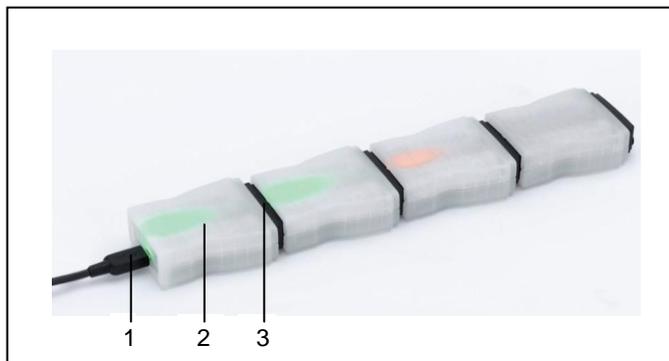


07/12-W07-Hund



1 Description

With this rechargeable battery a Pocket-CASSY 2 Bluetooth (524 018) can be easily supplied with power.

The battery can be cascaded, i.e. several batteries can be recharged or discharged together if they are connected using (1) and (3) connectors. Depending on the charger and the USB cable at least four batteries can be recharged in series.

2 Technical Specifications

Input:	5 V / 500 ... 1000 mA (USB socket)
Output:	5 V / 500 mA (USB plug)
Battery cells:	2 x NiMH cells
Capacity:	4 Wh
Charge control:	Micro controller

3 Scope of delivery

The charger and USB cable required for battery recharging are included with the Pocket-CASSY 2 Bluetooth (524 018).

4 Recharging

Use only the USB port of a computer or the charger included in the package contents of the Pocket-CASSY 2 Bluetooth (524 018) to recharge the battery.

Cascaded batteries are recharged in sequence, beginning with the battery closest to the charger.

The recharge time depends on the charge status and the number of connected batteries as well as on the charger used. Recharging via USB port will take longer than when using the charger included with the Pocket-CASSY because only 2.5W of power can be drawn from a PC USB port.

Charging in Progress (Yellow LED)

The battery will only commence charging if its temperature is between 5 °C and 40 °C and no Pocket-CASSY is connected, as the charging current would instead flow to the Pocket-CASSY.

The charging will not commence if the voltage source is a shut down PC or the USB port can only supply a maximum of 100 mA.

Operating Instructions 524 019

Battery for Pocket-CASSY 2 Bluetooth (524 019)

- 1 Input (USB) for PC or charger
- 2 Battery
- 3 Output (USB) for Pocket-CASSY 2 Bluetooth

Charging Interrupted (Flashing Yellow LED)

The charging is interrupted if the battery temperature exceeds 60 °C or a Pocket-CASSY is connected, as the charging current would instead flow to the Pocket-CASSY.

The flash frequency is approx. 5 flashes per 3 seconds.

Charging Aborted (Rapidly Flashing Yellow LED)

Charging is aborted if there is a general problem, e.g. the charger can not supply enough power or the input voltage is not within a permissible range.

Charging is also aborted if too many batteries are cascaded at once and the cumulative voltage drop does not ensure that the last battery in the cascade will be charged.

The flash frequency is approx. 10 flashes per 3 seconds.

Charging Completed (Green LED)

Charging is finished when the battery is completely charged.

Standby (LED off)

When there is no external power supply the battery will go into standby mode.

5 Charging with CASSY Lab 2

CASSY Lab 2 (524 220) can record the charging progress of a battery connected to a PC.

This will, for example, show the graphs for the charging voltage, the charge power, the accumulated energy and the temperature curve for the battery.

If CASSY Lab 2 has a newer version of firmware, CASSY Lab 2 can also update the battery firmware.

Recharging via PC USB port will take longer than when using the charger included with the Pocket-CASSY because only 2.5 W of power can be drawn from a PC USB port.

6 Discharging

The battery may only be discharged by a Pocket-CASSY 2 Bluetooth (524 018). Other devices, such as cell phones, may overload the battery.

The Pocket-CASSY will automatically switch on when it is connected to a battery, and automatically switch off after a few

minutes if there is no Bluetooth connection available. The Pocket-CASSY may, however, be switched on again by pressing the unit's push button.

Depending on the connected transducer or sensor the maximum power requirement of a Pocket-CASSY is 2.5 W and will stay operative (with a completely charged battery) for the duration of a double lesson under full load. Duration time is extended if the connected sensor or transducer requires less power or the Bluetooth connection is not active all the time.

When using two cascaded batteries with a single Pocket-CASSY the outer battery is discharged first. If the Pocket-CASSY signals the depletion or near-depletion of the outer battery with a red flashing light, it is time to replace it. The inner battery will provide the power supply to the Pocket-CASSY while the outer battery is being replaced.

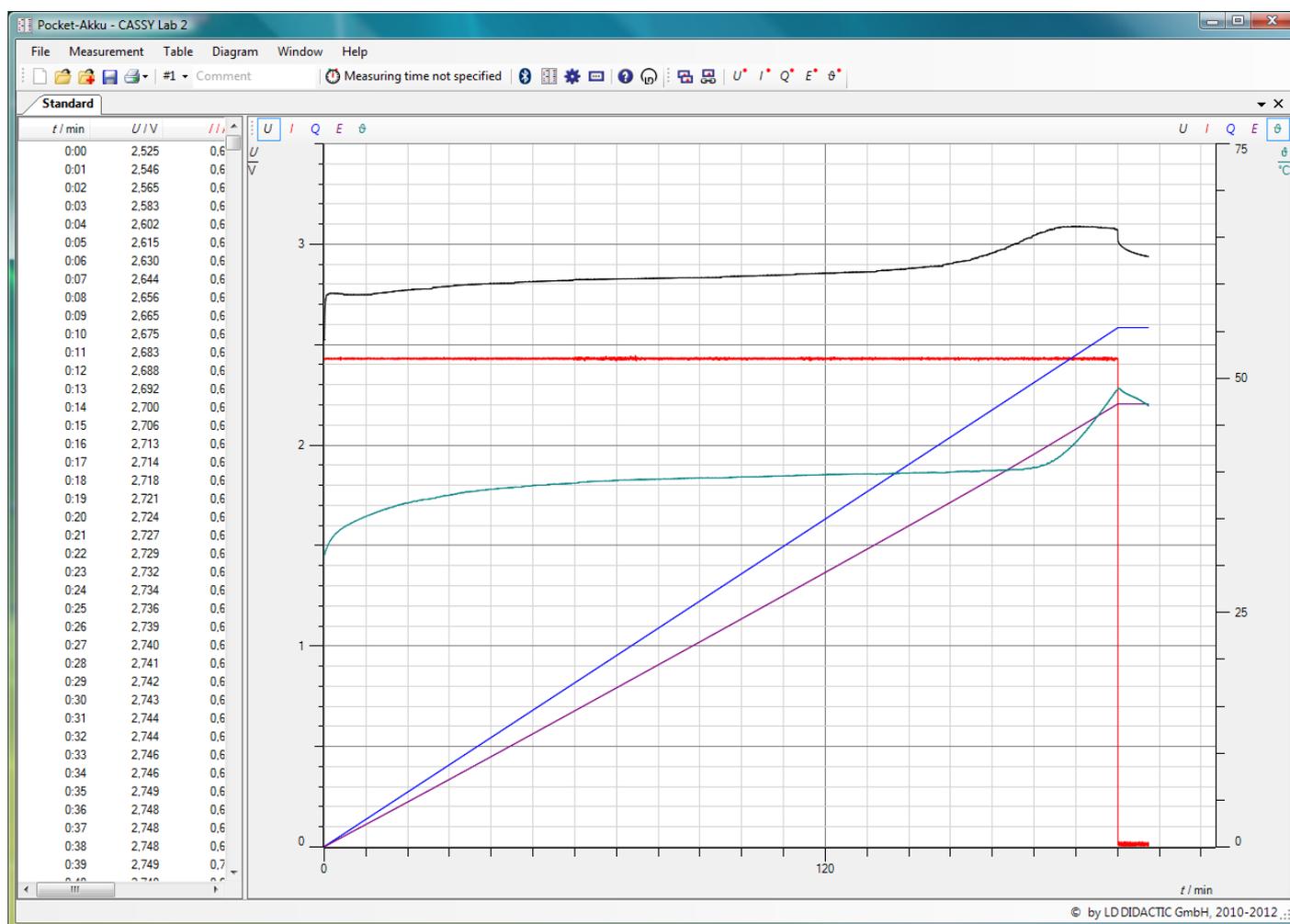
While the Pocket-CASSY is switched on the battery is not charged, so the limited amount of energy provided is supplied exclusively to the Pocket-CASSY.

7 Storage

Batteries should be fully charged when storing over a prolonged period of time.

Batteries may be stored either individually or cascaded.

When batteries are connected to a Pocket-CASSY that is switched off, the standby consumption is similar to that of the low self-discharge.



Charging progress recorded by CASSY Lab 2. Note the shutdown of the charging process after the charging voltage (black) dropped with a constant charging current (red). Towards the end of the charging process the battery temperature (green) increases significantly because the battery can no longer store the energy fed to it.