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Active Thermal Management

The trusted name in thermal protection...

Installation of the Cool-rack II rack-mount ventilator

The Cool Rack 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 II are:

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

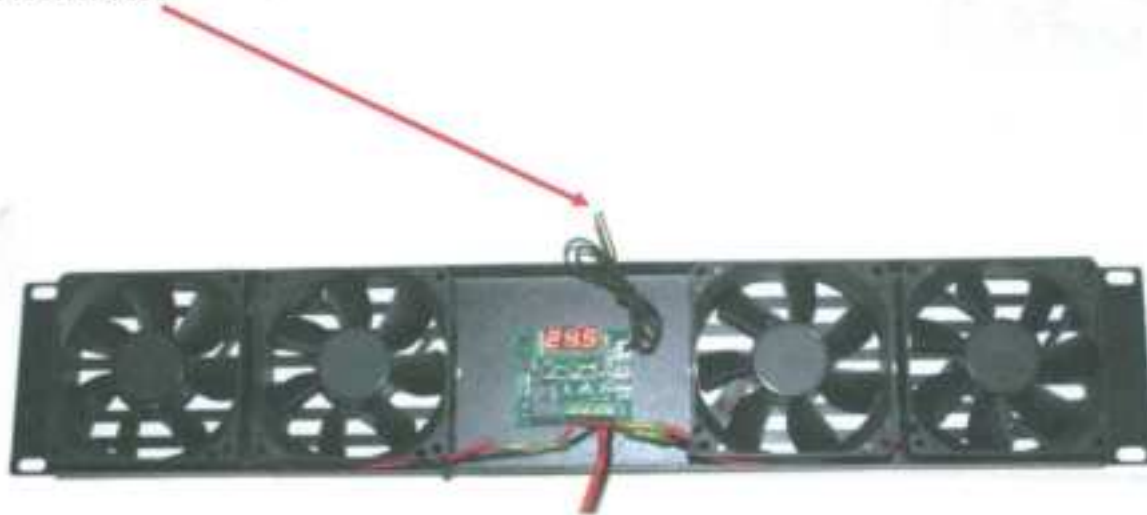
General description:

The Cool-rack II 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. ***A small display on the control board is for set-up only. It reads in degrees Celsius, not Fahrenheit.***

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 II could be mounted to the rear rack rails, or it may be that an alternate ATM product would be more suitable.



Thermistor



Installation:

1. Mount the Cool-Rack 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.

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 II yet.

2. Position 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 (32C). 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 II, as the equipment will have to heat a column of air, which will then heat the thermal probe.***
3. Plug the power supply connector into the pigtailed jack at the back of the Cool-rack II.
4. The Cool-rack II can now be tested. Heating the tip of the thermal probe using an ordinary hair dryer should start the fans turning when the display reaches

32C. Do NOT use an open flame (matches, cigarette lighters) or a heat gun for testing.

To change the temperature at which the fans turn ON, press the SET button on the control board momentarily; the display will blink. Press the ▼ or ▲ buttons to change to the desired temperature. After a few seconds, the new temperature will be stored.

To change the temperature at which the fans turn OFF, decide how many degrees below the turn-on temperature you wish the fans to stop, called the differential. (The factory setting is 3 Celsius degrees, or about 5 Fahrenheit degrees.) To change the differential:

Hold the SET button for 5 seconds. P0 will be displayed. * Press the ▲ button once to change the display to P1, then press SET again. The present differential temperature will be displayed. Use the ▲ and ▼ buttons to set the desired differential. The display will return to displaying system temperature after a few seconds; the new differential temperature has been stored.

For your convenience, here are some Fahrenheit temperatures and their Celsius equivalents, rounded to the nearest whole degree:

75F = 24C

80F = 27C

85F = 29C

90F = 32C

95F = 35C

100F = 38C

*Pressing the ▲ or ▼ buttons again will cycle the display through the following codes: P1, P2, P3, P4, P5, P6, and back to P0. Many of these codes refer to parameters used in heating and refrigeration systems, not in cooling systems. Should any be adjusted accidentally, restore them to their factory settings:

P0 – C (for "cooling")

P1 – Desired differential, set as described above

P2 - 110

P3 - -50

P4 - 0

P5 - 0

P6 – Off