



Installation Instructions

Data display BMW

F22/F23+F30/31+

F32/F33+F80/F82/F87

Preface

Thank you for purchasing the MFD28 for your BMW.

During the development of the product, we paid high attention to accuracy and quality. With these installation instructions, the display was trial-assembled by several test persons and continuously improved, so that you do not have any problems during the installation.



General information

The display unit is a very sensitive device. One should act with extreme caution and avoid any pressure on the housing or the display itself.

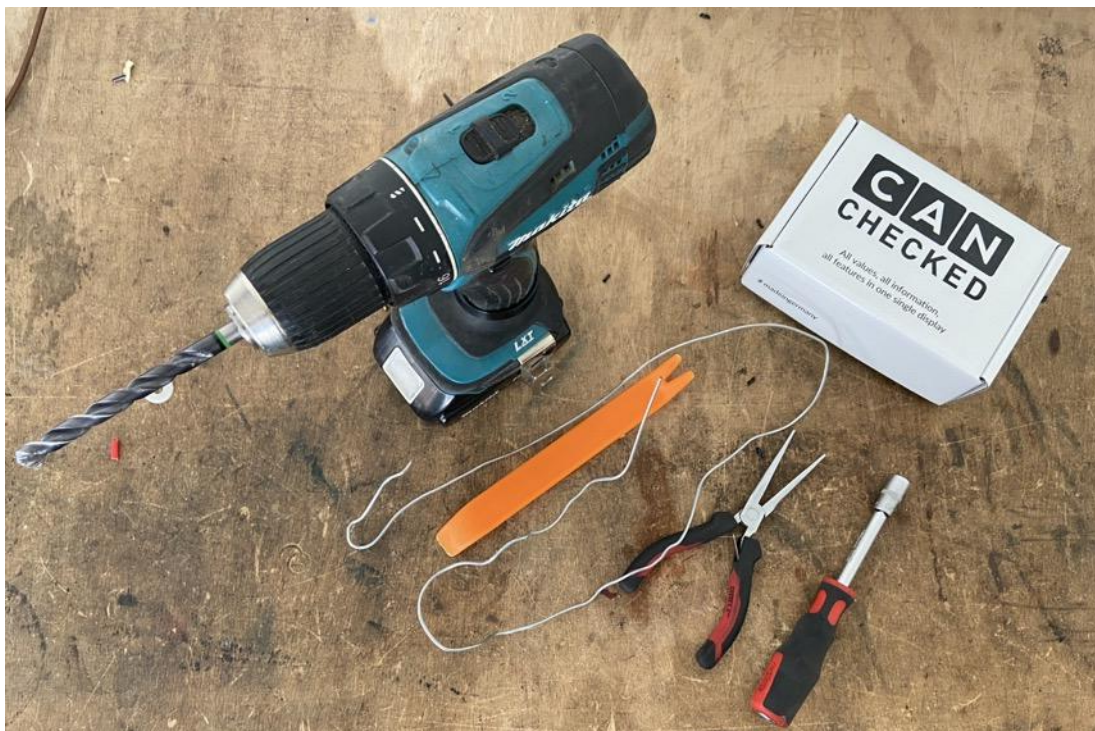
CANchecked assumes no liability for this conversion or for damage during the conversion or operation. The instructions were created to the best of our knowledge and belief.

The conversion time is approx. 1.5 hours for an experienced car enthusiast.

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.

Needed tools

- Assembly tool (orange in the picture – separately available)
- 12mm drill
- Pull-through aid (wire)
- 10mm screwing tool or ratchet with 10mm socket
- Torx20 nut for ratchet
- Small flat screwdriver or needle to pin out



In advance

The installation should only be carried out by trained specialists. All work is done at your own risk.

The ignition must be switched off during work.

Disassembly of the cladding

Loosen both screws and remove the cover under the dashboard



The plug for the footwell lighting needs to be unplugged as well:



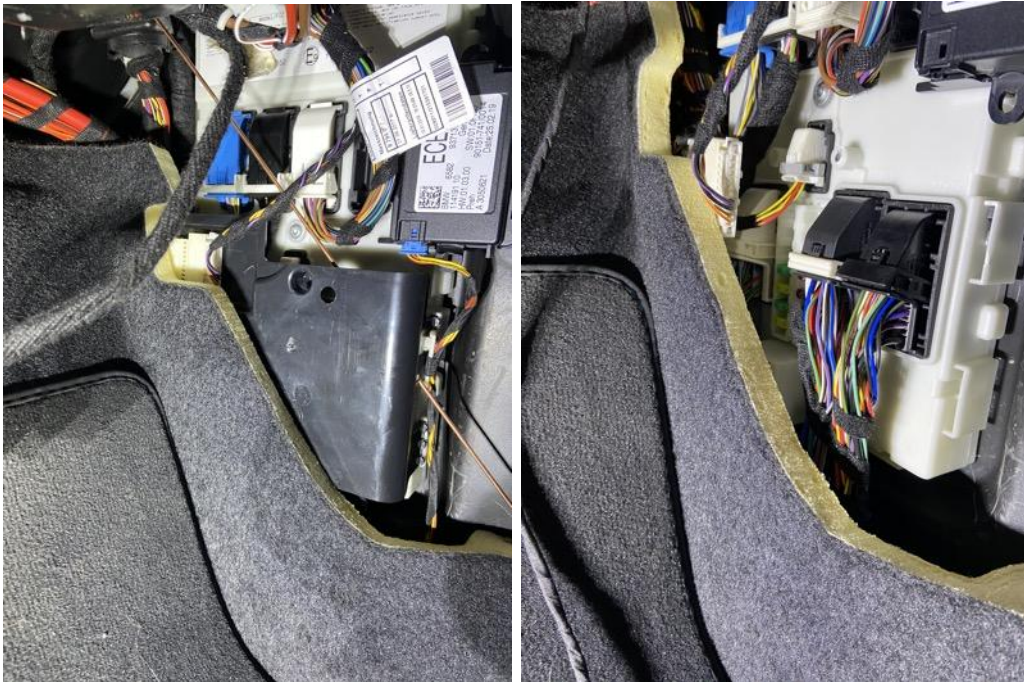
Lift the rocker panel on the front passenger side. Run your hand underneath and pull away upwards. Only so high that the side paneling can be removed:



Now pull off the lower side panel towards the center of the vehicle. This is held by three clips:



Unscrew the cover of the electronics with the Torx20 tool:



Display installation

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



When the cover is folded away, unplug the connector(s):



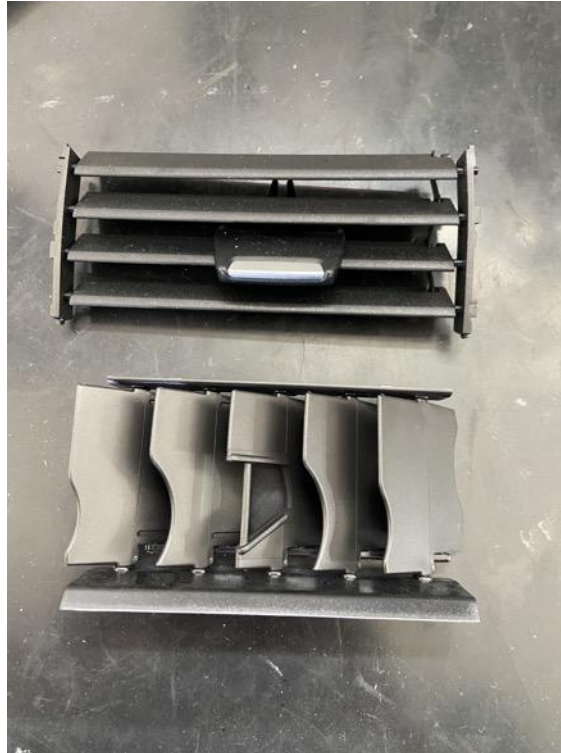
Separate the ventilation nozzles from the front panel:



Now you can remove the flaps from the ventilation duct at the front:



Push the air ducts apart a little at the top and bottom and remove the second inner part:



Drill a hole in the underside of the air duct where the USB cable and the connection cable can be passed through:



Plug in the connection cable to the display (Plug A and Plug B), as well as the USB cable and pull through with the pull-through aid (cable) towards the right footwell.

Please connect the USB cable to the display very carefully. The connector is very fine and can break off you apply too much pressure.

We hide the USB cable at the lower edge of the center console. Move your hand in between and slide in the USB cable.



The connectors on the display are already pinned in. Simply plug this in and click the display into the original position of the air vent:



Now carefully click the air duct back into place at the front of the panel and snap all lugs into place.

Also reconnect the previously disconnected plugs to the air duct.

At the end, snap the decorative panel back into place with the palm of your hand.

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. **Variante 1** is about **165 cm** long, **variant 2** has a total length of about **190 cm**.

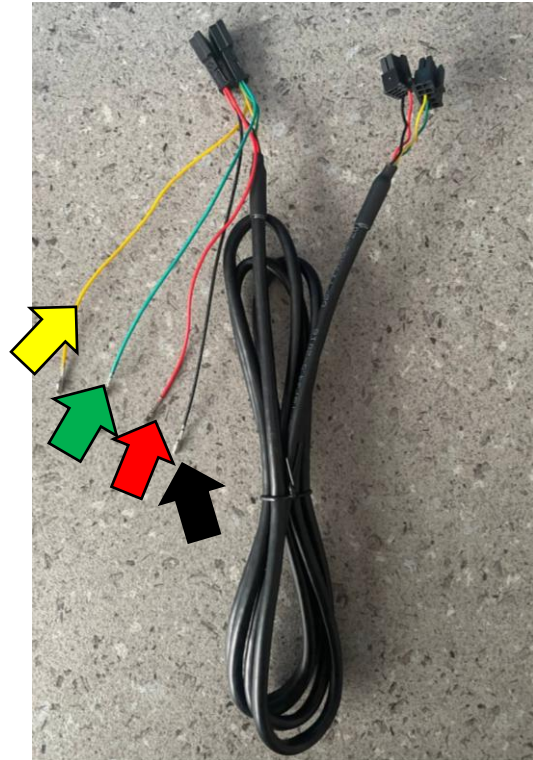
If you are still not sure which variant you have, you can have a look at the colors of the **loose cable ends** (see the arrows on the graphics). You can recognize **variant 1** by the **brown** cable end, **variant 2** by the **yellow** cable end.

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

Variant 1

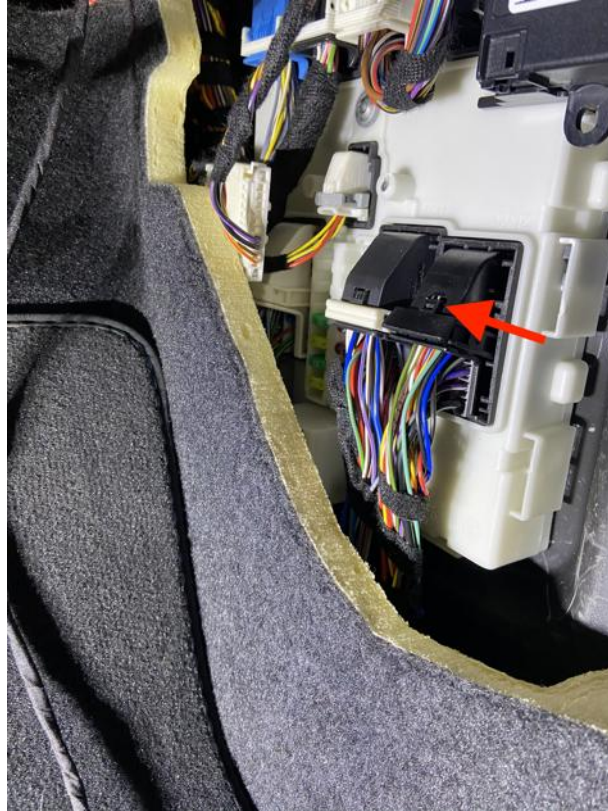


Variant 2

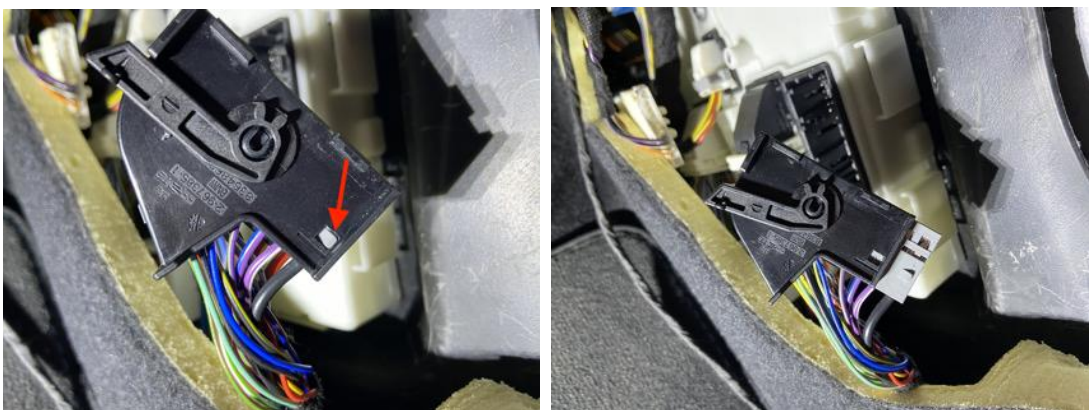


Please identify in advance which variant you have based on the cable colors of your CANchecked harness to avoid errors during further connection.

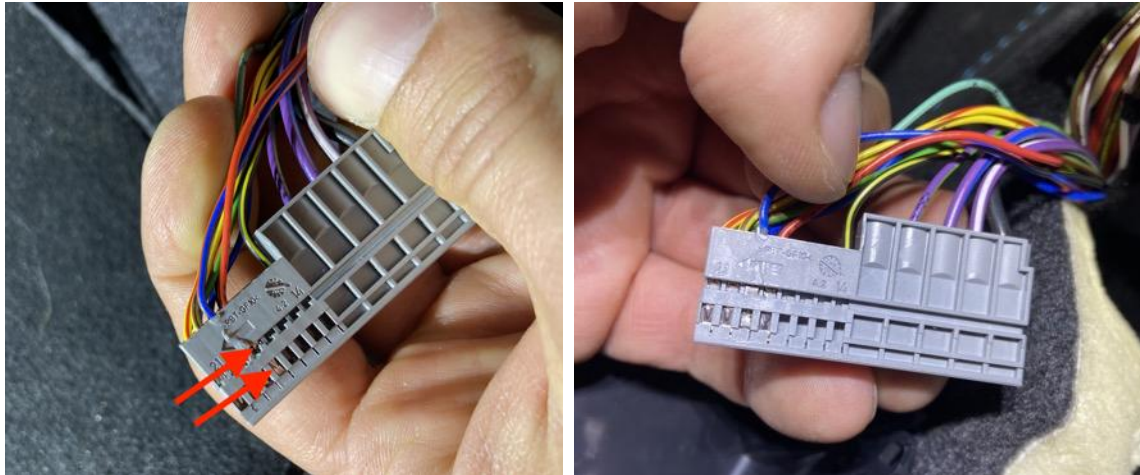
The right hand one of the two plugs (black bracket) needs to be unplugged. The retaining bracket is held in place by a small detent. Press down on the nose and fold over the bracket, then pull out the plug.



To pull out the gray insert, the connector housing needs to be bent apart slightly so that the marked retaining lugs snap out:



We need pin 18 (red - can low) and pin 19 (blue/red - can high). The pin is secured at the lower arrow. Press the anchorage and carefully pull out the pin on the cable. Sometimes the pin gets stuck on the second arrow - then unlock it again:

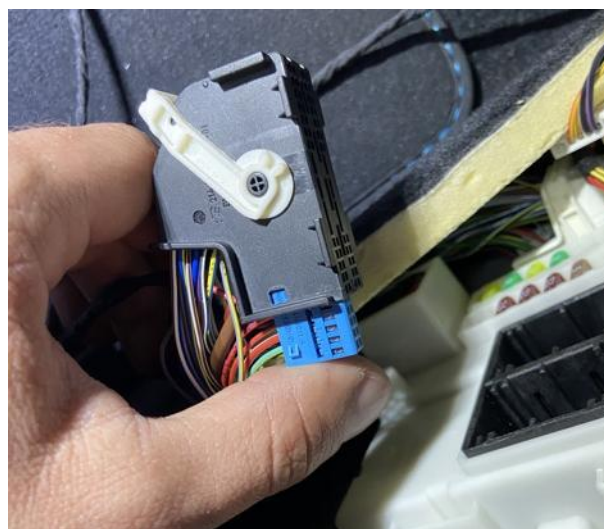


The original pins are plugged into the supplied two-way connector and connected to the CANchecked harness and the loose ends of the CANchecked harness are plugged into the gray BMW connector.

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

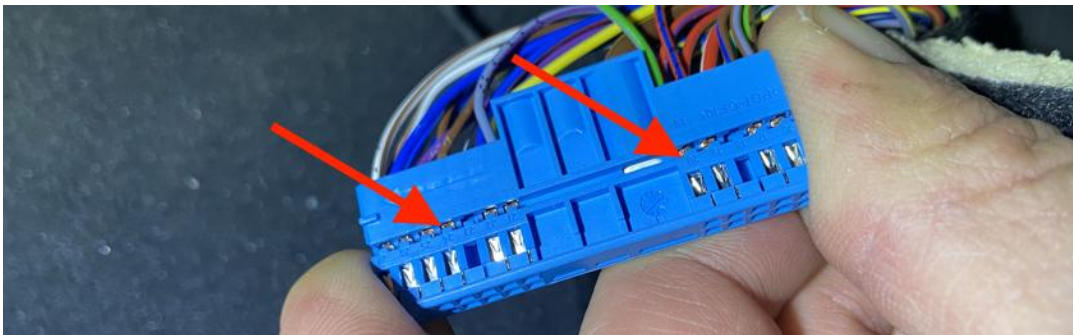
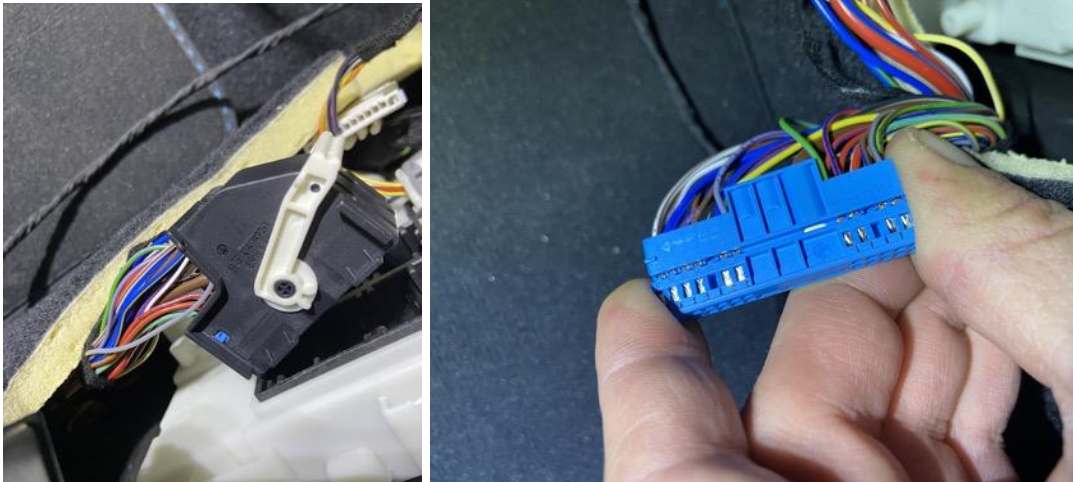
For **variant 2** so that red/blue from the vehicle's own wiring harness leads to green (Can High) from the CANchecked wiring harness and red from the vehicle's own wiring harness leads to yellow (Can Low) from the CANchecked wiring harness.

Then push the connector back together:



Connection power supply

To do this, unplug the second plug with the white bracket and pull out the blue inner plug:



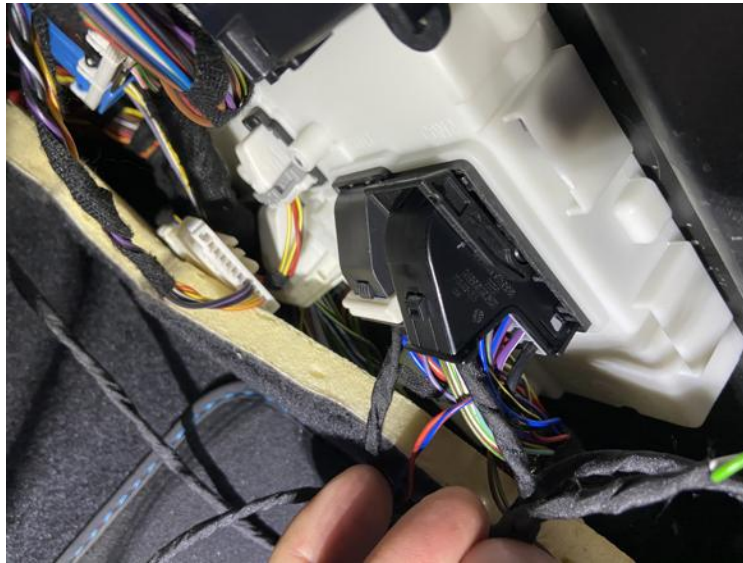
We need pin 20 (gray/green - 12V) and pin 24 (brown - ground). Remove both just like the Can Bus pins.

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 blue BMW connector. As with the connection of the Can Bus, the variant of the supplied wiring harness must also be considered here.

For **variant 1**: Brown to brown and green to gray/green.

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

Plug back both plugs again into the central electric unit:



The cover can be reassembled and screwed tight.



Clip the side cover back in (pay attention to the positions of the clips). Reconnect the footwell lighting to the lower dashboard cover, attach it and fasten it with the two screws. At the end, click the rocker panel back in place.

Finally

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/>