STOP and Read! Test before installing

1. Do NOT plug in power cord to power source, use a screw driver to rotate the fan wheels.
2. If the fan doesn’t rotate smoothly, pull the side cover off, and pull the front bars. Remove the side panel screws and the motor’s shaft screw to remove the fan wheel.
3. Reseat the fan wheel bearings and align the motor to fix the issues.
4. Plug in 120V power source (some old air curtains might use 240V, verify the power voltage if not sure); press the switch to H or L to test it. 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 to test 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.

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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.
2. INSTALLATION PLANNING & CAUTIONS

Must observe the following when installing air curtains:

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

<table>
<thead>
<tr>
<th>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).</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2 Please install the unit inside the room.</td>
</tr>
</tbody>
</table>

![Diagram of unit inside a room](image1.png)

| 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 20-40mm gaps between the units. |

![Diagram showing parallel unit installation](image2.png)

| 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. |

![Diagram showing unit installation](image3.png)
3. INSTALLATION INSTRUCTIONS

A. Installing on the concrete wall:

| 3.1.1 Remove the plastic parts; 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 Fig 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 frame to the wall if needed.)*

| 3.2.1 Refer to step 3.1.1 and determine the mounting location, then securely mount the mounting plate to the wooden wall with tapping screws. |
| 3.2.2 Hang the main body onto the upper end of the mounting plate, and then tie the bottom fixing screws back to the mounting plate. |
C. Installing from the ceiling: (Note: The ceiling brackets are not supplied.)

3.3.1 Remove the mounting plate from the main body as per the step 3.1.1

3.3.2 Securely mount the ceiling brackets (not included) as the Fig shows.

3.3.3 Set the mounting plate to the ceiling brackets and tighten it securely as the Fig shows. The position of the mounting plate can be adjusted in vertical direction according to need, but the max distance is 100mm.

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

Note: This air curtain should be installed indoor, should not have moisture, water, rain, or snow reachable. Consult with your electrical professional for 120V electrical hard wiring.

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

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Max entry opening (Inch)</th>
<th>Max entry opening (Inch)</th>
<th>Voltage (V~Hz)</th>
<th>Power (W)</th>
<th>Current (A)</th>
<th>Max air velocity (FPM)</th>
<th>Air volume (CFM)</th>
<th>Noise level (dB)</th>
<th>Net weight (Lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FM-1209T</td>
<td>38</td>
<td>120V, 60Hz</td>
<td>140</td>
<td>1.46</td>
<td>2165 (H), 1772 (L)</td>
<td>1112 (H), 874 (L)</td>
<td>57 (H), 55 (L)</td>
<td>22.0</td>
<td></td>
</tr>
<tr>
<td>FM-1210T</td>
<td>42</td>
<td></td>
<td>190</td>
<td>1.98</td>
<td>1271 (H), 1033 (L)</td>
<td>1271 (H), 1271 (L)</td>
<td>58 (H), 56 (L)</td>
<td>24.3</td>
<td></td>
</tr>
<tr>
<td>FM-1212T</td>
<td>50</td>
<td></td>
<td>200</td>
<td>2.08</td>
<td>1510 (H), 1271 (L)</td>
<td>58 (H), 56 (L)</td>
<td>27.6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: The data are subjected to change without notice due to product development.
5. WIRING DIAGRAM

DOUBLE SPEED INFRARED REMOTE CONTROLLED WIRING DIAGRAM

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. The dedicated 2 wires (Yellow) are to connect to the magnetic switch. Note: Keep the 2 wires connected (closed) if the magnetic switch is not used.

**Connect the magnetic door switch:**
Cut the nut off the 2 yellow wires, and connect the 2 yellow wires to the magnetic switch one by one. Use the black electrical tape to seal the connection.

**Awoco Magnetic Switch Controlled Air Curtains**
**Magnetic Switch Connection Instruction**

- **Step 1:** Cut the connection nut off the dedicated 2 wires for the magnetic switch
  - Air Curtain
  - Dedicated 2 wires for magnetic switch
  - Cut the Connection nut

- **Step 2:** Connect the wires one-to-one to the magnetic switch, either side is OK
  - Air Curtain
  - Apply electric black tape to seal the connection.
  - 12V low voltage doesn’t require hard wired.

- **Step 3:** Place the 2-piece magnetic switch closely on the door frame and panel.
  - Air Curtain
  - Place them on the door’s middle top, side, etc. Test to find the perfect position to place the magnetic switch. If not on the same surface, raise one piece with a small piece of wood.

- **For double doors, connect the 2 wires to both magnetic switches one-to-one in parallel.**
  - Air Curtain
  - 1 air curtain comes with 1 set of magnetic switch for 1 door only.
  - If you have double doors, please purchase an extra magnetic switch (Model no. MAG-SW)
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.**

**Air Curtain**

- Dedicated 2 wires (12V DC) for the magnetic switch
- Install the 2 pieces magnetic switch close together at the middle of the swing door frame
- Self-adhesive tape install. Apply small screws if needed.
- No direct contact, won’t be damaged by a door slamming, same as security alarm’s door or window magnetic sensors.

**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.

Use a metal “Z” bracket (or a wood spacer) to raise the magnet to the same position.
7. TROUBLESHOOTINGS

<table>
<thead>
<tr>
<th>Failure symptom</th>
<th>Possible causes</th>
<th>Troubleshoot and solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fan wheel is broken</td>
<td>Damaged during shipment</td>
<td>If the fan wheel is broken and your purchase is from an authorized seller, contact Awoco to get a fan wheel replacement. Changing a fan wheel is not difficult.</td>
</tr>
<tr>
<td>Fan wheel is stuck or generates strange noise</td>
<td>The fan wheel is not seated properly</td>
<td>Please follow the instruction to open the side cover and front grille bars. Check if the fan wheels are touching something. And open the side panel to reseat the fan wheels to the correct positions.</td>
</tr>
<tr>
<td>The air curtain doesn’t turn on.</td>
<td>The magnetic switch is defective or loosen connection</td>
<td>Remove the magnetic switch connection, directly connect the 2 yellow wires together then test the air curtain. 80% of the failure is due to the magnetic switch setup. Don’t use oversize screws, and make sure the connection is secure.</td>
</tr>
<tr>
<td>(Make sure your power outlet is 120V before plugging in. Some old air curtains might use 240V)</td>
<td>Circuit board failure</td>
<td>Toggle the magnetic switch and the switch buttons; hear if “Tic-Tac” sounds from the relay on the circuit board. No sound means no power to motor from circuit board.</td>
</tr>
<tr>
<td>Remote control is not working</td>
<td>Remote control is defective</td>
<td>Make sure the batteries are installed correctly.</td>
</tr>
<tr>
<td>Motor doesn’t run. But if push the fan wheel, motor slowly rotates or rotates reversely</td>
<td>Startup capacitor is not connected securely or defective</td>
<td>Check if the 2 yellow/orange wires securely connect to the capacitor under the motor. Remove the fan wheels and motor to get access if needed.</td>
</tr>
<tr>
<td>After above troubleshoot processes, motor still doesn’t turn on</td>
<td>Motor is defective</td>
<td>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.</td>
</tr>
</tbody>
</table>

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, including fan wheels, magnetic switches, remote controls, circuit boards, motors, etc.

8. OPERATING INSTRUCTIONS

8.1 Connect power (120V 60Hz) to the unit.
8.2 Press the button on the remote control or the switch buttons on the unit to turn on the unit and select the speed. [L] - Low speed, [H] - High speed.
8.3 Adjust the air deflector to slightly outward at about 10 to 15 degrees to obtain optimum effect.
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 seller for exchange or repair.
Visit www.awoco.com for most updated information.
Email to sales@awoco.com or call 1-888-412-3428 for technical support and sales activity.