# Minikin SP1 Battery replacement



EMS Brno, July 2022

#### **Related tools and accessories:**



Minikin SP1



terminals





Minikin opener

Tweezers

#### **Electronics removal**

- Loosen the black "head" of datalogger by Minikin opener
- Screw out the black "head" from the stainless case and carefully pull out the electronics.



#### **Battery removal**

- Remember the battery polarity.
- Push-in the positive (red) spring clamp battery terminal and extract the battery wire.



#### **Battery removal**

• Push-in the negative (blue) spring clamp battery terminal and extract the battery wire.

Note: Don't forget to recycle the battery.



## **Battery inserting**

Insert the battery by reversing the removal procedure:

- Push-in the negative (blue) spring clamp battery terminal and insert the battery wire.
- Push-in the positive (red) spring clamp battery terminal and insert the battery wire.
- It is good idea to write down the time stamp of battery replacement.





#### **Battery reset**

- Short circuit the battery terminal wires 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".
- Loosen up the case for a few degrees after screwing down for later easier release.



#### Sensor set up

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

Warning	Battery counter reset		Information			
Low voltage has occured since last checking	Battery status informati replacement or tempor If a used battery has be click on lower button a remaining energy [%]. Note that older system	ion has failed, probably due to battery rary removal. een put back into the unit, please nd enter the estimated amount of A recent data file could help. don't need to support this option.	The datalogger battery lifetime counter has been reset.			
	Battery status:					
	• new (replaced) batte	Energy remaining:				
	O used battery tempor	arily removed				
Datalogger time problem		ок				
The datalogger internal real time clock reports a probably by a voltage drop. The time can be inst computer.	possible error caused antly corrected from this					
	hock the displayed	Warning				
Datalogger initial time: 21:14:10 2017-11-21 necessar	r time and correct it if y. Within summer time	Time synchronization successful.	The datalogger time has been set successfuly.			
tick stop ✓ solar time solar time	et clock time and mark r time" checkbox. If you	ОК	ОК			
OK solar tim enter sol	e, uncheck the box and ar time.					

#### **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%.

X							
<u>M</u> ore >>	G	et	Sen <u>d</u>	<u>Save setup</u> <u>R</u> ead setup	Capacity info Create RCF Close	<u>e</u>	
PC Time: 09.08.2022 10:54:13     Device type: SP1       DL Time: 09.08.2022 9:54:14     Device code     82       ON/off     ON     Batt: 3,47 V			Device type: SP1 Device code 82 Batt: 3,47 V	Periods: measuring 1 h v storing 1 h v	Battery remains: 100% (approx. 1425 days) Memory capacity: 2259 days Overwrite ENABLE		
# Type	ON/off	Range	Gauge	Description			
1. A.C. Resist	ON	60kOhm	SWP [-bar] GB Delm.				
2. Temperature	ON		Temperature [oC]				

#### **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.

Minikin - DATA HANDLING Mini32 v. 10.2.17.0								_		×
Actual values Regular reading Calc								CI	os <u>e</u>	
PC Time: 09.08.2022 10:52:17     Device       DL Time: 09.08.2022 9:52:18     Device       ON     Batt: 3			e type: SP1 Periods : e code: 82 measuring 3,49 V storing		g 1h/warm₋up0s g 1h	A / warm-up 0 s Memory capacity: 2259 days Overwrite ENABLE				
# Type	Gauge Elec		Electrical	Physical		Description				
1. A.C. Resist	SWP [-bar] GB	[-bar] GB Delm. O		0,0852436						
2. Temperature	Temperature [o	ure [oC] 1098,83		25,3828						

# **Good luck!**

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