

When trying to upgrade the sound quality in your vehicle there are a couple of things you can do. It usually starts with upgrading the head unit, then adding more speakers, some better quality aftermarket speakers and upgrading to aftermarket amplifiers and subwoofers. While some simple speaker upgrades in stock locations are sure to result in a butt-kicking system that will sound better and be louder than your OEM setup, installing even larger and louder components is an option with custom kickpanels. With custom kickpanels and a set of high end components you can really take sound quality of your ride to the next level. If you are really serious about upgrading the sound quality in your car (as most of us reading this magazine are) some sweet kickpanels with a set of quality components are a must! However these come at price usually upwards of \$400 without the speakers. So here are some step-by-step directions to help you do it yourself and save a little cash for another mod. Trust me they are worth the time.

BEFORE YOU START

Make sure the car is prepared by vacuuming the floor area, removing the floor mats and any trim panels that might be in the way. Also setup a table to work on and cover with paper. As well as covering the floor outside the driver and passenger side doors.

REQUIRED TOOLS / MATERIALS

Roll of masking tape, black marker, fiberglass resin and hardener, fiberglass mat, WD-40, paintbrush, gloves and mask, staple gun, sandpaper (60-400 grit), bondo (body filler), jig saw, fleece, ½-inch MDF, hot glue gun, mixing cup, spray adhesive, drill gun, a razor blade.

OPTIONAL TOOLS / MATERIALS

Palm sander, dremel tool, air compressor with tools (staple gun, grinder, sander), ¼-inch ABS plastic, 3M Auto-mix glue

“KICK IT UP A NOTCH”

FABRICATING CUSTOM KICKPANELS

Text by Justin Huether // Photos by Justin Huether and www.mobiletechtraining.com



STEP1: Begin by taping up the driver and passenger side floor. Put about 2 layers and make sure that you keep the tape as flat as possible.



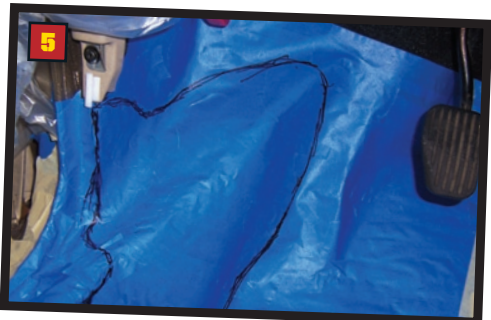
STEP2: Make an outline of the kickpanel on the tape with a black marker.

STEP3: Make sure to cover your seats, dashboard and any other parts of your interior that you want to protect from stray resin.



STEP4: Rip the fiberglass mat into about 5 x 5-inch pieces. It should rip pretty easily and make a stack about 4 to 5-inches high. Wear gloves while doing this because the fiberglass can get into your pores, irritate your skin and become very itchy.

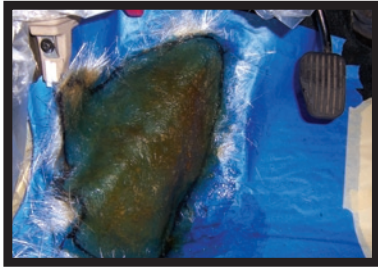
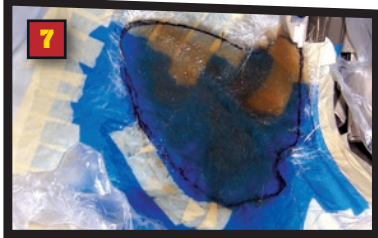
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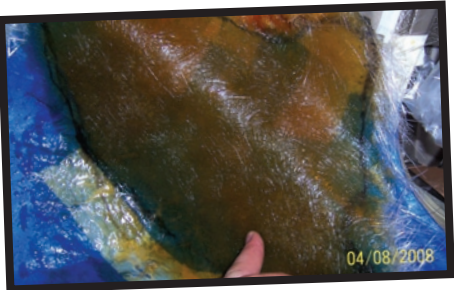
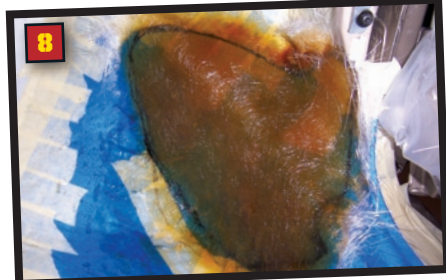
STEP5: Before you mix your fiberglass resin / hardner and begin to put layers of mat down spray WD-40 in the area you outlined. The helps with the removal process later on.



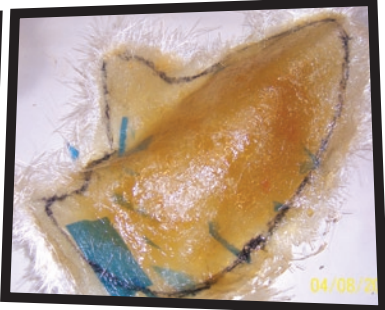
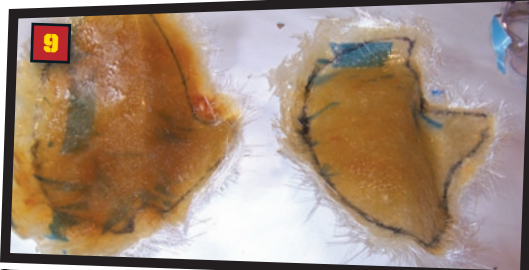
STEP6: So now its time to mix the fiberglass resin and hardener (make sure you have your gloves and mask on, this stuff gets very sticky and smells something wicked) and start to apply it on the floor where you outlined by brushing on a layer of just resin. The mixture should about 2% hardner to resin. Little more in the winter and a little less in the summer. If it's your first time put a little less because it will harden in your cup if you do not work quick enough. Also beware that the mixture will get hot since it is a chemical reaction and possibly could start a fire if there is too much hardener and is close to something that could catch fire like paper.



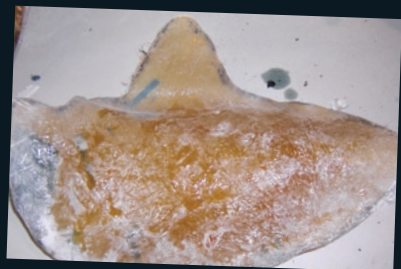
STEP7: With the layer of just resin down start to lay down pieces of mat and brushing them down with resin, making sure to push out the air bubbles. Do not be afraid to use a good amount of resin.



STEP8: Put about 3 layers of mat down. You can go outside the area you outlined but try not to go too far since you will trim it off afterward. Let those layers sit and when dry come back and put down about 1 more layer. So in total you should have 4-5 layers down.



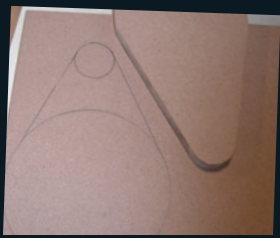
STEP9: After you are done putting down your layers and it is dry peel up the fiberglass bottom that you created for your kickpanels. The WD-40 you sprayed earlier should make it easier to pull it off the tape but some tape might still stick, so just pull that off once they are out.



STEP10: Now you should have the bottom mold of the kickpanel that looks a little unfinished. However since you outlined your shape with a marker before you should now have an outline in your mold. Taking a jig-saw cut out along that line to give you a finished mold. Or if you find that using the jig-saw is too hard and have a dremel available put on the sand tool sand down/along the line till you have a finished mold as I did.

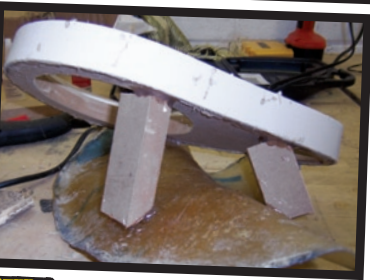


STEP12: Now taking those tracing the speakers trim ring again but this time the inside of it. Cut out these holes and check for speaker fitment. Cut more as necessary or sand if it is just a little tight. Now if you want to make the speakers flush mounted in the kickpanel grab some 1/4-inch ABS plastic and cut some 3/4-inch strips. Taking a hot glue gun, glue the strip flush to the edge of the ring around the outside. You can also add little pieces on the inside to separate the mid and tweeter as well as add a little more of a look as I did.



STEP11: Once you have that first part of the kickpanel finished its time to move on to the speakers trim ring. Taking a piece of 1/2-inch MDF, about 24 x 24-inches should be more than enough for both, trace out a big circle and a little circle and attach them. Use the trim ring that came with the speakers to make these circles. Using a jig-saw cut out this shape. If you have access to a table mounted router making the second ring takes seconds. If not just trace your first one on what is left of the MDF and cut it out just as you did the first one.

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STEP13: With both of the main parts made for your kickpanels it is time to put them together. Position the ring on the mold so that it faces toward the center of the car. Once you have what you feel is a good position and there is speaker clearance, use some hot glue or 3M Auto-mix, which I used which is like super glue with an accelerator so it dries in seconds, to hold it in place. Test in car to make sure that it is in a proper position. Took myself a couple times to get it right so do not be disappointed if you have to pull it apart and glue it again more than once or twice. When you are happy with its position add a couple of pieces of wood and hot glue them in place to help support the ring.



STEP14: Next grab your fleece and cut a piece that is big enough to cover your newly formed frame (make sure to leave yourself some excess). With your piece of fleece cut spray it with the spray adhesive and allow it to get tacky. Once all is tacky start to place the fleece on the frame starting on one side and stretching it across the ring and down around the other side. Do not get too worried about wrinkles because you can pull it up and stretch it out to get rid of them. Just keep working it this way till all the wrinkles are gone and you are satisfied with how it looks. Trim excess off, but leave about 1-inch or so on the bottom to keep it from coming up when applying resin. If flush mounting like I did, do not forget to staple on inside edge of the plastic.



STEP15: With your frames now fleeced it is time to lay down a couple layers of fiberglass resin. Again like in previous steps mix your resin and hardener (not forgetting to wear your gloves and mask) and brush on a few layers of resin. No mat needed this time but on your third cup of resin add some phenolic microballons (to strengthen the resin and make sanding easier) to the mix along with some baby powder to thicken the mix.



STEP16: Once all is dry proceed to cut out your speaker holes, using either a jig-saw or dremel tool (I found a dremel to be easier once again). Also you need to trim/sand off the excess on the bottom of the panels.



STEP17: Time to break out the sandpaper, 60-100 grit will work. Working with the lowest and working your way up.



STEP18: Next get some bondo or any good body filler you may have available and apply it to areas as needed. Make sure to sand while it is still kind of soft, if you let it completely dry it is a pain to sand. Once done with that work your way up with the higher grit sandpaper like 320-400.



STEP19: When you are done sanding and all is smooth clean the surface with some surface prep cleaner or acetone. After cleaning off the dust and oils, put down a layer or two of primer. Then put down a few layers of the color you want to paint them followed by a layer of clear.



STEP20: All that is left is to cut a hole for the speaker wire, mount the speakers in the panels and mount the panels in place. With the panels ready to rock, it's time to wire it up, turn it on and crank it up!

THE SOURCE:
www.mobiletechtraining.com