



PAULWEGENER
MESSTECHNIK SEIT 1921

Product information

Data acquisition system

PWBlogg

Type: RLBK built-in printer

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Design and specifications are subject to change without notice.

1 Safety instructions



The safe use of the device is basically ensured when following the notes of this user's guide.

Installation work: You should always switch off mains and voltage supplies within systems! Use original spare parts and accessories only!

- The device must basically be opened and repaired by authorized staff only. Never open this device by yourself and repair it. For that purpose, please contact the manufacturer.
- Before activating the device, make sure that the line voltage of your installation is equal to the supply voltage of the device. The device's specifications are written on the type label and in the technical specifications.
- Make sure that the printer is protected from excess voltage subject to EN/IEC 60950.
- Deactivating the device does not entirely disconnect it from mains. Your device is completely disconnected by removing the mains plug.
- Please note that the supply cable is placed in a way that no persons can stumble upon it or that it can not be damaged by any item.



- Depending on use, hot surfaces can come into being around the press button. Please do not touch this press button to avoid burns. Do not take any heat-sensitive items near the heat source.

- Avoid permanent high humidity and water condensation. Safeguard the device against splash water and chemicals.
- Use exclusively the delivered spare parts and accessories or the ones approved by us. Using not-approved spare parts and accessories can considerably affect the device functionality and your safety.



- Safe use of the device is not possible anymore if:
 - the housing is damaged by high mechanical stress,
 - water has intruded into the device,
 - fume comes out from device,
 - the supply cable is damaged,
 - it does not work properly anymore.

If a described error occurs, please switch off your device immediately and contact your customer service.

- We explicitly advice you that any product liability and warranty claim can not be asserted if this device is not operated according to the described instructions of this manual, to the notes on the device and as it is designed to.
- Explosion hazard due to wrong battery change.
- If the enclosure is damaged, operation is not allowed. Please contact the manufacturer in this case.

2 Charging the printer

The printer has an intelligent charging circuit with charging current limit.

The charging process is subdivided into three levels.

Formatting charging

If the rechargeable battery is exhausted, the so-called formatting charging with low power will be started to avoid any damage to the rechargeable battery. This charging process is not shown. Depending on battery state, this process can take between 1 and 15 minutes.

Rapid charging

Once the battery voltage has exceeded the printer operation voltage, the printer will start rapid charging. This is indicated by slow flashing STATUS. The charging process will take approximately 4 hours if batteries are exhausted.

Trickle charging

Once one of the deactivation criteria has been reached, the printer will be switched into trickle charging. Formatting current flows permanently during this mode. Rapid charging will be activated every 8 minutes for 20 seconds. This is indicated by permanent illuminating of the STATUS LED.

3 Handling rechargeable batteries

The storage capacity of a rechargeable battery gradually drops by use, tough ambient conditions, aging and by lack of maintenance. As any rechargeable battery technology, the Ni-MH battery needs some maintenance to keep a maximum durability. If neglected, cells rapidly become higher resistance and capacity deteriorates noticeably. When operating high current such as a thermal printer, Ni-MH batteries reach approximately 500 charging cycles at most. However, the available energy noticeably reduces itself from 200 - 300 cycles.

Handling the Ni-MH battery properly:

Charging:

Ni-MH rechargeable batteries are very sensitive to any overloading. Trickle charging should be done, if at all, using very low current and for a short period. The inserted rechargeable batteries need at least 3 complete charging and discharging cycles to reach maximum capacity. Not completely charging and discharging cycles reduce battery durability. For technical reasons, the printer must always be supplied by very low charging current. As a precaution, please disconnect the printer from the charger once the charging process has been done. Never charge the battery beyond 10 up to 25 °C.

Exhausted rechargeable batteries:

Exhausted batteries are initially formatted with low charging current by the printer. This procedure can take up to 30 minutes in case of a very low state of charge. This state is not indicated by the printer. When starting rapid charging, the printer flashes 1:1. If batteries are exhausted, an effect comes into being at the beginning of the rapid charging period which equals deactivating criteria of a charged battery. On this account, a premature deactivation can rarely happen. In case of an exhausted rechargeable battery, please check whether, after 30 minutes, rapid charging is still running. If not, restart charging process again by unplugging/plugging.

Discharging/printing:

If Ni-MH rechargeable batteries with high current are exhausted, the polarity of the weakest cell will be reversed. This pole reversal leads to cell damage and, as the worst case may be, to a short circuit in the cell. If the printer, due to an empty battery, refuses the printing process, you should not try to print anymore. Each further attempt can lead to a pole reversal of one cell and, hence, to battery destruction.

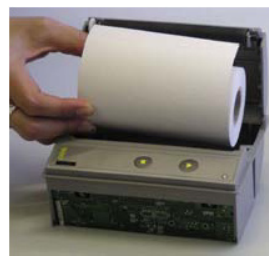
Stocking:

NI-MH rechargeable batteries have increased self-discharge. They lose 10-15% of their capacity during the first 24 hours after charging, thereafter 10-15% per month. The printer must be charged after 3 months at the latest. Otherwise the rechargeable battery can become damaged. Always store the rechargeable battery with charging state of > 50% between 10°C and 30°C.

4 Operation

Please insert the paper as follows:

1. Unwind some centimetres paper from the roll. Hold the paper layers tightly.
2. Now open the lid of the printer by pulling the LEVER slightly up. The lid can now easily be opened.
3. Insert the paper roll into the paper store hollow so that the outside points at the printing mechanism.
4. Close the lid by pushing it strongly. It will click so that you can tear the paper at the outside edge without the effect of opening the lid again and paper slipping through the printhead.



Use solely the paper provided by manufacturer. Different paper can cause operational faults.

5 Maintenance, cleaning

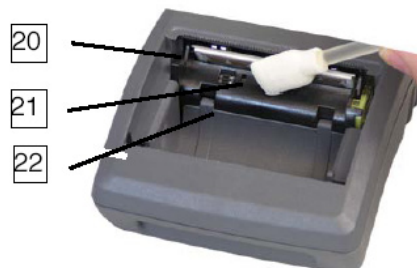
After numerous printouts, as the case may be, printhead, sensor and driving roll need to be cleaned, in particular if the quality of the printout has become poor.

- Open paper store lid and remove paper roll.
- Use a small brush to remove dirt on paper, sensor and outside edge.
- Blow into the paper store hollow to remove the coarse particles.
- Immerse ear buds in isopropyl alcohol (IPA) and clean the printhead, or use the printhead cleaning stick/cleaning card.
- Remove further strong pollution by using an ear bud (IPA) too. Never use any sharp item for cleaning to avoid damaging the printhead.

20 paper outside edge

21 printhead

22 paper sensor



6 Key functions

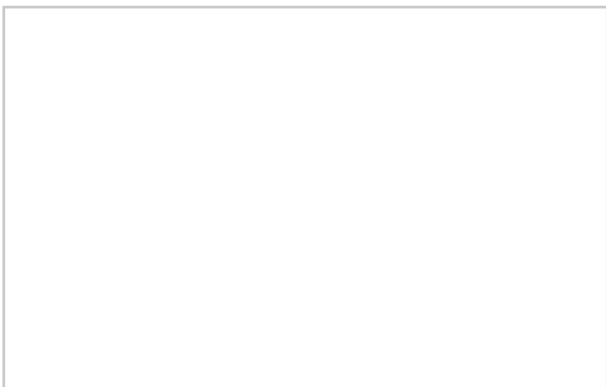
Operating the printer via keys is not necessary as any function is operated by the data logger.

7 Status messages via LED

LED „STATUS“ (green)

The STATUS- LED flashes green if everything runs well. Flashing red indicates malfunction.

The STATUS- LED flashes green during rapid charging process, permanently green during trickle charging.



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