A3/S3 8P chassis (2003-current) Installation manual for the AMSS enclosure

This manual covers the removal of stock tupperware sub woofer and fitting of AMSS enclosure, wiring & amplifier, providing a completely stealth installation for Bose & non Bose A3/S3 vehicles.

Tools you will need

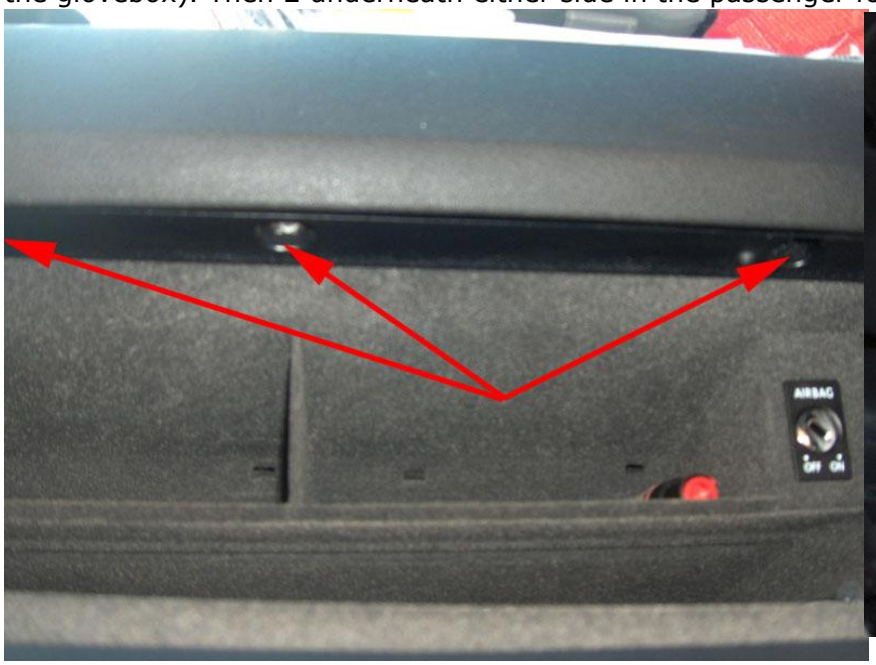
Wire coathanger (power cable fitting only)
T30, T25 & T20 Torx bits
Junior Hacksaw
10mm 8mm & 7mm Socket and/or spanner
8mm Allen Key
Dynamat or similar
Duck tape and/or insulation tape
Zip Ties
Cordless screwdriver
Cordless Drill & 2mm & 5mm metal drill bit
Small metal file
Patience

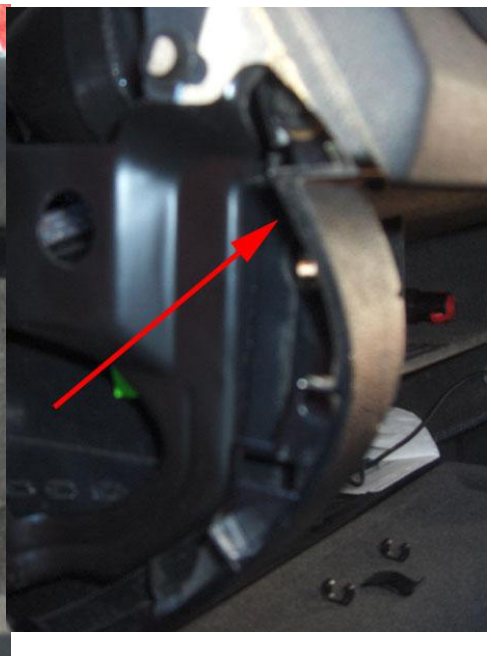
Power cable fitting

This is easier with the glovebox removed, but you can do it without, just remove the footwell side trim first. This is held by a single metal clip in the floor, so just pull upwards.

Removing the glovebox

With the glovebox open you can prise out the end cap (the bit on the end of the dash that's hidden when the door is shut). Then it's just seven 8mm nuts. 1 behind the end cap, up high near the front of the glovebox. 3 along the top and one at the back (inside the glovebox). Then 2 underneath either side in the passenger footwell.





Carefully lower the glovebox to the floor, and before disconnecting the airbag loom, ensure the ignition is off and the keys out. Do NOT turn the ignition on with the airbag switch disconnected as this will disable the whole airbag system, light the airbag warning light and will need VAGCOM to reset it.

Now under the bonnet:

If you release the bulkhead rubber that holds down the wiper scuttle, then lift up the passenger side corner of the scuttle there's the perfect spare grommet under there.

This enters the cabin down the side of the glovebox. Cut off the end of the nipple on the grommet (I use a pair of end cutters) and poke a wire coathanger through.
When you've located the other end in the footwell, tape the power cable to it and pull it through from the engine side. Be careful as the grommet can get pulled out, use some fairy liquid to ease it through.

Prise up the door sill trim, again just clips, check for clips that have come away from the trim. Pull them out with long nosed pliers & slide them back into the trim.

Now for the rear speaker panel. Remove the rear seat base by pushing it towards the rear of the car and lifting, they can be really stubborn. It's hooked at the back as well, same process. Fold down the passenger side seat back. Starting at the base of the door pillar, pull the panel free, working your way up to the top of the panel. The panel is held on with metal clips and plastic poppers,

however it is looped around the folding mechanism for the rear seats for some bizarre reason. You can either workaround the panel, or remove the folding seat back. Removal of the seat back is really easy, just unclip the plastic shroud between the two seats, remove the T30 bolt underneath and slide the locking cover towards the front of the car. The seat back then lifts out at that end and slides off the axle at the speaker panel end. When refitting be careful not to foul the plastic surrounding the round lug as it then won't sit properly and you can't refit the locking cover.

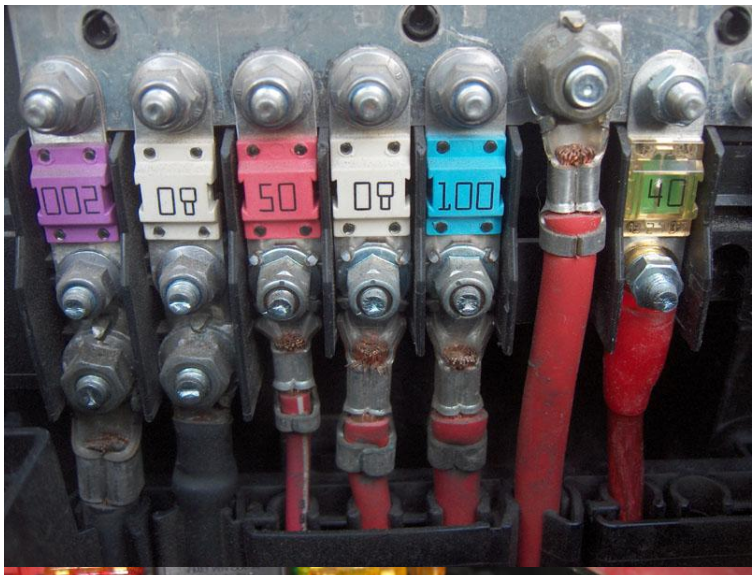
You will now be able to feed the power (and any RCA's if using an aftermarket HU) down the passenger side as there's quite a lot of room. Don't try using something ridiculous like 0 or 2 gauge cable as it just makes it impossible to route through the car and the benefits, if any, are minimal. Also as long as the RCA's are reasonable there's no reason to worry about running power and RCA's together, especially for a sub, I do it all the time and have never had any interference.

If you are using the stock Audi HU then you just need to run the power cable.

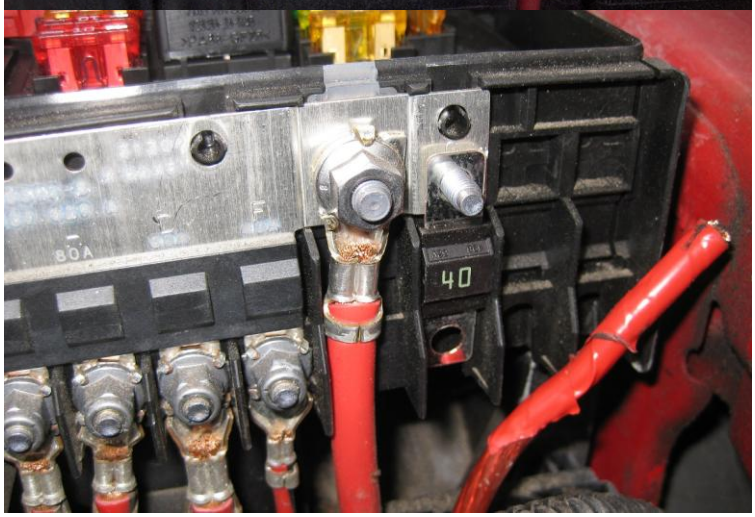
If you are mounting the amp behind the rear speaker panel then you can use the chrome passenger seat belt runner for the ground/earth. Just unscrew the Allen bolt a little way, cut and splay the earth cable eyelet so it can slip in behind the runner and then tighten back up.

Back under the bonnet, feed the remaining cable through to the battery as shown below:

Then along and up to the fuse panel beside the battery.
If you bought my install kit then I included two nuts and a VAG 40amp fuse, so there is no need to mount a separate fuse, just bolt the fuse and the cable as shown below (BUT DON'T DO IT YET!). Leave the fuse out until you have completed wiring the up the amp. If you are lucky then Audi provide a spare lower bolt, if unlucky as is mostly the case, the you will need to fashion a suitable bolt for the lower part. I use an M6 bolt about 15mm in length. It needs a hex head otherwise it will just spin. I use an oversized bolt (which takes a 10mm nut rather than the Audi 8mm) and file down 2 of the sides, so it is a tight fit and doesn't spin.



On newer 8P's Audi don't even use this type of fuse anymore and now have an elaborate array of seemingly unchangeable fuses. Hopefully you have a spare slot free which makes life easier.



Now for the sub

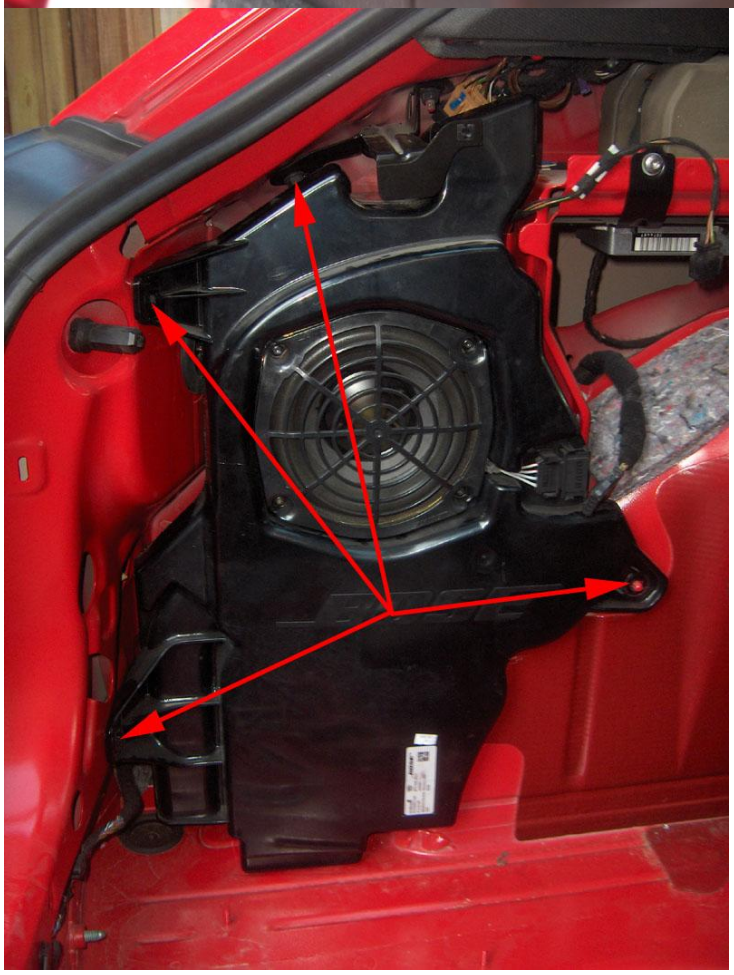
Remove the parcel shelf, the carpet, the spare wheel and the foam tool thingy. Remove boot lip panel, it just pulls straight up and out.

Removing the boot panel.

Remove the visible Torx screw along the top of the boot panel and the one hidden behind the blanking plate where the back seat meets the panel. On the SB there is another hidden screw behind the plastic trim held by this screw.

Flip out the interior light, unplug it and reinsert.

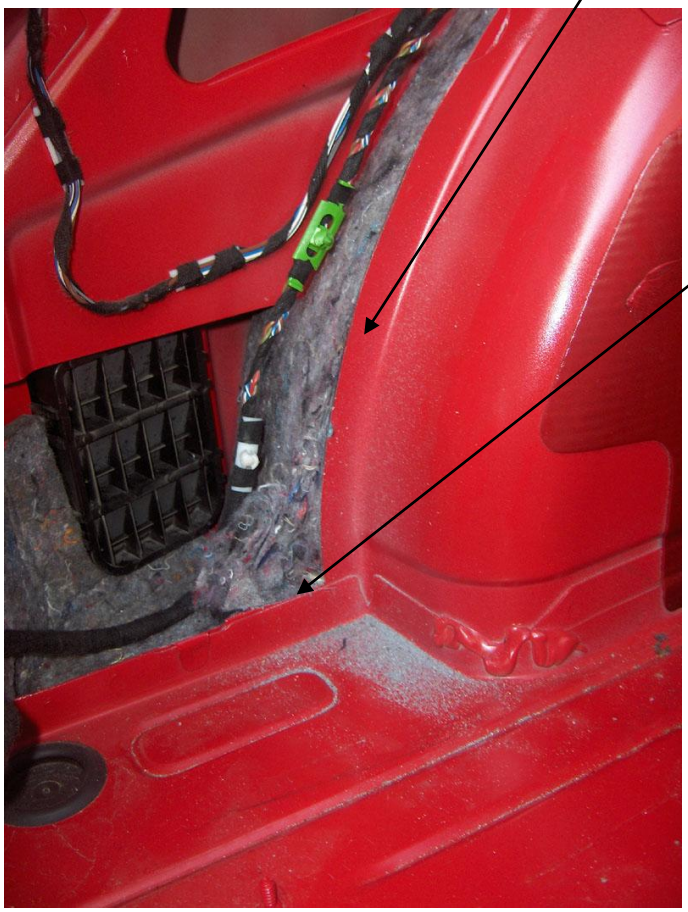
The panel is held to the bodywork with 3 metal clips. One is on the side of the boot opening by the rear lights, the second is further along the top, and the last one is right at the back near where the back seat meets the panel. The last one is the tricky one and I use a pry bar or big screwdriver to release it rather than risking tearing the panel.



With the panel removed you now can gaze in wonder at the plastic box laughingly called a subwoofer. Remove the 4 visible 10mm bolts, unplug the connector and remove the sub, while being impressed by the sheer weight of the enclosure, be careful that a gust of wind doesn't blow it away!

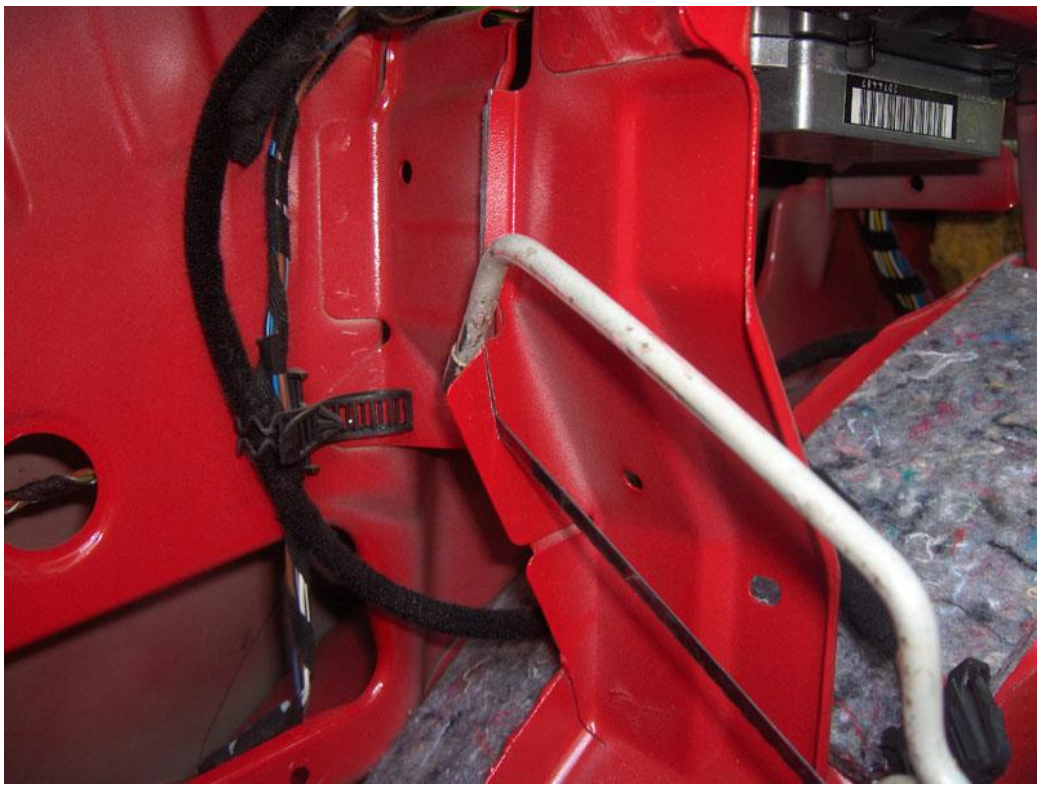
We now need to use the hacksaw and remove some metalwork.
Carefully remove the wiring loom running down the wheelarch seam. Then with the hacksaw remove the tabs on the wheelarch seam (shown below), cutting all the way down so you end up with an even seam as shown in the second pic.

The width of the seam here should continue all the way down, so you end up with an even seam all the way to the bottom. Failure to do this will result in the enclosure not fitting correctly and it will foul on the boot panel when refitted.

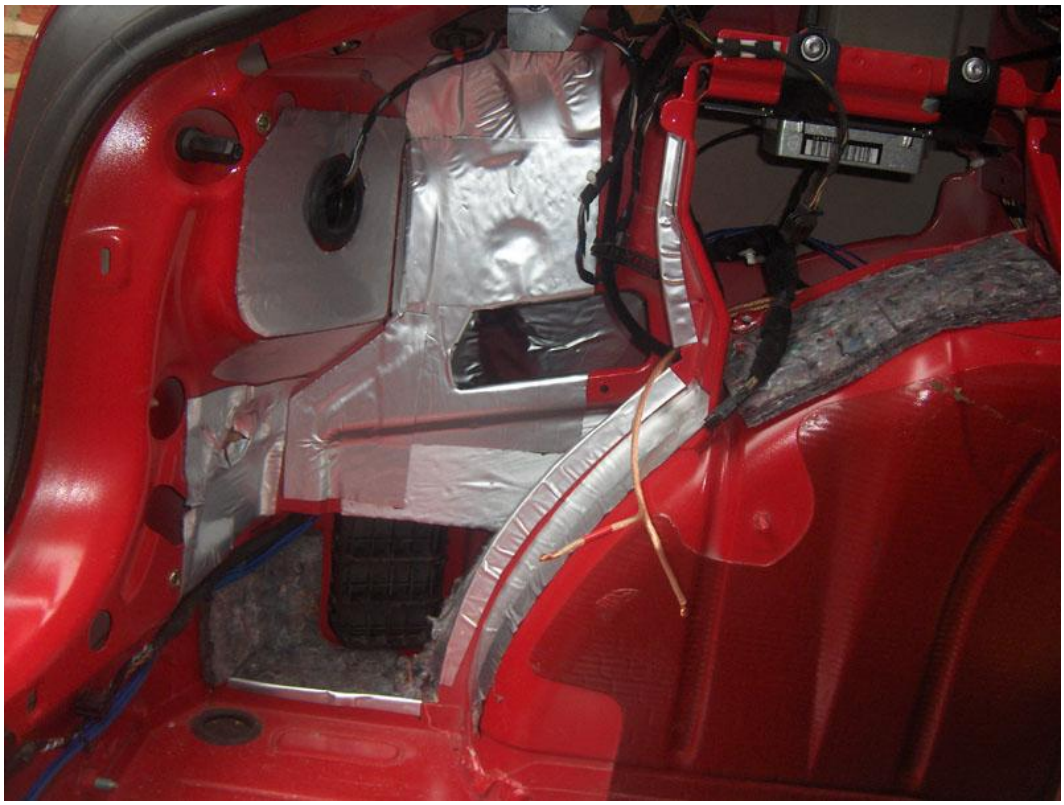


At the bottom of the wheelarch trim off the bottom seam so that it forms a right angle with the wheelarch seam.

Then trim off the upper tabs as shown below and file off & Dynamat the rough edges:



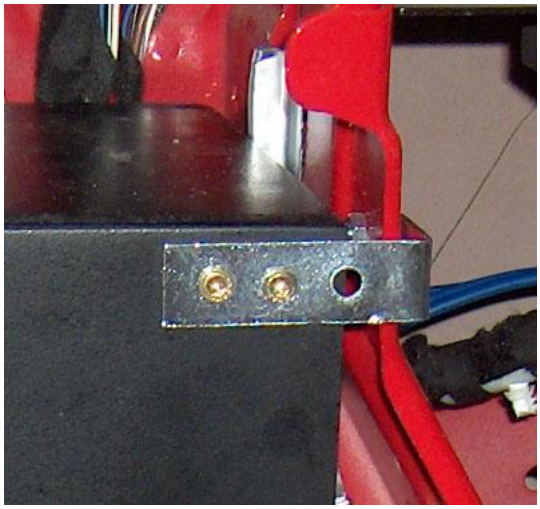
Release the rear light wiring loom and route it upwards as shown below and tuck the excess away in the void, then it is advisable to Dynamat the area



Before fitting the AMSS enclosure you'll want to run the RCA adapter loom from the top of the Bose amp behind the drivers side boot panel, underneath the boot sill (the blue cable shown above & below) and round the back of the sub to the amp (depending on amp location). Fish it behind the inner panel and up to the top of the wheelarch so it won't foul the enclosure.

Finally we can fit the AMSS enclosure. Fit the sub wiring to the terminal posts before fitting and feed the wiring round the back out the way to where the amp will be mounted.
Carefully slide the enclosure into position. The groove on the bottom sits over the seam on the boot floor. It should be quite a snug fit.

Check that the groove is engaged with the bottom seam.
Push the top of the enclosure back as far as it will go. If it's positioned correctly it will feel quite solid. The top right corner should be slightly proud of the metal support, using the supplied "L" bracket against the top right corner, the first hole should just reach the metal support. If it doesn't then you probably haven't chopped enough of the wheelarch seam and it's fouling on the curved part of the enclosure preventing it from sitting correctly.

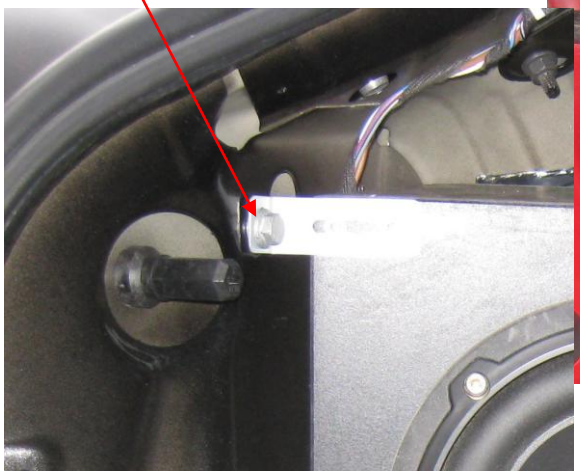


Then align the supplied brackets in the positions shown below, mark with a pencil and screw them to the enclosure with the supplied screws. A 2mm pilot hole makes it easier. Then using a 3mm metal drill bit drill a hole in the bodywork for the upper left bracket (not sportback see below). Screw in position using the self tapping screw supplied. For the right lower bracket use a 5mm drill for the nut & bolt supplied. When marking/drilling these holes keep pressure on the top of the sub so it is a far back as possible. This prevents the sub fouling on the boot trim panel when refitted.

With the brackets tightened the sub should be rock solid, you should be able to rock the car by rocking the sub enclosure. This is vital for it to perform properly. **If it's wobbly then it is not correctly fitted.**

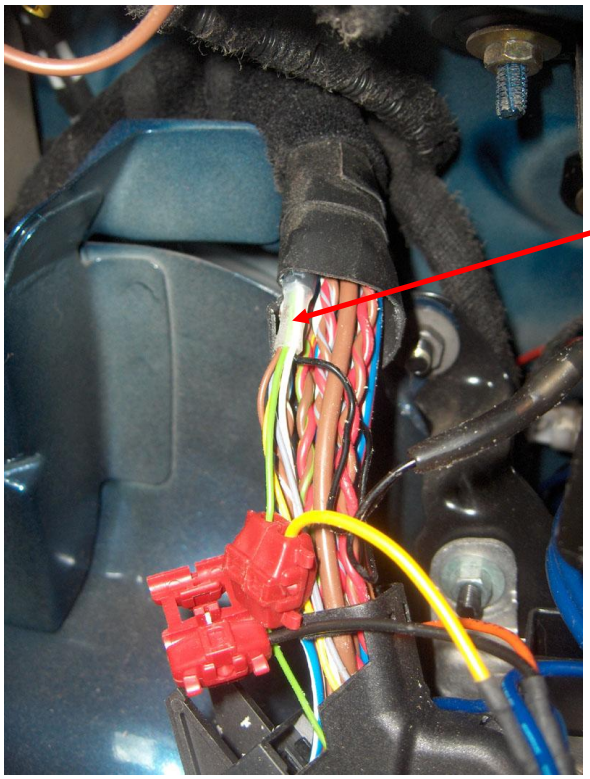
On the Sportback you can use another L bracket but attached to the extra bolt on the bodywork on the left side of the sub

Or here



Wiring up the amp
Before fitting the amp you need to wire it up and test. Connect the power and earth cables. Then connect the RCA's, remote on and sub speaker cable.

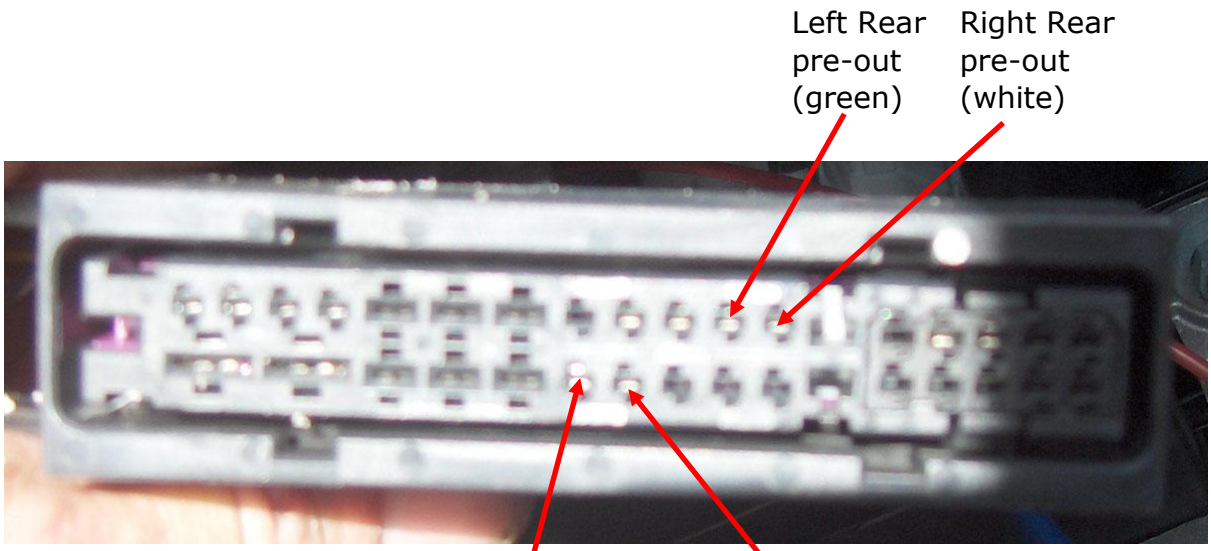
At the Bose amp release the lock on the Bose connector, chop the zip tie and unwrap the black rubber tape holding the big bunch of cables together. Identify the wires from the diagram below and attach the wire taps to the left & right rear pre-outs and the remote on.
RCA Adapter
Red to right rear pre-out
Green to left rear pre-out
Black to Screen
Blue to remote on



The pre-out wires & screen are sometimes grouped together within their own sleeve in the loom. The "remote on" wire is outside this group & can be green/blue or white (on pre05 models). Unfortunately there are 2 white wires so you need to check continuity between the wire and the corresponding pin on the plug to identify which is which. I use a Stanley knife blade to breach the insulation without damaging the wire and touch the multimeter probe to the blade, with the other end in the corresponding pin on the connector. Handy tip is to loosely crimp a small spade connector to the probe so that it can plug into the connector without being held.

Don't rely on the cover on the tap to push the skinny wires into the tap, I always use a stanley knife or small screwdriver to push the wire into the tap, all the way down in order to guarantee a good connection. Then test the connection with a multimeter to ensure everything is making contact before putting it all back.

A3/S3 8P Chassis Bose Amp Connector

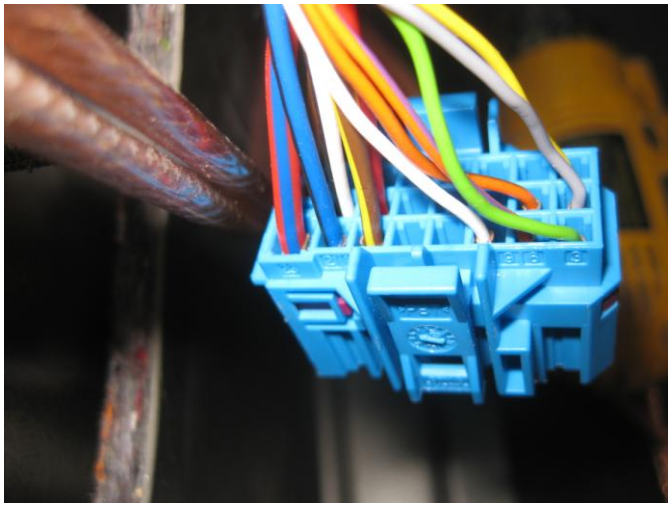


With the taps tested and continuity verified, zip tie all the wires together and also replace the zip tie round the connector shroud, then plug the Bose connector back into the Bose amp and replace the boot panel.
Back under the bonnet, fit the fuse for the new amps power cable.
Refit the glovebox remembering to plug the airbag switch back in.
Turn on the HU and ensure the sub and amp are working. Check both left & right channels are working by fading to rear and then using the balance to go from left to right. The sub should still play on full left & full right.

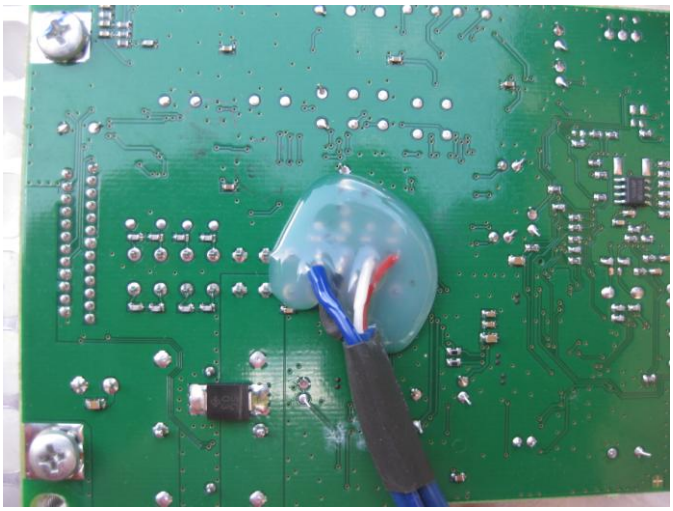
Start the engine and check for any interference, also try indicators etc. If you find you get any alternator whine then spray some contact cleaner on the Bose amp connector – believe me this actually works as I found out after ripping half the install apart trying to eradicate the interference

You may want to leave the amp out initially while you get the levels sorted. This level is quite critical especially if you don't have a non fading sub pre-out. If you are using the original Audi head unit you need to ensure you get the gain right before installing the amp permanently. You can use the front/rear fader to give you more or less sub as it is running on just the rear pre-outs.

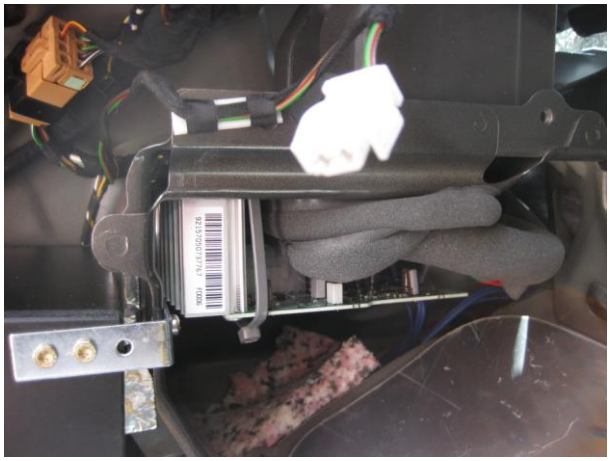
Non Bose blue plug pin outs
(1,2,3 & 9 are the only ones you need to tap)
1 yellow – Right Rear Pre-out
2 purple - Screen
3 green – Left Rear Pre-out
9 white – Remote on
17 yellow/red (+ve speaker out)
18 yellow/brown (-ve speaker out)
19
20 black/white (+ve speaker out)
21 black/blue (-ve speaker out)
22 brown (earth)
23 red/blue (power)



Non Bose Amp PCB connector pin outs
I prefer to solder the adapter cable directly to the PCB and use hot melt glue to secure the cable (see below)
The pin outs and colouring are dramatically different – **don't get them muddled up – they don't match the loom**
19 Orange – Remote on
20 Pink - Screen
21 Blue – Left Rear Pre-out
22 Brown – Right Rear Pre-out



You'll need to extract the amp from the stock Tupperware sub and keep it in the system to power the rears. Normally I wouldn't bother and just fit a 4 channel Alpine, but if you want the amp to fit behind the rear speaker panel, then the smaller 2 channel T500 or T505 makes life a lot easier. The stock amp can just be zip tied to the bodywork behind the boot panel, with any exposed wiring taped off. Please ensure you isolate the unused speaker connections to the old OEM sub as these will still be live.

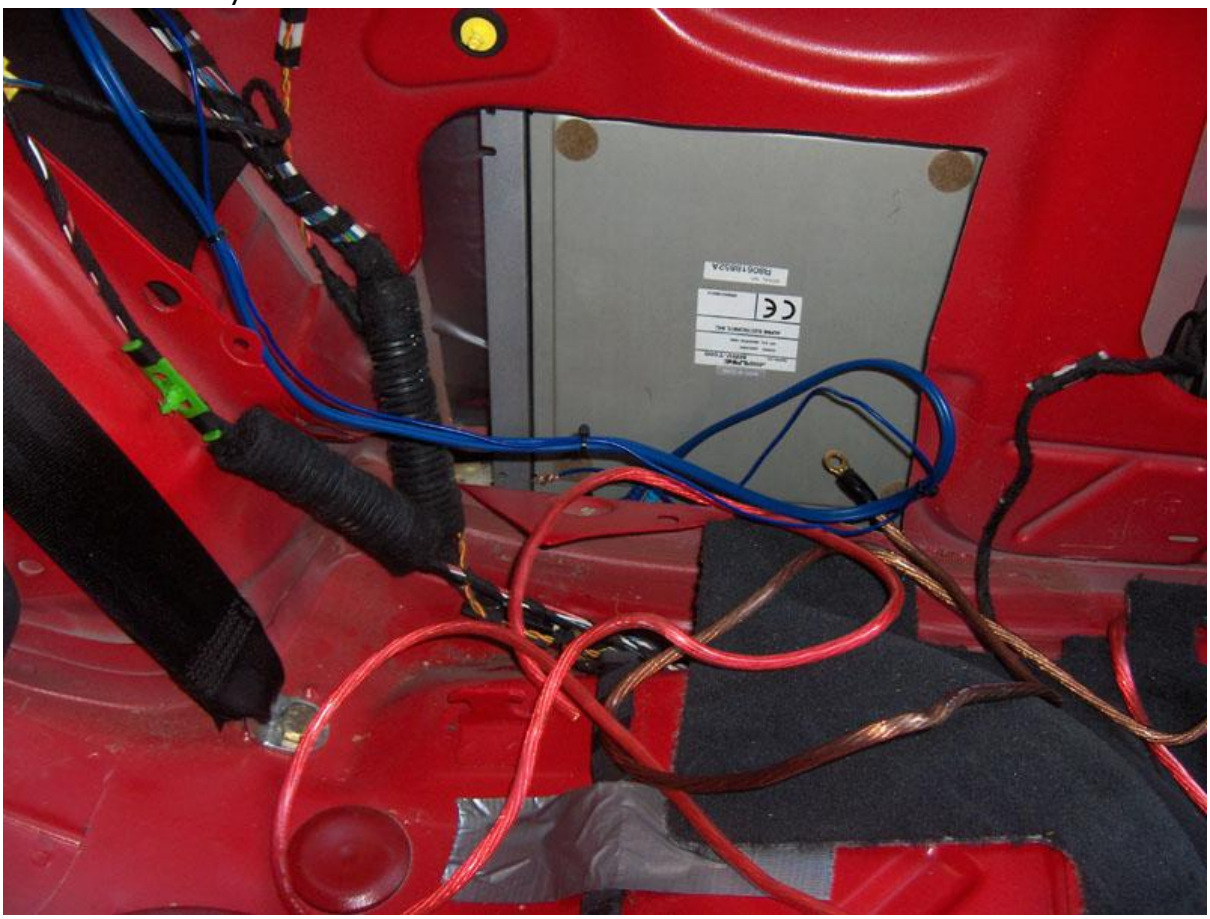


On a Concert/Symphony/RNS-e HU, you want the right amount of bass with the bass on the HU set to –2 (yes that's minus 2). This allows you to drive the cabin speakers harder without distortion, as they are no longer handling any significant bass, and gives you some head room if you get a CD that has very little bass on it.
You're only control of the level of bass coming from the sub is to use the bass control on the head unit, you can also fade the rears but this will obviously fade the rear speakers as well as the sub, so ideally you want to leave this setting on zero.
I found the best gain settings were achieved by using a very bassy CD, setting the head unit to minus 4 bass, and turning the volume up fairly loud. Then set the gain on the sub amp so that the sub is on the limit before distorting. Usually this requires the gain to be near max setting, about 90% using an Alpine MRV-T500 or 505, because the pre-out signal from the OEM head unit is very weak and the small enclosure is very inefficient.

With everything working and adjusted we can fit the amp

Amp Location

For a true stealth install the power amp can be located behind the nearside speaker panel. This will provide a completely hidden and secure install. The internal panel will have to be cut in order to make room for the amp, but this is completely hidden with the speaker panel in place and no one will ever know.
With the rear speaker panel removed, remove the foam bolsters from up inside the outer wing and internal panel and the two in the bottom.
Mark a line from the curved part of the internal panel, straight along and then down as shown below, to form a fairly square square.
Now for the scary bit. This is far easier to do using a reciprocal saw with a long metal cutting blade. Cut along the line across then down to create the hole shown below, but please be very careful as if the blade snags it could puncture the outer bodywork:



I like to use some Dynamat on the inside of the outer panel to avoid scraping the amp on the outer panel. I also dynamat the edges that have been cut. Wrap electrical tape around all the connections on the amp just as a safeguard against shorting anything out while moving the amp about, or better still remove the fuse at this point! Temporarily tape up the gaps on the underside of the amp to prevent any swarf getting into it when drilling.
Remove the two foam bolsters from the bottom of the void and with the underside of the amp facing you lower the amp into the lower void and then once inside the void, it can be raised up into position. Raise the amp as far up & left as possible and reinstate the two foam pads underneath. This gives the amp something to rest on while you're attaching it to the bodywork. Line up the amp flanges with the bodywork and mark where to drill, I use self tapping screws to

secure the amp, with self tapping friction nuts slid over the existing holes in the flanges of the amp. This is far easier to fit and the weight of the amp is taken by the foam bolster so the screws really are just holding it in place.

With both 5mm holes drilled in the inner skin you can secure it in place with the self tapping screws.

With the amp firmly in position test everything still works correctly before the rear speaker panel is refitted. Zip tie all new cabling securely before refitting the panels.
The sill trim and footwell trim can then be refitted. The rear of the sill trim is quite a faff as it engages with the rear speaker panel and locks to it as you push it to the rear of the car, but pushing it and keeping it lined up with the lugs still engaged is quite fiddly as the spring clips prevent you from keeping it level. Take your time and you'll get there. Then finally the refit boot trim taking care to engage the lugs on the carpeted part to the rear speaker panel. Remember to feed the interior light cable back through the hole before clipping into place. I also use one of the spare bolsters between the sub and the boot trim panel to prevent any rattling, just cut about 5 inches off the top and it fits under the sub. Retest everything and enjoy the transformation!
Any Problems give me a call on 07748-391357
Cheers, Andy Mac