

NiMH BATTERY CHARGER

EN User Manual

Updates and language specific user manuals are available on
www.mascot.no/ressurser/customer-specific-user-manuals/simu-and-somfy/



MODE D'EMPLOI
BEDIENUNGSANLEITUNG
ISTRUZIONI PER L'USO
PODŘĘCZNIK
HANDLEIDING
MANUAL DE INSTRUCCIONES
MANUAL DO USUÁRIO
UŽIVATELSKÝ MANUÁL



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Other languages available

ελληνικός



Dansk



Suomen



Norsk



Svenska



Български



Română



Türkçe



عبر





IMPORTANT SAFETY INSTRUCTIONS!



TO REDUCE THE RISK OF FIRE AND ELECTRIC SHOCK:

READ THROUGH THESE INSTRUCTIONS PRIOR TO USING THE PRODUCT.

CAREFULLY FOLLOW THESE INSTRUCTIONS WHEN USING THE PRODUCT.

RETAIN THESE INSTRUCTIONS FOR FUTURE REFERENCE.



CAUTION! DOUBLE POLE / NEUTRAL FUSING!



This product is designed for indoor use.
(Not applicable to products marked "IP67")

IP41 IP4X IP44 **IP67**

A version of this product marked "IP41" may be available. This version is protected against ingress of solid objects larger than 1.0 mm and the effects of vertically falling drops of water according to standard EN/IEC 60529.

A version of this product marked "IP4X" or "IP40" may be available. This version is protected against ingress of solid objects larger than 1.0 mm.

A version of this product marked "IP44" may be available. This version is protected against ingress of solid objects larger than 1.0 mm and the effects of water splashed against the enclosure from any direction according to standard EN/IEC 60529.

A version of this product, marked with a symbol with two drops of water and/or "IP67", may be available. This version is filled with a potting compound and is dust-tight and protected against

the effects of temporary immersion in water according to standard EN/IEC 60529, but must not be immersed in water for longer periods of time.



Products marked with the "double square symbol" are double insulated (Insulation Class II). Products without this mark are Class I (relies on safety earth for protection).

WARNING: To avoid risk of electric shock, Class I products must only be connected to a supply mains with protective earth.



At the end of their service life electric and electronic equipment and their accessories shall not be discarded with the municipal waste but be disposed of using separate collection, treatment, recovery/recycling and environmentally sound disposal. This also applies to any potentially bio hazardous parts and accessories. If in doubt, contact your local authorities to determine the proper method.

Technical specifications for your product: see tables, the marking on the product or www.mascot.no

Cautions to observe prior to use

- The intended use for this product is to charge a NiMH battery. Please see the marking on the product you have to verify the type of product you have and read the applicable instructions and technical specifications included with this manual.
- This product may be used by unskilled operators, under the condition that these instructions are followed.
- Unskilled operators may contact the supplier or manufacturer for assistance, if needed, in setting up, using or maintaining this product and to report unexpected operation or events.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Do not allow small children to handle this product while unattended as cables may represent a risk for strangulation and small parts may represent a risk for inhalation or swallowing.
- Do not allow animals to come into contact with this product. Some animals are known to cause damage to cables etc which may be a potential for risk of electric shock and excessive temperatures. Also, cables and small parts may represent a strangulation risk for the animal.
- If the product is equipped with a mains cord, please check that the cord is not damaged. If the cord is damaged, the product must not be used until the cord is replaced. Replacement should be carried out by qualified personnel.
- The mains socket outlet used should always be easily accessible to facilitate immediate removal of the products mains supply should an operational error occur during use. If the product has a detachable mains cord the appliance coupler may be used as a disconnect device.
- The product is "switched on" by inserting the mains plug into the mains socket and "switched off" by disconnecting the mains plug from the mains socket.
- The product may be connected to an IT type mains supply.
- For use in U.S.A.:
 - Be sure to use 125V 15A receptacle configuration before plugging in.
 - Use a UL817-standard compliant mains cord (plug type NEMA 1-15, cord type SJT or SVT).
- For use outside U.S.A.:

Use a mains cord compliant with the country specific requirements.
- The time from powering this product until its full function starts may exceed 15 seconds.
- Should an operational error or unexpected change in the performance occur during use, disconnect the product from the mains immediately by disconnecting the mains plug from the mains socket and contact the supplier or manufacturer (see contact details on the front of this document).
- When not in use please think about disconnecting the product from the mains. This will reduce the risk of hazards, reduce the products environmental impact and save electricity costs.
- To avoid overheating make sure there is sufficient room for the circulation of air around the product when in use. Do not cover it up.

- Even though this product complies with relevant safety standards it should not be in contact with human skin for long periods as some people may get allergies or injuries from long-term contact with moderate temperatures and/or plastic materials.
 - Prior to using this product with accessories and/ or interconnected equipment please carefully read its respective User Manuals.
 - If the product is supplied with exchangeable output plugs, please see separate page for assembly.
 - Output cables having a modular plug (similar to a telephone connector) must never be connected to a telephone outlet.
 - Products with a welded plastic housing or rated IP 67 are not repairable. For such products the supply cord cannot be replaced. If the cord is damaged the appliance should be scrapped. Please contact your supplier for replacement part.
 - This product contains hazardous voltages and there are no user replaceable parts inside the product. Never attempt to remove the cover.
- WARNING:** No modification of this equipment is allowed. Any repair/service should be carried out by qualified personnel who may get assistance by contacting the manufacturer or the manufacturer's agent.
- Products specified to have automatic polarity protection must be switched off if a battery is connected with reverse polarity. The protection will be automatically reset when the polarity has been corrected.
 - In chargers specified to have a replaceable fuse as polarity protection the fuse must be replaced if the battery has been connected with reverse polarity. When replacing the fuse, a fuse of the same type and rating must be used.
 - If the product is specified to comply with the standard for Medical Electrical Equipment (standards based on IEC60601-1) it complies with some of the requirements for medical electrical equipment and may be used in medical applications and hospital environments.
 - The product must be kept away from sources of heat and may not be used in the vicinity of flammable anesthetic gases or in other environments with flammable or explosive atmosphere.
 - If the product is specified to comply with the standard for Medical Electrical Equipment for Home Healthcare Environment (standard IEC60601-1-11) it may be used in medical applications used in a home healthcare environment.
- NOTE!** Products relying on safety earth for protection (Class I) may not be used in home healthcare environment unless they are permanently wired to the building installation: Installation must only be carried out by qualified service personnel, following the below instructions:
- The protective earth conductor must be min. 0.75 mm².
 - Connect the protective earth conductor to the external protective earthing system.
 - Verify that the protective earth terminal used is connected to the external protective earthing system.
 - Verify the integrity of the external protective earthing system.
 - This product converts the mains voltage to a safety extra low voltage.
The output from products applying with 2MOPP insulation (model names followed by "P") may be treated as Applied Part Type B or Type BF according to standard EN/IEC 60601-1 and may come in physical contact with a patient. The housing of the product shall not be allowed to contact the patient.

- This product must be operated in an environment within temperature range -10°C to +40°C, humidity 15 - 93 % RH and atmospheric pressure 70 - 106 kPa (700 - 1060 hPa). If the product has recently been stored or transported at conditions outside this range, please wait for 30 minutes before operating the product.
- Expected service life of this product and accessories delivered with this product is three (3) years, if operated as indicated above. However, the guarantee times indicated in document "TERMS OF SALES AND DELIVERY FOR MASCOT AS" apply (available at www.mascot.com).
- Environmental parameters during transport and storage between uses for period of time not exceeding 4 weeks: temperature range -25 to +85 °C, humidity 15 - 93% RH NC and atmospheric pressure 70 - 106 kPa (700 - 1060 hPa).
- If stored for longer periods of time the environmental parameters should be within the temperature range +5 to +35°C, humidity range 10 - 75% RH NC and atmospheric pressure 70 - 106 kPa (700 - 1060 hPa) to maintain the products expected service life.
- Expected shelf life of this product is one (1) year, if stored as indicated above.
- This product complies with the requirements to electromagnetic compatibility for medical electric equipment and for use in residential, office or light industrial environment but all electric products imply a potential for electromagnetic or other interference between the product and other devices. If such interference is suspected please disconnect the product from the mains and consult a qualified technician, your supplier or the manufacturer.
- No special maintenance procedure is required but if the product gets dusty or dirty it should be wiped clean using a dry cloth while the product is disconnected from the mains. No other maintenance should be necessary.
- For products having a plastic casing, please avoid any contact with lotions, oils, grease and solvents as most types of plastic may be degraded by such chemicals. Also make sure to position, operate and store such products away from UV-light and direct sunlight.
- Position, operate and store this product only under reasonable foreseeable environmental conditions with respect to magnetic fields, EM-fields, electrostatic discharges, pressure or variations in pressure, acceleration etc.
- If this product is used with or mounted in a vehicle it may only be used when the vehicle is not in use.
- When in use, position this product so that the label can be read – within 40 cm of the operator.
- Turn the product off and allow it's housing to cool down prior to moving it to another location.

Instructions for charging NiMH batteries

Charger functionality

This charger is a fast charger for NiMH batteries. The standard version utilizes a method called -dV detection for charge termination when the batteries are fully charged. This method is based on the fact that the voltage drops over the NiMH cells when the batteries are fully charged. This voltage drop is detected when the voltage has dropped a certain percentage from the highest value. If this drop does not occur, the charger has a safety timer which will terminate charging after a given time period to avoid overcharging the batteries.

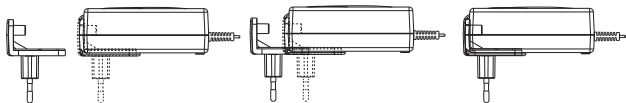
A few cells may have a voltage drop in the first part of the charge cycle. This is especially true for battery cells which have been idle for a longer period of time. Because of this, a timer is built into the charger which prevents -dV detection the first minutes of the charge cycle.

As the charger is programmable, it is possible that the standard parameters, which this user manual is based on, have been changed. See separate user manual or contact supplier for additional information.

Cautions before charging NiMH batteries

- NiMH chargers are designed for charging NiMH batteries only.
- Make sure you have the correct battery charger for the battery you wish to charge. The number of cells must correspond to the output indicated on the charger. **Never charge more battery cells than the charger is made for.**
- When charging separate battery cells, avoid charging cells with different rest capacities at the same time.
- Do not attempt to charge batteries that are not rechargeable.
- Please check that the specification for your battery allows for the maximum charge current indicated on the charger. If in doubt, contact the battery manufacturer for details.
- Please check that the specification for your battery allows for the environmental conditions present during charging.
Do not charge batteries at too high or too low temperatures.
- Please ensure correct polarity when connecting to the battery terminals. Reverse polarity connection may, in some chargers (see the charger's specification), result in a fuse rupturing, leaving the charger useless.
- The charge cycle starts when the charger is connected to the mains.
- If the charger is disconnected from the mains voltage during a charge cycle the charger will start a new charge cycle when it is reconnected to the mains.
- When charging is complete, disconnect the charger from the mains before removing battery connections.

How to connect exchangeable AC - plugs



"EURO" plug delivered as standard 250V 2.5A (EN50075/IEC83 C5 II)

The following exchangeable AC plugs are available (on request)

optional:

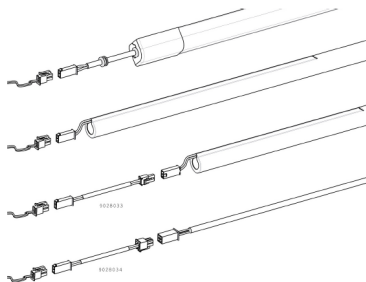
"US" 125V 2.5A (NEMA 1-15/CSA-C22.2 No.42)

"UK" 250V 13A (BS 1363)

"AUS" 250V 10A (AS/NZS 3112)



Use of extension cords (spares available on request)



LED indications

CHARGE INDICATIONS

Green flashing: No Battery

Yellow: Fast charge

Green: Battery charged

ERROR INDICATIONS

2 red blinks: Battery is connected to charger with wrong polarity!

3 red blinks: Charger output is shorted. Check output cable connection!

4 red blinks: Battery voltage is low. Check battery status or voltage. (ss timer)

LED off: Battery voltage is too high. Check battery voltage.

Electromagnetic Compatibility

In order to regulate the requirements for EMC (electromagnetic compatibility) with the aim of preventing unsafe product situations, the below indicated EMC standards has been implemented. These standards define the levels of immunity to electromagnetic interference as well as maximum levels of electromagnetic emissions for household and similar devices. Products manufactured by Mascot have been tested and conform with the requirements indicated but, nevertheless, special precautions may need to be observed: The Mascot products are suitable for use in Domestic, Residential, Office and Hospital environments, except in special locations where EM Disturbances are known to be high, such as near High frequency Equipment or Magnetic Resonance Imaging systems.

When used according to its specification the User can expect the product to fulfil its essential performance of charging batteries.

WARNING: Use of this equipment adjacent to or stacked with other equipment should be avoided because it may 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.

WARNING: Use of accessories, transducers and cables other than provided by the manufacturer could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.

WARNING: Portable RF communications equipment should be used no closer than 30 cm (12 inches) to any part of the power supply or battery charger, including cables. Otherwise, degradation of the performance of this equipment could result.

GUIDANCE AND MANUFACTURER'S DECLARATION

The Mascot products are intended for use in the electromagnetic environment specified below. The customer or user should ensure that it is used in such an environment.

Phenomena / Standard	Guidance
RF emission for household appliances, CISPR 14-1 & EN 55014-1 (Class B), FCC15B	The product is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic and light industrial purposes. RF emissions are not likely to cause any interference in nearby electronic equipment, but a separation distance of 30 cm is recommended.
Harmonic emission, IEC/EN 61000-3-2, Class A	
Voltage fluctuations and flicker emission, IEC/EN 61000-3-3	
Electromagnetic fields of household appliances with regard to human exposure, EN 62233	
Immunity, CISPR 14-2, EN 55014-2	

Technical data

	3743 NiMH CHARGER 7-14 cell (8.4V-16.8V)
Input voltage : current : frequency:	100 - 240 VAC 0.30-0.15 A 50 - 60 Hz
Max. Output Power	16 W
Protection at input	Fuse: T1.0 AH 250 V, 5 x 20 mm
Protection against ingress of water (IEC 60529)	IP41
Insulation Class	Class II
Dimensions (LxWxH)	108.5x49x29.3mm
Weight	150g
Input terminals	2-pin connector (IEC 60320/C8) for exchangeable mains plug (EU, US, UK and AUS) or detachable mains cord set
Product safety standards	IEC/EN/UL 60335-1: household appliances, general requirements and IEC/EN/UL 60335-2-29: household appliances, requirements for battery chargers

Most recent version of this user manual is available at
https://www.mascot.no/media/3115/simu_and_somfy_usermanual_english_6821.pdf



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