

Cooler Master AeroGate 1 Fan Controller

Title: Review of an Old favorite - the Cooler Master Aerogate 1 Fan Controller

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Provided by: www.bigal-computers.net

Date: February 10, 2006

Introduction

How many of you look for a fan controller when modding your gaming systems? Over the past few years, we've been adding miscellaneous heat generating components and stuffing them into cases along with more and more fans. This results in a noisy system that can distract us during important activities (gaming), so a solution must be found. That solution is a fan controller. Fan controllers allow you to slow down select fans to reasonable speeds for the times you don't need maximum cooling. When gaming, you can crank up the speeds with the simple twist of a knob – in this case, a rheostat.



links: <http://www.bigal-computers.net/FastLaneHW/FLH-AeroGate1-02.JPG>

<http://www.bigal-computers.net/FastLaneHW/FLH-AeroGate1-03.JPG>

As you can see from the exterior packaging above, Cooler Master gives you plenty of information on the box, such as listing the product features and what's included inside. The AeroGate 1 can control 4 fans, each adjusted with a rheostat that can handle 18W. In the pictures below we see how nicely Cooler Master packed the AeroGate 1 to ensure that no damage would occur during transit. I wouldn't give it to a UPS delivery person though....

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links: <http://www.bigal-computers.net/FastLaneHW/FLH-AeroGate1-04.JPG>
<http://www.bigal-computers.net/FastLaneHW/FLH-AeroGate1-05.JPG>

Ok, so what do you get inside the box? Along with the Aerogate 1 fan controller 5.25" bay device, you get four fan power leads, some screws to secure the Aerogate 1, and a power cable that you connect to a PSU molex connector. Here's the stuff all laid out on my work bench:



link: <http://www.bigal-computers.net/FastLaneHW/FLH-AeroGate1-07.JPG>

Installation

We could simply pop the bay cover off a generic beige case, slip the Cooler Master Aerogate 1 in the open slot, and connect the fans. But that's no fun. You can do that at home. Instead, let's put this bad boy into a custom modded case. Now let's see here. What would be a good candidate for this slick fan cooler? I know, how about the "Sun X-Terminal Mod"? It needs some fan speed adjustments, but in a colorful way. To start off, we need to disassemble our Cooler Master Aerogate 1.

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link: <http://www.bigal-computers.net/FastLaneHW/FLH-AeroGate1-15.JPG>

With the Aerogate 1 disassembled, maybe we can bend a few tabs on the frame so it will sit flush with a modded Sun X-Terminal case. That is, it will sit flush once we cut a hole for it.



link: <http://www.bigal-computers.net/FastLaneHW/FLH-AeroGate1-16.JPG>

Now don't forget to consider what will be on the backside of the fan controller. In this case, a motherboard will be sitting just millimeters behind it, so we must consider the minimum height to clear motherboard components (capacitors, etc.). With the hole cut, the tabs bent about 90 degrees, lets do a test fit.

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links: <http://www.bigal-computers.net/FastLaneHW/FLH-AeroGate1-17.JPG>
<http://www.bigal-computers.net/FastLaneHW/FLH-AeroGate1-18.JPG>

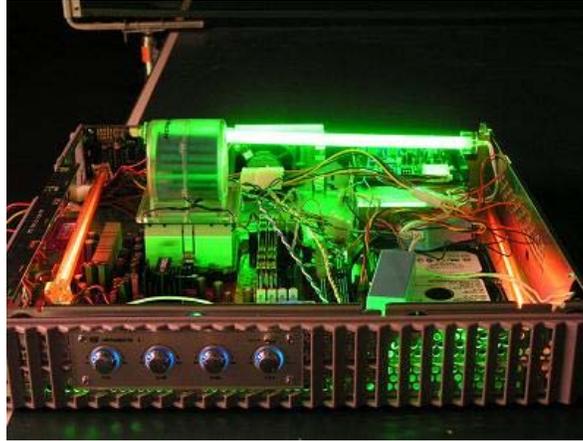
That fits pretty well. After adding the exterior grill, the AeroGate 1 fan controller is securely mounted. Now all you need to do is hook up your fans (up to 4 may be controlled with the rheostats) and the power Molex connector from your PSU.



links: <http://www.bigal-computers.net/FastLaneHW/FLH-AeroGate1-19.JPG>
<http://www.bigal-computers.net/FastLaneHW/FLH-AeroGate1-20.JPG>

Let's see how this custom mod turned out. For that, we need to hook up a PSU and dim the lights a bit. See that light surrounding each rheostat? There are tri-color LEDs for each one, set behind the plastic ring that surrounds the rheostat. There is a button at the top-right corner that allows you to switch between blue, red, and green colors. How nice.

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link: <http://www.bigal-computers.net/FastLaneHW/FLH-AeroGate1-21.JPG>

Ok, that was pretty easy. We cut a hole, bent a few tabs, and our AeroGate 1 slipped right in there. Shall I try this again with a more challenging mod? Yes, I thought you might like that.

Our second application is another modded case – the “printer-to-computer-deja-vu” mod. This is basically an old HP LaserJet 4MX, gutted and forced to accept not one but two complete computer systems. Anyone for gaming? You bet, but first let’s install the AeroGate 1 to give us some control over the fans running in this mega-machine. The big step is to cut a hole, but even with a Dremel tool, this takes some skill.



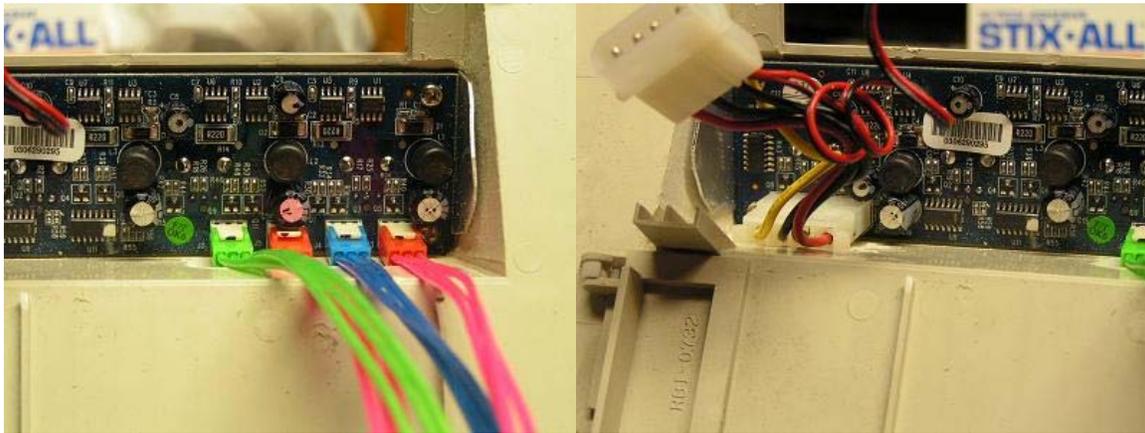
links: <http://www.bigal-computers.net/FastLaneHW/FLH-AeroGate1-22.JPG>
<http://www.bigal-computers.net/FastLaneHW/FLH-AeroGate1-23.JPG>

After the hole is cut for the AeroGate 1, a small problem comes up. A problem found when modding? How can that happen? Take my word for it; problems come up with every mod. This problem has to do with angles – the angle of the Aerogate 1 compared to the angle of the frame around it. You see, the bottom isn’t perpendicular to the top,

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and the lower fan and power connectors come very close to the bottom section of the printer's front panel.

Our solution for this is to get that Dremel tool back into action. Click on these pictures and you'll see how I gouged out the area underneath the connector. Go too far and you poke through (ruining the mod of course).



links: <http://www.bigal-computers.net/FastLaneHW/FLH-AeroGate1-24.JPG>
<http://www.bigal-computers.net/FastLaneHW/FLH-AeroGate1-25.JPG>

Once again, we connect up the fans to the AeroGate 1. One fan per rheostat, plus the Molex power connector. Since there are two PSUs in this system, I chose the primary PSU that is switched on first. I want these fans powered on when either the prime or the prime and the secondary systems are running. Combined with a custom electroluminescent panel logo, this mod turns out real sweet.



links: <http://www.bigal-computers.net/FastLaneHW/FLH-AeroGate1-26.JPG>
<http://www.bigal-computers.net/FastLaneHW/FLH-AeroGate1-27.JPG>

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Conclusion

The Cooler Master AeroGate 1 fan controller has been out on the market for a few years now. It can cost anywhere between \$20 and \$7. I've bought several when they were cheap, but it's still a good deal for around \$20. You can control 4 fans (4 channels), the device fits in a standard 5.25 inch bay (or into a custom modded case), and you get pretty colors at the push of a button. The AeroGate 1 is reliable too. I have a few that have been running for more than 2 years (systems running periodically) – better reliability than you can expect from the standard fan.

Pros:

- Four independent rheostats (channels)
- Sufficient power handling (18W per rheostat)
- Three LED colors for background dial illumination
- Adaptable to modding
- Reliable

Cons:

- Only available in silver color (black would be nice)
- No additional functions – temperature sensors, alarms, etc.

For meeting it's intended purpose and price point, I give the Cooler Master Aerogate 1 a rating of 9.5 out of a possible 10.