

Polyurethane glue does not easily come off, but will only wear off human skin. So wear gloves or keep paper towels handy to wipe fingers and clean up spills.

Start by gluing the sub top making sure that it forms a right angle with the side. *Photo 3* shows the setup for the second wall. Do not rush—it takes about two hours or so for the glue to set enough to remove the clamp. After the walls are in place, you can glue the corners and stop. The bottom edges of the corners may require trimming to fit the glue bead at the base of the walls. About the time you finish the first layer, you may be wondering why you started this project in the first place (please see Don's comments at the beginning of the article).

*Photo 4* shows the completed first layer ready for the separator installation. Note the freestanding corner in the upper left. I made a little jig to mount that with, too. Also, on the freestanding corners I used a small scrap of hardboard about  $\frac{5}{8}$ " by 2" as a brace glued to the back so it would remain rigid during handling.

When you reach this point, check to see that everything is at the same height and use lots of glue and install the separator. To ensure a good bond,

use lots of weight to hold the separator in place while the glue sets. Sand bags, gallon cans of paint, or anything else heavy and handy will do. Repeat the preceding for the next two layers.

The next, center layer, is the 42/58.8Hz layer. After you have finished the last layer, with the side on, let the core set overnight to fully cure before handling. See *Figure 11* for the speaker connector pocket details. After you have glued the  $\frac{1}{2}$ "  $\times$   $\frac{5}{8}$ "  $\times$  8" strips in place, check to ensure that the front, back, top, and bottom openings are flush and without high spots. Cut the top, bottom, front, and back pieces to size (*Figs. 13* and *14*). To make the pocket cutout in the back, I made a template from  $\frac{3}{8}$ " material and used a template guide and  $\frac{1}{4}$ " straight router bit.

Glue the front, back, and bottom in place using clamps and/or weights to keep the joints tight. Install the covers as shown in *Fig. 15*. Drill the holes for the speaker wires for a tight fit. I used 12-gauge stranded wire for mine. Install the divider braces and divider as shown in *Figs. 9* and *13*. Cut the  $\frac{5}{8}$ " by  $\frac{3}{4}$ " braces to fit and glue in place, again referring to *Fig. 13*. Note that these should be flush with the top edge.

Make the speaker cutout as shown in *Fig. 13*—9.125" diameter for the MCM

driver or 9.25" diameter for the MASS 2010 driver. Check the fit of the driver and mark the location of the mounting holes. Drill mounting holes for #8 T-nuts and install them. Check to ensure that everything is flush and without high spots, then glue the top in place, using lots of glue.

When everything is well set—ten to 12 hours at least—sand the edges flush and use a router with a  $\frac{1}{2}$ " round-over bit to round all edges. Start with the long edges, then you can do the top and bottom by following the edges around. Give the box a final sanding. Install the speaker wires and use an RTV sealant around the wires where they pass through the cover, and your favorite connector on the pocket insert. Leave

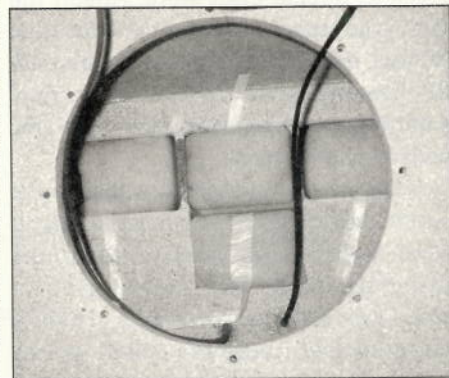


PHOTO 5: Stuffed pipes.

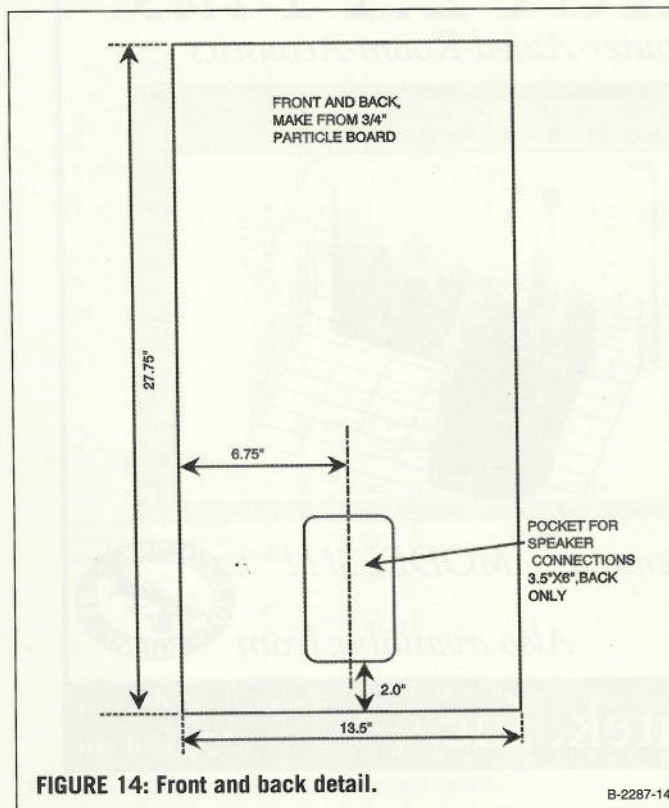


FIGURE 14: Front and back detail.

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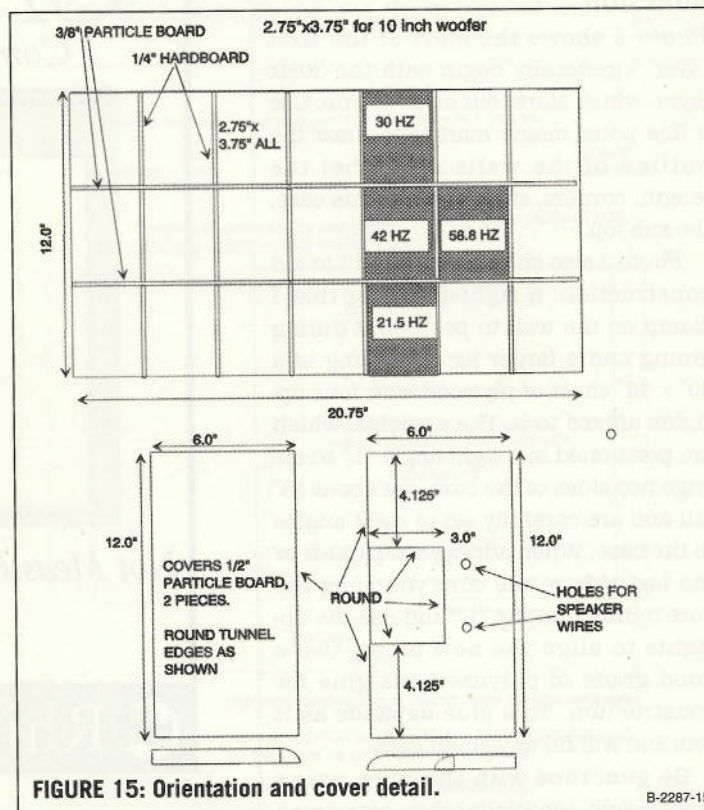


FIGURE 15: Orientation and cover detail.

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