



**Active Thermal Management**

*The trusted name in thermal protection*

### **Instructions for installation of the Dual-mode Component Cooler™**

**Product Description --** The Dual-mode Component Cooler is shipped in “Shelf”, or “active heat shield”, configuration; it can be placed on top of a hot component which has ventilation openings in its top cover and will cool it while providing a shelf to support a second component. The second component is shielded from the heat generated by the lower component, allowing more equipment to be placed on a shelf or within a bookcase. Simply place the cooler on the lower (hot) component, then place the preamp, CD player, or other component on top of the Dual-Mode Component Cooler.



**Shelf mode**



**Base mode**

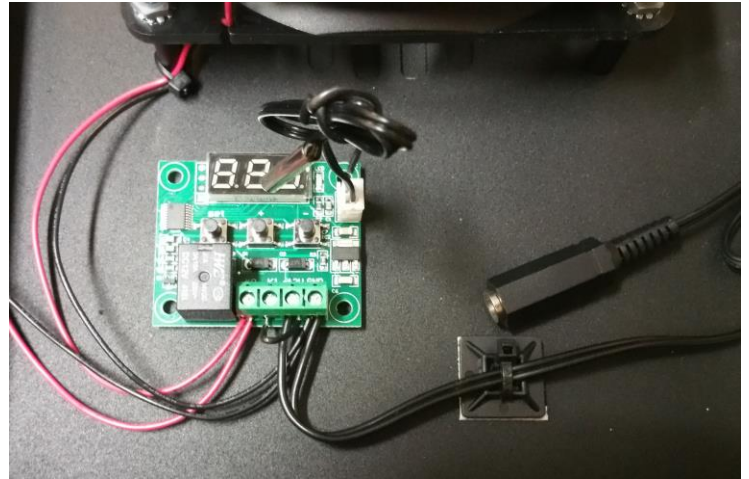
When changed to “base” configuration, it can be placed beneath a satellite receiver, DVR/PVR, amplifier, receiver or any other heat-producing device which has ventilation openings on the bottom surface. Its quiet fans are powerful enough to force a gentle stream of air up through the receiver and out the top or side openings, providing a substantial cooling effect.

In this mode of operation, it is helpful to place foam air dams on the top side of the Dual-mode Component Cooler to force the air stream to go up into the receiver and not escape through the space between the receiver and the Dual-mode Component Cooler; a length of adhesive-backed foam weather stripping is supplied with each Dual-mode Component Cooler. When installed, the foam should not allow air to escape under the receiver.

**NOTE: The Dual-mode Component Cooler was designed to cool components in an open, or partially open environment, such as on a shelf, in a bookcase, or in a cabinet with no doors and/or an open back. It cannot cool components in sealed enclosures; it would circulate the same hot air within the enclosure, providing little cooling. Active Thermal Management offers a complete line of cooling equipment designed to cool entire enclosures, from the smallest to the largest, at [www.activethermal.com](http://www.activethermal.com).**

## Connections & Operation

Select the location for the thermal probe, the small silver-colored cylinder attached to the control board located between the fans. Position the probe where it can sense the heat from the amplifier or other heat source. Plug the power supply into an AC outlet that is always live, and plug the power supply's output lead into the connector attached to the control unit. *Note that the small temperature display on the control board reads in degrees Celsius, not Fahrenheit.*



When the temperature at the thermistor reaches 32C degrees, (about 90F – see below) the fans will begin to turn. The fans will stop when the temperature falls below 29C (about 85F). A hair dryer can be used to check for proper operation.

The fans may run continuously in operation. Cable boxes, satellite receivers, some whole-house amplifiers and digital recorders run continuously and their heat may be enough to keep the fans in operation. The Dual-mode, like all ATM products, is designed to operate continuously, drawing only a few watts of electrical power.

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 showing system temperature after a few seconds; the new differential temperature has been stored.

For your convenience, here are some commonly-used 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

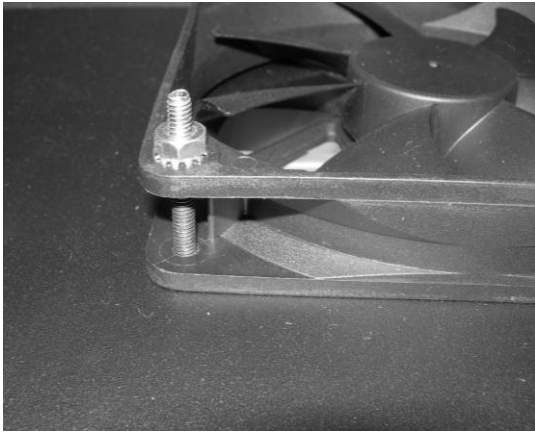
P6 – Off

### **To change from “Shelf” to “Base” mode of operation:**

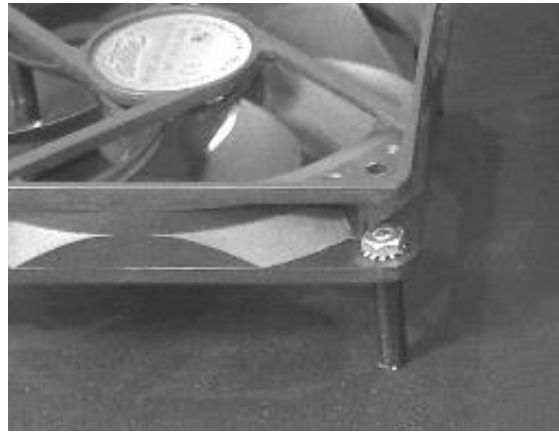
Using a Philips screwdriver, unscrew and remove the four long screws, spacers, and nuts holding one of the fans and the plate covering the hole in the top surface of the Dual-Mode Component Cooler. Set the cover plates and spacers aside for possible future use.

Turn the fan over so that the ATM logo, which faces DOWN in Shelf mode, faces UP, and insert the four long screws, one at a time, through the top surface and both holes in one corner of the fan. Leave the screws somewhat loose until all four are installed, and then tighten all four moderately; do not over tighten. Repeat for the second fan.

When finished, each fan will be attached as in Figure 1, and the ATM logo in the center of the fan will be visible through the top surface of the Dual-Mode Component Cooler.



**Figure 1 – Base mode fan mounting**



**Figure 2 – Shelf mode fan mounting**

**To change from “Base” to “Shelf” mode of operation:**

Remove the four screws and nuts holding one fan to the top surface and turn the fan over so that the ATM logo faces DOWN. Put the screws, one at a time, through the cover plate, top surface, spacer, and fan flange as in Figure 2. Leave all screws somewhat loose until all are installed, and then tighten all four moderately; do not over tighten. Repeat for the second fan.

When finished, each fan will be attached as in Figure 2, and the cover plates will be in place.