



## Active Thermal Management

*The trusted name in thermal protection*

### **Installation instructions for the Cool-line I & II® ventilator with aluminum diffuser**

The Active Thermal Management Cool-line ventilation system, when supplied with an aluminum diffuser, is shipped in exhaust mode. As such, it can be mounted above a source of heat, such as a flat-panel display which has been enclosed in a wall cavity or cabinet to move heated air out of the enclosure. Fresh air must be allowed to enter the enclosure to replace the heated air if the ventilation scheme is to be effective. The system can be field-modified to function as an intake device if desired, in which case the heated air must have an opening through which to leave the enclosure. Instructions regarding changing the Cool-line to intake mode are detailed at the end of these installation instructions.

Regardless of the mode of operation, active intake/passive exhaust, or active exhaust/passive intake, air must be able to both enter and leave the enclosure with a minimum of restriction for effective cooling. An air inlet or exhaust opening improperly located or too small will prevent the Cool-line from operating efficiently.

#### **A quick overview of the installation process:**

1. The fan assembly is installed at the point where heated air is to be exhausted from the enclosure or fresh air is to be introduced as discussed above.
2. The control unit is mounted in a convenient location.
3. The fan wire is connected to the control unit.
4. The thermal sensor is positioned where it will sense air and/or equipment temperature.
5. The power supply's output lead is plugged into the control unit and the power supply is plugged into a convenient source of 120 volt 60Hz power.
6. The completed installation is tested.

#### **Detailed instructions:**

Note: Do not plug the power supply into an outlet until directed to do so.

1. Locations low and forward in the enclosure are generally preferred for intake-mode systems, while high locations to the rear are best for exhaust-mode systems; the optimum arrangement is that in which air enters and passes by the heat-generating equipment on its

way to the exhaust point. Avoid locating the inlet too close to the exhaust as room air may enter and be immediately exhausted without cooling the enclosure and equipment. Cut a rectangular hole 2 3/4" x 14 1/4" (single fan model) or 2 3/4" x 29 1/8" (dual fan model). Insert the fan assembly from the outside of the enclosure until the assembly is fully seated and retained by the spring clips.

**2.** Mount the control unit at a convenient location. While mounting the control unit in a location close to the power supply, the heat-producing equipment, and the fans is easiest, the fan and sensor wires can be lengthened if necessary, using any 2-conductor low-voltage wire. Polarity is not important for the sensor, but must be maintained for the fans.

**3.** The thermal sensor controls the operation of the fans. Locate it where it can sense system heat; usually on top of the hottest component. Hold it in place with the supplied tie-wrap and anchor. Plug the sensor into connector TH1.

**4.** The Cool-line is powered by a wall-type power supply. Do not plug it into a switched outlet; use an AC outlet which is always on to allow the fans to run after the other equipment has been turned off. If possible, use an outlet on the same circuit that powers the equipment producing the most heat. If this circuit should fail, the ventilation will cease, but the heat source(s) will also turn off. If the Cool-line is powered from a different circuit, it is possible that that circuit could lose power while the equipment in the enclosure continued to produce heat.

**5.** Plug the power supply into a live outlet. Plug the power supply output lead into the control unit. The green led will light to indicate that power is present. As the temperature at the thermal sensor rises past approximately 85 degrees (F), the fans will begin to turn at a moderate speed and the yellow led will light. Fan speed will increase if the temperature increases 5 degrees. A red led will then indicate that the fans are turning at full speed.

When the enclosure temperature falls, the fans will slow down, stopping when the temperature falls below approximately 83 degrees Fahrenheit.

***Please note: It is common for fans to remain on continuously, due to the heat given off by satellite receivers, cable boxes, and DVRs, even when these devices are not in use.***

**To change the Cool-line ventilator with aluminum diffuser from exhaust to intake mode (the process is similar for both the single-and double-fan models):**

1. Remove and retain the screws holding the fan mounting board to the diffuser (arrows, Figure 1) Lift the fan board off the diffuser.

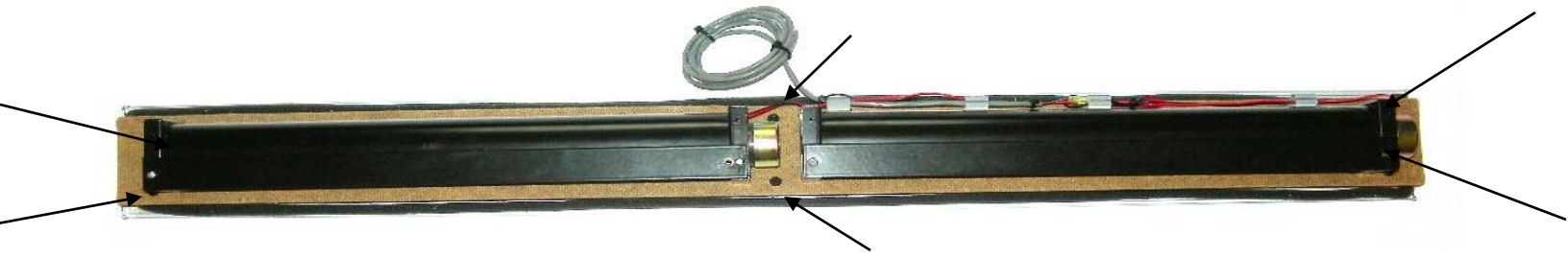


Figure 1

2. Turn the fan mounting board over so that the four screws holding each fan are visible (arrows in Fig. 2).



Figure 2

3. Remove and retain the screws holding the fan(s). Lift the exhaust mounting board off and set it aside without disturbing the fans. The fan(s) will be exposed as in Fig. 3



Figure 3

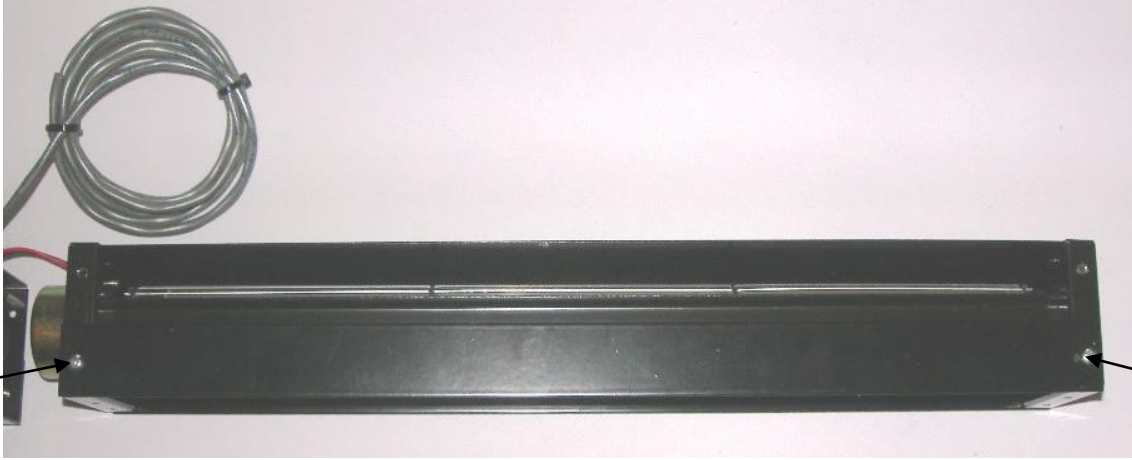


Figure 4

4. Install a blanking cover on each fan as shown in Figure 4. Use one #4x3/8" sheet metal screw at each end. Note that the plate is mounted along the lower edge when the motor is on the left side of the fan.
5. Rotate the fan(s) 90 degrees so that the long U-shaped strut and the blanking plate just installed are facing away from you, and the completely open face is facing up, as in Figure 5. In this position, the entire rotor is visible.

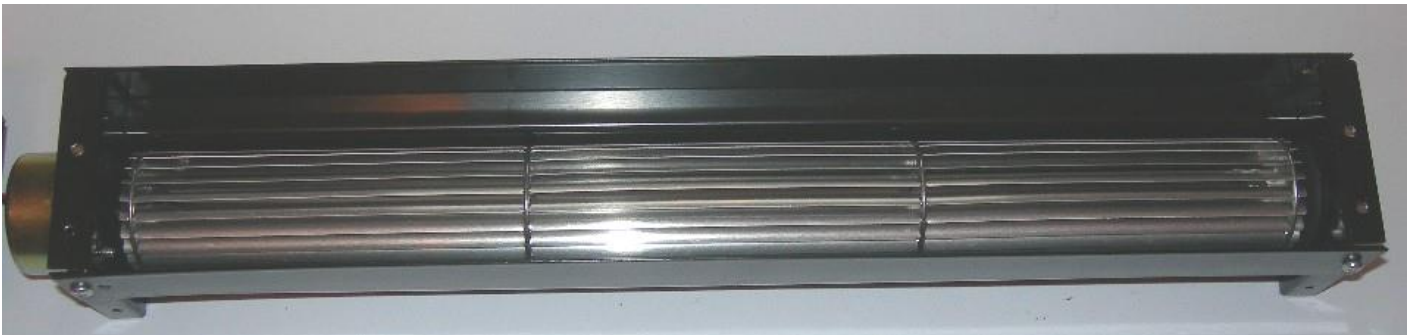


Figure 5

Lay the intake fan mounting board over the fan(s), black side up, lining the mounting holes in the board up with the holes in the fans as in Figure 6. Reinstall the screws removed in step 3 to fasten the fan(s) to the mounting board..



Figure 6

6. Fasten the exhaust fan mounting board to the diffuser using the screws removed in step 1. Do not over tighten the screws.

**To change back to exhaust mode, reverse the above procedure.**

### **Warranty**

**Active Thermal Management ("ATM") warrants all of its products sold after October 1, 2017 against defects in materials and workmanship for a period of five years. (Products sold before that date are warranted for a period of one year.) We will repair or replace, at our option, any ATM product which exhibits a defect in materials or workmanship in that time period. The product must be properly packaged and returned prepaid with an ATM return authorization number clearly written on the outside of the shipping carton and with a copy of the bill of sale or ATM invoice to verify the original purchase date.**

**Our warranty does NOT apply to:**

1. Shipping damage, either concealed or visible. Claims must be filed with the carrier.
2. Damage caused by improper installation or improper electrical voltage.
3. Any product which has been modified, unless authorized by ATM.
4. Damage caused by corrosion, abrasion, immersion, or severe temperatures.
5. Products which have been subject to abuse, misuse, abnormal usage, or accident.
6. Products purchased from unauthorized resellers.

**Products or subassemblies which are beyond repair may be replaced with refurbished units. Replaced units or subassemblies will be warranted for the balance of the original warranty period and may have minor cosmetic blemishes.**

**These warranties give you specific legal rights, and are subject to any applicable consumer protection legislation. You may also have additional rights which vary from state to state.**

**No other warranties, expressed, implied, or written, shall apply to this product. ATM will not be responsible for any consequential or incidental damages, loss of property, revenues, or profit, cost of removal, installation, or reinstallation, personal injury, or for any breach of warranty, regardless of how caused.**

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No other warranties, expressed, implied, or written, shall apply to this product. ATM will not be responsible for any consequential or incidental damages, loss of property, revenues, or profit, cost of removal, installation, or reinstallation, personal injury, or for any breach of warranty, regardless of how caused.