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Subject: Re: IR Remote Control

Posted by [Wayne Parham](#) on Sun, 30 Sep 2012 16:46:20 GMT

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I got the front and rear panels back from the shop last week. If any of you want to follow in my footsteps, the shop has the drawings for these panels and I told them it was OK to sell panels from my drawings to anyone that asks. The front/rear panels fit the Metcase M55-02-119 box, available from Newark electronics and other vendors.

Each panel costs about \$60 - \$75 each, so a front and rear panel is around \$120.00 - \$150.00. Prices vary with quantity and number of punches, of course, so the "blue" processor panels are a little less expensive than the "red" because there is less machining required for the blue panels.

You can drill your own, of course, but if you have the money it's nice because all the holes are uniformly spaced and exactly the right size. Just contact Ideal Specialty in Tulsa and ask for the red or blue sound processor panels, and mention my name. They'll know what to send you.

I chose blue LEDs for the blue processor and red LEDs for the red processor. They're all designed for panel mount, and the holes in the front panels are sized to fit. The blue LED is a Dialight 558-6003-007F and the red is 558-0101-007F, both available at Digikey. There is one hole just to the right of the power switch for the IR receiver.

The pushbutton switches are kind of cool, with the power switch having an internal LED that glows when the unit is on. The rest of the switches are just momentary pushbuttons. I debated on whether to have the volume up/down buttons colored to match the processor, i.e. blue for blue and red for red. But I think having all the switches black looks better.

Part numbers for each of the switches are shown below:

Black switch with blue LED

Black switch with red LED

Black switch

Blue switch

I only inserted a few of the LEDs into the front panel to test fit. They look really good to me when they're on. I plan to limit current so they aren't glaring. Subtle.

The picture below shows the approximate layout of the board and transformer in the chassis. Actually, I may mount the transformer near the front panel because most of the audio lines stay near the back panel. This would have a twisted pair from the power connector up to the transformer, and a braid of three lines coming back to the board, all run along the edge of the chassis. Then again, I can always put the transformer right by the rectifier on the board, keeping the lines very short. Probably doesn't matter, but I'll try both and put a scope on the signal lines to see which layout couples the least 60Hz.

The transformer I chose is a (12CT, 1.0A) Signal Transformer 241-5-12 and the proto board is a Vector 8016, both available at Digikey. The board is much larger than needed though, even for the six-channel red processor. You need about 1/2 the area of the 8016 board, and even that is pretty sparsely populated in the blue processor. The red has 15 relays though, so it covers the board a little more. Either way, you can see I'll have the whole right side of the 8016 proto board empty:

### File Attachments

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- 1) [RDAC\\_panels.jpg](#), downloaded 9283 times
  - 2) [RDAC\\_buttons.jpg](#), downloaded 9119 times
  - 3) [RDAC\\_frontpanel.jpg](#), downloaded 9176 times
  - 4) [RDAC\\_board\\_layout.jpg](#), downloaded 9228 times
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