

LIQUID-AIR Inc.



TURNING ON THE TAP TO THE OCEAN IN THE SKY!



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LIQUID-AIR 1 (L-A 1) OPERATIONS MANUAL

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I. INTRODUCTION

Thank you for purchasing the Liquid-Air 1. The Liquid-Air 1 (L-A1) is a new, state-of-the-art water-generating machine, which uses some of the latest and most sophisticated technology available in the industry today. We have designed your Liquid-Air 1 with one objective in mind i.e. to produce the most maximum amount of high quality drinking water while using only minimum amount of electricity.

In addition to having undergone total redevelopment and redesign, your Liquid Air 1 also comes fully loaded with state-of-the-art features to reflect on the modern era and satisfy the technologically hungry consumers of the 21st century. Liquid Air 1 boasts many new and exciting features such as:

a. Microcomputer

The unit is fitted with a microcomputer, which ensures proper working of internal parts, to regulate, supervise and control the functionality of individual parts inside the unit.

b. Smaller and Lighter body

The Liquid-Air 1 has a smaller and sleeker design compared to other generators in the market. The unit is more compact and versatile. Structural modifications and reinforcements were made to strengthen the unit, yet reducing the overall weight of the machine, keeping the total weight to minimum.

c. Electronic sensors

Various electronic sensors are attached to parts such as compressors, water pump, and UV light, heating mechanism and storage tanks. These sensors ensure that all parts are working properly and warn you should a breakdown or performance irregularities occur in the machine.

d. Energy saving features

To conserve electricity, electronic sensors have been placed in the storage tank to automatically stop the machine from making more water when the tank is full.

e. Venturi fan

Newly designed Venturi-type fan increases production efficiency and greatly reduce the noise during operation.

f. New PVC Coated condensing coils

Condensers designed especially so the unit will produce more water even in region with lower humidity. The coils are specially dipped in FDA approved PVC coating to prevent any metal parts from touching the water.

g. Electrostatic Air Filter

The first filter that air passes through before being condensed and converted to water; our electrostatic filter effectively prevents micro particles and dust from entering the machine.

h. Double Pass Ultra Violet Filter treatment

Liquid Air's proprietary double pass ultra violet, not only treat the water to ultra violet light once, but twice to ensure that all bacteria and microorganism are eliminated.

i. Taste and Odor Remover Carbon Filter

Our dedication to providing high-quality, great tasting water to our consumers is seen in a brand new filter added to the machine. The MATRIKX +1 filter from KX is well known as the best taste and odor remover solid block carbon filter. This ensures that besides having pure, high-quality water, but our water also tastes great!

j. Mineral Pack (Optional)

Some of your machines may come with a mineral pack placed on the back of the machine.

k. Overheating protection sensor

The further protect the unit, your unit is fitted an overheating protection sensor, which automatically shuts off the machine should the problem occurs.

l. Added insulation

To enhance and add to the smoothness and ensures quiet operation of the unit. The noise level of the unit is reduced to less than 35 dB at full operating level.

m. Water re-circulation process

Water inside the storage tank is completely recycled once every hour. This ensures that the water you store in the unit's tank is always fresh and sterilized even after it has been stored for a long time.

n. Anti Bacterial Tank and tubing

All plastic tanks and tubing are molded with FDA approved anti-bacterial chemical to further prevent any bacterial growth in the tanks and tubing.

o. Humidity control (optional)

To further save on energy cost, some machines may include a humidistat to control the machine's operation based on the humidity level in your area. The humidistat lets you set the machine to work at a certain humidity level and when it falls below the set level, the machine will simply shut off to save electricity.

p. Tap Water inlet

During times of low humidity and cold temperature, your machine may not produce enough water for the family. Simply hook the machine to your tap/city water lines and still obtain pure quality drinking water from your machine.

II. GETTING TO KNOW YOUR LIQUID-AIR 1 WATER GENERATOR

1. HOW DOES YOUR L-A1 UNIT WORK?

It is important to be aware that your Liquid-Air 1 water generator is a humidity and temperature driven machine. This means the machine totally depends on the level of humidity in the air and the temperature to produce water. Ideally, the humidity level should be at least 65% - 70% to achieve the machine's optimum performance. Naturally, the more humidity that exists in the area, the more water the machine will produce. In terms of temperature, the machine would be at its' most optimum level of production when placed in warmer temperature areas.

The machine will still produce water in lower humidity region but not as quickly, nor as much as in places with high level of humidity. Before placing the machine in a certain part of the house or office, you would do well to use the **Humidity and Temperature Gauge** provided when you purchase the machine and carefully check the level of humidity. In the house environment, higher level of humidity tends to be around the kitchen area, near an open window or in larger, more spacious rooms.

The machine also depends on the temperature to operate at its' optimum level. The ideal temperature is around 75° to 85° F. This does not mean that your machine will not work in temperature below or above the ideal range. But the machine will produce more water faster and quicker when placed within the ideal temperature range. You would also do well to use the Humidity and Temperature Gauge to check the temperature in the room prior to placing the machine in a certain room.

Because your Liquid-Air 1 works by converting the humidity in the air to water, this unit also acts as an effective dehumidifier. Do not operate the unit in a room where a certain level of humidity is required for health or other reason. Alternatively you can open the window to exchange the air inside and outside the room, and then the unit is operational.

2. WHAT KIND OF WATER DO I GET FROM THE LIQUID-AIR 1?

Through our numerous filtration processes, the LA-1 produces the purest, high quality drinking water available today. The water produced is not only pure and free of any water contaminants, but also beneficial to your health.

Water from "Liquid-Air 1" generators provides the following overall benefits to the consumers:

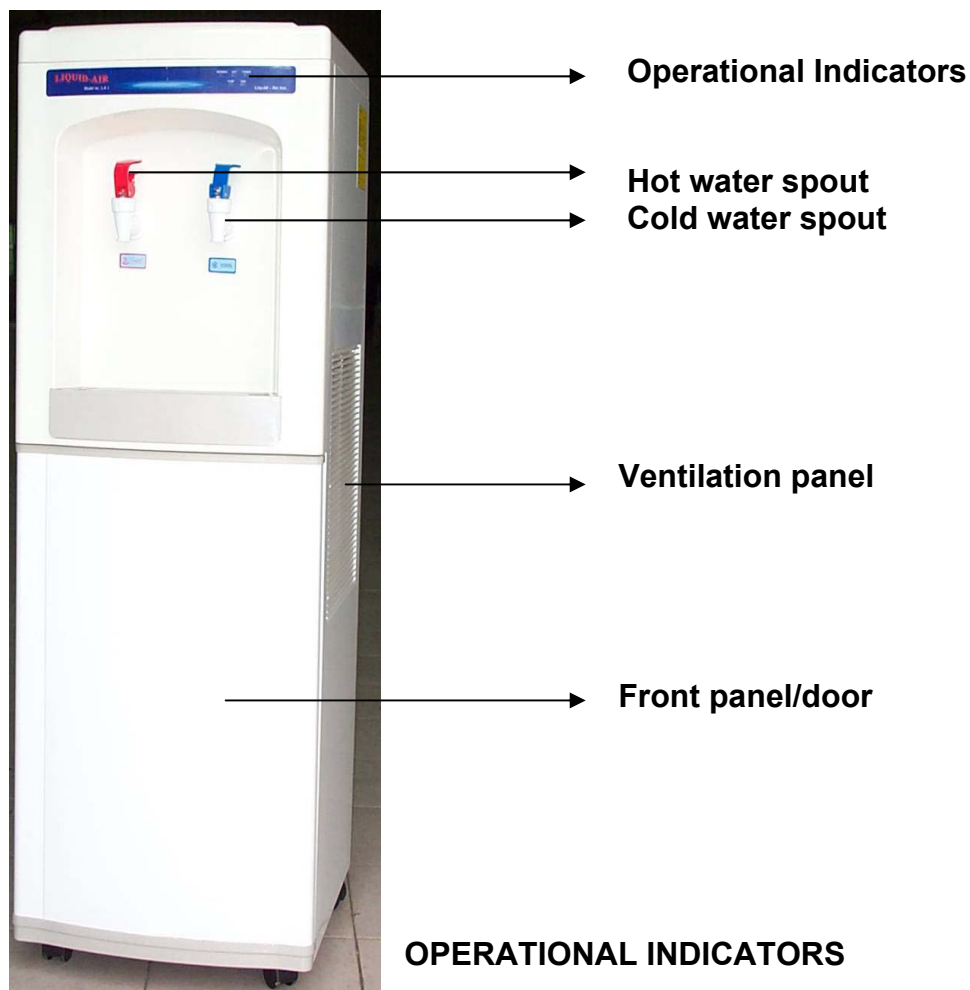
- A.** Avoid environmental pollution and provide pure water free of bacteria and fertilizer
- B.** Increase mineral beneficial for health to better athletic performance
- C.** Rich of oxygen to make better delivery of nutrients to all the cells, tissues and organs through blood

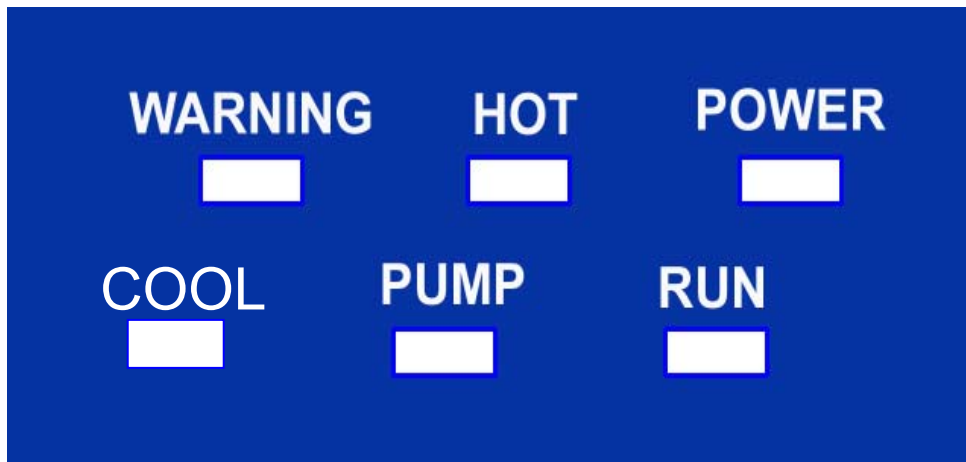
- D. Improve blood circulation enhance removal of waste, efficiently converts nutrients into energy and transports all the waste resulting from burnt energy out of the cells
- E. Improves overall metabolism and provide more energy, build up the body resistance and helps to improve physical condition making one less prone to diseases

III. OPERATING YOUR LIQUID-AIR 1 WATER GENERATOR

By following these simple instructions and simple maintenance procedures, your Liquid-Air water generator should give you years of trouble-free operation while producing the most maximum amount of pure, high-quality, drinking water that is not only healthy, but also beneficial to your health.

Please read this operation manual carefully before you start the machine. By reading and following the simple manual, you will familiarize yourself with your new water machine and all its' functions, ensuring yourself of a machine constantly operating at its' optimum level.





The above is what you will see on the right hand corner of the Operational Indicators label. Please pay attention to these as they constantly indicate how your machine operates at the time:

- a. **WARNING** – when lit up, a beeping noise is emitted from your machine. When this happens, first check the ultra-violet (UV) bulb to ensure that it is working. Check that all electrical and water connections are secure. Also follow the trouble-shooting procedure. If you have done all these and the warning light still comes on when you turn on the machine, please call an authorized service facility to have this problem remedied.
- b. **COOL** – when lit, your machine is cooling the water in the cold water tank.
- c. **HOT** – when lit up, your machine is heating the water in the hot water tank.
- d. **POWER** – indicating that your machine is on. When your machine is full, the compressor will switch off but the “red” power light will still be lit to indicate that your machine is still operational.
- e. **PUMP** – when your machine is pumping water from the bottom storage tank to the upper tank, the “pump” indicator will be lit.
- f. **RUN** – is indicated by a green light, which indicates that the machine’s compressor is running and making water.

For more trouble-shooting, tips and other techniques, please refer to our website at: <http://www.liquidairinc.com>

a. SETTING UP

1. Before setting up to operate, choose a location in the house/office with the highest temperature and humidity, and the unit should remain on a standing position before plugging into the electrical socket.

Note: Just like any appliance with Freon, you should let the machine in a standing position for at least 6 hours before turning it on.

2. The unit should be placed on solid and level ground, no less than 20 cm from the wall.

3. Before inserting the electrical cable into the socket, make sure the power switch on the back panel is in the OFF (0) position.

4. Insert into electrical socket capable of handling no less than 12A. Power supply is A/C 120V/60Hz.

5. Turn the power on using the RED SWITCH (I). The power light should immediately come on accompanied by a single beep

b. OPERATIONAL STAGE

6. When the unit starts to operate, you should be able to hear the fan and the compressor running after one minute. The light (RUN) on the front upper panel should also be lit. If you do not see or hear any of the above, refer to the troubleshooting manual.

7. A Water Production Chart is provided on the side of the machine to let you gauge how much water your machine should produce on a daily level. Do not be alarmed if your machine does not produce as much water as the Production Chart indicated in the first few days. Upon initial operation, your machine takes up to 3-4 days to acclimatize itself to its' new surrounding or environment. Full water production should be easily obtained within one week of operation.

8. Do not be alarmed when you do not obtain hot or cold water during the first few days of operation. We have designed the heating and cooling mechanism to be triggered on when the machine is full. When the heating/cooling mechanism is triggered both the "HOT" and "COOL" indicator lights would be lit. Thereafter, your water should remain hot and cold 24 hours a day even when your machine is full and the compressor has been turned off.

9. Do not be alarmed when the "HOT" and "COOL" indicator lights on the front panel turns on and off after a few minutes. The unit has been fitted with a temperature sensor, which automatically turns the heating/cooling mechanism on and off depending on the temperature and amount of water stored in the hot and cold tanks.

10. Do not be alarmed when your machine turns off automatically. To conserve energy, your machine has been fitted with an electronic sensor, which automatically switches the machine off when the storage tank is full.

13. It is best to switch off the unit or unplug the power cord during long period of inactivity or during a long-term power failure.

14. During period of long inactivity, you can keep your machine in optimum shape, by following these simple procedures:

- Drain out all remaining water in storage tank by opening the spout located on the bottom right corner of the storage tank.
- Open the front panel of the machine and wipe off remaining condensation on condensing coils and all internal mechanism with a sponge until dry.

15. In some areas, your machine may be equipped with a “Humidity Control”. The “Humidity Control” or “Humidistat” is placed inside the machine. To access it, open the front panel and you will see a dial with various humidity levels. The humidistat works by turning off the machine if the humidity level falls below the set humidity level and turns the machine on again when the humidity level has increased above the set level.

The humidistat is set at 30% at our factory but if you prefer to set it at a different level, please feel free to do so.

For example, if you set the humidistat at 60%, the machine will shut off if the humidity level falls below 60% and the machine will turn on again when the humidity level is above 60%.

c. REPLACEMENT OF FILTERS

16. With regular usage, we recommend that you replace the filters once a year. This is to ensure that your unit will always produce the cleanest and purest drinking water.

The unit is designed for easy access and simple replacement procedures. Please remember to dispose these filters properly.

LF 2 – Carbon Filter Replacement Procedure

- a. Switch off the unit and unplug power cable from socket before replacing.
- b. Remove front door/panel by gently pulling it away from the unit
- c. Depress red lever at the bottom of storage tank and gently slide the tank $\frac{3}{4}$ of the way out

- d. Turn the mineral filter (LF2) canister counter-clockwise to unlock and lift out to remove.
- e. Insert new mineral filter canister by inserting into the storage tank and lock by turning the canister clockwise.
- f. Depress red lever and slide storage tank back to its' original position.
- g. Replace front panel by lining up the mounting pins to the holes and push panel tight against the machine.

LF3 – Carbon Filter Replacement Procedure

- a. Switch off the unit and unplug power cable from socket before replacing.
- b. Remove front door/panel by gently pulling it away from the unit
- c. Twist off the carbon filter canister (LF3) from its' mounting bracket
- d. Take the filter out of its canister and replace with a new filter.
- e. Do not forget to flush the new filter with water for at least 15 minutes prior to installation
- e. Replace front panel by lining up the mounting pins to the holes and push panel tight against the machine.

17. The ultraviolet (UV) lamp (LF1) may become invalid over a lengthy period of operation time. When this unit is not working properly or damaged, an alarm will sound and the machine shuts off automatically. When this happens, make sure that the UV lamp is replaced immediately.

UV lamp (LF1) replacement procedure:

- a. Switch off the unit and unplug power cable from socket before replacing.
- b. Remove front door/panel by gently pulling it away from the unit
- c. Pull out electric connectors from the bulb
- d. Slide one hand behind the aluminum canister and push out with finger while using the other hand to grab the bulb.
- e. Twist and pull the bulb out of the aluminum canister
- f. Take new UV bulb of the same specification and insert into the canister, using one hand to line up the hole on the other side the canister
- g. Replace connectors to the bulb.
- h. Replace front panel by lining up the mounting pins to the holes and push panel tight against the machine.

18. Depending on how polluted the air is in your area, the air filter must be cleaned often to ensure proper airflow.

To clean the air filter:

- Use the tool-kit provided in your unit, and loosen the screws on the left ventilation panel
- Pull panel out.

- Take the air filter and rinse with water until clean
- Replace both filter and ventilation panel back onto the machine

19. **Mineral Pack Replacement Procedure (Optional)**

If your machine comes with the Mineral Pack, then it would be best to replace the Mineral once per-year to ensure optimum mineral content in your drinking water.

- a. Unscrew the top part of the back panel of the machine.
- b. You will see the Mineral Pack on the upper left-hand corner of the back of the machine.
- c. Disconnect the water lines from the top and bottom of the mineral pack
- d. Replace with new Mineral Pack
- e. Connect the water lines to the top and bottom of the pack.

IV. PRECAUTIONS

1. Do not place the unit too close to the wall. Best performance is obtained when the unit is placed at least 8 inches from the wall.
2. Avoid exposure to heat
3. Avoid prolonged exposure to direct sunlight
4. Avoid placing valuable articles on the machine
5. Operating voltage must not drop below AC 90V. When the unit operates below this level, the unit becomes noisy with the possibility of overheating. When this occurs, immediately switch the unit off until the voltage returns to normal.
6. If the heat temperature sensor is out of order, the overheat protection mechanism will automatically switch off the heating mechanism to protect the unit. Note that the overheat protection sensor must be reset manually. Please call a service agent when this occurs.
7. Avoid opening the front door/panel when the unit is operating.
8. Avoid prolonged direct eye exposure to ultraviolet device as it may damage the eye.

V. MAINTENANCE

- Always keep the unit clean. Wipe the outer casing with soft, damp fabric to clean. Use water to clean, avoid using harsh cleaning agent.
- Do not use cleaning agent to clean storage tanks.
- Clean internal parts and mechanism often, keeping free of dust and dirt.
- Replace all filters (LF1, LF2 and LF3) once a year
- Clean air filters often to ensure proper air flow
- Always drain remaining water from the tanks before a period of long inactivity.
- Even though the storage tanks are made with anti-bacterial agent but we highly recommend that you **regularly wash your tanks**.

To do so, simply slide out the bottom storage tank by unhooking all the water lines and rinse the inside of the storage tank with clean or distilled water and regular dishwashing liquid.

Please remember to rinse the tank thoroughly with warm water after washing so that no residues are left in the tank.

VI. TROUBLESHOOTING

Before proceeding on the following, please make sure that the unit is not plugged in and the power switch is in the "OFF" position.

Problem: The WARNING light comes on and the machine does not work

Solution: Check the ultraviolet device. Make sure the unit is working properly and all the cables are properly connected. If the ultraviolet lamp is not working, replace it immediately following the steps above. The machine is designed to stop functioning when the ultraviolet lamp is not working to prevent consumers from drinking impure water.

Problem: The machine does not work even after the power cord is plugged in.

Solution: Check for proper power voltage and ensure that it is in the correct range for operation. Check that the power switch (RED) is turned "ON". Make sure that the connection to the wall socket is tight and secure.

Problem: The machine makes water at a slow rate even after prolonged period of operation.

Solutions:

- Make sure the temperature level is at the correct range.
- Check the humidity level in the room. Low humidity level results in less water production.
- Make sure that the hot/cold waterspouts are not blocked.
- Make sure that the ingoing and outgoing air ventilation is not blocked.
- Check that the distance between the machine and the wall is not too close.
- Make sure that the power voltage is not too low or too high.
- Make sure that the internal water pump is operational.
- Make sure that the air filter net is cleaned regularly to ensure the free air flow.

VII. NOTES

- Once all the above procedures have been performed and your machine still does not work or does not work correctly, please do not try to perform other repair procedures yourself. Liquid-Air Inc is not responsible for any damages incurred during self-reparation of the machine.
- Always call a qualified service technician to look at the machine and perform the repair procedures. Liquid-Air Inc is not responsible for any damages incurred during self-reparation and voids all warranty.
- When calling a service technician, please have your name, address and unit serial number (which can be found on the yellow sticker on the right upper panel) ready.
- For other trouble-shooting tips and techniques, you can also log into our web-site at: **<http://www.liquidairinc.com>**
- For other questions or comments, please call our office or send your mails to:

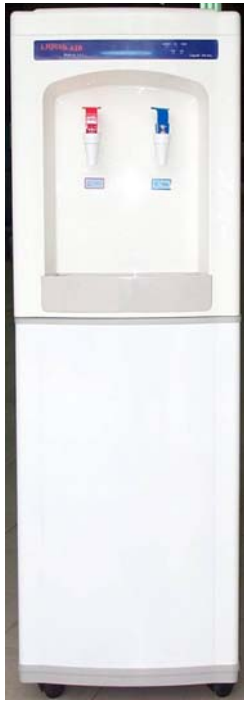
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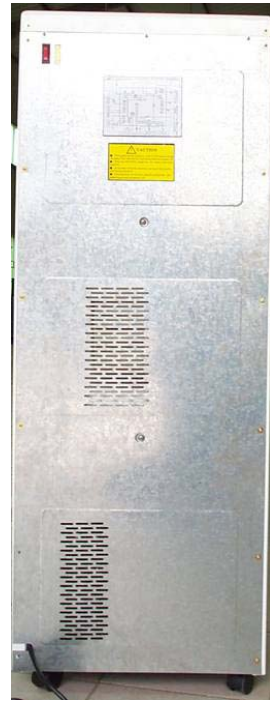
VIII. TECHNICAL SPECIFICATIONS



FRONT VIEW



SIDE VIEW



REAR VIEW

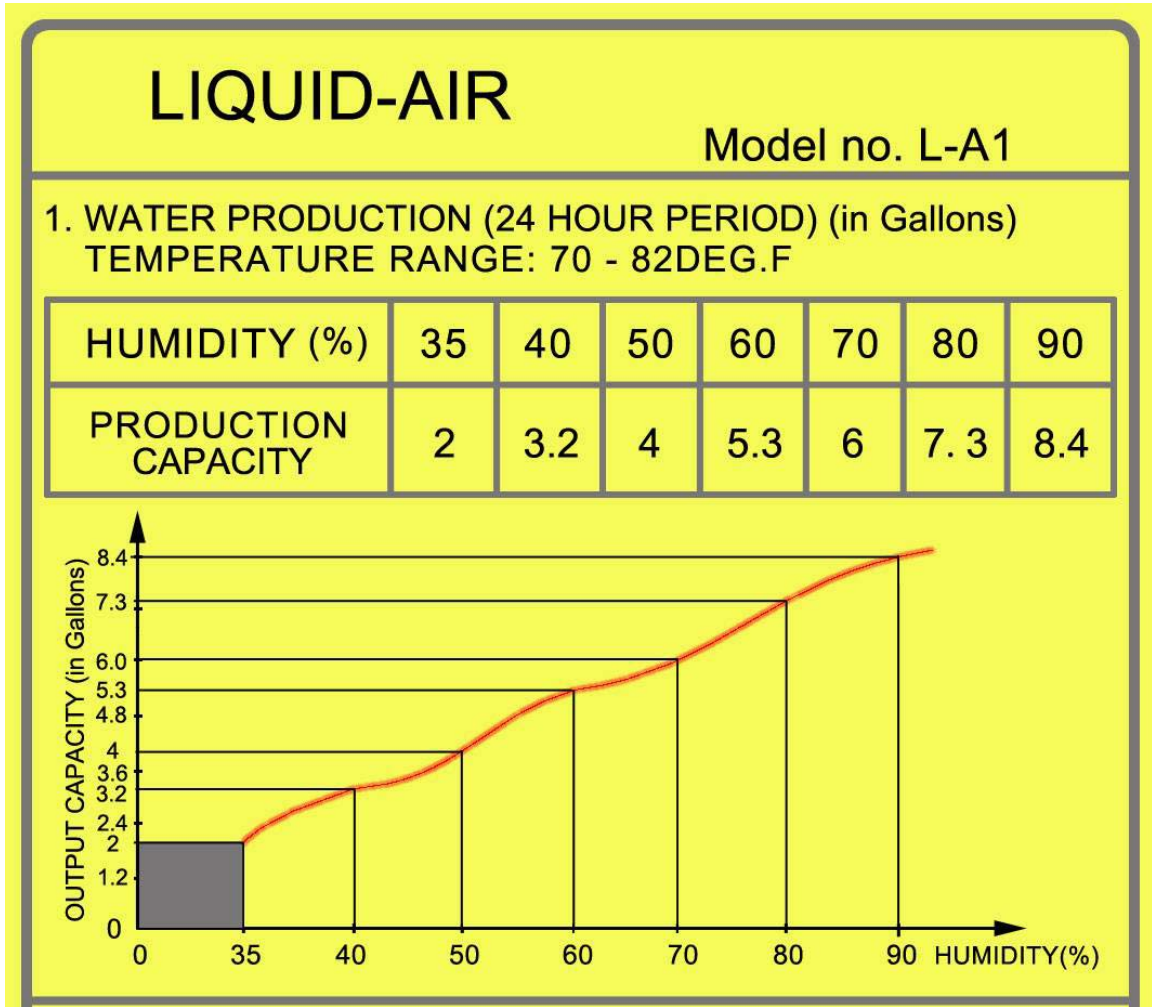
a. DIMENSIONS:

- Height 43"
- Width 15.7"
- Depth 15.4"
- Net Weight 93.5 lb
- Noise level less than 35 dB

b. POWER:

- Voltage 120 VAC
- Current 9.5 A
- Frequency 60 HZ
- Power consumption 650 W.
- Heater consumption 500 W.

c. WATER PRODUCTION (24 HOUR PERIOD) (in Gallons)



d. COEFFICIENT OF WATER QUALITY

ITEM	DATA
Degree of turbidity	< 5°
Total hardness	450 mg/L
Color	15°
PH value	7
Temperature of hot water	> 95° C
Temperature of cold water	< 9° C
Water storage capacity	4.3 gallons