

minitools



SEPDISP21B

Modification instructions

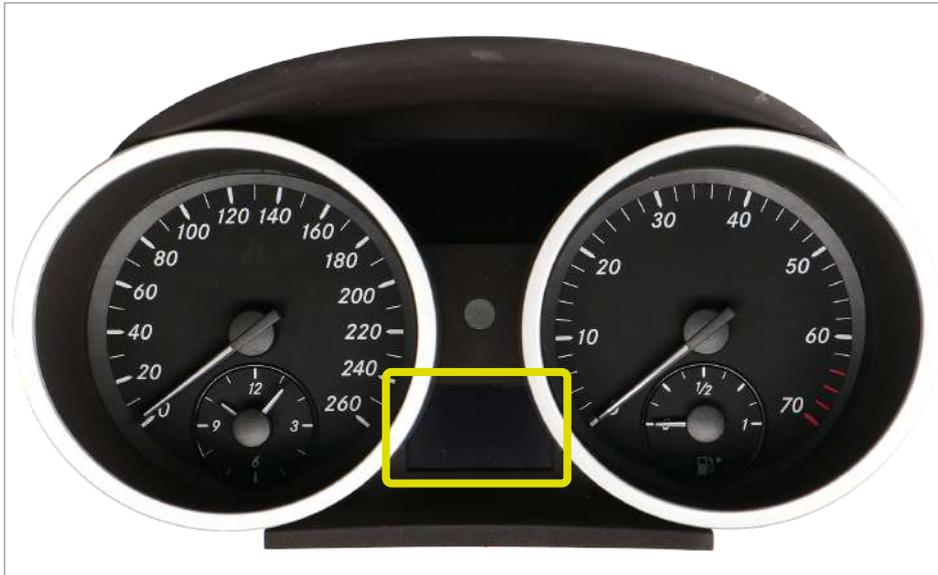
Vers. 4.1



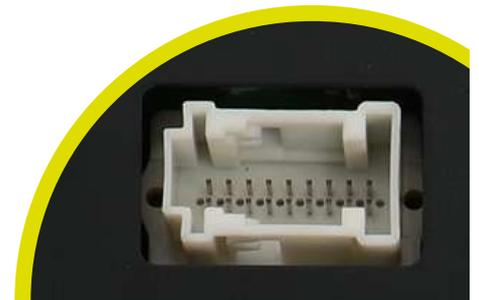
WARNING: This process is recommended only to expert and qualified staff.

THE FOLLOWING MODIFICATION IS NECESSARY FOR THE CORRECT FUNCTIONING OF SEPDISP21B DISPLAY (pic. 1).

Replace the display in an ambient temperature of 25 °C.



Picture 1



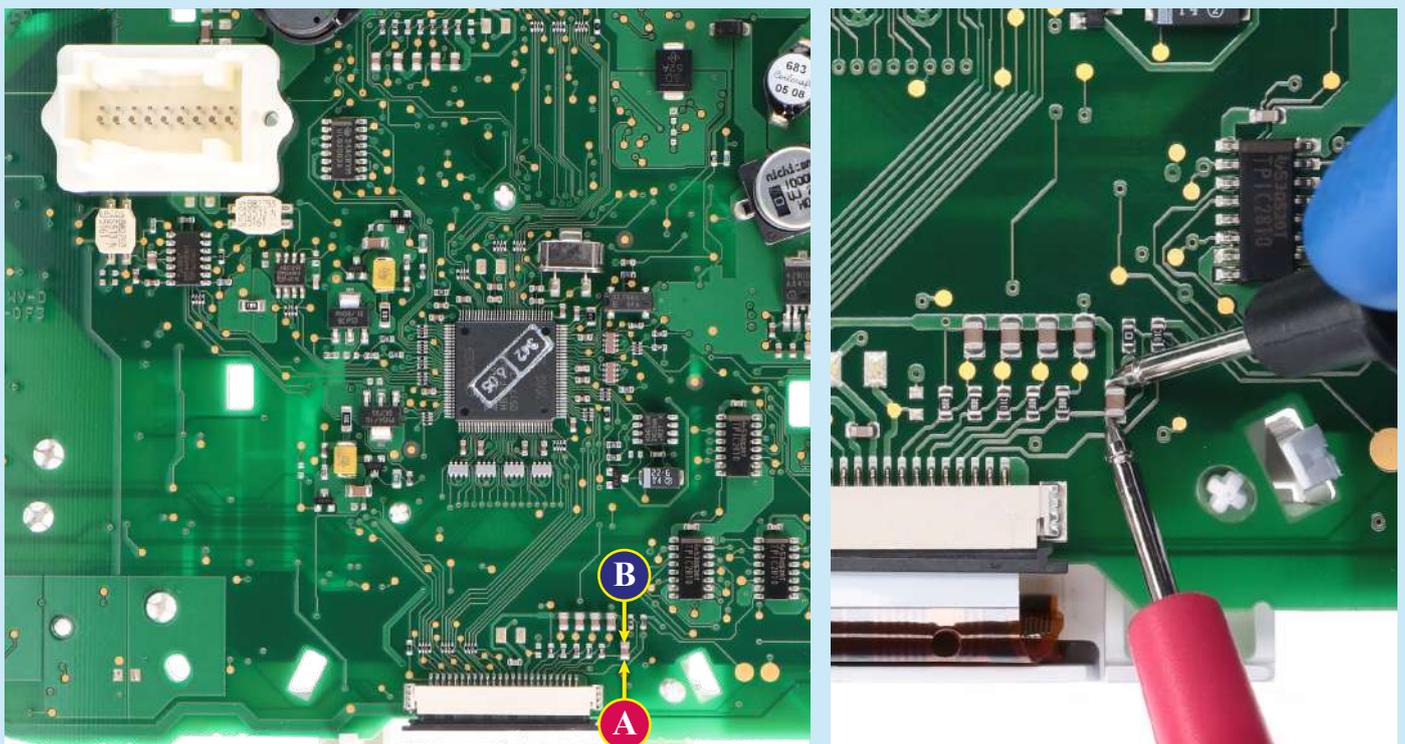
Picture 2

To adjust SEPDISP21B display voltage:

After replacing the LCD, switch on the cluster: white connector (pic. 2) pin no. 1 negative, pin no. 5 and pin no. 6 positive. Measure the voltage between A and B points as in picture 3.

- ▶ If the voltage measured is between 11.98V and 12.02V, no modification is necessary;
- ▶ If the voltage detected is instead lower than 11.98V or higher than 12.02V, it is necessary to do the modification described in the following paragraph "EEPROM MODIFICATION".

Measuring display voltage



Picture 3

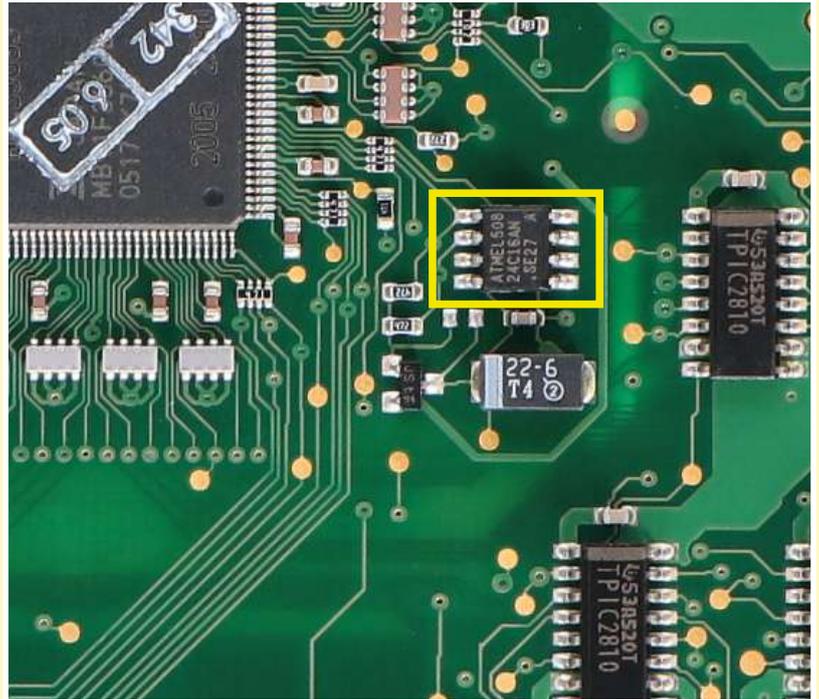
EEPROM MODIFICATION

NOTE: For this modification it is necessary to use an EEPROM programmer. We recommend our SEP-EECLIP.

- First, set the programmer reading in hexadecimal (HEX).
- Desolder and make a backup of the 24C16 EEPROM (shown in picture 4)
- To reach a voltage close to 12.00V act on 02D8 location

Please note that decreasing this location by 1 HEX unit, the variation will be + 0.016V, or vice versa.

If not familiar with hexadecimal calculation, it is possible to use the calculation tool in the box below, simply typing in the values.



Picture 4

CALCULATION OF THE NEW VALUES OF THE LOCATIONS

(The tool works correctly only on computers. For the mobile version, [click here](#))

• Type in the HEX value of 02D8 location*

• Type in the value of voltage measured between A and B points (use a period as decimal separator, e.g. 12.76)

• New value to type in 02D8 location.

*How to identify 028D8 location value on the EEPROM programmer

Offset (h)	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
000002B0	1D	01	59	01	95	01	9A	01	91	01	9F	01	A5	01	BB	00
000002C0	45	00	4F	00	7A	01	03	01	C4	02	D5	03	13	03	6A	01
000002D0	11	01	3A	01	93	01	9B	01	94	01	96	01	A2	01	A7	02
000002E0	F5	03	0C	00	07	02	14	30	C8							
000002F0	C8	C8	FF	FF	FF	FF	00	30	00	BB	00	7A	19	44	01	13

Once these modifications have been done, measure again the voltage between A and B points and check that it actually is between 11.98V and 12.02V.

If not, increase or decrease the location until the value is as close as possible to the right range.