ultima Classic is a heavy system. Please use caution when removing it from the carton to prevent injury. The cooler has 2 leveling feet in the front, and 2 wheels in the rear that can be used to move the unit.

Unpacking the Ultima Classic Distiller:

1. Open the box. Unpack the distiller and parts kits.

   Check that all of the parts are included.

   * International systems do not have a power cord included. Source the appropriate cord locally or through your local distributor.

8. If needed, use a wet/dry vacuum to remove any remaining debris from the tank.
9. Rinse the inside of the tank with fresh water.
10. Reinstall the boiling tank and turn the power ON.

Every 3 Months:
Change the Carbon Filter.

Changing the Pre-Filter

1. Turn the Power Switch to OFF.
2. Turn the water off at the wall valve.
3. Disconnect the filter from the tubing.
4. Connect the inlet tube to the inlet side of the new filter.
5. Hold filter over a bucket or drain.
6. Cycle water on and off several times until water fromt he outlet of the filter is clear.
7. Connect outlet of filter to tubing.
8. Turn water and power ON.

When Needed:
Sterilize the Storage Tank.

Tank Sterilizing-Sterilizing the Internal Distillate Tank

Steam Sterilization is a method of disinfecting your storage tank. The storage tank may need to be sterilized periodically.To sterilize the storage tank:

1. Allow the storage tank to completely drain.
2. Make sure the main power switch is ON.
3. Turn the fan switch to OFF. This will start a “Steam Sterilization” cycle. Steam will now be produced in the boiling tank. The steam will pass through the coil, but since the fan is turned off, the steam will not be cooled. The steam will heat up and sterilize the storage tank. Allow the distiller to run for 20 minutes.
4. Turn the fan switch to ON.

Maintenance and Cleaning

Overall Maintenance Requirements

The following guide should be used for the maintenance of your distiller. The timing will vary according to your local water conditions. It is your responsibility to maintain your equipment. Without proper maintenance, your distiller may not produce optimum results. The following is an average guide to maintenance:

Every 2 Weeks:
Drain the boiling tank.

Draining the Boiling Tank

The Ultima Classic has a manual drain valve that discards the contaminants and residue out of the boiling tank when opened. This minimizes the build-up of scale in the boiling tank.

Important Note: *If the unit is hot, turn the power OFF and allow it to cool before draining the boiling tank.*

1. Turn the Power Switch to OFF.
2. *Turn the valve on the back of the Ultima Classic and allow the residue to drain into a sink, drain or bucket.*
3. *Close the valve.*
4. *Turn the Power Switch to ON.*

Every 3 Months:
Clean the boiling tank.

Cleaning the Boiling Tank

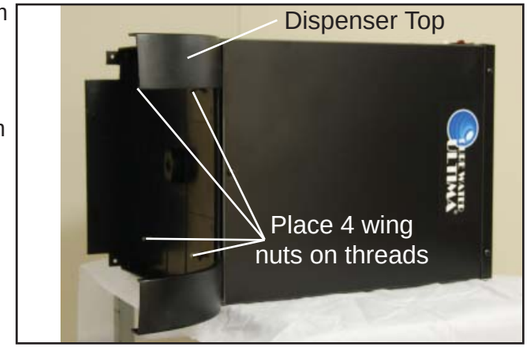
Notes and Cautions:

Caution: Under no circumstances should the cleaning solution be heated and run through a steam sterilization or distillation cycle.

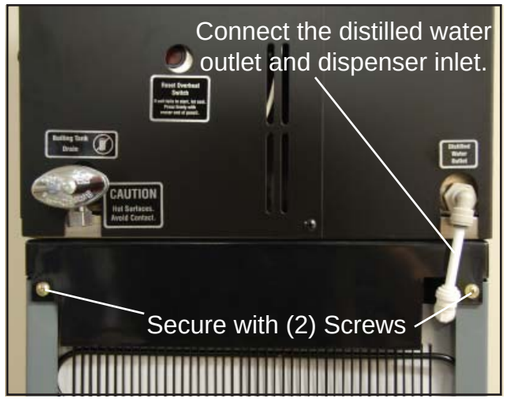
Note: *Failure to clean the boiling tank can result in scale build-up causing premature heating element failure, as well as possible reduced purity of the distilled water.*

1. Turn the Power Switch to OFF. If needed, allow the unit to cool.
2. Drain the boiling tank (see instructions above).
3. Remove the back panel of the distillation unit.
4. Disconnect the boiling tank wire harness, inlet tube, and steam tube. Remove the boiling tank.
5. Manually fill the boiling tank until the scale in the boiling tank is underwater.
6. Add 2 tablespoons of Lumen® descaler to the boiling tank. Allow to sit overnight.
7. Drain all of the water from the boiling tank.

2. Remove the top cover from the dispenser.
3. Attach the dispenser top cover to the distiller bottom pan. There are 4 studs on the bottom pan that go through holes in the dispenser top cover. Secure these with the wingnuts provided in the installation kit.



4. Put the 1/4” tube from the dispenser storage tank through the hole in the back of the top cover.
5. Place cover and distiller onto the dispenser and install the (2) screws at the back.
6. Install the elbow into the distiled water outlet on the distiller. Install the reducer into the elbow so that the 1/4” tube can be connected from the dispenser to the distilled water outlet.



7. Remove the back cover from the distiller. Disconnect the wire connectors and waterlines to the boiling tank.
8. Open the boiling tank and remove the wire tie holding the float down. This tie is placed on the float so that it does not bounce during shipping.
9. Reconnect the boiling tank and replace the back cover.

Note: The float ball in the boiling tank is tied down for shipping. The tie must be removed before the distiller is used.

Connecting the Raw Waterline:

CAUTION: DO NOT use a hot water line for your supply line.

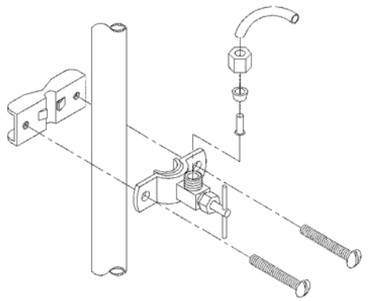
CAUTION: DO NOT turn the saddle tapping valve handle before or during installation. Be sure the piercing lance does not protrude beyond the rubber gasket. Failure to do this may result in damage to the piercing needle.

Note: The use of softened water is recommended to minimize scale build-up in the boiling tank and drain valve.

Note: The use of softened water for the raw water supply is recommended to minimize scale build-up in the boiling tank and drain valve.

Note: Do not plug the unit into the power source until instructed to do so.

Note: The Pure Water Ultima Classic comes standard with a saddle tapping valve. In some areas a saddle tapping valve may not be permitted by local code. In such instances, contact your authorized Pure Water Distributor, Pure Water, or go to www.MyPureWater.com for other water line connection options.



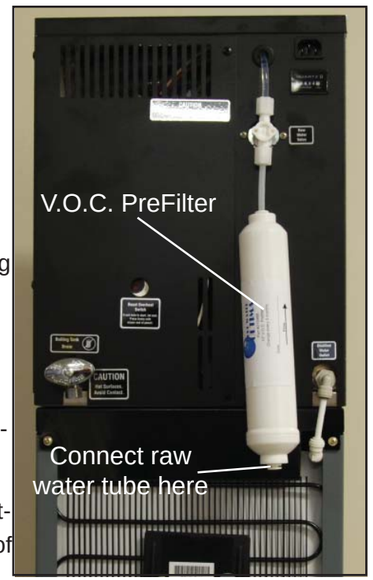
1. Install the saddle-tapping valve per the instructions on the bag.
2. Connect the 1/4” tubing to the saddle tapping valve.
3. Connect the 1/4” tubing to the inlet of the carbon filter.
4. Rinse the carbon filter:

   a. Hold the outlet end of the carbon filter over a drain or bucket.

   b. Turn the water on at the saddle-tapping valve.

   c. Cycle the water on and off until the water exiting the carbon filter is clear.

   d. Turn the water supply off at the saddle-tapping vallve.



Note: The distiller will use very little water thoughout the day. Only open the water supply valve a small amount.

5. Install 1/4” tubing from the carbon filter outlet to the solenoid valve inlet on the back of the distiller.
6. Turn the water supply on at the saddle-tapping valve.

Start-Up

Notes and Cautions:

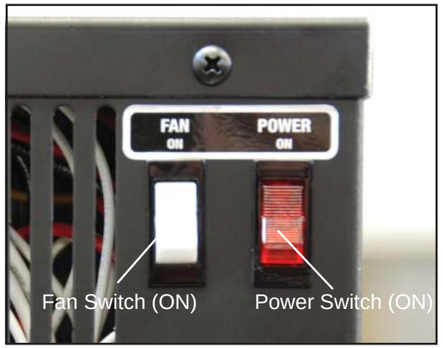
Note: *This system must be fully grounded at all times. The electrical receptacle you use must be a fully grounded. If a two-pronged wall receptacle is encountered, it is the personal responsibility and obligation of the customer to contact a qualified electrician and have it replaced with a properly grounded three-pronged wall receptacle or have a grounding adaptor properly grounded.*

CAUTION: Do not, under any circumstances, cut or remove the round grounding prong from the electrical plug.

Your unit now has:

- A raw waterline connected and turned on.
- A carbon prefilter installed
- The distiller is connected to the top of the dispenser.
- The distilled water line is connected to the dispenser storage tank.

1. Plug the distiller power cord into the distiller and then into the wall. Turn the main power switch to ON.



2. Turn the fan switch to OFF. This will start a “Steam Sterilization” cycle. Steam will now be produced in the boiling tank. The steam will pass through the coil, but since the fan is turned off, the steam will not be cooled. The steam will heat up and sterilize the internal storage tank. Allow the distiller to run for 20 minutes.
3. Turn the fan switch to ON.
4. Allow the unit to fill the internal storage tank and the dispenser storage tanks and shut off.
8. Check for leaks.

The unit will now run automatically based on the water level in the internal storage tank.