



Installation Instructions Data Display BMW E9X



Preface

Thank you for purchasing the MFD28 for your BMW.

During the development of the product, attention was paid to the highest fitting accuracy and quality. The display has been test-fitted with these installation instructions by several test persons and continuously improved so that you do not have any problems during the conversion.

General information

The display is a very sensitive device. Extreme caution should be exercised. Avoid any strong pressure on the casing or the display itself.

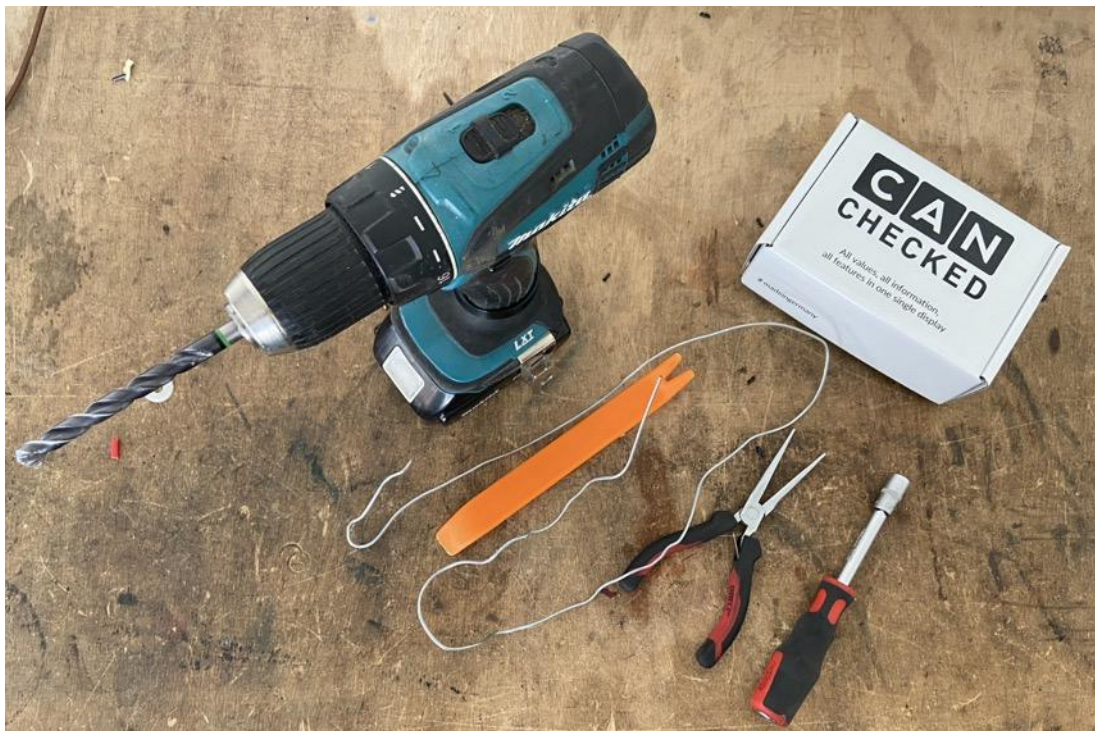
CANchecked accepts no liability whatsoever for this conversion or for any damage caused during the conversion or during operation. The instructions have been prepared to the best of our knowledge and belief.

The conversion time is approx. 1.5h for an experienced mechanic.

To ensure proper function of the display, please make sure that no other third party device is connected to the car's OBD-Port or Can Bus. The only compatible device we are aware of, is the original M-Performance Steering wheel.

Tools needed

- Assembly tool (orange in picture - sold separately)
- 10mm drill bit
- Optional pull-through tool (wire)
- 10mm screw tool or ratchet with 10mm nut
- Torx20 nut for ratchet
- Small flat screwdriver or needle to pin out
- Small file



prelimary

Installation should only be carried out by trained specialist personnel. All work is done at your own risk.

The ignition must be switched off during the work.

disassembly of the fairing

Loosen both screws and remove the cover under the dashboard to expose the connectors:



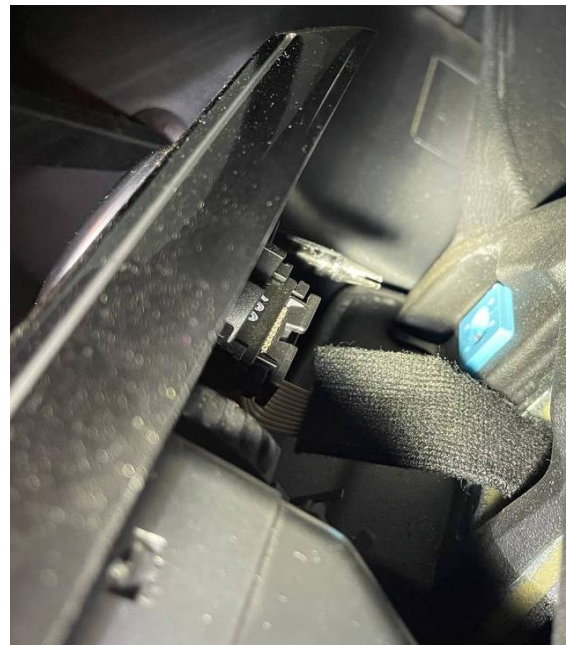
The footwell lighting connector does not necessarily have to be removed, it is sufficient to detach the trim and place it in the footwell.

display mounting

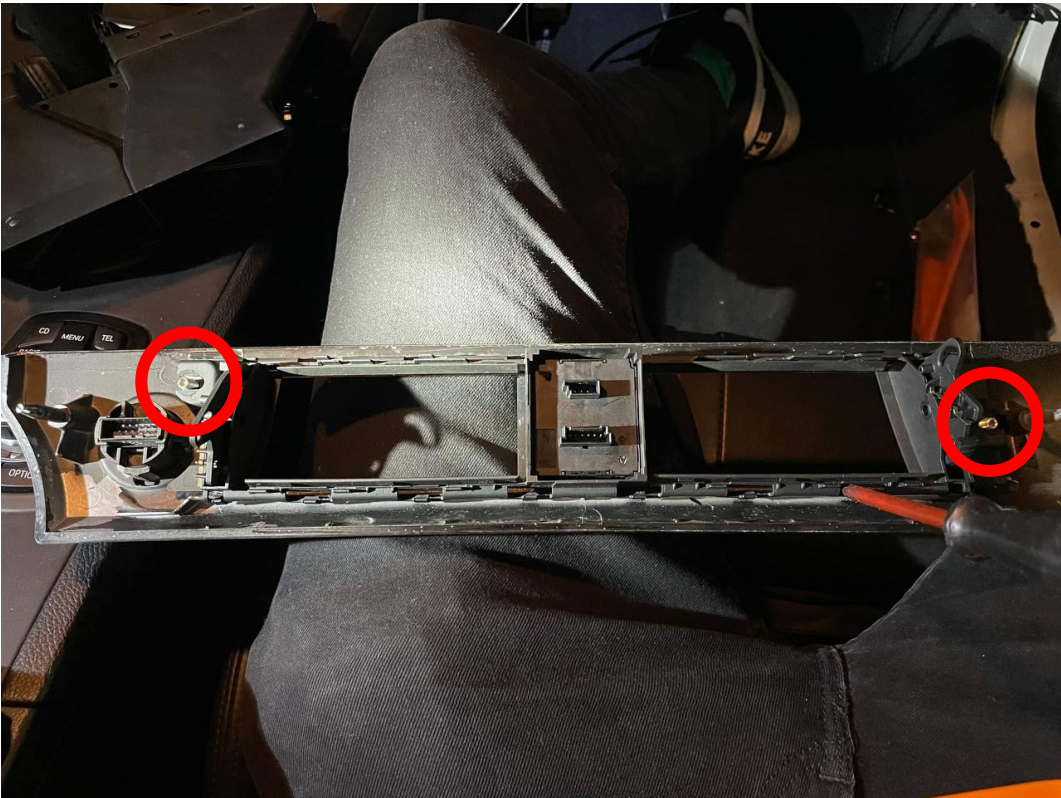
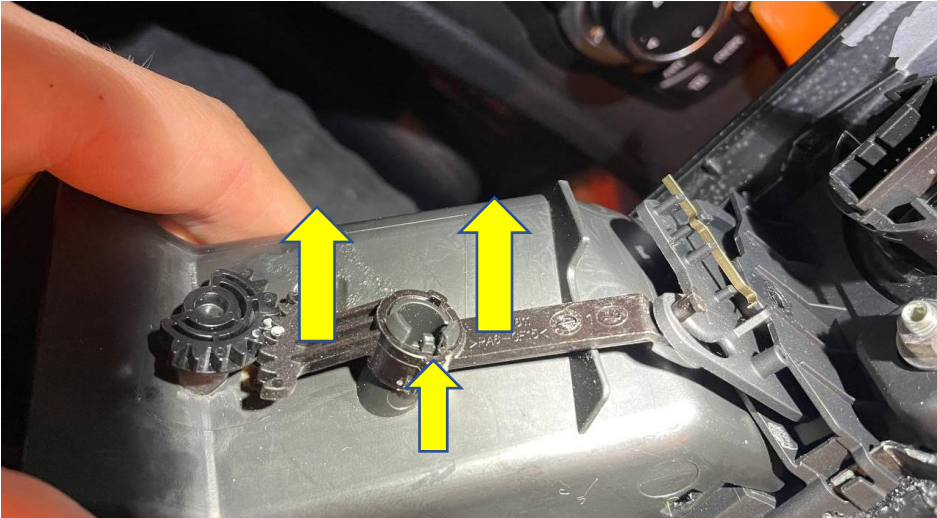
First, carefully lever off the cover. We recommend not using metal, but plastic wedges or plastic tools. Starting from the passenger side, carefully pry in several places so that the retaining lugs pop out:



Once the orifice plate is detached, the connectors between the nozzles and the ribbon cable of the start button must be detached:



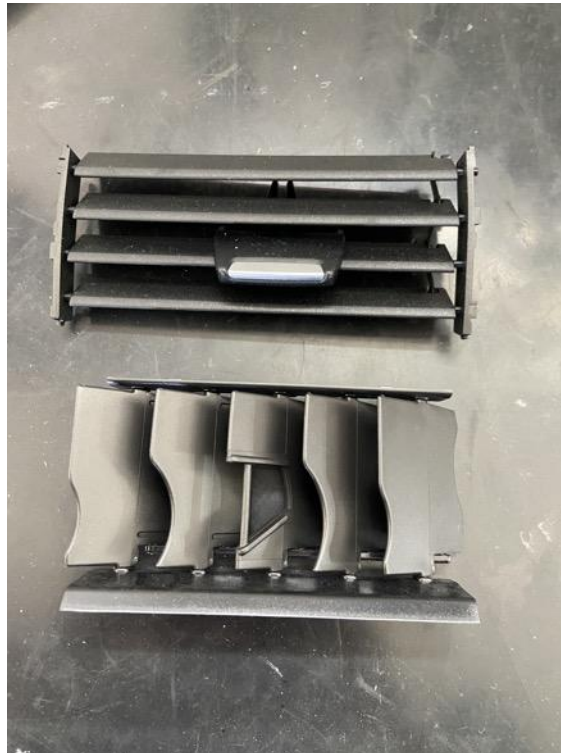
Now the entire panel can be removed and prepared for the installation of the display. To do this, the ventilation outlets must be separated from the front panel. After removing the lever mechanism for adjusting the flaps (yellow), the two nuts (red) must be removed and the panel must be unclipped all around (blue).





Now the slats and the second inner part can be removed from the channel.





Drill two holes next to each other in the underside of the air duct and make them with the file so that the USB cable and the connection cable can be fed through:



Plug the connection cables into the display (Plug A and Plug B), as well as the USB cable and thread it through with the pull-through aid (cable) in the direction of the right footwell.

Please connect the USB cable to the display very carefully. The connection is very fine and can break off under increased pressure.

We hide the USB cable at the lower edge of the centre console. Run your hand between them and insert the USB cable.



Now insert the display into the panel from the front and fix it in place with the hazard warning switch (please ensure that the display is correctly seated in the panel, compare to first picture on page 1).

Now carefully click the air duct back into the panel from the rear and engage all lugs.

Reconnect the previously disconnected plugs to the panel and bring the trim panel roughly into position (do not lock yet, this happens at the end after the function test).

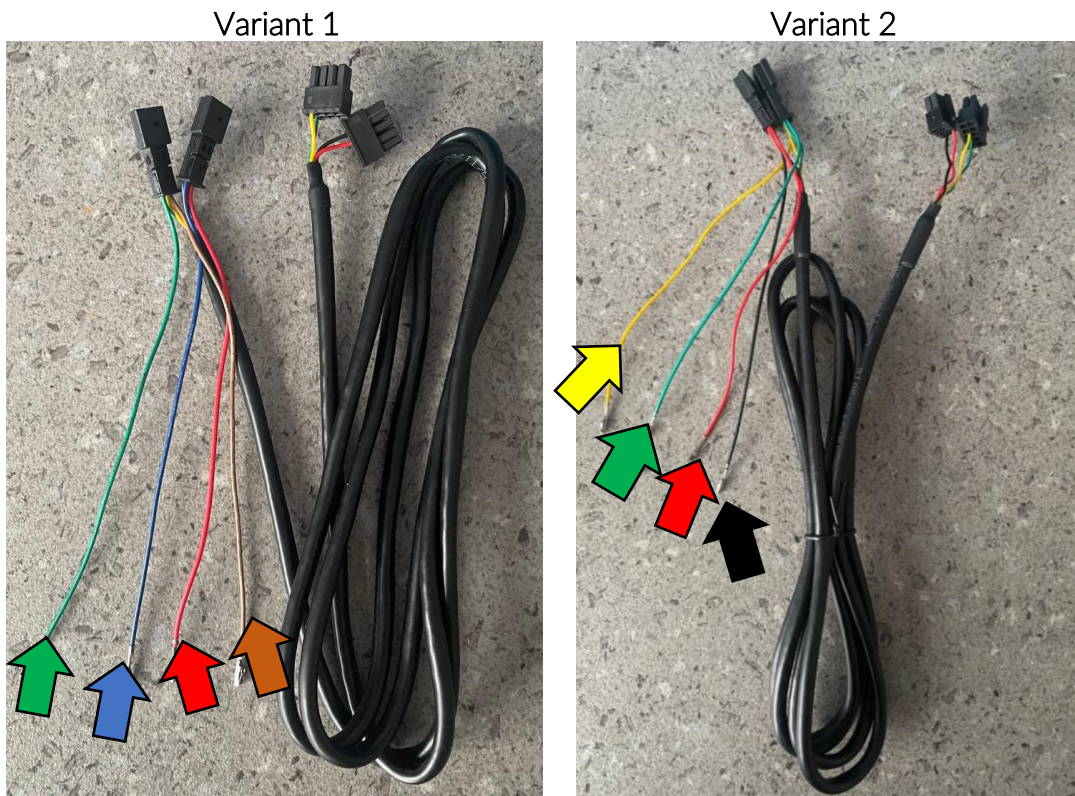
Can Bus connection

Please note that there are **two different versions** of the CANchecked harnesses. Accordingly, the colors of the harness you have may not match the colors of the pictures in this manual. Nevertheless, you can use both harnesses for your vehicle.

To determine which version you have, you only need to measure the total length (connector to connector without loose cable ends) of your harness. **Variant 1** is about **165 cm** long, **variant 2** has a total length of about **190 cm**.

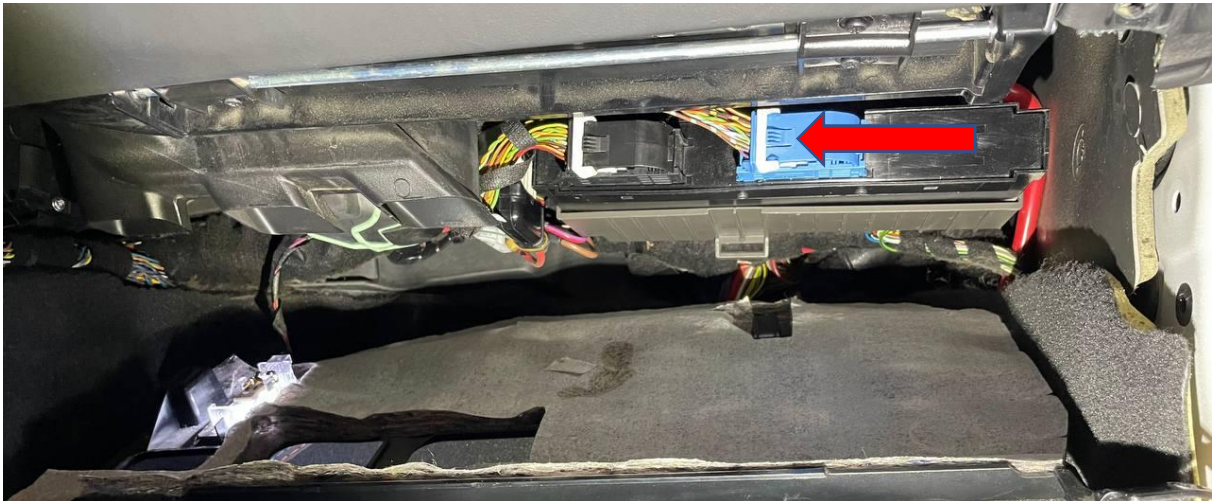
If you are still not sure which variant you have, you can have a look at the colors of the **loose cable ends** (see the arrows on the graphics). You can recognize **variant 1** by the **brown** cable end, **variant 2** by the **yellow** cable end.

Colour		
Car	Variant 1	Variant 2
12V	Green	Red
Ground	Brown	Black
Can High	Blue	Green
Can Low	Red	Yellow

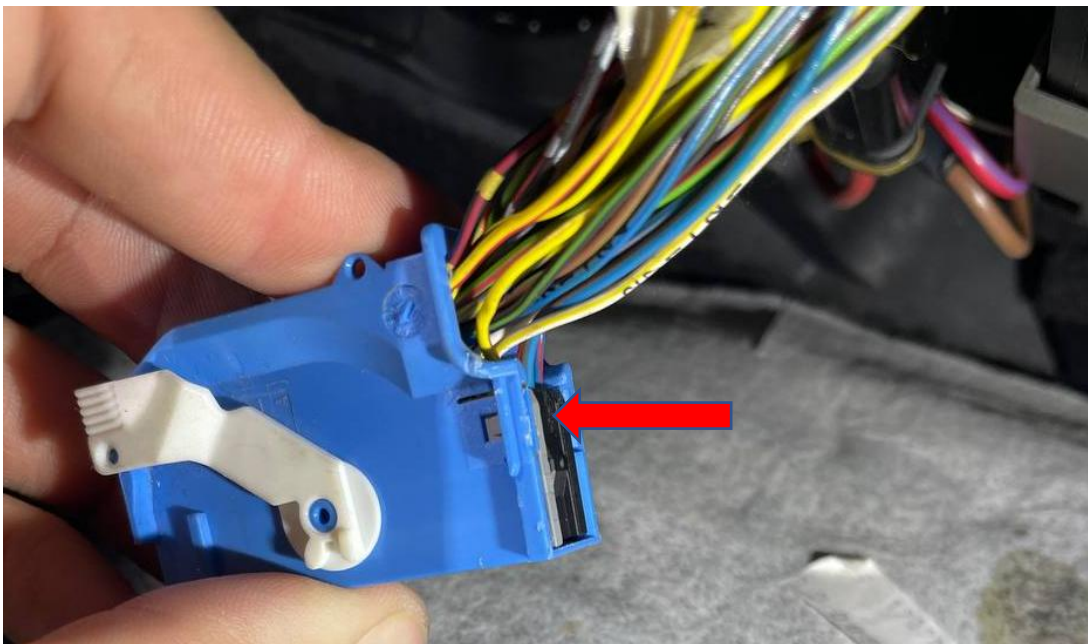


Please identify in advance which variant you have based on the cable colors of your CANchecked harness to avoid errors during further connection.

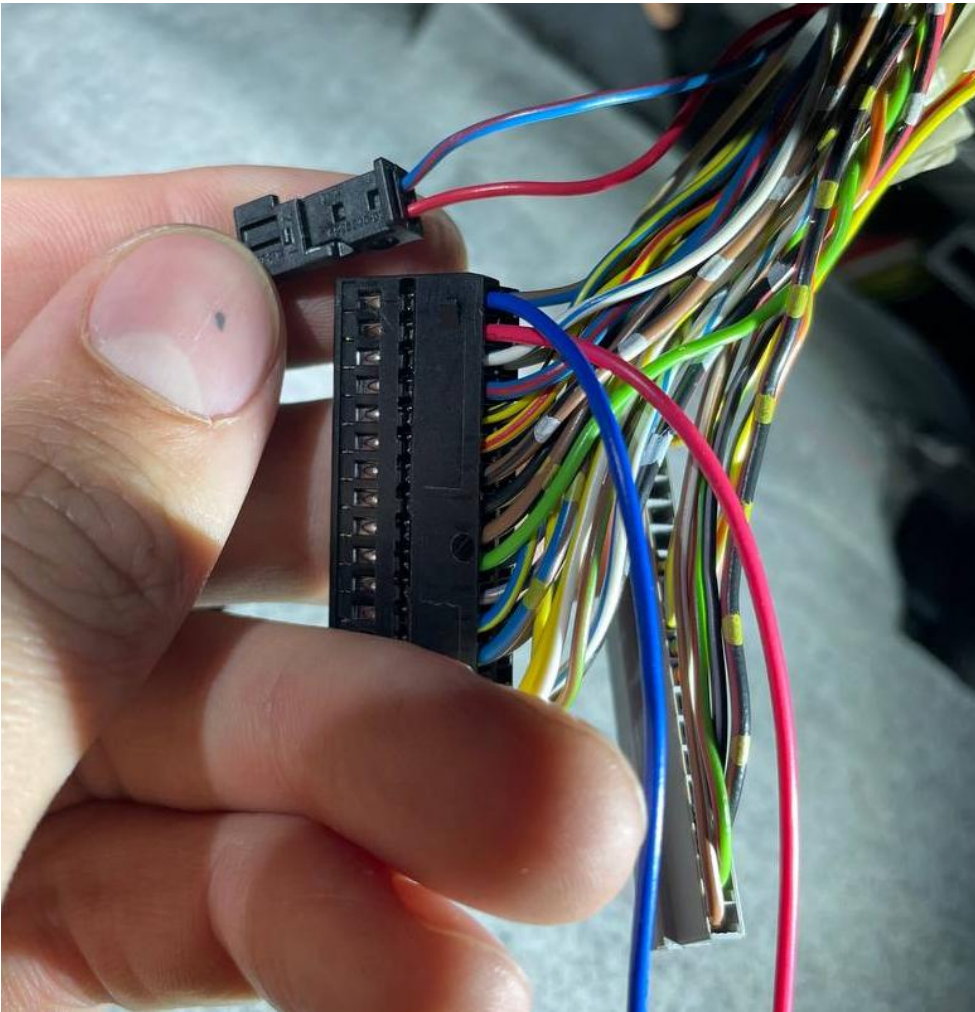
The right of the two plugs (blue) must now be unplugged. The retaining clip is held in place by a small catch. Press down the lug and fold the bracket over, then pull out the plug.



To pull out the insert, the connector housing must be bent apart slightly on both sides so that the marked retaining lugs snap out:



We need pin 1 (blue/red - Can High) and pin 2 (red - Can Low). The pin is hooked on the lower arrow. Press the anchorage and carefully pull out the pin by the cable. Sometimes the pin gets stuck on the second arrow - then unlock it there again:



The original pins are plugged into the supplied two-way connector and connected to the CANchecked harness and the loose ends of the CANchecked harness are plugged into the black BMW connector.

For **variant 1** so that the opposite color of the cable is the same: red/blue to blue and red to red.

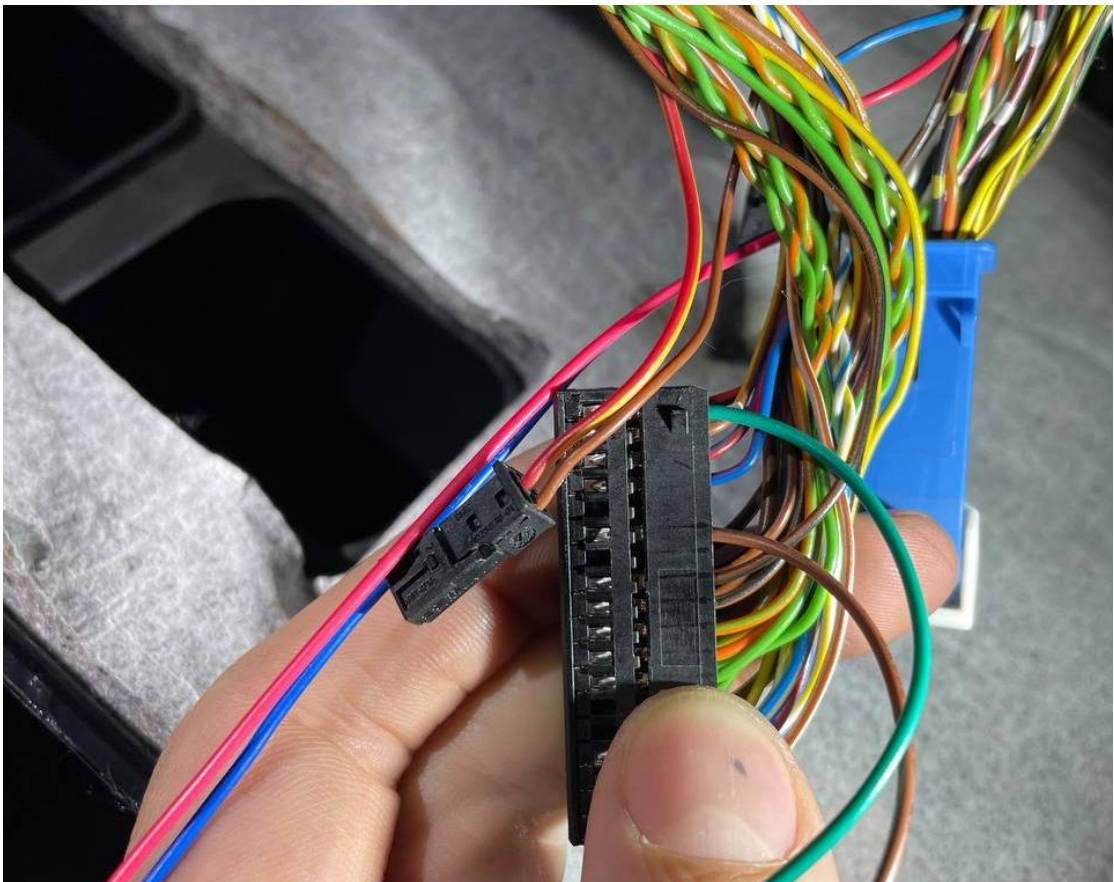
For **variant 2** so that red/blue from the vehicle's own wiring harness leads to green (Can High) from the CANchecked wiring harness and red from the vehicle's own wiring harness leads to yellow (Can Low) from the CANchecked wiring harness.

Now the pins can be plugged back into the blue connector, and this can be plugged back into the control unit.

Power supply connection

Continue with the large black connector. The procedure here is identical to the blue connector, only pins 1 and 6 are used.

If your vehicle does not have a navigation system, pin 1 is not used and the 12V pigtail of the CANchecked harness is pinned directly into the empty slot.

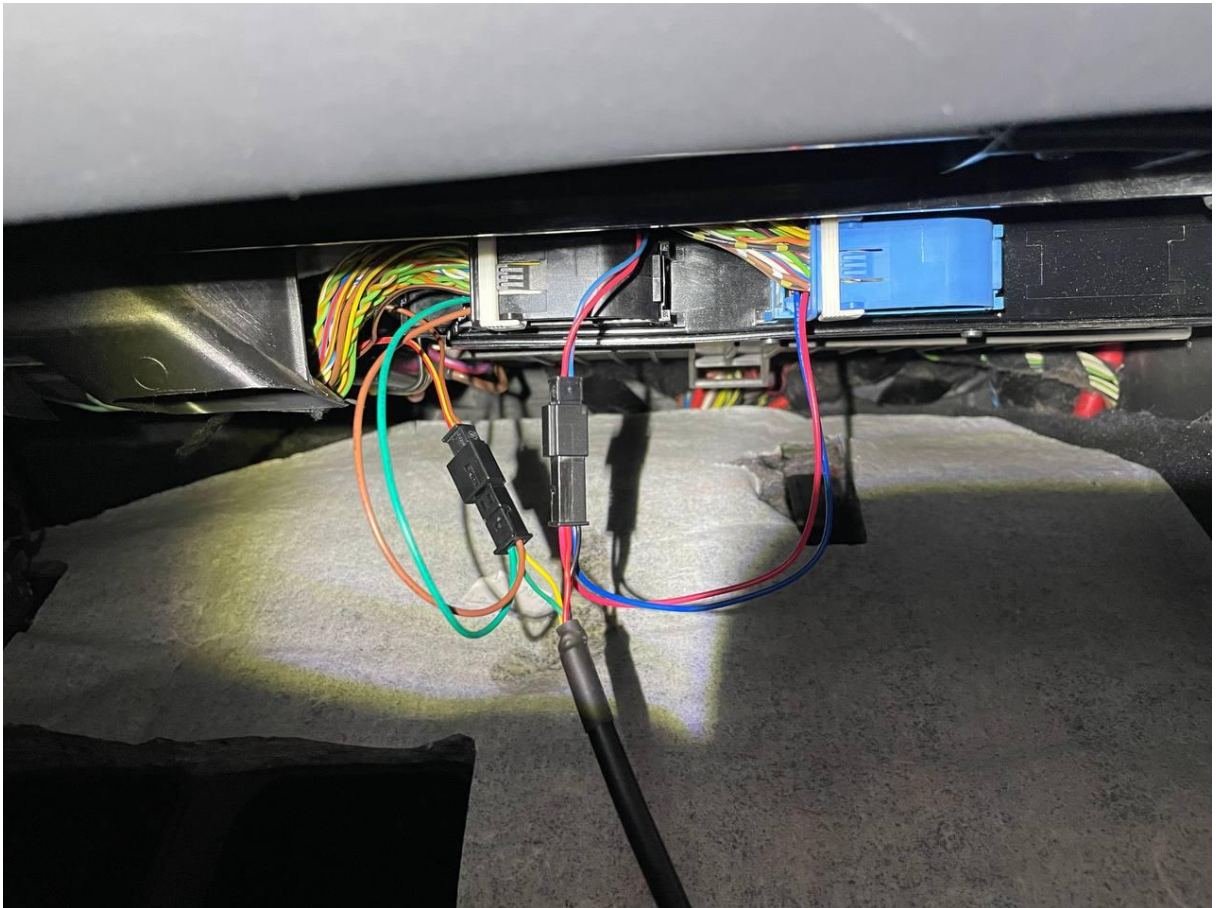


The original pins are plugged into the supplied two-way connector and connected to the CANchecked harness and the loose ends of the CANchecked harness are plugged into the black BMW connector. As with the connection of the Can bus, the variant of the cable harness supplied must also be considered here.

For **variant 1**: brown to brown and green to yellow/red.

For **variant 2**: black to brown and red to yellow/red.

Now the large black plug can also be plugged back into the control unit and the small black plugs can also be connected. This should look like the following picture:



Before finalising the assembly, the display can be checked at this point for proper connection. If it starts correctly and the Can communication is given, the cover can be finally clipped in and the lining of the footwell can be screwed on again.

Conclusion

We hope you have as much fun with your CANchecked display as we do. If you have any questions, you are welcome to contact us via the ticket system (<https://www.canchecked.de/ticket>) and discuss your concerns with us.

We have also created a group for the community on Facebook, where you can exchange ideas with other users and find the solution to one or the other question:

<https://www.facebook.com/groups/CANchecked/>