



OWNER'S MANUAL 18APV

READ AND SAVE THESE INSTRUCTIONS

Read all instructions carefully before setting up and operating this unit.

This manual is designed to provide you with important information needed to setup, operate, maintain, and troubleshoot your cooler.

Failure to follow these instructions may damage and/or impair its operation and void the warranty.



Systema S.p.A.

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PREFACE

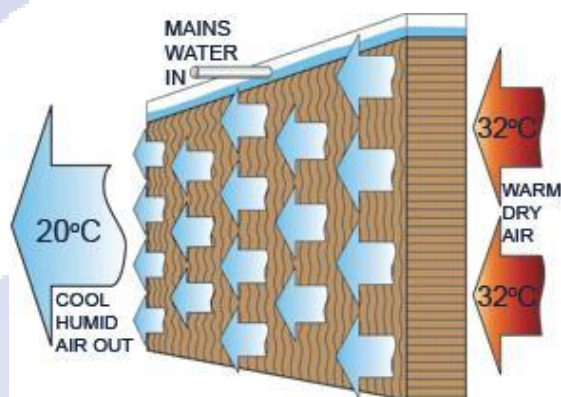
We really appreciate your credit and support in advance. Our evaporative air cooler will bring you breeze and health with least energy.

Adopting the most advanced evaporative cooling technology in the world and the contemporary production management system, this installation manual is specific for **18APV** evaporative air cooler. To ensure the optimal efficiency, we recommend you to read the manual carefully before use.

How Evaporative cooling works

Evaporative cooling is to cool and humidify air by water evaporation to absorb heat. Do you ever wonder why you feel cooler by the ocean? It is because hot air is blown over water causing some of the water to evaporate and absorb heat. Evaporative air cooler working this evaporation principle.

In an evaporative cooler a circulation pump keeps the cellulose filter pads fully soaked. As warm air passes over wet filter pads water naturally evaporates into the air. The air is cooled as it gives up the heat required to evaporate the water.



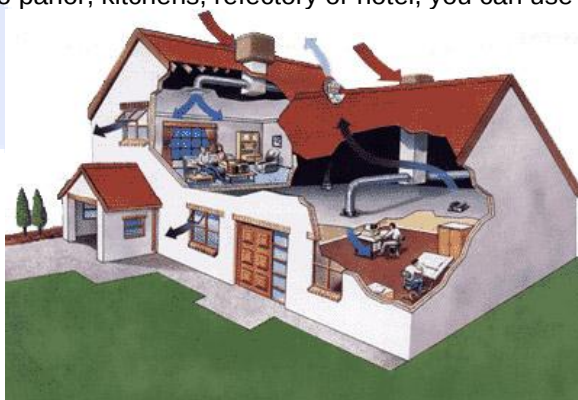
Application areas of evaporative air cooler

(1) Relative dry and hot areas

Most of the areas which need to reduce temperature and increase ventilation can use our product, such as mall, supermarket, office, hotel, Hospital, station, gymnasium, exhibition, restaurant, dancing room, hall, meeting-room, school, factory and villa.

(2) Relative humid areas

Evaporative air cooler is also suitable for the high-temperature or peculiar smelly factories, such as textile mill, dress mill, printing and dyeing mill, tannery, shoes mill, plastic mill, steel works, electronic manufacture and chemical plant. You can use our cooler to full cooling. Our cooler is also suitable for the foggy areas such as game or disco parlor, kitchens, refectory or hotel, you can use the cooler to cooling and vent.



Evaporative air cooler features

- (1) Well designed system ensures best cooling effect;
- (2) Energy efficient and environmental friendly saving more than 80% of electricity as compare with conventional air conditioners;
- (3) The patented filter pad has over 90% of soak rate;
- (4) High quality sealed aluminum motor, with good sinking effect, IP44 high level protection, stable temperature, water-proof and good appearance;
- (5) The exclusive fan blades produce large airflow and create little noise;
- (6) Filter pads are easy to clean and maintain;
- (7) Patented open-style water diffuser ensures high efficiency and stable water supply;
- (8) Multi-lever air flow regulator.

18APV Technical Details

Model No.	18APV	
Voltage	220V-230V	
Frequency	50Hz	
Speeds	16 speed (Inverter)	
Wattage	1100W	
Max airflow	18000 m3/h	
Air pressure	180Pa	
Fan type	axial flow	
Size of machine	1100*1100*950mm	
Size of air outlet	642*642mm	
Size of cooling pad	(675+30) *790*100mm	
Control type	RTC wall controller and remote control	
Water consumption	15-20 L/h	
Effective area	120-150 square meters	
Net Weight	70.5kg	
Gross Weight	80kg	
Noise	≤73db	

Spare parts

Main components:



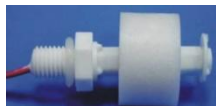
Motor:

- High efficiency, low noise, strong power volume
- Full protection against over current, over voltage and overload
- Unsurpassed reliability



INVERTER Control box:

- Micro-computer control, easy upgrade, can design for customer special requirement
- High reliability, suit for used in various industrial environments
- High protective control box, networked control system
- N-hour automatic cleaning and drainage functions, keep the evaporative air coolers blow fresh and cool air
- Various optional features, increase products value



Water level probe:

- Water level control
- Precisely and accurately checks the water level
- Device to prevent damage if the circulation pump lack of water



LCD Controller and remote control:

- To control power supply and components, and implement instructions from the MCU
- A large LCD screen display simplifies operations
- Multi function MCU control system includes a programmed on/off function



Fan blade:

- Made up of 6 pieces of high-rigid and fibrous plastic
- All pieces can be adjusted the prefer angle
- Strong wind volume



Drain valve:

- Automatic water draining every 8hours
- Prevents algae growth
- Maintains clean unit
- Clean and dry function



Inlet valve:

- New type, Permanent magnet retractor
- Small design, long durability and reliability



Water pump:

- Professionally manufactured, good heat-radiating performance
- Permanent magnetic synchro motor inside
- Powerful, durable, high lift, low noise

- Exceptional reliability in extreme conditions

Check up and adjustment before operation:

1. Is the cooler installed horizontally?
2. Is drain pipe connected to the machine?
3. Is the water supply leaking?
4. Adjust water level in the sump?
5. Is the power supply connected correctly (particularly for three phase machine)?
6. Is the power line for the control panel correctly connected?
7. Is the operation current within the rated range?
8. Is there unwanted object in the vent?
9. Is the voltage correct?
10. Does cooler vibrates noticeably while operating?
11. Is there any foreign object in the sump?

Important notes

1. The best effect is achieved when the unit is used in a well ventilated and dry place, where the unit takes in 100% fresh air from outside and no re-circulation occurs.
2. Avoid discharging cool air into an closed space. There must be enough space for discharged air, even use exhaust fans
3. For a place without powered exhaust, 0.8m² of exhaust area is needed for every 3600m³/h air discharge. When using a powered exhaust, the designed exhaust volume shall not be less than 85% of air intake.
4. Keep the unit away from welding sparks or any source of fire during the installation and when the unit is running.
5. The unit must be tested and adjusted. E.g.: adjusting water level floats before operation. Ensure that the unit is operating within the rated electrical currency.
6. Ensure correct wiring of the power and controller. The section in the power socket shall not be less than 1.5mm². The units shall use a dedicated power line instead of sharing a power line with other equipments.
7. Voltage of power supply shall be within 10% vibration from the rated voltage. Lower voltage may cause motor start failure or undue frequent starts and stops. Long-term low voltage or high voltage will cause damage to the motor.
8. The controller and its wire shall be kept away form strong electronic and magnetic interference, such as frequency converter, silicon speed and temperature controller, high frequency heater circuit or high power motor. Avoid wiring the power supply lines parallel to these sources. In the case of unavailability, the power line must maintain a distance of more than 30cm from parallel interference source.

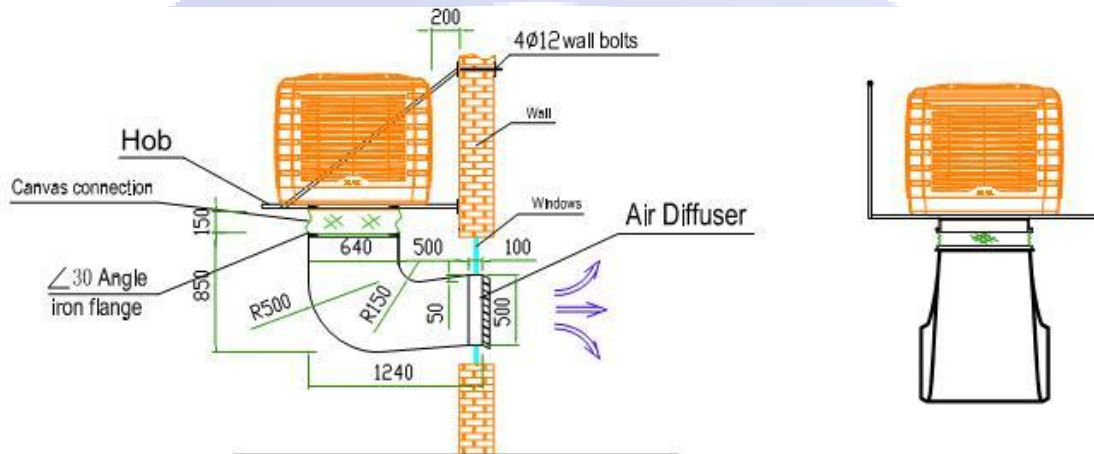
Inspection and preparation before installation

- (1) Check the components and documentation (e.g.: instruction, certificate and maintenance card) against the packing list. If there in anything missing or damaged, keep it as it was and report to the factory or local distributor.
- (2) Check the power supply for correct voltage.

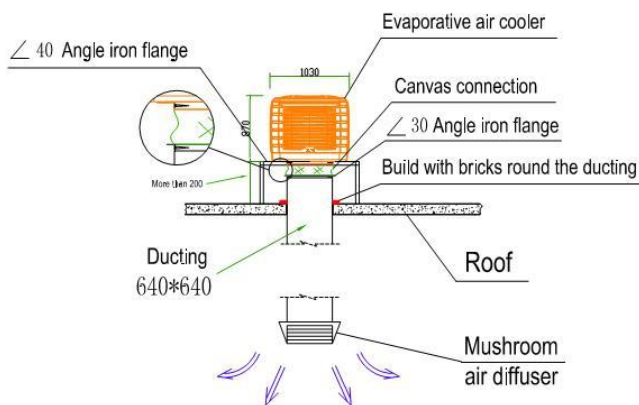
Ways of installation

- (1) Cooler can be installed on the outer wall, with a side diffuser (an electromotive swing air diffuser can be used to cover larger area);
- (2) Cooler can be installed on the roof, with a multi-side air diffuser penetrate through the roof and into the room;
- (3) One or more coolers can be installed on the roof or outer wall, each connected to a duct to deliver the cooled air evenly to the room or to the desired spot;
- (4) A number of coolers can be installed on the roof or on the outer wall, connected to a single duct, and with a powered blower in case of necessity.

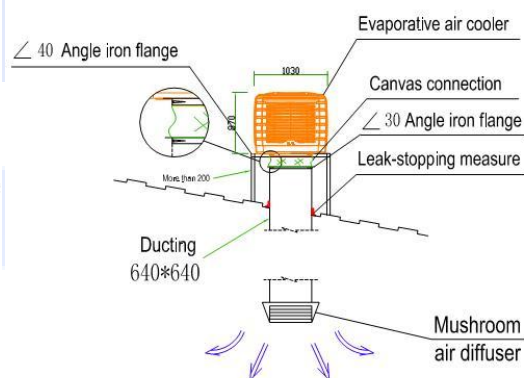
1) Wall:



2) Roof

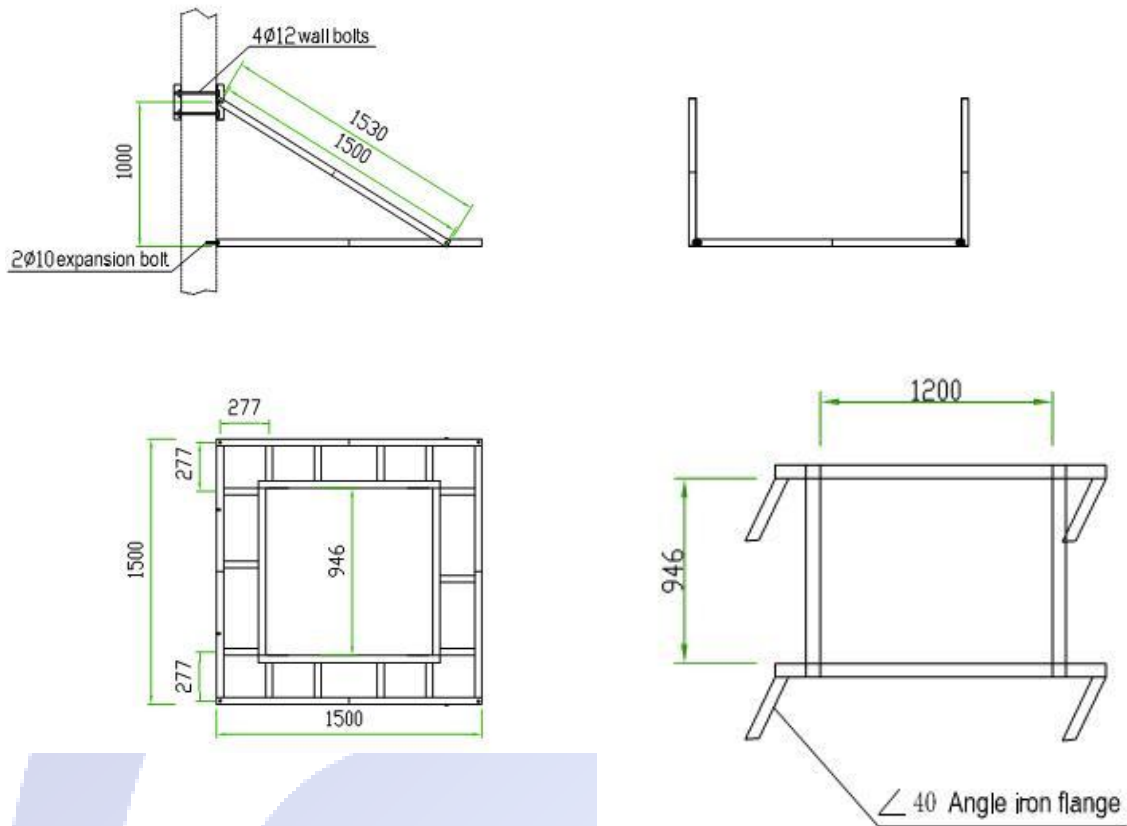


The sketch map of air cooler install in cement roof

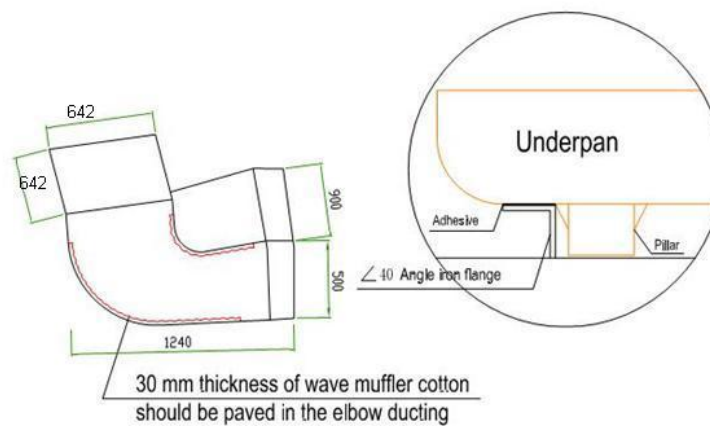


Rooftop installation diagram
(steel structure, glass tile structure)

3) Diagram of bracket:



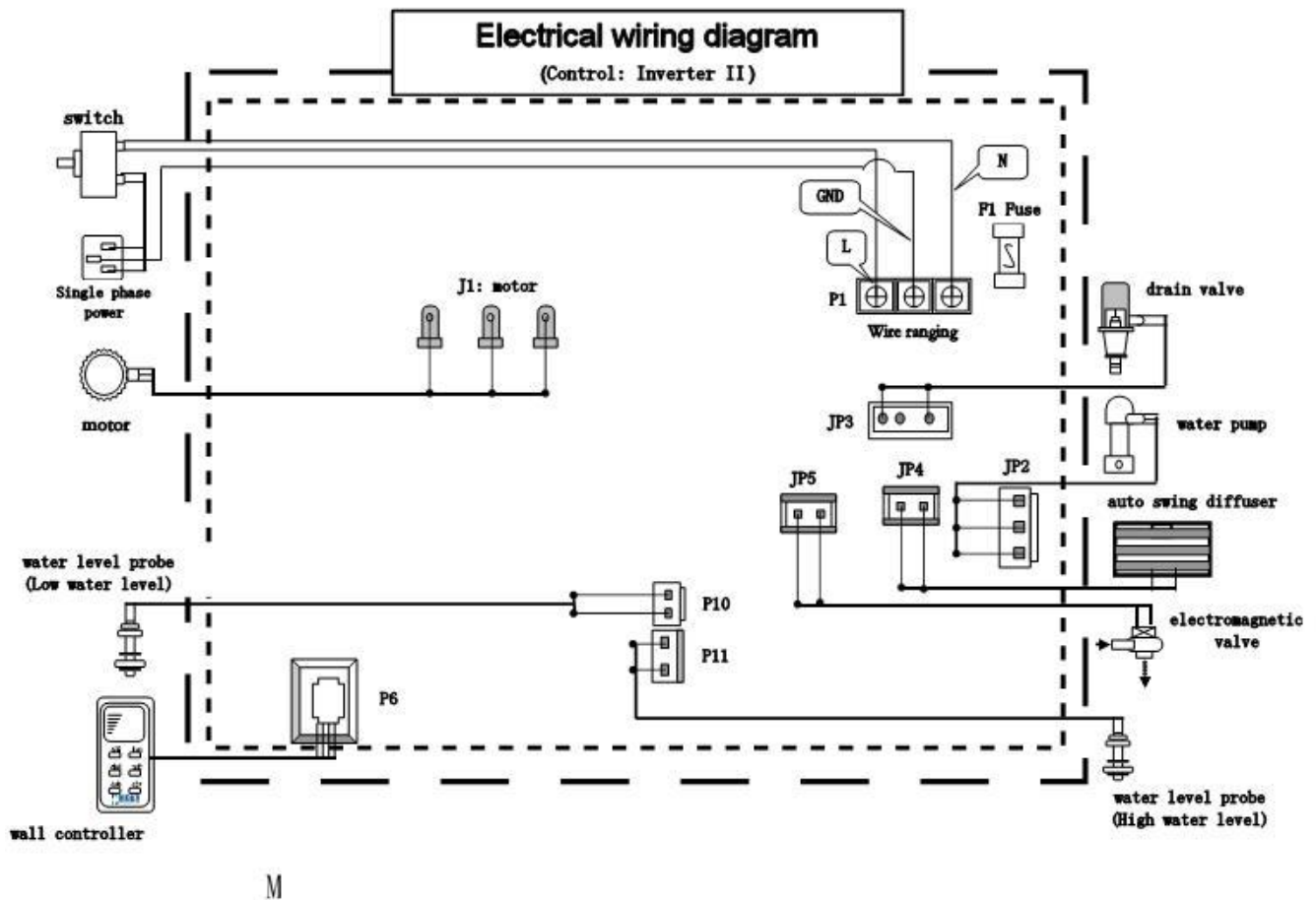
4) Diagram for duct adaptor



Notes:

As shown above the four installation holes at the bottom of the cooler are fixed on the four steel tubes welded on the bracket to the cooler from moving out of place.

Circuit diagram of control box of 18APV



Tips for better duct work

- (1).The duct uses zinc coated steel, glass steel and plastic duct also can be used.
- (2).The air diffuser should be installed in the places where the temperature actual need to be cooled. It depends on volume and velocity to select the specification of the air diffuser. The air diffuser is made of aluminum, alloy or wood and the type can be selected according to the actual situation. We recommend both single and double deflection grille. The average velocity in the duct is supposed to be at 3-6m/s. The air draft can be controlled by a regulating valve.
- (3).The specification of duct depends on flow velocity, the wind velocity in the main duct is kept at 6-8m/s while in the branch is 4-5m/s and 3-4m/s in the end.
- (4).The duct system is required to be economical and to be kept smooth as well as quiet, which makes the perfect air draft. To reduce flow resistance, the elbow's radius of curvature is not less than 1.5 times the width of duct.
- (5).The air duct should not be too long, the maximal length is 20m.
- (6).Keep the duct in a straight line is much better. To reduce the pressure drop, some unnecessary elbow and branch should be refrained.
- (7).Try to use motor driven diffuser in the plane layout. The air duct should be designed as short as possible in some places where air duct must be applied.
- (8).According to the volume air, different specification of the duct is used in different section.
- (9).The air duct and cooler should be connected with hose.
- (10).If there are branches in design, a valve and verge board can be used to control the air volume, which reach the design requirement.

Thermostat Wall Controller User Manual



Functions Cooler types	Exhaust	RTC functions	Pre-cooling	Intelligent cleaning	Shutdown cleaning	Auto-cleaning
1 Phase/2 Speeds	☐	(RTC functions: Relative Humidity and Temperature control functions.) If the wall controller with thermostat, that the wall controller with RTC functions.	☐	☐	☐	✓
1 Phase/3 Speeds	☐		☐	☐	☐	✓
3 Phase/1 Speed	☐		☐	☐	☐	✓
3 Phase/2 Speeds	☐		☐	☐	☐	✓
1 Phase/16 Speeds	☐		☐	☐	☐	✓
1 Phase/Inverter	✓		☐	☐	☐	✓

☐ means: without the function

☐ means: with the function, but the default is off.

✓ means: with the function, and the default is on.

1. TURN ON/ TURN OFF

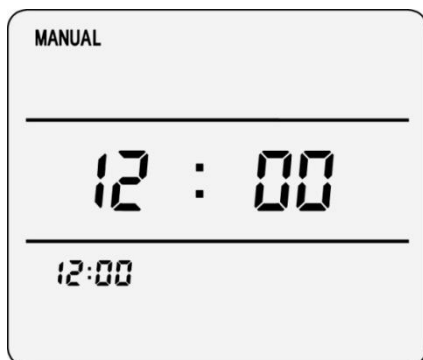
- 1) Press the button of , turn on or off the evaporative air cooler manually.
- 2) Hold  button down for 5 seconds, the wall controller will get back to the ex-factory setting, restart.

2. SETTING THE CLOCK

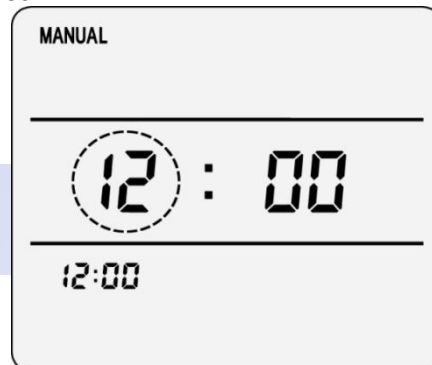
Set the clock on the wall controller before proceeding with any other programs. The picture of 2-1, the current time is 12:00. The setting as follows:

- 1) Press the  button, the hour will flash. Use  to change hours.

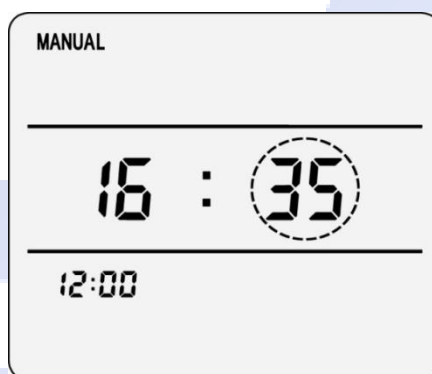
- 2) Press the  button again, the minute will flash. Use  to change minutes.
- 3) Press the  button one more time, time setting been finished.



Picture 2-1 show the current time



Picture 2-2 change hours



Picture 2-3 change minutes

3. FAN

The  button is used to select VENT (fresh air been delivered into rooms, but the air doesn't been cooled).

Press  button can turn on and turn off VENT function. To increase or decrease the fan speed required,

press the  buttons.

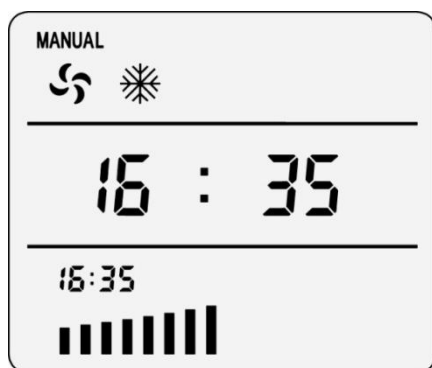
4. COOL

COOL function will make the pump to work, take out water from tank to wet cooling pad. Cooled air will be delivered.

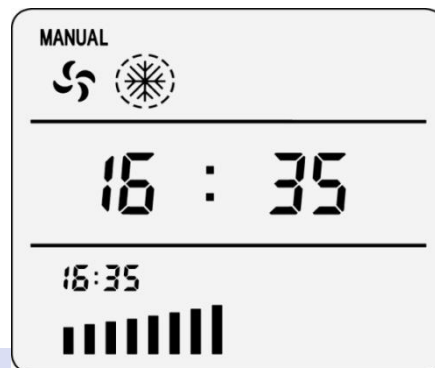
Press  button can turn on and turn off COOL unction.

When you press  button, if the water level on tank is too low, the pump will stop running while the water is enough. The COOL icon is flashing on screen that means the pump stop running at the moment.

Note: The pump protection also happens on water shortage when cool function been turned on.



Picture 4-1 turn on VENT and COOL



Picture 4-2 pump stop running (low water)

5. CLEAN

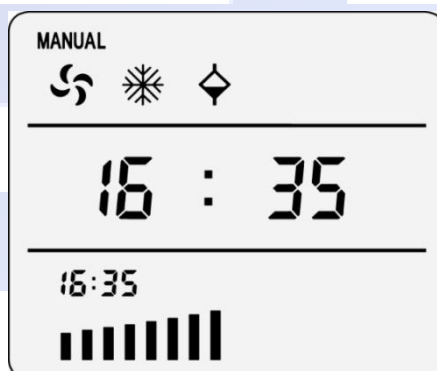
Drain function makes motor run by contraries to clean cooling pad, turn on the drain valve, and drain the dirty water out.



Press  button can turn on and turn off CLEAN unction.

Drain function running for 5 minutes, will stop automatically.

When draining, the water level will decline rapidly, so if the COOL function is still keep on, the pump will pause automatically to protect pump, and running again when DRAIN stop and water filled enough.



Picture 5-1 turn on VENT, COOL and CLEAN

6. AUTO-CLEANING

When FAN and COOL functions work together for N hours(N can be set), air cooler will open the clean function, drain out the dirty water in tank, and add clean water automatically.

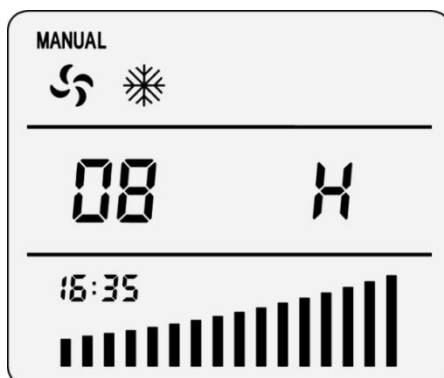
The default of Auto- cleaning cycle is 08-hour.



Press  button to set up Auto-cleaning cycle , press  for 3 seconds, the Auto-cleaning cycle will be 00 → 04 → 08 → 16 → 32 → 48 → 00 (in hours). If the Auto-cleaning cycle is 00H, the Auto-cleaning function been cancelled.

When set Auto-cleaning cycle, the screen will show the cycle of Auto-cleaning (as shown in picture 6-1), Auto-cleaning cycle is 08-hour. The time will disappear when setting finish.

Note: Auto-cleaning function turns on under FAN and COOL functions work together.



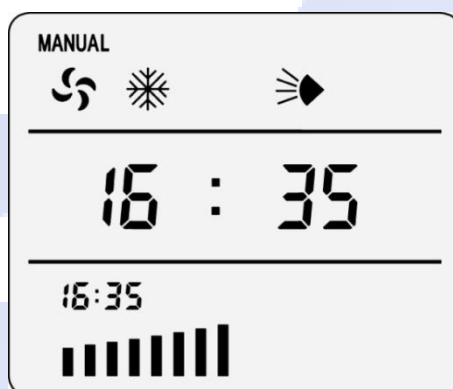
Picture 6-1 Auto-cleaning cycle is 08-hour

7. SWING

Note: if there is no electronic swing air diffuser, this function will not available.

Swing function means change wind direction circularly.

Press  button can turn on and turn off SWING unction.



Picture 7-1turn on VENT, COOL, and SWING

8. TIMER

 Can turn on/turn off the timing function, the wall controller will work according to the last setting before shutdown.

TIMER function can work on any working modes, the setting methods are same in any working modes, take an example of manual mode (MANUAL).

8.1 TIMING TURN ON

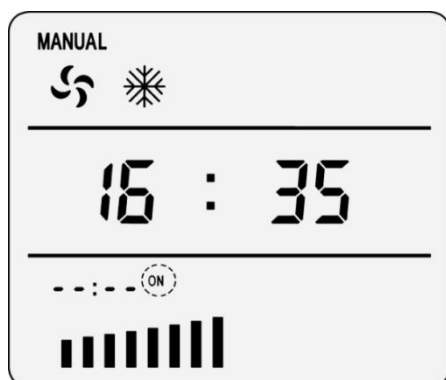
The processes are as follows:

1) Press the  button, the screen will show "--:--", "ON" is flashing, means timing turn on function doesn't be set, like the picture of 8-1.

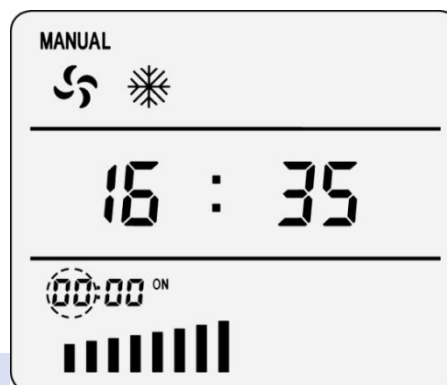
2) Press  button, --:-- changes to 00:00, and the hour is flashing, use  button to changes hour, like the picture of 8-2.

2 Then Press  button, the hour stop blinking, the minute is flashing, use  button to changes minutes, like the picture of 8-3.

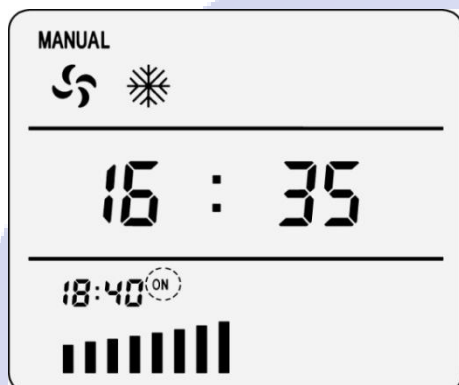
3 Press  button once again, finish the setting, the screen shows the current time 16:35 and "ON", means the timing turn on function is finished, like the picture of 8-4.



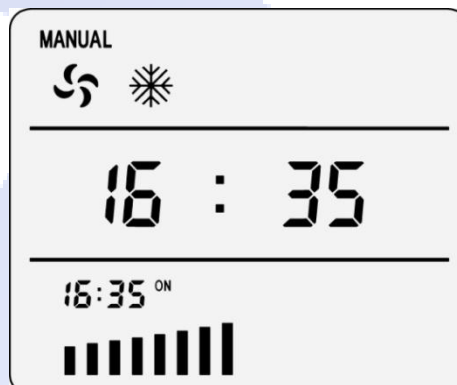
Picture 8-1 timing turn on



Picture 8-2 setting hours



Picture 8-3 setting minutes



Picture 8-4 finish the setting

8.2 TIMING TURN OFF

The processes are as follows:

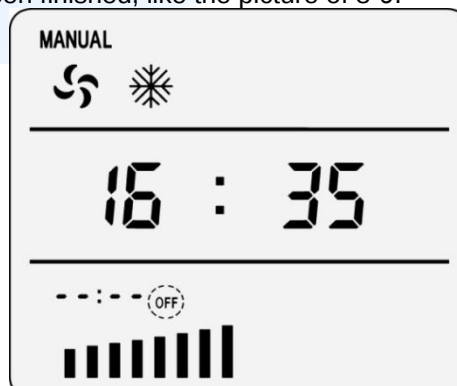
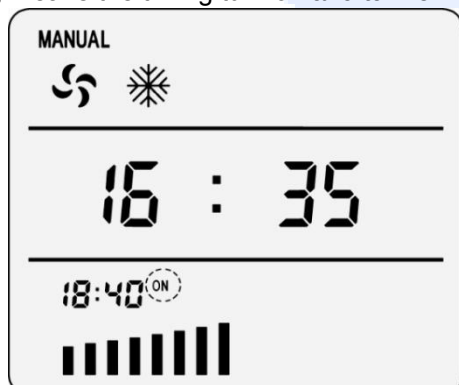
1) Press the  button, and the screen will show "18:40", "ON" is flashing, means the machine will be turned on at 18:40; see the picture of 8-5.

2) Press  button, and the screen will show "--:--", "OFF" is flashing, means timing turn off function doesn't be set; see the picture of 8-6.

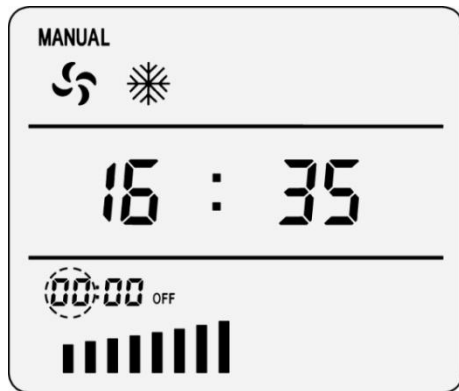
3) Then Press  button, "--:--" change to 00:00, the hour is blinking, press  button to change hours; like the picture of 8-7.

4) Press  button, the hour stop blinking, the minute is flashing, press  button to change minutes; like the picture of 8-8.

4) Press  button once again, finish the setting, the screen shows the current time "16:35", "ON" and "OFF", means the timing turn on and turn off functions have been finished, like the picture of 8-9.

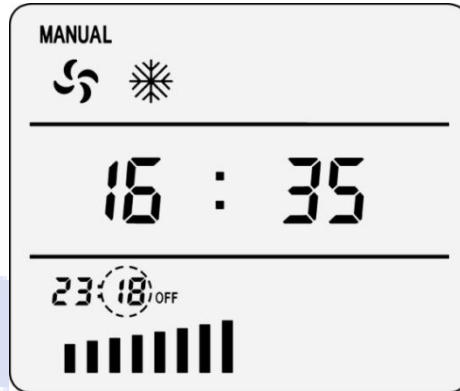


Picture 8-5 setting of timing turn on

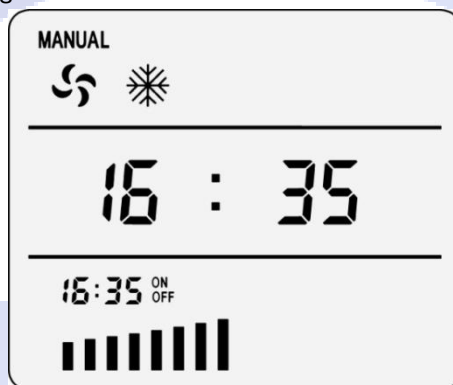


Picture 8-7 setting hours

Picture 8-6 setting of timing turn off



Picture 8-8 setting minutes

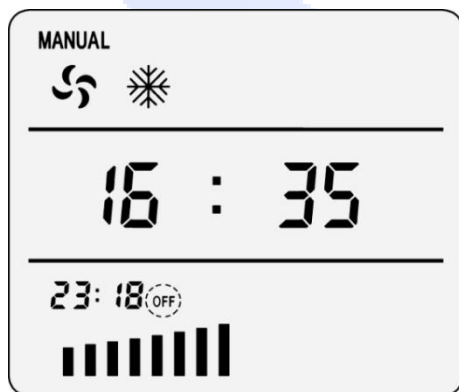


Picture 8-9 finish the settings of timing turn on/off

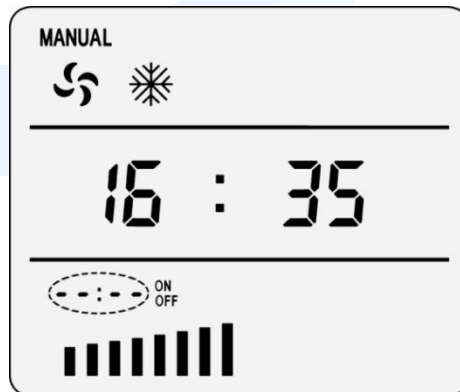
8.3 CANCEL TIMING

The processes are as follows:

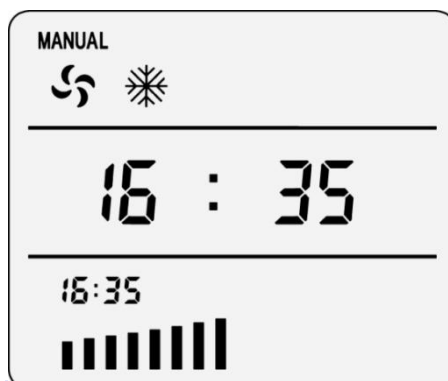
- 1) Press the  button, the screen shows "18:40", "ON" is flashing, time of turn on is 18:40, see the picture of 8-5.
- 2) Press  button, the screen shows "23:30", "OFF" is flashing, time of turn off is 23:30; see the picture of 8-10.
- 3) Then Press  button, the screen shows "ON" and "OFF", "--:--" is flashing, timing been canceled; see the picture of 8-11.
- 4) Press  button, timing function been canceled, the screen just shows current time 18:35, no any timing setting.



Picture 8-10 setting of timing turn off



Picture 8-11 cancel the setting



Picture 8-12 timing function been cancel

9. MODE

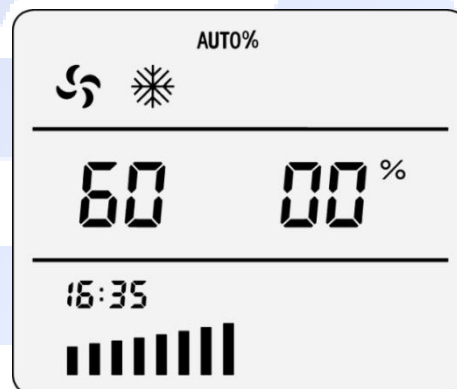
Note: This feature does not apply to all machines, it will be taken effect only for evaporative air coolers with Relative Humidity and Temperature Detecting functions.

If your controller does not support the Relative Humidity and Temperature Detecting functions, will show 00 °C and 00% on screen. (like the pictures 9-1 and 9-2)



Picture 9-1

Not support the temperature control



Picture 9-2

Not support the humidity control

press  button for 3 seconds, can switch air cooler's working modes, that is MANUAL, AUTO°C, AUTO%.

1. MANUAL MODE

With the wall controller on, press the  button until MANUAL is shown on the top left corner of screen. Current temperature and relative humidity will be shown on the screen. If FAN is selected, the wall controller will show a constant fan speed, indicated on the bar graph on the bottom of screen.

If the water is enough in tank, press  button, will turn on or turn off pump.

2. AUTO°C MODE

Under the mode of AUTO°C, the wall controller will adjust fan speed and pump's work to maintain the pre-concerted temperature.

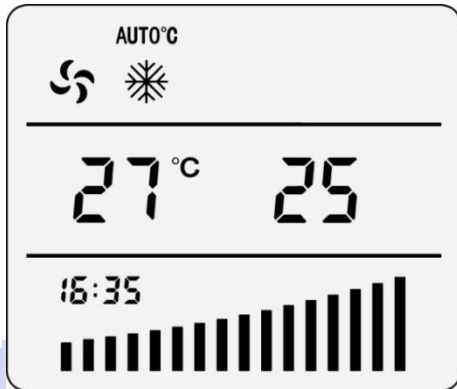
When the mode switch to AUTO°C, the icons of AUTO°C, FAN and COOL will be shown on screen, FAN and



COOL functions will be turned on automatically, use  buttons to change speed.

As shown in picture 9-3, current temperature is 27°C, the pre-concerted temperature is 25°C, FAN and COOL functions been turned on.

The default temperature on AUTO°C mode is 25°C, if want to change, press  button, the pre-concerted temperature will flash (as shown in picture 9-4),  button will change the pre-concerted temperature, press  button again, the setting is finished. The temperature has been change to 23°C. (as shown in picture 9-5).



Picture 9-3 AUTO°C mode



Picture 9-4 set temperature



Picture 9-5 Finish the setting

3. AUTO% MODE

Under the mode of AUTO%, the wall controller will adjust fan speed and pump's work to maintain the relative humidity.

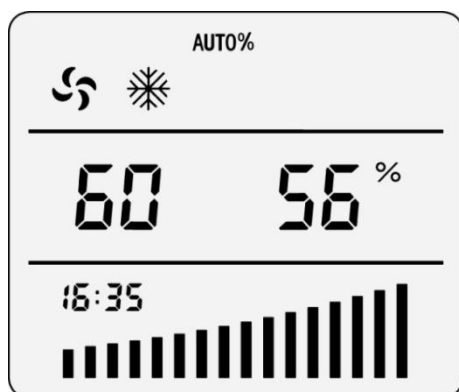
When the mode switch to AUTO%, the icons of AUTO%, FAN and COOL will be shown on screen, FAN and

COOL functions will be turned on automatically, use  button to change speed.

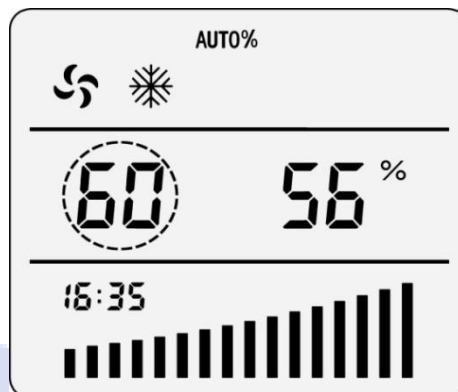
(as shown in picture 9-6), the current relative humidity is 56%, pre-concerted relative humidity is 60%, FAN and COOL functions been turned on.

The default temperature on AUTO% mode is 60%, if want to change, press  button, the pre-concerted

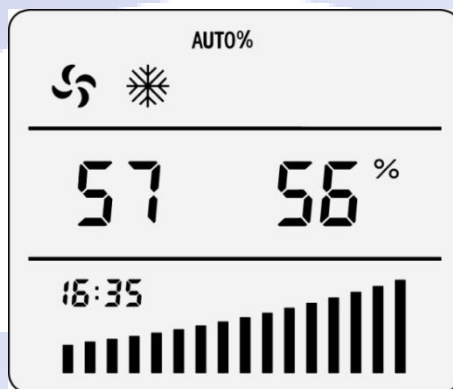
temperature will flash(as shown in picture 9-7), use  buttons to change, press  button again, the setting been finished. (as shown in picture 9-8).The relative humidity has been change to 57%.



Picture 9-6 AUTO% mode



Picture 9-6 set relative humidity



Picture 9-8 Finish the setting

10. PRE-COOLING MODE

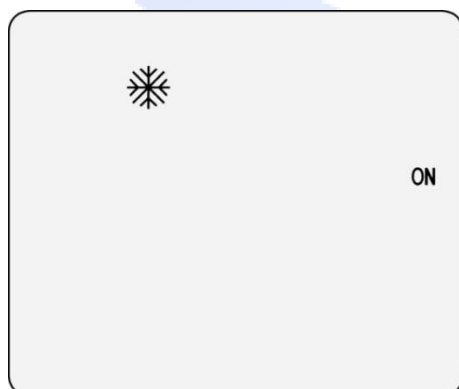
If your wall controller is designed to allow for the saturation of the cooler's cooling pads before the fan is switched on. The default of pre-cooling mode is closed.

On the state of shutdown, press the buttons of  and  for 5 seconds, can turn on and turn off the cooling mode. (Picture 10-1 and 10-2). If the cooling mode been enabled, press the  button, the cooler will operate as follows:

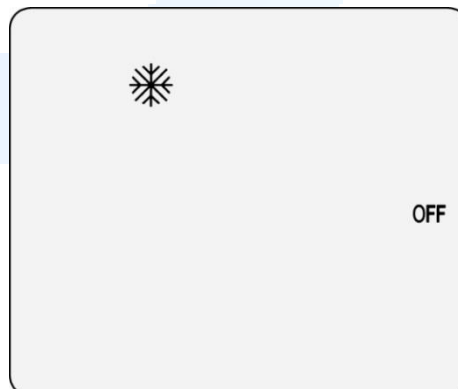
- (1) If the water level is low, the tank will be filled automatically. FAN icon flashes on screen. (like the picture of 10-3).
- (2) 2 minutes later, the pump will be turned on and saturate for filter pads. if the water tank still in low water level, the pro-cooling action will be closed, and start to vent.
- (3) 1 minute later, the pump stops, and fan starts running, the FAN icon shows on the screen.

Note 1: PRE-COOLING mode will not be activated if FAN been chosen again shortly after turned off.

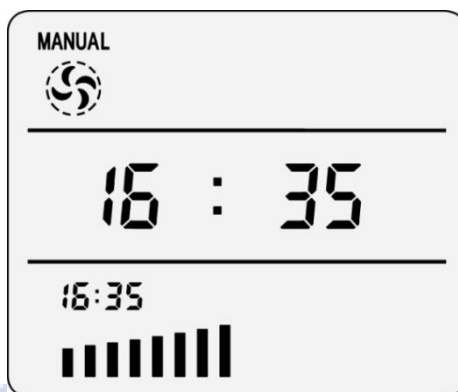
Note 2: The settings on PRE-COOLING mode will be stored automatically and continue to use in next reboot.



Picture 10-1 Turn on PRE-COOLING mode



Picture 10-2 Turn off PRE-COOLING mode



Picute10-3 PRE-COOLING function is running

11. INTELLIGENT CLEANING MODE

Note: This feature does not apply to all machines, it will be taken effect only for evaporative air coolers with EXHAUST function. We suggest you consult to sellers before you operate this setting.

If your wall controller is designed to intelligent cleaning mode, when clean the air cooler, the motor will run by contraries, and cooling pad been soaked. The default of intelligent cleaning mode is closed.

On the state of shutdown, press the button of  and  for 5 seconds, can turn on and turn off the intelligent cleaning mode.

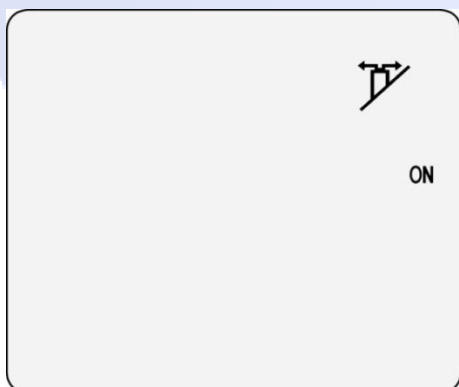
If intelligent cleaning mode is enabled, press the  button, the cooler will operate as follows:

(1) The motor will run by contraries and exhaust air.

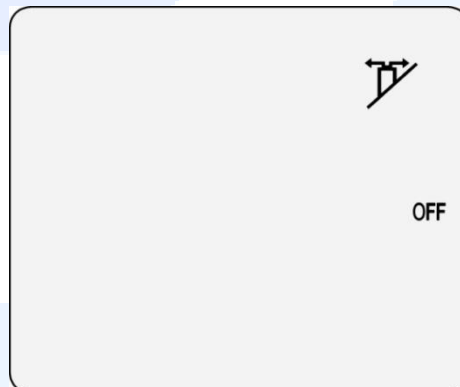
If the current air cooler is venting, the venting function will be stopped. 25 seconds later, exhaust function be opened automatically. If the COOL function is working at this moment, the drain valve will be turned on automatically, or else, no action on drain valve.

(2) 5 minutes later, the drain valve will be self-closing (if been opened), air cooler resumes to the state before cleaning.

Note: The settings on intelligent cleaning mode will be stored automatically and continue to use in next reboot.



Picture 11-1 Turn on INTELLIGENT CLEANING MODE



picture11-2 Turn off INTELLIGENT CLEANING MODE

12. SHUTDOWN CLEANING MODE

If your wall controller is designed to shutdown cleaning mode, the cooler will open the clean function automatically when shutdown. The default of shutdown cleaning mode is closed.



On the state of shutdown, press the button of  and  for 5 seconds, can turn on and turn off the shutdown cleaning mode.

If shutdown cleaning mode is enabled, turn the cooler off, the cooler will operate as follows:

(1) All functions will be closed except the clean function, CLEAN icon shows on wall controller.

(2) 5 minutes later, cleaning function will turn off automatically. The screen shows nothing.

Note: The settings of shutdown cleaning mode will be stored automatically and continue to use in next reboot.



Picture 12-1 turn on the SHUTDOWN CLEANING MODE



picture 12-2 turn off the SHUTDOWN CLEANING MODE

13. SUGGESTIONS

COOL ICON FLASHING

COOL icon flashing (as shown in picture 4-2), indicates the water tank with low water level. In order to protect the pump, the pump will pause, and work again when water is enough.

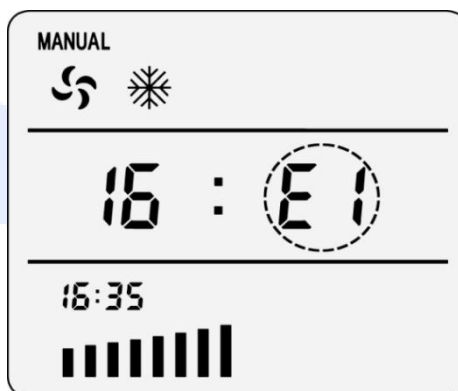
FAN ICON FLASHING

When the FAN icon flashing (as shown in picture 10-3), that means, the air cooler is pre-cooling, pump works for 1 minute, the FAN will be opened automatically. If the water level is too low, air cooler will add water automatically.

14. MALFUNCTIONS

E1

"E1" flashing indicates, (as shown in picture 14-1) the power supply to air cooler is over-current. Please break the power off, and check the power supply.



Picture 14-1 over-current

E2

"E2" flashing indicates, the voltage supply to air cooler is over-voltage (more than 265V). Please break the power off, and check the power supply.

E3

"E3" flashing indicates, the voltage supply to air cooler is under-voltage, (lower than 140V or phase failure). Please break the power off, and check the power supply.

E8

"E8" flashing indicates, the wall controllers can't receive the signal from air cooler, try to pull out the signal line, and re-plug, pay attention to the good connection on communication interface.

E9

"E9" flashing indicates, the failure in water supply, if the water supply action can't be finished within 15 minutes, please turn the COOL function off, and check the water supply system. Restart the COOL function, the machine will add water again, that can solve the water failure caused by small water flow.

Maintenance

- (1).It is to be noted to change the water while the cooler is in work to avoid incrustation.
- (2).The filter pads should be cleaned more often to keep the cooling efficient. Do not use water above 40°C. Banister brush can be used softly to scrub away the dust on the pads.
- (3)The water supply should be shut off to avoid bacteria as well as cold weather. It is also recommended covering to protect the cooler in some dusty and snowy cities.

Cleaning:

- (1).All the type of this series has the function of auto timing cleaning. (the cooler will operates auto cleaning function after accumulative 8 hours under persistence power supply.)
- (2).We advise you to clean the pad every month to keep the cooler under best condition, according to our related standard.

Water and power supply

- (1).The water must be clean, tap water is often used and water source pressure should more than 1.0kgf/cm.
- (2).There should be a stop valves in the hose and obligate a pine joint.
- (3).keep the voltage only between 200-240V.
- (4).There should be a switch to prevent creepage. It also should avoid short circuit, overload and electric shock.

Temperature of Evaporative air Cooler

Vent°C OUTSIDE°C	Relative humidity(%)								
	10	20	30	40	50	60	70	80	90
10	3.2	4.0	4.8	5.6	6.4	7.2	8.0	8.6	9.4
15	6.6	7.8	8.8	9.8	10.8	11.7	12.6	13.4	14.3
20	10.1	11.4	12.8	13.9	15.2	16.2	17.2	18.2	19.2
25	13.4	15.0	16.6	18.0	19.4	20.6	21.8	22.9	24.0
30	16.6	18.6	20.4	22.0	23.6	25.0	26.4	27.7	28.9
35	19.8	22.2	24.2	26.2	28.0	29.6	31.0	32.4	33.7
40	23.0	25.6	28.1	30.4	32.3	33.9			
45	25.9	29.2	32.0	34.3					
50	29	32.7	35.8						

Troubleshooting

The following troubleshooting guide is intended to address the most common symptoms and is by no means exhaustive. If symptoms persist, call a qualified serviceman. Only a certified electrician should complete electrical work. Turn off all power to the cooler before attempting to troubleshoot any of following symptoms.

Number	Symptom	Problem Cause	Remedy
1	Unit fails to start or deliver air	No electrical power to unit: A. Fuse blown B. Circuit breaker tripped C. GFCI tripped D. Cords unplugged or Damaged	Check power: A. Replace fuse B. Reset breaker C. Reset GFCI D. Plug in cord or replace if damaged
		Motor overheated	Try restart after cool down
		Motor frozen	Replace motor
		Motor able to free spin	Replace capacitor
2	Unit starts but air Delivery inadequate	Insufficient air exhausts	Open windows or doors
		Insufficient water-pad not wet: A. Cooling pads plugged B. Dry streaks on pads C. Large dry spots on pads D. Pump not working E. Loose water connections	Check water distribution system: A. Clean or replace pads B. Check water level C. Make sure cooler is level D. Clean or replace pump E. Check for leaks and correct
3	Musty or unpleasant odor	Stale or stagnant water in sump	Drain, flush and clean sump
		Pads mildewed or clogged	Replace pads
		Pads not completely wet before cooler is turned on	Turn on pump before starting fan
4	Knocking, shaking or rattling sounds	Loose parts	Check and tighten where needed
		Blower wheel loose or rubbing	Inspect and adjust, or replace
5	Water droplets in the discharge air stream	Too much water delivered to the cooling pads	make sure pads are properly positioned in the pad frames and The unit is level. If necessary, reduce the flow of water to the pads by tightening the screw on the hose restrictor clamp found on the pump discharge hose.
		Outdoor humidity level is too high or it is raining	Use cooler as a fan only (turn pump off) or discontinue use of cooler until outdoor humidity level drops.

19. GARANZIA

Il nostro raffrescatore evaporativo ha un anno la garanzia con decorrenza dalla data d'acquisto del prodotto che opera in normali condizioni.

Un anno di copertura si applica a tutti i componenti e accessori forniti dalla ditta Systema S.p.A.



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