



Active Thermal Management

*The trusted name in thermal protection...*

## Installation of the Cool-rack rack-mount ventilator

The Cool-stack II is a compact 2U high ventilator, well-suited for removing heated air from mid-size rack installations. Some of the features of the Cool-rack are:

- Automatic operation via a thermal probe and control assembly
- A bright temperature display
- Four 80mm high-quality fans for quiet ventilation
- Very low noise level

### General description:

The Cool-rack is an exhaust-mode ventilator. It will usually be located at the top of a rack, where its fans will pull heated air up from the equipment below and exhaust it through its front panel.

There are installations in which there is a door or other obstruction in front of the rack, making front exhaust impractical. In these situations, the Cool-rack could be mounted to the rear rack rails, or it may be that an alternate ATM product would be more suitable.

### Installation:

1. Mount the Cool-stack II in a 2 rack-unit space at the top of a small or mid-size rack, or just above the highest significant heat-producing equipment in a larger rack.

### IMPORTANT:

***Install a 2U vent panel near the bottom of the rack or just below the heat-producing piece of equipment mentioned above to allow fresh air to enter.***

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2. Plug the wall-type power supply into an AC outlet that is always energized (not "switched"). Do not connect the power supply to the Cool-rack yet.
3. Install the thermal probe. It should normally be fastened to or just above the hottest part of the hottest component, usually the receiver or amplifier. It will switch the Cool-rack on at 90 F (31C). In installations with several pieces of heat-producing equipment, it may be preferable to position the thermal switch assembly in the air above the highest heat producer where it can sense the combined heat of all of the equipment. ***Note that this arrangement will slow the response time of the Cool-rack, as the equipment will have to heat a column of air, which will then heat the thermal probe.***
4. Plug the power supply connector into the pigtailed jack at the back of the Cool-rack.
5. The Cool-rack can now be tested. Heating the tip of the probe using an ordinary hair dryer should start the fans turning when the display reaches 90F. Do NOT use an open flame (matches, cigarette lighters) or a heat-shrink tubing gun for testing.

## Changing temperature set-points:

- The turn-off temperature is set first, then the number of degrees above this temperature at which the fans should turn on is set.

Press the **Set** button momentarily to see the present temperature at which the fans will turn off. Change this temperature by pressing either the ▲ or ▼ button, then press **Set** again to exit the setting mode.

- The turn-on temperature is set while the control module is in the "System Parameter" mode. While there are several parameters that can be adjusted, we will only concern ourselves with the differential, or "d" that sets the difference between the turn-off and turn-on temperatures. Example: --- If you want the fans to turn off at 85 degrees, and on at 90 degrees, the differential would be set to 5 degrees.

After entering this mode by holding down the **Set** button for 3 seconds, the display will show "HC". Press the ▲ button once to change the display to "d" (for "differential"), then press the **Set** button again to select this ("d") parameter. The display is now showing the present differential. Use the ▲ and ▼ buttons to select the desired differential, then either wait a few seconds or press **Rst** to return to normal operation.