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Active Thermal Management

The trusted name in thermal protection

Cool-vent II-E & III-E Installation Instructions

The Cool-vents are compact self-contained air moving devices for use in enclosures housing heat-producing equipment. They can easily be field-modified to work in either intake or exhaust mode. If used as an intake device, provisions must be made to allow the escape of hot air; similarly, when used in exhaust mode, there must be an opening through which room air can enter.

Cool-vents are powered by a plug-type power supply and are controlled by a thermal probe connected to a small module, switching on at 90 degrees. They mount on a finished surface through cutouts shown in the accompanying chart. The fan assembly is easily separated from the wood grille to allow finishing the grille without damaging the fans.

Model	Rough opening	Finished size	Number/size of fans
Cool-vent II	4 1/8" x 14 1/8"	5 1/2" x 15 1/2"	4/80mm
Cool-vent III	6 1/8" x 14 1/8"	7 1/8" x 15 1/2"	2/120mm

As shipped, Cool-vents are assembled as an intake device; air is pulled from the grille side through the fans.

When the fan and grille sections are reattached, the Cool-vent can be assembled to operate in either intake or exhaust mode.

- ❑ In intake mode, it can be mounted low on a cabinet to bring room air in.
- ❑ In exhaust mode, it can be mounted above or behind an amplifier or another heat-producing component to expel heated air.

Main installation steps:

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1. Separate the fan and grille sections.
2. Finish the grille as required.
3. Reassemble in intake or exhaust mode.
4. Install in opening.
5. Install thermal switch and connect to power source.

To install Cool-vent:

1. Separate the fan and grille sections by removing the nuts on the threaded studs. Use a 5/16" open-end wrench.
2. Finish the wooden grille section as desired. Allow to dry completely before reassembling to the fan section. (Read the following cautionary note.)

****IMPORTANT****

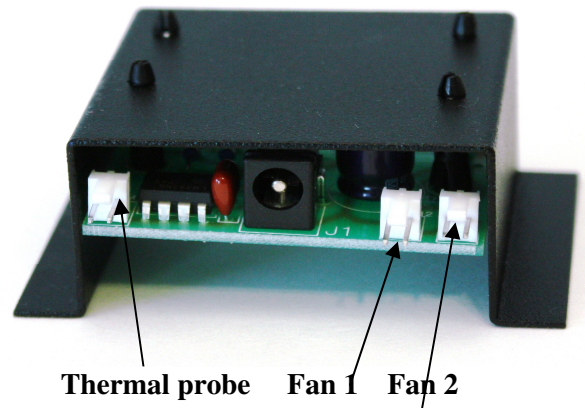
In order to protect the grille and prevent warping or cracking, you must seal the grille on EACH side and in between all slots *prior* to installation.

Whether you are painting, staining, or sealing the grille with urethane, they must have the appropriate finish applied **BEFORE** they are installed. If the grille is not protected in this way, Active Thermal Management will not be responsible for any warping or cracking that might occur.

3. Reassemble the two sections in desired operating mode. ***Do NOT use excessive force when tightening the nuts holding the fans.***
 - a. For "intake" mode, reassemble as they were shipped, with the fans' labels facing away from the grille section.
 - b. For "exhaust" mode, the fans' labels should face the grille section.
4. Cut an opening of appropriate size (see chart above) at the desired location. Pass the thermal switch and power supply through the opening from the outside and screw or bolt the grille to the mounting surface either from the outside or inside as appropriate.
5. Attach the thermal probe to the equipment to be monitored, or mount the probe so that it can sense the temperature of the hottest air in the enclosure. (This might be at the highest point in the cabinet or just above the hottest component.)

Connections & Operation

After mounting the fans, select the location for the fan controller. It has 2 magnets on its flanges, allowing it to adhere to most audio-video components. Run the fan wires to the controller, and plug them onto the connectors FAN 1 or FAN 2. Plug the thermal probe's cable onto the connector THRM on the controller. Plug the power supply into an AC outlet that is always live, and plug the power supply's output lead into J1 on the controller. The green led should light. When the probe's temperature-sensitive tip reaches approximately 88-90 degrees, the fans will begin to turn and the red led will light. Use a hair dryer to test the system; do NOT use an open flame or heat-shrink gun.



Note –

When cooling modern home theater systems, the fans may run continuously. Cable boxes, satellite receivers, some whole-house amplifiers and digital program recorders run continuously. Their heat may be enough to keep the Cool-vent fans in operation. The Cool-vents, like all ATM products, are designed to operate continuously, drawing only a few watts of electrical power while keeping temperatures low in an enclosure.