

DIY Dual woofer setup (Hidden and Underseat)

by [bhvm](#) on August 31, 2013

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Intro: DIY Dual woofer setup (Hidden and Underseat)

"Necessity is the mother of invention " They say.

When I got my New SUV (Mahindra XUV 500), I had not one, But TWO Necessities...

First need was BASS! I can't live without any. Provided that I have a 15 inch Monster SUB at home with 11 Speaker custom Sound system. I was spoiled.

Second need was ability to get decent bass IN my SUV. As you'll see, there's no space at all for conventional woofers at all!
(Spoiler- For those who can't wait, 3rd pic is what we want to achieve. Click it for a glimpse!)

Onto the next page...

Car Ownership and Review thread-

<http://www.theautomotiveindia.com/forums/ownership-reviews/12641-thunderbolt-xuv-500-detailed-review-decals-audio-led-mods.html>

LED Fog Lights and other Mods-

<http://www.theautomotiveindia.com/forums/ownership-reviews/12641-thunderbolt-xuv-500-detailed-review-decals-audio-led-mods.html#post285506>

http://i59.photobucket.com/albums/g317/bhvm/XUV%20500/20130505_110416.jpg

http://i59.photobucket.com/albums/g317/bhvm/XUV%20500/IMG_1384.jpg





Image Notes
1. Our Final Aim

Step 1: Calling Mr.Brain!

XUV 500 is a 7 seater, Good looking SUV but has hardly any boot space with all Seats up. That's where the need for Mr.Brain Comes in!

Since installing conventional 12 inch or so subwoofers are out of question; I needed something Small and Discreet yet powerful enough to get nice Bass. I am not a fan of Doof-Doof bass. I don't want to blow my ears out. I dont want my neighbours to eavesdrop on my fav music. Just the right amount that makes music alive.



Image Notes
1. No Space!



Image Notes
1. Impossible to Install a regular 12 Inch woofer :(

Step 2: Finding Gold mines

Hunting for the already rare space in my SUV, I narrowed down to a crevice below the middle row seats.

There is just the perfect space for two tiny subs. Another advantage is that the install location being in center of the car, gives even, balanced bass all amongst the vehicle. With conventional setup, I see the rear seat occupants complaining too much bass whereas the first ones can't seemingly get enough of it. This location solves everything.

The space dimensions are about 14" X 12" x 5"
Just what the doctor ordered for a small woofer box!



Step 3: What woofer?

Here is the hard part, **Selecting** an appropriate woofer.

After making a trip to various shops, i was both happy and sad.

Firstly some Compact, Under seat woofers were available. Sadly, they all Land above 10,000 Rupees.

Here are a few examples-

JBL 14,000 INR

http://www.ebay.in/itm/ALL-NEW-JBL-GTO-501EZ-770Watt-CLASS-D-MONO-SUBWOOFER-CAR-AMPLIFIER-/281159057038?pt=IN_DVD_Players_Recorders&hash=item417662be8e

Ground Zero 12,000 INR

<http://www.purplekart.in/Products/car-accessories-In-Car-Entertainment-Sub-Woofers/Ground-Zero/GROUND-ZERO-TITANIUM-UNDERSEAT-ACTIVE-SUBWOOFER-GZTB200XACT/pid-2563851.aspx>



Image Notes

1. Expensive!

Step 4: I Don't have that amount of money!

Once you get hold of Knowledge, There's nothing like car speaker/Home theater or Car amp/ HT amp or This speaker that speaker. You can use any and many combination of these and with some tweaking, you should get satisfactory sound. I have used Car Systems (HU and Amps, Speakers) in Home and installed Computer 7.1 in cars. Of course, a layman will prefer to simply buy the well known stuff and enjoy peace of mind. But it was not the layman who invented something extra ordinary eh?

Speakers are nothing but fancy air pumps. Their rhythmic movement action on the air generates the sound that we listen. That makes the cone area important, More cone area- More air is moved in each stroke. There are many other parameters like T/S but that's a very wide topic now.

So I thought, why not?

Quickly, I salvaged a pair of subwoofers from old Home Theaters. They're 6.5 Inch, 4 Ohm.

Taking Inspiration from the Underseat woofers from Big players in the market, I set off to brainstorming a specifically sized Box and driver combination that would work just as well, Minus the expensive price tag. A Big Plus is a jump in my DIY list and some Boast-Gun ammo stock!



Image Notes

1. Salvage Victim 1



Image Notes

1. Our hero!



Image Notes

1. 6.5 Inch

Step 5: Box 'em and Fix 'em

Having the dimensions and Woofers in Hand, I set out to make appropriate boxes for the little beasts. The size of Boxes for me worked out to be 12" X 10" X 4"
Enjoy the pics!

Materials Needed-
MDF sheets or plywood
Drill
Jig-saw
Screws
Woofers
Woofers Grilles
Speaker wire
Glue
Paint

Steps to make Box-

- 1>Take your measurements
- 2>Then mark the sheets
- 3>Cut them
- 4>Paste them
- 5>Glue the joints and seams
- 6>Use Jig saw to cut holes for woofer
- 7>Attatch some speaker wires to woofer, Drill a hole in box, get the wire out
- 8>Fix the woofers with screws and put on the Grille
- 9>Paint the box if you feel like.

There are many good instructables about how to make speaker boxes.

Here are a few-

<http://www.instructables.com/id/Speaker-Box/>

<http://www.instructables.com/id/How-to-Build-Custom-Speakers/>

<http://www.instructables.com/id/Build-a-Ported-Guitar-Cabinet/>

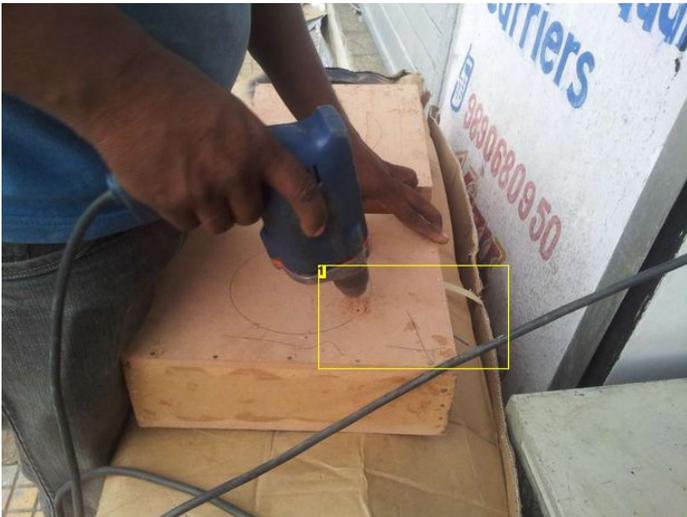


Image Notes

1. Drill Holes for Speaker Mounting



Image Notes

1. Drill to get Jig Saw started



Image Notes
1. Grille Fixed!
2. Cute little Box



Image Notes
1. Seal this well or you may get port noise! I used silicone.

Step 6: Put them In Place, and Lend an ear (Or Two!)

I simply tucked the Boxes under the seats and zip tied the cables. You may want to drill and Fix them but be extremely careful as there can be wires and fuel lines underneath! Refer your Car's User manual or consult the service center.

For me, the friction was good enough to hold them in Place.

Lo and Behold! Here is your all new, Flaunt worthy Dual woofer setup. Small, Hidden and ample output. The smile on your face explains everything. But wait ! The best is yet to come!

Prices- (Indian Rupees)
Boxes (total) 1,500 INR
Woofers (free for me) but in market 1,400 INR (700 per piece)
Misc (Wires and stuff) 100 INR

Total Cost 3,000 INR.(For TWO woofers)
Market Cost 20,000 INR !!

Enjoy and Don't forget to comment.





Image Notes
1. Our Final Aim



Related Instructables



How To Make Subwoofer
(video) by TheRoyalSonic



how to install a full car audio system and upgrade your car or truck electrical system



Acrylic Subwoofer Enclosure for under a car



Suitcase Boom-Box by garren11



How to choose a subwoofer for your car audio system (to place in the trunk of your car) by nmesis_02



car stereo system 101 by slimguy379

(video) by
contalex92

seat. by
cheesehead