

Minikin Tie

with serial number starting with „A“

Battery replacement



EMS Brno, July 2022

Michal Bellan

Related tools and accessories:



Tweezers



Desiccant bag



IrDA/USB cable



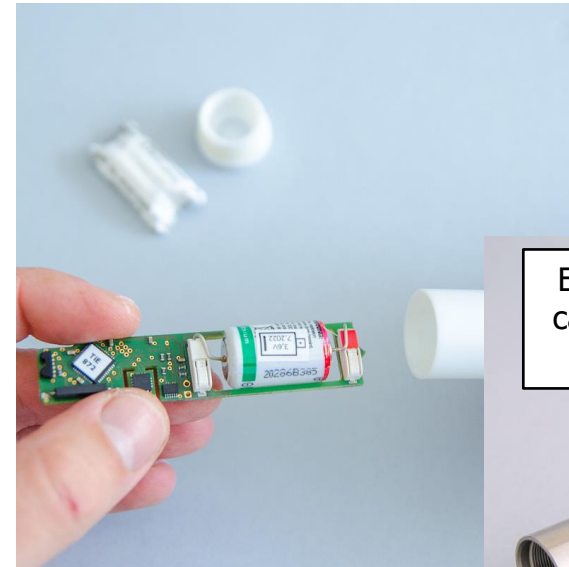
Battery for screwless
terminals (WAGO)



WAGO tool
(for WAGO 2060 terminals)

Electronics removal

- Unscrew the datalogger plug.
- Gently pull out the electronics from the datalogger case.

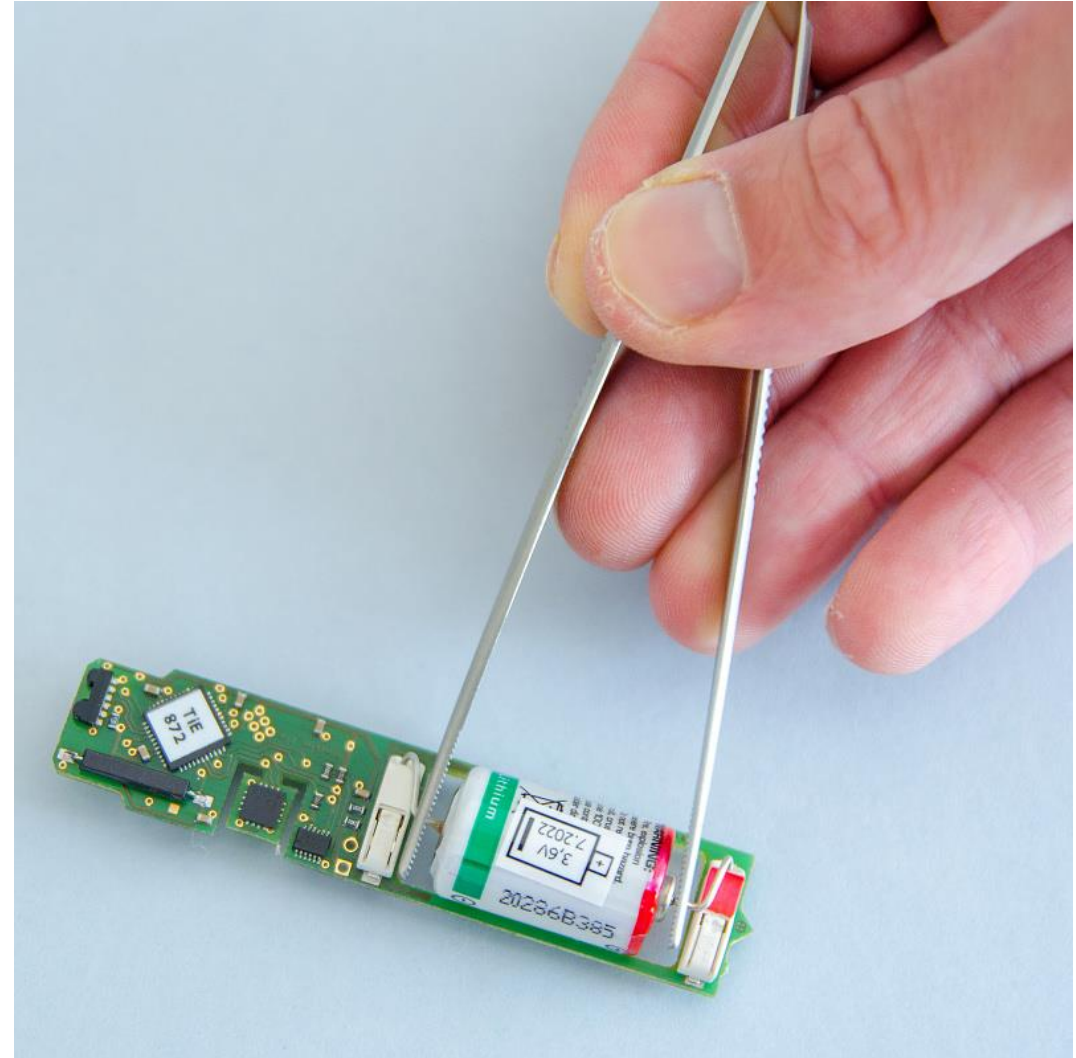


Electronics of stainless case version is inserted in plastic bag.



Battery reset

- Short circuit the battery terminals of old battery for few seconds - see picture. This will reset the battery life counter. Tweezers is the ideal tool for this.
- Exceptionally you can reset the counter also by short circuiting of new battery – not more than one second.
- Note that the battery counter can be reset also from Mini32 (Configuration>More>Batt. reset)



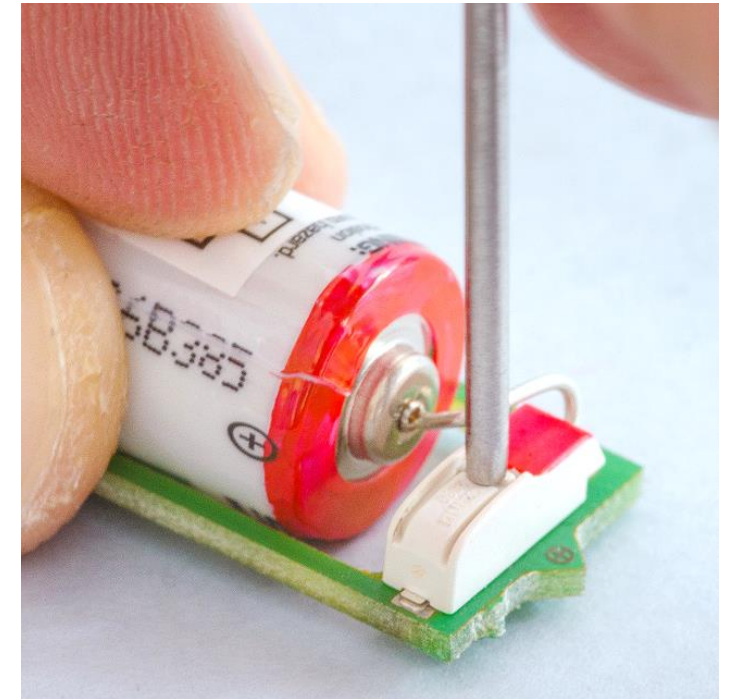
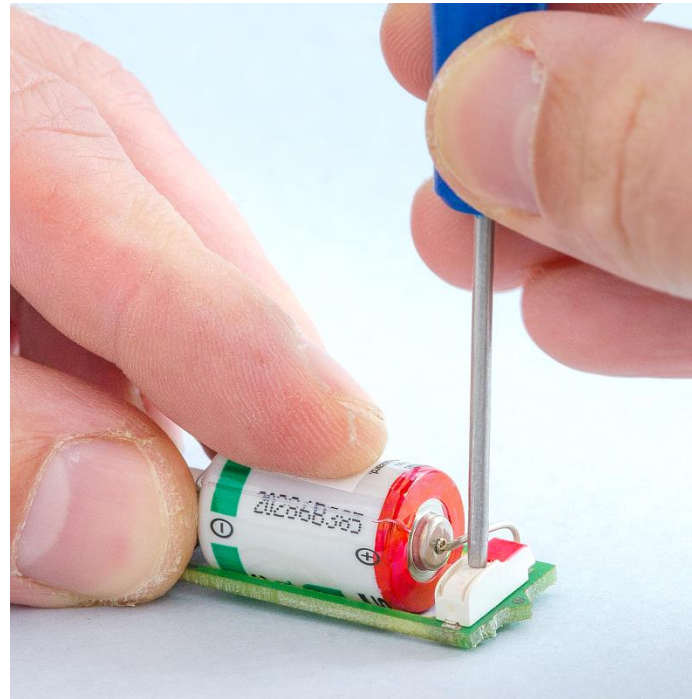
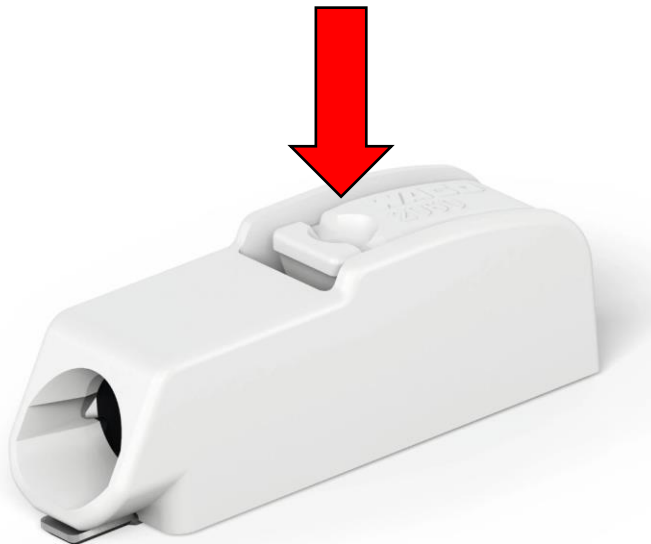
Battery removal

- Release the positive battery terminal and remove the battery wire:
 - insert the end of the WAGO tool into the circular depression in WAGO 2060 terminal
 - lightly press **perpendicularly** on a push-button and remove the wire
- Release the negative battery terminal in the same way as positive terminal and remove the battery.
- Don't forget to recycle battery.



WARNING

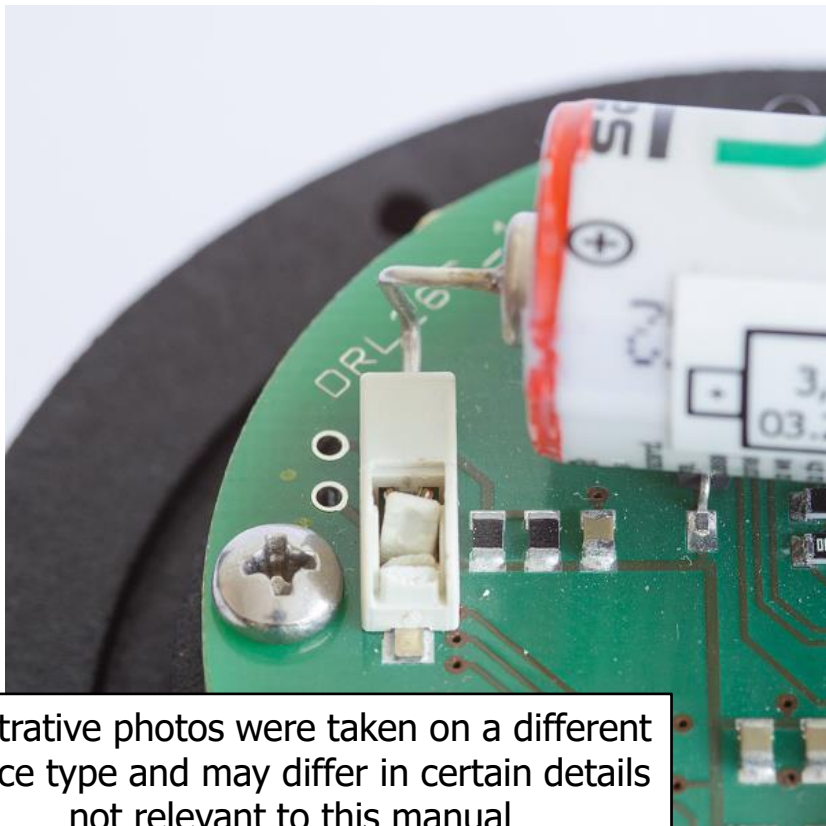
the plastic part is
extremely fragile.
Make sure to use
appropriate tool!



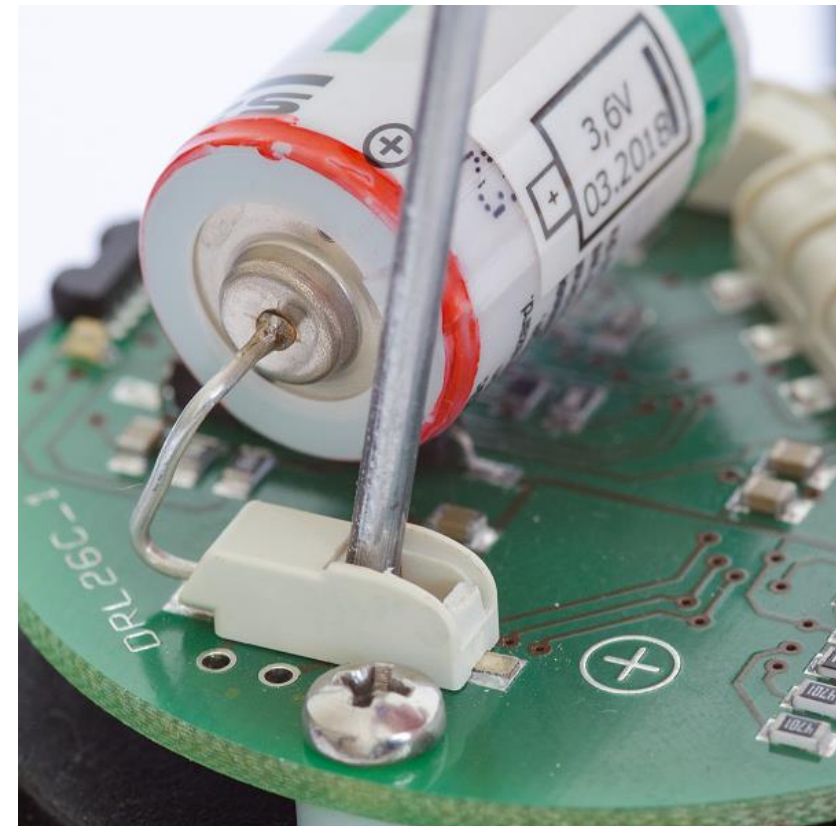
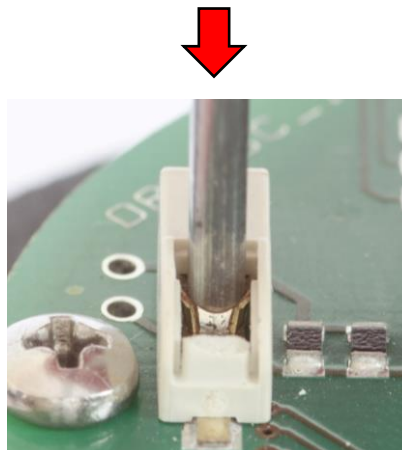
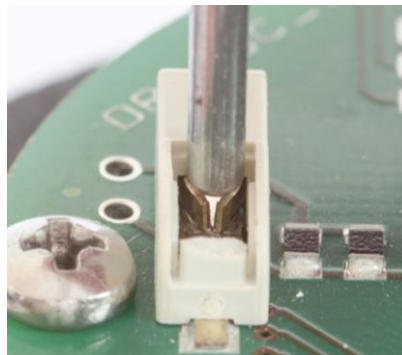
Battery removal – broken terminal

If you accidentally broke the push-button of WAGO terminal:

- remove the broken remains
- use the same WAGO tool for opening the clamping jaws
- slightly more force is required for opening (compared to a functional, not broken terminal)

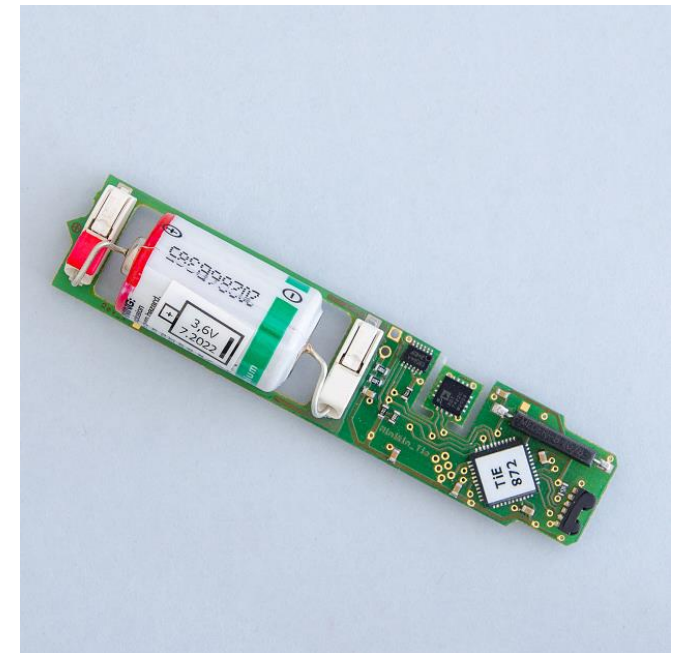
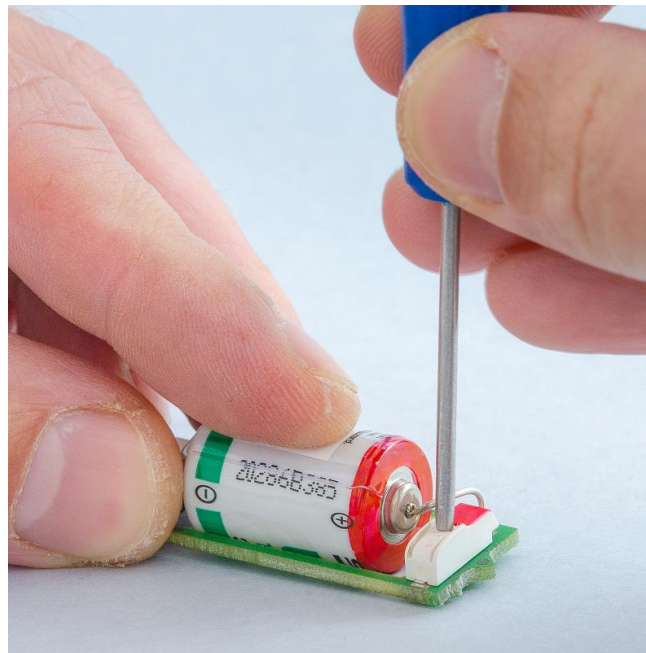
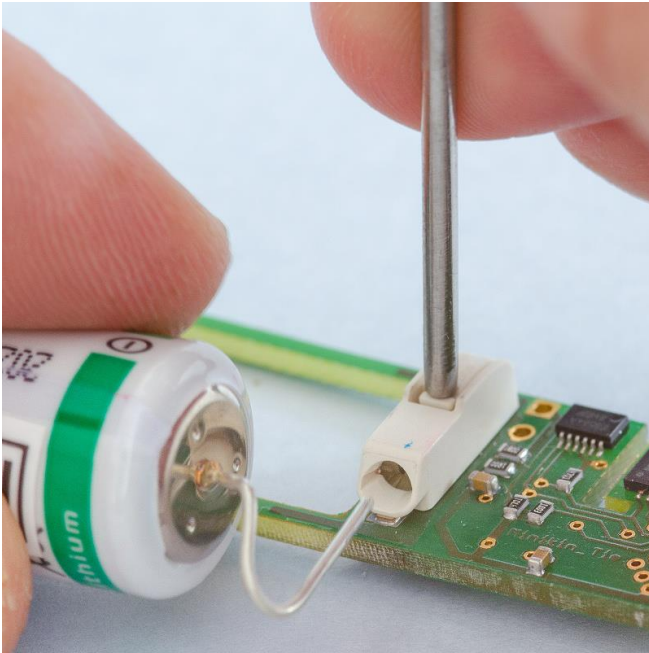


Illustrative photos were taken on a different device type and may differ in certain details not relevant to this manual



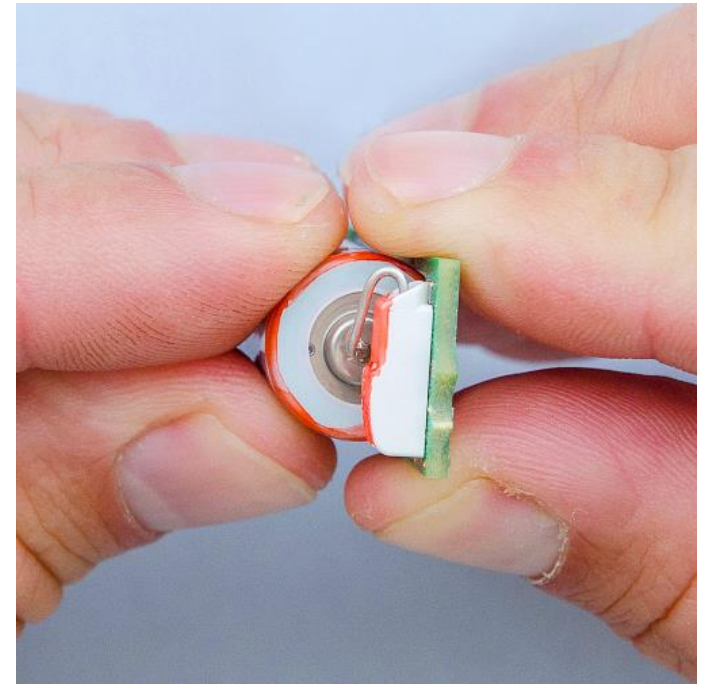
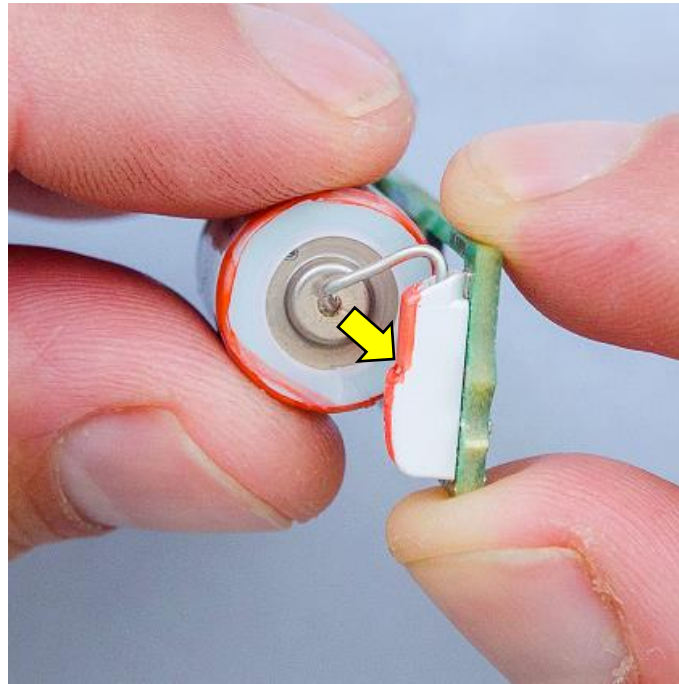
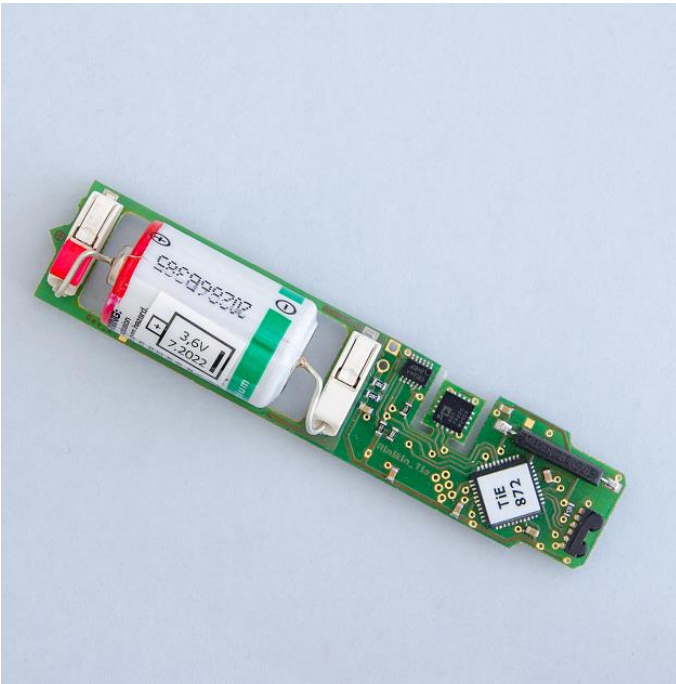
Battery inserting

- Insert new battery. Notice the polarity – “+” on the battery (in red) and “+” near the edge of PCB.
- Press on a push-button of negative terminal and insert the battery wire.
- Press on a push-button of positive terminal and insert the battery wire.
- Correct battery insertion is indicated by four flashing of LED.



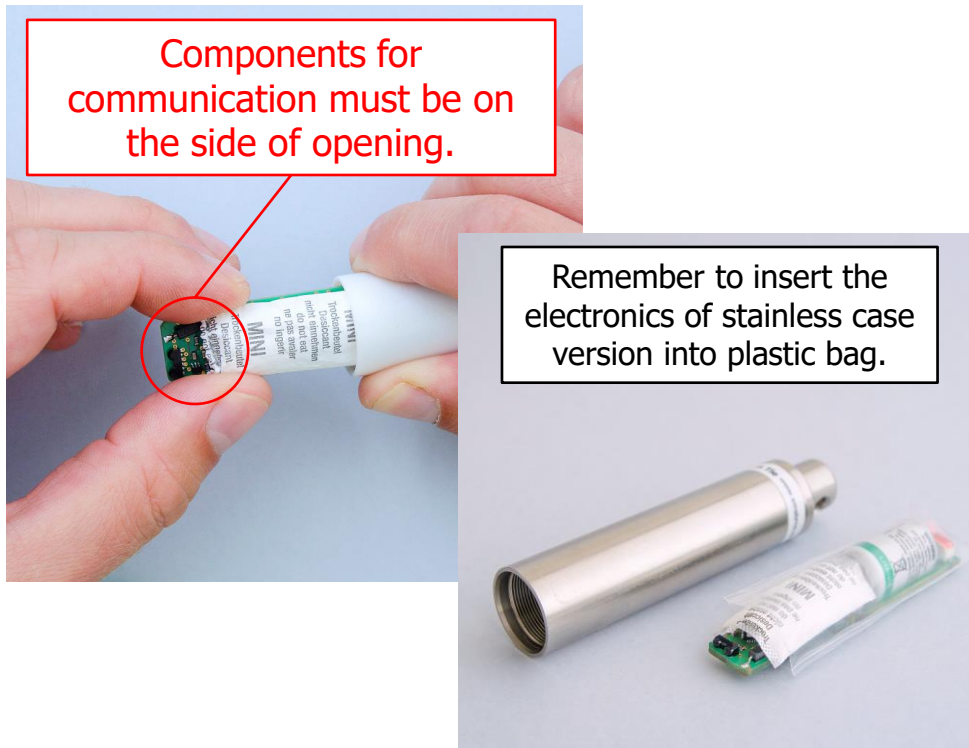
Battery inserting

- It is good idea to write down the time stamp of battery replacement.
- Gently push the battery into the window in PCB.



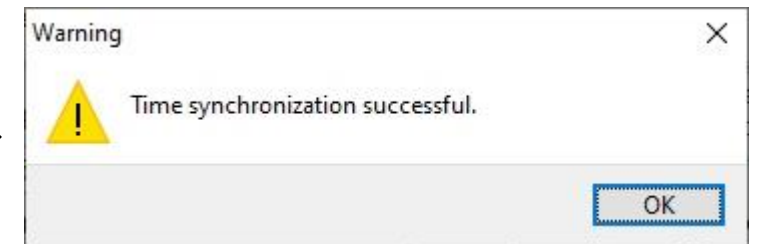
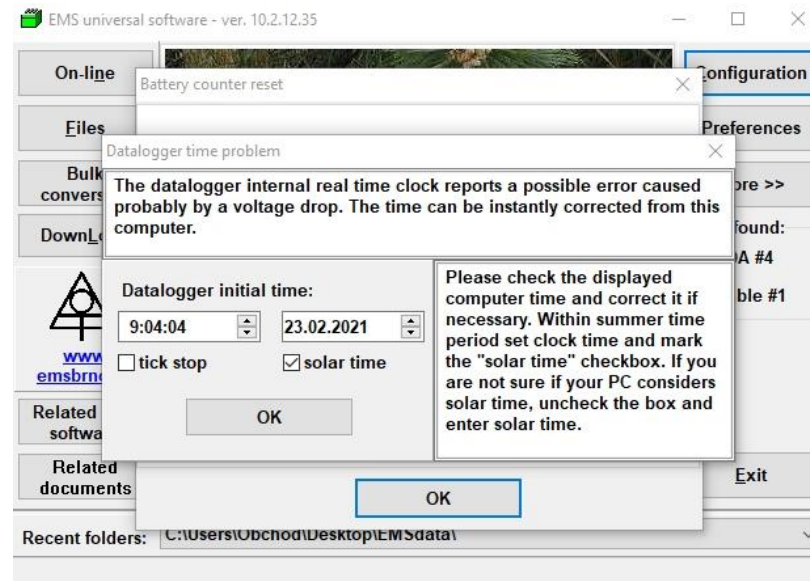
Putting back together

- Insert half of electronics into the datalogger case, place new desiccant bag in and push electronics into the datalogger case
- Screw up the datalogger plug



Time synchronization

- Run Mini32, connect the IrDA/USB cable to the PC and click on the "Configuration" button. Activate IR communication by attaching the head of IrDA/USB cable to the bottom of device
- Set datalogger time and press "OK"



Battery counter reset

Check the battery status and press "OK"

Battery counter reset

Battery status information has failed, probably due to battery replacement or temporary removal.
If a used battery has been put back into the unit, please click on lower button and enter the estimated amount of remaining energy [%]. A recent data file could help.
Note that older system don't need to support this option.

Battery status:

☒ new (replaced) battery

☐ used battery temporarily removed

Energy remaining:

100

%

OK

Information

The datalogger battery lifetime counter has been reset.

OK

If this action has not been offered automatically - the battery short circuit has been omitted, you must reset the battery counter manually: Configuration > More > Batt. reset.

Less <<

Init

RAM clear

HCM

Password

Set time

Batt. reset

Sensor configuration

- The datalogger keeps current configuration even after battery replacement
- Nevertheless, check the setup for sure in Mini32 > Configuration

<u>More >></u>		<u>Get</u>		<u>Send</u>		<u>Save setup</u>		<u>Read setup</u>		<u>Capacity info</u>					
PC Time: 10.10.2022 23:31:39 DL Time: 10.10.2022 22:31:37				Device type: Tie Device code 72 Batt: 3,45 V				Periods: measuring 1 h storing 1 h				Battery remains: 99% (approx. 2026 days) Memory capacity: 1927 days Overwrite ENABLE			
<u>ON/off</u>		☒													
#	Type	ON/off	Range	Gauge		Description									
1.	Temperature	ON	---	Temperature [oC]											

Final check

Go back to Mini32 main screen and push "On-line" button. Check the actual values and all status information.

Minikin - DATA HANDLING Mini32 v. 10.2.17.0

Actual values

Regular reading

☐ el. values

PrgmCalc

Close

PC Time: 10.10.2022 23:37:40
DL Time: 10.10.2022 22:37:39

ON

Device type: Tie
Device code: 72
Batt: 3,45 V

Periods :
measuring 1 h / warm-up 0 s
storing 1 h

Battery remains: 99%
(approx. 2026 days)
Memory capacity: 1927 days
Overwrite ENABLE

#	Type	Gauge	Electrical	Physical	Description
1.	Temperature	Temperature [oC]	3391	26,4922	

Good luck!