

## Atmospheric Water Generator

Pure Water or Mineral Water from the Humidity in the Air!



**Operation Manual** 



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**NOTICE**: The EcoloBlue Life & Energy Atmospheric Water Generator Model 28 is intended for **residential or small office (15 or fewer users) use only**. Any other use will void the manufacturer's warranty.



## INTRODUCTION

Thank you for purchasing the EcoloBlue Atmospheric Water Generator. This Atmospheric Water Generator is a state-of-the-art water generating machine using the latest technology available to the industry. We designed your Atmospheric Water Generator with one objective in mind: produce the maximum amount of high quality drinking water using only a minimum amount of electricity. In addition to atmospheric water production, the machine can also be used as a conventional water purifier by connecting it to an external municipal (city) water source.

## SAFETY

		No contained on with the second of the secon
	4	Never tamper with, damage or remove the grounding/earthing terminal on the power cord plug.
	4	The duplex outlet to which the Water Generator is connected should be equipped with reliable grounding (earthing) protection.
	0	Do not use an extension cord, extension adaptor, or grounding adapter with the Water Generator.
	0	Do not use the Water Generator if it's electrical plug or power cable have been damaged. Assure there are no knots in the power cord.
WARNING!	4	Always unplug the power cord before performing <b>any</b> maintenance on your unit.
	0	Do not connect the Water Generator to a circuit operating other high power consuming appliances, such as a toaster, hot plate or refrigerator.
	0	Do not insert or unplug the power cord with wet hands or while in contact with another grounded device, appliance, or radiator.
	4	Operating voltage must not drop below 10% of standard Power supply. When the unit operates below this level, the unit becomes noisy and may overheat. If this occurs, immediately switch the unit off until the voltage returns to normal.
	4	If there is any damage to the power cables (crushing or abrasion), the cables must be repaired or replaced by an authorized person before use is continued.
	0	Always protect the unit from contact with poisonous gas, vapors or liquids.
	0	When moving the machine, unplug the power cord and empty all water from the machine's tanks.
WARNING!	0	Avoid prolonged direct eye exposure to the ultraviolet (UV) devices in this machine, as UV light can damage the eye. Do not look at the bulb.
		Keep small children away from the Water Generator. Children playing with the HOT dispensing knob can result in scalding injuries!



WARNING!		
	0	Do not tilt or tip the machine more than 20° from (vertical) plumb when moving the machine.
	0	Operate the unit only when it is on a solid floor and properly leveled in the vertical or standing position.
	0	If installed on an uneven surface, a shim, fixer or other leveling device(s) must be used and be properly adjusted to ensure proper and safe operation.
<b>A</b>		Do not place the unit too close to the wall. Best performance is obtained when the unit is placed at least 12 inches (30 cm) from the wall.
CAUTION		Do not place any object on top of the machine. Good ventilation is required to ensure optimum performance.
<i>5</i> 76116111	0	Never install or attempt to use the Water Generator outdoors, even if an awning or covered space is available. This model of Water Generator is not designed for or warranted for operation outdoors, regardless of whether it will be fitted by the owner with a cover.
	0	Avoid exposing the unit to direct sunlight.
	0	If the ambient temperature of the installation location is anticipated to fall below 32°F (0°C), be certain to completely drain all water and un-plug the machine in order to prevent damage to the machine caused by freezing. Similarly, empty and unplug the Water Generator if it will not be used for 5 (FIVE) or more consecutive days.
	0	Always use the correct replacement and maintenance parts specified by the manufacturer. Failure to do so may void the warranty.
	0	Do not use any other water supply lines, tubing or hoses other than those supplied by the manufacturer.

## WARRANTY

#### Disclaimer of Implied Warranties; Limitation of Remedies

Implied warranties, including, to the extent applicable, warranties of merchantability or fitness for a particular purpose, are excluded to the extent legally permissible under the laws of the user's jurisdiction. Any implied warranties that may be imposed by law are limited to one year, or the shortest period allowed by law. Some states and Canadian provinces do not allow limitations or exclusions on the duration of an implied warranty of merchantability or fitness. In such locations, the above limitations or exclusions may not apply to you.

If this product fails to perform as warranted, customers' sole and exclusive remedy shall be repair or replacement, according to the terms of the limited warranty of EcoloBlue, Inc. EcoloBlue, Inc. does not assume any responsibility or liability for incidental or consequential damages arising or resulting from the use of the EcoloBlue Life & Energy Atmospheric Water Generator, Model 28. This warranty gives you specific legal rights; you may also have other rights, which vary from state to state or province to province.



## **MODEL 28 GENERATOR DESCRIPTION**

### **How the Atmospheric Water Generator Works**

The Atmospheric Water Generator is a humidity and temperature-driven machine. This means the machine's ability to generate water depends entirely on the level of humidity and atmospheric temperature. To achieve optimum performance, the indicated relative humidity should be at least 50% or more. In regions with lower humidity levels, the machine will produce water at a slower rate and with less volume than that of a higher humidity environment. In a residential environment, higher levels of humidity tend to be found in kitchen areas, near bathrooms used for bathing, near open windows (in warmer weather), or in more spacious rooms.

This unit also performs well in an air-conditioned room or house. Because air-conditioning reduces relative humidity, it is recommended to open the window at night to increase the humidity in the room. Because the Atmospheric Water Generator works by converting humidity in the air to water, this unit also acts as an effective dehumidifier. To ensure high quality of the drinking water produced, the Atmospheric Water Generator utilizes multiple filtration technologies (see below). When the air is dry and cold, water generation may become slow and inefficient. It is recommended that the machine be connected to a municipal water supply allowing the machine to serve as a water purifier using its filtration system.

## **Key features of the Atmospheric Water Generator**

**Energy Saving Features** To conserve electricity, electronic sensors have been placed in the storage tanks to automatically stop the heating, cooling and production capacity of the machine when they have reached their desired levels or settings.

**Child-Resistant Hot Water Lock out** The hot water lockout is to prevent accidental operation which may result in scalding/burning upon touching the water or water nozzle.

**Ultraviolet Filter treatment** The ultraviolet lamps help to sanitize and prevent growth of bacteria and other microorganisms in the system. The UV sanitization process is automatically controlled by the microprocessor.

**Multi-Stage Filtration System Ecoloblue**'s high-quality, great tasting water is the result of our unique multi-stage filtration system.

- 1. **LF2 Carbon Filter or Nanometer Molecular Sieve -** Removes ammonia, chlorine residues, organic compounds, soil particles, dirt, etc.
- 2. **Lower tank UV Lamp -** Impedes contamination and growth of bacteria and other microrganisms in the lower storage tank.
- 3. **Sediment filter -** Removes micro-particles to protect the water pump.
- 4. **Pre-Carbon Filter I -** Removes organic compounds, free chlorine, heavy metals, etc.
- 5. **Pre-Carbon Filter II -** Removes organic compounds, free chlorine, heavy metals, etc.
- 6. **Reverse Osmosis Membrane -** Removes dangerous bacteria, viruses, mineral salts, heavy metals, organic compounds, etc.
- 7. Post-Carbon Filter Removes volatile organic compounds and improves water



taste and smell.

- 8. **Top Tank UV Sanitizing -** Minimizes bacteria levels in the upper "allotment" tank to the least possible number.
- 9. Water Output UV Sanitizing Ensures clean and safe water is dispensed from the cool water tank.
- 10. **Bottom Tank UV Sterilization** Minimize bacteria level in bottom tank to the least amount.
- 11. **Molecular Sieve Faucet Filters -** The nozzle is equipped with three molecular sieves (screens) to trap any fine particles that may be suspended in the water.

#### Water Recirculation or "Reflux"

Our patented reflux technology ensures that stored water does not sit for long in any one tank. This helps the water remain fresh, clean and impedes secondary pollution during storage.

### Novel and Attractive Cabinet Style

The **Ecoloblue Atmospheric Water Generator** has a smaller and sleeker design compared to other Generators on the market. The unit is more compact and more versatile.

### **Components of the Atmospheric Water Generator**

Refer to Figures 1 and 2 for more information.

### Microcomputer

The unit is equipped with a microcomputer that helps control the systemic operation of internal parts and mechanisms. The computer regulates water temperature and water level settings.

#### Electronic Sensors

Electronic feedback and control sensors are attached to many of the machines components and storage tanks. These sensors ensure that important parts are working properly, that water levels are correct and serve to warn you in the event of a malfunction, leak or performance irregularity.

#### Venturi Fan

The newly designed Venturi-type fan increases production efficiency and greatly reduces noise during operation.

#### Water Leakage Detector

In case of any unexpected water leakage, the machine will automatically stop operating and shutdown. A warning sound (three beeps) will occur and a "warning" sign will flash on the display.

#### Condensing coils

The condenser is designed with a special food-contact grade coating to prevent any direct metal contact with the water and to improve water production efficiency.



#### Electrostatic Air Filter

The electrostatic air filter effectively prevents micro-particles and dust from entering the machine, as well as deterring formation of slime and fungal growth introduced to the machines by the outside environment

#### **Overheat Protector**

In case the hot water tank overheats during the heating process, the overheat protector will automatically shut off the heating device.

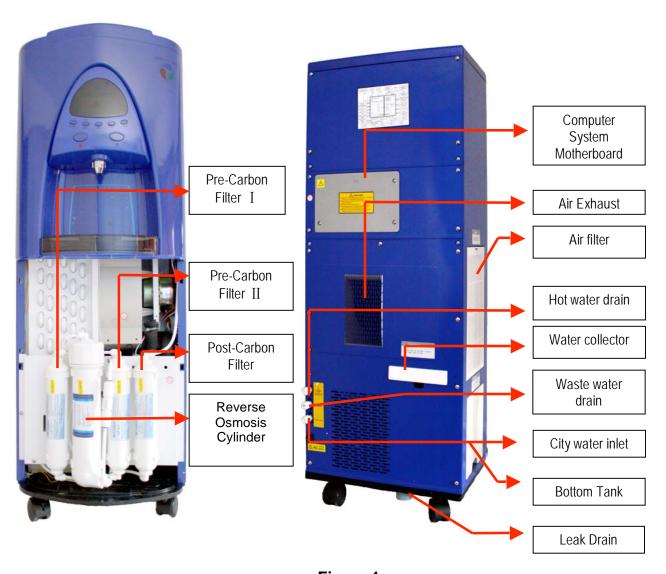


Figure 1



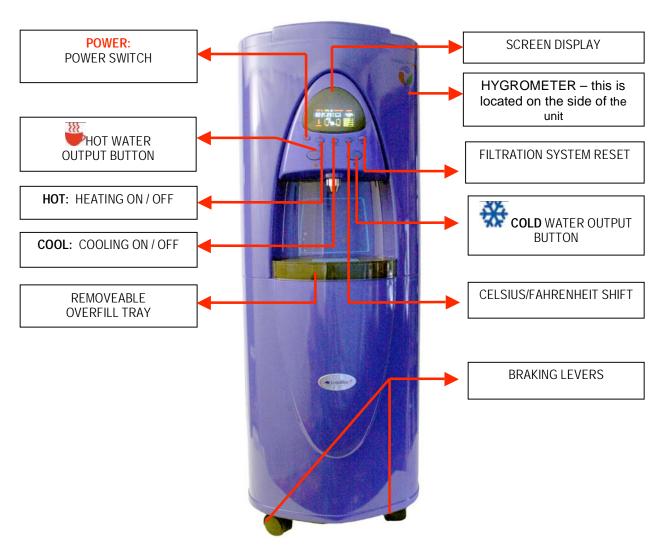
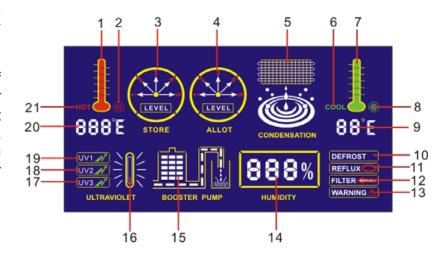


Figure 2



## Display Description – Dark Model Display

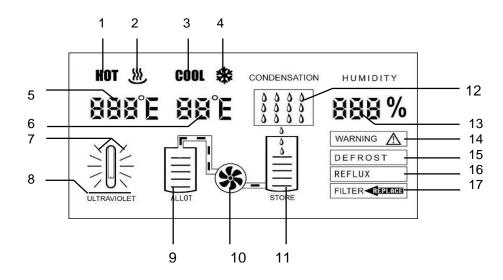
The Model 28 comes with one of two displays: Blue or Light. For both displays, an icon lit (not flashing) generally indicates a normal status. An icon flashing generally requires a user response, but not always.



- 1 Heating Level Indication Icon indicating temperature level in the hot water tank. The higher the level, the closer to the preset temperature.
- 2 Heating Icon Heating function is activated when the icon is lit. A flashing icon indicates a change in temperature is occurring.
- Water Level Indication Bottom Tank The higher level is displayed, the more water in contains.
- Water Level Indication Top Tank The higher level is displayed, the more water in contains.
- Water Generating Icon The unit is generating water when this icon flashes
- 6 Cool Water Icon
- 7 Chilling Level Indication The icon indicating cooling level in the top tank, the higher the level, the closer to the preset temperature.
- **8** Cooling Icon Cooling function is activated when the icon is lit. A flashing icon indicates a changing temperature.
- 9 Cool Water Temperature Press C/F key to switch water temperature display between Celsius and Fahrenheit.
- Defrost Icon The unit is in the defrosting process when this icon flashes (frost can occur because of low temperature and or dry air in some areas).

- 11 Water Recirculation/Reflux Icon Water cycling between top or bottom tank is occurring when this icon flashes.
- **12 Filter Replace Warning** Normally the icon stays lit. When it flashes, the filters needs to be replaced.
- Water leakage Warning Icon System is detecting of water leakage when this icon flashes.
- **Humidity Indication** Display the current relative humidity. Hold down "COOL" button to check the current temperature on condenser.
- **Booster Pump Icon** The pump is working when this icon flashes.
- **16 UV Warning Icon** This icon will flash when one of the UV is on fault.
- 17 UV Warning Icon This icon will flash when the bottom tank UV fails to operate.
- **18 UV Warning Icon** This icon will flash when the inline UV fails to operate.
- **19 UV Warning Icon** This icon will flash when the top tank UV fails to operate.
- 20 Hot Water Temperature Press C/F key to switch water temperature display between Centigrade and Fahrenheit.
- 21 Hot Water Lock When flashes, hot water valve is unlocked.

## Display Description – Light Model Display



- **1. Hot Water Indicator** When hot water lock is disarmed, this icon will flash.
- **2. Heating Icon -** Heating function is started when the icon stays on; the unit is in heating process when the icon flashes.
- 3. Cool Water Indicator
- **4. Cooling Icon** Cooling function is started when the icon stays on; the unit is in cooling process when the icon flashes.
- **5. Hot Water Temperature -** Press C/F key on the panel to switch water temperature display between Centigrade and Fahrenheit.
- **6. Cool Water Temperature** Displays water temperature. Press C/F key on the panel to switch hot water temperature display between Celsius and Fahrenheit.
- **7. Top "Allotment" Tank UV Lamp Icon -** The UV is operating when the icon stays on. (If it blinks, UV is not functioning properly).\
- **8. Water Output UV Lamp Icon -** The UV is working well when the icon stays on. If it blinks, UV is not functioning properly.
- **9. Water Level Indicator for Top Tank -** The higher the level displays, the more water the tank contains.

- **10. Booster Pump Icon -** The pump is operating when the icon rotates.
- **11. Water Level Indicator of Bottom Tank-** A higher level on the display corresponds to more water in the Bottom Tank.
- **12. Water Generating Icon -** The unit is generating water when the icon flashes.
- **13. Humidity -** Displays the current relative humidity level.
- **14. Warning Icon -** Operation is normal when the icon remains on; the icon will flash when water leakage is detected.
- **15. Defrost Icon -** The unit is in defrost mode when the icon flashes (Frost develops because of low ambient temperature or very dry air in some areas).
- **16. Water Recirculation/Reflux Icon -**Water recycling is on when the icon flashes.
- 17. Filter Icon Conditions are normal when the icon is lit. When it flashes, the filter may need to be cleaned or replaced.

  Please refer to the sections on CLEANING or PART REPLACEMENT for details.



## SET-UP

Setting up the Atmospheric Water Generator involves proper **Preparation and Location**, **RO Filter Installation**, **Cleaning**, and **Flushing the System** before it is ready for use. Setup usually requires about a day to complete, most of which involves allowing the unit to generate water.

### **Preparation and Location**

Do not tilt the unit more than 20°; if it is tipped greater than 20°, unit must stand undisturbed for **24 hours BEFORE** it is **operated**.

Move unit with a **wheeled hand cart** where possible. If manual lifting is required, use two people.

Place the unit on solid and level flooring and located it with adequate air circulation on all sides.



**CAUTION!** 

The unit should be placed no less than 12 inches (30cm) from the wall.

**Do NOT** connect the unit to the power source within the **first half hour after set-up**. Leave the machine in a standing position to make sure all refrigerant drains to the compressor. Immediately connecting the machine to its power source after un-packing **may damage the compressor and void its warranty**.

The power cord plug must be inserted into an electrical outlet rated to deliver no less than 10 Amperes continuous. Check the panel box breaker rating for the outlet serving the unit. Consult a licensed electrician if you are not certain.

- 1. Carefully unpack the Model 28 from the packaging. Note that there are important parts in the bottom foam packaging under the machine.
- 2. Confirm that the parts provided in the package constitute a complete set by comparing them with the Components shown in **Figures 1 and 2** and pages 34. If any parts are missing contact EcoloBlue or your local distributor.
- 3. Place the machine in the desired location noting the **A CAUTIONS** above.
- Verify that the brake levers on the front wheels have been pushed down and locked after the machine is in its desired location.
- 5. Allow the machine to stand undisturbed for no less than 30 minutes after last movement (if not tipped; if tipped let stand 24 hours).

#### **Reverse Osmosis Filter Installation**



Always wash your hands thoroughly **and wear latex or other hygienic gloves** when performing maintenance on the machine to minimize the risk of contamination of internal parts.

#### Install the Reverse Osmosis Filter (found in the foam packaging) in the following steps:

- **STEP 1-** Remove the bottom front panel of the machine by carefully pulling the front panel by the sides and sliding it out. (**Figure 3**).
- STEP 2- Locate the RO Cylinder (the biggest one Figure 4).



- **STEP 4 -** Disconnect the top water tube from the RO Cylinder by pushing the small ring around the water tube, adjacent to the elbow while at the same time pulling the tube away from the fitting.
- STEP 5 Forcing the tube without pushing the ring can cause damage or leaks. (Figure 5).
- STEP 6 Remove RO cover by twisting counterclockwise and lifting (Figure 6).
- **STEP 7 -** Remove the RO filter from the packaging. (Figure 7).
- **STEP 8 - Install the RO Filter in the proper orientation** as shown in **Figure 8.** Push the RO filter firmly until it is set in place. **Note:** The filter will not work properly if installed upside down.
- STEP 9 Push the membrane down into the open end (Figure 9). Screw the cap tightly back on the RO Cylinder.
- **STEP 10 Insert** the water tubing back into the elbow and tug on it tightly to verify it is secure (**Figure 10**).

#### Replace the front panel.

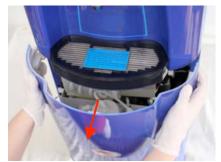


Figure 3



Figure 4



Figure 5



Figure 6



Figure 7



Figure 8



Figure 9

Figure 10





## **Cleaning**

To clean the bottom storage tank, see detailed instructions in cleaning the bottom tank on page 23.

### Flushing the System

- 1. Plug in the machine and turn the power **On** by pressing the switch on the front of the machine.
- 2. Fill the bottom tank with no more than two liters at a time of municipal water. Allow the pump to switch on until and pump the two liters to the top water tank. Once the pump switches off, repeat this step until the level displayed on the screen indicates three levels. Overfilling the bottom tank will result in a leak triggering the leak detector
- 3. Drain out one liter (0.25 gal) of water from the Cool tank by pressing the statement by button
- 4. Drain out one liter (0.25 gal) of water from the Hot tank by pressing the button
- 5. Turn the power Off.
- 6. Drain out all remaining water from the rear HOT Water Drain outlet.
- 7. Turn the power **On** and allow the unit to generate water until the top tank has filled. This may take up to or more than **72 hours**.
- 8. When the top tank has filled with generated water, please **flush the system** by releasing approximately equal amounts of water from the Hot and Cool outlets.
- 9. Turn the power **Off**.
- 10. Drain out all remaining water from the rear HOT Water Drain outlet.
- 11. Plug in the machine and turn the power **On**.
- 12. The unit is ready for use to generate drinkable water.

### **Optional Connection to Municipal (City) Water**

The Atmospheric Water Generator will purify municipal (city) water if it is connect to the city water source. Connect the city water to the Connector as shown in Figure 11, 12 and described below. Some parts are optional. Please contact your local distributor for purchase. Use the enclosed water pipe kits to connect with city water input.

- 1. Shut off the city water supply.
- 2. Remove the included Water Tap adaptor. If no threaded tap source is available contact your local plumber for assistance. Clean the threaded end to remove any debris.
  - Thread the Tee Connector to the city water supply. Place the enclosed pipe tape on the threads before making the connection. Secure with the enclosed wrench
- 3. **Connect the tap to the Tee Connector** and water supply line. Place pipe tape on the threads before making the connection. If no tap is needed, use the enclosed threaded plug and pipe tape to plug the supply at the end of the Tee Connector. Secure with the enclosed wrench.
- 4. Place thread tape on the threads of the machine's **Input Valve** and then connect the valve to threaded Tee Connector. Secure with the enclosed wrench.
- 5. **Remove the nut** from the Input Valve. There is a clear rubber cork inside the valve seat that must be removed before joining the tube to the machine. Slide the nut over the water tube so that the threads face the end of the tube.
- 6. **Insert the plastic sleeve** into the end of the water tube.
- 7. Place pipe tape on the threads of the Input Valve.
- 8. Place the water tube and sleeve on the Input Valve and secure the Input Valve nut using the enclosed wrench.
- 9. Cut the water tube to the length needed for your application.
- 10. Connect the water tube to the optional filter(s) as needed.
- 11. At the cut end of the tube, slide the plastic connector over the end of the water tube with the threads facing the end of the tube.
- 12. Insert the plastic sleeve into the end of the water tube.
- 13. Connect the water tube to the Model 28 connection labeled City water input. Secure hand tight.
- 14. Turn **On** the water supply and check for leaks. Tighten fittings as necessary.



The Atmospheric Water Generator will purify municipal (city) water if it is connected to a city water source. Connect the city water to the Connector as shown in Figure 11, 12 and described below. Some parts are optional. Please contact your local distributor for purchase. Use the enclosed water pipe kits to connect with city water input.

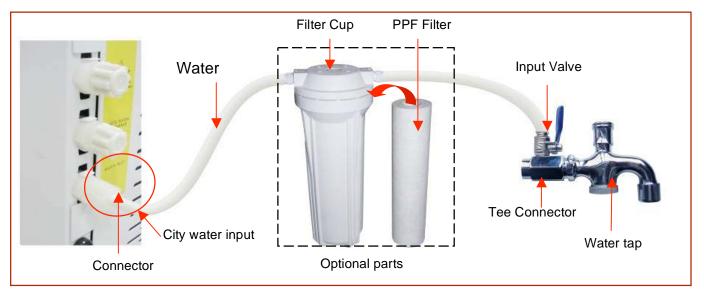
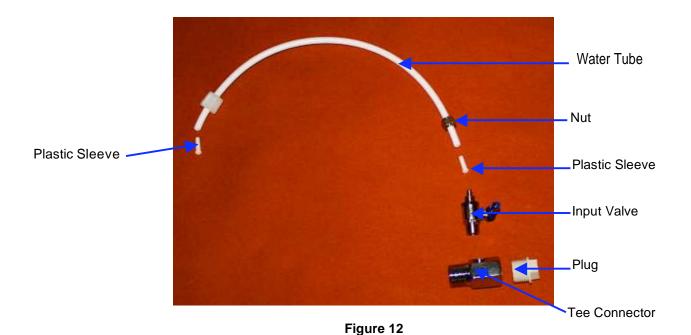


Figure 11





## INSTALLATION CHECKLIST

Unpack the unit from its packaging
Confirm all the parts are there (Refer to Figures 1 and 2)
Place the unit in desired location
Lock brake levers
Install Reverse Osmosis Filter
Clean the bottom storage tank
Flush the system
Connect to Municipal (City) Water (optional)

## **OPERATION**

## **Turning Generator On/Off**



Turn the Generator On by pressing the Power switch on the front of the machine panel. See **Figure 13**. Press the switch again to shut the power Off.

When the unit starts to operate, you should be able to hear one long beep; the light on the display should also be lit. The compressor will begin running within two minutes, and you will see the corresponding light on the display illuminated.

To conserve energy, your machine has been fitted with an electronic sensor which automatically switches the machine's compressor off when the storage tank is full.



## **Dispensing water**

Press the \*\* button to dispense cool water. To dispense hot water, press and hold the

**LOCK button** until the HOT indicator blinks and it beeps; then press the button to dispense the desired hot water.



#### **WARNING!**

Keep small children away from the Generator.

Children playing with the HOT dispensing knob can result in scalding injuries!

**NOTE:** Do not be alarmed when you do not obtain hot or cold water during the first few days of operation. Only when the water level in the machine reaches a proper level (two bars on the allotment tank icon) will the heating/cooling mechanism be triggered. (Generally, the first heating/cooling will start within 24-72 hours during the first operation, depending on local temperature and humidity conditions.)

**NOTE:** When the air is dry or during cold weather, water generation will be slow. At such times, external connection to municipal (city) water will make the machine serve as a water purifier by utilization of the filtration and sanitizing system. When power is switched On, the machine will automatically return to its normal water generating operating mode.

### **Heating and Cooling water**

Both heating and cooling can be turned on together. When the machine is in heating and cooling process, hot and cold water temperature will remain in the preset range automatically.

When there is enough water in your machine, you can press the "HOT" key on the panel to switch On or Off the heating process. The red "" indicator will be lit when heating is switched On. It will turn Off when the machine is not in the heating mode. The heating mechanism will be triggered On and the red "" indicator will blink when water level reaches a preset level. It will turn Off automatically when the water is hot enough. When heating is operating, press the "HOT" button to switch the heating process Off.

When the upper allotment tank icon indicates two storage bars, the machine's water heating and cooling functions, press the key on the panel to switch the cooling process On or Off. The "indicator light will be lit when cooling is switched on. It will turn off when the machine is not in the cooling process. The cooling mechanism will be switched on and the "indicator will blink until the water temperature reaches your preset level. During the cooling stage, press the "COOL" button to switch the cooling process off.

## **Changing Settings**

Press the C/F button to switch the temperature display between Celsius and Fahrenheit.

Press and hold the C/F button to have the Hot water temperature display the current setting. Then press the "HOT" or "COOL" button to adjust the setting. Press "HOT" to raise the temperature setting; press "COOL" to lower the temperature set point. Hot water adjustment range is 75C (167F) ~93C (199F).



To adjust the cool water temperature setting, press C/F again to have the Cool water temperature display indicate the current setting. Then press the **HOT** or **COOL** button to adjust the temperature set point. Press "**HOT**" to raise the setting value; press "**COOL**" to lower the value. Cool water adjustment range is: 4C (39F) ~15C (59F).

## **Defrosting**

The system will enter defrosting mode and the **DEFROST** indicator on the screen will blink when the ambient environmental temperature is too low. If it is required to check the current defrosting temperature, keep pressing **COOL** to show defrost temperature F## at the position of humidity level on the screen.

## **MAINTENANCE**

#### **General Maintenance**

Always wash your hands thoroughly **and wear latex or other hygienic gloves** when performing maintenance on the machine to minimize the risk of contamination of internal parts.



Always keep the unit clean. Wipe the outer casing with soft, **damp, but not wet, microfiber** or similar cloth. Use water to clean; avoid using any harsh or abrasive cleaning agent.

Do not use any soaps, detergents, or other cleaning agents to clean the storage tanks.

#### **CAUTION!**

Clean the air filters regularly to ensure proper air flow.

Disconnect the electrical plug from the outlet first before draining water from the back outlets

- 1. When it is time for filter replacement, REPLACE on the display will blink to remind user to clean or change filters. (Please refer to Table 1 Filter Replacement for details). When cleaning or replacement is performed, press RESET until the REPLACE indicator stops blinking. Press RESET again to turn off REPLACE indicator and to reset the replacement warning time to work properly with the new filter.
- Always drain out water remaining in the tanks before any period of long inactivity or dis-use of the unit, regardless of the ambient room temperature.
- 3. To assure reliable operation of the Generator, it is recommended that you dispense at least 3 liters (.75 gal) of water every day.
- 4. If hot water is not dispensed for a prolonged period, it is recommended to turn on the heating process for **not less than 30 minutes** once a week. Keep **pressing the HOT button to unlock**, and press "" to release 500 ml of hot water from the faucet.
- 5. If the machine has not been used to dispense water for between 2 to 5 days, please drain 500ml of cool water before dispensing for drinking use. If the machine is to be inactive for more than 5 days into the future, it is recommended that you drain the water from all tanks and switch off the machine in anticipation of the period of non-use. To re-activate, please run the system sufficiently to produce about 5 liters of water, and then drain that water from the back drain outlets.
- 6. If the machine was not in use for more than 7 days or it has been in continuous operation for 4 months, it is time to run a sanitizing cycle. Please follow the steps



in SANITIZING to sanitize the system.

### **Parts Replacement**



#### **WARNING!**

Electrical hazard.

Always unplug the power cord before performing any maintenance on your unit.

Replacing filters regularly will ensure that your unit will always produce the cleanest and purest possible drinking water. The recommended timing for parts replacement may vary according to different water consumption levels. The time periods recommended below are based on 10 liters (2.6 gal) consumed on a daily basis:

**Table 1 Filter Replacement Schedule** 

Part	Recommended Replacement	Required Replacement
LF2 Carbon Filter or Nanometer Molecular Sieve	3-6 months	12 months
2. Pre-Carbon Filter I	6 months	12 months
3. Pre-Carbon Filter II	6 months	12 months
4. Reverse Osmosis Membrane	24 months	24 months
5. Post-Carbon Filter	6 months	12 months
6. UV bulb	12 months or upon UV fault warning	24 months

Higher water usage rates will require filter replacement sooner than listed above. Lower water usage rates require less frequent filter replacement. **Local air and water quality will also impact the filter replacement schedule**. Parts should be replaced at least as often as the required replacement listed above.

## A. To replace a filter:

We strongly recommend replacing filters one by one in order to avoid mixing parts.

- 1. Switch the power **Off** and **unplug** machine **(Figure 13 page 15).**
- 2. Using both hands, remove front panel from the bottom (Figure 14).
- 3. Replace carbon filter. Disconnect the water tube from the filter at both ends by pushing the small ring around the water tube, and pulling the tube out. Forcing the tube without pushing the ring can cause damage or leaks. (Figure 15 and 16).
- 4. Replace the reverse osmosis (RO) membrane (Figures 18 through 20).
  - a. Disconnect the tubing by **pushing the small ring around the water tube**, and pulling the tube out.
  - b. Remove the cartridge cover by turning counterclockwise, then lifting,
  - c. Remove the membrane, and
  - d. Replace it with a new one.
- 5. Reconnect the parts and tubing.
- 6. Replace the front panel.
- 7. Plug in the machine and turn the power **On**.
- 8. Clean the filtration system following the instructions in the CLEANING section.





Figure 14



Figure 15



Figure 16



Figure 17



Figure 18



Figure 19



Figure 20



### B. Replace the top UV lamp

- 1. Switch the power Off and unplug machine (Figure 13, page 15).
- 2. Wait for 10 minutes to allow the UV to cool down.
- 3. Remove the screws at the back of the light cover and put them in a secure location.
- 4. Remove the cover (Figure 21).
- 5. Remove the screws securing the lamp on top end (Figure 22).
- 6. Disconnect UV connection wire (Figure 23).
- 7. Remove the UV bulb (Figure 24).
- 8. Replace with new bulb.
- 9. Reassemble parts in reverse order and close cover.
- 10. Plug in the machine and turn the power **On**.



Figure 21



Figure 22



Figure 23



Figure 24



## C. Replace the cool water out UV lamp

- 1. Switch the power Off and unplug machine (Figure 13, Page 15).
- 2. Wait for 10 minutes to allow the UV to cool down.
- 3. Remove the screws at the back of the cover and put them in a secure location.
- 4. Remove the cover (Figure 25).
- 5. Remove foam cup covering the UV bulb (Figure 26).
- 6. Remove black insulation cover (Figure 27).
- 7. Disconnect UV connection wire (Figure 28).
- 8. Remove the UV bulb (Figure 29).
- 9. Replace with a new bulb.
- 10. Replace all parts in reverse order.
- 11. Plug in the machine and turn the power On.



Figure 25



Figure 26



Figure 27



Figure 28



Figure 29



## D. Replace the Bottom Tank UV

- 1. Switch the power Off and unplug machine (Figure 13, Page 15).
- 2. Wait for 10 minutes to allow the UV to cool down.
- 3. Take out the bottom tank (Figure 30).
- 4. Disconnect the UV connection pin (Figure 31).
- 5. Remove screws on top end of UV (Figure 32).
- 6. Pull out UV bulb and sealed ring (Figure 33).
- 7. Replace with new bulb and replace back bottom tank.
- 8. Plug in the machine and turn the power On.

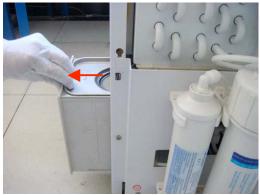


Figure 30

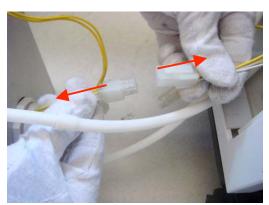


Figure 31

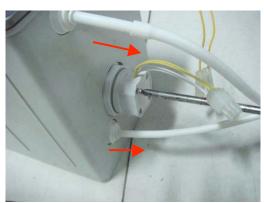


Figure 32

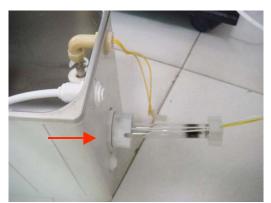


Figure 33



## **CLEANING**



#### WARNING!

Electrical hazard.

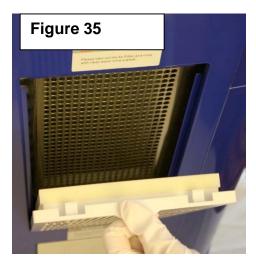
Always unplug the power cord before cleaning or sanitizing your unit.



#### CAUTION

Always wash your hands thoroughly **and wear latex or other hygienic gloves** when performing maintenance on the machine to minimize the risk of contamination of internal parts.

Regular cleaning is extremely important to ensure safe and healthy drinking water.



## **Cleaning the Air Filter**

Clean the air filter at least **once a month** or more frequently according to the air quality conditions in your area. Before starting, **wash hands thoroughly and wear latex or other similar disposable gloves**.

- 1. Switch the power **Off** and **unplug machine** shown in **Figure 13 on page 15**.
- 2. Take off air filter from the side, as shown in **Figures 34 through 36.**
- 3. Rinse in clean cold water to remove dirt. Gently press out the water and then, holding with the fingers of one hand, flick filter over a sink to throw off the remaining water drops.
- 4. Straighten and replace the filter into its holder in the Generator.
- 5. Plug in the machine and turn the power On.



Figure 35



Figure 36



## Cleaning the water collector

Clean the water collector at least once a week.



- 1. Switch the power Off and **unplug machine** shown in **Figure 13 on page 15.**
- 2. Remove the water collector from the back of the machine.
- 3. Clean the collector with flowing cold tap water and replace in its original position as in **Figure 37.**
- 4. Plug in the machine and turn the power On.

Figure 37

### Cleaning the bottom tank

Clean the bottom tank at least once a month.

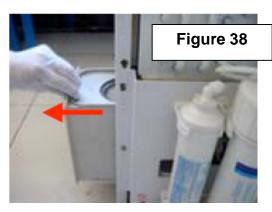
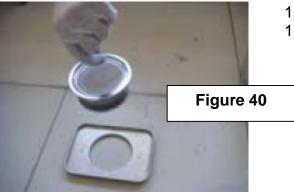


Figure 39

- 1. Switch the power Off and **unplug machine** as shown in **Figure 13 on page 15.**
- 2. Take out bottom tank (Figure 38).
- 3. Open tank cover (Figure 39).
- 4. Remove filter cup by turning **counterclockwise**, then lifting, **(Figure 40).**
- 5. Take out filter mesh cover and fabric; rinse the filter cup with clean cold water (**Figure 41 and 42**).
- 6. Disconnect the pin of the bottom water sensor (**Figure 43**).
- 7. Disconnect the pin of bottom tank UV (Figure 44)
- 8. Pull out air pump tubing (Figure 45).
- 9. Pull out water outlet tubing **(Figure 46).** (**Note**: In case a "push to connect" fitting is used for the connection, please press the front retainer ring inward and pull out.)
- 10. Screw out bottom tank UV (Figure 47) and take out UV.
- 11. Remove the small outlet filter and rinse with clean cold water (Figure 48). Make sure the filter net is in good condition, otherwise, replace with a new one. Thoroughly wipe off any dirt or dust on the tank walls.
- 12. Reassemble all parts.
- 13. Plug in the machine and turn the power On.





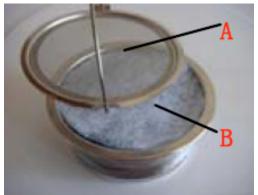


Figure 41



Figure 42



Figure 43

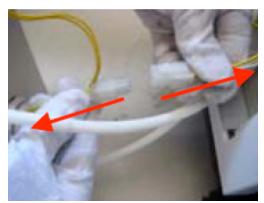


Figure 44

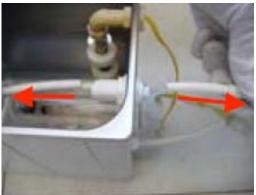


Figure 45



Figure 46



Figure 47





## **Cleaning the front filtration system**

Clean the front filtration system at least once a week. There are three steps to cleaning the system: Preparation, Cleaning, and RO Filter cleaning.

### **Preparation**

- 1. Switch the power Off and unplug machine (Figure 13, page 15).
- 2. Open front bottom cover (Figure 49).
- 3. Disconnect the water outlet tubing from the outlet connector of 2nd stage filter by **pushing the small "collet" right around the water hose** while pulling the tube away from the fitting. Forcing the tube without pushing the ring can cause damage or leaks **(Figure 50).**
- 4. Pull out water inlet tubing from the inlet connector of 3rd stage filter (Figure 51).
- 5. Connect the outlet of 2nd stage filter to the inlet of 3rd stage filter with tubing. **(Figure 52).**



Figure 49



Figure 50



Figure 51 Figure 52



- 6. Pull out outlet tubing from the outlet of 3rd stage filter (Figure 53).
- 7. Connect the outlet of 3rd stage filter to a water tank with tubing (Figure 54).
- 8. Pull out bottom tank (Figure 55).
- 9. Remove cup filter (Figure 56).
- 10. Rinse the cup filter with clean cold water. Replace the cup.



#### Cleaning

- 1. Fill bottom tank with municipal (city) water.
- 2. Plug in the machine and turn the power On.
- 3. Start cleaning the filtration system by operating the unit. Keep checking the water level of the bottom tank and fill with municipal (city) water **until only clean water flows into the water tank.**
- 4. Replace all the parts in their original positions (Figure 57). Make sure all connections are **hand tight** to prevent leakage.



Figure 53



Figure 54



Figure 55



Figure 56



Figure 57



### **RO Filter Cleaning**

- 6. Disconnect the tubing from reverse osmosis (RO) inlet (Figure 58).
- 7. Remove RO cover by twisting counterclockwise and lifting (Figure 59).
- 8. Insert RO membrane into the cartridge (**Figure 60**). Pay careful attention to assure it has been **inserted in the correct orientation shown**.



Figure 58



Filter 59



Figure 60



Figure 61

- 9. Press the membrane onto the open end (Figure 61).
- 10. Place back the cover and tubing (Figure 62).
- 11. Replace the front panel (Figure 63).
- 12. Plug in the machine and turn the power **On.**
- 13. Switch on the unit and start cleaning the RO membrane by automatically running or filling municipal (city) water into bottom tank until the top tank is **full of water**.
- 14. Dispense 2 liters (.5 gal) of hot and cold water from each faucet, respectively. Switch the power **Off** and **unplug machine**.



Figure 62



Figure 63





## Finishing Up

- 15. Drain all remaining water from the hot water drain outlet at the rear of unit (**Figure 64**).
- 16. Plug in the machine and turn the power On. The machine is now ready for operation.

Figure 64

## SANITIZING

The Atmospheric Water Generator should be sanitized at least every 6 months of service.

- Prepare 10 liters (2.6 gal) of sanitizing solution (special solution for water dispenser).
  Using a standard 3% USP hydrogen peroxide solution is recommended (this can be obtained from your local distributor in gallon bottles, or drug store in 10 quart containers of hydrogen peroxide, or you can mix your own).
- 2. Switch the power Off and **unplug machine** (Figure 13, page 15).
- 3. Remove the cover screws (place in secure location) and open the top cover (Figure 65).
- 4. Open top tank cover (Figure 66).
- 5. Fill the top tank with the solution (Figure 67).
- 6. Replace the top tank cover **securely** (be sure it is tight).
- 7. Replace the top cover.
- 8. Plug in the machine and turn the power On.
- 9. Dispense 1 liter (.26 gal) of solution from the Hot and Cold faucets (each) (Figure 68).
- 10. Switch the power Off and unplug machine.
- 11. Drain about 0.5 Liters (.13 gal) of the remaining solution from the **hot water drain outlet** in the back. Keep the remaining solution soaking in the top tank **for at least 2 additional hours**, or as indicated in the instructions accompanying the solution.
- 12. Plug in the machine and turn the power On.
- 13. Run the unit. Dispense 2 liters (.5 gal) of solution from the Hot and Cold faucets (each).
- 14. Switch the power Off and unplug machine.
- 15. Drain all remaining solution from the hot water drain outlet in the back.



- 16. Fill bottom tank with municipal (city) water.
- 17. Plug in the machine and turn the power On.
- 18. Run the machine on automatic setting until the top tank is full of water.
- 19. Dispense 2 liters (.5 gal) of water from the Hot and Cold faucets (each).
- 20. Switch the power Off and **unplug machine**.
- 21. Drain all remaining water from **hot water drain outlet** in the back (Figure 69).
- 22. Repeat the above steps 16 19 in order to clean out the solution remaining in the top tank.
- 23. When the top tank is empty, repeat the entire sanitizing cycle process (#1 #22) one more time.



Figure 65



Figure 66



Figure 67



Figure 68



**Figure 69** 30



## **TROUBLE SHOOTING**

Problem	Solution						
UV Warning Troubleshooting:							
	WARNING!  UV Eye hazard  Do Not look into the tank any longer than necessary to determine if the bulb is operating. Prolonged direct eye exposure to ultraviolet light may damage eyes.  Wear sunglasses if available.						
The UV WARNING light blinks and you hear three short beeps.	Switch the power Off and <b>unplug machine</b> (Figure 13, page 15). Remove the cover (Figure 21 on page 19). Check that all wiring is intact. Remove the small ventilation cover shown just below the arrow and next to the bulb in Figure 23. Plug in the machine. Very carefully turn the power On and observe if the bulb operates.						
	Switch the power Off and <b>unplug machine</b> (Figure 13, page 15). If the UV bulb is not working, replace with a new bulb by following steps in MAINTENANCE. Replace the small ventilation cover.						
The whole UV WARNING logo	Check the ultraviolet device at the cool water output to make sure the bulb is						
blinks and you hear three	lit and all wiring is correctly engaged. If the UV is not working, replace with a						
short beeps.	new bulb by following steps in Maintenance.						
Power Cord Troubleshooting:	Charle the give vit breaken in the facility and test with smather device to						
The machine does not work even after the power cord is	<b>Check the circuit breaker</b> in the facility and test with another device to assure the outlet is live. Check to ensure the voltage being delivered to the						
plugged in.	outlet is in the <b>correct operating range</b> for the device. Make certain that the						
1 - 33	<b>plug connection to the wall outlet</b> is tight and secure and the cable is not damaged.						
Display Troubleshooting:	- Carrageou.						
The indicator	After a long period of operation, the filter might be dirty. If so, it must be						
"REPLACE" on display is	replaced. Replace with a new EcoloBlue filter by following the steps in						
blinking and beeping.	MAINTENANCE. Reset the filtration warning time by following Step No. 1 on						
The system detected water	page 16 under general maintenance.						
leakage on the base. The red	<ul> <li>Press the POWER button immediately and unplug the power cord.</li> <li>Open the front cover and make sure the tubing of the filtration system is</li> </ul>						
logo 🛕 on the screen blinks	tight and secure.						
and the system cannot	Make sure the tubing of the <b>bottom</b> tank is tight and secure.						
produce water.	<ul> <li>Make sure the drainage tubing in the back is tight and secure.</li> <li>Make sure the water collector is in the correct position.</li> </ul>						
The humidity indicator on the	<ul> <li>It is normal for readings on such devices to differ in a range of 5%, more</li> </ul>						
screen is different from the	or less.						
actual room humidity level.	Make sure the machine and the individual hygrometer are placed in the						
	same place.						
	<ul> <li>Make sure that the hygrometer sensor is not blocked, covered or too close to the wall.</li> </ul>						
Water Storage/Output Troubleshooting:							
Remaining water cannot be	Make sure the water stopper inside the water drain outlet is removed from						
drained out from the back	or not blocking the drain opening.						
outlets when cleaning top tank and hot tank.							
Water output from faucet is	Clean the filter net inside the water faucet or replace with a new one from						
too small.	EcoloBlue or your local distributor).						
	Replace check valve inside the water faucet with a new one.						



#### Model 28 Atmospheric Water Generator

No hot or cool water output, ambient temperature water only.	<ul> <li>The heating function will be activated only when the top tank water level on the screen is above level two.</li> <li>The cooling function will be activated only when the top tank water level on the screen is above level three.</li> </ul>
The machine makes water at a slow rate, even after a prolonged period of operation.	<ul> <li>Make sure the machine operating temperature level is in the appropriate range.</li> <li>Check the humidity level in the room. Low humidity level results in less water production</li> <li>Make sure that the hot/cold water spouts are not blocked.</li> <li>Make sure that the ingoing and outgoing air ventilation is not blocked.</li> <li>Check that the distance between the machine and the wall is not too close.</li> <li>Make sure that the power voltage is not too low or too high.</li> <li>Make sure that the internal booster pump is operating.</li> <li>Make sure that the water lines are not blocked and water flow is smooth.</li> <li>Make sure that the unit is placed in a well ventilated area, and that the air filter net is cleaned regularly to ensure the free air flow.</li> </ul>
General Troubleshooting:	
The machine is vibrating excessively and/or too noisy.	<ul> <li>Make sure there is no object placed on top of the machine.</li> <li>Make sure that there is no water cup placed on water tray.</li> <li>Open the front bottom panel and check if the copper tube at the side is touching the side panel. If it is, correct the position of the copper tube by applying slight pressure to very slowly reposition the tube from the side panel.</li> </ul>
There is a burning smell from the machine, and the hot temperature indicator has exceeded the preset temperature point.	<ul> <li>Turn the power Off immediately and unplug the power cord.</li> <li>Stop draining immediately if you are performing the draining operation from the back.</li> <li>Wait a 20 minutes for the unit to cool.</li> <li>Plug in the machine and turn the power On.</li> <li>If the hot temperature indicator reads normally, continue draining.</li> </ul>

If your machine still does not work or does not work correctly after all the above procedures have been performed, please <u>do not try to perform other repair procedures yourself</u>. Always call a qualified and properly trained service technician to examine the machine and perform necessary repair procedures. Contact EcoloBlue or your local distributor for service assistance. The manufacturer will not bear any responsibility for damages to the Generator, damage to the owner's property, or personal injury sustained during attempts at self-repair.

User repairs to the Generator not specifically referenced and permitted in this Manual, and/or use of replacement parts from sources other than EcoloBlue, or maintenance procedures other than as instructed or explicitly referenced herein, voids all manufacturer warranties.



## TECHNICAL SPECIFICATIONS

#### a. Dimensions

 Height
 111 cm / 44 in.

 Width
 40 cm / 16 in.

 Depth
 40 cm / 16 in.

 Net Weight
 41.2 kg / 91 lb.

#### b. Power

Voltage	_ a. c. 220-240V 50Hz _ a. c. 220-240V 60Hz	_ a.c. 120V 50Hz _ a.c. 120V 60Hz			
Power input	1000-1150W	1050W			
Heating Wattage	500-600W 500W				
Operation Power	450-500W	480W			

## c. Optimal Operating Conditions and Typical Performance Parameters:

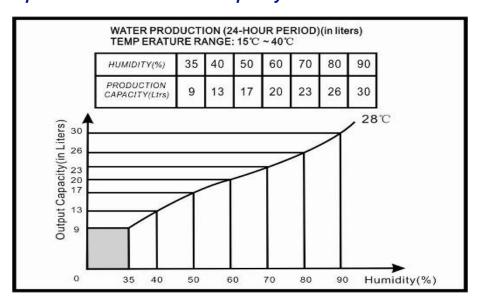
Working Temperature  $15C (59F) \sim 40C (104F)$ 

Working Humidity 35% ~ 95%

Water Storage Capacity 12.5 Liters (3.3 gal)

**Temperature of Hot Water** 75C (167F) ~ 93C (199F) **Temperature of Cold Water** 4C (39F) ~ 15C (59F)

## d. Atmospheric Water Production Capacity:





## **PARTS LIST**

Part	Photo	Part Number	Replacement Schedule		
Reverse Osmosis Membrane	all an	FL-F001	Every 2 years		
EF1 Filter	The state of the s	FL-F002			
EF2 Filter	al s	FL-F003			
EF3 Filter	The same of the sa	FL-F004			
EF4 Mineral Filter	CONT.	FL-F005	3-6 months		
Air Filter Fabric		FL-P022-AIR			
Nanometer Filtration Net (Faucet)		FL-M001			
Philips Ultraviolet Lamp	4 Consissione	EL-E005-UV	Every 2 years		
Plastic Casing for Bottom Tank		FL-BOT-TANK-002			
Stainless Steel Bottom Tank		FL-BOT-TANK-003			
Steel Cover for Bottom Tank		FL-BOT-TANK-004			
Steel Mesh Assembly (including the Charcoal and Zeolity)		FL-BFT-LF2-005			
Steel Mesh Assembly (including the Charcoal)		FL-BFT-LF2-005			
Bottom Tank Small Filter	-00	FL-TF-001			
Air Pump		EL-PUMP-220V EL-PUMP-110V			
Stainless Steel Water Level Sensor for Bottom Tank	Dayler -	EL-SB-001			
Bottom Tank UV Assembly (including the UV lamp) (4W)		EL-TTUV-003			
Ultraviolet Ballast (4W)	(20 10 0)	EL-BU220-04 EL-BU110-04			



## **MAINTENANCE LOG**

Date:	EF1 Filter	EF2 Filter	EF3 Filter	EF4 Mineral Filter	Air Filter Fabric	Nanometer Filtration Net (Faucet)	Reverse Osmosis Membrane	Air Filter	Replace UV Lamp	Replace the cool water out UV Lamp	Replace the Bottom Tank UV	Comments



Local Municipal Code Compliance and Commercial Use: The Model 28 Atmospheric Water Generator has not been submitted to electrical testing organizations for purposes of obtaining approvals that are necessary in some jurisdictions for installation of such a device in a commercial establishment such as a small office. The Model 28 is not intended or warranted for commercial use in businesses such as restaurants. Contact EcoloBlue for information about larger Generators suitable for such commercial use. Therefore, installation of Model 28 in a commercial establishment may constitute a violation by the commercial owner or tenant of a state or municipal electrical code, for which EcoloBlue Life & Energy disclaims any and all liability.

**Note: EcoloBlue** reserves the right to make changes/amendments/deletions/revisions and/or variations in, and to the Model **28 Atmospheric Water Generator**, as well as in, and to the contents of this manual at any time and without prior notice to those who have purchased earlier versions of the Model 28 or who have received earlier issued versions of this Manual.

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