

Avant 4 Range Rover L322 2002 – 2004

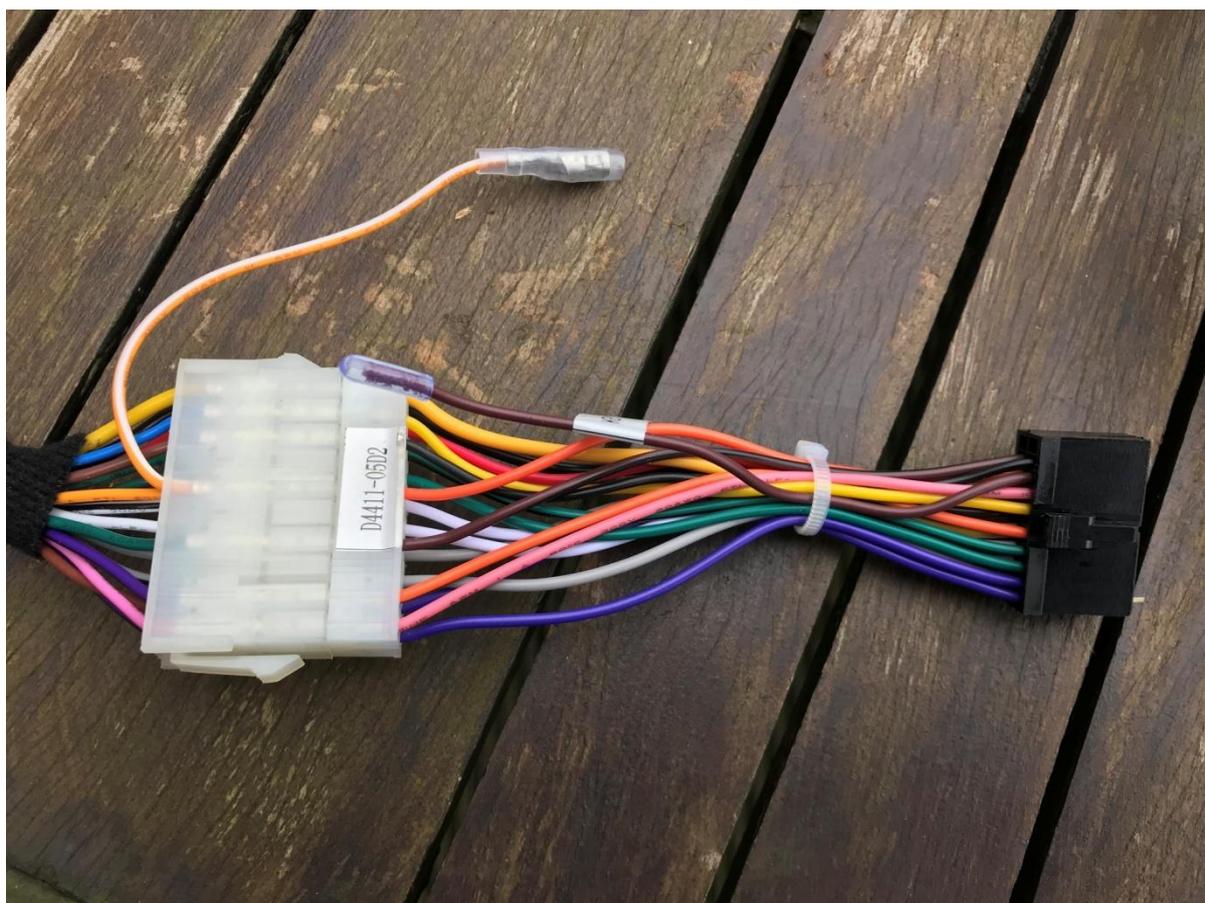
Install guide

This is a general guidance for fitting the Avant 4 head unit to a 2003 Range Rover that had factory fitted Nav and DSP. It gives an overview of how I fitted my unit and is by no means a definitive guide

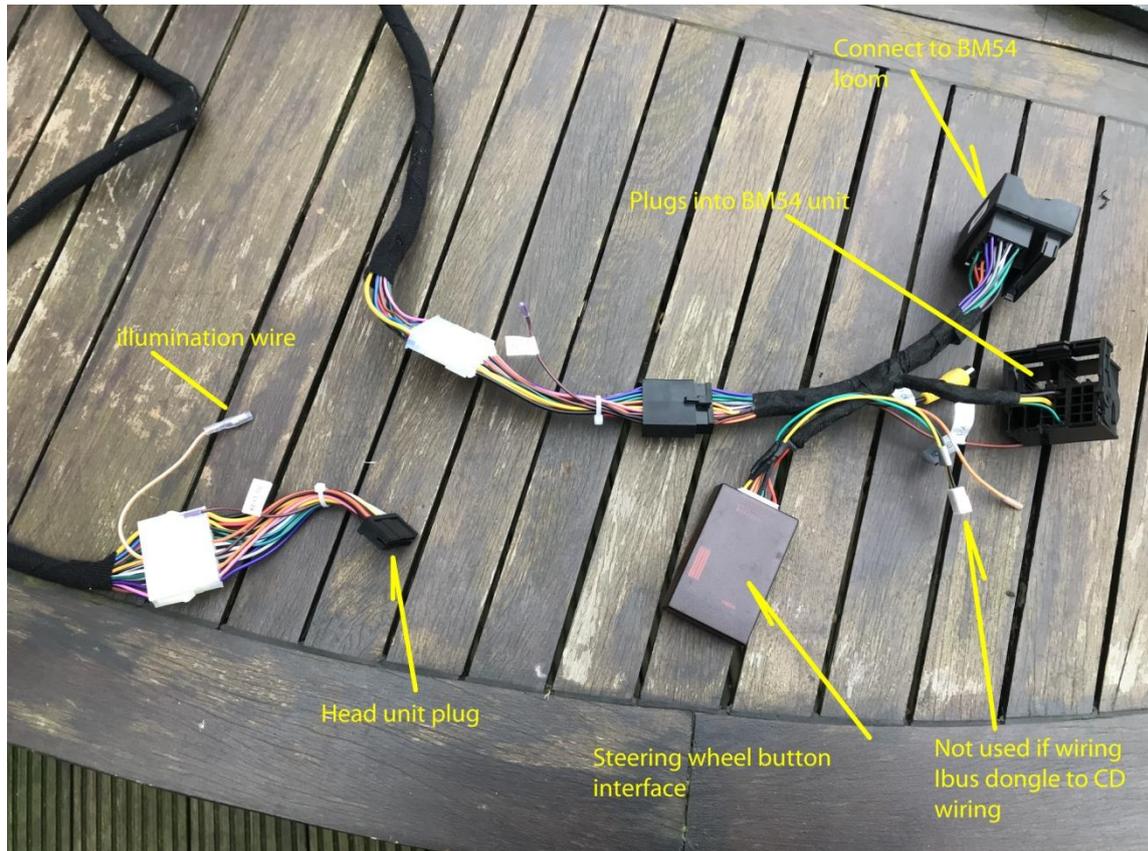
1 – Pre install.

If your working outside choose a good weather day ! Allow a whole day for this job as it involves a fair amount of trim removal with the doors open. Also, if you battery is not too healthy, I would suggest having a charger on stand by or some jumper cables. You will be in and out of the car a lot and as we all know Range Rovers can eat battery life if not allowed to sleep. Best course of action is to disconnect the battery before you start.

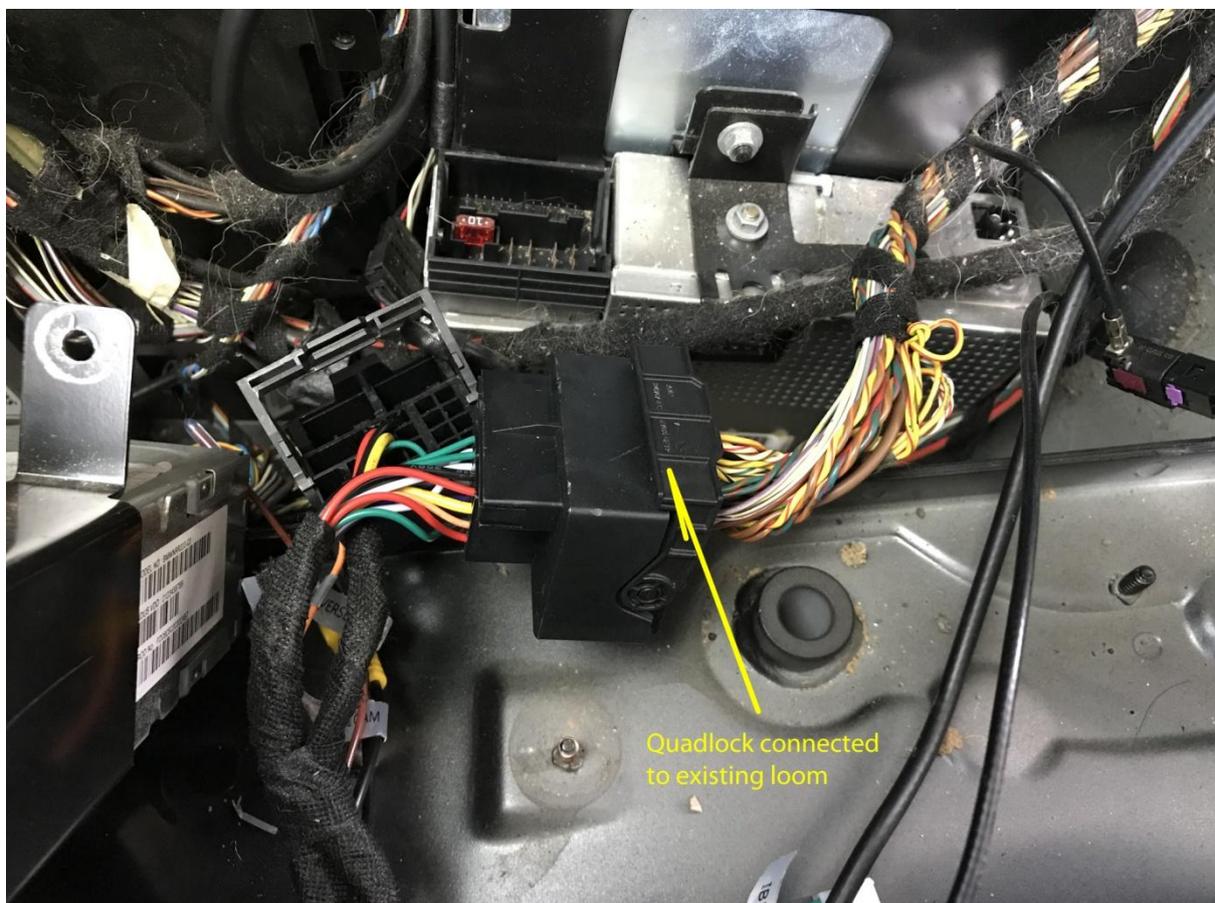
Collect all the wiring loom parts and lay them out. The extension lead can be fitted both ways round, but only one end has a connection for the button illumination. This end needs to go to the head unit end.



Connect everything together so you are happy with how it all goes together. The large white plugs on the extension lead can be tight and a little awkward to get to fit together as the pins have a little play in them, make sure they are aligned before pushing fully home. Don't forget the aerial lead which has to be run along side the main cable unit in the car.



Locate the BM54 unit in the rear quarter, its under the plastic panel adjacent to where the nav drive and TV modules are. Remove the quadlock plug from the unit and plug this into the adaptor on the end of the extension. Again it can be a bit tight. Plug the other end into the Avant 4 head unit and (Provided you still have the battery connected) the unit should power up. Note at this point you will not get any sound- this procedure is to make sure the extension lead is OK and the head unit operates. You dont want to go through the turmoil of fitting the lead to the car only to find its duff or has an issue. This happened to me as one of the pins in the white plugs had got pushed out after fitting the unit in the car.



2 – Strip out.

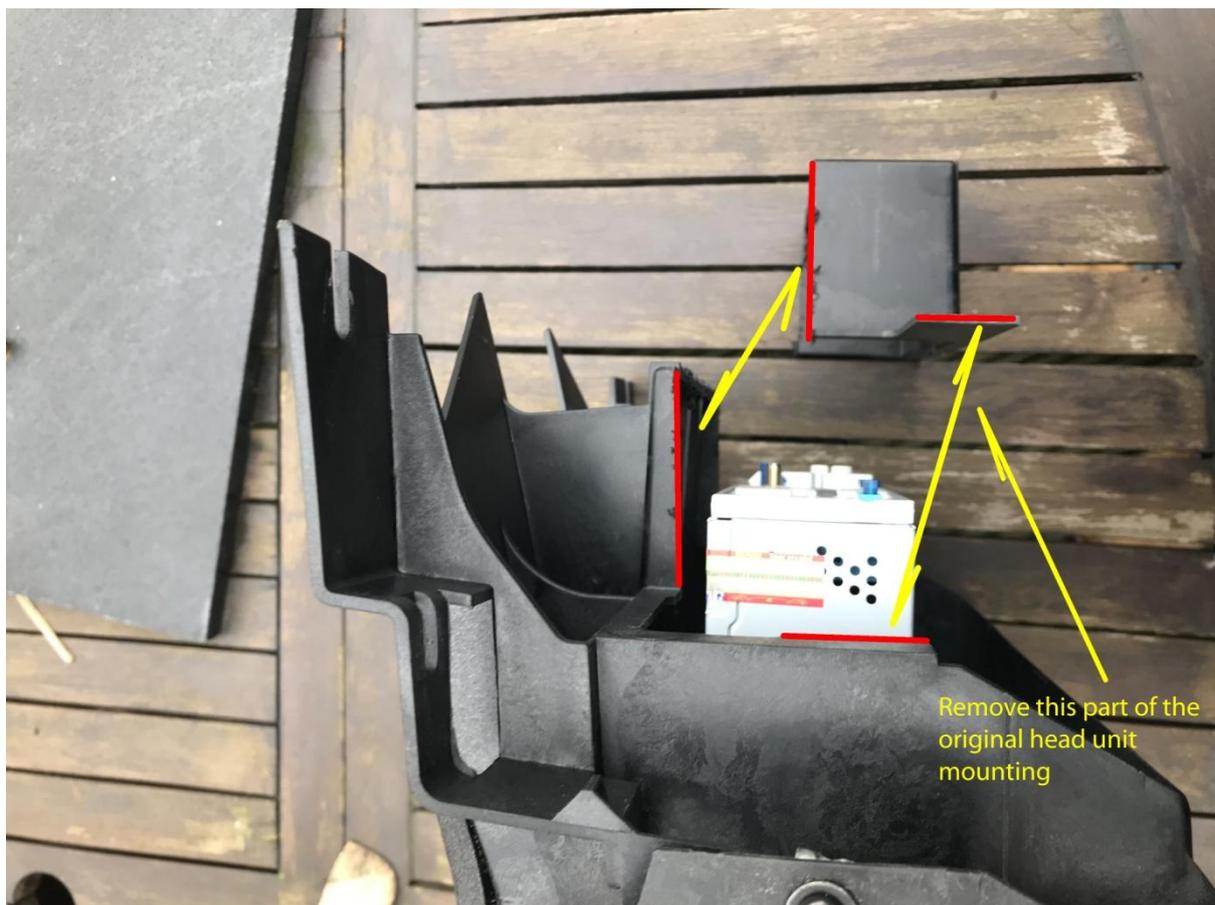
Firstly remove the passenger seat (UK) 4 bolts and one for the seat belt end. Disconnect multi plug under the seat - slide the catch and pull. Remove seat. Next remove all the aluminium tread plates, B pillar trim and lower C pillar trim. The panel covering the sub in the back can stay in place as there is enough room to feed the cable through. Once all this is out of the way you can see the white plastic covers that are under the carpet protecting the cable harness, our audio cable is going to sit with this under the carpet. At the front of the car remove the lower trim from the A pillar. Next is the glovebox. It may be possible to leave it in place but it becomes so much easier with it removed. At the same time you can remove the CD changer and free up some space. Note the holes in the top of the glovebox, this is where a couple of the USB leads will fit later on. Then move onto the dash top. There are some good videos on you tube on how to do this so I won't go into detail here.

The old screen is held in place by 6 x torx screws, 4 on top and two secret ones that can be seen by looking straight down on the front of the screen just behind the Cherry trim.



These two only have to be loosened as the screen bracket is slotted at the front. Pull the whole unit out including the holder, disconnect the two plugs (one white and one blue). You can then retire indoors to swap out the old for the new. The bezel around the screen is clipped in place and should pop off without too much trouble, you can then get access to the torx screws holding the old screen into the holder.

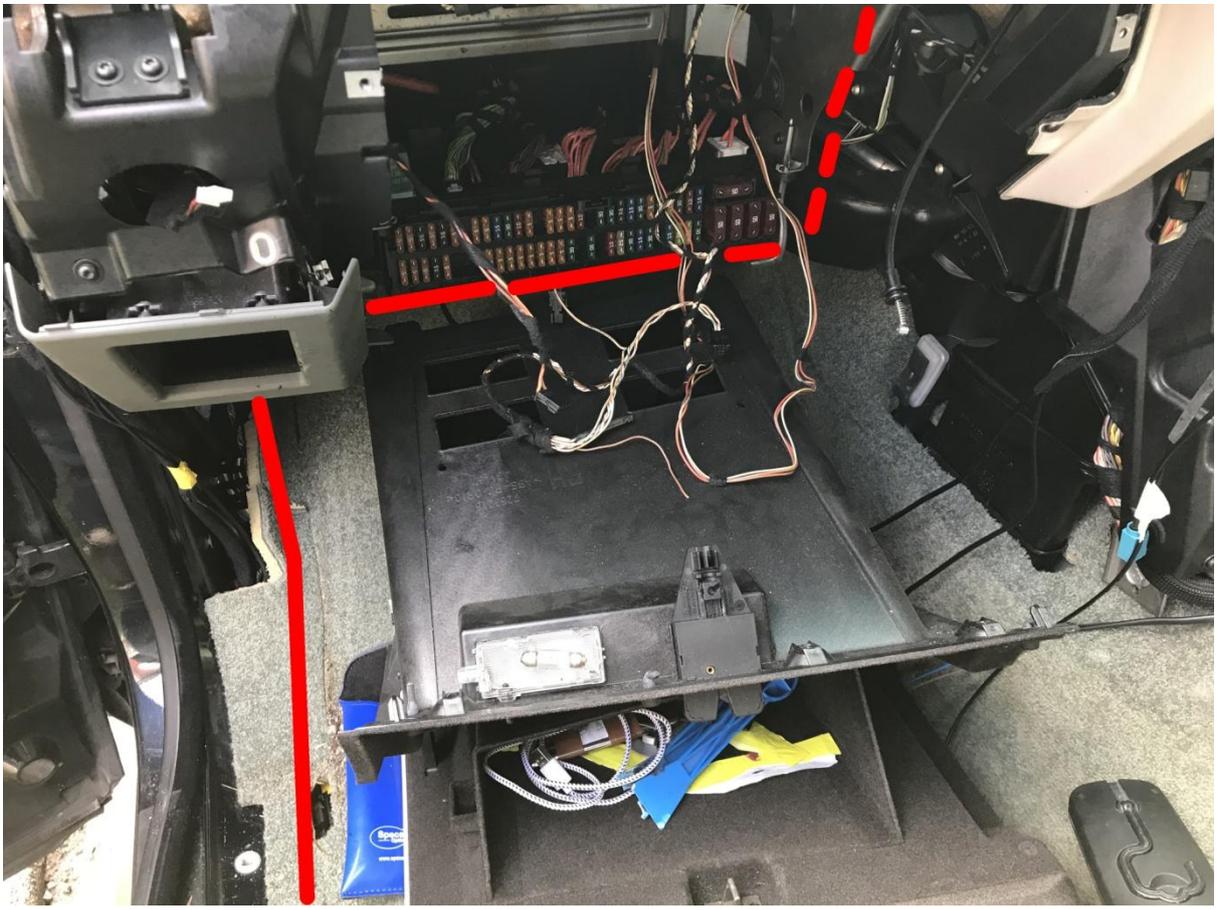
The holder will need to be cut to allow the back of the new unit to fit, use a multi tool or Dremel to cut as shown in the picture.

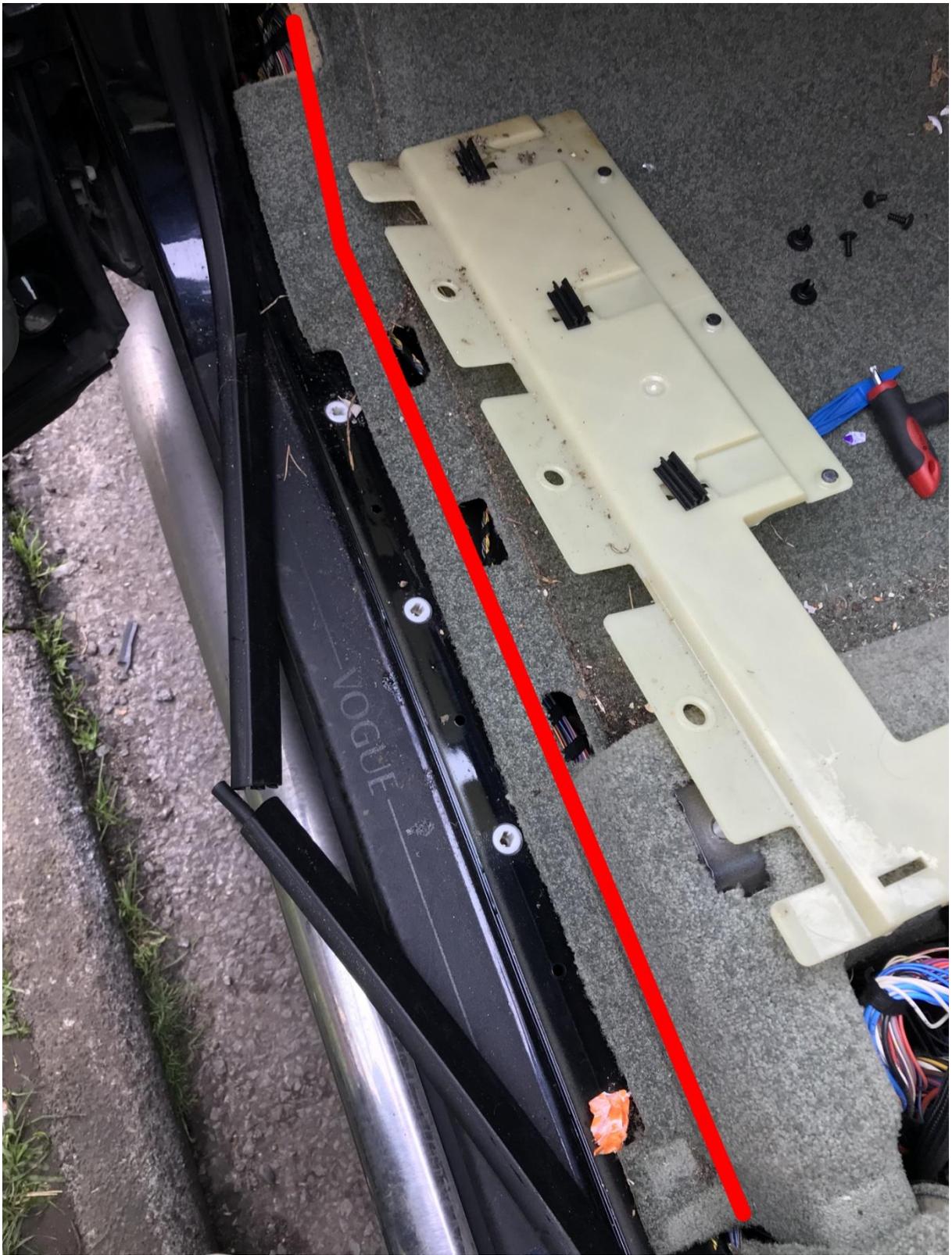


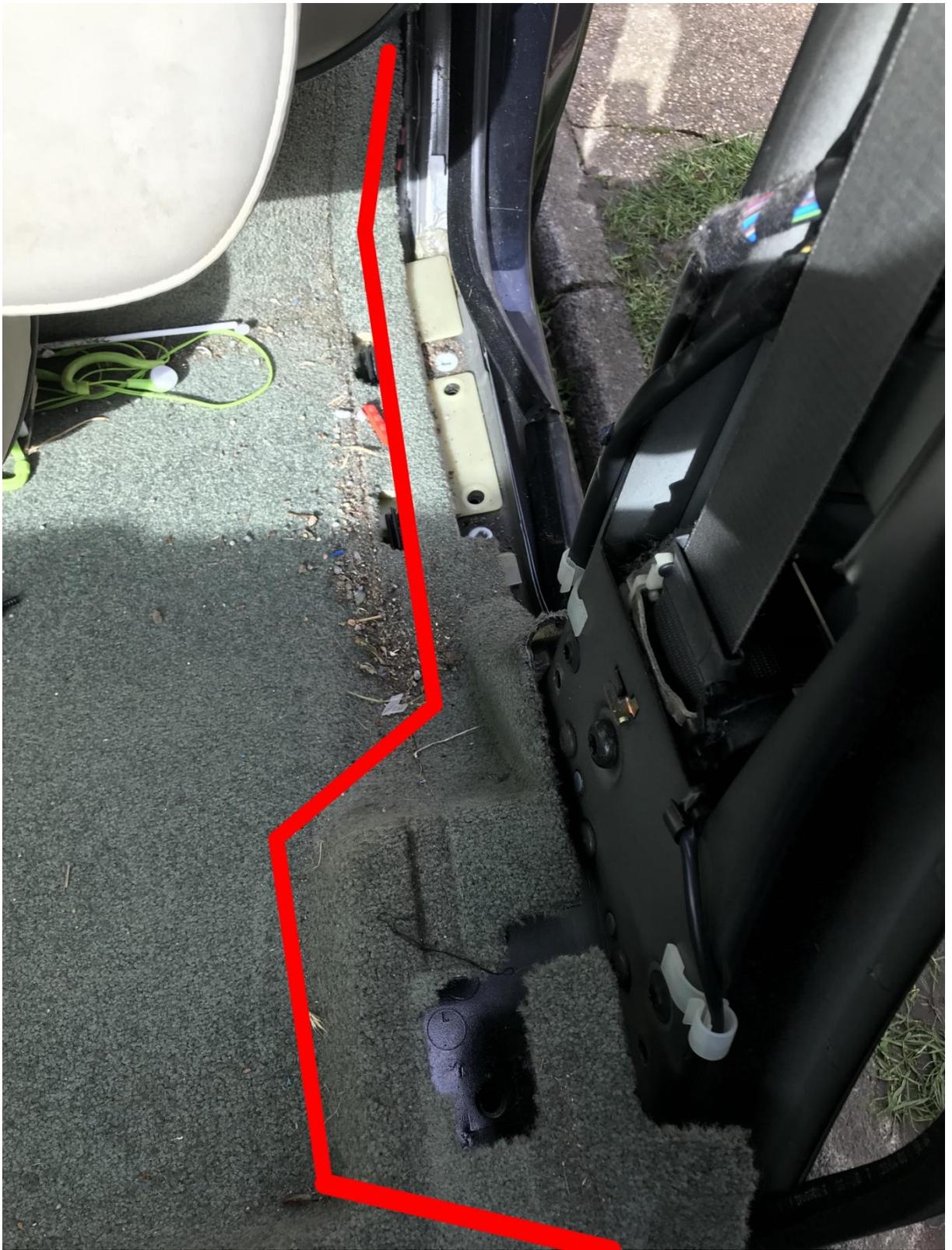
Once this is done you can fit the new unit into the holder using the old screws.



Back to the car and lay the extension cable out with the head unit adaptor removed , start to feed it into place. Using a stiff wire as a pull there is space to get the cable out of the hole in the centre of the dash coming out in the back corner of the footwell. Give yourself about 6 inches at the centre of the dash spare, then tuck the rest under the vent that goes along the back of the footwell and then along the side of the car as indicated by the red line in the following pictures.....



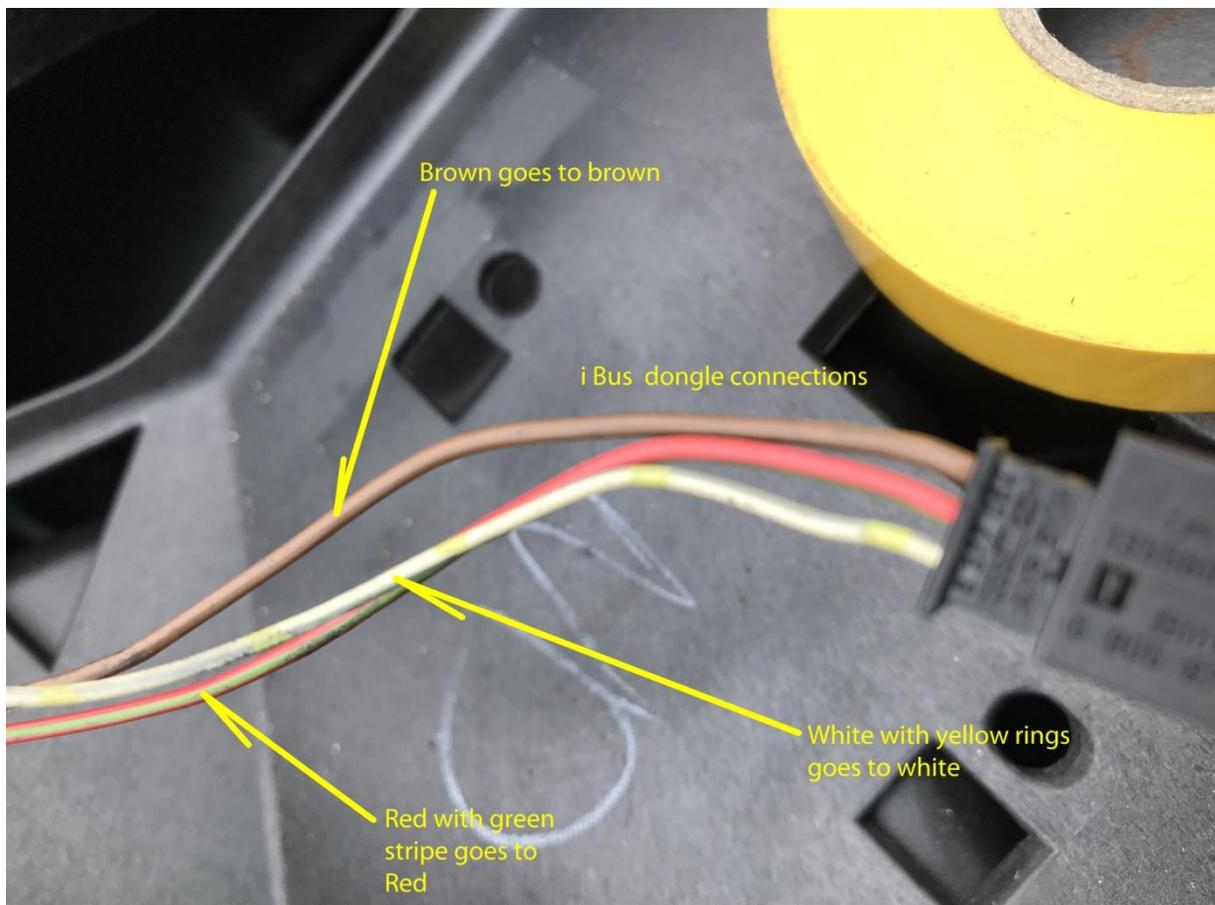






Ibus connection.

Locate the three wire plug that went into the CD changer – If you had a single 10 pin plug then, the wires are still good, its just a little harder to identify. We want the Brown, Red with green stripe and the white with yellow rings. Cut solder and heat shrink sleeve the wires onto the Ibus dongle. Make sure you have a sound connection, you don't want any bad connection upsetting any data. Once wired poke the dongle up behind the dash and out of the centre hole in the dash, the dongle gets plugged into the short green USB lead from the head unit.



If your feeling confident all the trim can now go back in place leaving the dash top off and the plastic trim right in the back where the BM54 is where you make the final connection as previously done for testing. Connect all the plugs to the unit, putting the WIFI aerial on top of the dash, there is plenty of room on there and it will be covered by the dash top. Poke the two spare USB ports through the hole in the top of the glovebox lid and if you optioned it, connect the DAB receiver to one of the ports and re-connect the battery and fire it up.

Final parts.....

At first there will be no sound. DONT PANIC ! connect the head unit to a wifi hot spot and then download the iBus app. Once downloaded and installed press upgrade and it should unlock all the features including the DSP license.

You will need to code the DSP amp to stop the sound dropping after about 30 seconds. Go into CODING – DSP and set the parameters to MID BASIS and POLLING TIMEOUT to INAKTIVE

Cycle the ignition to make sure the Coding gets written.

Press the DSP button on screen and away you go – watch the volume !

GPS aerial

The supplied GPS antenna is more than capable of receiving a good signal. The easiest place to put this is on top of the dash under the cover along with the WIFI antenna. I chose to extend the cable from head unit all the way to the back and cut and joined it to the existing GPS lead taken from the back of the now defunct nav drive to use the original GPS receiver mounted up in the rear. This has proved to be a good decision as the GPS app reports a good signal. I also did the same with the DAB aerial cable, again extending back to the rear of the car and cutting and joining into the old TV receiver aerial, reception is good so far with only the weaker stations dropping out.

Illumination connection.

First I tried cutting into the old plugs to the old Bordmonitor. Pin 1 on the blue plug is the illumination, and this worked but when locking the car for the night I noticed all the dash lights where lit, not good when battery power is low. I disconnected the line from the illumination and tucked it away with a mind to finding another feed probably from the cigar lighter socket,. But then I discovered the back lights on the Avant worked anyway without any connection. They switch on and off with the main lights no problems although they cannot be dimmed. A mystery for sure but a minor detail that needs investigation.

Connection to old BM54

On the end of the extension lead is a male plug that is supposed to plug into the BM54 unit. As far as I can see there is no reason to do

this as my unit works fine without doing this, it maybe a legacy thing from older systems without DSP who knows, but if you can do without plugging this in, it frees up another piece of equipment to sell on re-coup the out-lay on the Avant. Good luck and enjoy your new Avant 4 !

Some useful links

Ibus app download

<http://ibus-app.de/ccount/click.php?id=download>

Ibus app wiki

<https://wiki.ibus-app.de/index.php?title=Hauptseite>

Dash removal you tube

<https://www.youtube.com/watch?v=jSYo175Q6mk>

End panels for dash removal

<https://www.youtube.com/watch?v=ICSWPnoGyXQ>

Glovebox removal

<https://www.youtube.com/watch?v=Bu5q9QqILGo>