

Repair of DGT 2010

Lever does not switch

When performing the functional test as described in the 1708 problem document, the numbers in the display should change from 5 to 6 when operating the lever.

To enter this test you have to push the $\sqrt{\quad}$ button and hold it when switching on the clock, push $\blacktriangleright||$ next.



Foto 1 The numbers that indicate the lever position

If the numbers don't change the lever switch may be damaged or the magnet that operates the switch may be out of place.

There is a simple test to check if the magnet in the lever is in place:

Take out one of the corner screws out of the bottom.

Place it on the left side of the lever

If the magnet is OK the screw will be orientated like in the picture or 180 degrees rotated.

When the screw is orientated otherwise or will not be attracted to the lever at all, proceed with the following steps.



Open the bottom of the clock

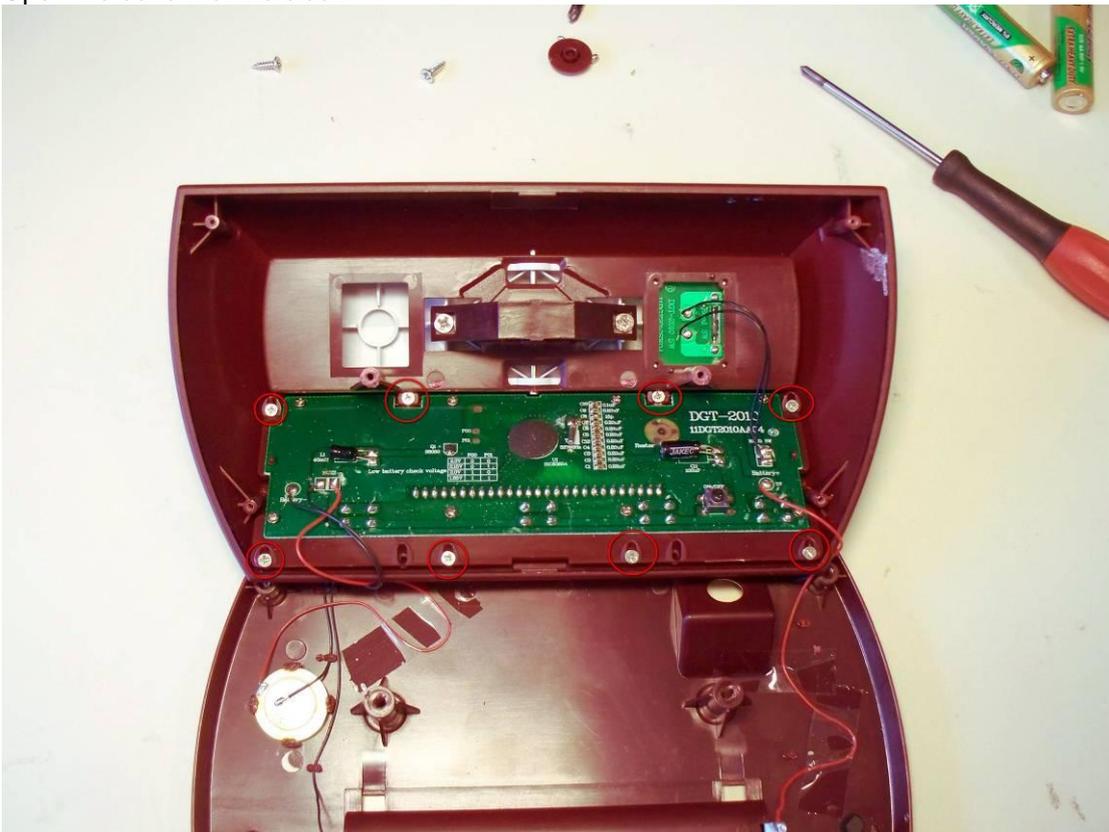


Foto 2 The 8 screws that hold the subframe for the main board

Next remove the two screws that hold the V-shape over the lever and remove this V-shape and the spring. Unscrew the 8 screws that hold the sub-frame to the housing of the clock. (the ones in the red circles in the picture)

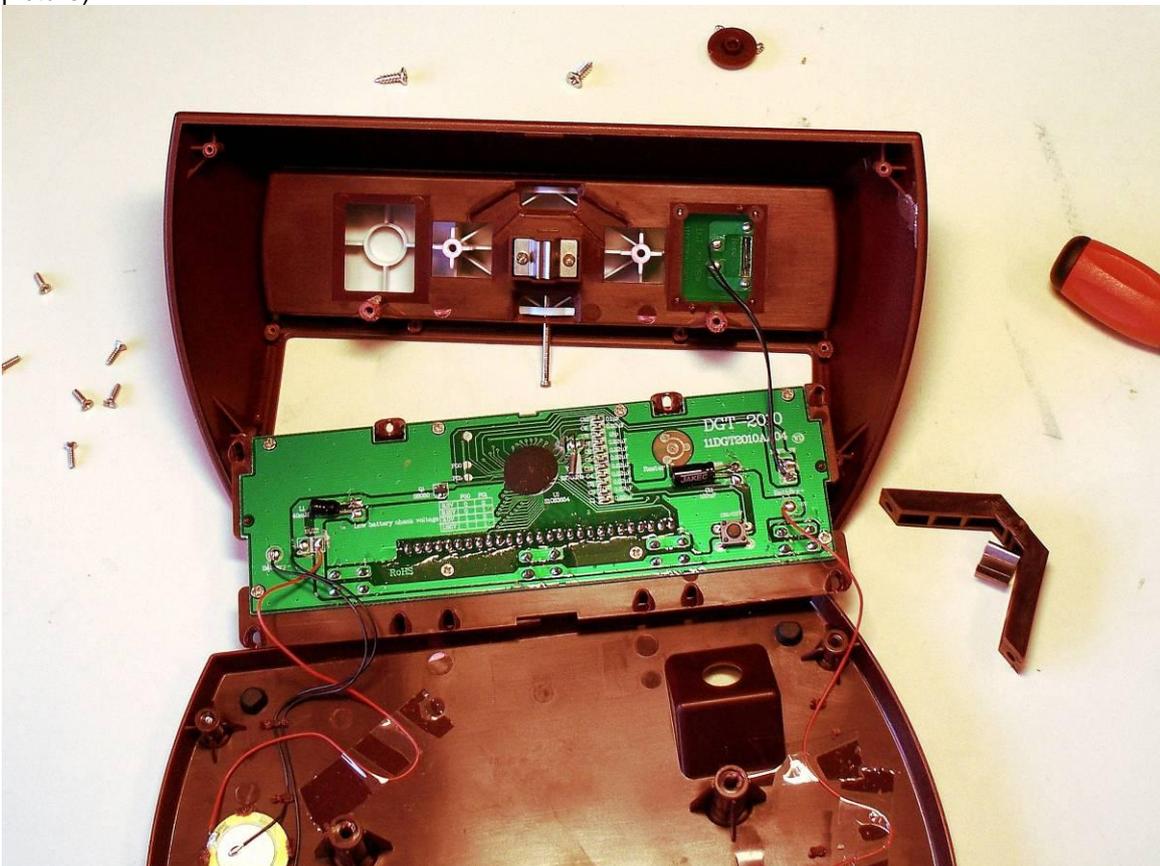


Foto 3 Exploded view of a DGT 2010

Next step is to take out the pin that holds the lever.

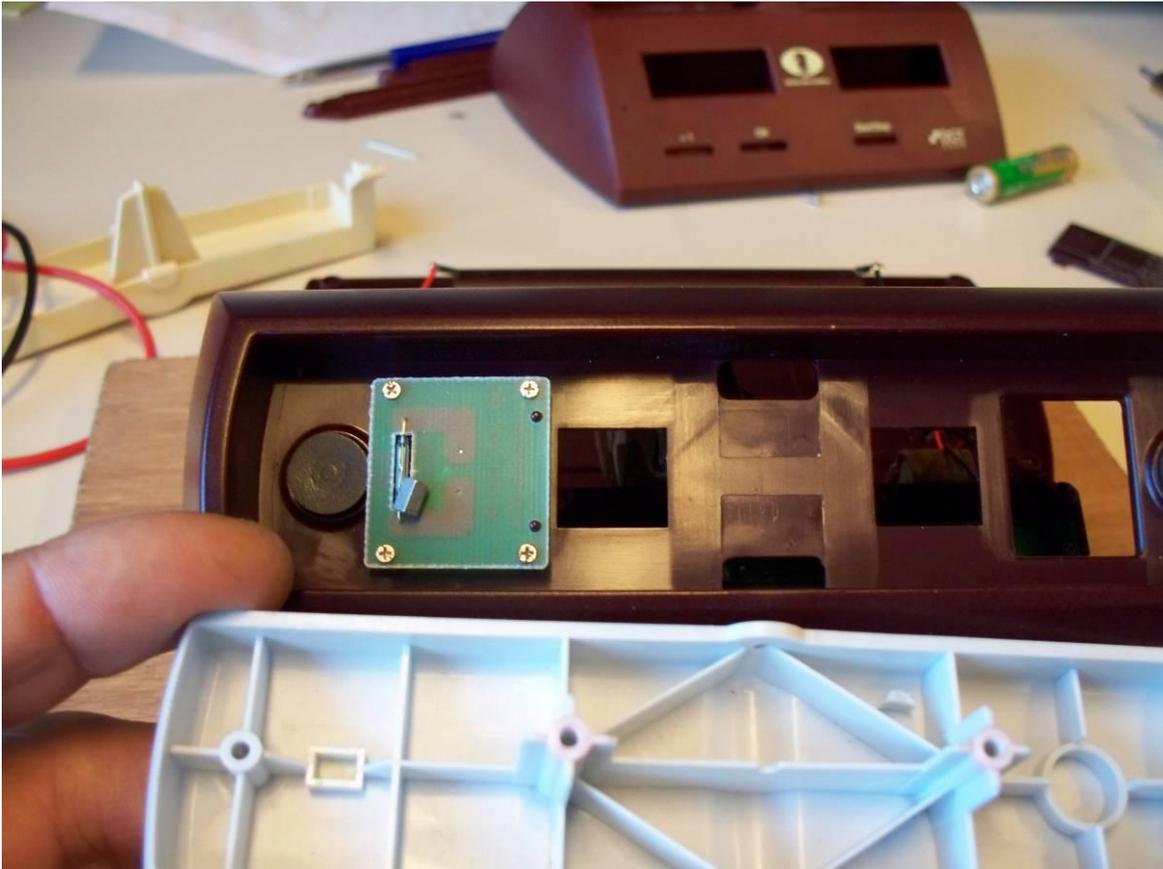
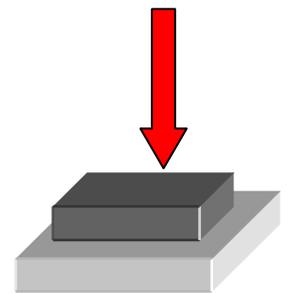


Foto 4 The reed contact assembly with a fallen out magnet



Foto 5 Gluing in the magnet



Be sure to insert the magnet with the largest side facing to you

Replacing the reed contact.

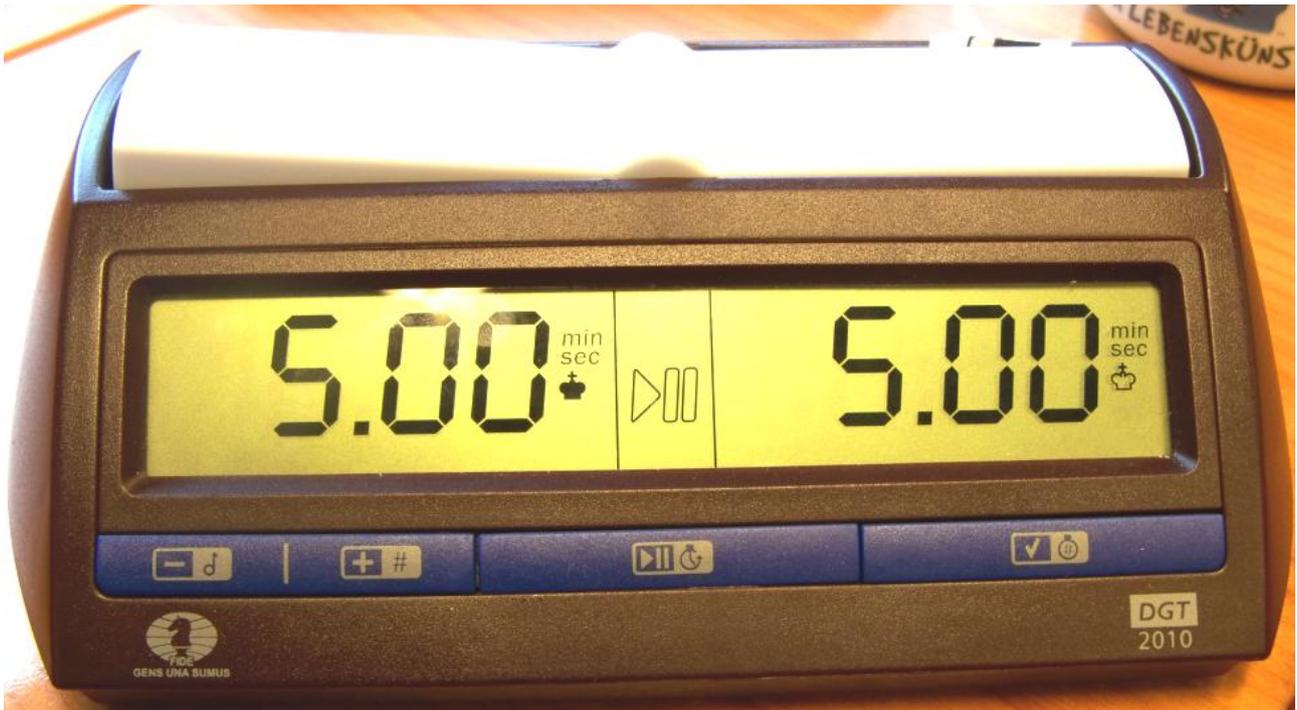
If the magnet is in place, but the lever switch does not react, the reed contact (the green glass tube) may be damaged.

In that case remove the four screws of the small pcb of the reed contact.

Loosen the wires with a soldering iron from the main pcb

Replace the reed contact assembly with a new one.

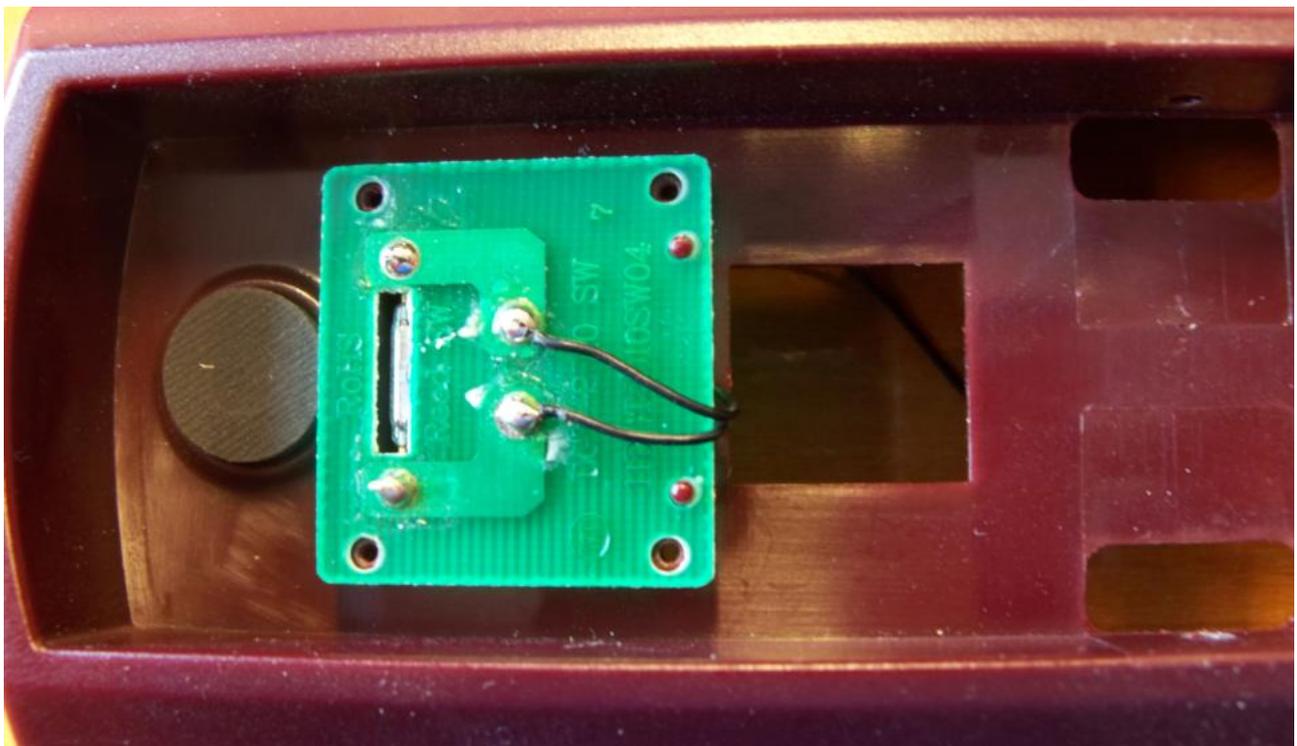
Lever does not switch or only when the right side is pressed very hard.



Sometimes the magnet is too strong or the reed switch is too sensitive. The result is that when you press the right side of the lever the black King symbol is still on left side and the white King symbol is on the right. It does not change when you switch the lever. Perhaps when you press the right side very deep the symbols will change.

Solution

You may turn around the small pcb on which the reed contact is placed. In this way the distance between magnet and reed contact is larger. In most cases this will solve the problem.



Functional test

Put in two 1,5 V AA batteries in the clock. (the clock will switch on automatically)

In rare cases the clock will not switch on even if all wires are connected correctly. If this is the case use a flat screw driver to connect the two pads of the "reset" connector. (the red circle in **Fout! Verwijzingsbron niet gevonden.**)

Push the on/off switch on the bottom to switch it off

Hold the ✓ button and switch the clock on again, while holding this ✓ button.

You will see a display test

Check if all segments work properly

Wait until you see Foto 7



Foto 6 Display test

Push the start/stop button once and listen if you hear a beep. (Foto 8 **Fout! Verwijzingsbron niet gevonden.**), If you don't hear any sound, than check all the wiring between bottom plate and upper part.



Foto 7 push the middle button

You will see a number that indicates the voltage that is set for "low battery" indication



Foto 8 the "low battery" voltage

Push all buttons one after another once and check if the number in the display changes. Also switch the lever once or twice. Put extra attention on the numbers when moving the lever.



Foto 9 The numbers that indicate the lever positon