Basic Case Mods Part 4-6

I saw a Dremel on sale at Canadian Tire so I bought it since I had always wanted to do some modding on my computers. While a Dremel may not be the best tool for all modding jobs, its versatility makes it very useful to the computer modder. But before you decide to actually mod your computer, you should try to decide what tool would be best for the job talking into account what tools you already have or are willing to buy. I probably would have been better off to have used a jigsaw for the plain window mod, but you can go into more detail with a Dremel and if your hands are steady, you can do some pretty cool stuff with a Dremel. I am also going to add lights because I really want to show off my newest mod! I will show you how to do three simple mods in this article and one slightly more difficult one. I'm going to show you how to make a blow hole, a window (and an advanced window), and how to install a switch or two in an empty drive bay.

The Blow Hole

I started off by buying some Plexiglass, some dual 12" cold cathodes, some 120mm fan guards and also some 120mm fans for the blow holes. The blow hole was intended more for its functionality than its looks. I have used it as an exhaust blowing the hot air that masses at the top of the case straight out. I decided to get a cool yellow nuclear grill to make it look good instead of just being a hole in my case. The blue light should shoot out of it when its dark also which helps make my case stand out. And now on to the actual mod...

The blow hole had to be placed just right because the power supply and my DVD drive take up most of the top of the case. So I measured how far into the case the DVD drive went to and how far into the case the power supply went to. I marked these distances out with masking tape and then taped over the area between those two pieces.

Taping serves two functions; it allows you to draw the pattern you want in ink or pencil. It also helps if you slip with the Dremel you aren't as likely to scratch the paint outside of your cutting area. Being able to draw in pencil on the tape means you can erase if you screw up or just tape over it and start again. Drawing directly on the case in pen or felt doesn't allow for many mistakes.

After I had mapped out the area in which my blow hole could go, I took my fan grill and traced the screw holes and the inside edge of the grill. You don't want to trace the outside of the grill, or the hole will be too big and your grill will not cover up the entire hole. When you are cutting ou should make sure to cut on the outside of this circle you traced or you will be able to see your case sticking out past the grill. Now with our pattern traced on and everything taped up, we're nearly ready to cut.
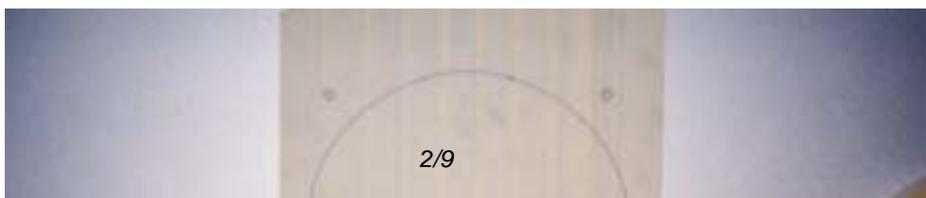
You probably don't want to cut the hole while all your stuff is in the computer or you might get metal dust in there which could short stuff out. I'm not rich so I chose not to take a chance. One of the cases I was doing the top came off quite easily by removing a few screws. On my other case it did not come off at all as it was riveted down. I would suggest that if this is the case for you, that you remove all the parts from the case before cutting the hole. I didn't take this precaution, but I did cover everything in the case with plastic, taped to the case, so none of the metal shavings would be loose in the case to short stuff out. It worked for me but it was risky and I would not recommend doing the cutting that way.

Once you have the hole cut out you are going to want to file the edges to make them smooth so it looks nice and so you don't cut yourself on it if you're ever changing your power supply or DVD drive and have to remove the fan. I used a round file to get it pretty smooth and then some 800grit metal sand paper to finish it off. We're not looking for a mirror finish here, just a safe surface with no sharp edges. I would suggest you be very careful here or leave the tape on as I took the tape off before filing and I slipped, which caused a bit of a gash in the paint. Luckily it's not very noticeable. I can probably touch it up with a bit of model car paint if need be. I didn't take any pictures of this part, but I do have one of the finished product. On the left is the finished product and on the right is the finished mod with the lights off.

Switches

This part is actually pretty simple, but you have to be very careful if you want it to look good. I'm installing one switch for one case and two switches and an infrared receiver in the other. The principle is the same, though,

so I'm just going to tell you how to do one and assume you can figure out how to add two more holes.

For the single switch I found the center of a drive cover and drew a circle the size of the back of the switch. I then took an engraving bit and using my Dremel I drilled a hole in the center and worked my way out till I had a perfect circle. My particular switch has a protruding spot on the right side of the switch so it doesn't spin around, so I cut a little hole in my plate to accommodate it. It's just there so the switch doesn't spin around. Try to go for slightly smaller than you think it needs to be. You can always cut a bit more out but you can't put it back. Here's a picture of the hole I cut, and the finished product.

After installing the switches, I installed 2 cold cathodes using the supplied double sided tape. I placed them based on where the cords would fit to. You will have to place your lights wherever they fit because everyone's case is different. The only advice I can offer is to try be careful when installing them. They are very fragile and I broke one of mine and had to buy a new one. I tried to put mine out of direct sight of the window since I prefer to see their glow rather then the image of a bright bulb burned into my eye.

The Window

Normally people would start out with a simple window, when they started modding, and work up to harder windows after a bit of practice. I just jumped right into a hard one and after realizing how much time it took, I decided to make my next window more plain. However for this article I'll start off with explaining how to do the simple window.

First you are going to want to get out the masking tape and tape over the area you want to work with. I chose not to show off my power supply and hard drives etc. I chose to only show the motherboard and expansion cards because I think the drives are boring. If my power supply or hard drive was modded, I might have made my window bigger but that would be another article itself.

I basically went with a shape that covered my entire usable area and then rounded the corners so I would not have to do any 90 degree cuts since they are a bit harder. I chose not to use any window stripping around my window, so for me it wouldn't have mattered if I had used 90 degree cuts. So if you're planning to use window stripping make sure that you round your corners enough that your stripping can go around them without bunching up too much. I actually forgot to take pictures of the progress on this window so you're going to have to trust that I actually taped it out and that I drew my pattern on the tape instead of just winging it.

I cut the Plexiglas for the window by using a box cutting knife to score the front and back and then using a straight edge, broke it along the cut. I adhered the Plexiglas to the case by using double sided tape, and then I Super glued along the edge just to make sure it doesn't ever fall off. Depending on how strong the double sided tape that you use is, you may be able to leave the super glue out. Now here is a picture of my main computer side view, front view and side view with the lights off.

Now on to the harder patterns. I spent a lot of time on the net trying to pick out a pattern I liked and I eventually decided on the Superman logo, though the choice of course is up to you. With a Dremel you can make some very detailed patterns and you're basically only limited by your skill with the Dremel. When you are using a more advanced pattern there are a few things that are different from doing a regular window. One is that unless you're an artist, you're probably not going to be drawing it for yourself. The other is you will not be able to use window stripping because you will probably have 90 degree or better curves that window stripping would just not work on.

I used MS Paint to modify a Superman logo a bit so that it was just black and white and then I printed it out on 3 sheets of paper since it wouldn't fit on one and I pasted them together. I then placed the pattern over the masking tape and covered it in clear packing tape so it wouldn't rip apart when I was making my original groove in the panel. Make sure to decide ahead of time which side of the line to cut on and which parts are scrap and which to keep. I accidentally started cutting one piece that I wasn't supposed to but it didn't turn out too bad, since I realized before I cut too deep. I would suggest you color code scrap and the stuff you want to

keep so that you don't do the same. You will also have to decide if your pattern is actually possible. Some people prefer the stencil method where you can't have parts floating in the middle of the air. Which basically means the Plexiglas is not needed to hold your case together.

I chose to go with a pattern without such support. It weakens the case a bit to do so, but my case is pretty sturdy. If you look closely the Superman symbol it looks like it's not attached to anything. I had to use double-sided tape to hold it in place on the Plexiglas, then I carefully placed Plexiglas so that the spacing between the Superman logo and the case was pretty close all the way around before putting it into place and using double-sided tape to hold the window and Superman symbol to the case. You have to be really careful to clean the case and the Plexiglas well. If you don't, the double-sided tape will not stick properly and your window will fall off and into your case.

I cut along the edges of my pattern till I could see the metal all along my cut and then I removed the printed pattern and the clear tape leaving behind the masking tape. You can still see the pattern since I've already cut through the masking tape and into the metal. After a while the printed pattern was just getting in the way since it wasn't glued down just taped around the edges so it bunched up a bit.
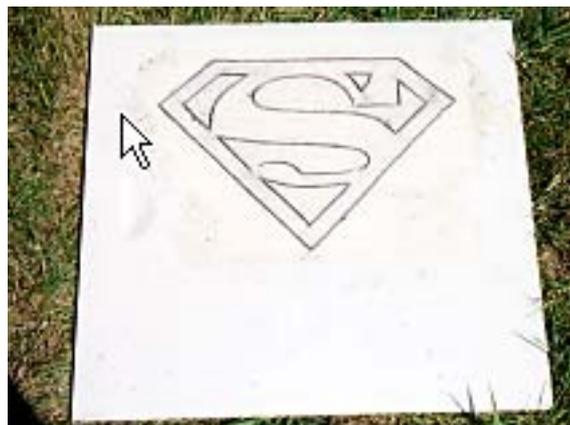
When cutting be especially careful when going around the corners, as you don't want to go too far. Also when cutting don't just cut right through all at once. You save on discs for your Dremel if you cut just a little bit at a time. Make a groove and follow it around again and again till you break through. The cutting is not the only problem to tricky patterns. Filing can also be hard in some of the sharp corners. I just used a thinner file and sandpaper as before. I'm lucky I have all the tools handy to do this type of mod. Once again, make sure to clean the surfaces before applying the double sided tape. I hate to be repetitive but it's important.

I also added a blow hole and some lights with a switch to this case as I did to the simpler window mod case. I

sanded off the paint on the Superman logo partly because I scratched the paint on this one, and partly cause I thought it would look pretty good. Kind of a man of steel thing going on. The computer complete with the Superman mod, lighting and blow hole was a graduation present for my sister. Modding can be used for presents too, most modded computers belong to people who did the work themselves, but if you have talent use it. I think the Superman mod turned out well, and the pattern shows up pretty good on the desk beside the computer. It is kind of like the bat signal, which is very cool. And now for pictures of the finished product.

I think anyone can do these mods with a bit of time and some practice. The Superman logo was a bit more difficult but still not that hard at all. It just takes a little more time then a regular window mod. It took about an hour for the regular window and almost 4 hours for the Superman logo. You decide which is better for you.

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