HEINE QUALITY
MADE IN GERMANY

HEINE® NT4

CE

HEINE

MIDMARK®

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HEINE® NT4

Please read and follow these instructions for use and keep them for future reference.

Intended Use
The HEINE® charger NT4 is to be used exclusively for charging HEINE 4 series rechargeable handles. These must include a HEINE rechargeable battery.

Federal law restricts this device to sale by or on the order of a Physician or Practitioner!

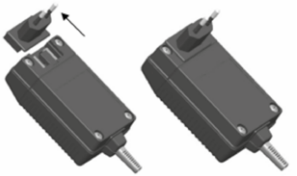
Warnings and Safety Information

CAUTION! Indicates potential hazardous situations. Ignoring the corresponding instructions may lead to dangerous situations of mild to moderate extent. (Background color, yellow; Foreground color, black for color print, or black in light-gray background.)

NOTE! Indicates valuable advice in terms of set up, operation, maintenance or repair, as applicable. Notes are important, but not related to hazardous situations.

Product overview

Setting up



USA primary plug:

The mains socket adapter of the power supply is interchangeable, this enables worldwide operation. The pictograms describe the procedure of changing the adapters.

Place the power supply in such a position where it is accessible and easily unplugged.

Do not place the device on soft surfaces or fabrics.

Apart from the appropriate charging handles, no foreign objects (e.g. paperclips) should be placed into the charging slots.

By plugging the mains transformer into the mains socket, the charger is ready for use.

The charger ensures that batteries are kept in good condition irrespective of handle size.

Instruments placed next to each other must not touch one another.

When using different sized handles, reduction rings can be used or exchanged to ensure an optimal fit for all handles at any time.

Reduction rings for BETA 4 NT:

After use, the handle can be replaced into the charging slot and remain there. Handles cannot be overcharged.
The device must be disconnected from the mains supply when the adaptors are being fitted.

If the second charging compartment is not in use it can be sealed off by the dust cap which is supplied with the unit.

The pulsating charge indicator (light ring) around the charging slot, indicates that a charging current is flowing and the battery is charging. The charging process takes place in accordance with the JEITA* temperature standard for Li-ion batteries. This can lead to short-term charging interruptions at ambient temperatures > 30 °C which optimizes the battery life.
(* Japan Electronics and Information Technology Industries Association)

A constant light around the charge indicator indicates that a HEINE handle is present but no charging process is taking place.

The charge indicator does not light up when the charging slot is empty or a malfunction is present.

If a fully charged handle remains in the charger, there will be brief recharging cycles (< 5 min) this is visible from the flashing of the charge indicator. The handle is fully charged and ready for use.

The LED indicates the operational readiness of the power supply.

⚠ The charger may only be operated with the mains voltage specified on the nameplate of the power supply.

Unplug the unit from the mains if not in use over long periods.

In the event of fluid ingress in the housing, the charger should be taken out of service and checked by an authorized person.

Follow the instructions for the charger and rechargeable handles.

When replacing the handles in the charging compartments, ensure that the internal contacts in the compartment are clean and that the instruments are switched off.

The rechargeable battery can only be charged when fitted to the handle.

The HEINE charger is intended for installation in medical areas outside the patient environment (at least 1.5 metres from the patient or patient support pursuant to IEC 60601-1, see figure).

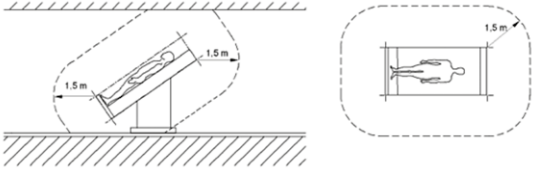


Fig1: The above figure defines the patient environment (minimum radius around the patient).

To prevent mechanical and electrical breakdown, never install or store the charger in the following areas:
- areas exposed to high moisture or condensation,
- areas exposed to extreme environmental conditions,
- areas subject to constant vibrations,
- areas severe temperature fluctuations,
- outdoors.

Hygienic Reprocessing

Instructions on hygienic reprocessing must be adhered to, based on national standards, laws and guidelines.
Classification according to KRINKO: non-critical
Spaulding Classification USA: non-critical

⚠ Before reprocessing, disconnect the device from the power source.
In the event of suspected contamination, carry out hygienic reprocessing of the instrument.
The described reprocessing measures do not replace the specific rules applicable for the establishment.
Only the reprocessing agents and procedures called out in this instruction for use are approved.
The reprocessing is to be carried out by persons with adequate hygienic expertise.
Observe the instructions of the manufacturer of the reprocessing media.

Place only reprocessed handles into the charger.
Hold the charger with the slots facing down when cleaning and disinfecting.

Procedure

Clean and disinfect the device manually (wipe clean and wipe disinfect).
Recommended agents
Cleaning agent, if necessary: enzymatic (e.g. Cidezyme® by ASP®)
Disinfectant agent: quaternary ammonium compounds (e.g. Sani-Cloth® AF3 by PDI®, Sani-Cloth® HB by PDI®)

Maintenance

The device is maintenance free.

⚠ The power supply must not be opened (risk of electrical shock).

Service

The device has some components serviceable by the end user.

General Warnings

⚠ Check the correct operation of the device before use! Do not use the device if there are visible signs of damage.
Do not use the device in fire- or explosive risk area (e.g. oxygen saturated or anaesthetic environments).
Do not modify the device.
Use only original HEINE parts, spare parts, accessories and power sources.
Repairs shall only be carried out by qualified persons.
Turn the handle off during the charging process.
The device must not be placed near strong magnetic fields, e.g. MRI units.

General Notes

The warranty for the entire product is invalidated if non-genuine HEINE products or non-original parts are used and if repairs or modifications are made to the device by persons not authorized by HEINE. For more information, please visit www.midmark.com.
The expected life cycle, when the device is normal used and the warning and safety information as well as the maintenance instructions are observed, is up to 10 years.
Beyond this period, the product may continue to be used if it has been determined to be in safe and good condition.
Do not pull on the cord/cable to disconnect the power supply from the mains.

Disposal

The product must be recycled as separated electrical and electronic devices. Please observe the relevant state-specific disposal regulations.

Technical specifications

Environmental conditions for operation	+10 °C to +35 °C 30 % to 75 % rel. humidity 700 hPa to 1060 hPa
Environmental conditions for storage	+5 °C to +45 °C 45 % to 80 % rel. humidity 500 hPa to 1060 hPa
Environmental conditions for transport	-20 °C to +50 °C 45 % to 80 % rel. humidity 500 hPa to 1060 hPa
Main Power Supply	100 – 240 V AC / 50 – 60 Hz
Current consumption	max. 205 mA
Output	max. 6 V / 0,9 A
Fuse	Integral overload protection
Charging time	max. 6 h
Class	II
Protection class	IP 20

Electromagnetic disturbances – Requirements and tests	
The device is intended for use in the electromagnetic environment specified below. The customer or the user of the device should assure that it is used in such environments.	
Statement for the operational environments:	Inside hospitals except for: near active HF surgical equipment and the RF shielded room of an ME system for magnetic resonance imaging, where the intensity of EM disturbances are high.
Performance features of the ME system that have been determined to be essential to the performance	None
Warning ⚠	Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally. Use of accessories, transducers and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation. Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the NT4, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.
A list of all cables, transducers and other accessories that are relevant for the EMC compliance	None
Test	**Compliance**
RF emissions CISPR11	Group 1 Class B
Harmonic Emissions	Passed
Voltage Fluctuations/Flicker	Passed

Explanation of utilized symbols
The following symbols are used on the device or on the packaging:

CE	The CE mark indicates that the product complies with the European medical device directive 93/42/EEC.
REF	Catalogue- or order number
SN	Serial number
	Manufacturer
	Date of manufacture
	Product bearing this symbol may not be disposed of together with general household waste, but instead requires separate disposal according to local provisions. (European Waste Electrical and Electronic Equipment Directive, WEEE)
	Temperature limits in °C for storage and transport
	Temperature limits in °F for storage and transport
	Humidity limitation for storage and transport
	Pressure limitation for storage and transport
	Instructions for use
~	Alternating current (AC)
	Fragile, handle with care!
	Keep dry!
	Follow instructions for use! (Background color, blue; Foreground color, white for color print, or white on black background.)

	Approval mark of SIQ
	UL Recognized Component Mark (for USA and Canada).
	Class II equipment

Manufacturer

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