

minitools



SEPDISP87

Modification instructions

Ver. 3.0



WARNING! THE REPAIR SHOULD BE CARRIED OUT ONLY BY QUALIFIED AND COMPETENT STAFF.

THE FOLLOWING MODIFICATION IS NECESSARY FOR THE CORRECT FUNCTIONING OF SEPDISP87 DISPLAY.

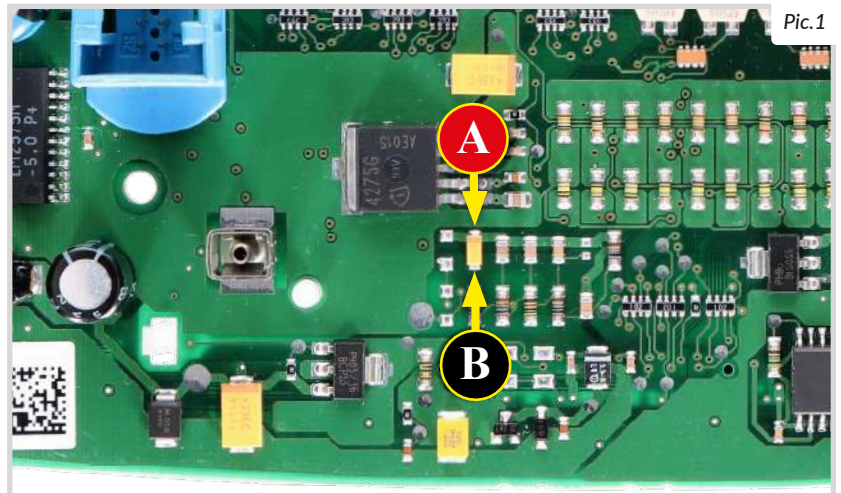
- Replace the display in an ambient temperature of 25 °C.
- After replacing the display, switch on the cluster:

GREEN CONNECTOR

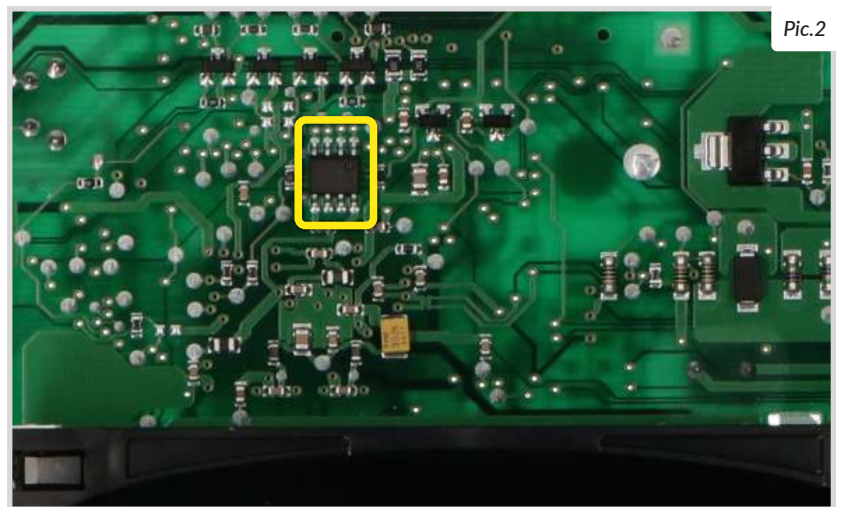
- pin n. 1 negative
- pin n. 17 negative
- pin n. 2 positive
- pin n. 18 positive

Measure, then, the voltage between the points A and B indicated in picture 1.

- If the voltage measured is between 12,7V and 12,9V, no modification is necessary;
- If the voltage detected is, instead, lower than 12,7V or higher than 12,9V, it is necessary to do the modification described in the following paragraph "EEPROM MODIFICATION".



Pic.1



Pic.2

EEPROM MODIFICATION

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

PROCEDURE:

- First, **desolder** the EEPROM shown in picture 2 (93C86 or 93LC86) from the front side of the PCB.
- IMPORTANT:** Make a backup of the de-soldered EEPROM, before the modification.
- Set the programmer reading in 8 bit hexadecimal (HEX).
- To reach a voltage close to 12,8V, it is necessary to modify the value of the location 02C6. Please note that increasing this location by 1 HEX unit, the variation will be +0,1V or vice versa.

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

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

CALCULATION OF THE NEW VALUE OF THE LOCATION

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

• Type in the value of voltage measured between A and B points
(use a period as decimal separator, e.g. 12.5)

• Type in the HEX value of the location identified*

• New value to type in the location identified.

*How to identify the value of the location on the EEPROM

Offset(h)	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
000002B0	00	00	24	00	20	00	30	00	4A	00	88	00	08	01	85	02
000002C0	00	00	20	00	20	00	17	00	02	00	01	00	00	00	00	00
000002D0	00	00	00	00	00	00	2A	00	00	00	00	78	00	26	00	00

— VERIFICATION

Once this modification has been done, measure again the voltage between the points A and B and check that it actually is between 12,7V and 12,9V. If not, act on the location until the value is as close as possible to the correct range.