Minikin THi/RTi/QTi

serial number **15050601** and higher

Battery replacement

EMS Brno, October 2020

Related tools and accessories:

Minikin sensor THi/RTi/QTI in radiation shield

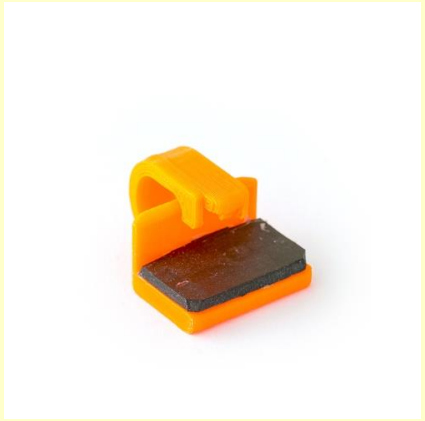
IrDA/USB cable

Battery for screwless terminals

Dessicant bag

Minikin opener

Tweezers



Wago single squeezer

Sensor removal

Remove the sensor (datalogger) body from the radiation shield. For long life maximal reflection are the plates made from aluminium coated by baked varnish. The plates need relatively gently handling in order to avoid their deformation.

- Unscrew three nuts from the bottom of the radiation shield (with any 8 mm wrench) and remove the triangle base with the sensor

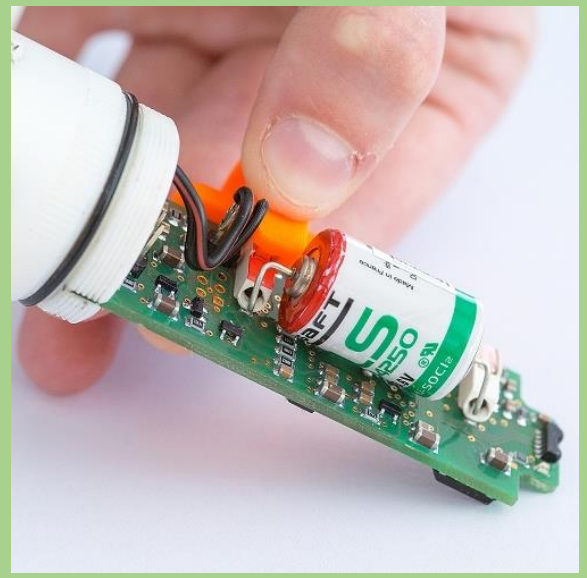
Electronics removal

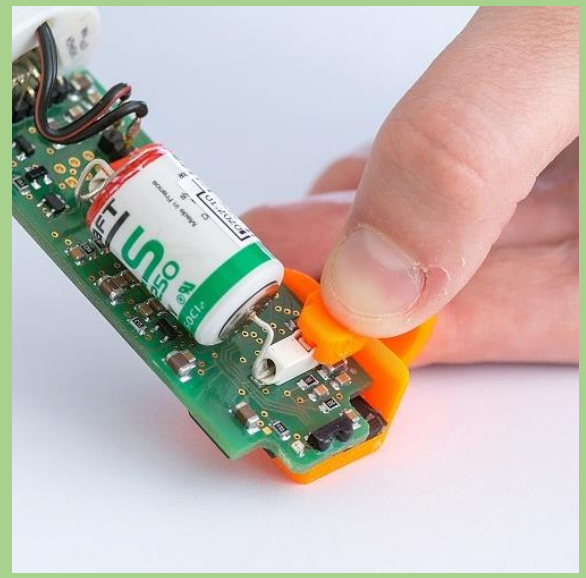
- Screw out the black “head” from the stainless case and carefully pull out the electronics.

Battery removal

- Remember the battery polarity.
- Use special tool. Insert the tool on the PC board exactly according to pictures.
- Squeeze the tool and remove the battery wires one by one.

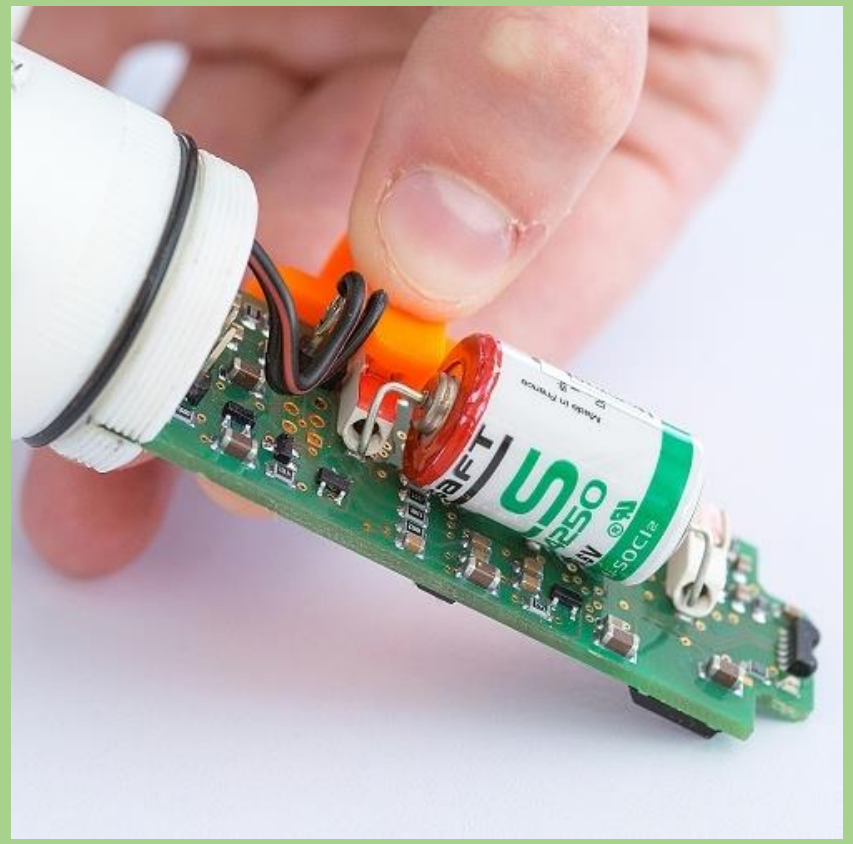
Note: The plastic cover of terminals is fragile so they can easy break. Handle them with care!

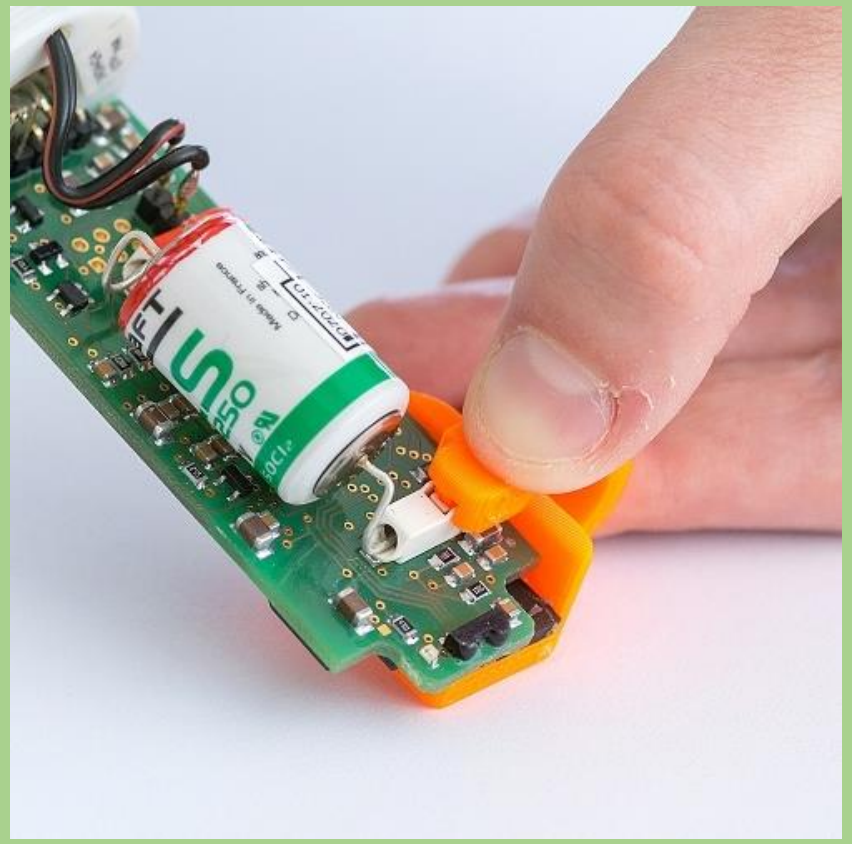




Battery inserting

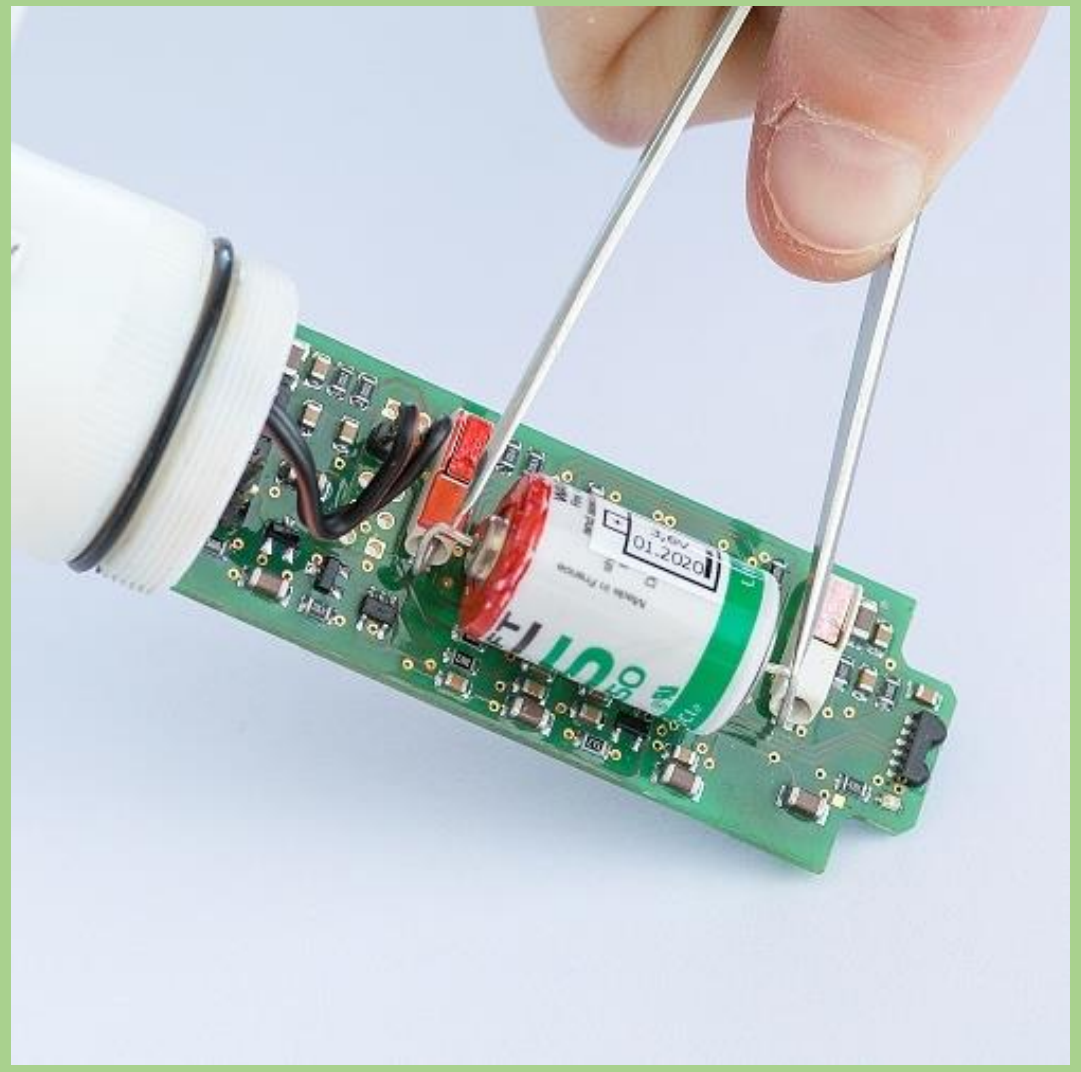
- Use special tool and gently insert the battery terminals.
- Notice the polarity – "+" on the battery (in red) and "+" on the PCB.
- It is good idea to write down the time stamp of battery replacement.





Battery reset

- Short circuit the battery terminals of new battery for few seconds - see picture. This will reset the battery life counter. Tweezers is the ideal tool for this.
- Note that the battery counter can be reset even later from Mini32 software (Configuration>More>Batt. reset)



Putting back together

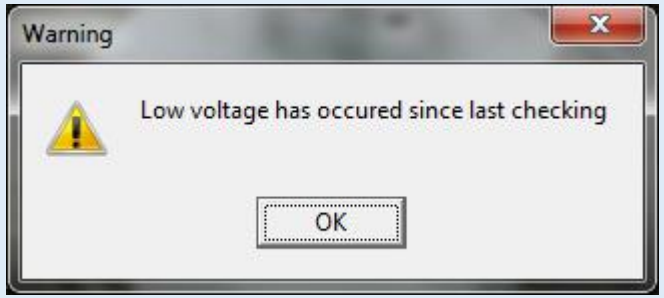
- Put new desiccant bag on the electronics.
- Insert the electronics carefully back into the stainless case.
- Screw it down gently, only by hand. Be careful not to screw “over the thread”.
- For tightening, use the tool the same way as earlier. Loosen up the case for a few degrees after screwing down for later easier release.

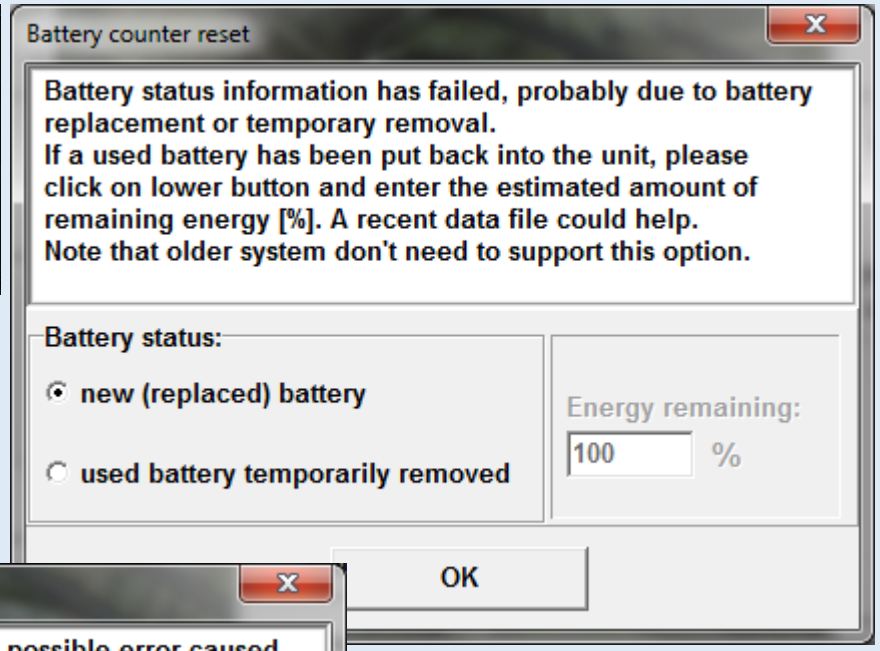
Final assembling

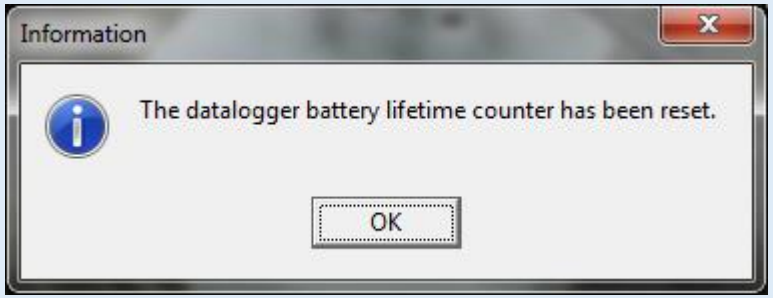
Put the sensor back to the radiation shield and screw up the nuts.

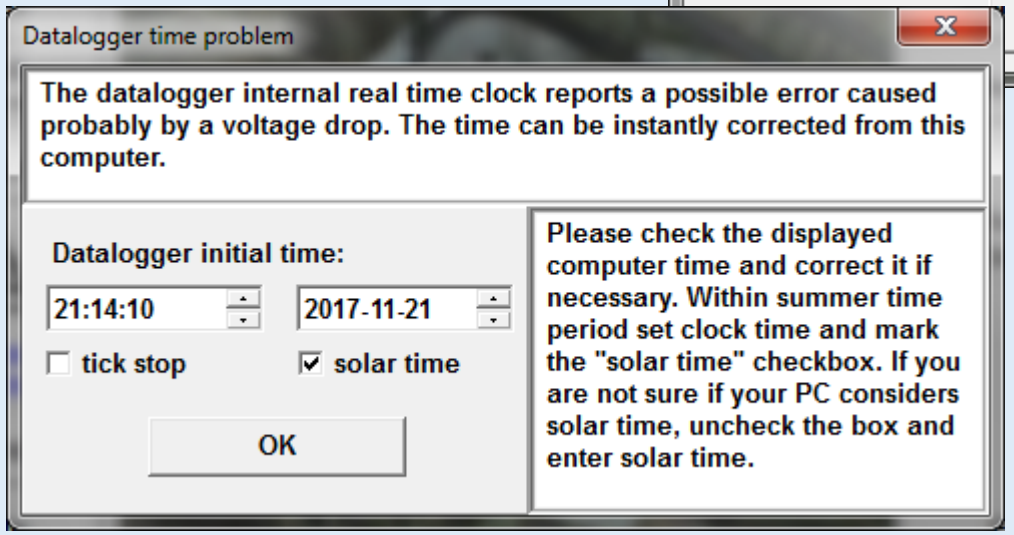
Sensor set up

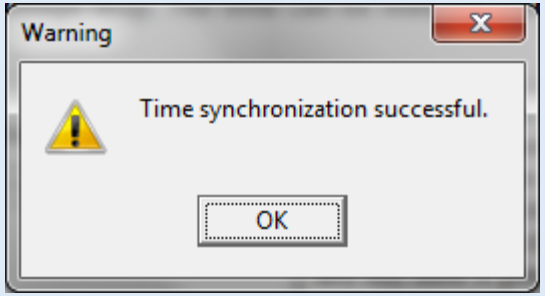
Run Mini32 and go to Configuration. You will pass following windows and messages – just accept them:

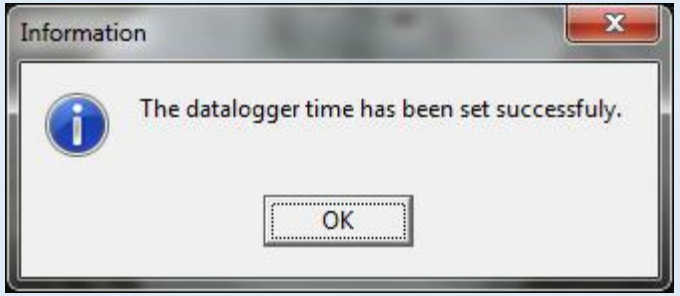






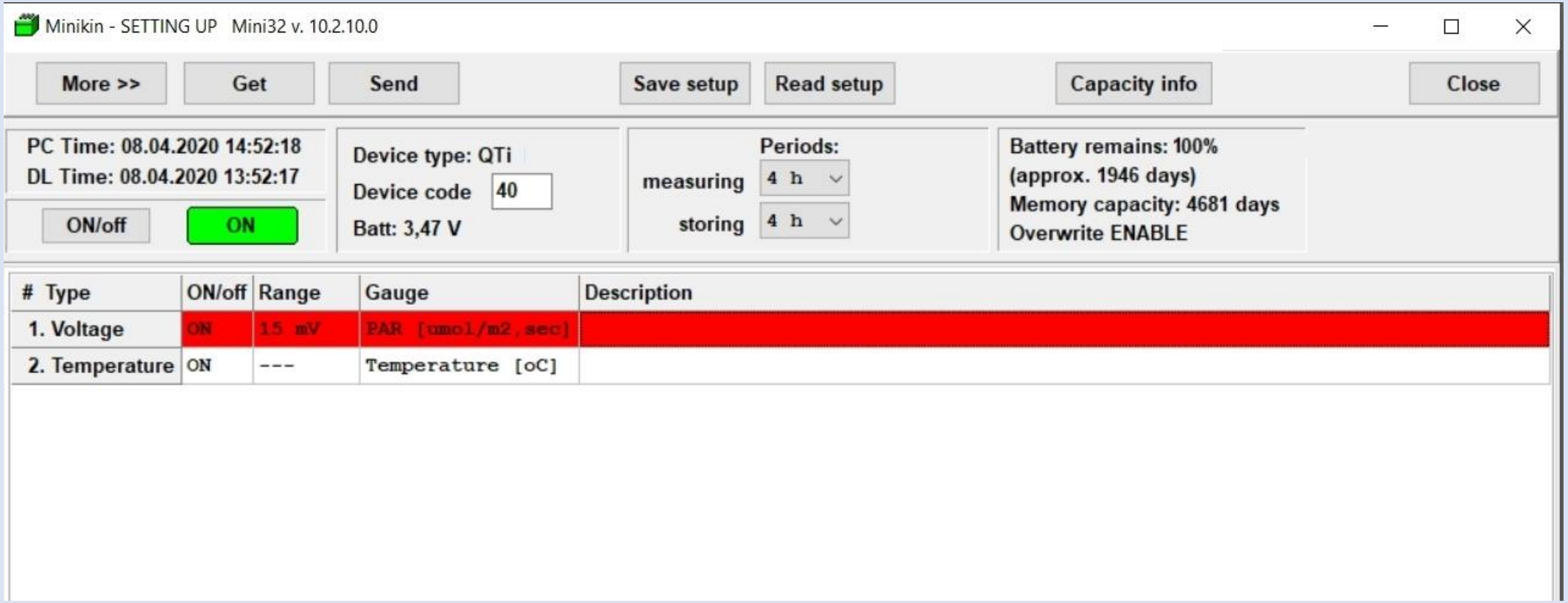






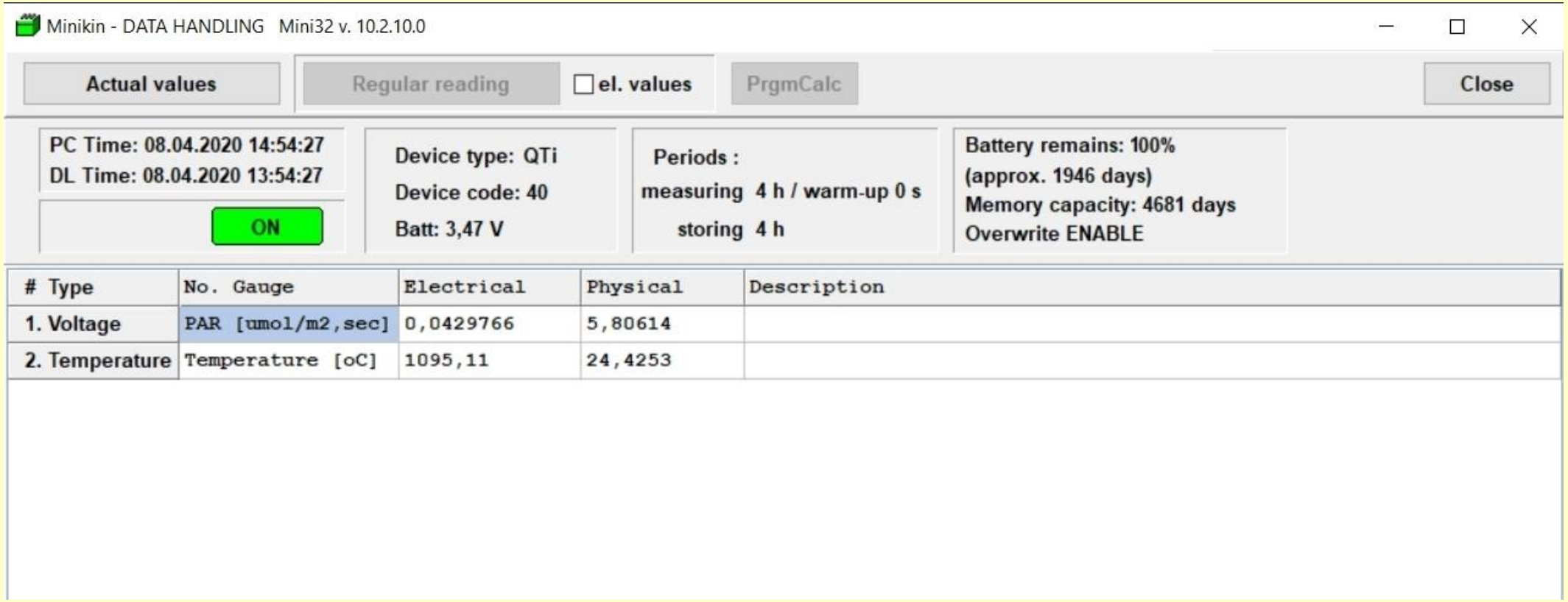
Battery counter

When the battery status does not show 100%, the short circuiting of battery has not been performed sufficiently. In such a case, the battery counter reset must be made manually – go to More>> Batt. Reset – 100%.



Final check

Go to back to Mini32 main screen and push “On-line” button. Check the actual values and all status information. You might also download data in order to double check that there has nothing happened with memory structure during the battery replacement operation.



Good luck!

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