

Subwoofer...

Over the weekend of 27-28th November, I finished designing and built a sub box for a 12inch Clarion 600W, powered by a Schneider 3000T. I had several designs, but the most important thing was that it had to be lightweight (I'm sure it's still too heavy for Clare to lift out on her own) and easily removable (I haven't connected the "Anderson" brand forklift-style plugs yet). I basically came up with 3 different designs: one was approx 1 cubic foot sealed to sit in the right hand corner next to the 12v power outlet; next was a "wedge" style to sit directly behind the back seats; third was the "boot floor" method, which is the one I decided on, then modified so it wasn't as large (and only takes up about half the floor area). I'd already started running the power cable from the battery to the boot over a couple of afternoons some time in the last couple of weeks. The cable was some scrap flexible 25mm² lying around at work, and is equivalent to 4AWG.

(All images below are thumbnails - click on any image to view a larger version of it)



The power cable for the amp running along the sill



The power cable going through the firewall



The power cable near the battery



The plug inside the passenger's side "B" pillar which I got ignition "turn-on" and speaker-level inputs for amp



Passenger's side "B" pillar with draw wire shown to run extra leads as above

The blue & black stripe, and black & yellow stripe wires in the plug go to the passenger's side back door speaker. I tapped into these to provide audio signal input for the amplifier. I then used a speaker-level to line-level converter as the amplifier doesn't have high-level inputs. The white & red stripe wire is connected to the ignition key 2nd accessories position, and I tapped into this to be able to turn the amplifier on (when the engine is running). I may decide to change it to the ignition key 1st accessories position if I find I want to have it running with the engine off (and not have to turn the key the extra position, which turns all other accessories (such as fan) on, thus causing the battery to be drained quicker).



Tailgate LHS with trim removed



Tailgate RHS with trim removed



Tailgate - most of it - not deep enough to hold a 12inch sub :(

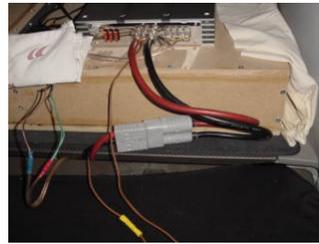
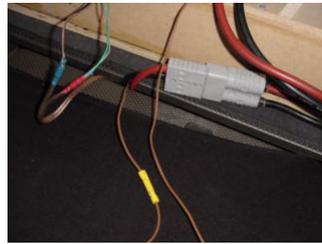


Completed sub box with amplifier and subwoofer mounted



Box installed into boot.

I still need to make up the trim/grille to go on the top of the box to protect the amp from getting scratched, and the sub from being damaged by shopping flying around the boot... It may be several months before I get around to doing it! The box is 1.95cubic feet (internal), made of 16mm MDF (except for the base which is made out of a sheet of formwork plywood) and tuned to 35Hz.



permanent power connections removable power connections removable power connections
in relation to amplifier

As what usually happens with all sub boxes I make, I end up wanting to rebuild before I ever get around to making the trim plates for it... Clare's been complaining that the box takes up too much floor space in the boot; that it takes up "shopping room", so I'm tempted to rebuild it (using the more upright design) instead of removing the box every time we go shopping...

By Richard (basshead)