



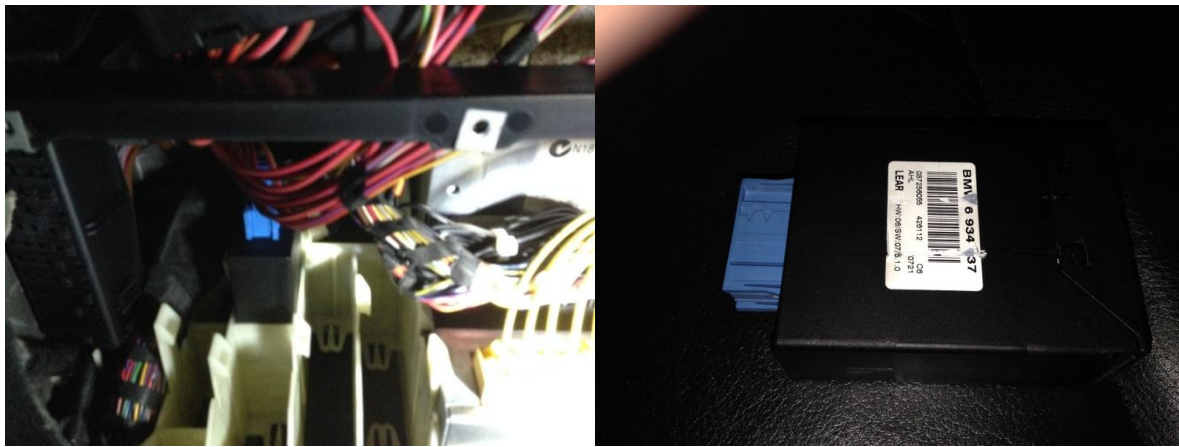
AHL unit removal for pre 03/2005 E61

This document is monitoring my progress of AHL removal and if you decide to follow, you need to understand, you doing it on your own risk and I can't be responsible for your loss or damage.

This was required after changing the LM1 for LM2 in my 09/2004 E61 equipped with Adaptive (Dynamic) Xenon Headlights.

The early E60 are using independent module (AHL) for Adaptive (Dynamic) Xenon Headlights than the car produced after 03/2005.

The module itself is located behind the glove box with 18 PIN blue connector:



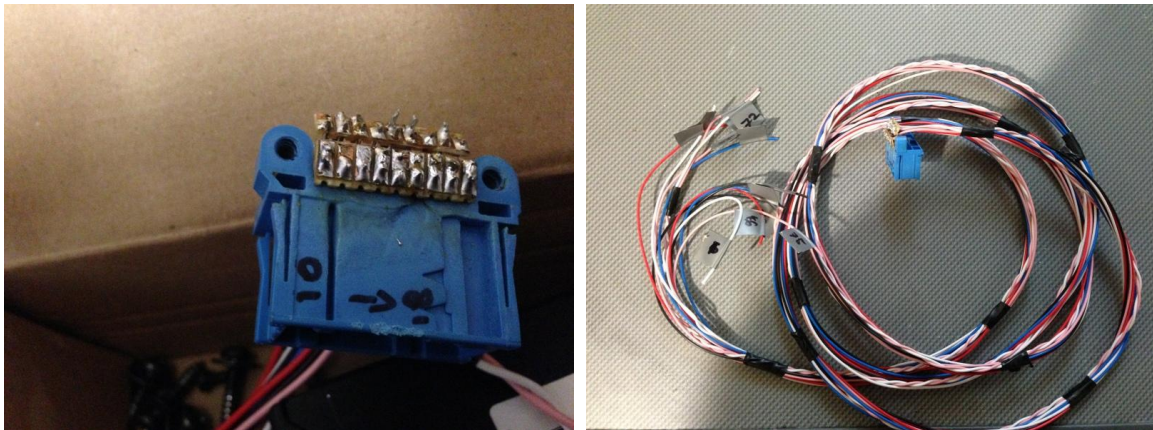
As there are so many DIY how to replace the LM I will not cover that in this document as well as how to take the plastic bits or glove box out.

After the replacement of the LM1 for LM2 you will notice flashing Green LED on the Light switch and not working adaptive headlights, in my case, I had the module faulty even before the LM replacement, than I'm not able to say if you lose only the horizontal or the vertical movements as well.

As my AHL module was faulty, I have de-soldered the connector from the unit and use it:

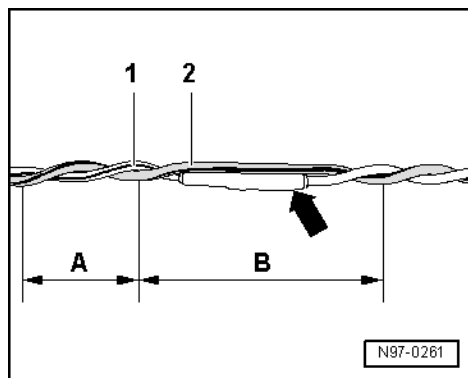


The pins are enough to be used with universal soldering board, but you can solder the new cables directly on the pins:



I have used 12 wires with 0.5mm² (16x0.2) with length about 2.5 meters and I have had about 20 cm left as spare, hidden behind the panel.

There is CANBUS cable as well and I have use drill to twist them, basically you should have one full turn per 5cm (2 inches), but my is probably more than that and I have no problem with communication or CANBUS error:

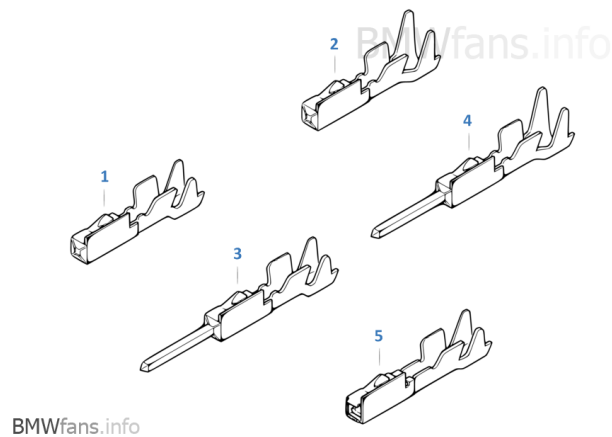


The only important thing with the CANBUS cables is than both of them needs to have same length.

For the pinout (13&14 from AHL connector are the CANBUS mentioned above) :

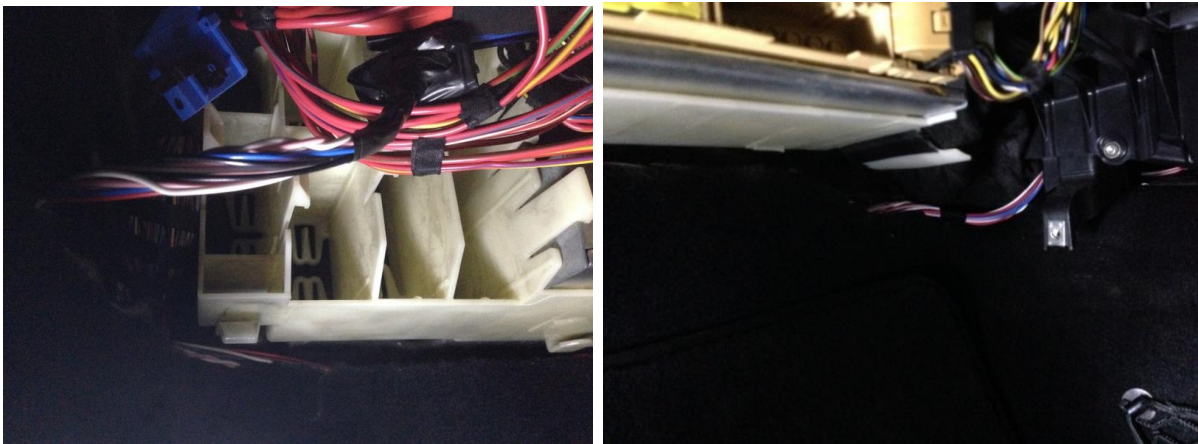
AHL		LM2	
1	10		
2	11	38	
3	12	37	
4	13		71
5	14	27	72
6	15	7	66
7	16		46
8	17	55	76
9	18	54	75

The LM side I have used this part number: 61138369696 (number 1)



I would say this is really important to do the crimping perfectly as the space is really small and you will have troubles to push the pins through the connectors till they click.

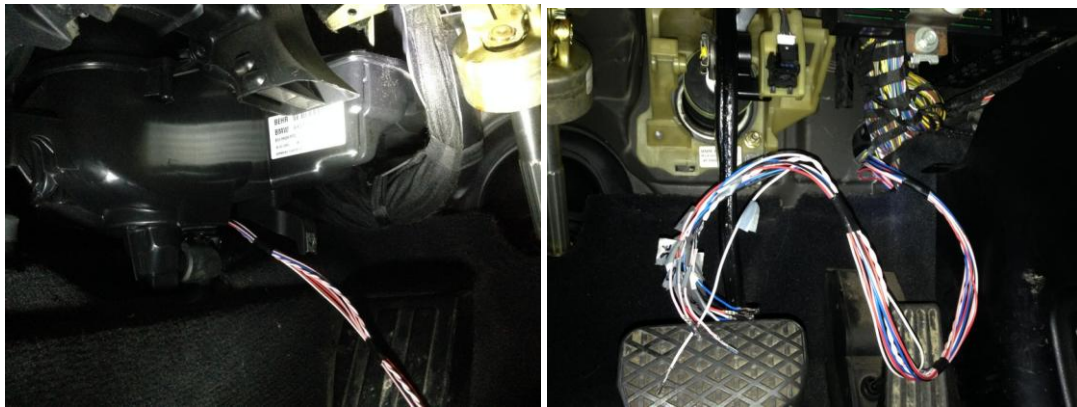
Now you basically need to run the prepared cable from one site to the other, possibly the easiest part:



You can just hide the cable behind the carpet and below the heating – the original cable route is there anyway.

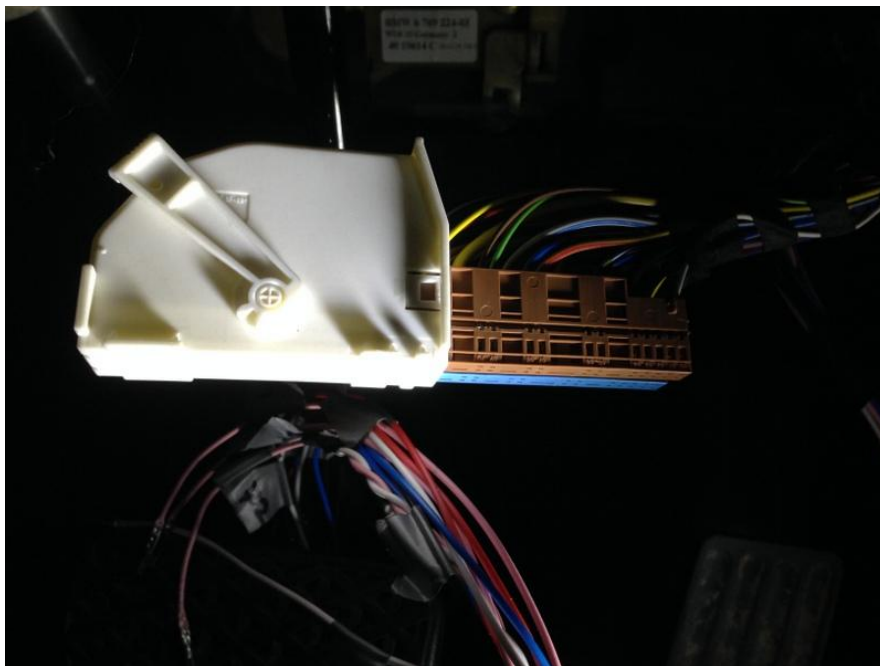
Up to now, it is just provisional solution as I was not sure if this would work, but apart from the tape on the back of the connector I'm going to leave the cable hidden behind the carpet as it is not disturbing at all, just use better fixing under the radiator.

The same is basically on the side of the LM unit:



As mentioned above, I have used about 2.5 meters cable length and I had about 20cm left, which I have hidden behind the panel.

The LM connector is easy to take apart and you will see it is made of 2 separate connectors, each hole is marked – so it is easy to find the proper number – push it through till you hear the click and repeat it 11x:



Last thing you have to do it is to tell your car is not any more looking for the AHL module - change the FA from #0904 to #0305 and use the Expert Profile to code the car to adapt to the new changes.

Turn the lights ON (Auto) and you should see, than the Green LED is steady and your lights are turning again with the steering wheel.