

illuminationchange MG TF

LE500 speedo

tools / material:

screwdriver torx, slit, cross



soldering iron



soldering iron with two copper-bits



solder and draw-off pump



SMDs in desired color, for example PLCC-2 3528 (+ and – on opposite side)



displayfoil in desired color (diffusionfoil), and new polarisationfoil



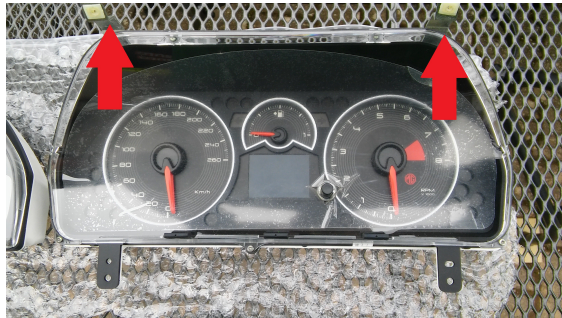
sharp cutter and brake cleaner, or other thinner

how to do:

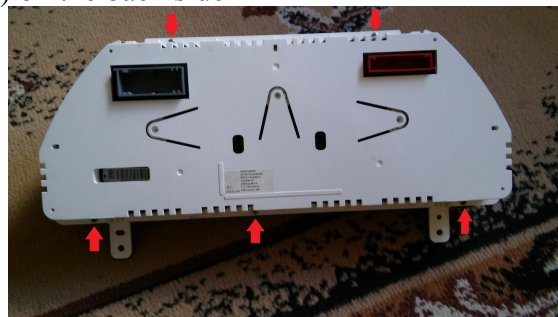
-dismount speedo



-dismount 2 clamps (PZ2)



-dismount 5 torxscrews (T8) on the back side



-take off acrylic glass



-remove the needles with some soft force and patience, possibly with a screwdriver

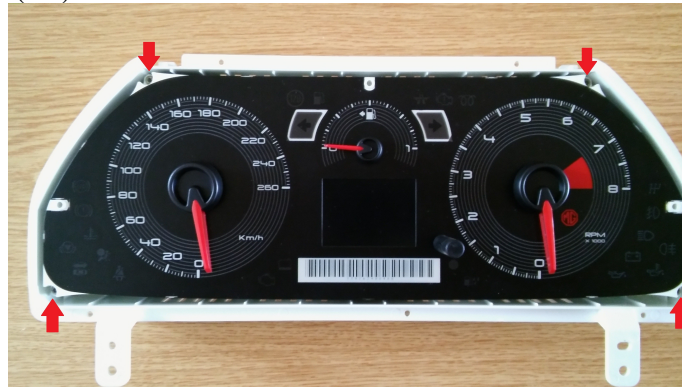


→ first mark the position of the tankneedle

!ATTENTION!

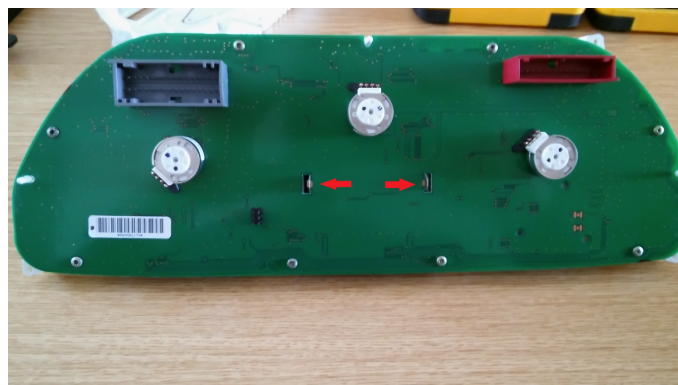
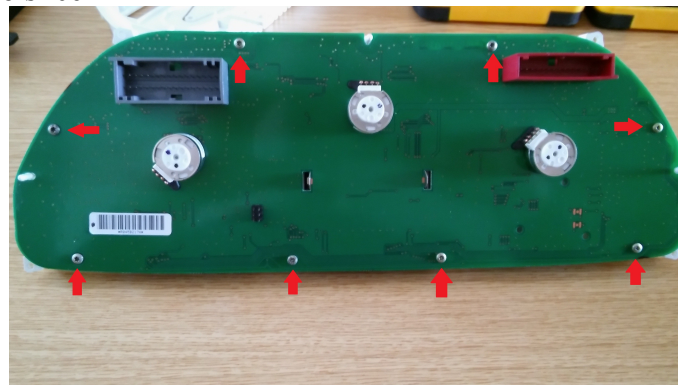
to much force can destroy the steppermotors, it is annoying and expensive

-dismount 4 torxscrews (T8) from the board

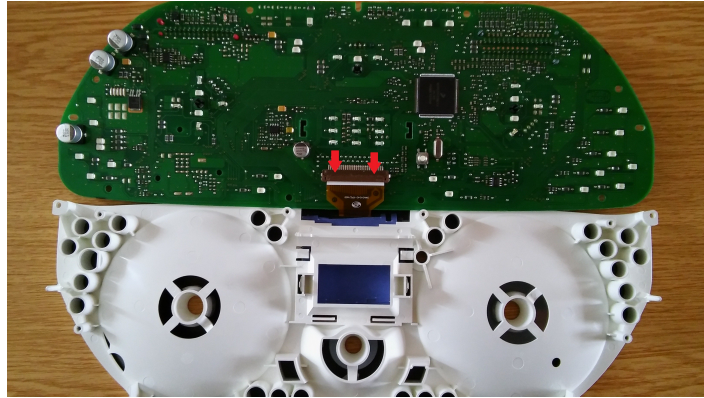


-take off the speedo slice

→ first remove 8 torxscrews (T8) on the back and press apart the clamps from the display, so you can take off the speedo slice

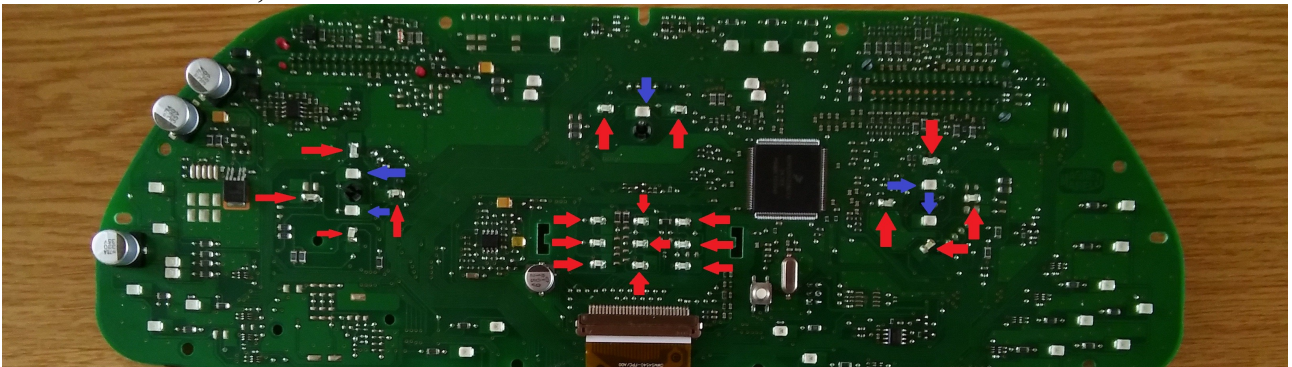


-pull the display plug from the board (a bit tricky), open the clip with a small screwdriver



-remove the SMDs on the board with the soldering iron with two copper-bits and the draw-off pump (Attention, only the SMDs, that are responsible for the illumination)

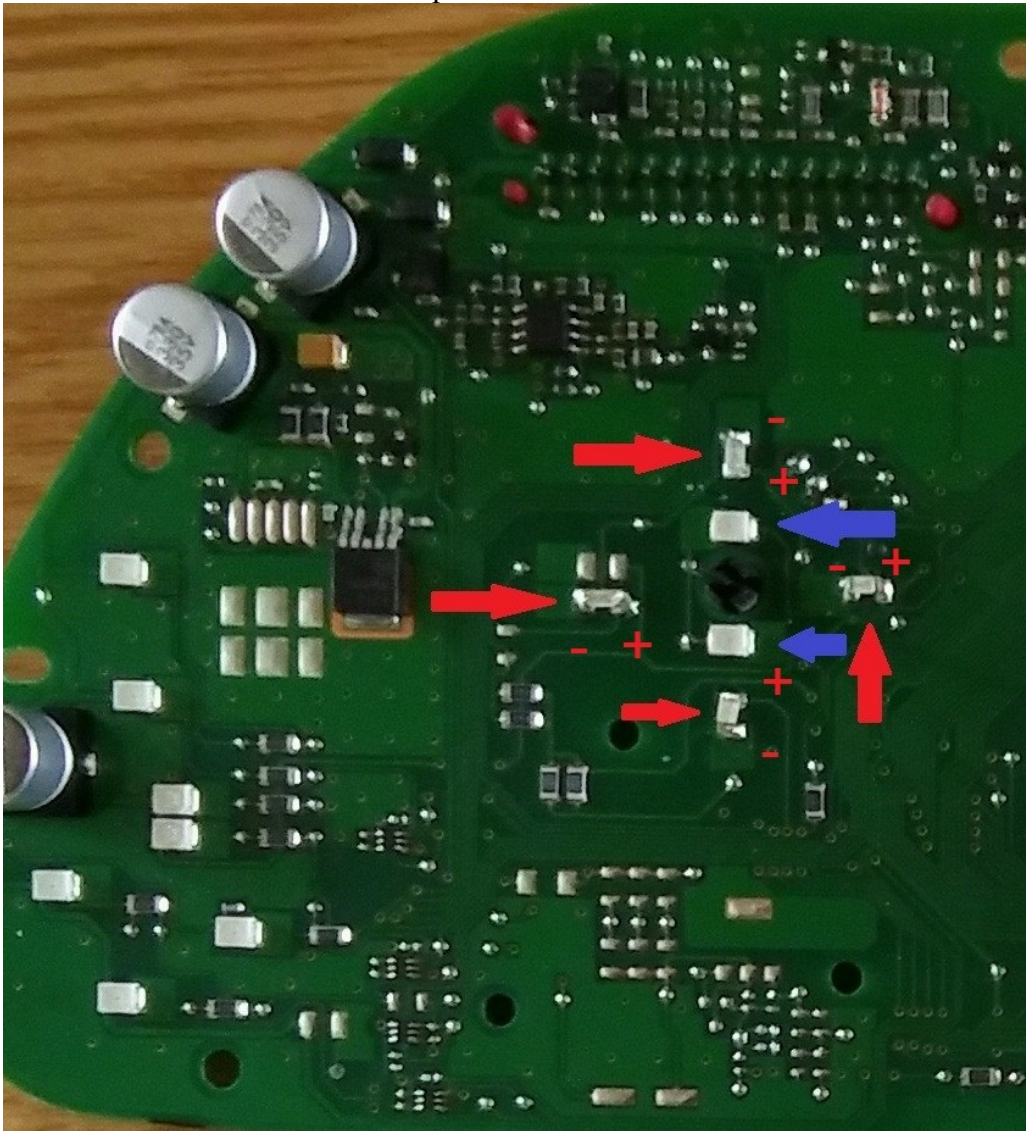
RED = illumination, BLUE = needles



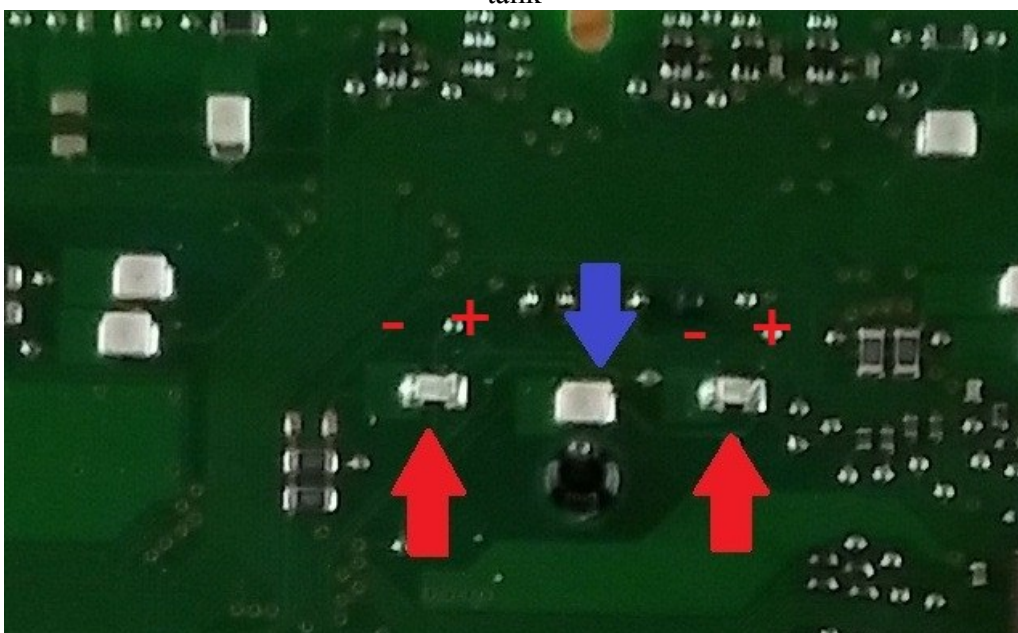
-remove display SMDs with the soldering iron with two copper-bits and the draw-off pump

-solder in new SMDs with the solder iron → pay attention to the polarity

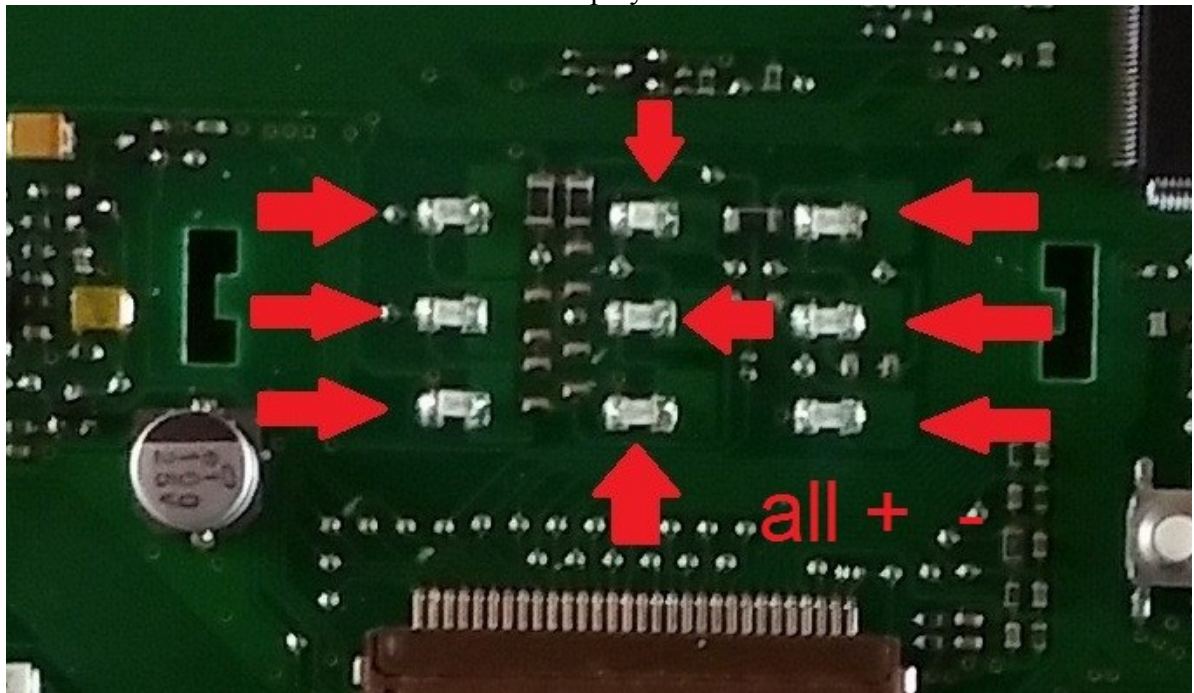
speed indicator



tank



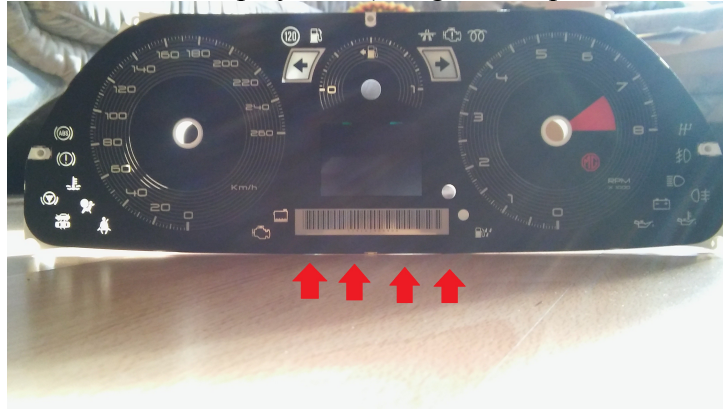
display



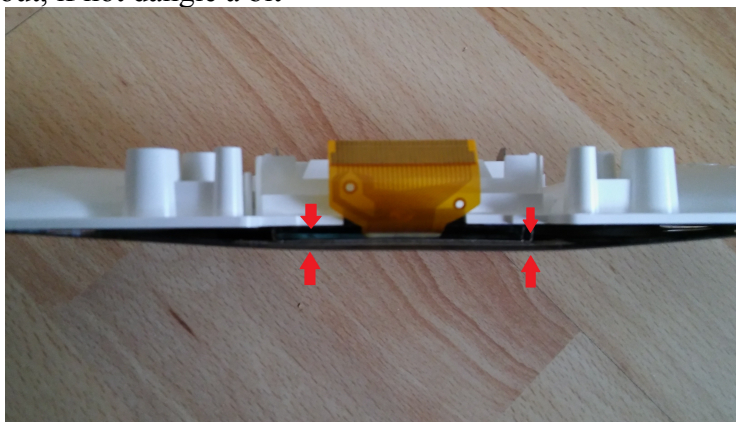
rev counter



- displayfoil change (LCD GWMS4540-FPC/A00 or LCD A2 GW 4540A):
- loosen the speedo slice around the display a bit (it is glued → patience and sensitiveness)



- push the clamps from the display on the back side a bit forth
- display must slide out, if not dangle a bit



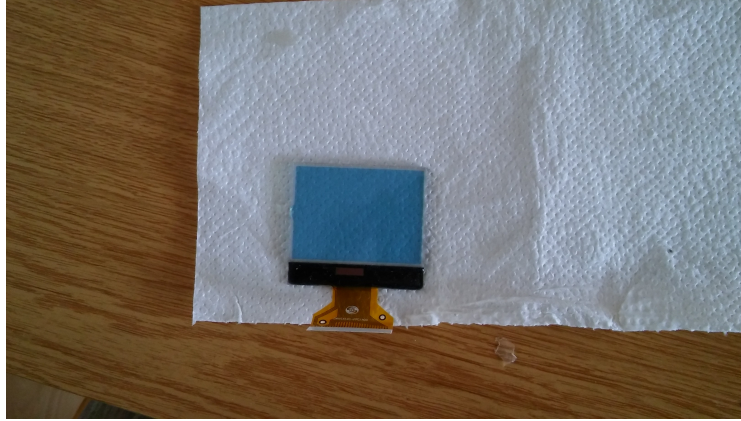
- remove orange foil and cut a new diffusionfoil



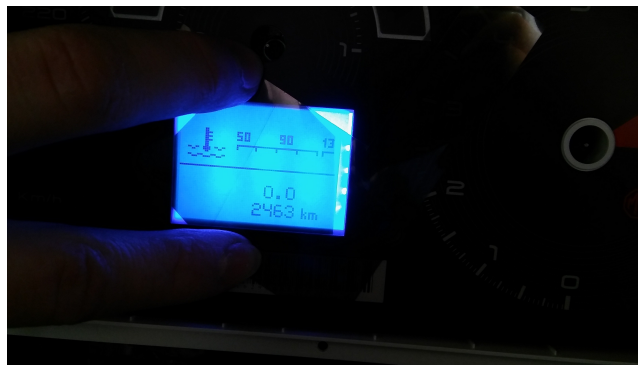
- remove polarisationfoil on both sides with a cutter



-remove the rest of the glue with brake cleaner or other thinner



- glue on the new polarisationfoil on the back (not front)
- insert display with new diffusionfoil
- plug in the display plug onto the board
- screw the speedo provisional together, without needles
- mount provisional speedo to your car and fix it with the 2 lower screws
- turn on ignition, the display has to shine (do not forget the dimmer)
- search for the „perfect“ angle with another piece of polarisationfoil, also with headlamps on



- the angle makes the difference, depending on the angle the numbers are dark and the background is coloured, or the numbers are coloured and the background is dark
- mark position of foil
- dismount speedo again and dismount display again as shown before, so you can glue on the second polarisationfoil
- screw all together
- before you screw the acrylic glass, justify the needles
 - reconnect the speedo provisional
 - turn on ignition
 - stepper motors move to their position
 - plug on the needles

- mount acrylic glass
- mount the clamps
- mount the speedo to your car
- be happy with your new illumination

before



after

