

EXTREME MEASURES

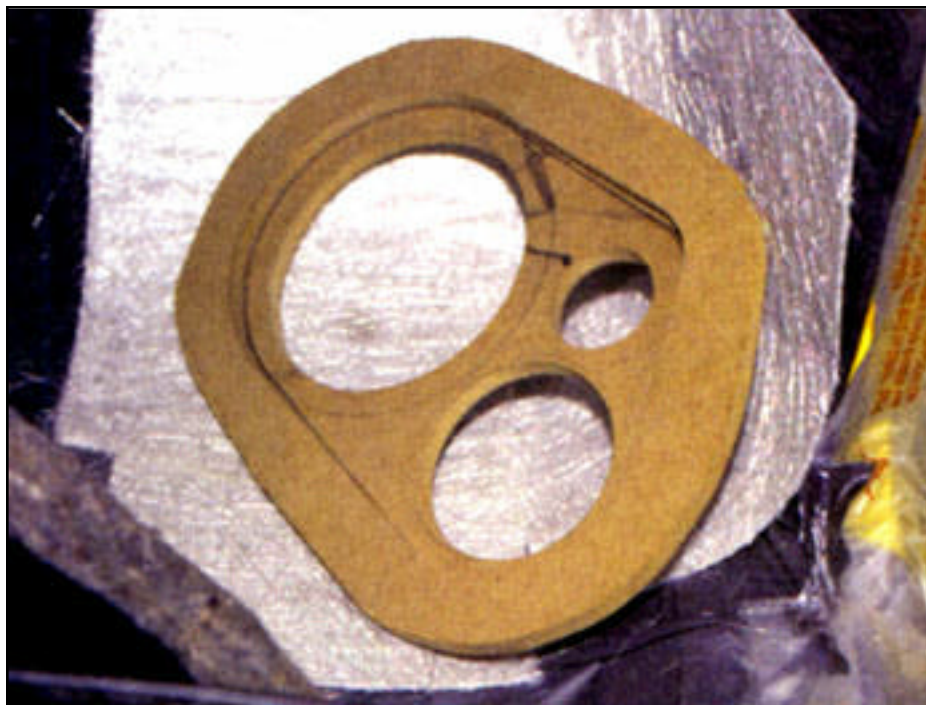
Part 2: High-End Kick Panel and Overhead Source Unit How-To

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Today class we are going to take our Xtreme installation down a level - into the kick panels. Speaker placement is quite possible the most important aspect of any high frequency speaker installation and that is where Part 2 of this ho-to is about to take us.

Because the seating configuration of cars, trucks and SUVs puts anyone in the vehicle off-center of the speakers, auto sound systems tend to suffer from poor imaging. Imaging is just what it sounds like. When a recording engineer creates an album, he or she will actually place musicians and instruments in various places on an imaginary sound stage. A sound system with well-placed speakers can reproduce this original sound stage realistically. So the big question is where would the best place for high frequency transducers be in a vehicle? Fortunately, the answer to this question has become common knowledge. The best space to mount your midrange and tweeter drivers is at a point where they are as near to equidistant from their related ears (left and right) of the driver and passenger as possible. This place is in the kick panels. By moving the speakers down, their path lengths are increased and the measured difference between the left speaker and driver's or passengers left ear and the tight speakers and right ears is very small - the smaller the better. Basically this speaker position places the passen-



gers in between the front stage speakers.

So now that we know where to mount out speakers, the big question is "How do we do it." To make our speakers blend flawlessly into our 64' Chevy, we needed to fabricate a set of speaker enclosures that would not only hold a set of Tube Driver aluminum cored component speakers, but do so at the appropriate angles and without drawing too much attention to them

Remember that we wanted to keep the classic look in our classic Chevrolet. Once again, Mike and his crew from Xtreme Audio showed us just how they could provide us with just what we needed. They fabricated a set of fiberglass kick panel pads that looked and sounded great. The step-by-step

procedures required to complete such a task are illustrated on the pages that follow.

Once the kick panel was completed, Mike turned his attention upward. It is here, in the headliner, where he was going to place the source unit for our system. Remember those old episodes of the Dukes of Hazard when Bo and Luke used to travel throughout the town on the rooftops of Hazard right over Sheriff Roscoe P Coltrains head? Well they never got caught - not because it wasn't in the script, but because people never intended to look up. Well that was the premise for our Chevrolet source unit install. For people to find the Pioneer CD player, they would have to not only bend down to look in the car, but then look up at the headliner to

find it. The odds are pretty much in our favor that they won't go through that much trouble.

To accommodate our overhead source unit, Mike had to modify the overhead console it came out of a late-model Tahoe to hold the Pioneer's faceplate. The main chassis of the source was stashed in the truck. This became the major issue of the source unit install as the detachable face had to run the main chassis while actually being detached from it. Never fear, Mike shows us how he worked his magic.

That's it for this installment, next month we will shift our focus to the trunk where the Xtreme crew installed some Aluma Pro subs, Tube Driver amplifier and a host of other 12-volt accessories - don't miss it!



1. Our story and our pods begin with an MDF baffle and some fiberglass mat. The baffle can be made to virtually any shape, but it needs to follow the lines of the vehicle and hold the desired drivers. In this case Mike is installing a set of Tube Driver System Six component speakers, which include an NT-1 tweeter, MR-44 4-inch mid and MR-64 6-inch mid-bass drivers all with aluminum cones.



6. Once it has hardened, any excess fiberglass is trimmed with an air saw. Wood blades will dull in a matter of minutes when being used for such a task, so a good metal blade is recommended.



2. The fiberglass mat that used to lay behind our baffle has now been coated with fiberglass resin. To do this Mike covered the floor and surrounding area with plastic and then covered the immediate area to obtain the exact shape of the car's floor area. This has to be done on both sides of the car.



7. Next, the grille area was cut out with the air saw.



3. Next the baffle was securely attached to the fiberglass back with some scrap pieces of MDF - Mike was careful to set the baffle at the appropriate angle, which is up, and back toward the front seat passengers. Tweed was then stretched over the two pieces to give us our shape. Several materials can be used in place of the tweed such as speaker grille cloth, non-backed trunk liner or Select Products' Molding Cloth.



8. It is important to take your time around the grille opening to obtain a smooth flowing shape. This is the edge that will define your speaker grilles and the first thing that onlookers (real judges) will notice.



4. Fiberglass mat and resin were then applied to the tweed laden pods. The fiberglass will not only build up the panel and give us a surface to sand but this also provides us with with a solid, air tight and virtually non-resonant speaker enclosure.



9. A pneumatic right angle grinder with a screw-on sanding disc makes short work of shaping the pods.



5. A heat gun helps the fiberglass to "kick-up" with some expedience. There are those who will simply add additional hardener to the fiberglass, but this doesn't allow enough time to let the resin completely soak into the mat which is why you should always stay well within the manufacturer's recommended mixing instruction.



10. Once the rough shape has been determined, the pods were set into place. If any alterations had to be made, this would be the time to find out.



11. After the final shaping and all the alterations had been completed, the body filler was broken out and applied to the rough pods.



16. This connector will soon be plugged into the source unit's main chassis and the Pioneer CD player will be fired up even though its faceplate will reside several feet away - how's that for a long distance relationship?



12. Several layers may need to be applied and sanded in order to create a smooth and visually pleasing pod.



17. Next, the console had to be modified to house the faceplate that was substantially wider. To do this Mike fiberglassed a few pieces of Masonite to the top and bottom to the opening and cut-back the sides. Fiberglass reinforced body filler was then applied to the necessary areas.



13. With the pods completed and covered in black carpet that matched the car, the Tube Driver speakers were wired up and dropped in place. All that the Xtreme Audio crew had to do next was fabricate a set of grilles and the front stage was in business!



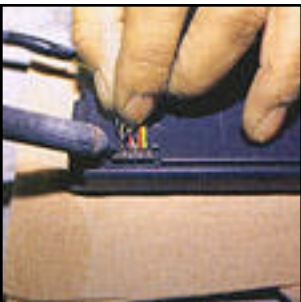
18. The body filler then was shaped to match the contour of the console and then sanded smooth.



14. Next in line was the source unit install. First, the Pioneer source was gently dismantled.



19. With only minor modifications, the Pioneer faceplate found a new home in our Chevelle's overhead console.



15. So that the detachable faceplate could be mounted in the overhead console, Mike soldered wires to the contacts that originally interfaced directly with the chassis.



20. After a final coat of upholstery dye was applied to the console, it was ready to be installed and after next month's installment of Xtreme measures, we will be able to hear the fruits of Mike's labor.

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