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Provided by: MGE Company
Est. Price: $40 to $60 (depends where you shop)

Introduction

Cheap cases have come a long way in the past few years. The MGE XG-Ninja2 is a cheap case and an example of good value for the money in today's marketplace. But you folks know that already – there are several excellent reviews of this case that can be found on the web (here's one: http://www.tweaknews.net/reviews/ninja2/). Cheap cases have their good points and their "could be better" points. We are going to change a few of those "could be better" points into good points because this case is a "modders delight". The case comes in three colors (blue, black, and silver) with a 400 Watt power supply unit (PSU), and it's loaded with USB / audio ports up front, a side panel vent, and even an 80mm LED fan. Interested? Let's see what I'm talking about.

Figure 1: Click image for a larger view

Packaging, Contents, and Other Stuff Before We Mod

In figure 1, we see the Ninja2 case fully unwrapped and ready to accept your standard motherboard, optical drives, and perhaps a hard drive or two. You could actually add three or four hard drives, because there's room for them inside. That would be nice and easy to do, but you want to know what's in need of modding and how we're going to do it, don't you? Well, let's see here. That's wire mesh in that side panel – looks fine, but it's kind of restrictive and there isn't any fan pulling air into the case behind the mesh. That front panel has an 80mm fan behind it. Probably adequate, but with a prefabricated grill blocking the airflow, that's got to hurt the cooling efficiency. And did you notice how light that case was when you picked it up? Why, now that you mention it, yes I did. It's light because the metal is real thin (good thing for modders), but that's not the only reason. It's also light because the PSU is lacking in current capacity (check out those current ratings on the 12 volt line in figure 2, or in that earlier review I mentioned). But that's ok. It's a cheap case, and we're going to see what we can do…..

Figure 2: Click image for a larger view

Time to Mod – Power Supply (PSU)
I wanted to see the guts of the included PSU, just in case there was a chance to use it. After taking off the cover (figure 3), I determined that it wasn't going to handle much of a load. On top of that, a couple of the wires from the power plug were awfully close to the spinning fan. If you are curious, take a look at that brown wire. It's only a matter of time before you'll be eating chop-chop-chop suey. This PSU won't be used to run my computer, but it is good enough to power a plant rack fan pack. A couple of fans controlled by a cheap PSU in a plant rack will help orchids and other plants to breathe. So save your cheap PSUs for a job they can handle, such as an old Celeron CPU with one optical and one hard drive. To avoid power issues, you need to run your modern computer with a quality power supply designed to support the high current load. I'm going to use one made by STEP Thermo-Dynamics. It's about 4 years old, but it works fine with the system going into this case. And it also weighs about twice as much – a rough indicator of PSU quality.

Figure 3: Click image for a larger view

Time to Mod – Front Intake Fan
The intake fan behind the front panel is an LED generic 80mm unit, with a large Molex connector. That's not so bad, but there is a restrictive grill in the way (see figure 4). On top of that, I want to use a fan controller (The Thermaltake X Controller 4 channel VR Fan Kit) to regulate the speed of the fans in this case, and it needs those smaller 3-pin connectors on the fans. So looking into my parts bin, I found the tasty items shown in figure 5 – a Cooler Master purple-LED fan, and two Case Arts wire mesh grills. Using my handy metal shears on this thin metal frame, you can see the quick result in figure 6 on the next page.
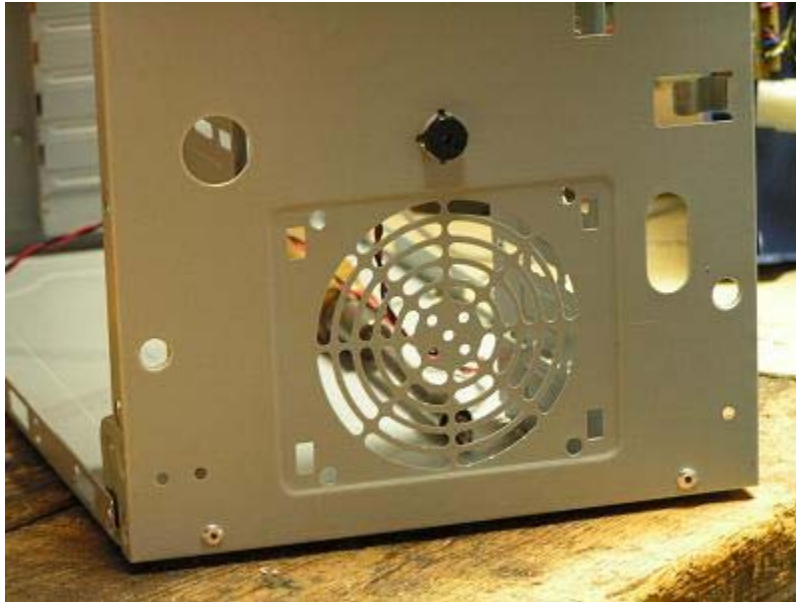
Figure 4: Click image for a larger view
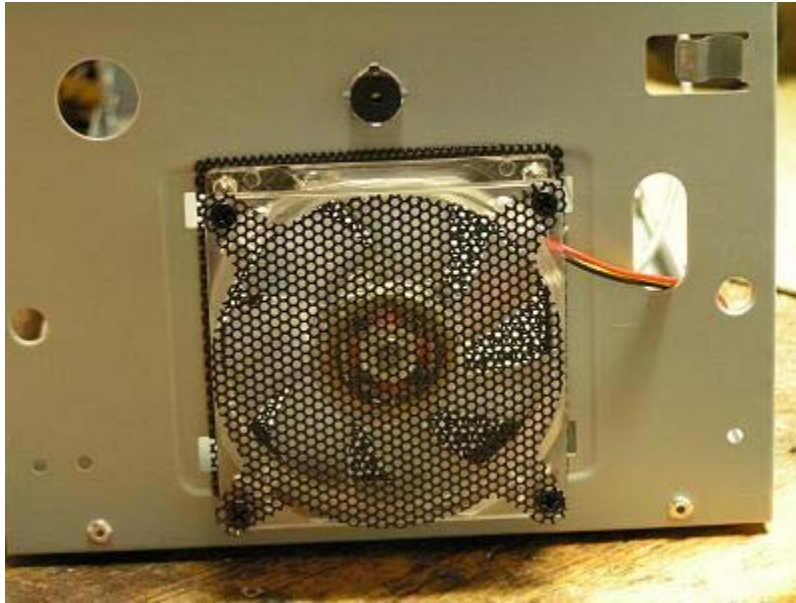
Figure 5: Click image for a larger view

Figure 6: Click image for a larger view

Time to Mod – Rear Exhaust Fan
The front intake fan grill wasn't bad when compared to the rear exhaust fan grill. This one just had to go. As you an see in figure 7, it didn't take long with metal shears in one hand and a Dremel tool with sanding bit in the other hand. The case didn't come with an exhaust fan, so we need to add our own. If you want good cooling with low noise, and you don't need lighting effects (LEDs, etc.), then Panaflo fans are a top choice. The rear exhaust fan mounting can support either an 80mm or 92mm fan, so I cut out enough to make room for the 92mm version. Then I added a slick mirror-finish fan grill to the outside for a nice effect – see figure 8. We'll repeat this effect later with the side panel. It's good to have some type of theme in mind when case modding. It's also nice to have a ton of parts on hand!
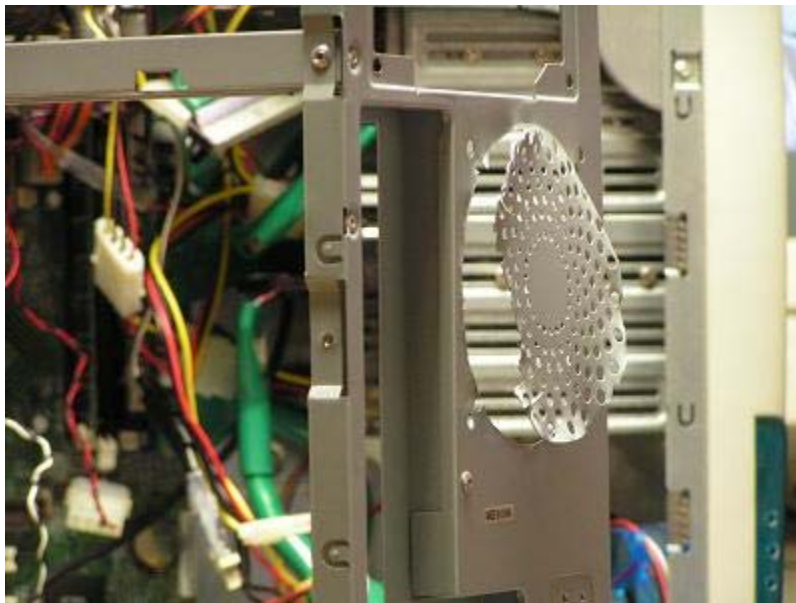

Figure 7: Click image for a larger view

Next – Keep modding!

Figure 8: Click image for a larger view

Time to Mod – On Your Feet Soldier!
When you turn the case over, you might notice the bare metal stumps that serve as feet. No rubber pads and nothing to prevent scratching the surface you place the case on. So this has to change. As luck would have it, I had a set of four case feet that were taken off another case to make way for new LED-feet. I knew I could use those someday, and today is the day. In figure 9 I have drilled the center hole through the metal stumps. In figure 10 I have screwed in the feet and flipped the case over. That was a simple 10-minute mod that makes the case stand up and be counted. If we get some warmer weather soon, I might even take them off again and paint them black.

Figure 9: Click image for a larger view

Figure 10: Click image for a larger view

Time to Mod – Motherboard Mounting
This mod was probably not necessary, but I didn't like the built-in motherboard standoffs that were formed into the removable motherboard tray (see figure 11). I thought there might be a problem shorting nearby traces to the motherboard, so I decided to install normal brass standoffs instead, as shown in figure 12.

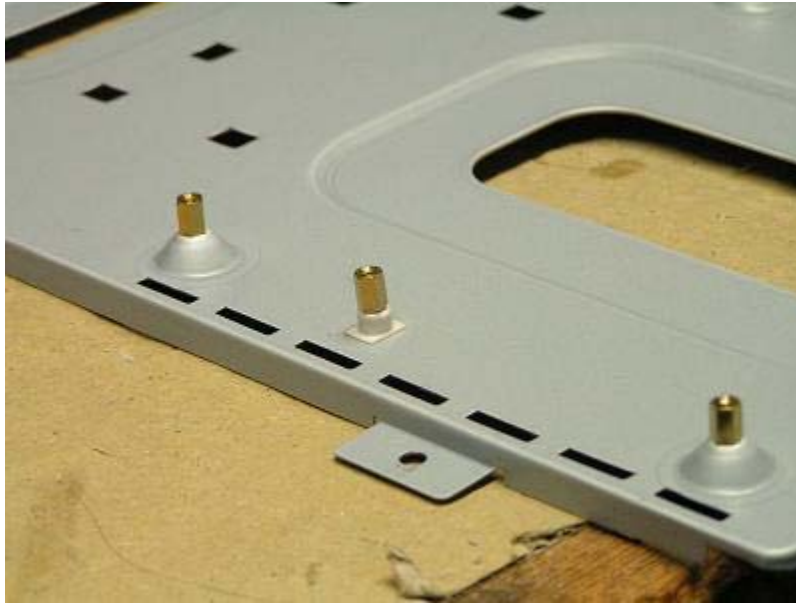Figure 11: Click image for a larger view

Figure 12: Click image for a larger view

Once I mounted the motherboard and placed it back into the case, something became apparent. The motherboard cutout insert didn't match up with the motherboard, because the motherboard now sits a little higher in the case. Oh oh. On top of that, when I inserted the PCI cards, they didn't sit down flush with the case rail that you screw them into. Double oh oh. But I wasn't about to submit to a poor design move on my part. Rather than take those motherboard standoffs out, I took out the motherboard cutout insert and left the whole open (better cooling, heh heh). Rather than take those motherboard standoffs out, I got longer screws for the PCI and AGP cards (well, it works now). However, those motherboard "preformed standoffs" are probably ok. Next time I would just use them. There's always next time, right?

Time to Mod – Side Panel Fan
I liked the wire mesh on the side panel, but it was way to restrictive. Sure it's going to let a small amount of air into the case, but I want a side panel fan to pull more air into the case – to cool off a hot videocard. So the restrictive wire mesh had to go (see figure 13), and in it's place I installed "modders mesh" (see figure 14) which can be found at a few places on the web. This stuff is almost like rabbit cage wire, so if you have a rabbit, cut his cage in half and grab that extra wire.

The wire had to be cut so it would fit the circle (see figure 15), and then I screwed another 92mm fan to the panel, using….you guessed it….the same type of fan grill that I used on the rear exhaust fan. The completed panel is shown in figure 16.
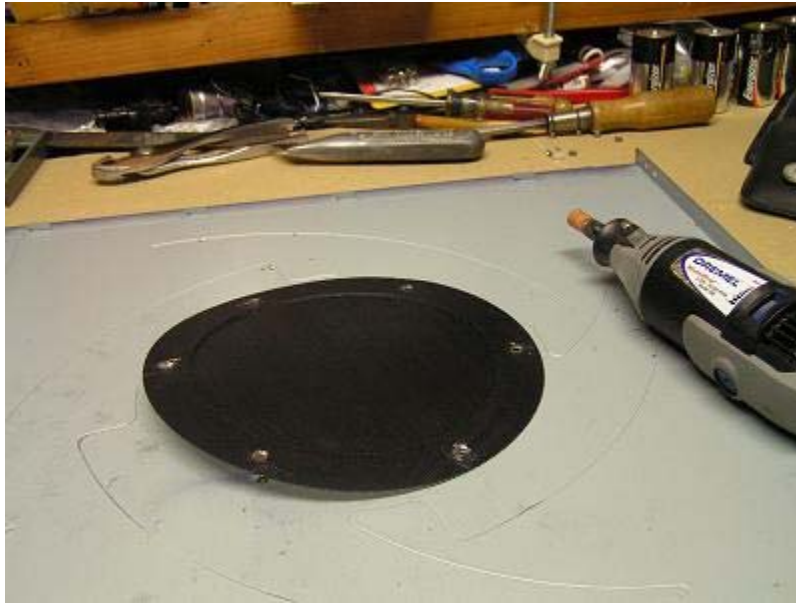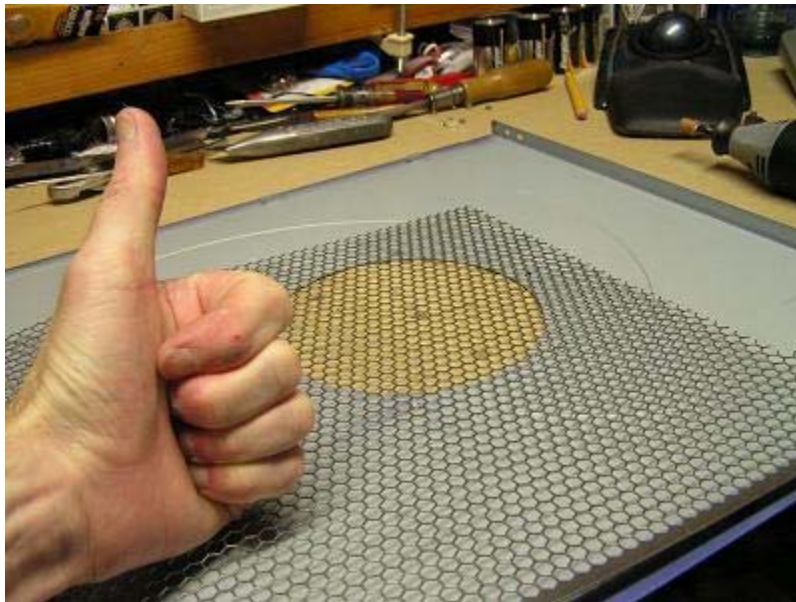
Figure 13: Click image for a larger view

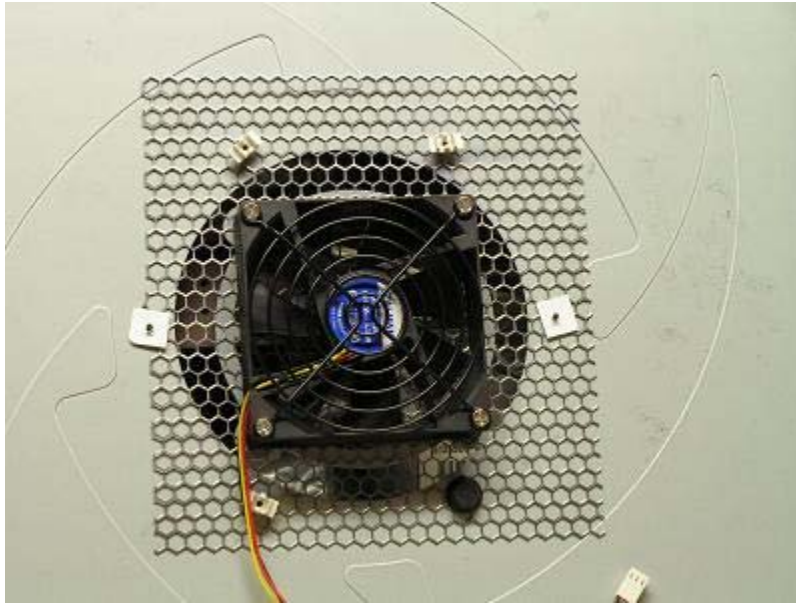Figure 14: Click image for a larger view

Figure 15: Click image for a larger view

Figure 16: Click image for a larger view

Next – Let's fire this baby up!

Time to See What We Did – For Better or Worse
So we took a relatively cheap case that has been determined to be decent for general applications (according to several reviews already posted on the web) and we cut a bit here, swapped out a bit there. It still needs something. I know, lets throw in a purple dual cold-cathode kit and light up (see figure 17) those internal components.   That's the ticket. Now put that side panel on and let's see how the side panel modder's mesh looks (see figure 18). Not too bad. One more look, this time at the front panel (see figure 19). That Thermaltake fan controller looks nice, and so do those three LEDs just above the fan grill. And….it booted the first time!

Figure 17: Click image for a larger view

Figure 18: Click image for a larger view

Figure 19: Click image for a larger view

Conclusion

The MGE XG-Ninja2 case is decent right out of the box. It comes with lots of stuff, including a PSU that I personally wouldn't use in one of my system builds, and the price is right. It comes in three colors, and you could buy three of these cases, one in each color if you like, for the price I would pay to get a nice case such as a Cooler Master Stacker. In this review I showed you some modding ideas to make this an even better case. I think the cooling enhancements are highly recommended, but the other ones are certainly optional. Overall, it's a good choice when you're on a tight budget.

Features 7
Performance 7
Value 9
Final Score 8

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