
GENEREX User Manuals

English

SMARTBATTERY COMPANION APP

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About the SMARTBATTERY Companion App

The SMARTBATTERY Companion App is special software that works exclusively with the SMARTBATTERY / iBACS technology developed by GENEREX. While the SMARTLOGGER can be mounted anywhere on existing batteries, the SMART technology can also be integrated into a battery as a permanent component to independently store all operating data like a black box, even after a total battery failure.

Providers can reliably determine and communicate the condition and quality of their batteries during installation.

Since the SMARTLOGGER cannot be manipulated by design, the data also provides a legally binding basis to which customers and providers have equal access and can therefore exchange data and facts in the event of problems to communicate with each other on an equal footing:

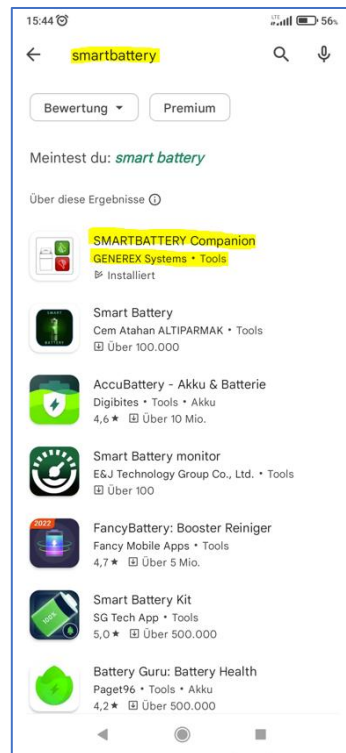
With the SMARTBATTERY Companion App you get access to uncompromisingly transparent and flexible offline monitoring - you can read out the operating data of a battery as you wish, carry out capacity tests and thus provide the best possible care for your systems without much effort.

Special sharing tools make it possible to share the collected files directly and in a controlled manner for further diagnosis and the planning of maintenance windows, or to determine the acute need for action in real time in conjunction with battery experts.

Installation

The SMARTBATTERY Companion App is available in two different ways

1. The SMARTBATTERY Free Companion App



Download via the Google Play Store - The Google Play Store service will automatically inform you whether your currently registered mobile device meets the minimum requirements and the companion app will run as desired.

2. The SMARTBATTERY Companion App Professional for system builders and developers

The SMARTBATTERY Companion professional app can be purchased directly from ussales@generex.de. Unlike the Standard Edition, this version of the program must be installed directly from your mobile device's internal file browser, and the mobile device must meet at least the following system requirements:

- NFC interface
- Android 10 or higher
- Network access for setup (LAN/WLAN)
- The ability to install apps from unknown sources.

In addition, an internet connection is recommended for additional functionality such as sharing and sending the collected battery data - the companion app itself would also work as a pure offline tool.

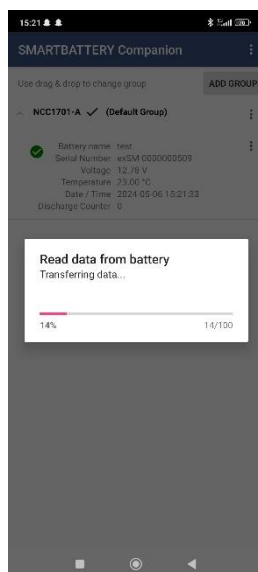
Read batteries

Make sure that the NFC function on your mobile device is activated and that the companion app is also allowed to access this interface.

Otherwise, the SMARTBATTERY Companion App will inform you that operation is not possible under these conditions.

		
<p><i>The Companion App Mountain Greetings Screen – to get started, tap START.</i></p>	<p><i>Unless your device's NFC chip is active, the app will ask you to do so. Tap OK to open your Android device's settings.</i></p>	<p><i>The companion app is ready for use. As soon as you bring your smartphone within range of the SMARTLOGGERS, it will automatically read the battery.</i></p>

Quick start – The standard scan with automatic default group



If you have not defined any groups, the companion app will automatically create the battery group “SMARTBATTERY” during the first scan and store all newly recorded SMART devices there until revoked.

The scanning process


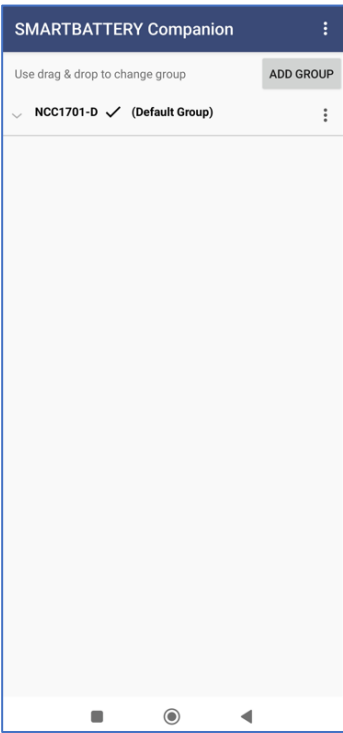
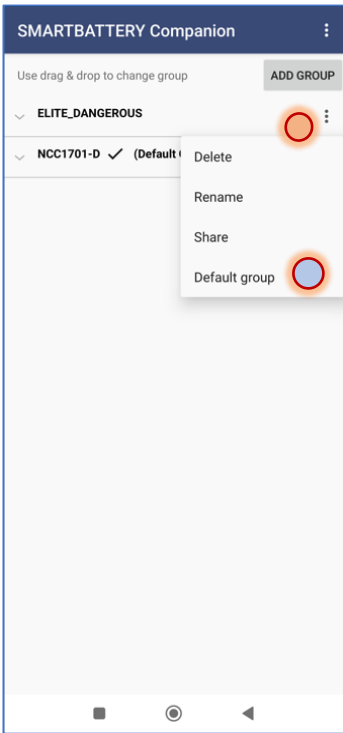
Place your mobile device over the SMARTLOGGER interface so that the NFC interface can make contact:

As soon as contact has been made, the companion app automatically reads out general measurement data. If no battery group has yet been defined as a standard, the “SMARTBATTERY” group is automatically created and the measurement data is stored there.

After the scanning process is successful, you can tap the entry to enter the details screen.

Advanced Start – Self-defined battery groups

First tap “Add Group” at the top right to create a new group. You can then define this battery group as the standard group for newly imported devices.

		
Tap Add Group and name the new group	The newly created can be defined as default group for data collection by tapping the 3 vertical dots at the group	If you have more than one group, you can adjust the default data collection at any time using the context menu for the respective battery group.

Please note: Any number of groups can be created; newly recorded devices are generally stored in the default group you have defined.

Audio feedback when reading and transmitting data

Each write/read process is a completed process in itself. Since it cannot always be guaranteed that the device's display is clearly visible, the companion app also offers acoustic feedback to inform you about the success or failure of an action:

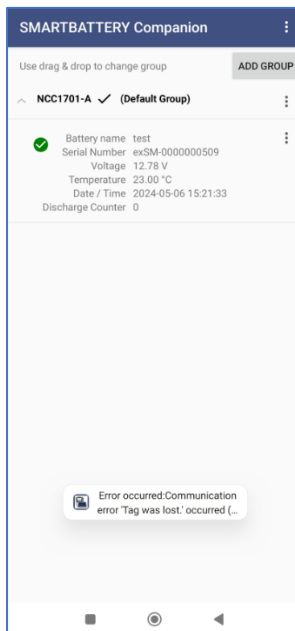
If you don't hear any sound:

- Check the volume control of the device
- Check whether the app has granted all required system approvals from the Android operating system - From Android 12 and later operating systems, access to system components can be set individually.

Tip: Corporate management of end devices

If your device does not emit message sounds, it may also be possible that centralized security policy management has restricted hardware access - Please contact the according IT department.

Bad scan

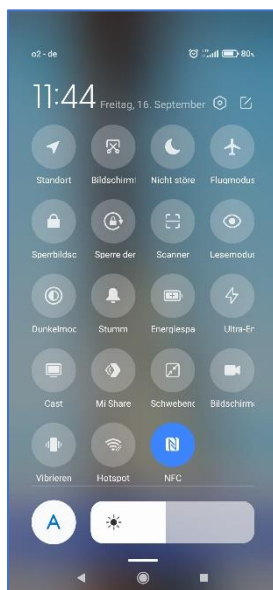


Under certain conditions it can happen that the data is not transferred correctly via NFC. This happens, for example, if the devices are too far apart, you switch to the next SMARTLOGGER too early or the mobile device is moved too much. The companion app indicates with a warning error and an error tone that the battery could not be read correctly or completely:

- The battery does not even appear in the list of detected devices
- The battery appears in the list, but the log files are read out was interrupted.

In this case, wait briefly and repeat the reading process. These are then updated by the companion app and an incorrect scan is corrected.

Does NFC always have to be activated?



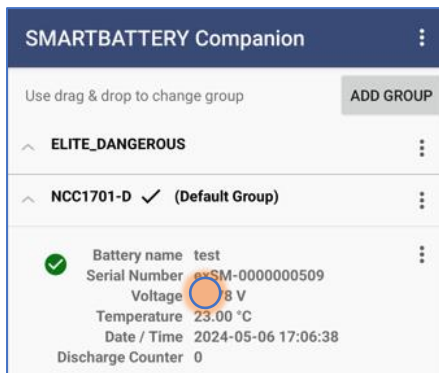
No, the NFC interface does not have to be permanently active:

The NFC function is only required if you want to read out a SMARTLOGGER or a SMARTBATTERY or write settings.

If you just want to view and evaluate the data that has already been collected, all you must do is tap the darkened area of the app to hide the notice accordingly. However, scanning and writing functions are not available in this case. To activate the scanning function, activate the NFC chip via the corresponding function menu on your mobile device.

Please note that unnecessarily running interfaces (GPS, NFC, Bluetooth, etc.) have a direct impact on performance and battery life.

The detail screen



After the scan, the battery appears in the defined default group. Tap the battery to open the details screen.

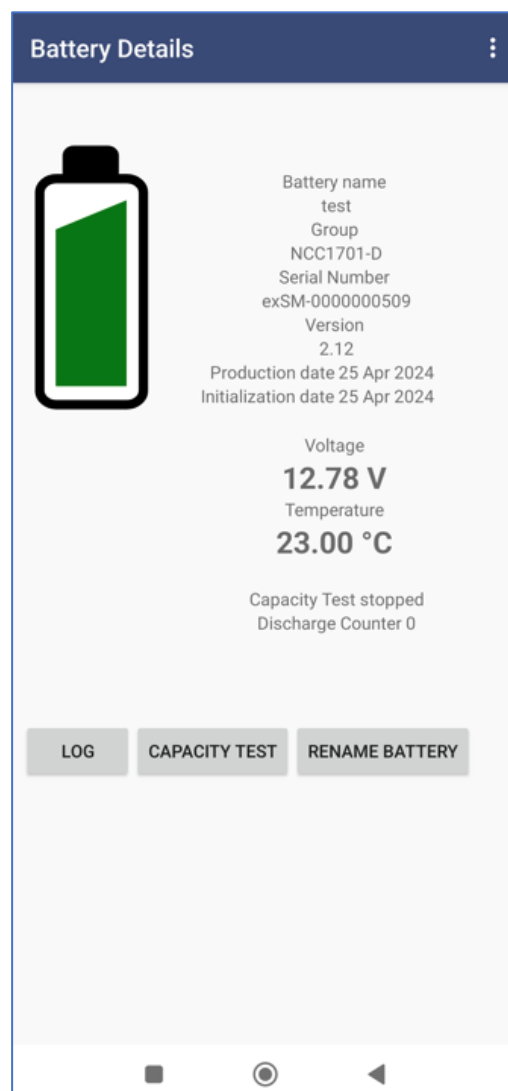
Screen Overview:

health status

The color of the battery gives you an immediate overview of whether the battery needs further attention or is functioning as desired.

LOG and CAPACITY TEST

Detailed information about the battery displayed in the overview field as well as additional functions and



Function menu

Advanced system functions

Overview field

The overview shows the last battery scanned or the battery you selected from the history list:



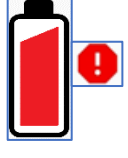
- Battery name
- Assigned group
- serial number
- Version of the logger
- Production date
- Initialization date
- Current voltage
- Current temperature

RENAME

Depending on the hardware revision, you can adapt battery names and transfer them to the SMARTLOGGER

The health status color code

The health status of a battery can be easily checked at a glance. The app calculates the current health status based on the battery data and provides a quick and easy-to-understand overview so that technicians do not have to deal with complex lists on site:

	<p>Green*</p> <p>The battery is absolutely fine and works within the expected parameters</p>
	<p>Yellow*</p> <p>The measurement data shows that the battery is sometimes operated at the edge of the manufacturer's specifications. It is advisable to inspect the battery for damage in the medium term and to determine or eliminate the cause of the excess.</p>
	<p>Red*</p> <p>According to the measurements, for some reason the battery has exceeded the normal operating parameters to such an extent that damage to the battery is possible. This battery should therefore be examined and observed more closely in order to rule out any (consequential) damage. Furthermore, the cause of this event should be identified and investigated.</p>

The color code illustrates the existence of measurement data inside or outside operational alarm thresholds and thus helps pre-select what should be checked. **However, it is not a binding instruction for action due to a defective battery – a defect can only be verified by evaluating the measurement data or directly checking the battery with a reference measuring device: A battery marked “red” does not mean that it is necessarily damaged or broken.*

The overview in detail

The overview field provides an overview of the battery.

<div data-bbox="199 1377 571 1989"> <p>Batterie Name</p> <p>Gruppe ELITE_DANGEROUS</p> <p>Seriennummer exSM-0000000509</p> <p>Version 2.12</p> <p>Produktionsdatum 25.04.2024 Initialisierungsdatum 25.04.2024</p> <p>Spannung 12,82 V</p> <p>Temperatur 24,00 °C</p> <p>Kapazitätstest angehalten Entladezyklen 0</p> </div>	<p>Battery name</p> <p>Depending on the hardware version of the logger used, the name of the battery can be changed and written to the logger via NFC.</p> <p>group</p> <p>The group can be freely configured in the companion app - batteries and smart loggers can be sorted quickly and easily and assigned to customers or projects.</p> <p>serial number</p> <p>Thanks to SMARTLOGGER technology, the batteries are provided with a digital signature, which includes, among other things, the serial number. This means that a battery can be tracked 100% transparently from its creation to disposal.</p> <p>voltage and temperature</p>
---	--

Shows the current status of the battery when reading.

Capacity test

The capacity test is a special operating mode of the SMARTLOGGERS. In conjunction with the SMARTBATTEY Companion app, the data collected in this operating mode can be used to determine the battery capacity.

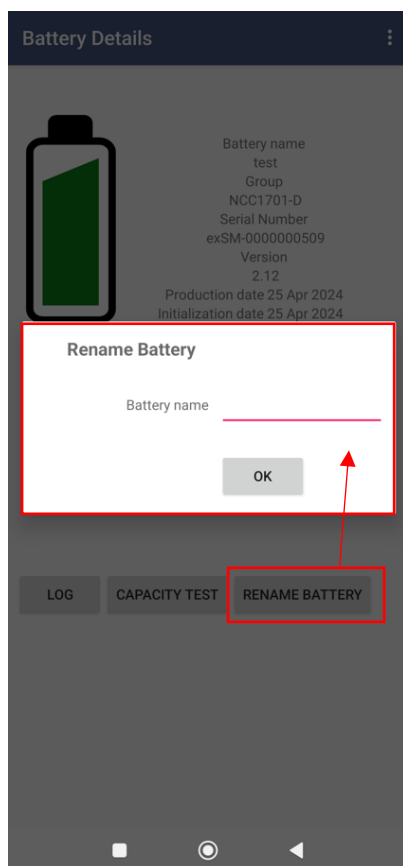
Discharge cycles

This counter provides information about the number of confirmed discharging and charging cycles since the SMARTLOGGERS were installed. With this value it is possible to determine a usage profile for a battery within an application.

The function buttons

Below the detail screen you will find various function buttons that can be used to call up additional program functions.

Rename Battery



The availability of this function depends on the firmware version or generation of the SMARTLOGGERS used:

Depending on the hardware version, this function allows you to personalize the SMARTLOGGER with your own name on the hardware side. This is then written to the battery of the respective SMARTLOGGER via NFC.

If you then read out the SMARTLOGGER with another companion app, the name will be displayed accordingly under "Battery Name". In this way, a logger can later be clearly assigned to a specific battery.

The SMARTLOGGER is not linked to a specific app when writing and is encrypted - you can assign the logger a new name as often as you like using a SMARTLOGGER companion app.

To write the name to the SMARTLOGGER, enter the new name under Battery Name, tap OK, and hold the NFC chip to the SMARTLOGGER.

Tip: The battery name is an exclusive write operation

The name of the battery is not stored in the app, but is written exclusively on the respective SMARTLOGGER. This function is only available if the SMARTLOGGER also offers this on the hardware side.

Detailed information about individual batteries: The LOG function

The standard scan records the general health status and creates a separate data set for each battery.

The companion app also offers a graphical interface to graphically display additional measurement data from SMARTLOGGER technology.

This function becomes interesting as soon as the overview shows a worrying condition and extended measurement values are required for a well-founded evaluation.

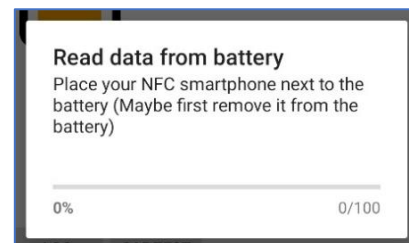
→ Tap In the battery overview field you will find the button with the LOG function.



The first time you invoke the LOG function for a battery:

The companion APP asks you to read the SMARTLOGGER of the corresponding battery. To do this, hold the companion APP against the battery/SMARTLOGGER until the SCAN process is completed.

You will then be shown a graphical representation of the battery history.



If you have already read the battery before:

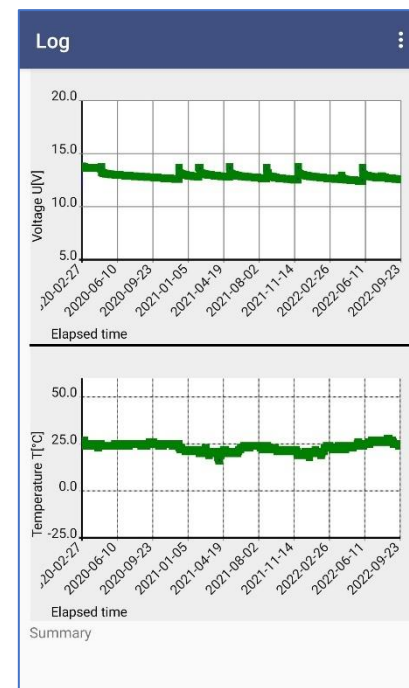
In this case, the last log file retrieved is displayed directly. In this case, simply hold the mobile device with the companion app to the corresponding SMARTBATTERY to update the data record.

Important: SMARTBATTERY vs SMARTLOGGER

Unlike the SMARTBATTERY, a SMARTLOGGER can It can also be reset using the companion app and then installed on a new battery.

Each companion app is resynchronized with the logger, all existing files are deleted or expanded with a new data set.

If you are not sure whether you want to keep the data, use the export function of the companion app.



Available LOG Screen functions



Zoom function

Tap and hold on the chart with two thumbs/fingers to zoom in or out on the data points



Move

Tap and hold with one finger to move the chart accordingly.



Read everything

With Read All, every available data point is read



Split

Sends the read data via numerous options available to the mobile device for later evaluation



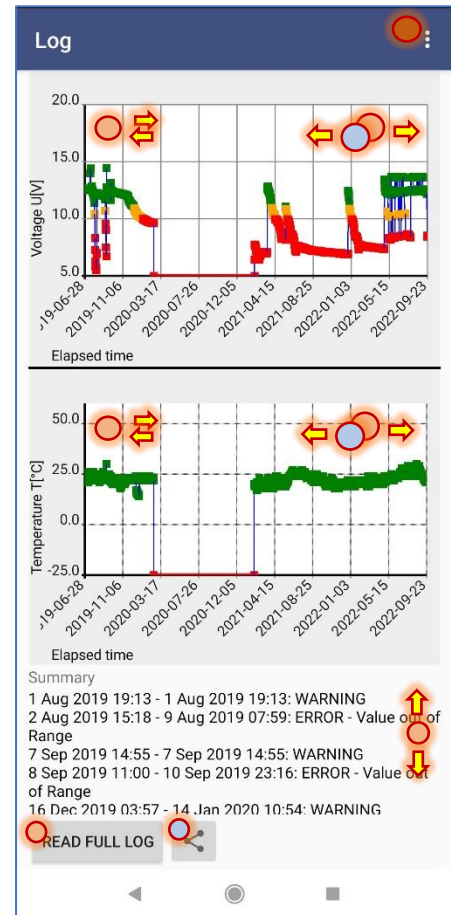
Scroll

Tap and hold the summary with one finger to scroll through the history



Narrow search area

Displays a calendar to search for a specific time window in the measurement data.



Tip: The difference between “extended log” and “read all”

When you press “Log”, a compromise between the level of detail, reading time and the performance of the mobile device is read and collected.

With “Read All” every data point is picked up without exception, allowing you to zoom in on the graphs of a battery down to the minute range.

The capacity test

A unique selling point of the SMARTLOGGER technology and the companion app is the ability to reliably determine the capacity of a battery.

In order to reliably calculate and compare the capacity of a battery, you need

- A static consumer whose values
- The companion app
- The ability to carry out controlled unloading

→ Tap CAPTEST to do this
to call up the required function menu.

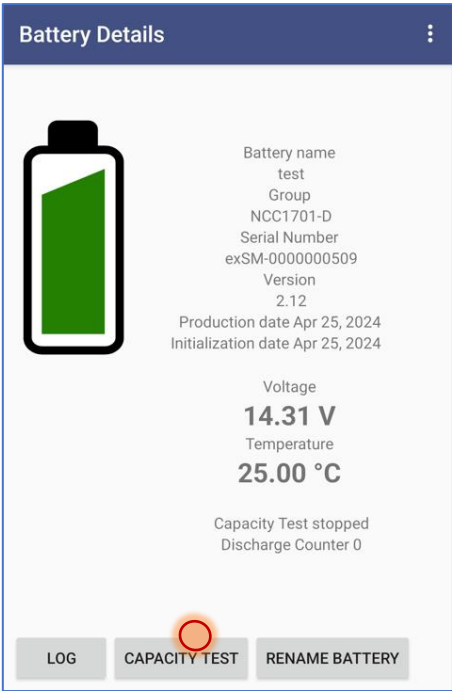
Collect measurement data

When you start the capacity test for the first time, there are no values yet.

1. Connect a consumer
2. Now tap "Start" in the capacity test of the companion app and hold the mobile device to the SMARTLOGGER:

Summary
No log available
Please start capacity test by clicking on START and then wait until the battery has reached less than 10.50 Volts. This will automatically STOP the capacity test. Click STOP to cancel the test.

Summary
No log available
Please read out again the log in 2 minutes



3. Now switch on the consumer.

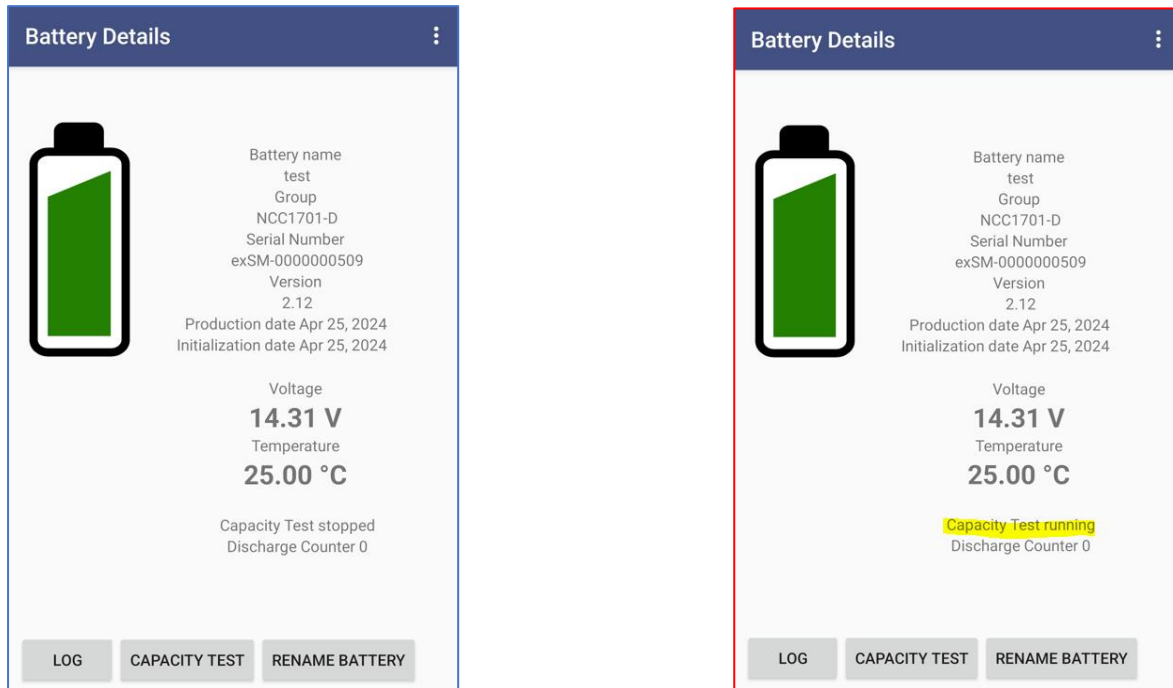
The SMARTLOGGER automatically collects measurement data in a 60-second cycle up to the respective termination condition. You can get an interim result at any time by reading the respective battery directly on the capacity test screen. This will not affect or cancel the test. The first usable data is usually available after about 2 minutes.

Tip: Use static load!

In order to obtain reliable measurement results and make them evaluable, the connected load must not change during the test period.

Check and cancel capacity measurement process

In the battery overview you can see whether the SMARTLOGGER is currently undergoing a capacity test:

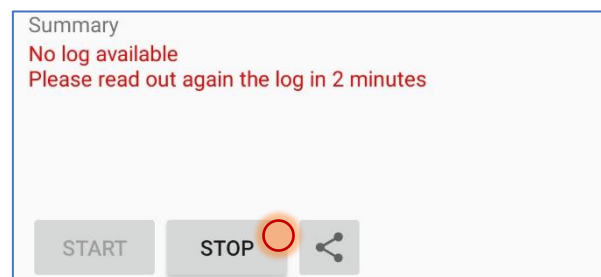


Automatic end of test measurement

The capacity test ends automatically as soon as the lower voltage limit of 10.50V is reached. In this case you will find the note “Capacity test paused” in the battery overview.

Manual cancellation

- ➔ In the capacity test, tap STOP and hold this mobile device to the logger corresponding battery.



The logger will then stop its measurement and save the result.

Tip: It is not always necessary to carry out the full test until discharge

As soon as you have enough measurement data available, you can also stop the test measurement using the STOP button and remove the connected load again.

Evaluating the measurement data

After successful capacity test measurement, a complete set for voltage and temperature is available. In order to find “deviations” more quickly in larger systems, you will find an overview in the summary of exactly when the measured battery showed abnormalities, so that you can scroll and zoom specifically to the interesting data points. You can carry out the following actions on the capacity test screen



Zoom function

Tap and hold on the chart with two thumbs/fingers to zoom in or out on the data points



Move

Tap and hold with one finger to move the chart accordingly.



START

Start a new capacity test; the next time you read out the current data will be replaced.



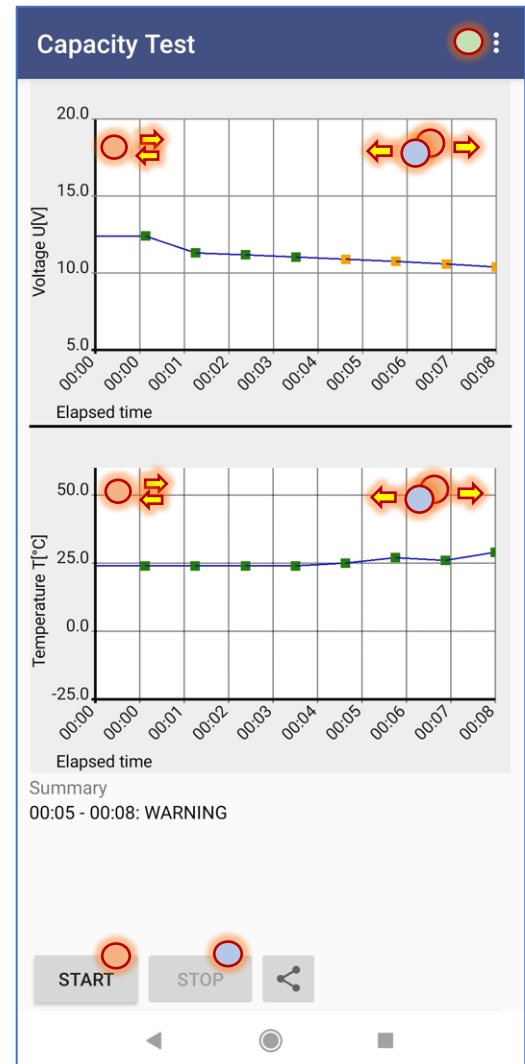
STOP

Stop a running capacity test. This function depends on whether a capacity test is currently running.



Function menu

When testing the capacity, you can enter the values of the load used at this point to calculate the capacity.



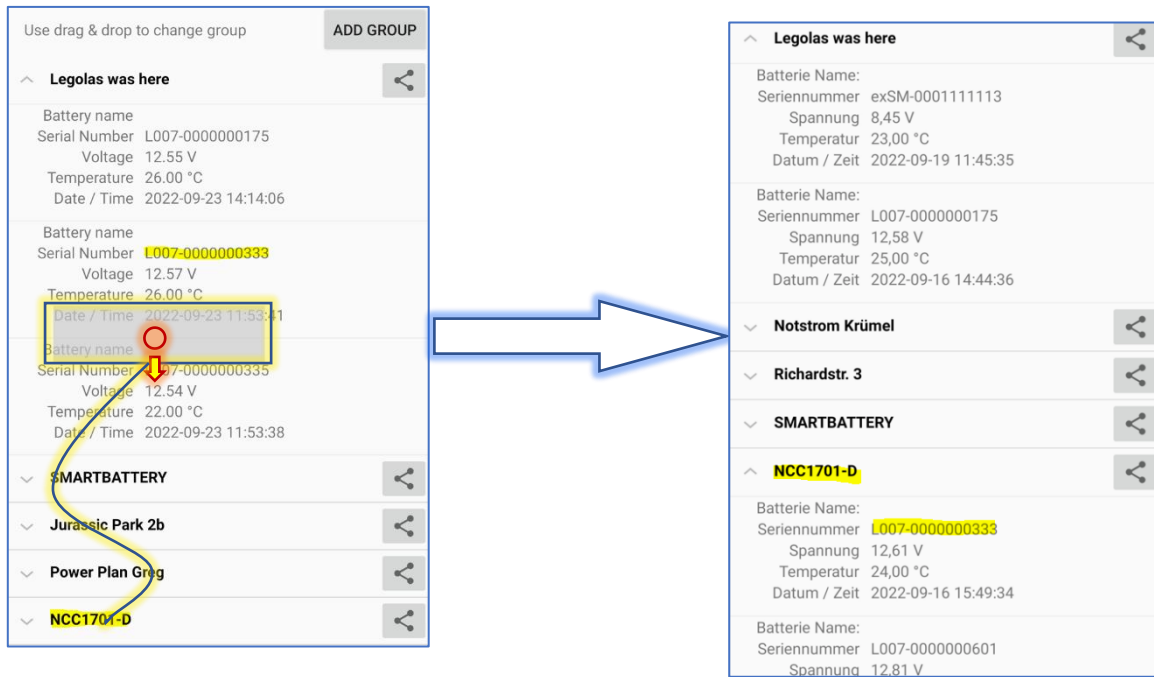
By looking through the data points, you can immediately see when a battery has developed questionable voltage and temperature values and compare them directly with other battery data and determine whether there could be a problem in the system without complex measurement technology.

Sort battery data: create groups and assign batteries

As the number of battery data read increases, it becomes confusing at some point. The companion app therefore offers the option of organizing different SMARTBATTERIES or SMARTLOGGERS in groups.

Option 1: Moving batteries directly via Drag'n'Drop

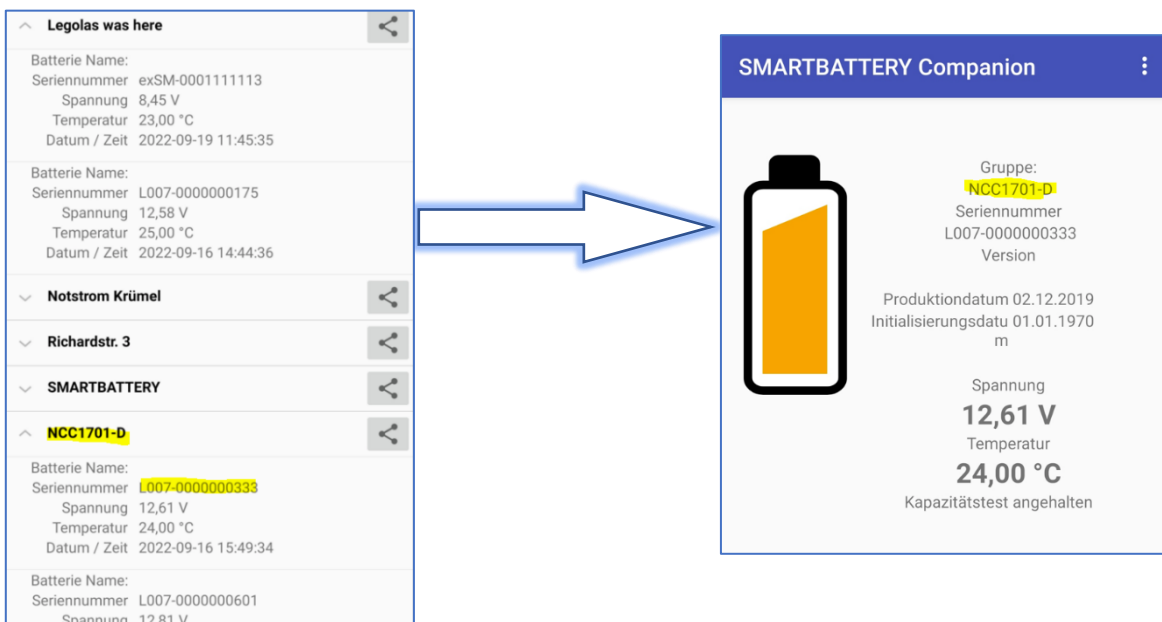
If you have not defined any groups, the companion app will automatically create the SMARTBATTERY group you define as standard - all newly imported devices will be stored there until you move them into their own groups:



Tap and hold the desired battery while

You move the battery to another group.

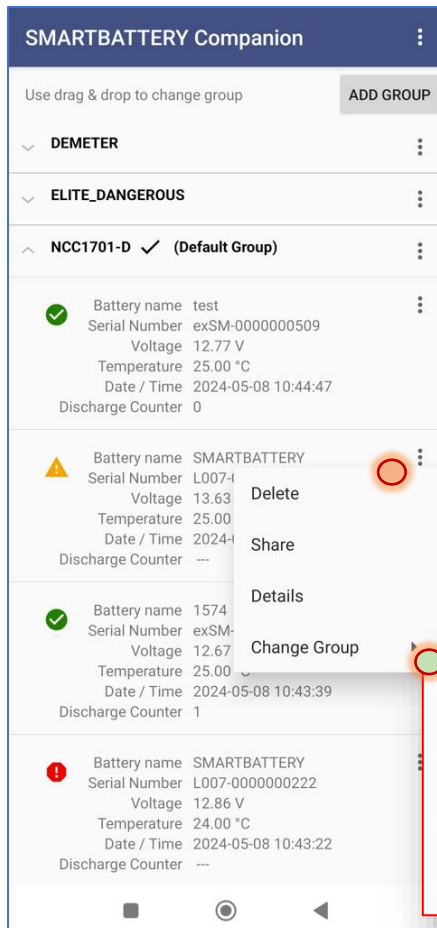
The battery is automatically transferred to the new group and the name of the group is changed in the overview:



You can create as many individual groups as you want using ADD GROUP. Individual SMARTLOGGERS can be moved intuitively in this way.

Option 2: Assignment via the menu control

If many devices have to be read in one after the other, it is a good idea to select a battery group directly using the menu control in order to move the battery there.



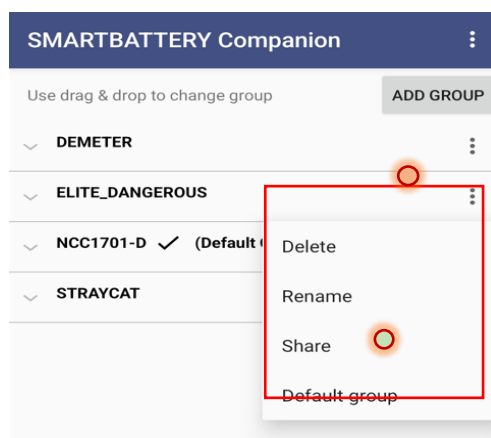
To do this, tap on the three vertical dots on the desired battery to open the relevant context menu.

Then tap Change Group to see a list of currently available groups.

Select the group you want to move the battery to, the companion app will automatically adjust the assignment:

- ✓ Remove the battery from the current group
- ✓ Add the battery to the desired group

Option 3: Define scan target



If you want to import several battery groups in series, it is recommended to first create a battery group and define it as the standard for new additions.

- 1, Create a new group
2. From the group's context menu (three vertical dots), select "Default for data collection".

The group will receive a tick and the addition "(default group)", and all newly recorded SMARTLOGGERS will be stored exclusively in this group. You can create a different group between scans or set an existing group as the default group for new acquisitions

Filter functions

You can rearrange the collected batteries within a group using different sorting and filter functions. The order of the batteries within a group changes - the batteries are not moved to other groups.

Date

The batteries are displayed sorted downwards by last scan date.

Battery name

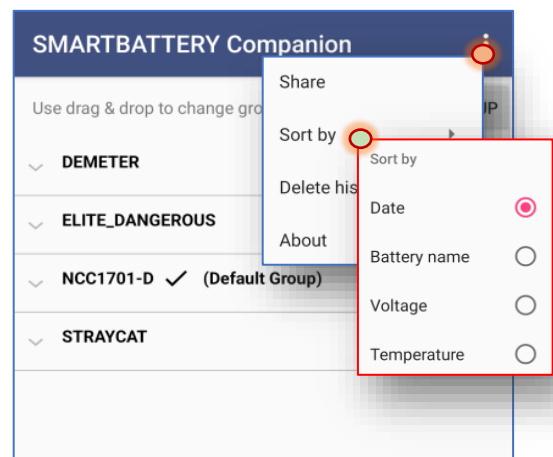
The batteries are displayed alphabetically.

Tension

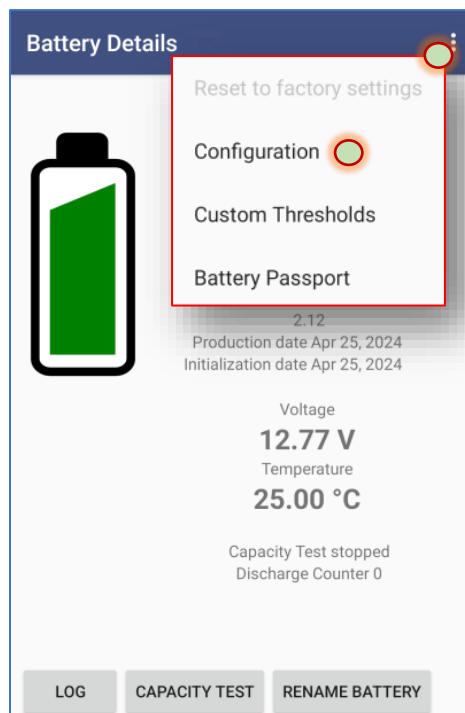
The batteries are displayed sorted according to measured voltage values.

temperature

The batteries are sorted and displayed according to measured temperature values.



.Logging: Additional function in the exSM-SMARTLOGGER



Unlike the SMARTBATTERY, you can fine-tune not only the log rate but also the start and end conditions for the capacity test in order to adapt the SMARTLOGGER to the respective operating environment.

➔ Tap on the 3 vertical dots and select “Configuration” in the function menu

The following menu items can be configured:

Start Voltage [V]

When the discharge is pending and this value is reached, recording begins.

End Voltage [V]

As soon as this value is reached or fallen short of during an ongoing discharge, the recording is stopped and the data is saved for the next collection.

Full Charge Voltage [V]

This value indicates when a battery can be considered “full”. When this value is reached, the saved log file is unlocked and overwritten during the next unload.

sampling rate [s]

This value provides the time interval in seconds in which a data point is set during an ongoing process.

Long-term sampling rate [s]

This value defines the time interval for the data point in a “normal” operating mode.

The screenshot shows the 'Battery Details' configuration screen. It has a dark blue header with the title 'Battery Details' and a three-dot menu icon. The main content area is white and contains the following sections:

- Configuration**
 - Capacity Test
 - Start Voltage [V] 12.49
 - End Voltage [V] 10.50
 - Full Charge Volt.[V] 13.00
 - Sample rate [s] 60
 - ☐ Change sample rate (requires: stop of Capacity Test)
 - Long-term log
 - Sample rate [s] 3600
 - ☐ Change sample rate (requires: reset logger memory)
 - Lithium BMS Mode
 - ☐ Auto OFF
- At the bottom are two buttons: 'WRITE' and 'CLOSE'.

Tip: Visibility of menus

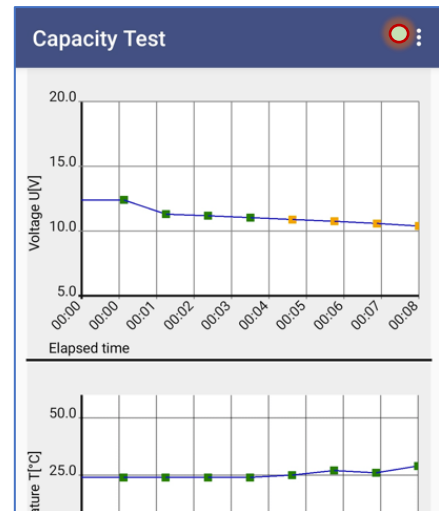
The SMARTBATTERY Companion App uses the available menus to dynamically adapt to the logger's firmware version. Unsupported features are automatically hidden to prevent incorrect configurations.

Calculate and interpret the capacity of a battery

- Tap the 3 dots to enter the data for the
Enter the calculation of the capacity.

Please note:

1. The calculated capacity is not a measured value, but an estimated value calculated based on your input.
2. Make sure you enter the correct value:
 - a. For a series connection, enter the total value of the consumer.
 - b. For a parallel connection, divide the total value by the number of strands.
3. If you need comparable values to determine a general trend, you need a static test load to get identical charge/discharge values.



The calculated value provides an overview of whether a battery is functioning correctly within the set parameters. If the calculated value produces unusual results, the battery should definitely be checked more closely - the static component, which is necessary for the test and calculation, is represented by the consumer, whose performance is known.

Example calculation: car heater with 12 V and 120 W power

- The battery supplies 12 V / 7Ah
- A 12 V car window de-icer with 120 W power was connected.

For the companion app, 12V / 120W must be converted into Ah:

The formality for this is:

Watt / Volt = Amps

120 / 12 = 10Ah

→ If you have connected 2 batteries in parallel, divide the 10Ah by 2 again to get the current applied to each battery.

→ If you have 2 batteries connected in series, use the calculated value of 10 Ah at this point

Enter this value in the companion app to receive a calculated capacity value. Compare this with the nominal capacity of the measured battery:

The calculated value should deviate from the value for the nominal capacity specified in the data sheet by a maximum of 25%. If this is the case, either the value was given incorrectly for the consumer or there is a problem with the battery.

The figure shows the 'Calculate Capacity' app interface. It includes an interpretation of the result: 'Interpretation of the result: the result of the measurement should be between 75% -100% of the nominal capacity with a fully charged battery. Compare the result with the data sheet for your battery for the C value that comes closest to your load.' Below this, there are input fields for 'Current [A]: 10' and 'Capacity [Ah]: 1.333'. An 'OK' button is at the bottom.

The EU Battery Passport

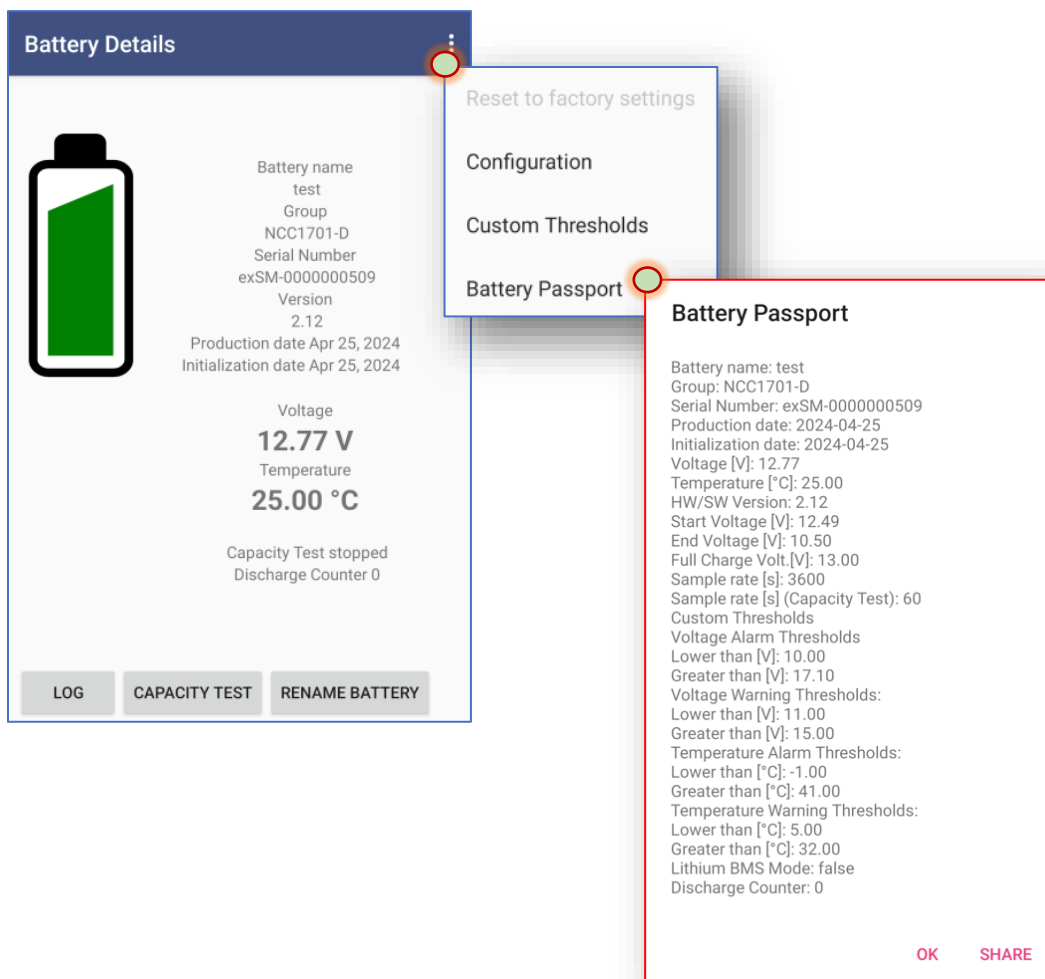
Since The new battery law BattG 2024 will come into force on January 1, 2024, which will bring comprehensive changes to the production, distribution and recycling of batteries in Germany.

A central component of the new law is the introduction of the Battery Passport.

The Battery Passport is a digital document that contains detailed information about the composition, origin and recycling status of a battery. The aim of the Battery Passport is to increase transparency in the battery supply chain and promote battery recycling.

An essential component is that users must regularly collect the performance data of stationary battery systems and provide them to the authorities when requested.

The companion app delivers a unique convenience feature, Battery Passport, to help companies provide the features they need.



In the battery detail view, open the context menu and tap “Battery Passport” to view the current performance report. Using “Share” you can conveniently transfer the data to a PC for processing in accordance with BattG.

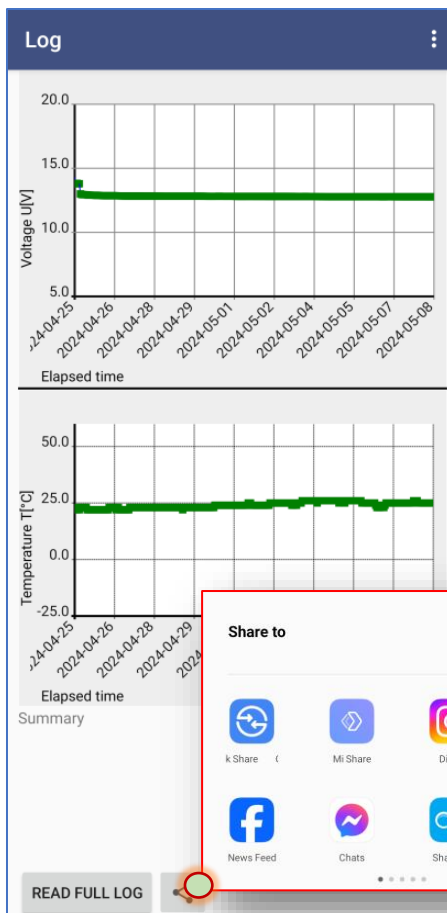
Back up and transfer data: The share function

We would like to give you a professional tool that is not bounded to custom tailored and therefore non-standardized management software:



Tap the share button to share the collected data with a medium to other devices of your choice.

Send a specific data record

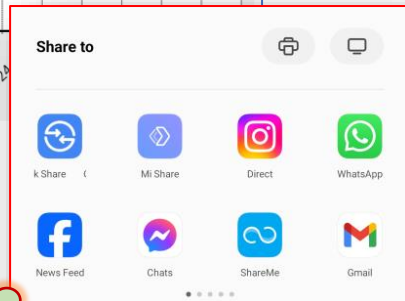


This option shares the data of the currently displayed battery.

Option 1: From the detail screen:

- Open the details screen of any one battery
- Tap Log to view the available ones display measurement data
- Tap the sharing icon next to "Everything Read out and select the transmission path.

Effect: The usage data for this one battery is compiled and sent via a medium of your choice.



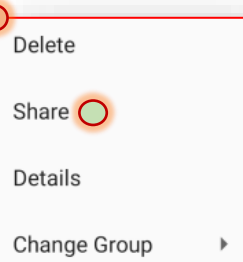
Option 2: In the group overview

SMARTBATTERY Companion	
Use drag & drop to change group	
ADD GROUP	
DEMETER	⋮
ELITE_DANGEROUS	⋮
NCC1701-D ✓ (Default Group)	⋮
✓ Battery name test Serial Number exSM-0000000509 Voltage 12.77 V Temperature 25.00 °C Date / Time 2024-05-08 12:37:37 Discharge Counter 0	⋮
⚠ Battery name SMARTBATTERY Serial Number L007-0000000203 Voltage 13.63 V Temperature 25.00 °C	⋮

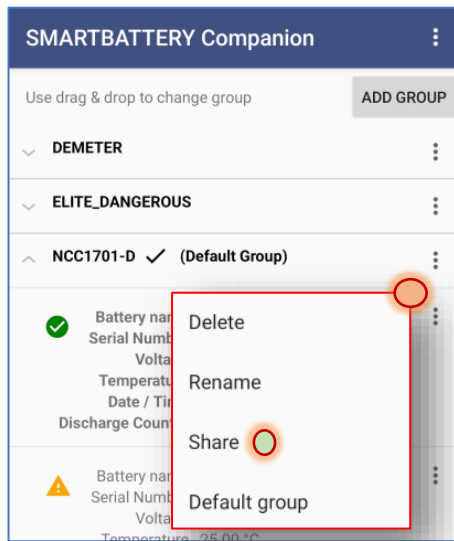
1. Open the context menu in the group overview of the respective battery

2. Select "Share" from the context menu.

Effect: The user data for this one battery is compiled and sent via a medium of your choice.



Send a group of battery data



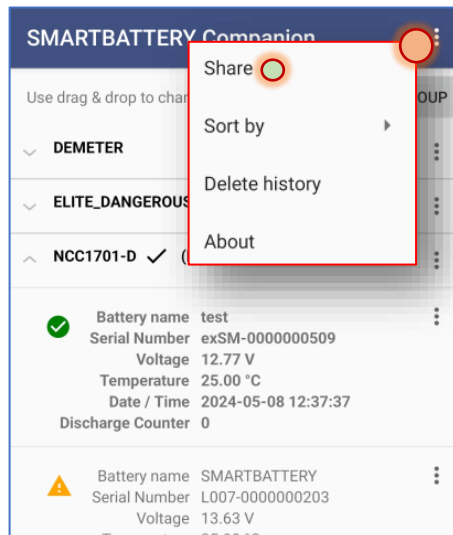
With this option, the data from a specific battery group is shared.

1. Tap the three vertical dots on the battery group to open the context menu.
2. Tap “Share” in the context menu.

Effect: The data of all batteries stored in this group are compiled and sent via a medium of your choice.

Send all collected battery data

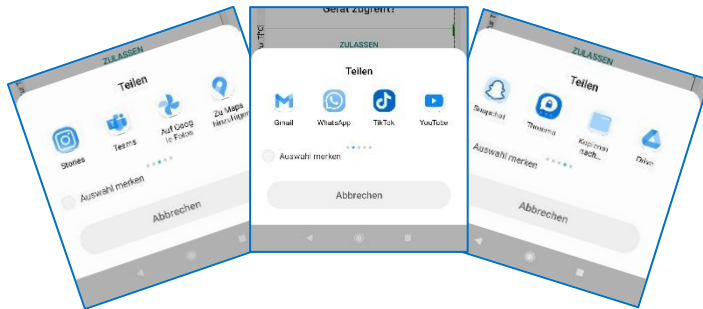
This feature is useful if you need to reinstall/update the app and don't want to lose the battery data collected so far.



1. Tap at the top of the group overview right on the three white vertical dots.
2. Tap “Share” in the context menu.

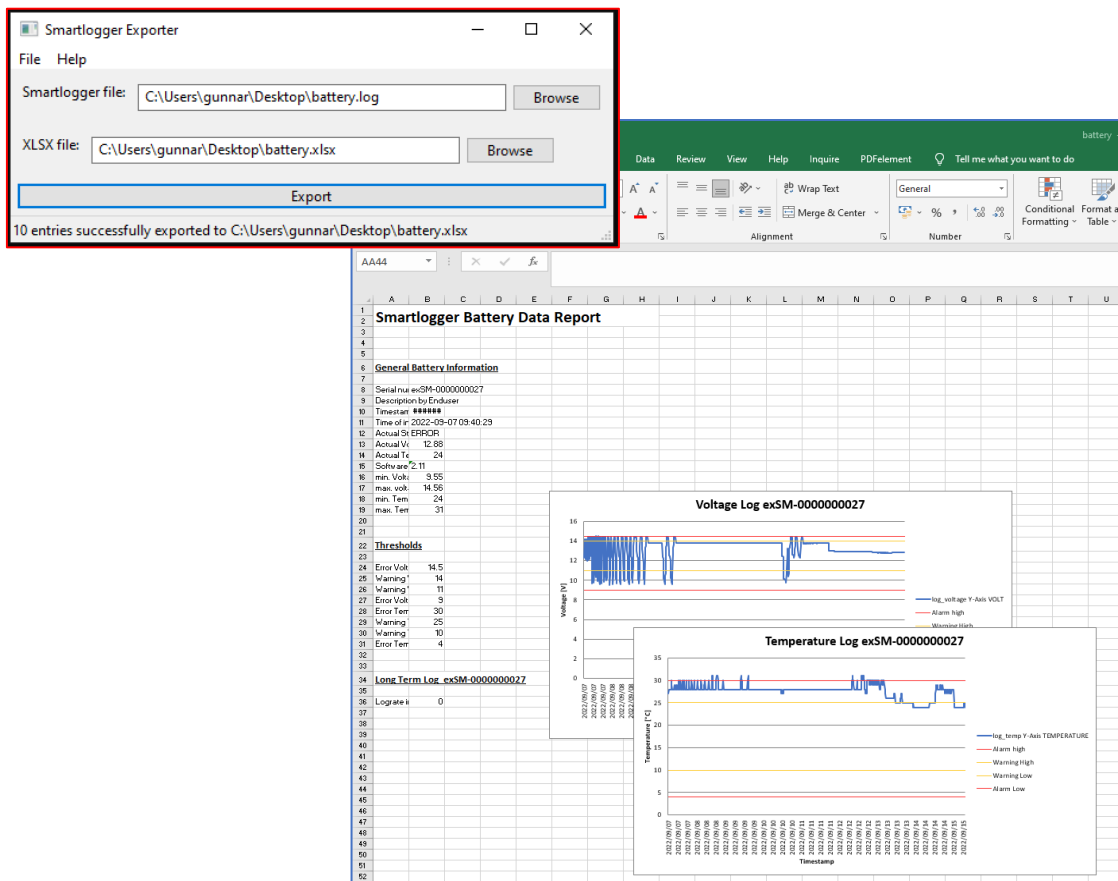
Effect: In this case, the complete database is exported and sent via a medium of your choice.

The SMARTLOGGER Exporter: Make log files readable for Excel



Transfer individual data sets, special battery groups, a complete data backup, and use the medium specified by your company for rapid data exchange to quickly transfer the data to your office device.

With the freeware tool "SMARTLOGGER Exporter" you can intuitively transfer all the data that your companion app has saved locally to a PC and then convert it into a clear Excel document - create professional analyzes, maintenance reports, based on the data collected in the field. Demand planning, time windows for maintenance work, cost estimates, and much more.



Deleting data: Empty the Companion App database

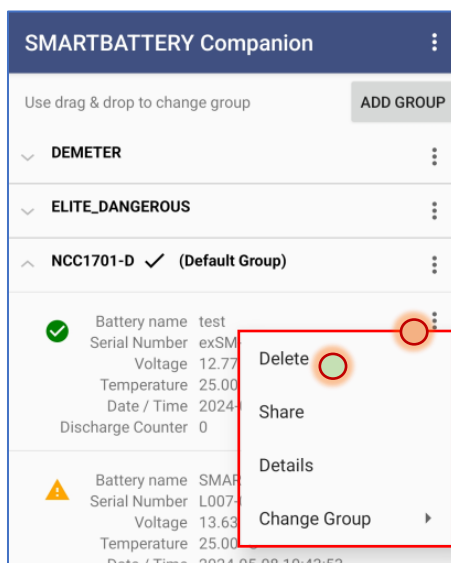
The app offers three different instances for deleting data. Please note that regardless of the deletion instance, every deletion process is final and deleted data records can no longer be restored.

Tip: As long as the SMARTLOGGER has not been deleted...

Data deleted in the companion app can be restored at any time by re-reading the corresponding SMARTLOGGER. The data is only finally lost once the SMARTLOGGER has been reset.

The SMARTBATTERY is not affected by this: The logger is an integral part of the battery and cannot be deleted as a “black box”.

Delete a single record

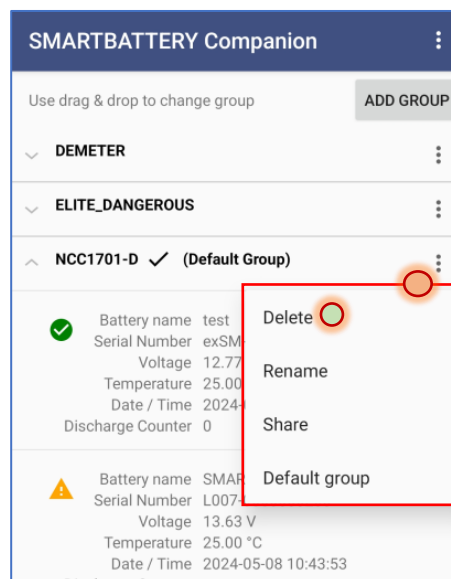


With this function you remove a record from the Companion App database. If you need the data again, you can download it again from the respective SMARTLOGGER.

1. Open the battery context menu.
2. Tap Delete to remove the record from the database.

Effect: With this action, the data record with all log files is permanently deleted from the app's internal database.

Delete a battery group

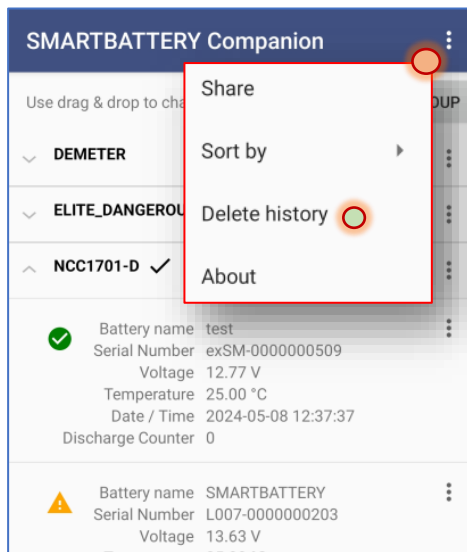


The difference to a data record is that all data records created within the group are deleted. Battery data that you still want to keep must first be moved to another battery group.

1. Move the battery data you still want to keep
2. Open the context menu of the battery group
3. Tap Delete.

Effect: The entire battery group is permanently deleted with all data records it contains.

Delete entire database



With Clear History you empty the Companion App's internal database and return it to its delivery state.

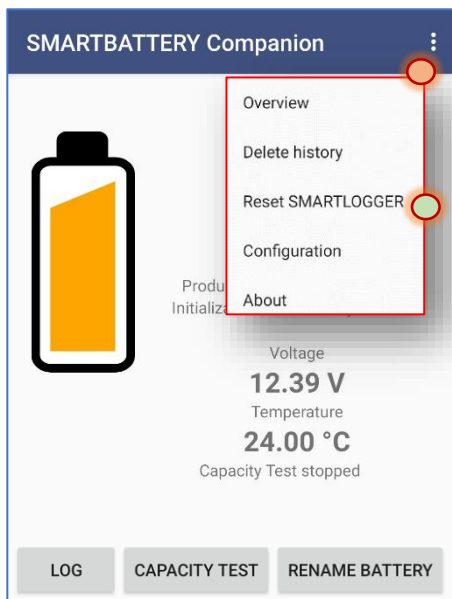
1. Open the in the group overview System menu

2. Tap Clear History

Effect: The complete SMARTLOGGER Comanion app database will be permanently deleted.

Please note that you only delete the local database on your mobile device. The data can still be retrieved again from a SMARTBATTERY, as it will not permanently delete the data stored on a SMARTBATTERY.

SMARTLOGGER reset



This function is only available for the SMARTLOGGER. During a reset, the respective SMARTLOGGER is reset to its delivery state, whereby all previously made settings and collected data are deleted.

Application: Activate the reset function and hold the NFC interface of your Android device to the corresponding SMARTLOGGER.

Wait for the companion app to confirm that the process has been successfully initiated. After about 30 seconds, the SMARTLOGGER is reset and can be reinitialized.

Appendix: The difference between PlayStore and Pro version

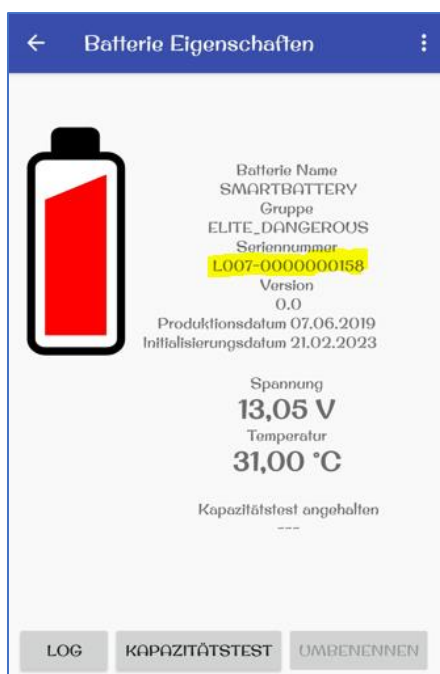
The Pro version has additional functions that are primarily intended for providers and service companies, including:

- View the history of a battery
- Initialization and setting of the sales date
- Resetting smart loggers for sustainable reuse

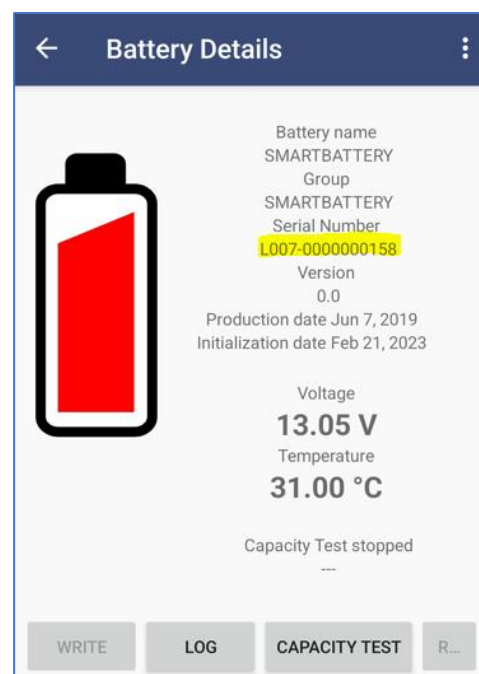
Example: View the history of a battery

The difference is most clearly visible in the following example:

In the detail screen it is the same battery, but read once with the consumer app from the PlayStore and the Pro app for service companies:



Screen of the Playstore version



Screen of the Pro app

In addition to the language and the slightly different color scheme, the battery groups differ. Otherwise, both batteries are marked as "red" and therefore need to be checked because they were operated or stored outside of the manufacturer's specifications.

The difference can be found in the log file:

The consumer app (PlayStore version)

For the end user it is not plausible why this battery was marked as a potential source of error:

1. Voltage values

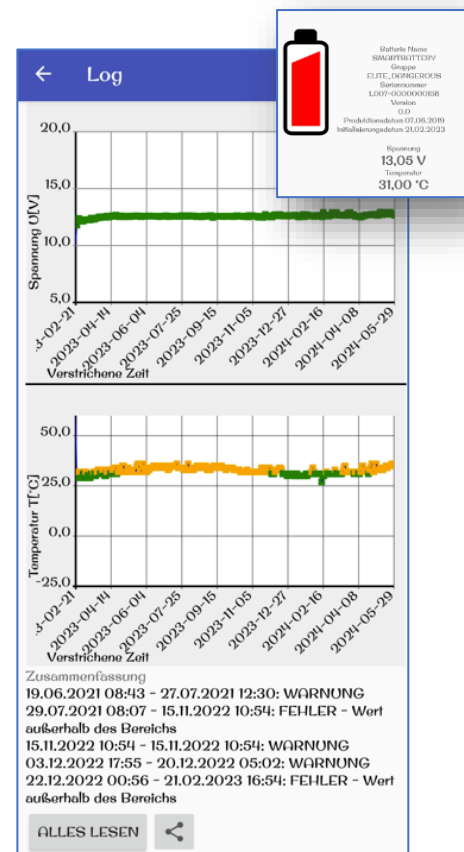
The measurement curve shows absolutely no abnormalities since the recordings began.

2. Temperature values

The temperature values imply that there were indeed worrying values and that the threshold values for a warning were exceeded.

The interesting question is why the app classifies this battery as possibly defective, contrary to the clear data available.

To clearly identify a hidden defect, you would have to know the history of a battery - this is usually not documented or inadequately documented.



The Pro version of the Companion App

The Pro version not only allows initializing a logger for on-site use, e.g. setting the purchase date from which the data is available to the end user, but also provides retrospective insight into operating data that cannot be manipulated BEFORE initialization. In this case, the history of the battery is very eventful, and a hidden defect is very likely:

1. Voltage values

The battery has clearly been deeply discharged: Deep discharge is generally an indication of a hidden defect in a battery.

2. Temperature values

This battery has clearly been used both below and above the operating parameters specified by the manufacturer.

This battery clearly needs to be replaced as it is very likely that there is a hidden defect.

However, the data proves that there is no fault on the part of the current end user since the date of purchase.

