

Fog light guide for 3BG/B5.5 Passat

Note: This guide uses a prewired kit from Ebay as well as the OEM fog light switch.

Links: Wiring kit

<http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&item=110349188123&ssPageName=STRK:MEWAX:IT>

OEM Switch

http://cgi.ebay.co.uk/VW-VOLKSWAGEN-PASSAT-SKODA-MAIN-LIGHTS-SWITCH-TWIN-FOGS_W0QQitemZ360204713479QQcmdZViewItemQQptZUK_CarsParts_Vehicles_CarParts_SM?hash=item53dddfbe07

Make sure that when you get fog lights that they come with the front side plastics as these need to be replaced.

Tools:

T25 hex head for the dash board panel

T30 hex head for the bumper

10ml Spanner for the ECU box

8ml spanner for fuse box

Small flat head for the bonnet clip

Large flat head for the bonnet clip

Cable ties or electrical fabric tape

Piercing tool

Metal coat hanger ;)

6 nuts, 6 bolts and 6 washers OR 6 speed clips and 6 bolts

Time:

Allow plenty of day light time as this project can have complications.

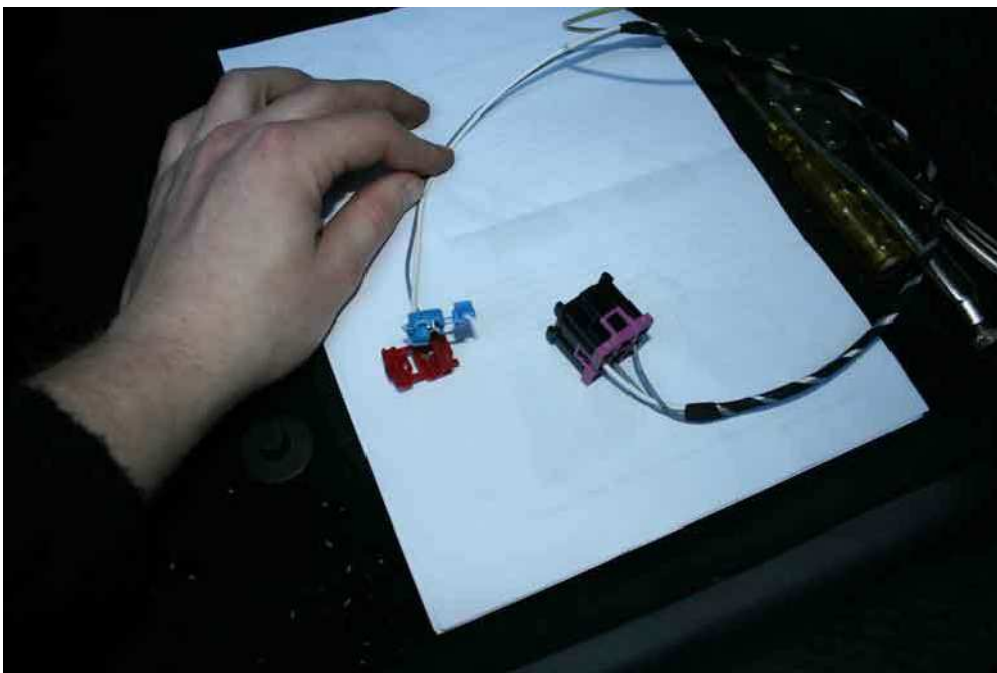
I think that 4 hours max should cover everything. I would recommend having a buddy while you're doing this.

The new parts

Relay



Relay holder



Outside wires



Removing the dash

To change the Dash switch you must first remove the four hex headed screws.

Remove the fuse panel, it should come of easily enough as there's only 3 pins holding it in.



There are 2 screws to be removed here T25 hex needed.



This is located underneath the light switches.



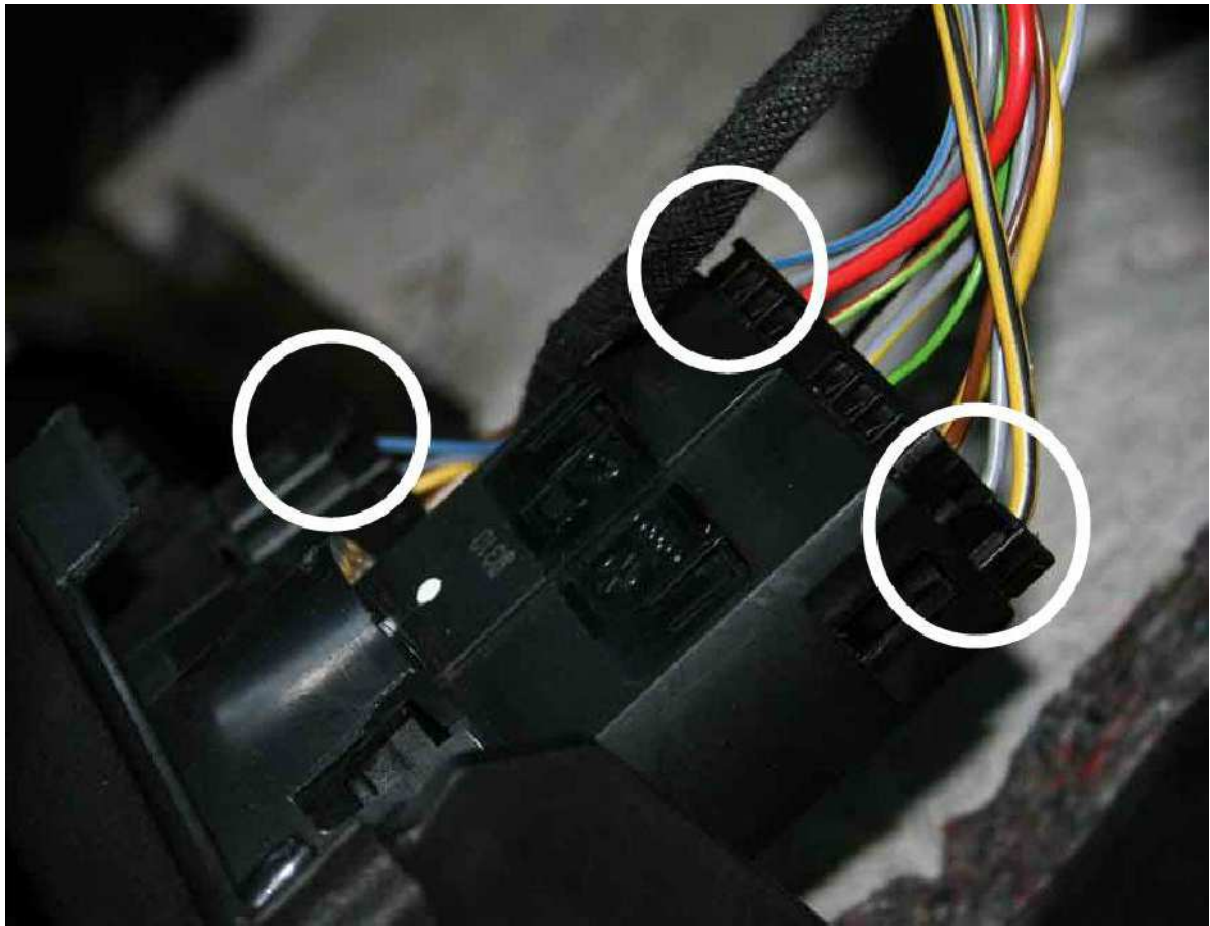
The final screw is located at the top left of the car manual holder.



After this has been removed, you will see that there are 3 wires; Light switch, beam adjustor and diagnostic port.

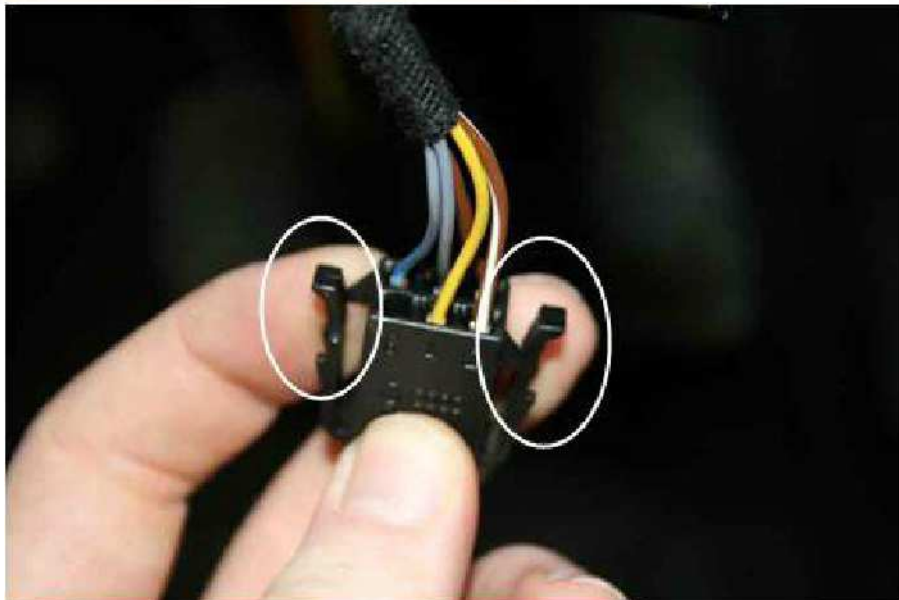
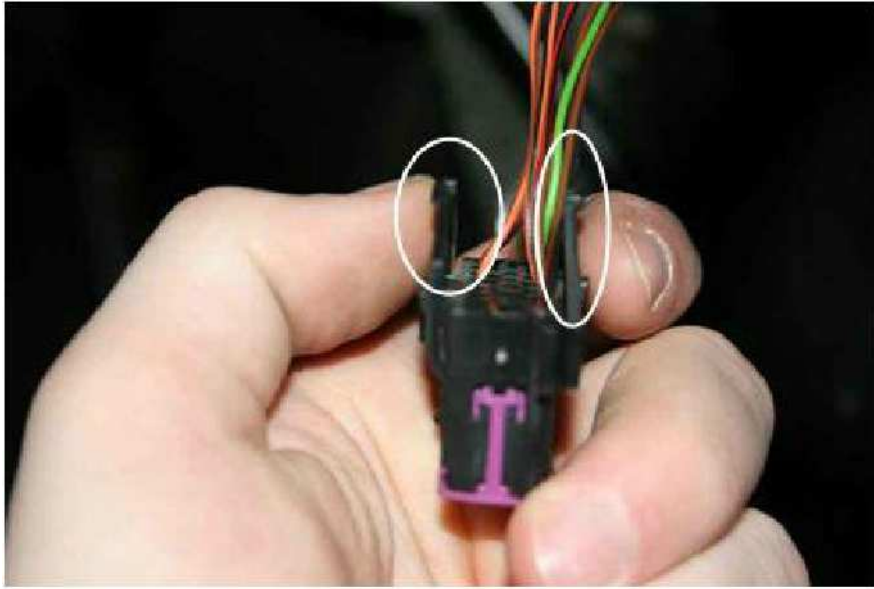
To disconnect the light switch simply squeeze either side of the plug (shown in highlighted area).

Repeat for beam adjustor.



To remove the diagnostic port simply pinch the top of it and you will feel a little clip, squeeze it and the plug should fall out.

Plugs:



Removing the light switch

To take the switch out, grip the knob that you use to turn on the lights, press it into the switch itself then whilst still pressing in twist to the right which will release the shown clips and the switch will simply come out in your hands.

Top



Bottom

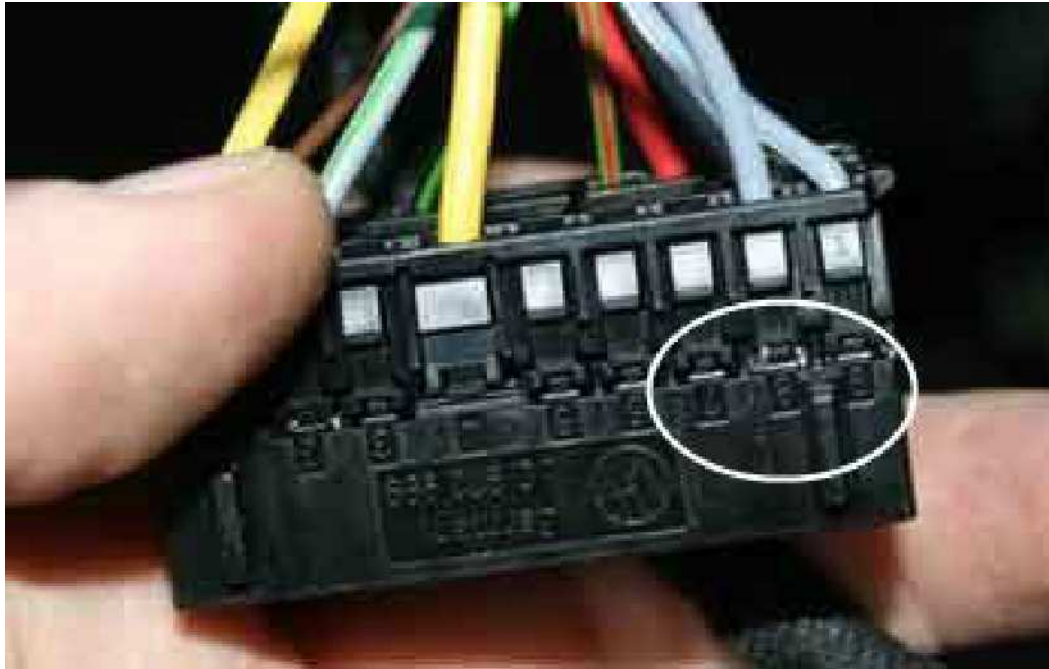


Example

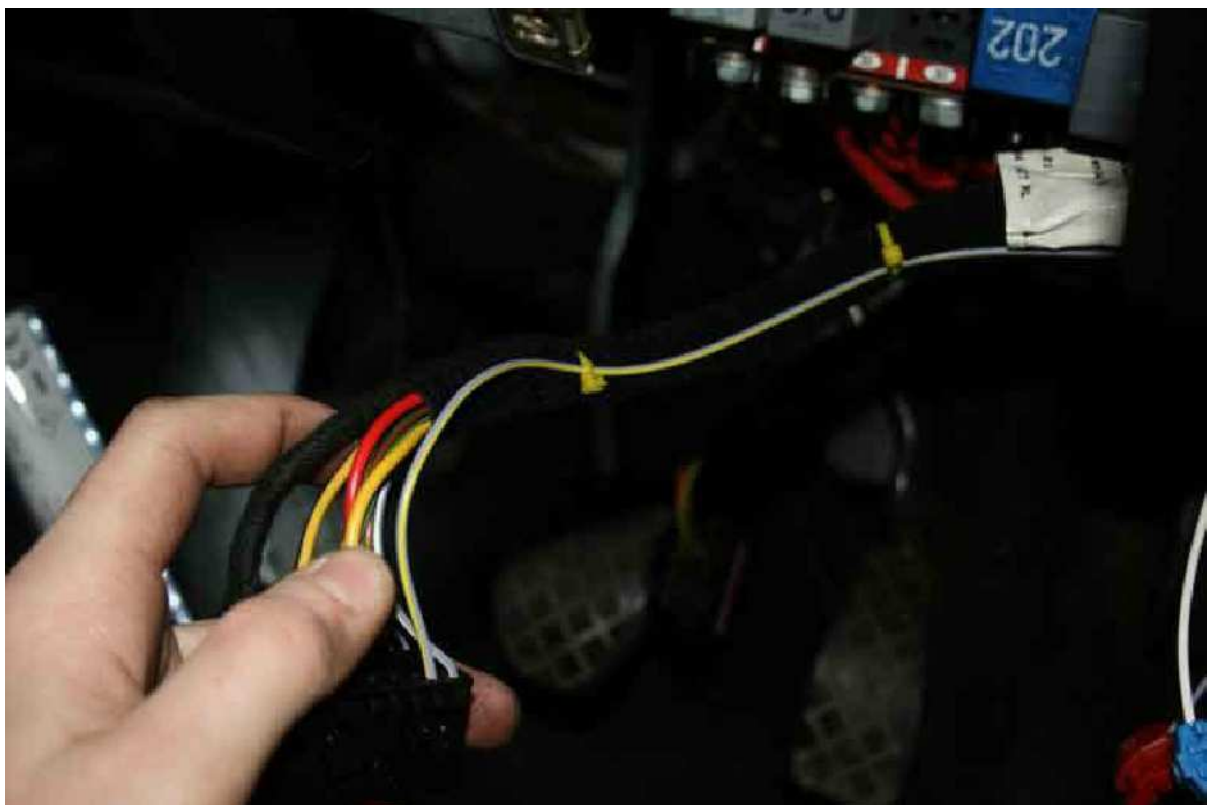


Adding the cable to the plug

A new cable has to be added to turn the fog lights on using the OEM switch. The wire slots into port 8, which can be found by reading the numbers along the face of the plug.



I used cable ties just tidy up the wire but fabric tab or electric tape could be used. At this point you should only restrain back to the Y joint of the loom.



Adding wires to the fuse box

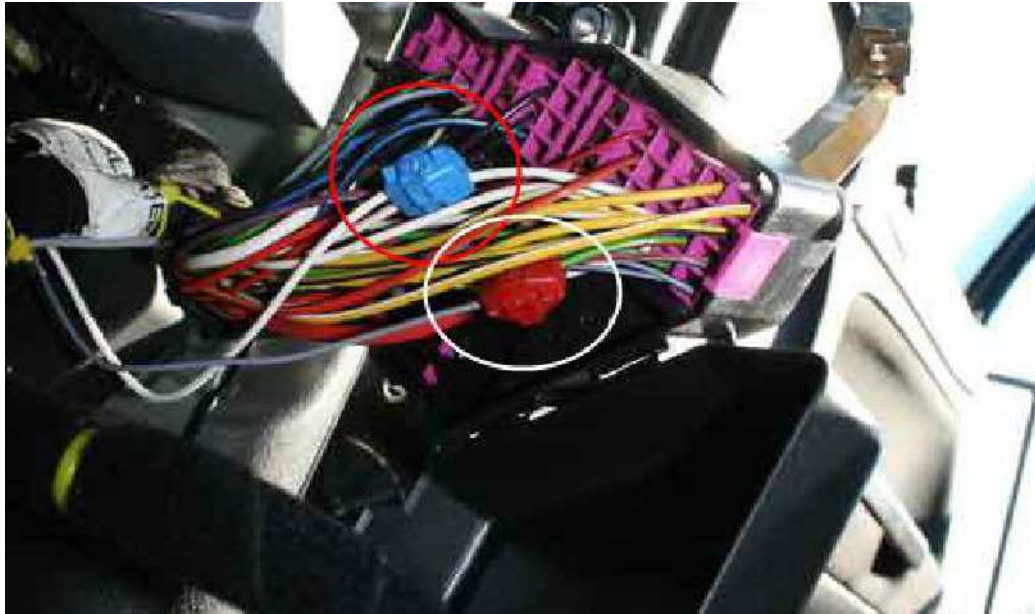
Now to add the 2 scotch clips (the red and blue wire clamps) we must take off the fuse box using an 8ml spanner



In the red circles you can see 2 clips which are easily broken, but the bolts hold the fuse box in anyway.

Once you have released the fuse box there are 2 clips holding on the cover that's protecting the wires. One is easily found at the top of the box. The other is on the (if looking at the back of the box) left hand side. Once the box is off these are easily seen.

At this point I would recommend that you disconnect the live (+) of the battery.



Using the 2 pre wired scotch clamps you now need to single out 2 wires from the fuse box. One of these is the power for the fogs; the other turns the fogs off when full beam is turned on.

For the WHITE wire you must find fuse S18 (white circle). All model of the b5.5 have this fuse, also every empty fuse has a number wrote underneath for a reference. For the GREY wires you must find fuse S3 (grey circle) S3 is blank on the SPORT model of the Passat so you must use S22 (grey circle).



You can now close up the fuse box and tidy up some of the wires. But allow slack for inserting the relay.

Removing the bumper

To remove the bumper you need to take at least one of the wheels of the car to get at the screws (Allows you to turn the other wheel into the car and get at the other screws)

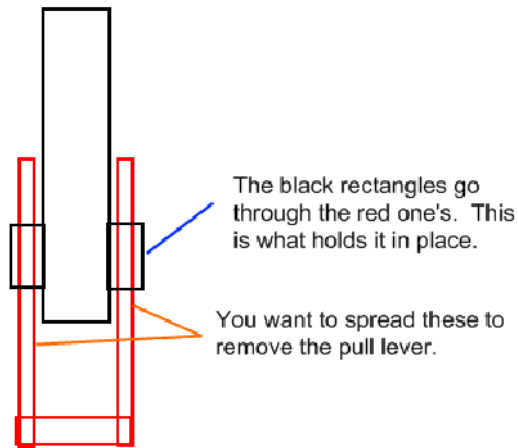
Firstly to remove the grill take a T30 hex bit and remove the 2 screws holding that in.



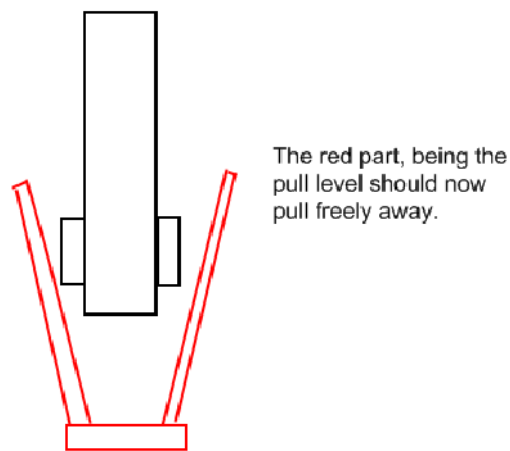
Then to remove the bonnet pull, use a small flat head, to lift a little clip. Don't be afraid of it springing off as it's attached to the mechanism.



Once the
use a
to remove



clip looks like it does above,
slightly larger screw driver
it from the mechanism.



Insuring that the clip we just unclipped is out of the way inserting a flat head in-between the forks and twist like below. This may take a few attempts as both forks have to be out of the slots, but jiggling the pull lever can sometimes free it.



Also you don't need to pull the lever the whole way through just as long as it's free from the mechanism.

Now press the shown clip and lift the grill gently towards yourself grasping it at side, NOT in the middle. There are 4 clips underneath the grill but these are really hard to get at, in my case the flush grill just slips out.



Once the grill has been removed, you then need the T30 hex bit again for 4 more screws; these hold the bumper on to the front of the car.



Now move round to any side of the car to begin removing the 4 screws holding the bumper on, these are meant to be T25 hex heads as well but in my car these are self tappers into where the screws are meant to be.

There are 3 facing into the bumper which are easily seen, then one which joins the bumper to the wing. Then simply pull back the plastic arch.

The final screw is located above the top screw; this one is also pointing towards the sky.



You should repeat this step for the other side, and then lay down a sheet or something to protect the edges of the bumper when you set it down.

The sump tray (plastic thing underneath the car) is either going to be missing or held by plastic clips. You need to remove these from the bottom of the bumper so that you don't break anything. Once you have removed the plastic clips move on to taking the bumper off.

Now that you have removed all the screws from the bumper, it's time to remove the bumper. It's advised that two people remove the bumper to save from damaging any of the paint work. As you can see there are 2 grooves that the bumpers slides into, so grab the bumper near these clips as well as at the bottom. (Beside the fog slot is best)



Wiring in the front

To place the wires in for the fogs you must remove the highlighted parts from the engine bay. To make it easier I've show that the 3 screws from air intake should be taken out. This means that the whole unit can come out as one.



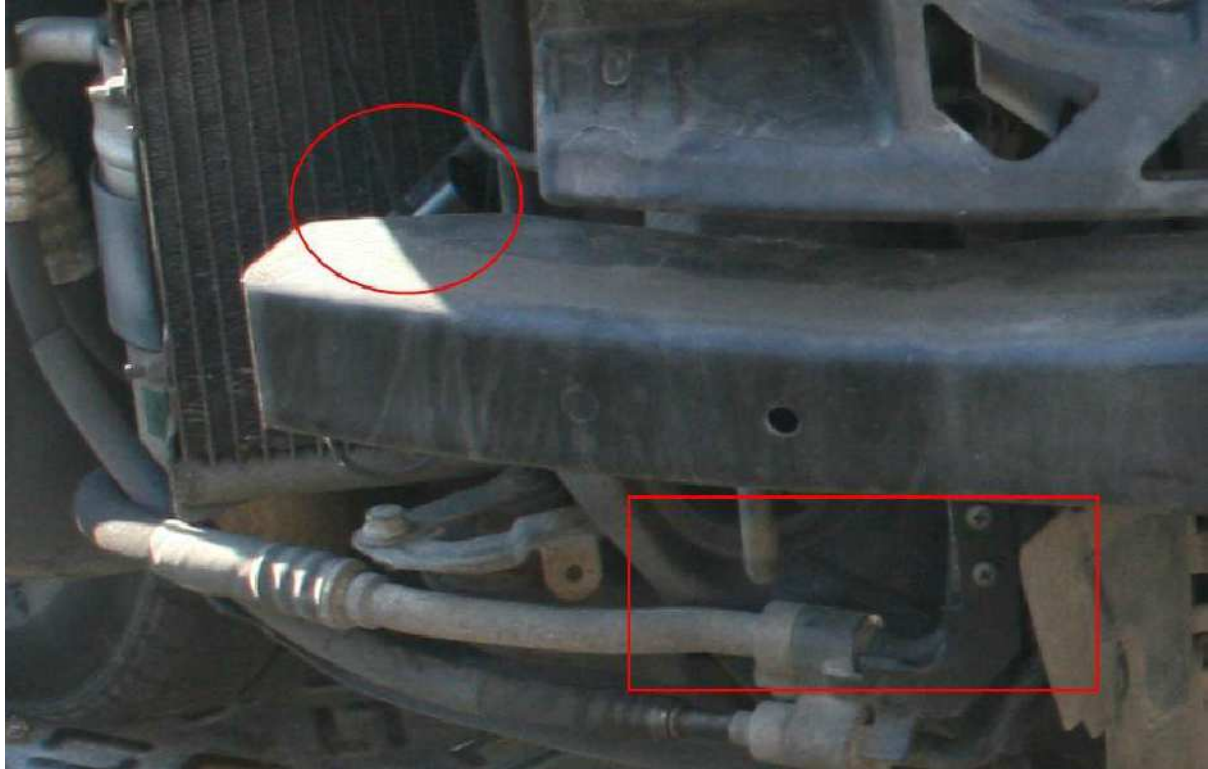
Drop the two plug ends of the wire down past the headlight. It's hard to see in this picture but from the Aircon radiator you can see where the 2 plugs will drop down. The HID ballast makes it awkward to see exactly but there is plenty of room to drop the wire down.



Here you can see wire after being dropped down past the lights.



The longest part of the wire is then passed through the aircon pipes to run along past the radiator.



For the time being, leave the wire hanging as it will later be cable tied beside the sensor.

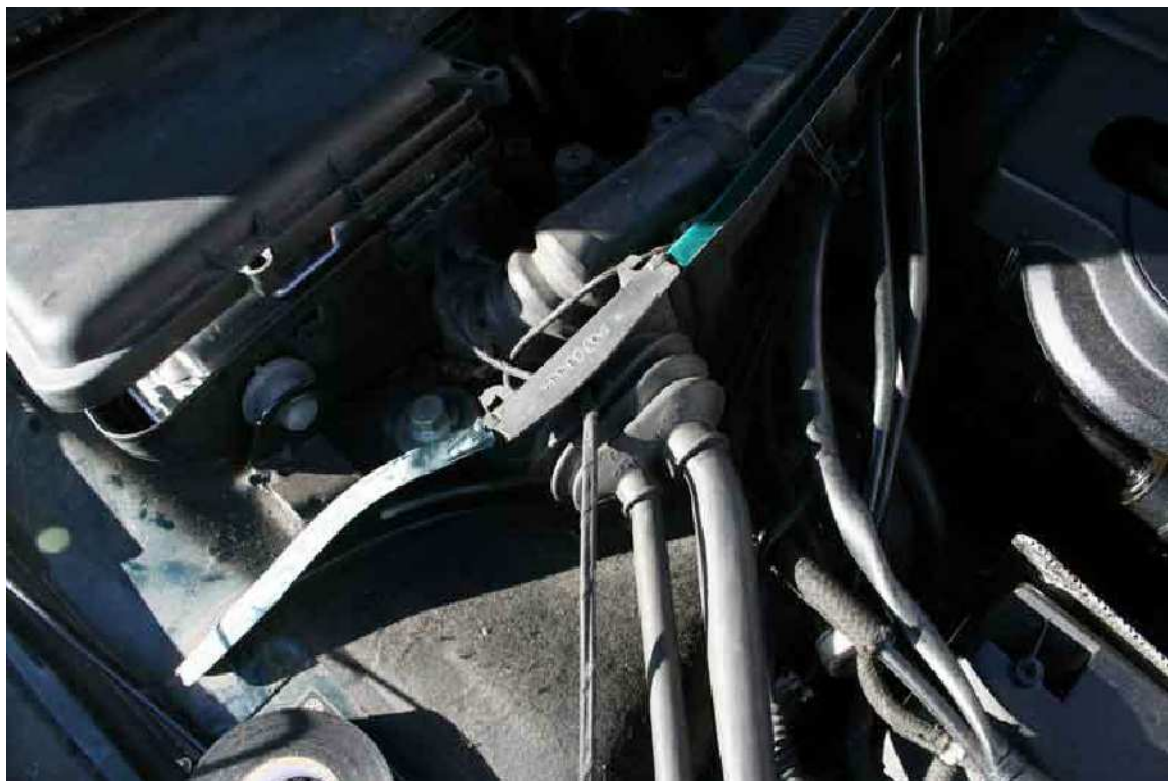


Push the plug through the plastic leaving yourself enough slack to attach the plug to the fog lights.



Work your way back to the other end of the wires pulling up any slack and ensuring that the wires aren't too loose.

Tuck the wires underneath the support bracket for the air intake then pass them up towards the rubber slot beside the ECU box.



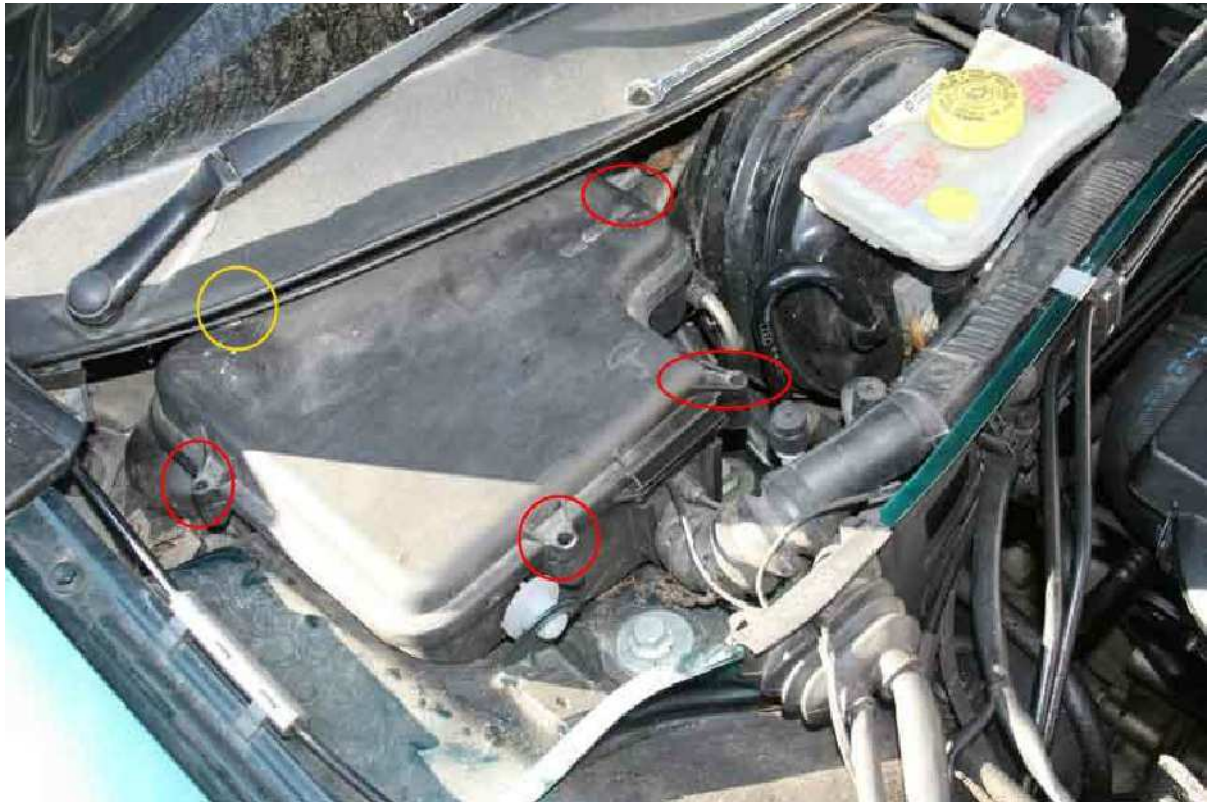
Now use your piercing tool to make a hole in the rubber big enough for the battery connection and the spade for the relay holder. You may need to use a screwdriver to push the battery connection through but this is only to make sure that there is a seal around the wire.

ALTERNATIVELY:

You could follow the battery pull line then cross over to the ECU box and the relay; I just choose to put it through this way.

Run the battery wire along the wire truss that just in front the rubber you just pierced. This will keep the wire neat and give you something to restrain the wire with.

To bring the wire inside the car you will need to remove 4 of the 5 ECU box bolts. There are 5 bolts holding this box down 4 of which are easy to get at and the 5th is just not worth the bother. The red circles show the 4 easy bolts and the yellow circle shows the awkward bolt.



Although the 5th bolt hasn't been removed you can still lift the ECU box enough to pierce the rubber and pass the wire through.

Once you have passed the wire through pull up all the slack on the wire, but leave enough outside the box encase you should need more for the fogs or the battery connection.

Inside wiring

Now that you have open the ECU box you should be able to see wires that belong to the relays in the dash. Now this is where the coat hanger comes into play.

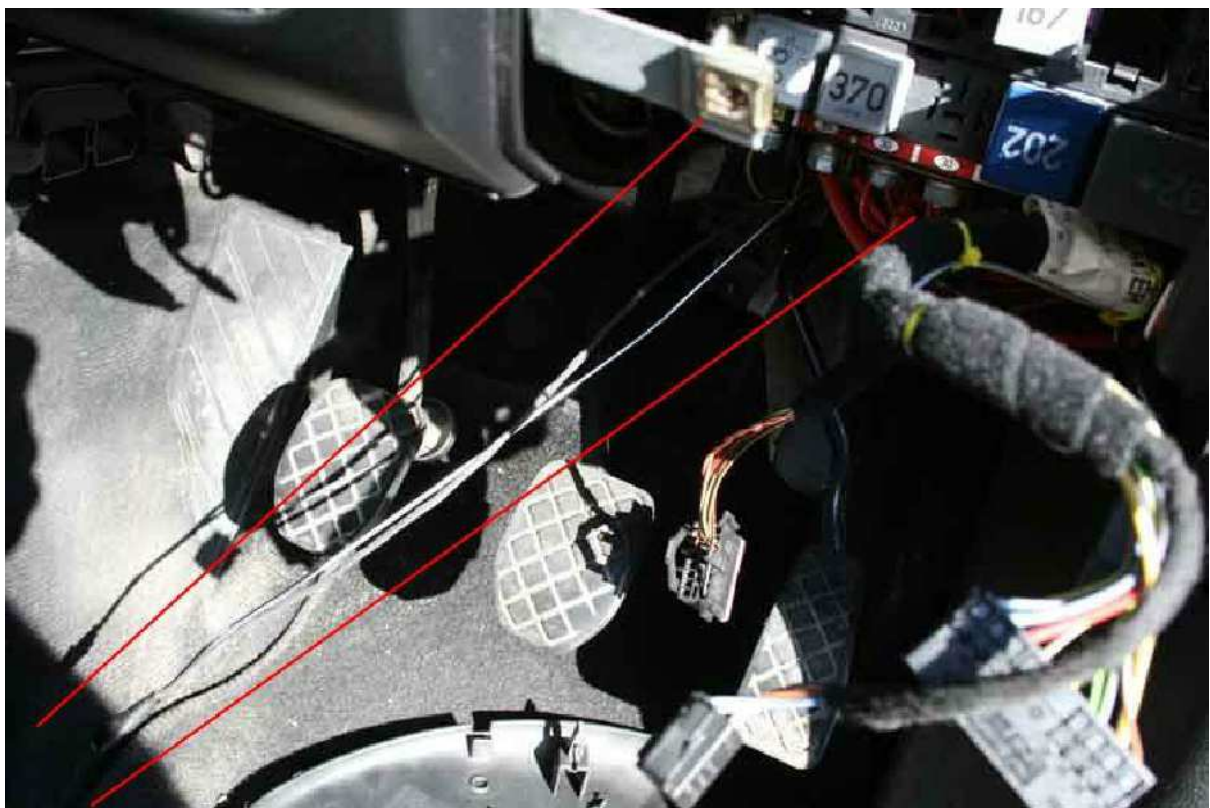
Straighten out the coat hanger and attach the wire onto the end of it (Make sure you have pushed the wire through the rubber first)



Although the photo is blurred you can light and the wires I've mentioned above.



This picture is just to show that the wire has made it through to foot well.

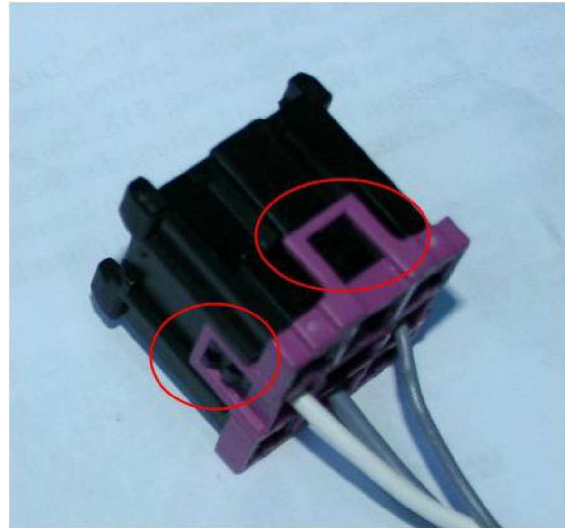


Now remove whatever you have used to attach the wire to the coat hanger and proceed to attaching the wire into the relay.

Before attaching the wire to the relay you should get down an look to see where you want to place the relay and that the wire you have just brought down from the ECU box isn't going to be crossing over any other wires, basically keep it all neat and tidy.

Now that you picked out a spot for your relay and organised the wiring you have to add the new wire into the relay. For this you need a small flat head screw driver in order to lift the pink bit up a nick.

The pink clip of the relay only needs to be raised to the next slot, when these have been lifted this will allow you to put in the new wire with ease, just make sure that the other wires don't fall out. Once you have the new wire in just squeeze the pink bit back into the relay.



Positioning the relay

Now it's time to position the relay. You should have a spot picked out from the empty relay holders to which you want to put your new one.



I choose this one as its where my hand ended up the first time when I tested out my layout. The relay can only go in 2 ways because of its shape, once in if you're not happy with that position you can take it out and move it by placing a flat head screw driver against the clips.

You can now insert the relay into the relay holder. It can only go in one way so don't worry about misplacing it.

Should spend about 5/10 minutes now making sure that your wires are tidy and that everything's secure.

Reinserting the bumper

Now that you have everything wired up you should attach the fogs now to make sure that all the wires are in correctly and that everything's working. You will obviously need to reattach the live (+) of the battery and have the negative wire for the fogs attached.

Bring the piece of the dash over to the light switch lead and connect it up. Turn on the ignition and turn the switch once to the right and pull it out the first click. The switch should have a green light showing and the front fogs lights should now be lit.

If your fogs have not lit, check the connection to the fog's, that you have bulbs in lamps and that there working. Also check that the negative line is secured to the battery.

Finally check the fuses that the scotch clips have been attached to and that the clips are down tight and on the right fuse.

You should pull up slack now from the (facing the car) right side through to the middle and then secure the slack on the left side as well as using the temp sensor in the middle of the radiator to support the middle of the wire.



To remove the side slots of the front bumper, grab it beside the flat piece of plastic (towards the middle) which it should then with a little bit of force come out.



Once both of these are out you should find something to prop up the plastic sump guard. (If you don't have this then skip this bit) as trying to reinsert it when the bumper is secure is near enough impossible.

Remove the fog lights at this point also

Once you completed that you and your partner should lift up the bumper and ensure that both side of the bumper have slid into the two grooves for supporting sides of the bumper. If they don't go in, you can get one side in, make sure that it won't fall off again, and work on the other side then.

You should then screw the bumper back into place and make sure that you can get at your wires.

You can also put in the 4 screws at the top of the bumper and reattach the grill.

To reattach the bonnet pull mechanism simply follow the steps to remove it except work backwards through it.

Inserting the fogs (finally)

To secure the fogs there is 2 ways (possibly more). You could use a bolt and speed clip which save a lot of time securing the fogs, these look like this. You will need six of these along with 6 matching bolts and a spanner to fit the bolts you've bought.



Or you can use a nut, flat head bolt and washer like i have done, simply because i couldn't find any speed clips, but this has made the fogs harder to steal at the same time as the you need 2 tools to remove them.



Once you've the fogs screwed in, plug in the connectors for the fogs test them one more time then put on the new side plastics that have the hole for the fog lights.

Now that the fronts finished its time to tidy up the inside securing any loose wires, reattaching the fuse board if you haven't already done so and plugging everything back in; Diagnostic port, light adjustor, light switch.

Hopefully everything has gone well and now your Passat looks like this.

Good luck and enjoy your new fogs ;)



Problems/Questions, You can email me at brendan_o@hotmail.com