minitools

SEPDISP08-7V

## Modification instructions

Ver. 4.0

WARNING: THIS PROCESS IS RECOMMENDED ONLY TO EXPERT AND QUALIFIED STAFF.

THE FOLLOWING MODIFICATION IS NE-CESSARY FOR THE CORRECT FUNCTIO-NING OF SEPDISP08-7V DISPLAY.

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

• **After replacing the LCD, switch on the cluster** *(pin no. 1 negative, pin no. 5 and no. 6 positive)* and measure the voltage between A and B points as in picture 1.

• If the **voltage** measured is **between 6.95V and 7.05V no modification is necessary;**

• If the **voltage** detected is instead **lower than 6.95V or higher than 7.05V, it is necessary to do the modification** described in the following paragraph **"EEPROM MODIFICATION".**
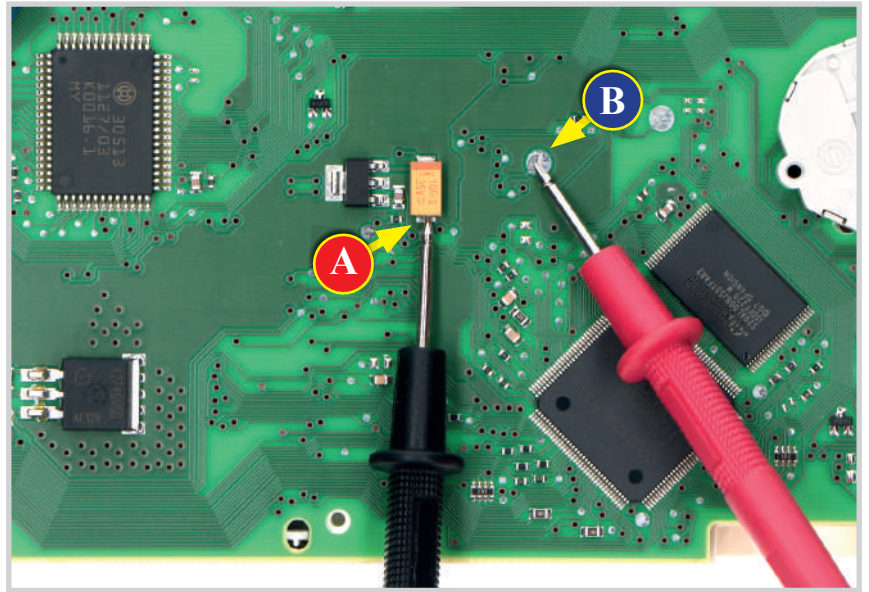
Picture 1

— EEPROM MODIFICATION

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

• **De-solder the EEPROM (24C04 or 24C32),** highlighted in picture 2, located on the PCB.

• First, set the **programmer reading in hexadecimal (HEX).**

• **ATTENTION: Make a backup of the EEPROM,** before the modification.

• To reach a voltage between 6.95V and 7.05V, **identify the 01BF and 01CF locations and modify their values:** increasing or decreasing the 2 values by 1 HEX unit, the **variation** will be **+/- 0.09V.**

If not familiar with hexadecimal calculation, it is possible to use the **calculation tool in the box beside,** *simply typing in the values.*
NOTE: *The tool works correctly only on computers.*

— VERIFICATION

Once these operations have been done, solder back the **EEPROM** on the PCB, switch on the instrument cluster and **check again the tension between points A and B** *(see picture 1).*

Verify, then, if a **voltage between 6.95V and 7.05V** has actually been reached. If not, decrease or increase the values of the locations until the voltage is between that range.
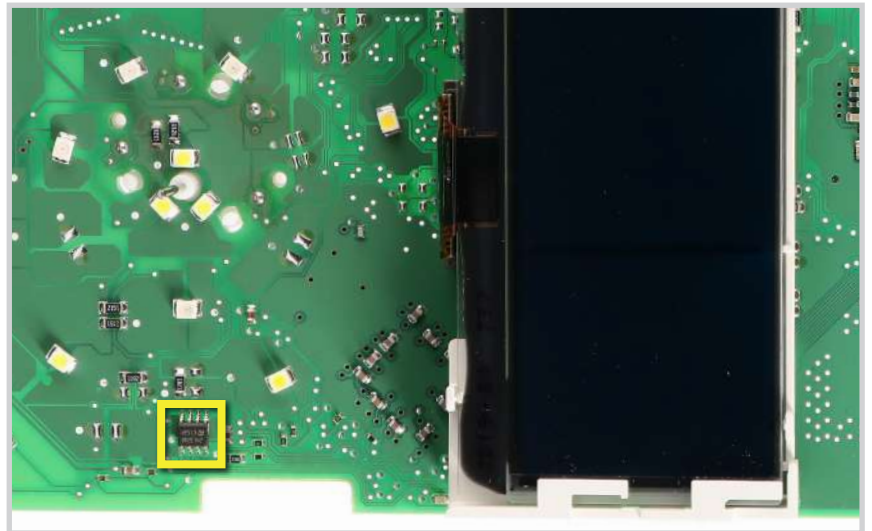
Picture 2

CALCULATION OF THE NEW VALUES OF THE LOCATIONS
(Tool to use only on computers)

· Type in the value of the voltage measured between point A and B *(pic. 1)*
 (use a period as decimal separator, e.g. 7.4)

01BF LOCATION	01CF LOCATION
· Type in the HEX value of 01BF location*	· Type in the HEX value of 01CF location*
· new **value** to type in 01BF location	· new **value** to type in 01CF location

How to identify **01BF and **01CF** locations values on the EEPROM*

Offsett(h)	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
000001A0	28	64	32	80	00	80	00	38	01	0F	FF	FF	FF	FF	FF	FF
000001B0	FF	FF	FF	FF	FF	FF	11	04	FF	FC	FD	00	03	0E	05	
000001C0	E1	03	3F	C4	03	1B	1A	10	06	01	FF	00	01	0E	05	
000001D0	1B	03	FF	4F	2D	00	FF	00	17	02	04	E6	FF	05	05	24