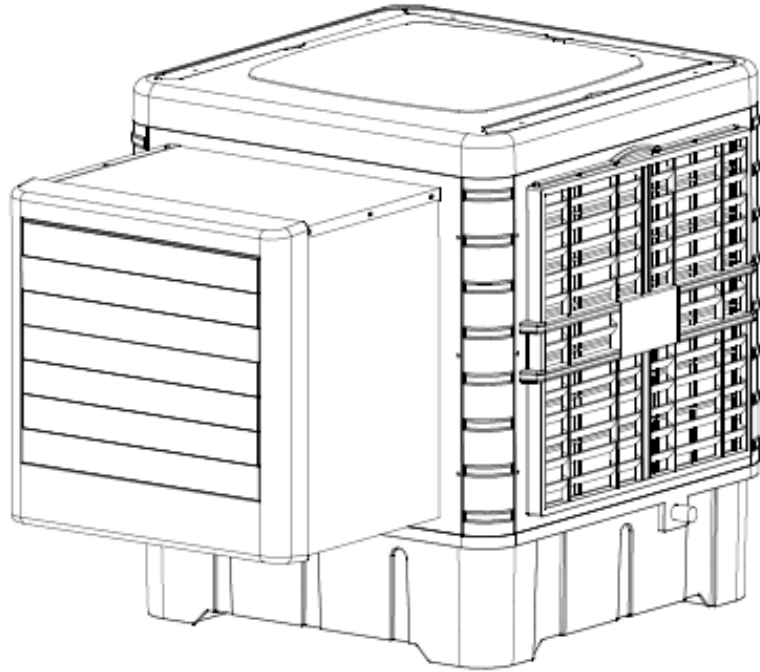


Evaporative air cooler user's instruction manual



Please keep the user's instruction manual for reference.

Please read this instruction manual carefully before using the product.

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I、Product Introduction

Evaporative air cooler is a kind of modern energy-saving product which is developed through years of research and experiments. It has the following advantages:

1. Energy-saving: Up to 80% or more while comparing with traditional air-conditioner
2. Environmentally friendly: No use of refrigerants to create the cooling effect.
3. Efficient: Low electrical usage comparable to an exhaust fan but with cooling effect.

Its working principle is a "direct evaporative" humidification and cooling technology, which not only has a cooling function but also can achieve air humidification. Continuously circulating pump draws water from the water tank, and then the water is distributed to the cooling pads. When the hot air enters into the cooling pads, evaporation of water in the pads occur cooling the hot air before it enters the greenhouse.

II、Specifications

Cooler Model	3500VK VABW06-EQ	5800VK VABW10-EQ
Voltage/Frequency	110V/60Hz	110V/60Hz
Working Current	1.6 amps	2.36 amps
Water Consumption	1 ~ 2 gal/h	1 ~ 2 gal/h
Outlet Size (in.)	17" × 17"	17" × 17"
Noise	58dB	63dB
Max Air Volume	3500 CFM	5800 CFM
Power	180W	260W
Water Storage	6.5 gal	10.5 gal
Weight	55 lbs.	77 lbs.
Fan Type	Axial Fan	Axial Fan

III、Range of Application

As the remarkable advantages of evaporative air cooler in cooling, humidification, cleanness, energy-saving and ventilation, it is used in ventilating and cooling many places like greenhouses, shops, homes, livestock barns, warehouses, etc.

IV、Using Environment

1. Environment Relative Humidity: $\leq 95\%$
2. Atmospheric pressure: 86kpa~106kpa
3. $0^{\circ}\text{C} < \text{Water supply temperature} < 45^{\circ}\text{C}$, water supply pressure: 0.15~0.6mpa

V、Operating Instruction

1. The operating instruction of control panel (Picture 1)

(1) ON/OFF

Plug cooler in, and press this button to turn on the air cooler. During the initial use, the default setting is in the “cool mode”. Press button again to cut the unit off (turns off fan motor, pump and display).

(2) COOL/FAN

Press this button to select COOL mode (fan and water pump are both on) or FAN mode (only fan is on). The lights on the control panel will indicate which mode the cooler is in.

The COOL light will light up, after 30 seconds, fan motor will start working.

(3) Speed

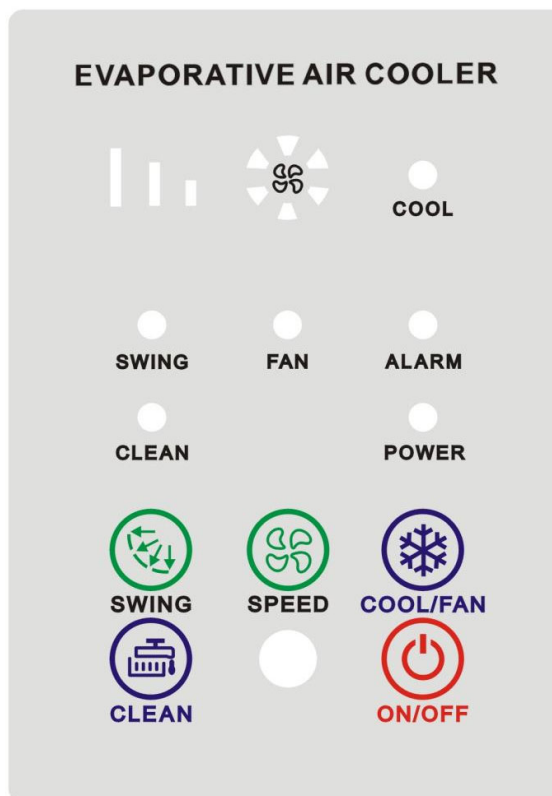
Press this button to adjust the fan speed. Choose from low, medium and high.

(4) Swing

Press this button to make the louvers oscillate left and right.

(5) Clean

This button is not used or needed on this model.



Picture 1

2. Operation of remote controller (Picture 2)

(1) ON/OFF

Plug cooler in, and press this button to turn on the air cooler. During the initial use, the default setting is in the “cool mode”. Press button again to cut the unit off (turns off fan motor, pump and display).

(2) COOL/FAN

Press this button to select COOL mode (fan and water pump are both on) or FAN mode (only fan is on). The lights on the control panel will indicate which mode the cooler is in.

The COOL light will light up, after 30 seconds, fan motor will start working.

(3) Speed

Press this button to adjust the fan speed. Choose from low, medium and high.

(4) Swing

This button makes the louvers oscillate left and right.

(5) Clean

This button is not used or needed on this model.



Picture 2

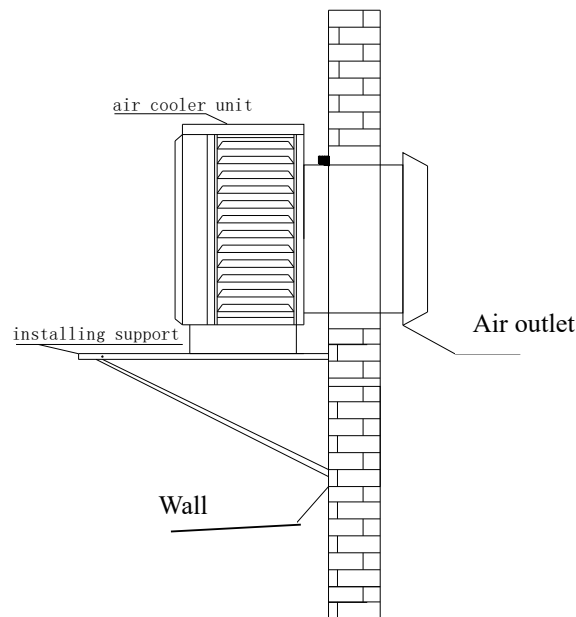
3. Audible alerts

(1) Each time you press a button on the remote, a buzzer will ring. The operation of remote control is the same as control panel.

(2) When the water level is below the warning level, the water pump will stop running and the buzzer will ring, and it will return to work after water is added.

VI、 Installing and Using Instruction

1. The unit must be installed outside or in the area with enough return air volume and 0.15~0.6 m/pa water pressure.
2. The unit for open area using, if it working in closed area, must open the vent to keep balance between the air input and displacement.
3. Before installing the air cooler support in the outside wall, draw a horizontal line with level ruler firstly to keep the support level, controller put higher 2m than floor, support welding and installing must be stable, which can bear no less than 200 kg of dynamic load, and then put the item on the support. If higher 3m than floor, adding barrier. Lastly connect the PVC pipe with speed glue to keep smooth for water inlet and outlet.

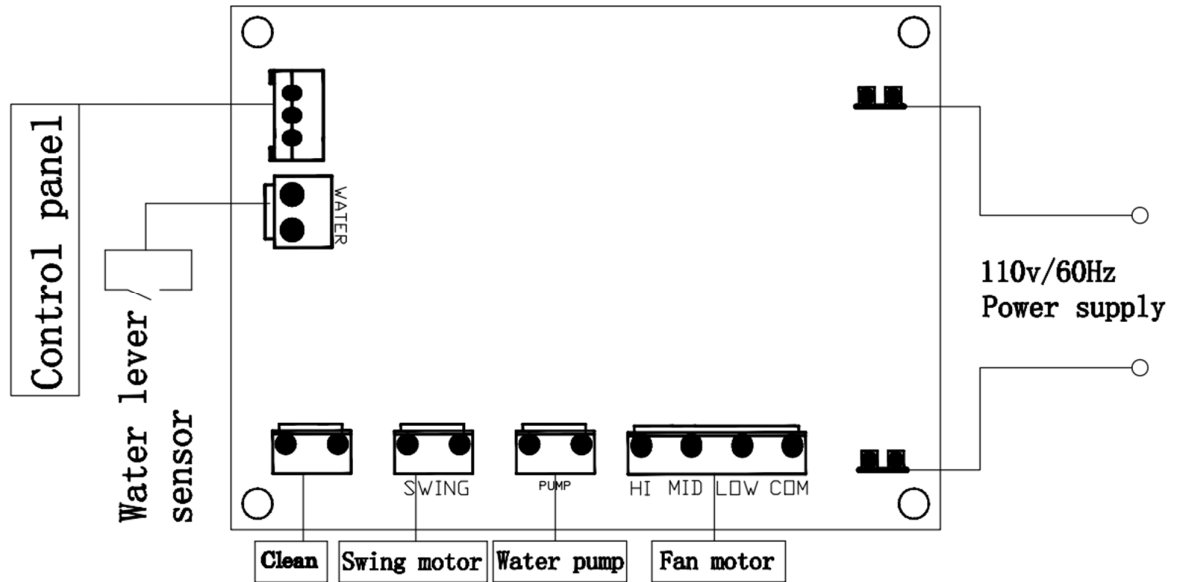


4. Operation and maintenance

- (1) In high humidity season, it is better to choose wind mode as there is humidifying effect in cool mode.
- (2) After adding water, do not let machine tilt, collide, laid or move to any position that will make the water overflow. Do not overturn the machine.
- (3) Do not cover the air outlet, a clear space of at least 3 feet should be provided in front of the air outlet and around the cooling pads.
- (4) Please remember to unplug the machine before cleaning or maintenance.
- (5) Clean the shell with a wet rag. Don't flush it with water directly.
- (6) If the machine is overturned with water in it, pull the power plug immediately. You should only re-start the machine after it thoroughly dries out, otherwise, it may malfunction.

- (7) Don't keep the air outlet close to walls or window curtains cause the air will be blocked.
- (8) If the machine is not in use, please pull the power plug.

VII、Circuit Wiring Diagram for PCB



VIII、Maintenance Instruction

Turn the power off before maintenance or repair of the machine so as to prevent accidents due to illegal operation. To ensure the cooling effect of the machine, the machine body should be cleaned by water every day or every week. The interior of the machine shall be also cleaned regularly, and the proper cleaning interval is one month; however, the actual cleaning time will vary depending on the exterior environment.

1. Instructions for cleaning the interior of the air cooler
 - (1) Turn off the power and loosen the fix screw and remove the air inlet shutter together with the evaporation heat exchanger, use a soft brush to clean it.
 - (2) Clear away the deposit in the chassis with water.
 - (3) After cleaning, install the air inlet shutter (together with the evaporative heat exchanger), and tighten the fixing screw.

Attention: during cleaning, the pressure of the water should not be too high. When cleaning the wet curtain, please don't use acidic or alkaline detergents.

2. It is suggested that cooler be inspected and maintained annual to maximize the life of the unit.

IX、 Commons Faults and troubleshooting

Troubles	Common Causes	Solutions
Unable to start the fan	Power failure	Check power supply
	Fuse burned	Change the fuse
	Poor contacted PCB	Check the PCB
	PCB damaged	Change the PCB
No air flow	The motor starter's capacitor damaged	Change the capacitor
	The motor damaged	Change the motor
	There is jam at cooling pad or air filter	Clean out the cooling pad and air filter
	PCB damaged	Change the PCB
No cooling	Lack water in water tank	Add water
	Water pump damaged	Change water pump
	Water sensor damaged	Change water sensor
	Cooling pads are dirty	Clean or replace pads
Tainted	Water or cooling pads are dirty	Change the water and clean wet curtain

WARRANTY

Coolers are warranted by the manufacturer to the original user against defects in workmanship or materials under use for one year after the date of purchase. Any part which is determined to be defective in material or workmanship and returned to the supplier, shipping costs prepaid, will be repaired or replaced at the supplier's option.

This warranty is expressly in lieu of all other warranties, either expressed or implied. Any implied warranty of merchantability or fitness for a particular purpose is hereby excluded. In no event or circumstance shall the supplier be responsible for any incidental or consequential damages whatsoever.

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