

# USER'S GUIDE

Version: RM12H-202110R



## AIR CURTAINS

220V Heated Models: RM-1206H, RM-1209H, RM-1210H,  
RM-1212H, RM-1215H



**STOP! Check & Test before installing**

1. Do NOT plug the power cord (if connected) into power source.
2. Look through the front grille panel, check if the fan wheel bearings are at proper position at each end of the side panels inside.
3. If the fan wheels don't line up straight, remove the front and side panel's screws and reseal the fan wheel bearings and align the motor to fix the issues. Then replace the front and side panels back with tighten the screws.
4. Connect the power cord (not included) to the air curtain power connectors. Plug into 220V or 240V AC, 1 Phase, 60Hz power source (NOT the regular home 110V or 120V, verify the power voltage if not sure). Press the front power ON/OFF button to turn on. If the air curtain works normally, refer to section 3 through 7 to install the air curtain. Refer to section 10 for technical support.
5. If the fan wheel is broken, contact Awoco (refer to section 10) to get the fan wheel replacement.
6. After installation, if the air curtain doesn't run, first step is to check the magnetic switch. Refer to section 7 for troubleshooting.

**PLEASE READ AND SAVE THESE INSTRUCTIONS.**

**Strongly recommend testing the unit before installation for any defective or damage during shipment.**

**WARNING – TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, READ THE FOLLOWING CAREFULLY before attempting to assemble, install, operate, or maintain the product.**

- A. Always disconnect, lock and tag power source before installing or servicing product. Failure to disconnect power source can result in fire, shock or serious injury.**
- B. Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction.**
- C. When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.**
- D. To reduce the risk of fire or electric shock, do not use this fan with any solid-state speed control device**
- E. Repair and maintenance operations can only be performed by qualified personnel.**
- F. Verify and ensure the rated voltage and frequency (please refer to the rating label) of the air curtain is in compliance with the mains supply.**
- G. Make sure the air curtain is securely mounted on the wall; otherwise, the air curtain may fall and injury to persons.**
- H. Do not cover the air inlet and air outlet of the air curtain when it is in operation.**
- I. Children should be supervised to ensure that they do not play with the appliance.**

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## 1. PRODUCT INTRODUCTIONS

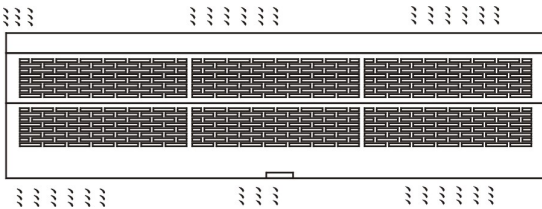
Air curtains are widely installed at the entrances of supermarket, theater, meeting room, hotel, office room, storage room etc. They can reduce penetration of insects, outside dust, unconditioned air into a conditioned space by forcing an air stream over the entire entrance to create a comfortable environment for you.

The electric heated air curtain is a type of energy saving product with PTC ceramic heaters.

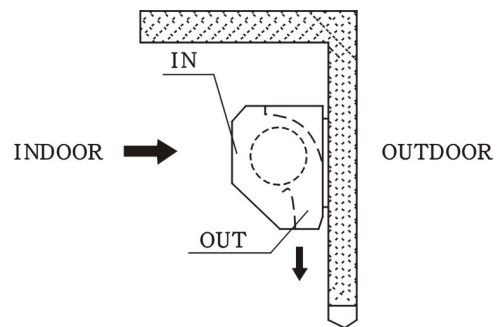
## 2. INSTALLATION PLANNING & CAUTIONS

Must observe the following when installing air curtains:

2.1 Please install the unit on a sturdy supporting structure to avoid shaking and ensure its security (because the unit running may cause the wall to become loose or shake and make noise).

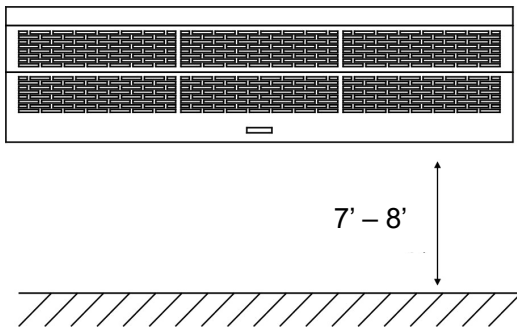


2.2 Please install the unit inside the room.

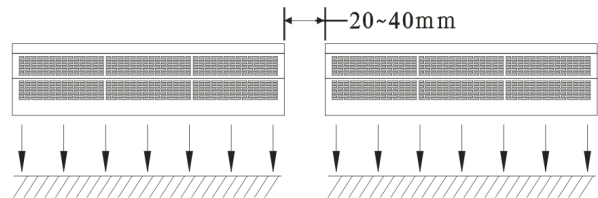


2.3 Install the unit between 7 feet to 8 feet from the ground.

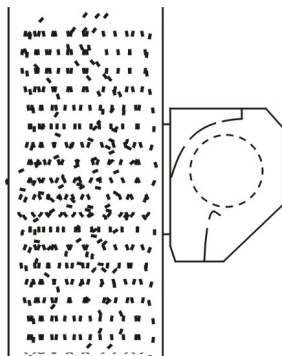
**ATENCIÓN: Instalar la unidad entre los 7 a 8 pies desde del suelo.**



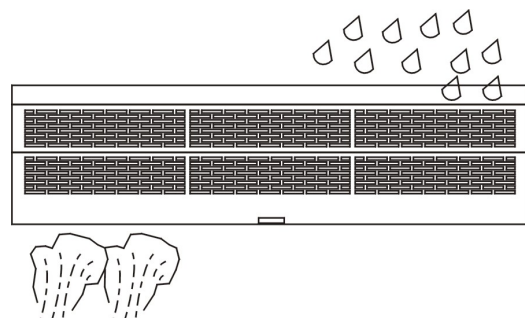
2.4 When the entrance is wider than the unit, it is recommended to install two or more units in parallel. In this case, provide 3/4" to 1-1/2" gaps between the units.



2.5 Don't allow gaps between the unit and the wall.



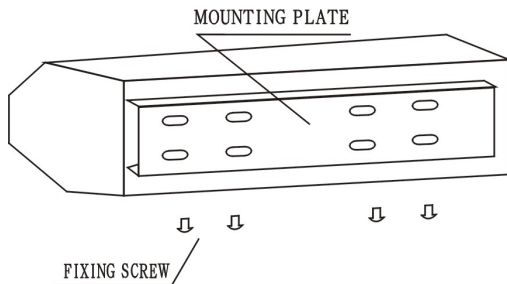
2.6 Don't install the unit at a place where it is splashed by water, exposed to excessive steam, dust / explosive gas or corrosive gas.



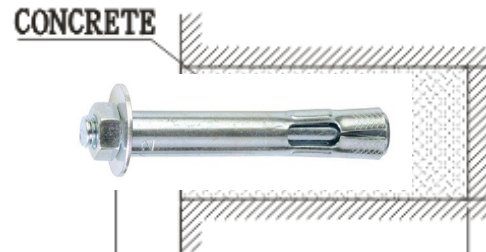
### 3. INSTALLATION INSTRUCTIONS

#### A. Installing on the concrete wall:

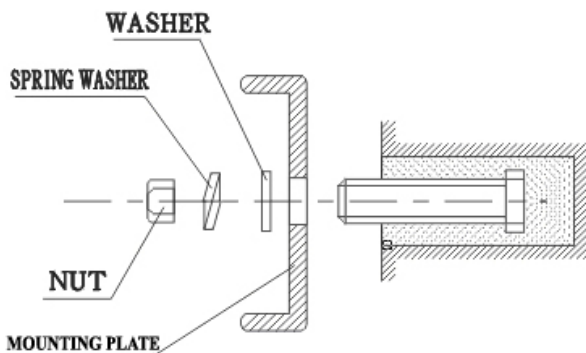
3.1.1 Unscrew the fixing screws to remove the mounting plate from the back of the main body.



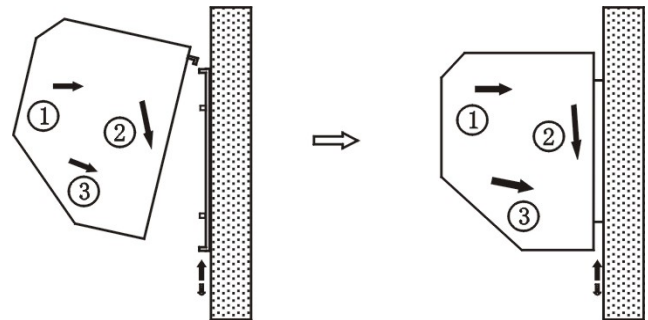
3.1.2 Determine the mounting location with the mounting plate. Drill holes and insert the **Zinc-Plated Steel Hex-Nut-Head Sleeve Anchor** (not included).



3.1.3 Tighten the nuts to secure the mounting plate to the wall (use the washers and nuts as the Figure shows).

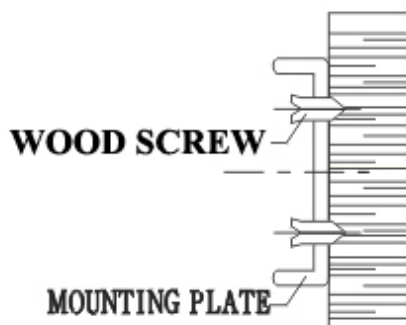


3.1.4 Hang the main body onto the upper end of the mounting plate, and then tighten the bottom fixing screws back to the mounting plate.

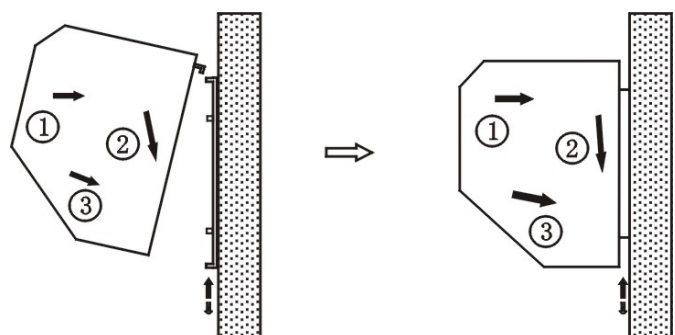


#### B. Installing on the wooden wall: **(Note: Make sure the screws are secured in the wood studs, drill holes on mounting plate to align to the wood studs and attach an extra wood or metal frame to the wall if needed.)**





3.2.1 Refer to step 3.1.1 and determine the mounting location, use a stud finder if needed, and then mount the mounting plate to the wood studs securely with tapping screws.



3.2.2 Hang the main body onto the upper end of the mounting plate, and then tighten the bottom fixing screws back to the mounting plate.



C. Ceiling mount or side mount: **(Note: The mounting brackets are available to purchase.)**

<p>3.3.1 Ceiling mount - mount the threaded rods securely to the studs in the ceiling.</p> 	<p>3.3.2 Securely mount the mounting brackets and the mounting plate.</p> 
<p>3.3.3 Side mount – mount to the top door frame securely.</p> 	<p>3.3.4 Securely mount the mounting brackets and the mounting plate.</p> 

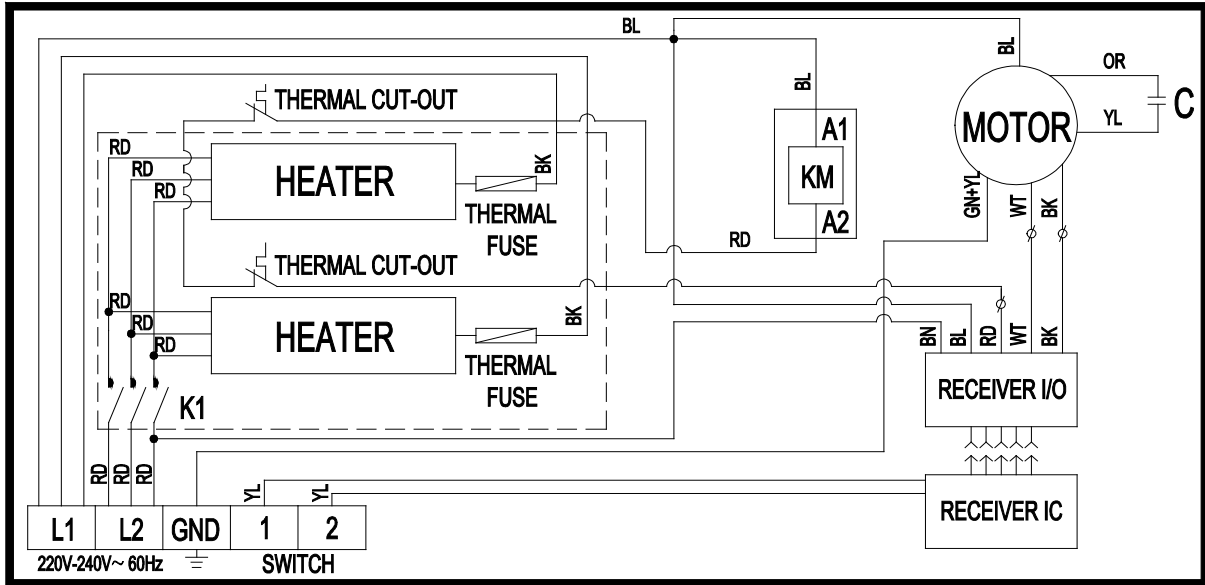
**Note: This air curtain should be installed indoor, should not have moisture, water, rain, or snow reachable. Consult with your electrical professional for 220V / 240V AC electrical wiring selection. Open the connection box to connect the power cord and magnetic switch. WARNING: Make sure the air curtain is securely mounted on the wall; otherwise, the air curtain may fall and injury to persons.**

#### 4. TECHNICAL PARAMETER

Model No.	Max entry opening (Inch)	Voltage (V~Hz)	Motor Power (W)	Max PTC Ceramic Heater Power (W)	Current (A)	Max air velocity (FPM)	Air volume (CFM)		Noise level (dB)	
							H	L	H	L
RM-1206H	24	220V - 240V, 60Hz, 1 Phase	130	3000	14.23	1476 (H), 1280 (L)	353	294	56	54
RM-1209H	38		160	6000	28.00		589	471	57	55
RM-1210H	42		170	6000	28.06		677	530	57	55
RM-1212H	50		200	8000	37.27		824	647	58	56
RM-1215H	62		230	10000	46.50		1118	824	59	57

**Note: The specifications are subjected to change without notice due to product development.**

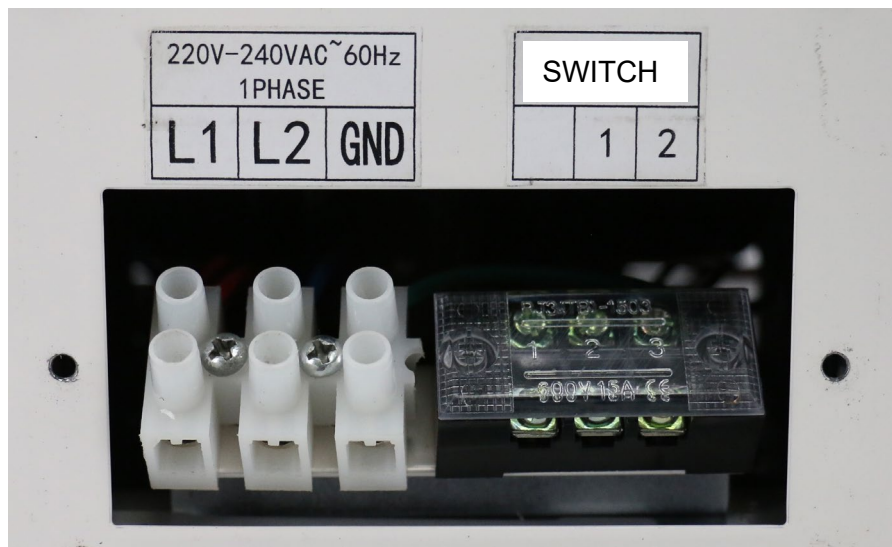
## 5. WIRING DIAGRAM



Wire size for wiring (example 50 feet copper wire):

Items	Power supply		Single phase: 220-240V~60Hz			
			Main wire conductor: L1, L2			
Power of heater (KW)	3	4	5	6	8	10
Minimum wire size of main wire conductor (gauge)	14	12	12	12	10	8
Minimum wire size of ground wire conductor (gauge)	14		12		10	

**Note: Above are for recommendation reference purpose only. Consult with your electrical technician for the wiring selection. If the wiring is overloaded, it will cause fire hazard.**



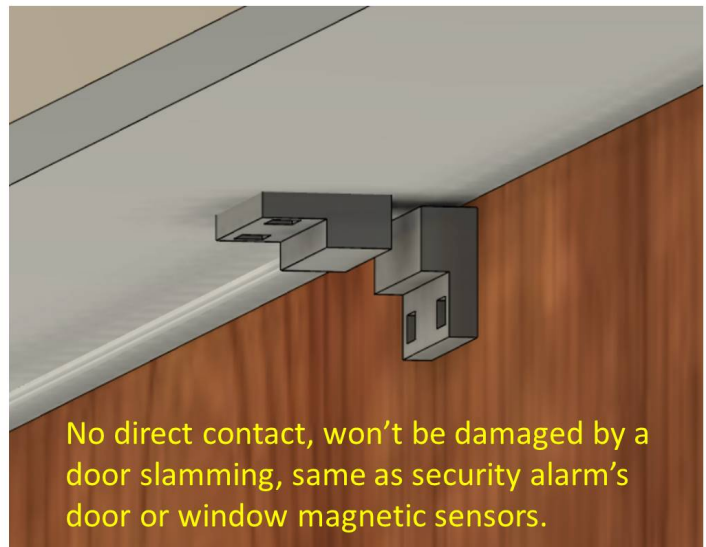
**Note: The terminals L1 and L2 are for 220V to 240V Hot wires. GND is the Ground wire. "SWITCH 1, 2" are for the magnetic or plunger door switch.**

## 6. OPTIONAL MAGNETIC SWITCH INSTALLATION

This air curtain comes with a magnetic door switch, contact seller or Awoco if you are missing a magnetic switch. Connect the magnetic switch 2 wires to the dedicated 2 connectors (SWITCH terminals 1 and 2).

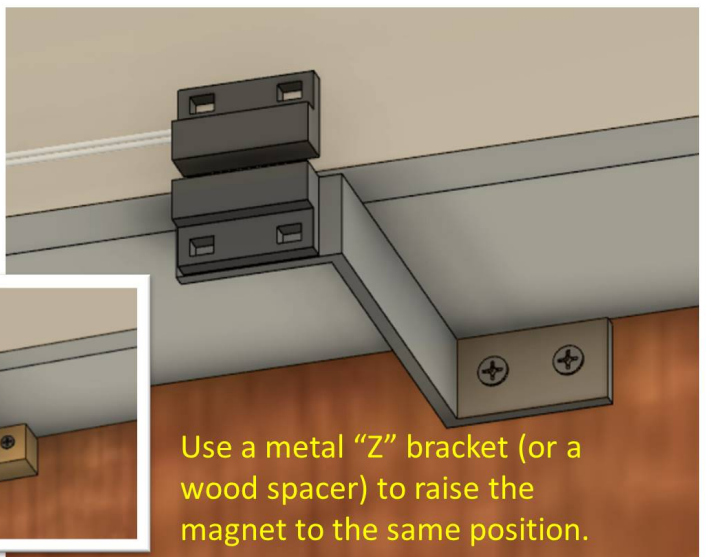
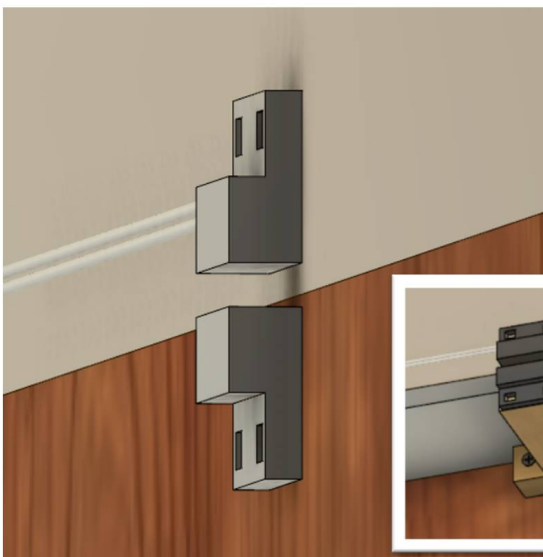
**Note: Don't place the magnetic switch close to existing alarm sensors. The existing alarm sensor magnet will interfere with this magnetic door sensor.**

Mount the 2 pieces magnetic switch to the door/window edge and frame; keep them close when the door/window is closed. If needed, apply a metal "Z" bracket to raise the magnet to the same position. **Note: Do NOT use big screws!!! Oversized screws will damage the magnetic switch internally.**



### Easy Magnetic Switch Installation

- Easily apply to any kinds of swing or sliding doors and windows.
- 12VDC is safer and no hard wired required. No mechanical contact.
- It works even the door closer is not working well, just install closer to the door hinges.



## 7. TROUBLESHOOTINGS

Failure symptom	Possible causes	Troubleshoot and solution
Fan wheel is broken	Damaged during shipment	If the fan wheel is broken and your purchase is from an authorized seller, contact Awoco to get a fan wheel replacement. <u>Changing a fan wheel is not difficult.</u>
Fan wheel is stuck or generates strange noise	The fan wheel is not seated properly	Please follow the instruction to open the front cover. Check if the fan wheels are touching something. And open the side panel to reseal the fan wheels to the correct positions.
The magnetic switch isn't function correctly sometimes.	The magnetic switch is defective or close to an alarm sensor	Don't place the magnetic switch close to an alarm sensor. The alarm sensor magnet will interfere with it. Remove the magnetic switch connection and test if the magnetic switch is defective.
The air curtain doesn't turn on. (Make sure your power outlet is 220V or 240V before plugging in.)	Circuit board failure or no power to circuit board	Toggle the front switch; hear if "Tic-Tac" sounds from the relay on the circuit board. No sound means no power to motor from circuit board. Please check if the power cord has 220V or 240V to the L1 and L2 terminals.
Motor doesn't run. But if push the fan wheel, motor slowly rotates or rotates reversely	Startup capacitor is not connected securely or defective	Check if the 2 yellow/orange wires securely connect to the capacitor under the motor.
After above troubleshoot processes, motor still doesn't turn on	Motor is defective	This chance is very low, but it might happen. Use Ohm meter to measure the continuity between motor's white wire and the blue wire to check if it is open. Open means defective.

Feel free to contact Awoco technical support at 1-888-412-3428 if you need help.

Awoco has all the parts for 1-year limited warranty for purchasing NEW products at authorized dealers, including fan wheels, magnetic switches, circuit boards, motors, etc.

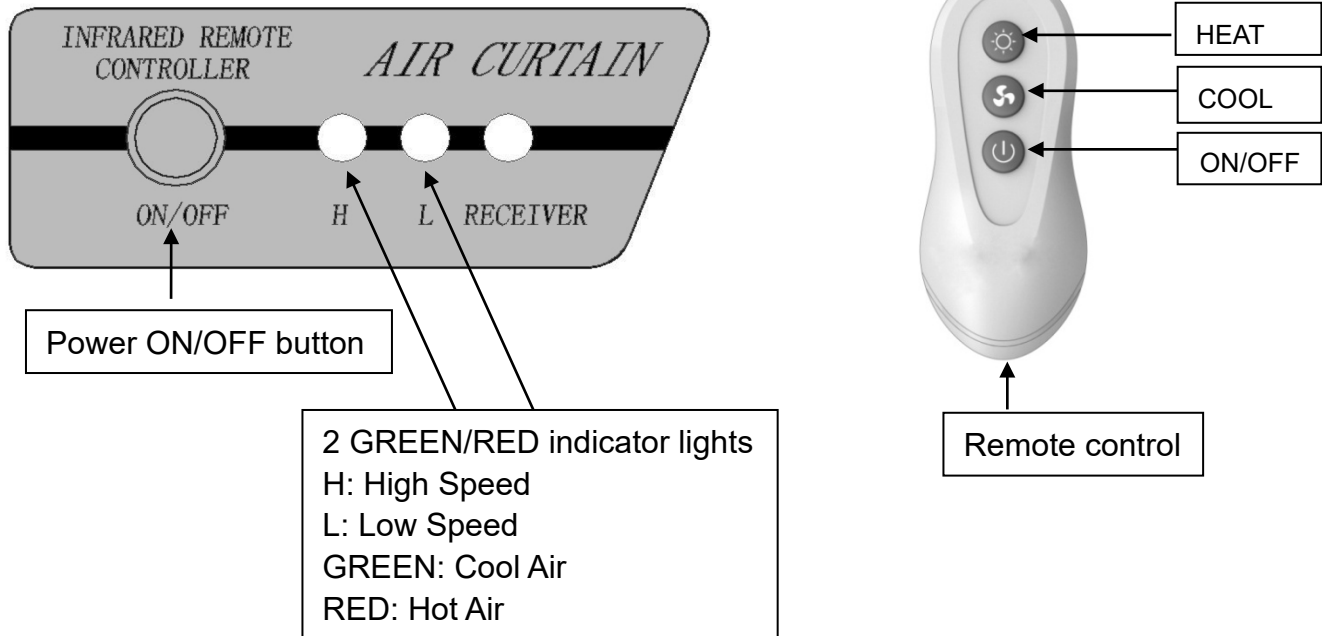
**NOTE: If you bought a refurbished product at a discounted price, please contact the seller for warranty.**



## 8. OPERATING INSTRUCTIONS

8.1 Connect power (220V or 240V AC, 60Hz, 1 Phase) to the unit.

8.2 Either use the ON/OFF button on unit or the remote control to operate the heated air curtain.



8.3 Use the Power ON/OFF button on the unit to operate the heated air curtain:

Pressing the “ON/OFF” button, the unit will turn on at default low speed blowing ambient air flow. Pressing the “ON/OFF” button again, the unit will switch to high speed blowing ambient air flow. Pressing the “ON/OFF” button again, the unit will switch to heating mode blowing hot air flow at low speed. Pressing the “ON/OFF” button again, the unit will still work in heating mode blowing hot air flow but it will switch to high speed. Pressing the “ON/OFF” button again, the unit will turn off after 10 or 30 seconds cool down delay.

8.4 Use the remote control to operate the heated air curtain:

Pressing the “ON/OFF” button, the unit will turn on at default low speed blowing ambient air flow. Pressing the “ON/OFF” button again, the unit will turn off after 10 or 30 seconds cool down delay.

It memorizes the last used state. Next time press the “ON/OFF” button to turn on, it will be the last used state for your convenience so that you don’t need to adjust the settings every time you turn it on.

Pressing the “HEAT” button, the unit can switch between high speed and low speed air flow at heating mode.

Pressing the “COOL” button can switch air flow between high speed and low speed for non-heating mode at ambient air flow.

### NOTE:

- a. When pressing the button each time, the unit will make a beep sound.
- b. The unit has two GREEN/RED indicator lights marked with H and L. H

indicates high speed. L indicates low speed. Each indicator light can show green or red, which depends on working mode of the unit. When the unit is working in non-heating mode, the green light will be on. When the unit is working in heating mode, the red light will be on.

#### 8.5 Turning off the air curtain with 10 or 30 seconds cool down delay:

If the unit has worked in heating mode up to 30 seconds, the fan will keep running at high speed for 30 seconds to cool down the heater and the green light will flash when turning off the unit.

If the unit has worked in heating mode less than 30 seconds or the unit works in non-heating mode, the fan will keep running at high speed for 10 seconds and the green light will flash when turning off the unit.

Therefore, if the magnetic switch is installed, closing the door or window doesn't turn off the air curtain immediately. Please wait for 10 or 30 seconds cool down delay cycle to complete, then the air curtain will shut down.

## 9. MAINTENANCE AND CLEANING

### WARNING:

- A. Any service is to be performed only by qualified personnel who are familiar with local codes and regulations and are experienced with this type of product.
- B. Always unplug or disconnect the appliance from the power supply before servicing or cleaning the unit.
- C. Never use petrol, benzene, thinners or any other such chemicals for cleaning the unit.
- D. Don't allow water or any liquid to enter the motor.

9.1 Use the unit at the rated voltage and frequency indicated on the rating label.

9.2 Disconnect power source before unit installation or maintenance service.

#### **9.3 Routine maintenance must be done every year.**

9.4 Plastic parts should be cleaned with mild soap water, thoroughly remove soap film with a clean damp cloth.

9.5 Wipe the exterior surfaces of the fan with a moistened cloth with a solution of mild detergent and water.

9.6 Dry the case with a soft dry cloth before operating the unit.

## 10. SUPPORT AND CONTACT

Contact your local dealer for exchange or repair.

Visit [www.awoco.com](http://www.awoco.com) for most updated information.

Email to [sales@awoco.com](mailto:sales@awoco.com) or call 1-888-412-3428 for technical support and sales activity.

**NOTE: Our manufacture warranty is for purchasing NEW products at authorized dealers only. If you bought a refurbished product at a discounted price, please contact the seller for warranty.**