FC WA310
AIR WATER GENERATOR

Free Cool
www.freecoolsystems.com

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Free Cool have The World's Most Energy-Efficient Air Water Generator.

One Machine Multipurpose Water making, air purifying, air purifying, and dehumidifying.

This Free Cool is a small -scale room water generator creating fresh, clean drinking water from the air. It is designed for fast and easy deployments outdoors and indoors, requiring no infrastructure other than electricity supply.

The medium-scale room unit is a perfect solution for applications such as Hotels, homes, apartments, and offices seeking to provide pure safe drinking water to its population due to drought, contaminated water source, or sustainable green neighborhoods.
This is a affordable, compact, attractive and reliable device that operates quietly to make, chill and dispense water of distinctive quality. Simply connect the unit to a power source and the Free Cool begins producing up to 10 liters of pure water per day.

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Free Cool Advantages

Quality
Generates drinking water of the highest purifier quality

Cold or ambient
water dispenser

Easy installation
Anywhere

Easy transportation
trucks to wherever needed

Plug-and-drink solution
Requires no infrastructure other than electricity

Standards compliance
Complies with all required World Health Organization (WHO), Environmental Protection Agency (EPA) and ASSE standards.

Specification	
Product name	Free Cool Air Water Generator
Installation one Desktop	Plug and Pay
Refrigerant	R134a
Power	AC 115V 60 Hz
Rated water production	10 L/D (30°C(86°F)/80%RH)
Water production Power	230W
Water temperature	12-16°C or 53.6-60.8°F
Applicable environmental range	Temperature: 5-32°C or 41-89.6°F
Air filtration system	
Compressor type	Piston type , R134a (Gas 80g)
Working Temperature	Medium efficiency composite filter
Water purification system	PAC+UF+CB +UVc
Water tank volume	Water collection tank: 3.8L Drinking water tank: 1.2L
Product Size (without spout)	260mmx368mmx445mm
Net Weight	58kg

<u>Ideal for household and small office environments</u>
<u>Intelligent and economical air water generator.</u>
The Free Cool is one of the smaller units, designed.to ensure portability. This unit makes the small scale of pure drinking water per day. The Free Cool features a superior filtering system that ensures that the dispensed water is filtered through a high-quality filter. which removes all unwanted particles, viruses, and bacteria, delivering pure and healthy drinking water, The Free Cool also works as a dehumidifier and air filter, making your home less hospitable to allergens such as dust mites, mold and mildew.

Product characteristics

The machine is manufactured from high-quality, food grade materials and features an
advanced ultraviolet sterilization system for killing bacteria and viruses. It is equipped with microcomputer control technology for automatic operation, multiple protection alarms for tracking faults, and multiple filtration systems with circulation filtration and sterilization to ensure the freshness of the drinking water

Safety precautions

Do not attempt to repair the machine or power cable.
Contact your local dealer for service support.
Only connect the unit to an appropriate power supply.
Do not pull or damage the power cable.
It is forbidden to plug and unplug the power plug with wet hands, otherwise it may cause electric shock.
Do not use in environments with above Class Ill air pollution.
Keep the power cable out or reach of children.
To prevent damage to the machine, disconnect power supply during thunderstorms. Disconnect the power supply before cleaning or maintenance.
Do not use multiple connections on the machines power supply connection.
The power outlet must have ground wire, and the power capacity should be not less than lOA.
Do not place or use the machine in volatile, corrosive or flammable chemical environments.
Should abnormal sounds, smell, temperature or leakage occur, disconnect from power supply and contact your local dealer for service support.
Do not place any objects on top of the unit.
Always keep the unit in an upright position.
Do not place any flammable objects within 15in (40 cm) of the back of the machine because of hot exhaust air.
When moving the machine, the water tank must be drained to avoid water spillage within the machine.
To prolong the air filter lifespan place unit in the best possible location.
The machine should be operated in temperatures above zero.
Do not remove the back cover of the machine.
Children must be supervised by parents when operating the machine.

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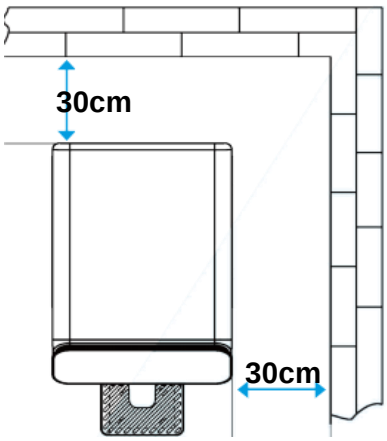
Installation guide

Product installation

1. Place the removed machine in a designated area that aligns with the requirements
Allow the machine to remain in its final position for 4 hours before activating the power supply.
2. After standing for 4 hours, take out the power cord, connect it to the machine and plugin power as shown in the figure.
3. Take out the magnetic suction water pan and attach it directly below the water outlet as shown in the figure.

installation guide

The machine must be placed on a firm horizontal surface.
Avoid fitting the machine at any angles or may result in excessive noise during operation.
Ensure a minimum gap of 12 in (30 cm) between machine and walls to allow sufficient cooling and ventilation.
Leave the machine in its final position for 4 hours before turning the power on.



First use suggestions:

Suggestion 1:
During first time use or stop use for a long period of time, you must drain the first tank water of the purified water tank from the water outlet. Then the next tank of water produced is ready for drinking.

Suggestion 2:
To save time, you can add a bottle or municipal water to the collection water tank(do not exceed the maximum water tank level) and then wait for water treatment by the filtration system and sterilization system to get clean and safe water.
Ensure the machine is positioned with enough ventilation.

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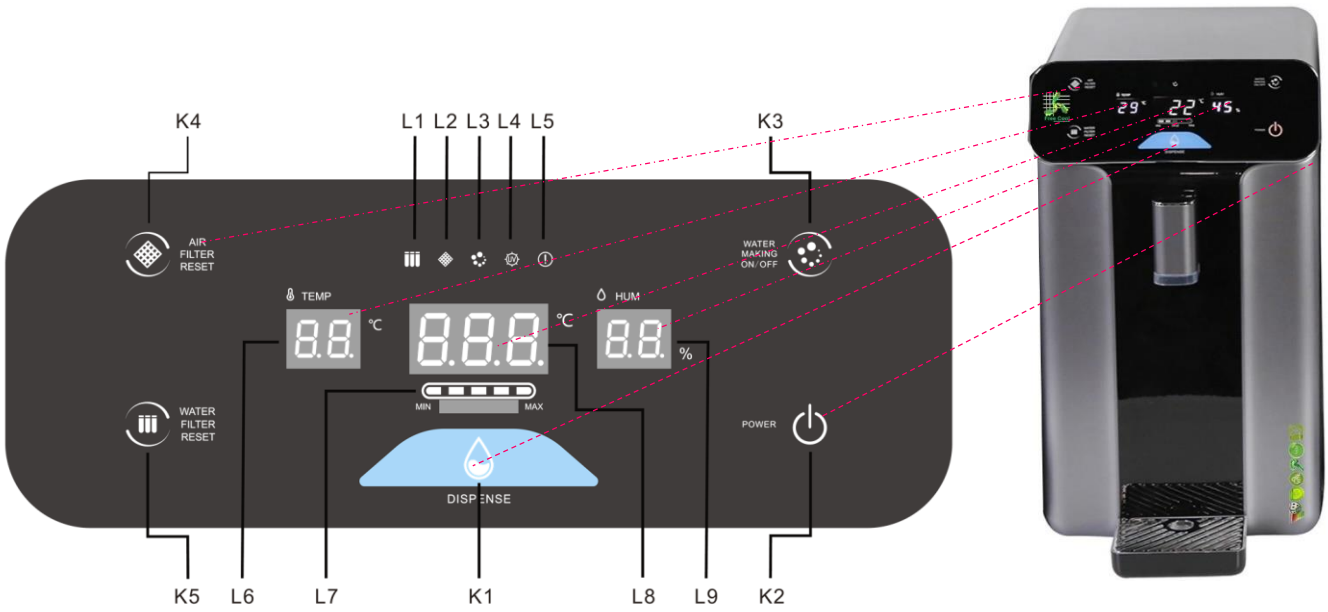
VFD display screen



Free Cool Room Air Water Systems
The figure shows the water generator control display, where the symbols indicate the following meanings:

K1 - Water button	L1 - The water filter indicator
K2 - Switch button	L2 - The air filter indicator
K3 - Water production button	L3 - Water production indicator
K4 - Air filter reset button	L4 - Sterilization indicator
K5 - Water filter reset button	L5 - The fault indicator L6 - Ambient temperature L7 - Purified water tank temperature L8 - Environmental humidity

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Functions of Control Panel Keys

Switch button:
Touch to turn water making function On and touch again to turn water making function Off.

Water button:
Touch and hold for dispensing water
- Touch this button and it can dispense water.
- You'll need to wait a minute to produce water after repowering

Water production button:
Flashing indicates that water is being made or refrigeration mode is running. Constantly On indicates the machine is ready to make water. Off indicates the water making function is Off

Water production button:
Flashing indicates that water is being made or refrigeration mode is running. Constantly On indicates the machine is ready to make water. Off indicates the water making function is Off

Water filter reset button:
After changing the water filters, touch this button 2s to turn the water filter light to stop flash.

The water filter indicator lights up,
warning the water filter needs to be changed.

The air filter indicator lights up,
warning the air filter needs to be changed.

Water production indicator lights up,
Shows water making or refrigeration mode is running.

Sterilization indicator light up
Shows the sterilization system is working. The light off shows the sterilization system stopped working.

The fault indicator light-up
Shows the current equipment fault.

TEMP

This shows ambient temperature of the room.
When the temperature< 5°C, it will flash.

MIN MAX

This shows the water level of the purified water tank.

This shows the water temperature of the purified water tank.

HUM

This shows the ambient humidity in the room. When the humidity< 35%, it will flash.

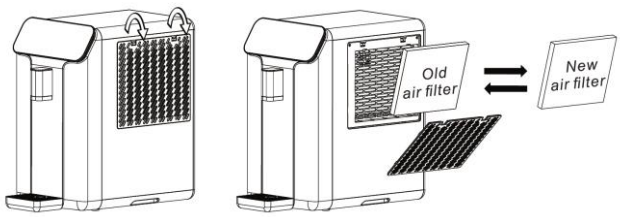
List of accessories

Before installing, please check whether the accessories are complete according to the following list of accessories.

Description	Accessory	Description	Accessory
water pan		air filter	
power cord		Water filters	
instruction		**Note:** Both the air filter and the water purification cartridge element have been installed inside the machine.	

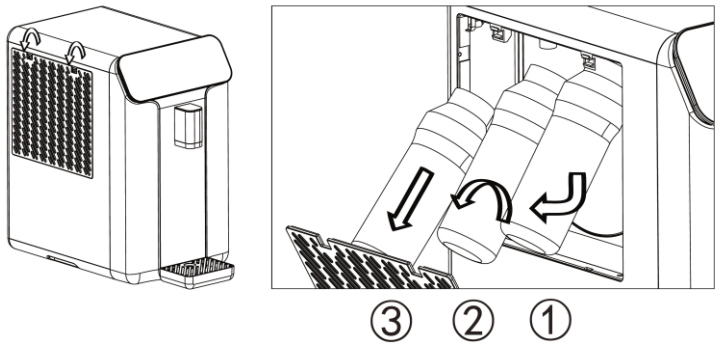
Water Filter And Air Filter Replacement:
Air filter replacement

To replace the air filter, press the buttons on either side of the top of the filter shield, located on the right side of the display. Remove the old filter and replace it with a new one. Refer to the air filter reset button indication for the proper reset method.



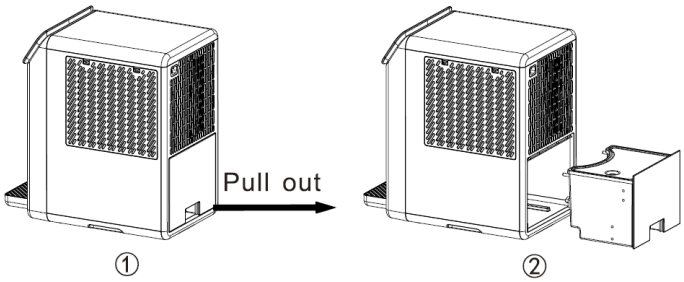
Water filters replacement

To replace the water filters, press the buttons on both sides of the top of the water filter protective cover on the left side of the display to remove it. Then, rotate each filter bottle clockwise to remove the old filters and counterclockwise to install the new ones. For proper reset procedures, refer to the water filters reset button indication.



Washing and cleaning of the water tank

When cleaning the water tank, avoid using corrosive cleaning agents such as alcohol or thinner. It is important to also note that the UV module at the bottom of the tank should not be submerged in any liquid.



Warning: For safety reasons, it is recommended that only trained professionals open the water generator. If you need to replace the air or water filter, please contact us to obtain the necessary components. This will help prevent any potential accidents.

Common Problems And Solution

Problems and Solution.

Problem	Possible Cause	Solution
Water production is very slow	1. Ambient temperature or humidity is out of working range. 2. Air circulation is poor. restricted. The air intake is blocked or 3. Whether the air inlet is blocked by objects.	l. Use the external water supply until the temperature or humidity is in working range. 2. Place the unit in an area with better air circulation. 3. Remove obstructions and ensure machine is not to close to the wall.
Water production stopping	1. Power plug is not inserted. 2. Unsteady Voltage. 3. Stopped water production in the a period of time and then restarted it. 4. Ambient temperature or humidity is out of working range.	1. Plug in the power supply properly. 2. Install a voltage regulator. 3. It's normal if the compressor starts working again with a 3-minute thermal protection function. 4. The compressor will not run if the ambient temperature is below 5 °C or above 32 °C or if the humidity is below35%.
No water output	1. Low water level light flashing. 2. Purified water tank on the state of recirculation flushing.	1. Wait until water level in the water tank increases. 2. Wait for one minutes after reconnected power.
Loud noise	The machine is not levelled correctly. Result in the force of the supporting feets is non- uniform.	The machine is not levelled correctly. Result in the force of the supporting feets is non-uniform.
The machine is leaking water	If the machine was moved or not levelled correctly the water tank may have spilled.	Dry off the machine. If the leak continues unplug the machine and contact local service center.

Fault Codes

Fault message	Fault code	Fault description
Temperature and humidity sensor are faulty	EA	Open circuit/short circuit
Condenser temperature sensor fault 1	E1	Abnormal resistance value (overcooling/overheating)
Condenser temperature sensor fault 2	E2	Open circuit
Condenser temperature sensor fault 3	E3	Short circuit
Cold water temperature sensor fault 1	E4	Abnormal resistance value (overcooling/overheating)
Cold water temperature sensor fault 2	E5	Open circuit
Cold water temperature sensor fault 3	E6	Short circuit
Defrost abnormal	E7	Under the condition of temperature >5°C and relative humidity >35%, enter defrost mode for 2 consecutive times
Collection water tank level switch fault	E8	Signal acquisition abnormality (high water level and low water level signal were cut-off)
purificated water tank level switch fault	E9	Signal acquisition abnormality (high water level signal on, low water level signal off)

Note: If the fault light flashes and a fault code is displayed, please seek assistance from your local dealer for professional service. Attempting to disassemble and repair the machine by yourself is not recommended.

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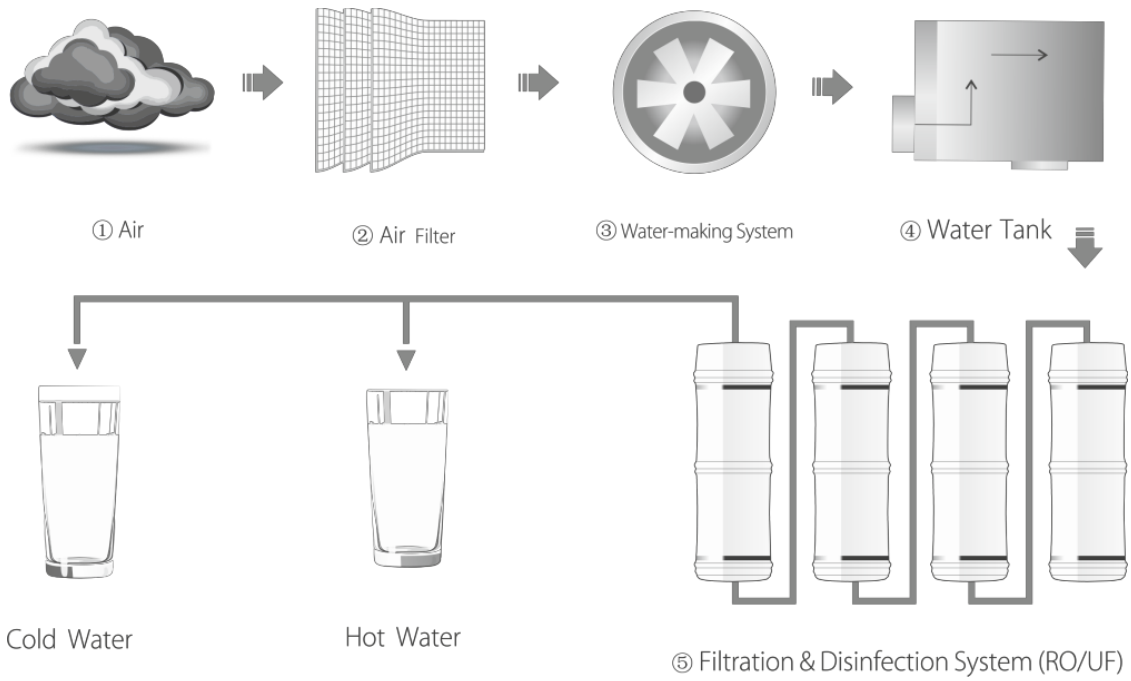
. How It Works

- Water is produced by harvesting moisture from the air. Humid air is drawn into the machine and passed through a multistage air filter and then cooled to dew point. The cooled air condensates. The condensate drips into a collection tank. The water is then pumped through a multistage optional Ultra filtration system and stored in a storage tank. Water purity in the storage tank is maintained by keeping the water cool, circulated and under intermittent UV light sterilization to ensure the highest quality water.

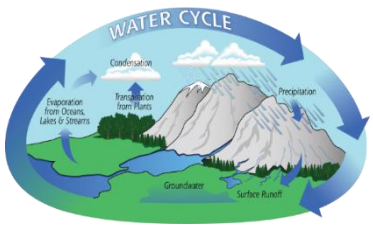


Additional Benefits

•Unlimited sustainable pure drinking water.

•Water produced is significantly lower in cost than bottled water.

- No added chemicals.
- 99.99% bacteria elimination.
- No heavy lifting or storage of bulky water containers.
- No plastic waste.
- Dehumidifies the room.
- Purifies the air in the room.
- Reduces allergen particles in the air.



Operating Principle

A:This machine mainly makes the water from the humidity in the air. In other words, it totally relies on the water vapour in the air to make water. The best water making can only be achieved under the ideal environment where the humidity is around 70％--80％. Water also can be made in places with low humidity, but the speed is slow. This is also the same case for places with high humidity and low temperature. So it is better to test the humidity of every position in a room before the machine placed. In a living house, positions near the kitchen or window, or spacious places, will see high humidity.

B:If the air water dispenser wants to reach the best operating state, the temperature of ambient environment is very important, with the ideal temperature of 24℃--29℃. However, this does not mean that the dispenser will fail to work in places where the temperature is higher or lower. More drinking water will be produced at faster speed under ideal temperature. So it is necessary to measure the indoor temperature before placing the dispenser.

C:As water is made by converting the water vapour in the air, this machine will become a very powerful humidity intaker. Therefore, for the sake of health, please use this machine only in rooms where the humidity is ensured, or when the window is opened and the indoor and outdoor air exchange is available.