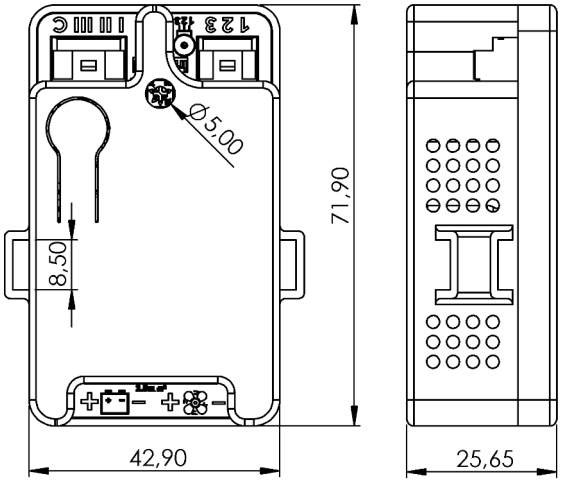
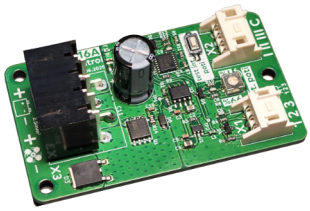


technical specifications

supply voltage:	7V ... 15 V
max. supply current:	16 A (Steckerlimit)
required fuse:	20 A
dimensions:	72x43x25,65mm
PWM frequency:	19 kHz ... 21 kHz
operating temperature:	-40°C ... 50°C



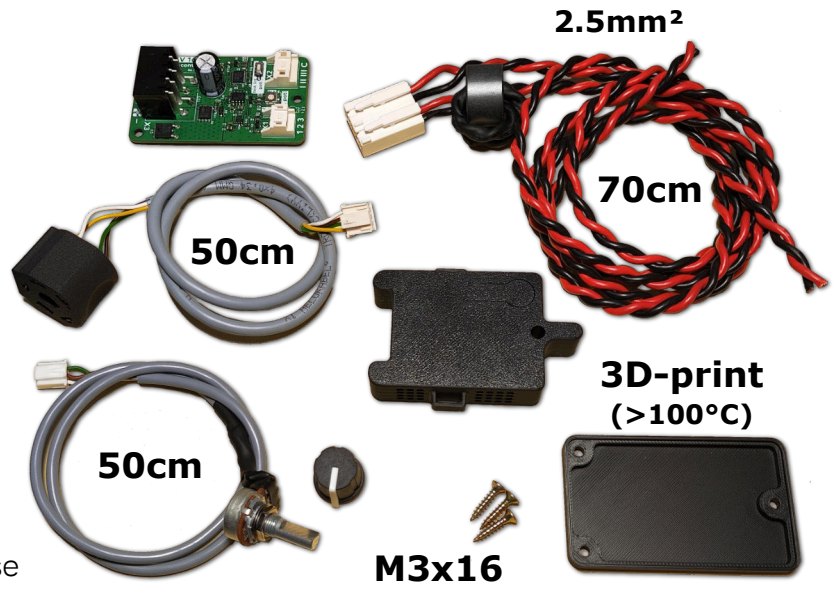
github
mini fan control

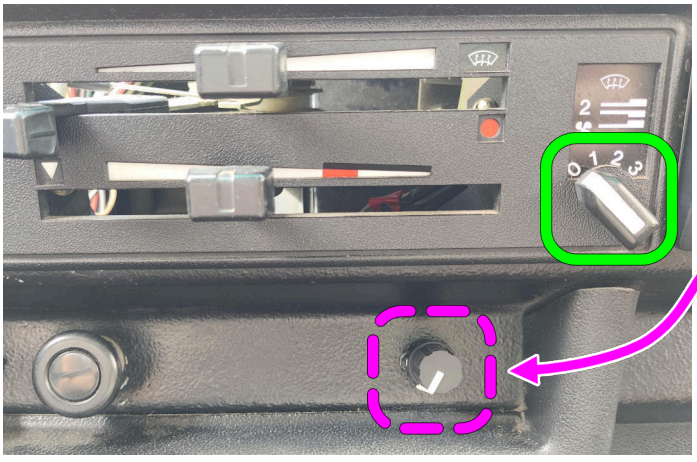
This circuit board serves as a speed controller for a DC motor with a continuous current consumption of max. 16A (max. plug load). The starting current can be 20A for a short time.

The circuit board must be protected with a 20A fuse !

scope of delivery

- mini fan control - circuit board
- enclosure top (3D print)
- enclosure bottom (3D print)
- supply cable pre-assembled
  - 2x single wire black 2,5mm² 70cm
  - 2x single wire red 2,5mm² 70cm
- blower switch cable pre-assembled
  - 4-wire cable 0,34mm² 50cm
  - blower switch plug (3D print)
- potentiometer cable pre-assembled
  - 3-wire cable 0,25mm² 50cm
  - 10k potentiometer 20mm D-shaft
- potentiometer rotary knob
- 3 pcs. M3x16 countersunk screws crosswise





speed-setting

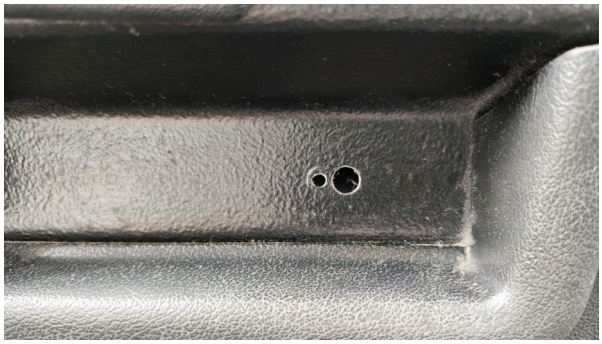
1...external potentiometer
2...internal potentiometer
3...**maximum speed**

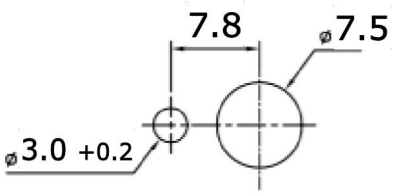
lower speed higher speed

installation guide

First, remove the instrument cluster.

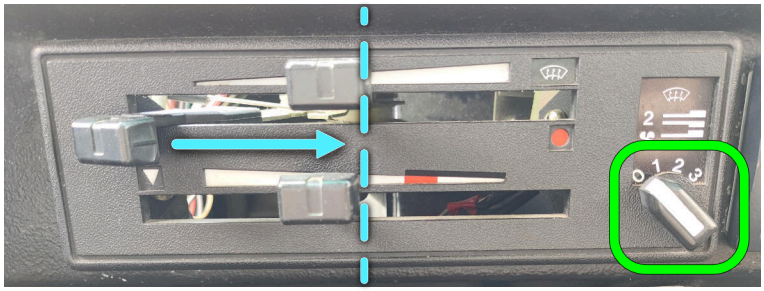
1 Potentiometer drill holes



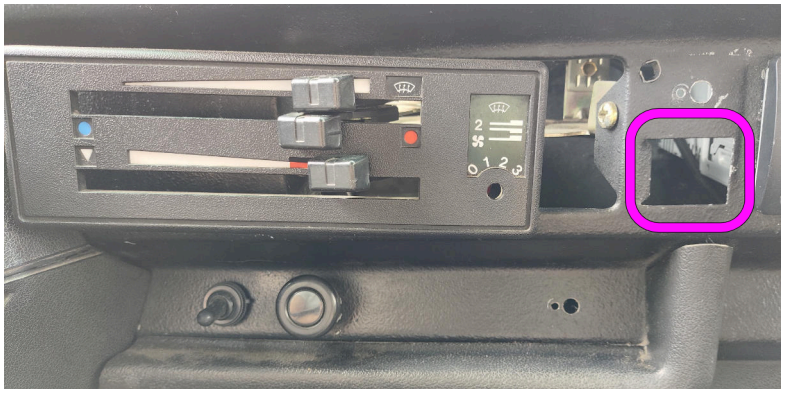


The installation location of the potentiometer is only limited by the cable length and can be freely selected in the dashboard.
The dimensions of the drill holes can be found in the diagram.

2 Removal of the rotary control and repositioning of the heating panel



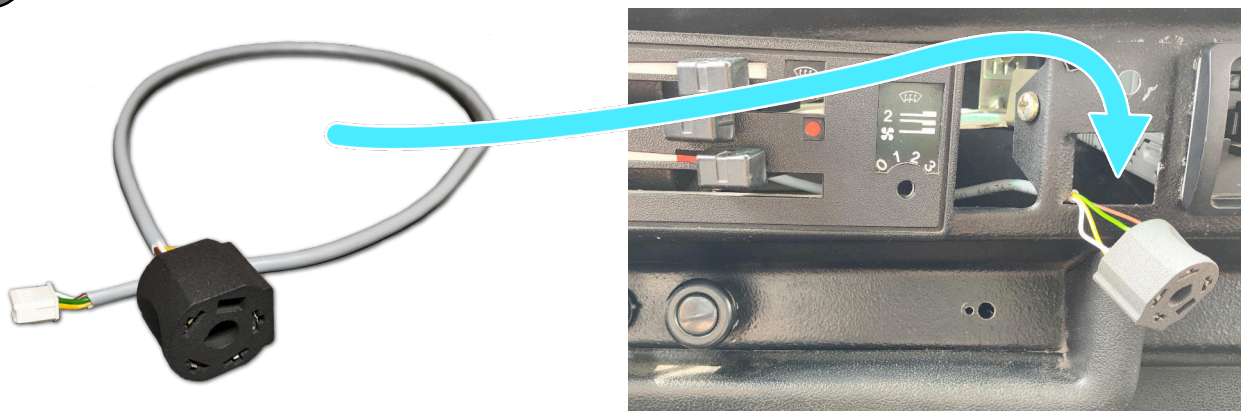
First, remove the rotary knob rotary knob and lift the heating panel forward (to do this, set all heating controls to the middle position).



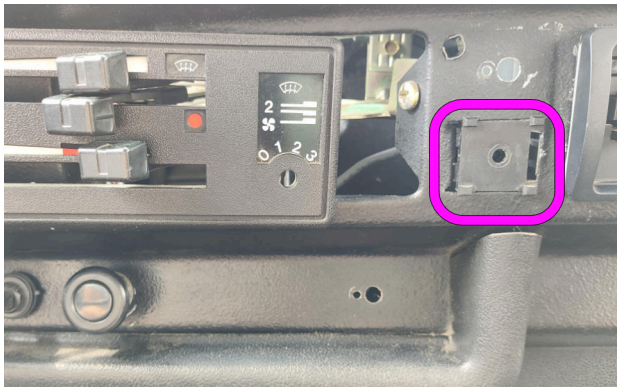
Now the heating cover can be levered out and moved to the left.

The rotary switch is unclipped from the dashboard and disconnected.

3 Inserting the blower switch plug

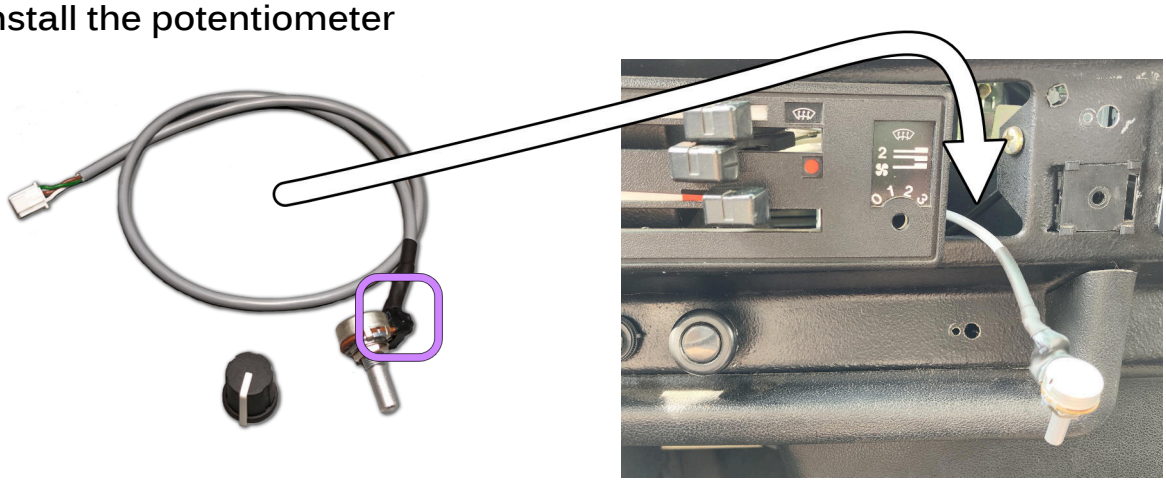


The blower switch cable is inserted through the opening and connected to the rotary switch.



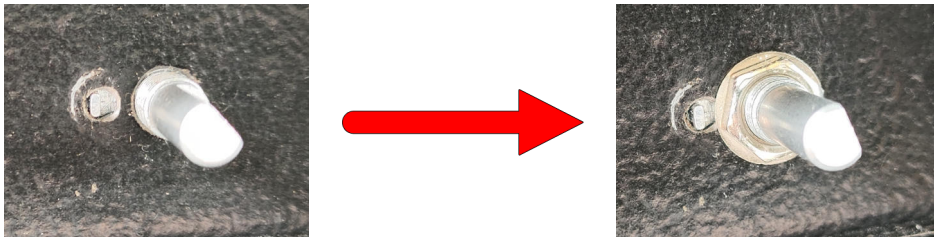
The rotary switch can be clipped back into the dashboard.

4 Install the potentiometer

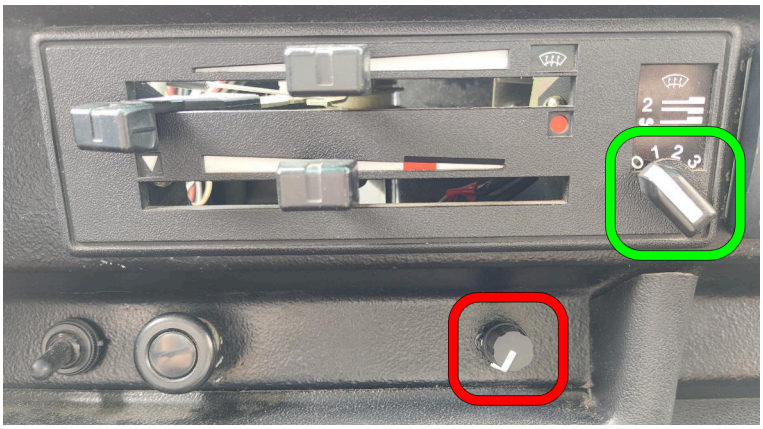


The nut and washer must be unscrewed from the potentiometer.

The potentiometer cable is inserted through the opening.
Now insert the potentiometer into the holes from behind with the heat-shrink tubing facing downwards.
Secure the potentiometer with a washer and nut.

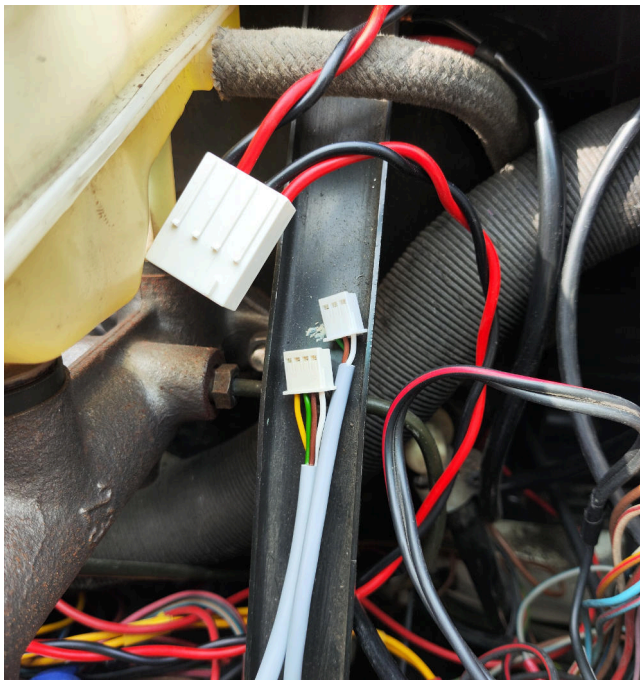


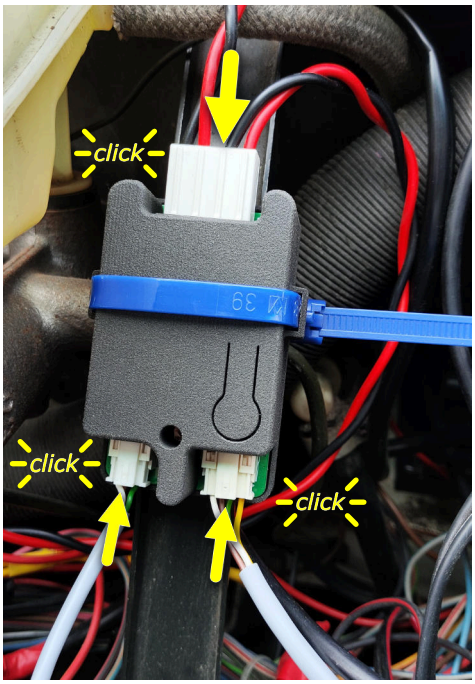
5 Installation of the heating panel



The heating panel is slid back and inserted into the dashboard.
The **rotary knob** on the fan switch and the **rotary knob** on the potentiometer must be attached.

6 Installation of the circuit board behind/under the instrument cluster

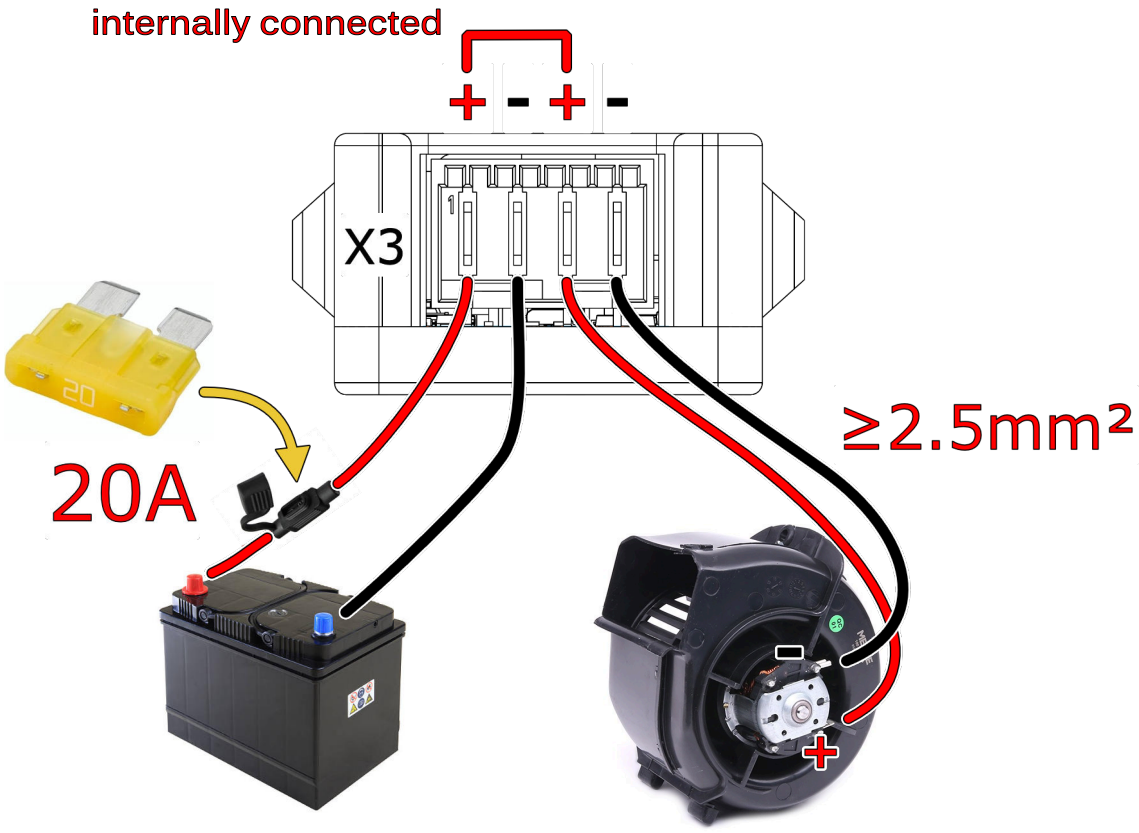




Before mounting, all plugs must be inserted into the sockets with an audible click.

The housing is then secured with cable ties so that it does not interfere with the instrument cluster.

7 Connecting the power supply and fan cables

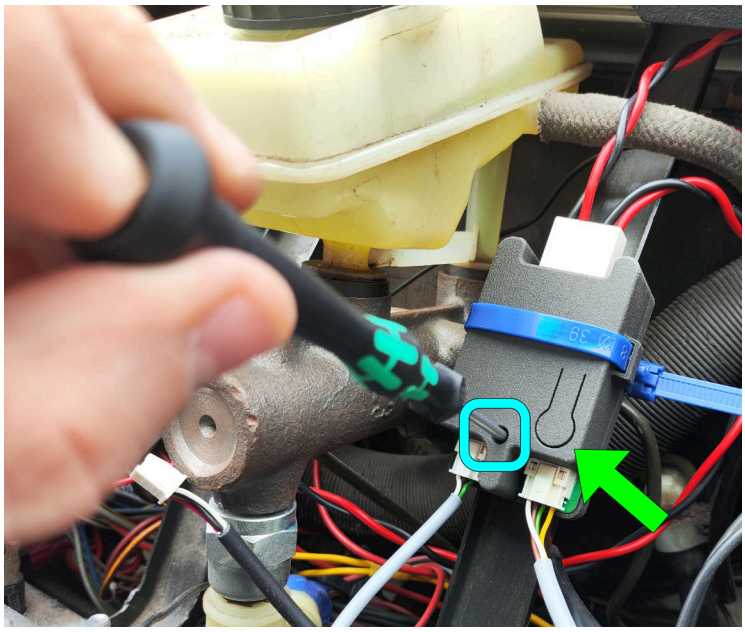


The included cables are **2,5mm²** and must only be crimped to the same cross-section or the next larger cross-section (e.g., 4 mm²) !

The positive supply line must be protected with a **20A fuse** (yellow fuse) !

The blower motor is permanently supplied with +12V.
During operation, the negative lead from the blower is connected to the negative lead of the power supply.

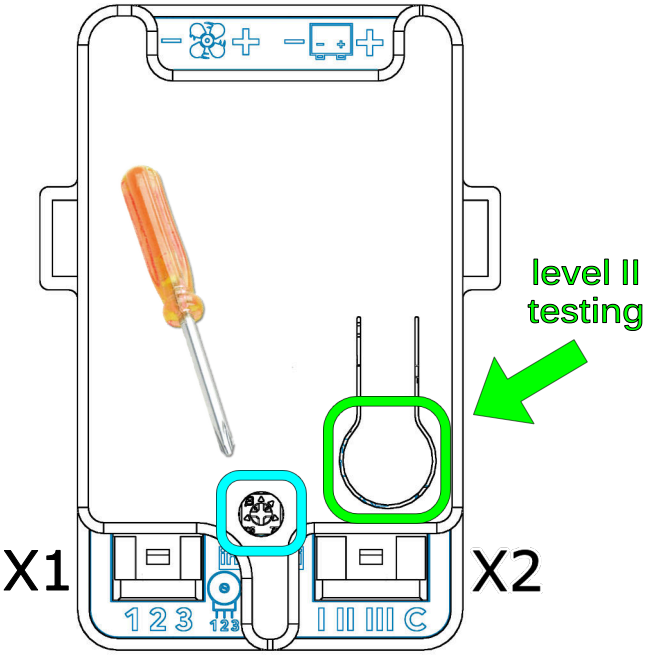
commissioning



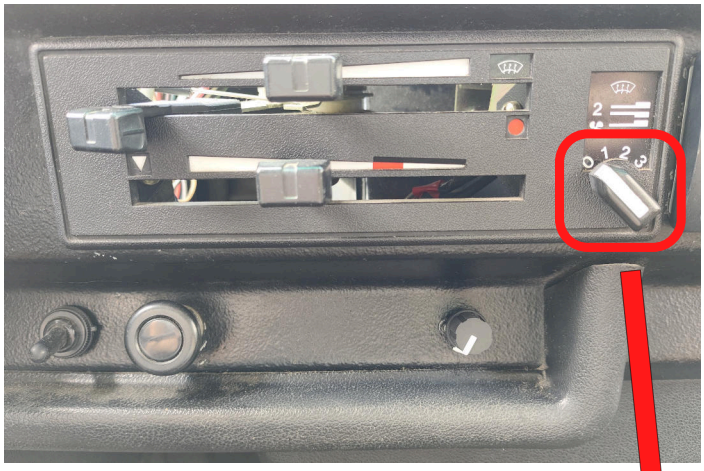
The motor speed for mode “II” can be adjusted by changing the potentiometer-position using a screwdriver (1% - 99%).

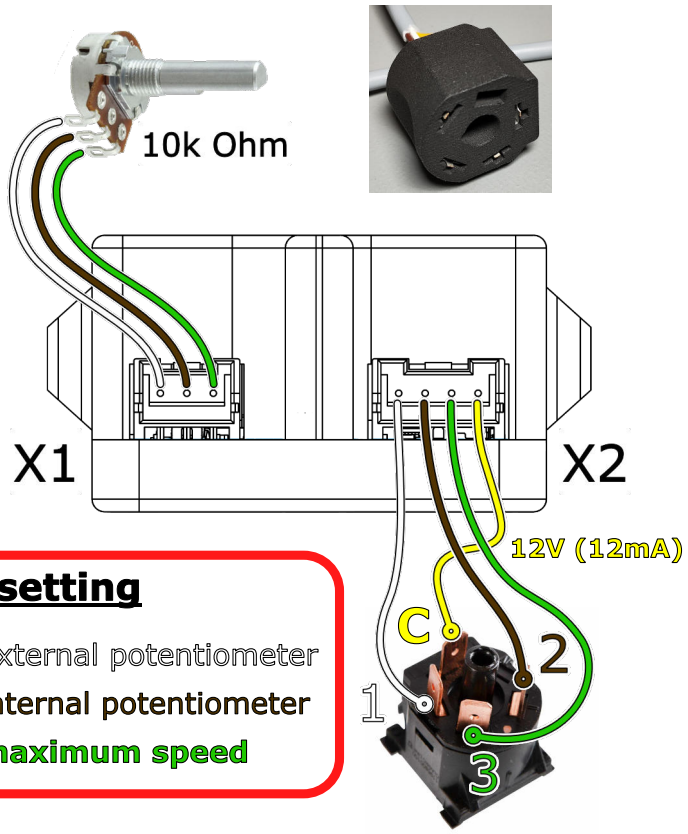
lower speed

higher speed



By pushing and holding the button, the motor speed for level “II” can be tested.





speed setting

C+1...external potentiometer
C+2...internal potentiometer
C+3...maximum speed