



Installation Guide Audi 80 B4 MFA28

Preface

Thank you, for purchasing the “MFA28” to install in a Audi 80 B4 instrument cluster. Now high tech is entering your car.

During development, we put high effort into fitting accuracy and quality. The MFA has been tested and test fitted by several people and will be steady improved, so you will have no problems during the modification of your instrument cluster.

Despite our great care and tests it can happen that unpredictable difficulties or problems may occur. This may occur due to many different versions of instrument panels, which cannot be considered upfront. On the other hand, a very limited space is available for our MFA28. So please apologize these factors.

Required Tools

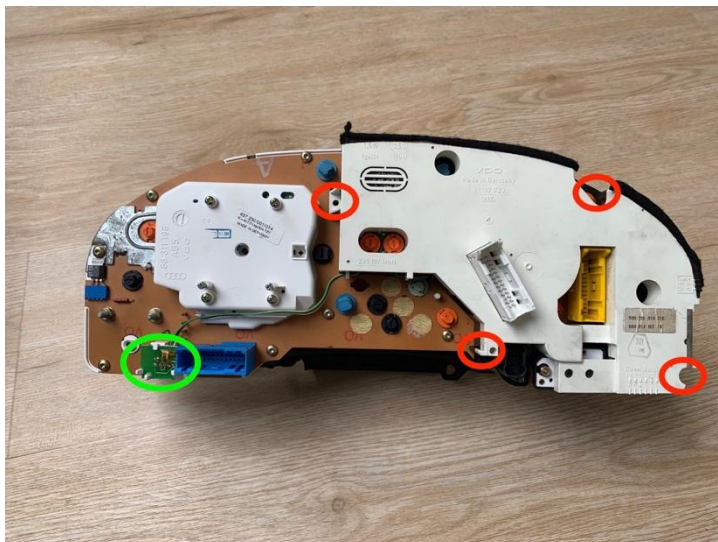
- Phillips screwdriver small
- MicroUSB cable (for updates and powering the display on your desk)
- SD card reader (optional)

Advices

The retrofit set is a very sensitive electronical device. Please use an antistatic mat and wrist band to avoid any damage to the device itself. Avoid high pressure to the device especially the screen. This may lead to defects or faults in displaying your data. CANchecked does not assume any liability for this modification or any damage during modification or during operation. This installation guide has been put together with the best of our knowledge and belief.

The product makes use of a touchscreen. Because it will be covered by your tach, this cannot be used anymore. All setup processes need to take place **BEFORE** you mount the MFA28 into your tach.

Installation

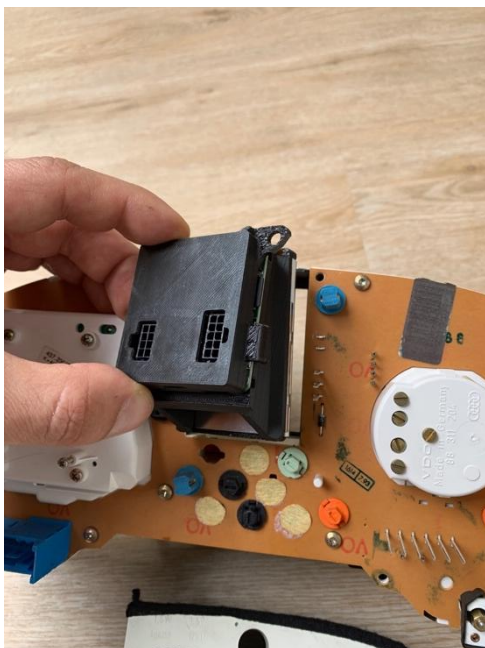


- remove 4x phillips screws (red)
- click off the green PCB (green circle)
- pull module of the cluster

- take MFA28 module



- slide in MFA28



- secure MFA28 with two OE screws
- remove the light bulb for the left indicator to make mounting easier

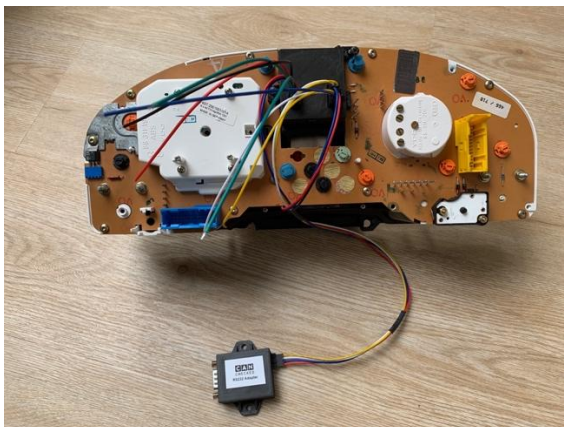


Installation of shift light (optional)



- remove the OE outside temperature gauge
- use the OE screws to secure the shift light module

Installation of serial converter for e.g. VEMS ECU (optional)



- the adapter comes with open leads. Please connect to the following display ports:
- red: 5V
- black: GROUND
- white: RX1 (B6)
- yellow: TX1 (B1)

(see chapter "Electrical Connection")

MFA lever connection (optional but recommended)

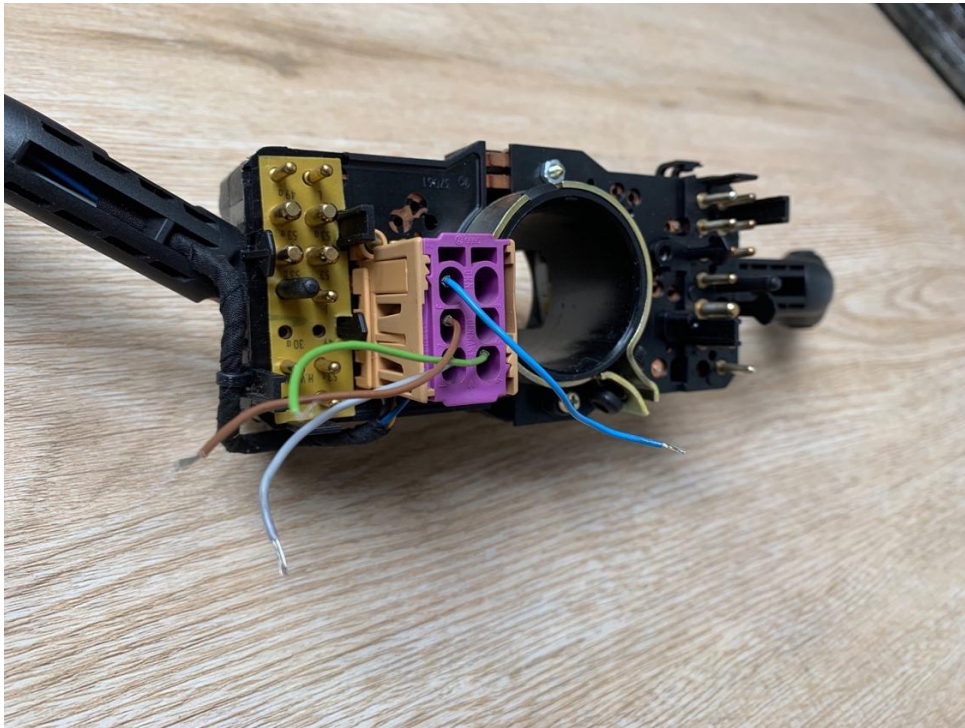
Because of the touchscreen, you need external triggers to switch screens. Here we can use the original lever. We have 3 buttons: up, down, reset. Currently three functions are implemented. It's up to you whether to use them or not:

- 1) change screen (up or down button)
- 2) dim background and shift light (for night use) (reset button)
- 3) start display logging to the internal SD card

The following section refers to Gen1 devices. For Gen2 devices, please refer to the MFD2832 Gen2 manual (<https://www.canchecked.de/manuals/>), section 9.5.6 on connection.

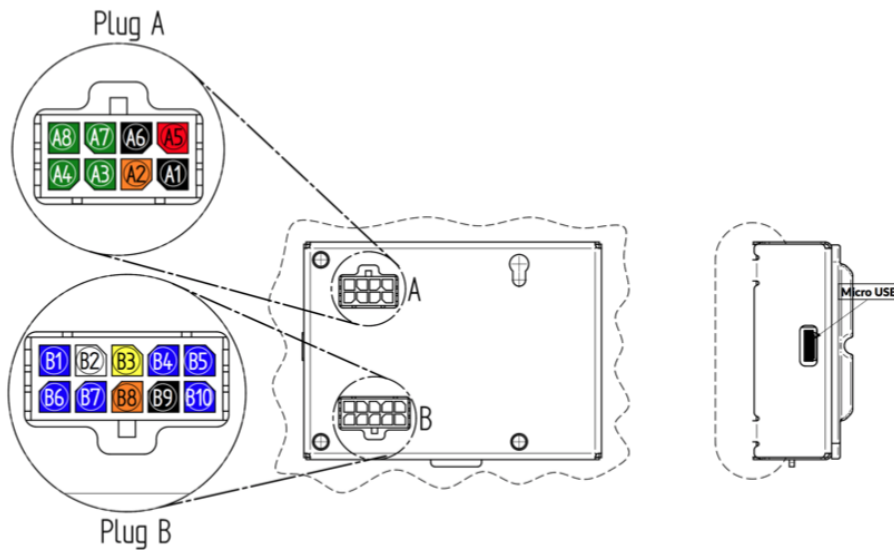
Gen1: Connect the brown wire to your display ground (A6 or B9), blue (reset) to display RX2 (B1), green to TX2 (B6) and grey to one of AIN1-4 or RX (B5) or TX (B10).

These inputs need to be mapped in the display. Please connect the display to USB. Tap the screen once and go to "Menu" => "TRI File" => "Sensor Init" and assign the selected inputs to "Page Switch", "Brightness" and "Start logging". Afterwards restart the display. Please dim both background and shift light, so it is acceptable for night drives (test in dark room/garage). When you hit the brightness button both units will be dimmed to your pre-set value and with a second press they will go to full brightness.



Electrical connection

Please follow the quick start guide, which is included with your display or can also be found on our homepage under downloads: www.canchecked.de/downloads



Plug A: Molex 43025-0800 Plug B: Molex 43025-1000 Crimp: 43030-0001

PLUG	A1	A2	A3	A4	A5	A6	A7	A8
A	GND	5V	AIN4	AIN3	12V	SGND	AIN2	AIN1

** future Application*

PLUG	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10
B	RX2*	CANH	CANL	SHIFT	RX	TX2*	LOWSIDE	5V	OGND	TX

SGND = sensor ground / OGND = ground for add-ons (shift light, serial adapter)

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/>