

## Replacing a TFT-Display including touch screen

The following tasks may be performed by qualified personnel only! By disregarding the instructions or the prescribed sequence of tasks the unit can be severely damaged. These instructions are intended as a guide for qualified personnel.

Pull the mains plug before opening the unit.

1. Pull the main plug.
2. Remove the connecting screws between lid and bottom section all around the unit from below.
3. Carefully tilt the lid upwards, support it with the red rod. Not for grandMA!

**Warning: Do not tilt the lid beyond 90°! This could damage the plugs in the unit's back panel.**

**Only grandMA: 3.1 Push the yellow button „Push to erect“ and tilt the display panel to the max.**

**3.2 Remove the screws on the back panel using a 2.5 mm Allen key. The lower screws have to be unscrewed by only 1 turn.**

**3.3 Remove the knob and the fastening nut of the encoder(see fig. 2).**

**3.4 Now carefully tilt the lid upwards, support it with the red rod.**

4. Disconnect the electric cables of the defective display and remove the fastening screws

**Only MICRO: Disconnect the flat cable direct from the display see fig. 7),**

- Disconnect the flat cable from the board (see fig. 5 + 6)

5. Remove the display.

**Only grandMA: In case the PCB has to be replaced, remove the 2 screws with the lock nuts (see fig. 3).**

6. Carefully remove the alloy tape and remove the touch screen. Note the position of the small flat cable, this is important when you reassembly the new touch screen.

7. Observe the following when assembling the touch screen to the display:

- The components must be clean
- The gluing points must be degreased
- Remove the protections from the touchscreen
- Pay attention to the correct position of the touch screen. The visible area of the display and holes for the fastening bolts should not be covered.
- Carefully apply new tape where needed. If the touch is not placed correct, carefully remove the tape, replace the touch and apply the tape again.

**Warning: Leave open the area of the cable (see fig. 4)**

8. Carefully apply new tape where needed.

**Only grandMA: The grandMA displays are specified for the positions left, middle and right. Replace a display only with a display for the correct position (see fig. 6)**

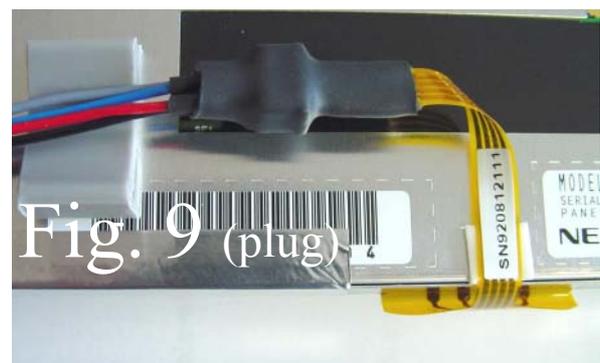
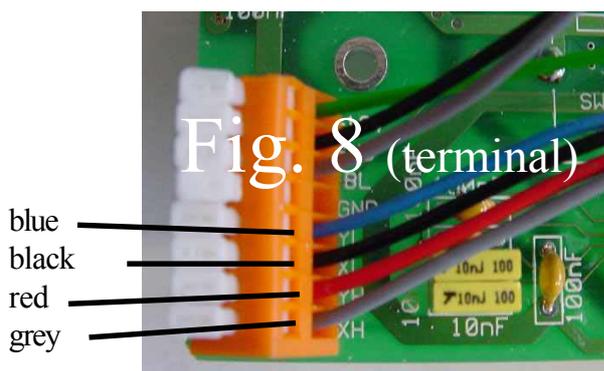
9. Connect all electric cables and fastening screws

**All consoles, except MICRO:** Pay attention on the correct position of the flat cable. The blank points must show in the direction shown in fig. 5.

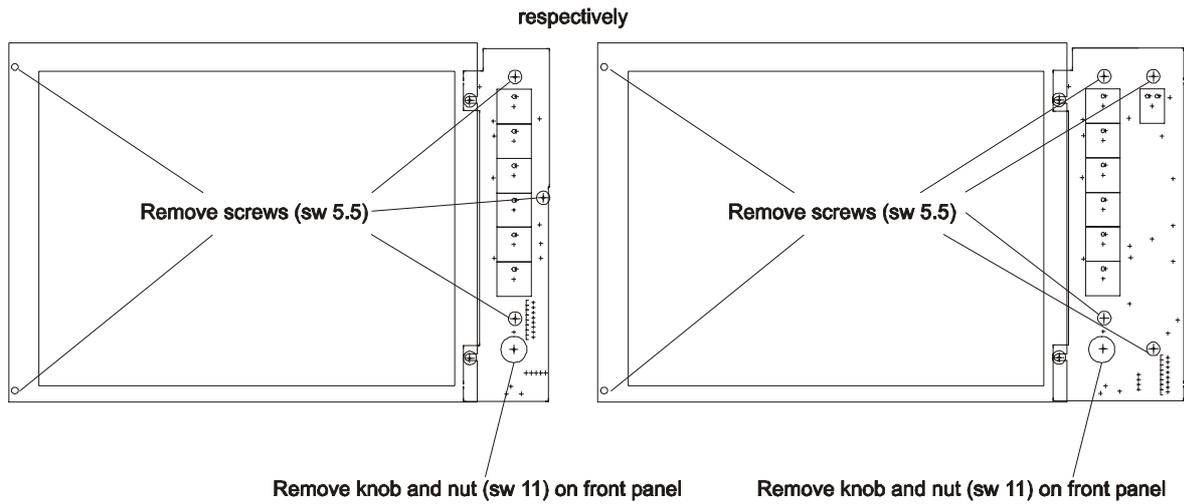
**Only MICRO:** connect the flat cable direct to the display (Position of the cable see fig. 7) and secure the plug with silicon.

**Only grandMA: remove the cable (4 cores) between touch screen and terminal - note the position of the cables. Push the coil and the black hose over the new cable. Connect the plug with the flat cable - note the position of the flat cable and the position of the plug (blue and red above) - see fig. 9. Insert the cores into the terminal - see fig. 8 for colour code. Place the black hose over the plug and warm it up till it fits.**

10. The assembly is to be carried out in the reverse order.



**Fig. 2** (Removing a TFT display incl. touch screen)



**Fig. 3** (Removing a TFT display incl. touch screen)

