

Cluster Gauge upgrade For BMW E30 (early model)

I) Presentation :

Ideal for personalizing your BMW and keeping its original style. This kit brings performance and reliability to your vehicle.



The kit contains of the following parts: 1 integrated control unit, 1 temperature sensor, 1 pressure sensor, 2 wiring, instructions and various supplies.

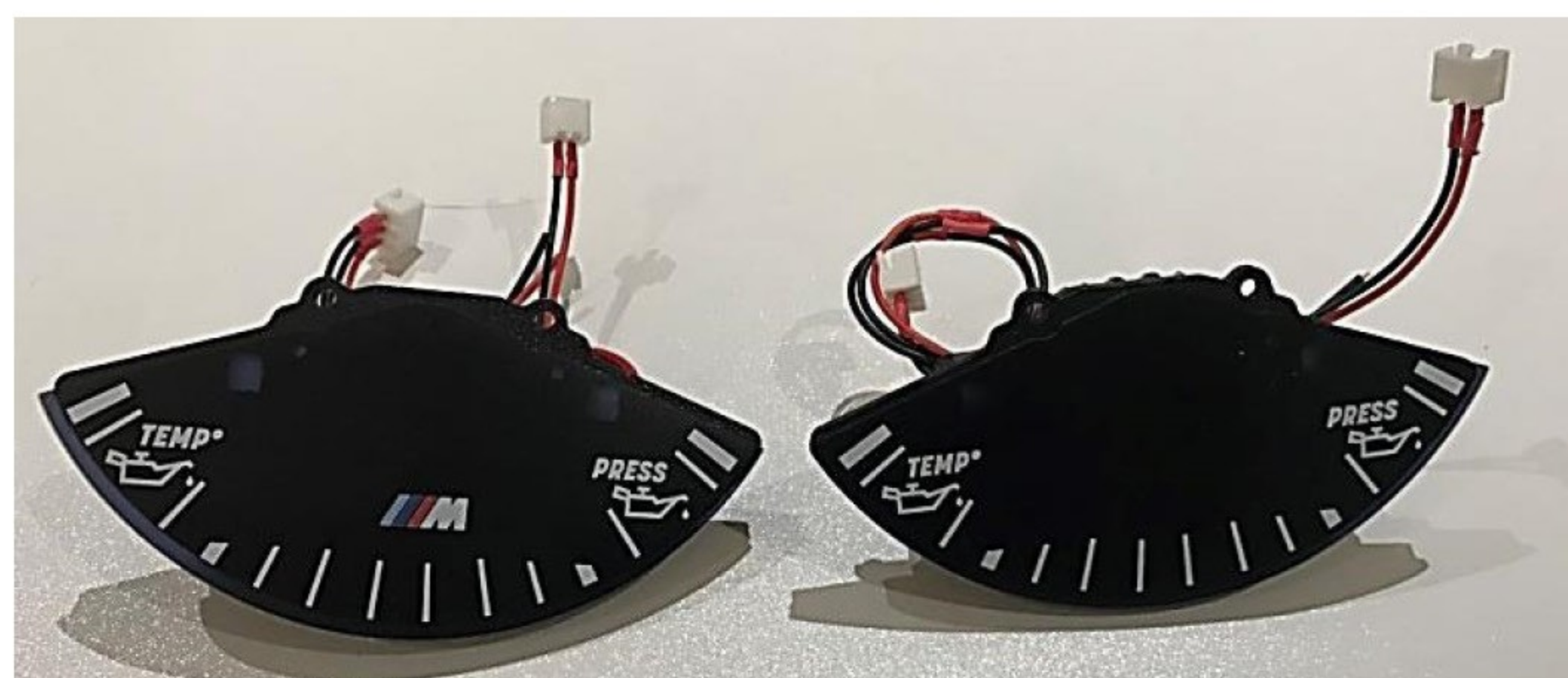
Advantages :

- OEM look of the eco-meter
- Simple and fast installation
- Digital Display
- Temp accuracy +/- 1°celsius
- Pressure accuracy à +/- 0,1 bar

The unit displays the following :

- Oil engine Temp with a range of -9 à +150° Celsius (sensor M12x1.5)
- Oil engine Pressure with a range of 0.0 à 9.9 bars (relative values) Sonde 1/8 NPT

« M version »

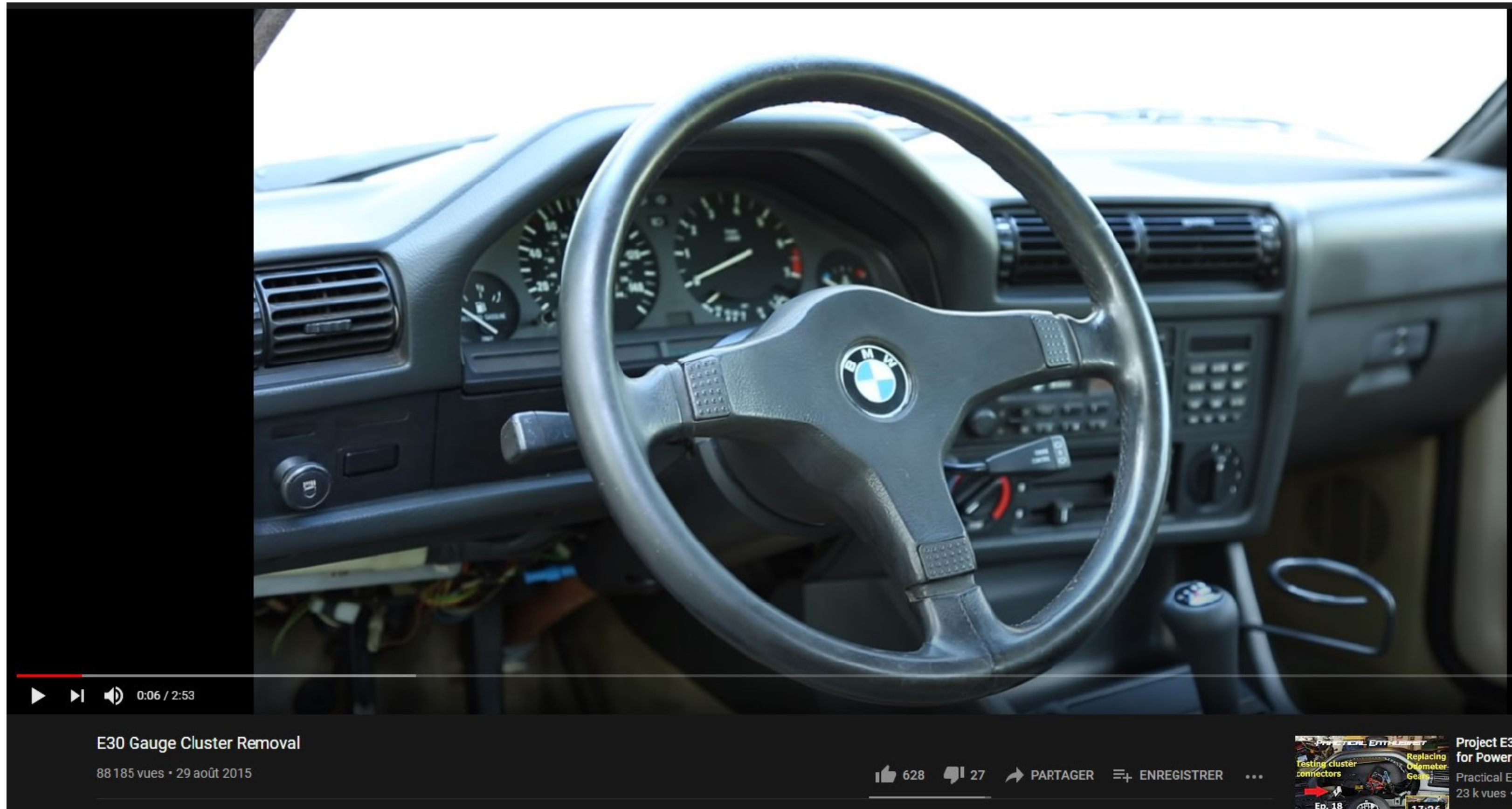


Standard version

II) Installation :

Step 1 :

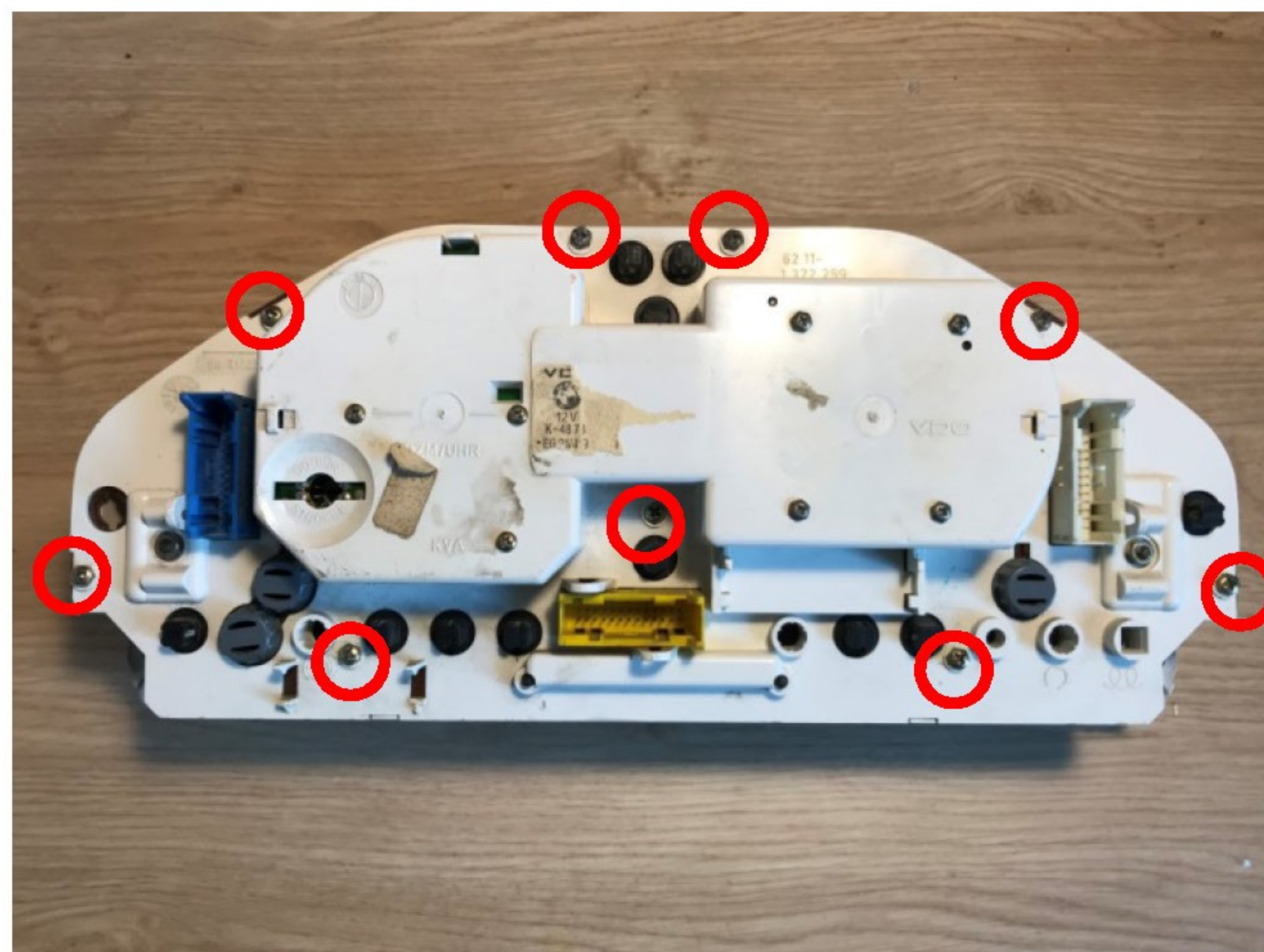
Remove the cover under the steering wheel of your BMW. Remove your cluster. If you don't know how, follow this tutorial on YouTube:



<https://www.youtube.com/watch?v=Og0mN9NLI6s>

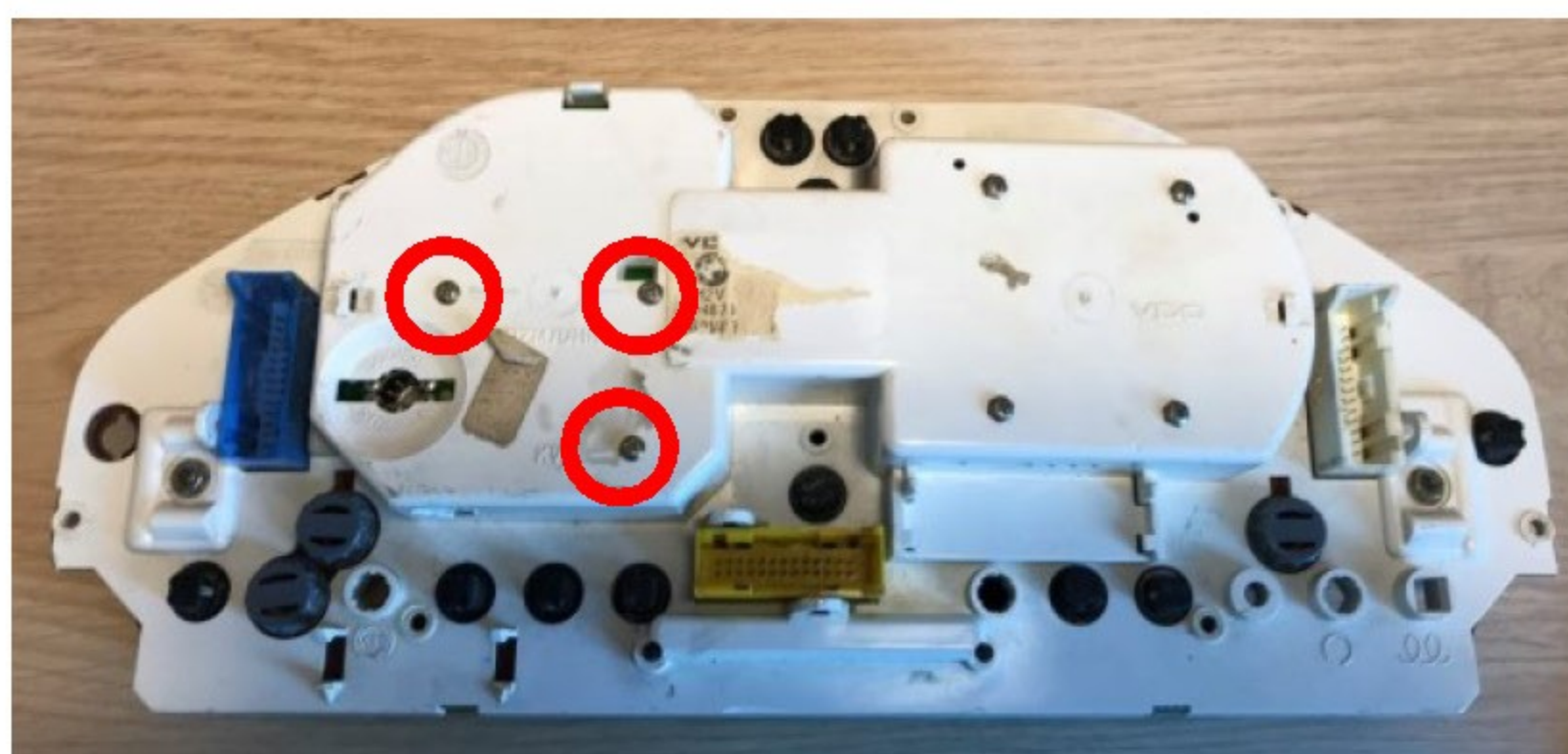
Step 2 : Installation of the unit in cluster

Unscrew the 9 screws at the back of the cluster then open it.



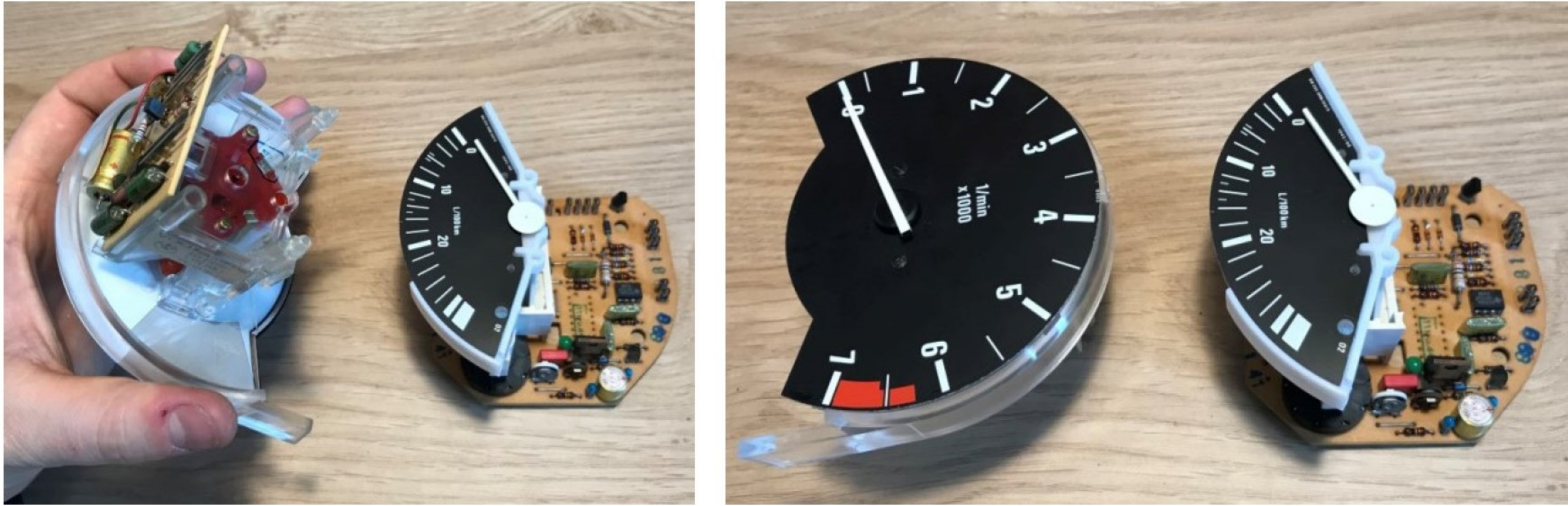
Step 2.1 :

Unscrew the 3 screws that hold the tachometer and remove it.



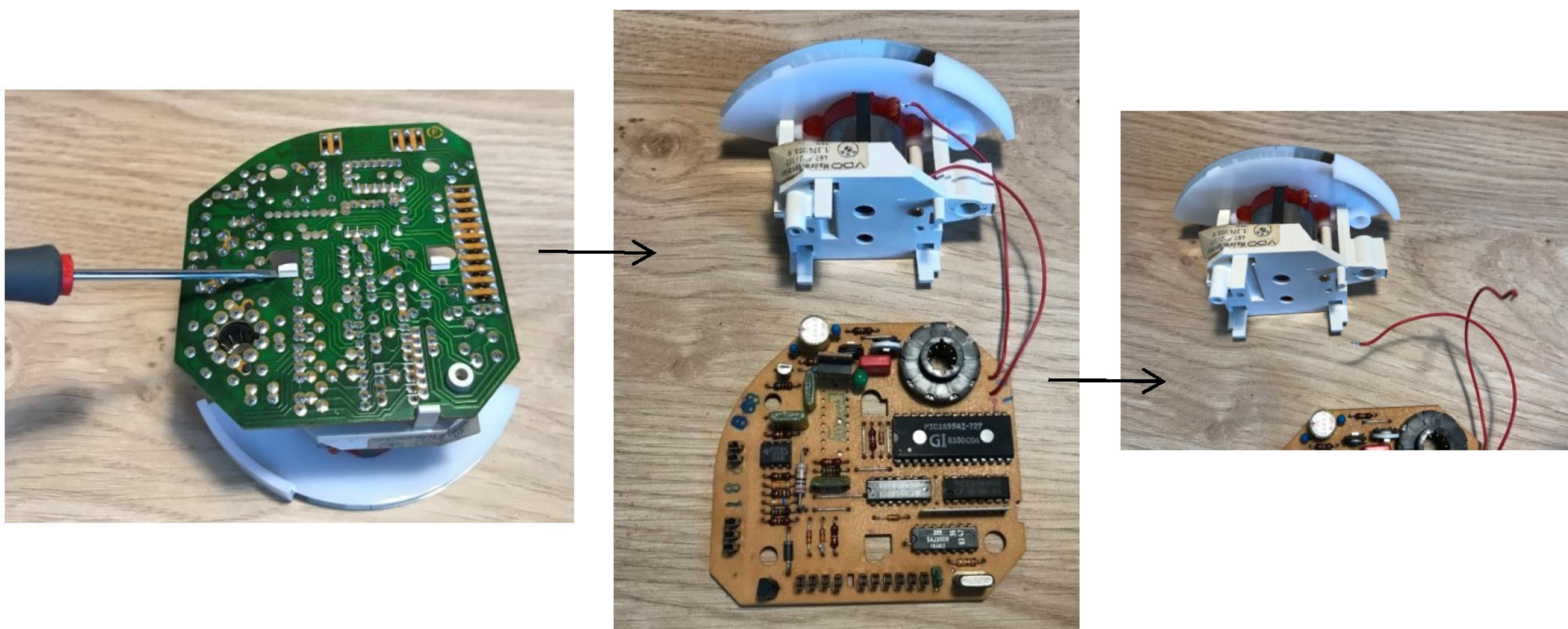
Step 2.2 :

Detach the tachometer from the plate (simply pull).



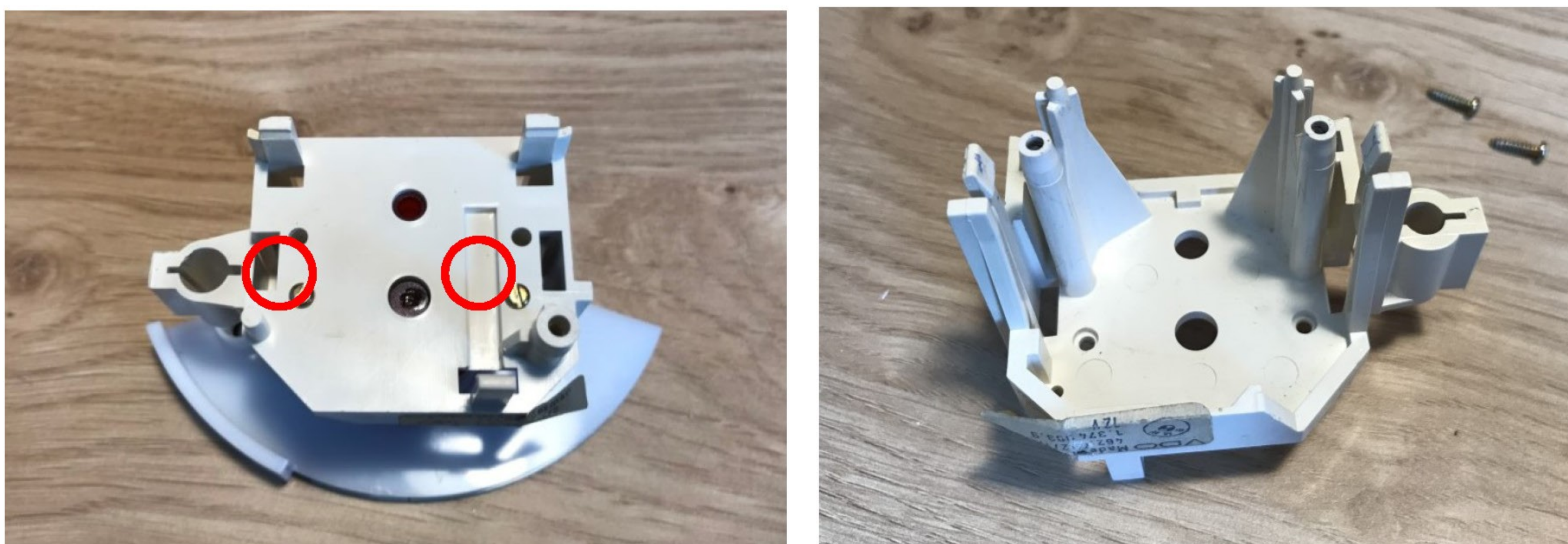
Step 2.3 :

Detach the econometer block from the plate (clips at the back), cut or cleanly unsolder the 2 wires connected to the needle motor of the econometer.



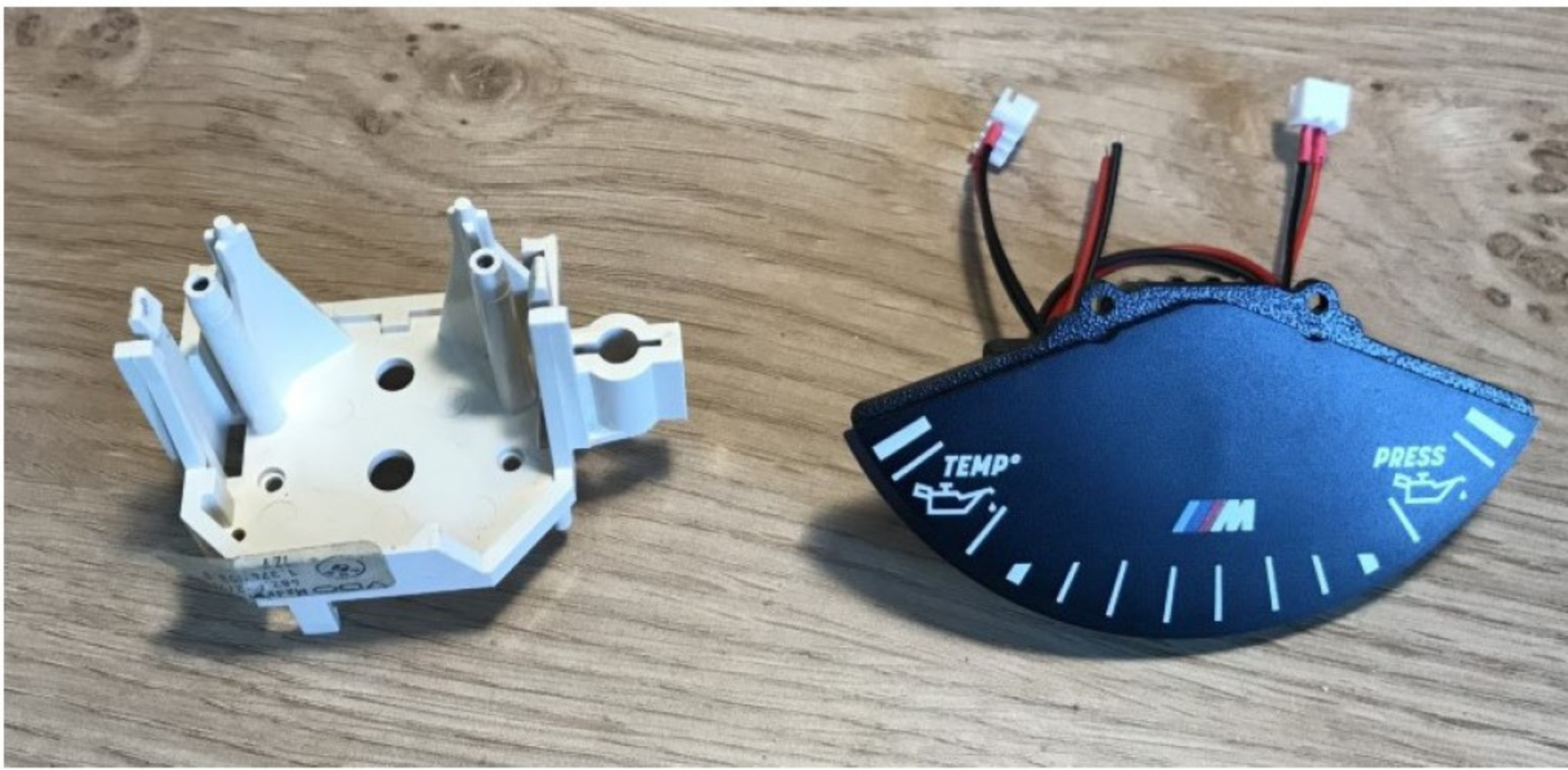
Step 2.4 :

Unscrew the 2 screws at the back of the econometer motor and remove it.



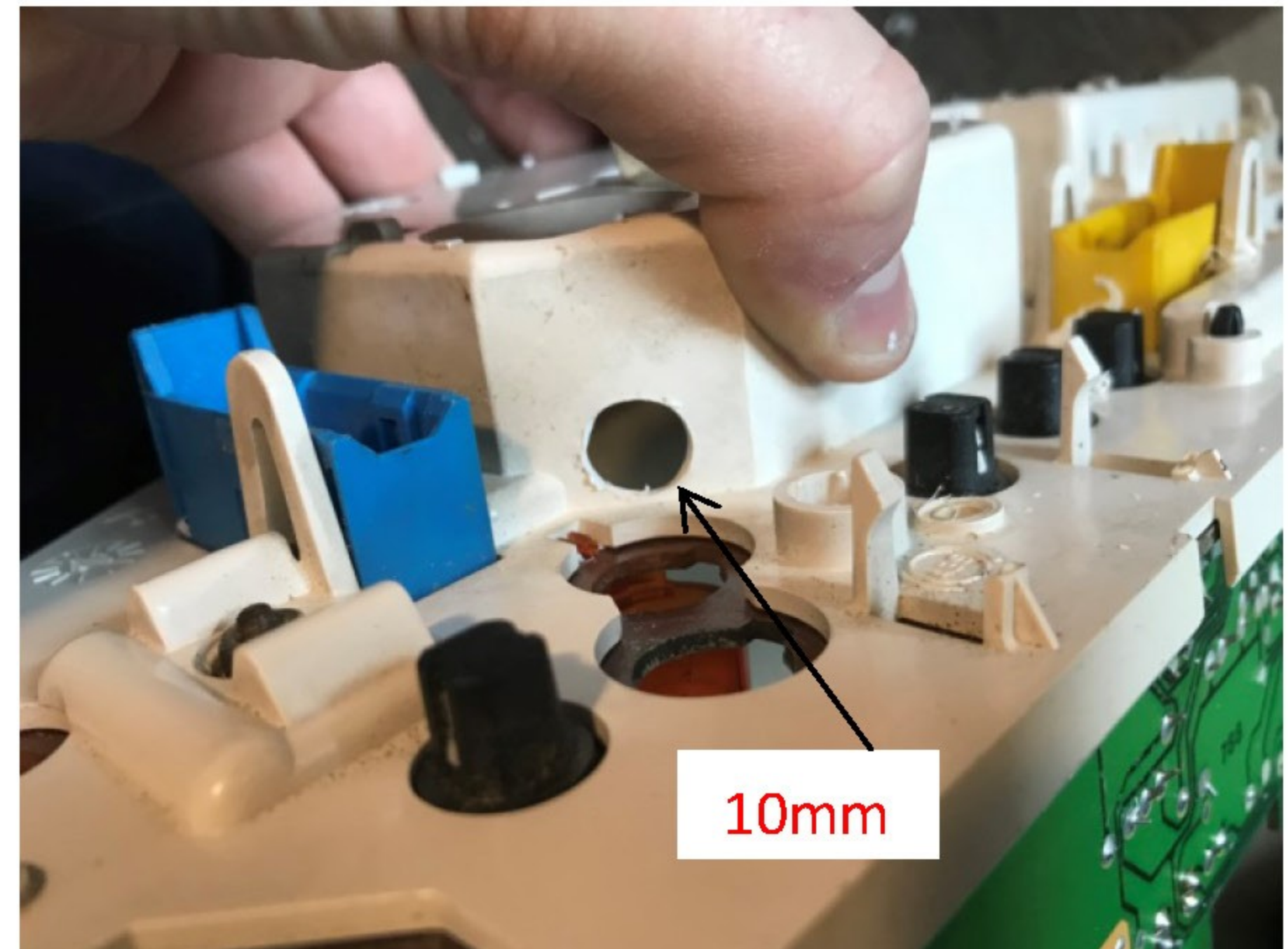
Step 2.5 :

Install the JR PARTS gauge in place of the econometer.



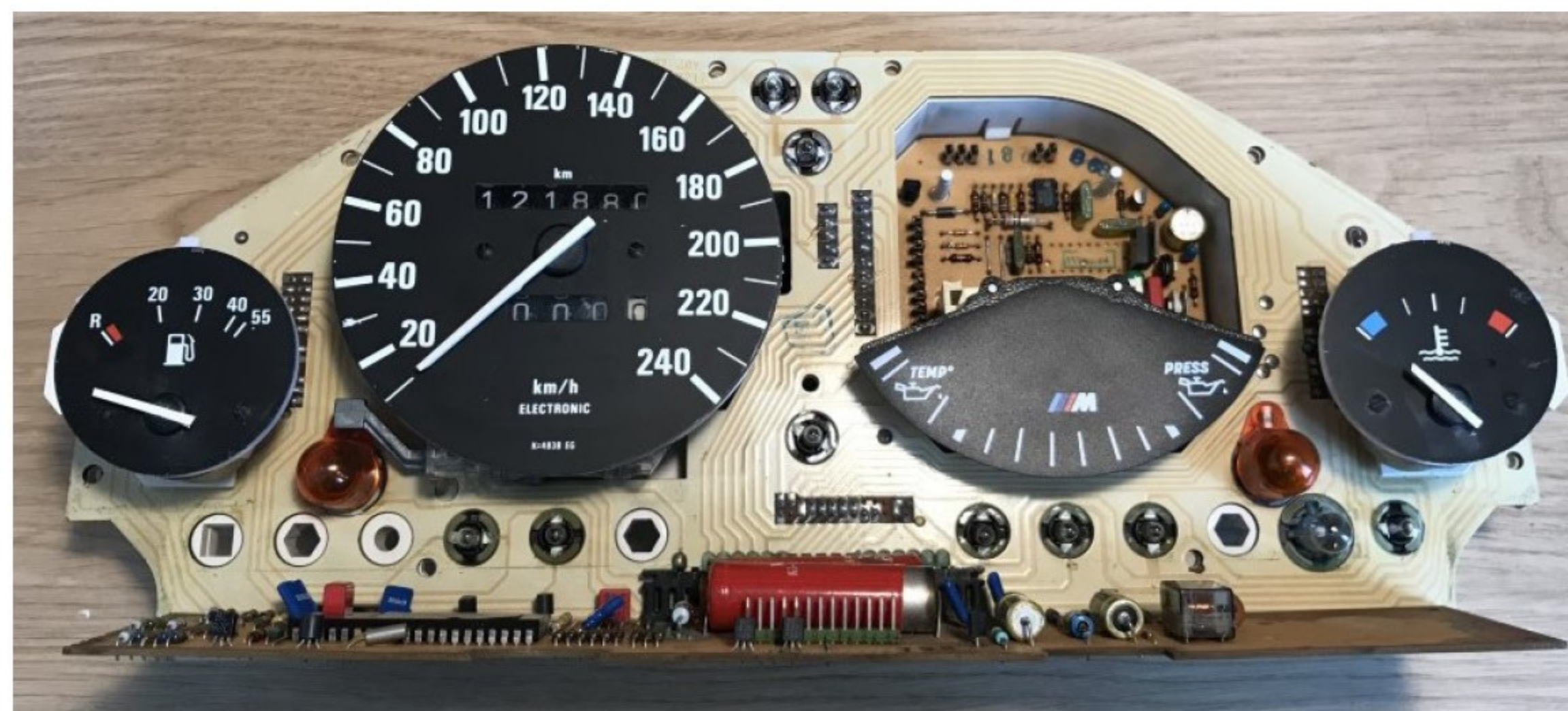
Step 2.6 :

Drill a 10mm hole on the back block of the cluster to allow the connections to pass (the hole will not affect the operation of your cluster)



Step 2.7 :

Install the plate, the gauge block, and the tachometer in the same order as during disassembly, remembering to pass the 3 cables of the gauge. Tighten the 3 screws at the back of the cluster that hold the tachometer and gauge in place. Close the meter and reposition the 9 screws removed previously.



Step 3 : Installation of sensors and wiring

Locate the harness passage (located above the crankset). Pass the oil temperature and pressure sensor wires through one of the available holes. To do this, cut a slit with a cutter or knife. Install the cable ties to prevent the harnesses from wandering around.

Step 3.1 :

Install the sensors in the locations provided. Connect the temperature and pressure harness to the gauge previously installed in the cluster.

JR Parts also supply the sensor holder according to your engine setup (**not included, must be ordered separately**)

for M20/S14 :



for M40/M42/M50/S50/S54 :



Etape 3.2 : Supply the gauge

Remove the car radio. Locate its power supply: these are respectively the purple wire (after contact + 12V) and the brown wire (ground).



Step 3.3 :

Connect the power to the unit.

Method 1: Use the supplied quick connectors. To do so, put the signal wire of the gauge (red) in the blind hole of the connector and tighten it on the purple wire (+ 12V after ignition) using pliers. After having properly tightened the connector, close its plastic case. Likewise, connect the ground wire of the gauge (black) to the ground (brown).

Method 2: (advised) perform welds by branching. Strip a section of about 5mm of purple cable, then tin the cable using a soldering iron and tin, solder the red / black cables of the gauge (reminder: the red must be soldered to the purple and black to brown). Lastly, insulate the welds using suitable insulating tape.

Step 4 :

Test operation before reassembly:

- ➔ Connect the sensors to the previously installed harnesses
- ➔ Switch the ignition to position 2: the unit must indicate the temperatures and pressures.

If this is not the case: either the temperature data intermittently indicates 150, probable cause, a bad connection of the harness (s) to the unit. Make sure that the pins are in contact with the white connectors (pay attention to the direction of the connector). Either the kit does not turn on at all, probable cause, the red quick connectors are not inserted far enough. Also make sure the battery is reconnected.



Reinstall the speedometer and reassemble the radio.