Active Thermal Management

The trusted name in thermal protection...

Winter 2010 Catalog

Celebrating over 10 years of QUIET cooling! 1999-2010

ACTIVE THERMAL MANAGEMENT

SOLVING HEAT-RELATED PROBLEMS
FOR THE CUSTOM AUDIO-VIDEO
INSTALLATION COMMUNITY

To Order:
(661) 294-7999—voice
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Specialty products for the Custom Audio/Video Installation Community

Active Thermal Management was formed by a small group of home entertainment electronics professionals to solve a specific problem faced by the custom installation Community: excessive heat in audio-video/home theater installations. Not rocket science, perhaps, but an increasingly important factor as systems become both more powerful and complex. The keyword is "more" and the equation is:

More channels
+ More power per channel
+ More new types of equipment

= More heat generated.

Put the equipment in an enclosed rack or cabinet, and temperatures can easily reach damaging levels. The results can include nuisance service calls, reduced equipment life, and damage to the designer/installer's reputation for allowing so obvious and annoying a "loose end"...

In this catalog, you will find products to solve the two basic types of heat-related problems: complete installations in enclosures with very little (or no) ventilation and individual pieces of equipment in semi-enclosed areas with limited ventilation.

⇒ Overheated enclosures (cabinets, racks, video projector shrouds, etc.) are best cooled by moving the heated air out of the enclosure to another area; the room, a crawl space, false ceiling, or completely out of the house. Solve the problem with an ATM ***enclosure cooler.***

⇒ Amplifiers and receivers on semi-open shelving or in partially-open cabinets can be spot-cooled with ***equipment coolers*** designed and manufactured by Active Thermal Management.

Our "no-risk" policy ——— ***Any Active Thermal Management product may be returned in original condition for full credit (less shipping charges) within 14 days of receipt.***

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System 1

The inexpensive way to cool overheated systems and enclosures

The problem solver...

A complete package that will solve 90% of the heat-related problems the systems designer will experience when working with large systems and enclosures.

The System 1 is comprised of:

⇒ an extraordinary centrifugal air mover, in an in-line configuration for use within a house OR in a weatherproof enclosure for use outdoors.
⇒ 8 feet of flexible tubing.
⇒ a hot air collector that easily mounts to almost any enclosure; the combination is simple, inexpensive, and virtually silent. All necessary clamps, brackets, and instructions are included.

The fans — Both the in-line and the EXTerior-mount models will exhaust 100 cubic feet of hot air per minute in free air. Used with 20' of tubing, either will still move a large volume of heated air- quietly.

⇒ The in-line model is suitable for use indoors, in any position, and is not affected by moisture, dust, or temperatures up to 140° F. Tubing can be connected to both intake and exhaust ports; the fan can push or pull air—or do both!

⇒ The EXTerior model is enclosed in a weatherproof metal case 10" wide x 14" high x 5" deep. It mounts outside the house and incorporates a one-way "trap door" to prevent outside air, dust, and insects from entering the house.

Specifications:
The in-line version is 13" long and 9.5" in diameter at its widest. Both use a Swiss-made, balanced motorized impeller that produces minimal noise and vibration. They consume only 60 watts and are rated for continuous operation; we guarantee the System 1 fans for 3 years.

The tubing — The System 1 comes with 8 feet of 4" ID/ 6" OD flexible, acoustically-damped tubing. This diameter allows hot air to move slowly and quietly. Additional lengths are available, and will reduce the amount of air moved.

The hot air collector — measures 6 ¼" square at its mounting flange; just screw the collector over a 4 1/2" opening in the rear or other surface of the enclosure, and slip the tubing on.

System 1 (in-line) ATM # 00-100-02
System 1 (EXT) ATM # 00-100-03

(Please see notes on page 21.)

In-line model

EXT model

System 1 Accessories

The System 1 is Active Thermal Management's large system workhorse. It can move over 100 CFM of heated air out of a large cabinet or closet and move it up to 25 feet away. Powerful enough to solve major heat problems in home theater installations, the fans still have to be turned on and off; in some installations, speed control is desirable.

(Note – All of the thermal switches can be used with the System 1 speed control for situations in which the full air moving capacity of the System 1 isn't required.)

Adjustable Thermal Switch

Simplest, lowest-cost thermal switch for the System 1

Simple plug-in connections

Mounts in a junction box; must be located close to heat source

ATM # 03-101-01

Remote Digital Thermal Switch

Digital read out of system temperature, turn-on & turn-off temperatures

Low-voltage wiring from sensor to fan; avoid wiring code violations

Sensor lead 6.5' long; easily lengthened

Simple plug-in connections

ATM # 03-101-03

Multi-Input Thermal Switch

Uses low-voltage wiring from sensors to switch; avoid code violations

Accepts up to 3 thermal switches; fan is on when ANY sensed area is hot, off when ALL are cool - great for multi-section cabinets

Simple plug-in connections

Comes with 1 90° switch; add more switches as needed

ATM # 03-101-02
extra 90° thermal switch assembly 03-203-02
extra 100° thermal switch assembly 03-203-01

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System 1 Accessories, cont.

Speed Control

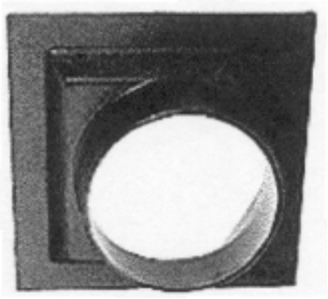
Lets you “fine tune” airflow

Minimizes noise & waste of heated/cooled room air

ATM # 03-102-01

Hot Air Collectors

Hot air collectors are funnel-shaped plastic fittings that make it easy to connect the System 1’s insulated tubing to flat surfaces, such as the back of a cabinet. Larger sizes can be used to catch heated air rising above a rack. All appear similar to illustration at right, and are supplied with clamps.



ATM #	
6 ¼” sq. (std. size)	03-104-00
8 ¼” sq.	03-104-02
8” x 10”	03-104-03
12 ¼” sq.	03-104-04
14” sq.	03-104-05

4” Y-fitting

Take advantage of the System 1’s power; cool 2 cabinets (or cabinet sections) with one fan. Supplied with clamps.

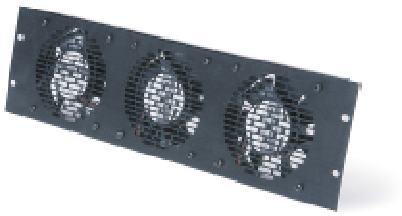
ATM # 03-110-00

System 2 Family

For cooling mid-size enclosures

System 2 Original

System 2 Kit



System 2 Rack-Mount

The System 2 products are <u>the</u> low-cost, simple-to-install, ***quiet*** venting solutions for mid-size heat loads in mid-sized cabinets (and mid-sized budgets!). Use them to cool computer enclosures, too, or anywhere else heat is a problem.

The family has 4 members - the original System 2, the 2 Kit, the 2+2 Kit, and the Rack-Mount (R-M). All feature proportional speed control: ***fan speed is proportional to temperature rise***, relieving the system designer of control issues. As equipment warms, fans begin to turn at about 1/3 of full speed, increasing to 2/3 of full speed if temperature rises further. When the system is turned off, fan speed slows as temperature falls, shutting off completely just above room temperature. Speed limitation and the use of multiple 4.7" (120mm) fans ensure effective cooling with very little noise.

Differences among the System 2 products are in their mounting systems:

⇒ The original System 2 has 2 fans and drive electronics on a 1/8" black mounting plate, and is used to exhaust hot air. Use it on the back of a cabinet when it's at least 2" from a wall.

⇒ The System 2 (supplied with 2 fans, for most mid-sized cabinets) and 2+2 kits (supplied with 4 fans, for the larger cabinet or larger heat load) consist of "separates": fans, fan guards, drive electronics in a small box, power supply, and 2 temperature-sensing thermistors. Both kit forms of the System 2 are ideal for "building-in" to an enclosure at the planning stage. (Or squeezing into existing installations that are running hot.) Fans and temperature sensors come with long wires for an easy, no-soldering installation.

⇒ The rack-mount version is 3U high, has 3 fans, and can be mounted in the front or the rear of a rack for front-to-back ventilation. If there's clearance for air behind the rack, a System 2 R-M mounted high on the rear rack rails with a vent panel low on the front rails will move air through the rack from front to back and bottom to top for quiet, effective cooling.

ATM #

System 2	**00-200-02**
System 2 kit	**00-201-02**
System 2+2 kit	**00-202-02**
System 2 R-M	**00-203-01**

(Please see notes on page 21.)

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System 3

Quiet cooling on a budget

While it's the medium-to-large systems that generate the most heat, small systems in small enclosures can also suffer from overheating. Whether it's a receiver and one or two other components in a small cabinet, a compact bedroom system tucked away inside a night table, or a remote amp for whole-house audio hidden in a linen closet, overheating causes problems for the installer and client alike.

Realistically, the amount of heat - ***and money*** - available in these situations is frequently limited. Here is a silent ventilating system that moves a moderate amount of air at a moderate price.

Smaller enclosures of 8 to 10 cubic feet in volume (typically under 2' wide, about 30" high, and less than 2' deep) do not need large volumes of air to remove heat generated by audio systems of moderate size. A venting arrangement that moves 15 to 20 cubic feet of air per minute would change the air completely twice a minute under ideal conditions (more than once a minute under real-world conditions), more than enough for systems of greater power and complexity. We've developed such a system for your smaller installations that doesn't require the air moving capabilities or sophisticated control systems of larger Active Thermal Management systems.

When the budget is tight, the System 3 may be just the answer.

The System 3 is comprised of two high-quality 3.125" (80mm) fans, guards, a plug-type power supply, a thermal switch, and a terminal strip pre-mounted in a small box for interconnections. Complete and inexpensive, the System 3 will move 15 to 20 CFM in typical applications in almost complete silence. The installer mounts the fans at appropriate places to pull room air in and push heated air out, fastens the thermal switch to the amplifier or other heat source, connects the fan, switch, and power supply wires to the screw-type terminal strip (no soldering needed), and plugs the power supply into an always-live AC outlet.

Limited space and limited budgets are no longer reasons to ignore active ventilation systems and just "hope for the best". Give your clients the protection they deserve, and minimize profit-killing call-backs.

ATM # 00-400-01

(Please see notes on page 21.)

SEC-1
Makes Cooling Small Enclosures Easy

The Small Enclosure Cooler is designed to make cooling smaller enclosures easier than ever. Two 80 mm fans are pre-assembled to a thin panel which mounts over a simple rectangular cutout on a small cabinet's back panel. With a thermal switch assembly that fastens magnetically to the component whose temperature is being monitored, installation is quick and simple.

An important feature of the SEC-1 is its ability to run continually at a slow speed to deal with the constant heat dissipation of today's cable boxes and satellite receivers when a home theater system is off, switching to a higher speed when it's on and equipment temperature rises. Another is the ease with which the thermal control module magnetically attaches to equipment to be monitored. All components of the SEC-1 plug together; no wire cutting, stripping, or soldering is required. Comprehensive installation instructions are included.

The SEC-1 is generally used in exhaust mode, mounted to the rear panel of a cabinet at least 2" from a wall.

Specifications:

Fans:	**(**2) 3.125" (80mm)
Dimensions (fan panel):	8 1/2" l x 4 1/2" w x 1 3/4" d
Air flow:	50 CFM (free air), 20 CFM (typical)
Noise level:	19 dBA
Trigger temperature:	90° F
Weight:	1 lb

ATM # 00-401-01

(Please see notes on page 21.)

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Cool-vent™

When it has to match...!

There are some installations in which you can't hide the fans' grilles, no matter how hard you try! When vent openings are going to be visible, Cool-vent II or III may be the answer. Each can be configured during installation to quietly move air in or out of an enclosure, and consists of a fan assembly and a very high quality wooden grille.

The Cool-vent family is ideal for mounting on a cabinet's base, or "kick-plate". Cool-vents II and III are always on at a low "idle" speed, switching to a higher speed at 100 degrees. While the slower speeds are quieter, the Cool-vents are amazingly quiet under all conditions.

Available unfinished in more than 26 species of wood (see list below), the Cool-vents easily separate into fan and grille sections. After painting or staining the grille to match the client's enclosure, the fan assemblies screw back onto the grilles, facing one way to exhaust hot air or the other way to bring fresh air in.

The grilles are also available without fans to use as matching passive inlets or outlets.

Model	Rough opening	Finished size	#/size of fans	CFM - lo/hi Speed
Cool-vent II	4" x 14"	5 ½" x 15 ½"	4/80mm	20/30
Cool-vent III	6" x 14"	7 ⅛" x 15 ½"	2/120mm	30/50

Wood species: *Red Oak (RO), White Oak (WO) Maple (MA), Cherry (CH), Q-sawn White Oak (QO), White Pine (WP), So. Yellow Pine (YP), Black Walnut (BW), Ash (AS), Poplar (PO), White Birch (WB), Red Birch (RB), Phil. Mahogany (PM), Sassafras (SA), Cypress (CY), Beech (BE), Cedar (CE), Bamboo (BA), Purple Heart (PH), Jajoba (JA), Ant. Heart Pine (AP), Hond. Mahogany (HM), Hickory (HI), VG Fir (VG), Redwood (RW), Teak (TE), and Alder (AL).*
SEE BACK INSIDE COVER FOR SAMPLE WOOD SPECIES GUIDE!

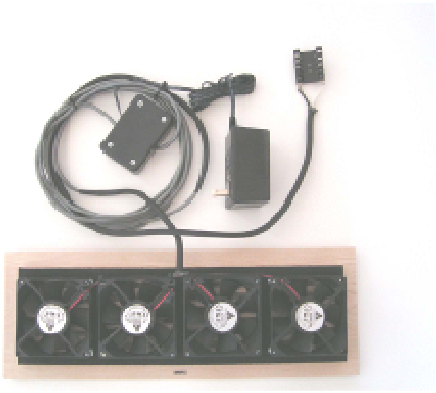
ATM # (replace "XX" with 2-letter wood abbreviation above)

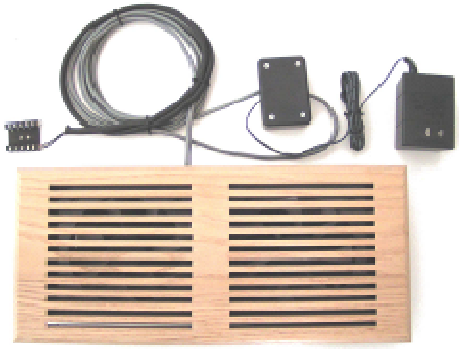
NOTE: Cool-vent I has been discontinued– see Cool-line 1 on page 10

Cool-vent II 00-502-XX
Cool-vent III 00-503-XX

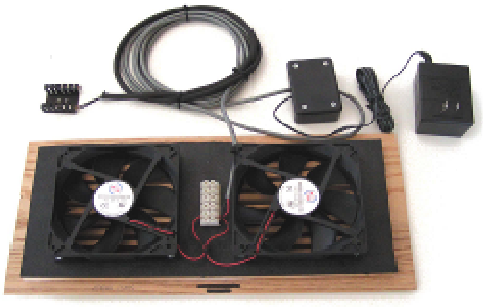
(Please see notes on page 21.)

Cool-vent II





Cool-vent III



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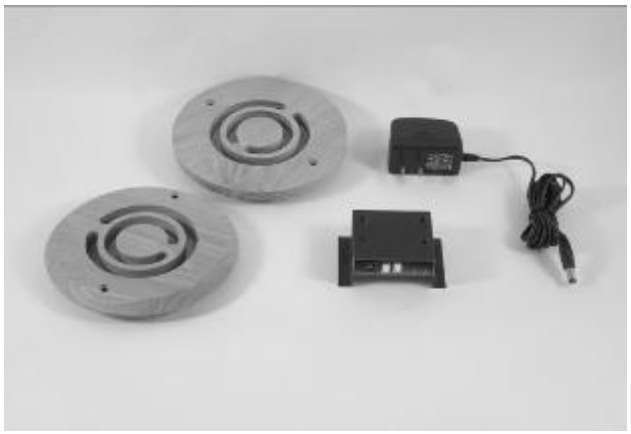
Circle-vent™

When cooling devices can't be hidden

Circle-vent™ products are powered air vents designed for easy mounting in fine cabinetry. Available in surface or flush-mount configurations in a variety of wood species, Circle-vent is easily field-adjusted to either exhaust hot air out of an audio-video cabinet or pull fresh air in. Each system consists of 2 fan assemblies, power supply, and a magnetic-base thermal switch assembly. The fans run continuously at idle, speeding up as temperatures rise.



The surface-mount configuration is easily retrofitted into existing cabinets; the flush-mount version is intended for installation during cabinet construction.

Surface mount units will be stocked in White Oak, Poplar, Maple, Black Walnut, and Cherry woods; other species (and all flush mount units) available by special order. (See below for wood codes)

Specifications:

Fans:	(2) 3 1/8" (80mm)
Dimensions:	5" o. d., 1 1/2" d.
Air flow:	20 CFM (free air), 15 CFM (typical) (each fan/grille assembly)
Noise level:	19 dBA
Trigger temperature:	90° F
Weight:	1/2 lb (each assembly)

ATM # **(Replace "XX" with codes below)**

00-510-XX (surface mount)
00-511-XX (flush mount)

(Please see notes on page 21.)

Red Oak (RO), White Oak (WO) Maple (MA), Cherry (CH), Q-sawn White Oak (QO), White Pine (WP), So. Yellow Pine (YP), Black Walnut (BW), Ash (AS), Poplar (PO), White Birch (WB), Red Birch (RB), Phil. Mahogany (PM), Sassafras (SA), Cypress (CY), Beech (BE), Cedar (CE), Bamboo (BA), Purple Heart (PH), Jajoba (JA), Ant. Heart Pine (AP), Hond. Mahogany (HM), Hickory (HI), VG Fir (VG), Redwood (RW), Teak (TE), and Alder (AL).

SEE BACK INSIDE COVER FOR SAMPLE WOOD SPECIES GUIDE!

NEW! Cool-line™

Modern, sleek, quiet...

Recognizing the need for cooling products for narrow spaces, such as above or below flat-panel displays, or mounted on kick panels, Active Thermal Management will begin shipment this Fall of the Cool-line series of quiet ventilating products. Available in satin-anodized aluminum and a wide variety of unfinished woods, all Cool-line products measure 3 1/2" in width; length varies depending on the number of fans. Units will be available with 1 or 2 fans, and can be mounted horizontally or vertically.

The slim, linear styling of the Cool-line series makes it ideal for use in commercial and residential A/V and computer installations where quiet cooling is required and space is limited. Powerful but quiet cross-flow fans are used in all models to move air in or out of the enclosure to be ventilated. Temperature controlled and multi-speed, the fans are completely automatic.

The aluminum Cool-line systems ship configured to exhaust heated air from enclosures, but are easily changed in the field for use as intake devices. ***Wood Cool-line versions must be ordered as either intake or exhaust models.*** Matching grilles, both metal and wood, are available without fans to trim passive openings. Wood units are stocked in White Oak, Poplar, Maple, Black Walnut, and Cherry; other species are available by special order.

Model	Rough opening	Finished size	#/size of fan	CFM
Cool-line 1 Alum.	14 1/4" x 2 1/2"	15 3/8" x 3 1/2"	(1) 300mm crossflow	25 CFM
Cool-line 1 Wood	14 3/4" x 2"	16 3/8" x 3 1/2"	(1) 300mm crossflow	22 CFM
Cool-line 2 Alum.	29 1/8" x 2 1/2"	30 1/4" x 3 3/8"	(2) 300mm crossflow	50 CFM
Cool-line 2 Wood	28 1/4" x 2 1/8"	30" x 3 1/2"	(2) 300 mm crossflow	47 CFM

ATM #

Cool-line I Satin-anodized aluminum	00-531-01
Cool-line II Satin-anodized aluminum	00-532-01
Cool-line I Wood (intake)	00-521-XX-I (see page 7) Intake
Cool-line I Wood (exhaust)	00-521-XX-E (see page 7) Exhaust
Cool-line II Wood (intake)	00-522-XX-I (see page 7) Intake
Cool-line II Wood (exhaust)	00-522-XX-E (see page 7) Exhaust

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Cool-stick™

Designed to cool enclosed flat-panel displays

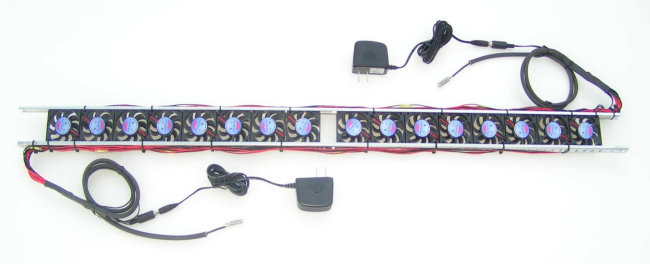
Cool-stick — Specifically designed to solve the problem of quietly cooling flat-panel displays recessed into walls or cabinets. While no one device is suitable for ventilating every installation, Cool-stick™ is the answer to many problems.

Damage to expensive displays from heat is a real possibility; Cool-stick can help you avoid this problem with its 16 quiet fans blowing a stream of air across the back of a display panel. With mounting brackets (not shown) that give the installer flexibility in mounting, Cool-stick is small enough to squeeze behind, below, or above displays in all but the tightest situations. A 1" (min.) gap above & below the display is required. **Protection for the panel, the owner, AND the installer!**

Cool-stick has **sixteen** fans, **two** power supplies and **two** thermal switches for a high degree of reliability through redundancy. Should a power supply or switch fail, half of the fans will provide continuous cooling. Miniature power supplies are used to ease installation in crowded enclosures.

A shorter version, Cool-stick 18, is also available. Supplied with a single power supply and thermal switch, Cool-stick 18 is useful for mounting behind components in tight quarters, such as between closely-spaced shelves.

Note: Active Thermal Management has written a white paper on cooling flat-panel displays, in which other products and cooling methods are discussed and illustrated. See it on our website @ www.activethermal.com under "Technical Info", or e-mail sales@activethermal.com for a copy!



Specifications:	**Cool-stick 36"**	**Cool-stick 18"**
Fans	**(**16) 2" (50mm)	(8) 2" (50mm)
Dimensions:	36" l x 2 1/2" w x 7/8" d	18" l x 2 1/2" w x 7/8" d
Air flow:	60 CFM (free air), 15 CFM (typical)	30 CFM (free air), 10 CFM (typical)
Noise level:	21 dBA	18 dBA
Weight:	4 lbs	2 lbs
ATM #	**00-701-01**	**00-701-18**

(Please see notes on page 21.)

Cool-stack I™

Includes a remote thermal switch

One of our most popular models, Cool-stack I is the cooling solution for small to mid-sized racks. Connecting to the chassis through a 4' cable, the thermal switch lets Cool-stack I's operation be controlled by the temperature of a component in the rack. This means fans can turn on later and stay on until residual heat has been removed from the component being cooled. (Fan operation can also be controlled by a contact closure instead of the thermal switch or by a 12 volt trigger signal.)

Cool-stack I™, is a 1 RU high true rack-mount ventilator. Very quiet in operation, it mounts above the heat producing equipment and pulls the heated air up and out of the equipment, and out the front of the rack. Four fans on the under side of Cool-stack turn relatively slowly, making essentially NO noise as they bring room air in and expel heated air through openings on the front panel.

Cool-stack I is shipped in "thermal switch" mode. ***Moving 2 jumpers on the internal pc board allows 12 volt trigger operation.***

For larger rack installations, with larger heat loads, the Cool-stack I is also available in an "intake" model. Mounted low in a rack and blowing cool air UP, with an "exhaust" Cool-stack mounted high in the rack and moving heated air OUT, a strong (but quiet) ventilation current is established.

Dimensions: 19" x 1 3/4" x 8"
Fans: (4) 3.125" (80mm) 12Vdc

ATM #	**Exhaust**	**00-301-03**
ATM #	**Intake**	**00-302-02**

(Please see notes on page 21)

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Cool-stack II™

A 2U high quiet cooler for larger racks, larger heat loads

With six 120mm fans and an 18" depth, the Cool-stack II has the power - and the reach - to pull up to 130 CFM of hot air out of tightly-packed racks while generating low noise levels. The Cool-stack II has three temperature-controlled speeds, and is installer-programmed to switch between any two speeds as rack temperature changes. Programming can satisfy the requirements of both residential and commercial installations; in either case, heated air can be expelled through the perforated front panel or through ports on the top or rear panels. Tubing and fittings are supplied with each Cool-stack II to channel exhausted hot air from its top and rear exhaust ports to nearby closets, attics, utility rooms, etc. Two four-foot lengths of 2” diameter tubing can attach to fittings on the rear panel, and move heated air out of a rack cabinet, or into a near-by closet.

A blanking panel on the top of the Cool-stack II removes to allow the attachment of an eight-foot length of our 4”/6” (ID/OD) acoustically-insulated flex tubing. Hot air can be moved from within a rack, up through the top of an enclosure or a closet’s ceiling.

Cool-stack II — cools the rack AND the enclosure the rack is in!

Specifications:

Dimensions: 19" w x 18" d x 3 1/2" h
Air flow: 10 to 130 CFM
Speeds: 3 (temperature controlled)
Noise level: 22 to 36 dB (A-weighted)
Finish: Black powder-coat

ATM # **00-303-01**

(Please see notes on page 21.)

Cool-stack III™

Effective rack cooling in ONE space!


Top View

Electronic House's 2007 Product of the Year, Cool-stack III is a 1-unit high hot air exhaust system for mid-size racks with mid-size heat loads! With four 120mm fans and an 18" depth, the Cool-stack III has the power – and the reach – to pull up to 70 CFM of hot air out of tightly-packed racks while generating very low noise levels. Heated air is normally exhausted through the perforated front panel, but exhaust fittings and tubing provided can move the hot air safely away to the rear if the rack is located in a closet or cabinet.


Bottom View

Cool-stack III is temperature-controlled, switching from a constant, very low "idle" speed, suitable for removing stand-by heat generated by components such as cable boxes and satellite receivers, to full speed as rack temperature changes. Temperature is sensed by a very small, remotely-located thermal switch which uses a strong magnet to secure itself to the component being monitored. A contact closure can also trigger the change to full speed, if desired. Internal movable jumpers can be set to satisfy the requirements of a particular installation, whether residential or commercial. In an alternate mode of operation, the constant-idle is defeated, and control is accomplished by a 12 volt trigger signal.

A bracing bar is included to mount the unit to the rear rack rails and support the rear section of the Cool-stack III.

Specifications:

Dimensions	19"w x 18"d x 1 3/4"h
Air flow	70 CFM (full speed)
Noise level	26 dBA
Color	Black
Fans	(4) 4.7" (120mm) DC
Trigger temperature	90°

ATM# **00-304-01**

(Please see notes on page 21.)

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Cool-Cube E™ New and Improved!

When space is <u>really</u> tight

There are times when a situation calls for the System 1's ability to move hot air through a tube to "somewhere else", but there's just not enough room for the System 1's tubing or centrifugal blower.

Cool-Cube E (replacing the original Cool-Cube) was developed for the home theater design and installation community. Combining a compact power module with either 4", 3" or 2" flexible tubing, Cool -Cube E will pull heated air out of a closed mid-size cabinet, small closet, or enclosed video projector, holding a typical home theater system and quietly move it to a nearby closet, utility room, crawl space, etc. The power module measures 6" x 6" x 10" and is powerful enough to move a useful amount of air through tubing thin enough to snake through all but the most crowded cabinets. (See chart below.)

The Cool-Cube E features a new control system, activated by a remote temperature-sensing probe, with field-adjustable temperature set-points and speeds. The noise level generated even at high speed is low (when used with the insulated 4" tubing) in keeping with Active Thermal Management's policy of not "trading a heat problem for a noise problem".

Cool-cube with 2" tubing, with 2" & 3" adapters

The nature of this type of air moving device is such that it can *pull* air somewhat more effectively than it can *push* it. Cool-Cube E's power module should be placed, ideally, at the exhaust end of the tubing. A compact hot air collector, or flange, is provided at the suction end of the tubing, and is easily connected to a flat surface, such as the back of a cabinet.

Order the Cool-Cube E with 4" tubing if clearance allows, or with 3" or 2" tubing for those really tight situations. As little as 12 CFM of air movement means that the air in a typical 4' x 3' x 2' cabinet will be changed every two minutes. (This assumes free air flow; real-world installations will take somewhat long-er for an air exchange)

Cool-Cube E with 8' of 4" tubing **ATM # 00-120-04**

Cool-Cube E with 6' of 3" tubing **ATM # 00-120-01**

Cool-Cube E with 6' of 2" tubing **ATM # 00-120-02**

(Airflow through 6' of tubing)	LOW speed	HIGH speed
2" tubing	12 CFM	18 CFM
3" tubing	25 CFM	40 CFM
4" tubing	35 CFM	70 CFM

Dual-Mode Component Cooler

Cools from the bottom or the top!

Designed for use in open or semi-enclosed installations where existing ventilation is insufficient, the Dual-Mode Component Cooler combines the functions of a bottom-mounted component cooler and an active heat shield. Shipped in heat shield mode, it's placed on top of a heat-generating component and provides a shelf on which a heat-sensitive component, such as a DVD player, can be safely placed. Two quiet 120 mm fans cool the component below, preventing heat from reaching the component above.

Heat Shield Mode

Bottom-mounted Cooler Mode

Changing to the bottom-mounted component cooler configuration is easily and quickly done using only a Philips screwdriver. In this mode, the Component Cooler is placed beneath a component which has vent openings in the bottom panel. The Component Cooler sends a quiet stream of cooling air up into the amplifier or other hot component, reducing its internal temperature.

In both configurations, the Component Cooler operates continuously at an idle speed, switching to its normal speed above the trigger temperature. A thermal switch attaches magnetically to the component whose temperature is being monitored.

Please note that the Component Cooler will NOT work in closed cabinets, as it would simply re-circulate already-heated air. For those installations, choose one of Active Thermal Management's enclosure coolers.

Specifications:

Dimensions	14"d x 16"w x 2.125"h
Shelf capacity	100 lbs.
Noise level	20 dBA
Color	Black
Fans	(2) 4.7" (120mm) DC
Trigger temperature	90°

ATM# **01-008-01**

(Please see notes on page 21.)

To Order:
(661) 294-7999—voice
(661) 294-1115—fax
sales@activethermal.com

Cool-it II™

Simple spot cooling for components

Active Thermal Management introduced the original Cool-it™ several years ago. Since then, it has solved equipment heating problems in many shelf or bookcase installations.

Cool-it II is a single unit equipment cooler that is placed on top of equipment that is running hotter than it should be. Two almost totally silent 4.7" (120mm) fans send a stream of air down into the equipment to remove excess heat and prevent damage due to overheating.

Needing virtually no installation, Cool-it II is simply placed on top of the overheated receiver, processor or amplifier, the thermal switch is fastened, and the wall-type power supply is plugged into an always-live outlet. When the thermal switch closes, Cool-it II sends a quiet stream of cool air down into the component.

(Please note that it won't work in a tightly sealed enclosure; it will just stir the hot air around and around! For these situations, see our enclosure coolers...)

Using the Cool-it II dramatically lowers the temperature of the output transistors and nearby components within a receiver or amplifier, and will extend its useful life significantly; heat is enemy number one of modern electronic devices.

The Cool-it II™ —— cheap insurance for expensive equipment

Specifications:

Dimensions	15"l x 6.75"w x 2"h
Fans	(2) 4.7" (120mm) DC
ATM #	**01-002-02**

(Please see notes on page 21.)

Cool-Sat™

Simple spot cooling for smaller components

Active Thermal Management announces the availability of Cool-Sat™, a silent ventilating device that will keep popular satellite receivers, video game consoles, and other small devices such as the Apple TV cool. Notorious for their tendency to overheat, these products remain in a heat-generating "stand-by" mode at all times. In locations with restricted ventilation, many of these components are damaged if the heat they produce is allowed to build up.

Cool-Sat is the simple, inexpensive solution; positioned under any other small component, it sends a gentle stream of air up around the device, ensuring a safe operating temperature and long life. Cool-Sat is almost completely silent, inaudible from beyond 3 feet from the receiver in typical installations, and is only 2 1/4" high. Power consumption is less than 5 watts, making it practical to leave on at all times.

Specifications:

Dimensions	11"w x 9"d x 2.5"h
Fans	(2) 4.7" (120mm) DC

ATM # **01-006-02**

(Please see notes on page 21.)

The 8 basic Cooling Situations

...And how to solve the problem!

1. A single unenclosed component
   - ***Cool it II**
   - ***Dual-mode component cooler**
   - ***Cool sat**

2. An enclosure which has at least 2” of open space behind it
   (fans can be mounted out of sight on rear panel)
   - ***System 2 Original**
   - ***System 2 or 2+2 kit**
   - ***System 3**
   - ***SEC-1**

3. An enclosure which has little or no space behind it
   (fans can’t be mounted on rear panel)
   - ***Cool vent**
   - ***Circle-vent**
   - ***Cool cube**
   - ***Cool line**

4. An unenclosed rack
   - ***Cool stack I**
   - ***Cool stack II**
   - ***System 2 Rack-mount**
   - ***Cool stack III**

5. An enclosed rack (in a closet or cabinet)
   - ***Cool stack II**
   - ***Cool stack III**

6. A large enclosure (walk-in or coat-size closet)
   - ***Cool cube**
   - ***System 1**

7. An enclosed video projector
   - ***System 2 kit**
   - ***Cool cube**
   - ***System 1**

8. A flat panel display set into a wall or cabinet
   - ***Cool stick**
   - ***System 3**

SPECIFICATIONS SHEET

PRODUCT	DIMENSIONS	Weight (boxed)	FANS	Airflow	Noise Level	Trigger Temp
System 1	13" L x 9.5" diameter	12 lb	(1) In-line centrifugal	100 cfm	34 dBA	n/a
System 1 EXT	10" W x 14" H x 5" D	16 lb	(1) centrifugal	100 cfm	34 dBA	n/a
System 2 Original	15.75" L x 7.75" W	3 lb	(2) 120 mm	10-40 cfm	24 (full speed)	85-120°
System 2 kit	n/a	3 lb	(2) 120 mm	10-40 cfm	24 (full speed)	85-120°
System 2+2 kit	n/a	4 lb	(4) 120 mm	20-80 cfm	27 (full speed)	85-120°
System 2 Rack-mount	19" W x 5.25" H x 2 3/4" D	4 lb	(3) 120 mm	15-45 cfm	26 (full speed)	85-120°
System 3	n/a	2 lb	(2) 80 mm	30/38 cfm	19/23 dBA	90°
SEC-1	8.5" L x 4.5" H	2 lb	(2) 80 mm	30 cfm	19 dBA	90°
Cool-vent II	15.5" L x 5.5" H 4" x 14" rough opening	4 lb	(4) 80 mm	20 cfm- lo 30 cfm- hi	26 dBA- lo 28 dBA- hi	90°lo 100°hi
Cool-vent III	15.5" L x 7 1/8" H 6" x 14" rough opening	4 lb	(2) 120 mm	30 cfm- lo 50 cfm- hi	24 dBA- lo 26 dBA- hi	90°lo 100°hi
Cool-line	See page 10 for table	4-6 lb	1 or 2 300mm cross-flow fans	20 cfm per fan	20-25 dBA	multi-speed
Circle-vent (Surface mount)	5" diameter	2 lb	(2) 80 mm	20 cfm	19 dBA	90°
Circle-vent (Flush mount)	5" diameter	2 lb	(2) 80 mm	20 cfm	19 dBA	90°
Cool stick 36"	36" L x 2.5" W x 7/8" D	4 lb	(16) 50 mm	60 cfm	21 dBA	90°
Cool stick 18"	18" L x 2.5" W x 7/8" D	2 lb	(8) 50 mm	30 cfm	18 dBA	90°
Cool stack I Exhaust	19" W x 1 3/4" H x 8" D	8 lb	(4) 80 mm	40 cfm	21 dBA	90°
Cool stack I Intake	19" W x 1 3/4" H x 8" D	8 lb	(4) 80 mm	40 cfm	21 dBA	90°
Cool stack II	19" W x 3.5" H x 18" D	23 lb	(6) 120 mm	10-130 cfm	22-36 dBA	varies
Cool stack III	19" w x 1 3/4" H x 18" D	16 lb	(4) 120 mm	70 cfm	26 dba	90°
Cool cube 2"	6" x 6" x 10"	10 lb	(5) 120 mm	12 cfm- lo 18 cfm- hi	28 dBA– lo 34 dBA– hi	90°lo 100°hi
Cool cube 3"	6" x 6" x 10"	10 lb	(5) 120 mm	25 cfm- lo 40 cfm- hi	24 dBA– lo 29 dBA– hi	90°lo 100°hi
Cool cube 4"	6" x 6" x 10"	10 lb	(5) 120 mm	35 cfm- lo 70 cfm- hi	20 dBA– lo 22 dBA– hi	90°lo 100°hi
Dual-Mode Cooler	14" d x 16" w x 2.125" H	9 lb	(2) 120 mm	30 cfm	20 dBA	90°
Cool sat	11" w x 9" d x 2.5" h	4 lb	(1) 120 mm	12 cfm	16 dBA	n/a
Cool it II	15" L x 6.75" W x 2" H	5 lb	(2) 120 mm	20 cfm	19 dBA	90°

To Order:
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Important notes for systems designers and installers:

Not every product we make is suitable for use with every amplifier, receiver, or other heat-producing piece of electronic equipment. It is the responsibility of the systems designer or installer to determine that a particular Active Thermal Management product is suitable for use in a particular situation. Active Thermal Management cannot be responsible for damage as a result of incorrect choice, failure, or use of its products. Active Thermal Management will gladly exchange equipment or refund the purchase price (less shipping costs) within 14 days of receipt if the wrong equipment has been purchased for a particular use if the equipment has not been damaged. We are not responsible for typographical errors.

Active Thermal Management reserves the right to make changes to its products and their specifications in an ongoing process of product improvement.

Technical papers available

Active Thermal Management has written a series of white papers on topics of interest to the custom audio-video systems designer and installer. Many of your questions regarding heat problems are answered in these papers and are available for download on the Technical Info page at www.activethermal.com.

Available now:

Thermal Problems and the Custom Audio-Video Installer

Cooling Enclosed Video Projectors

Cooling the Mid-Size Enclosure

Cooling Large Home Theater Systems

Cooling Flat-Panel Displays

A Primer on ATM Products (“here’s the situation—which product should I use?”)

NEW — Cooling the (almost) Impossible Cabinet
(Not on the site— call or e-mail for a copy)

ATM REPRESENTATIVES

Area	Company	Phone
AK	The Joncas Company	(206) 363-9200
AL	Creative Marketing	(615) 831-9690
AR	Charles Lucas Sales	(817) 446-7575
AZ	Discovery Marketing	(800) 290-3433
CA (N)	Profit Line	(415) 898-1617
CA (S)	JBA Marketing	(661) 257-8448
CO	Discovery Marketing	(800) 290-3433
CT	Pro Audio, Inc.	(781) 939-5630
DE	The NuTech Group	(215) 654-1224
DC	The NuTech Group	(215) 654-1224
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GA	Creative Marketing	(615) 831-9690
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IL (S)	Flannigan & Assoc	(913) 888-9901
IN	The Performance Grp	(614) 791-9911
IA	Flannigan & Assoc	(913) 888-9901
KS	Flannigan & Assoc	(913) 888-9901
KY	The Performance Grp	(614) 791-9911
LA	Charles Lucas Sales	(817) 446-7575
MA	Pro Audio, Inc.	(781) 939-5630
MD	The NuTech Group	(215) 654-1224
ME	Pro Audio, Inc.	(781) 939-5630
MI	Flannigan & Assoc	(913) 888-9901
MN	Nova Marketing	(612) 920-5085
MO	Flannigan & Assoc	(913) 888-9901
MS	Creative Marketing	(615) 831-9690
MT	Discovery Marketing	(800) 290-3433

Area	Company	Phone
NC	Creative Marketing	(615) 831-9690
ND	Nova Marketing	(612) 920-5085
NE	Flannigan & Assoc	(913) 888-9901
NH	Pro Audio, Inc.	(781) 939-5630
NJ (N)	Bach Sales	(516) 334-2323
NJ (S)	The NuTech Group	(215) 654-1224
NM	Discovery Marketing	(800) 290-3433
NV (Clark)	JBA Marketing	(661) 257-8448
NY (metro, LI)	Bach Sales	(516) 334-2323
OH	The Performance Grp	(614) 791-9911
OK	Charles Lucas Sale	(817) 446-7575
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PA (E)	The NuTech Group	(215) 654-1224
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TN	Creative Marketing	(615) 831-9690
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UT	Discovery Marketing	(800) 290-3433
VA	The NuTech Group	(215) 654-1224
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INTERNATIONAL REPRESENTATIVE

International Sales (619) 224-9429 james@intlsales.net

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ATM DISTRIBUTORS

Area	Company	Phone
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AR	ECD	(713) 528-1543
AZ	AVAD Rocky Mtns	(480) 609-0453
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MN	AVAD Central	(888) 725-5638
MS	Creative Marketing	(615) 831-9690

Area	Company	Phone
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NJ (S)	TechSource	(215) 654-1552
NM	AVAD Rocky Mtns	(303) 650-0939
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NC	21st Century Dist.	(919) 779-0273
NC	Creative Marketing	(615) 831-9690
ND	AVAD Central	(888) 725-5638
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OK	ECD	(713) 528-1543
OK	Lucas Marketing	(817) 446-7575
PA (E)	TechSource	(215) 654-1552
RI	Pro Audio, Inc.	(781) 939-5630
SC	Creative Marketing	(615) 831-9690
TN	Creative Marketing	(615) 831-9690
TX (E)	ECD	(713) 528-1543
TX (W)	AVAD Rocky Mtns	(303) 650-0939
UT	AVAD Rocky Mtns	(303) 650-0939
VA	Specialty Marketing	(804) 746-0778
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WY	AVAD Rocky Mtns	(303) 650-0939

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ISRAEL	**Laser City, Ltd.**	**+972 9 9569615**
NEW ZEALAND	**LeisureTech**	**+61 2 9697 9888**

PRODUCTS FOR EXPORT:

All Active Thermal Management products, *except the speed control for the System 1*, are available for use on power mains from 100 to 240 volts at 50 or 60 Hz. Some ATM products normally ship with universal power supplies; some of these require "blade adaptors" which can be purchased locally for the specific country in which they will be used. Others can ship with packages of snap-in blade holders for use abroad. Other ATM products can be supplied with universal power supplies upon request.

If products being purchased are for use outside of the U.S., please inform us at time of ordering.

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WOOD SPECIES

Disclaimer– IMPORTANT please read:

Please use this page as a guide only. Our wooden grilles are all natural wood– meaning the "color" and grain can vary substantially from lot to lot. If you view this on a computer, be aware that different monitors display colors differently. Staining the wood can produce extremely varied results; ATM can not be responsible for color variances.

Antique Heart Pine

Black walnut

Cherry

Fir

Hickory

Honduran Mahogany

Maple

Philippine Mahogany

Poplar

Red Birch

Red Oak

So. Yellow Pine

Teak

White Birch

White Oak

White Pine

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