MICA HL-800 ATEX

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II 2G **Ex eib op is IIC T4**

Certificate: VTT 02 ATEX 013 X
The design and manufacture of the lamp is compliant to European standards CENELEC EN 60079-0 (2006), EN 60079-7 (2007), EN 60079-11 (2007), EN 60079-28 (2007), EN 62013-1 (2006).

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MICA HL-800 ATEX SAFETY INSTRUCTIONS

Before use:

- All preparations (including cleaning) must always perform before entering inside potentially explosive environments. The charger (MICA HC-41 or MICA-42) must be mounted outside the potentially explosive athmosphere. Charging the lamp battery inside potentially explosive environments is prohibited.

Use:

- HB-800 battery is the only allowable power source for MICA HL-800 ATEX lamp.
- HB-800 battery may not be charged in an EX hazardous area.
- HB-800 battery may be charged with MICA HC-41 or MICA HC-42 charger only.
- HB-800 battery may be changed inside an EX hazardous area.
- Check that your MICA HL-800 ATEX lamp is certified for use in your work location
- Make sure that lamps´s protection class is sufficent to environment where lamp is used.

Maintenance:

- Do not open the reflector housing (secured with a allen socket screw) inside an EX-hazardous area.
- User-serviceable parts are limited to those listed in the spare part list.
- Under no circumstances do not attempt to service or change the electronics unit.
- In case of malfunction, read the User's Manual and contact your MICA distributor.

WARRANTY

Your MICA lamp, battery and charger are guaranteed for one year from date of purchase against all defects in materials and workmanship. During the warranty period, these units may be serviced by an authorized MICA service agent only. For after-sales service, contact your local MICA dealer.

For more information on Mica Elektro or the product lines, please visit our internet website:
www.mica.eu

EC DECLARATION OF CONFIRMITY

We hereby declare that the product described below has been designed and manufactured in accordance with the following standards/directives:
-Directive 94/9/EC Equipment (ATEX) for use in potentially explosive atmospheres
-EMC directive 89/336/EC

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Product name, model, serial number, year of manufacture:	Mica Halogen HL-800 ATEX Serial number (in eight digits) and year of manufacture marked on the ID tag.
Certificate number:	VTT 02 ATEX 013X
Product type:	Rechargeable head/helmet lamp

Helsinki, Jan. 30, 2009

Åke Smolander, Managing director
MICA ELEKTRO OY LTD.

mica-halogen®

HL-800 ATEX USER'S GUIDE

Please read this user's guide carefully and store it for future, since proper handling will prolong the useful life of your MICA lamp.

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HL-800 ATEX USER'S GUIDE

LAMP USE

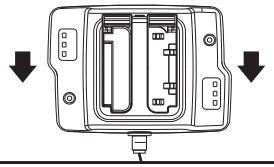
Before use check that the battery is fully charged and connected to the lamp. The rotary knob on the right side of the lamp functions as a switch (secondary LED / Main beam / OFF). The beam angle can be adjusted by the rotary knob on the left side of the lamp. In the HL series lamps, blinking of the beam at 15 s intervals indicates low battery. At the start of blinking the bulb, about 10 min of operating time remains. After that, the control electronics will automatically turn off the lamp to prevent battery deep-discharge. When necessary, adjust the beam angle (see Bulb change).

VERSIONS

The HL-800 series is manufactured in three versions: a headband model, a helmetband model (a special design affixed on a helmet with rubber bands and plastic hooksand) a helmet clip model. Main beam is 1W LED bulb or 2.4W Halogen bulb. When ordering spare parts, pay attention to specify a correct lamp version.

A table/wall-mounted charging holder is available in two versions: type HC-41 (single-battery version) or HC-42 (two-battery version).

NOTE! In wall mounting, align the supply connector downward! Do not mount the charging holder on a flammable surface.



BATTERY CARE

For long life, the battery must be charged fully prior to its first use, as well as after a full discharge. A new battery needs about 10 full charge/discharge cycles to gain its full capacity. Charging within an explosion hazard space is absolutely forbidden! The HB-800 battery must always be charged in an original HC-41/42 charging holder.

BATTERY CHARGING

The charging holder can be used at an operating temperature of +5°C …+40°C. The fast-charging current is about 650mA. It can be supplied from the mains using either the MICA IL-2, MICA IL-10, MICA CR or the vehicle battery (supply voltage of 12…30VDC). Fast-charging a fully exhausted HB-800 battery takes less than two hours.
NOTE! The supply voltage to the charging holder may not be interrupted by a timer or similar device.
NOTE! After use in the lamp, the battery should always be stored in its charging holder.

The charging holder has a quick-disconnect for supply voltage input. When the green LED indicator is on, the supply voltage to the battery charging holder is properly connected. If there is no battery in the charging holder and the yellow LED indicator is on, the supply voltage is too low.

The intelligent control circuit of the HC-41/42 starts the charge cycle by a battery condition analysis. Based thereon, the control circuit optimizes the charging parameters to bring the battery to the correct temperature (+5°C …+40°C) and voltage. If the battery temperature is under +5°C or over +40°C or the battery has been exhausted down to a deep-discharge, charging will begin at a low trickle charge current (red LED turns on) until the battery is ready for fast charge (yellow LED turns on). When charging at full current is completed, the charger will automatically switch to trickle charging (green LED turns on). If the battery temperature rises excessively during charging, the charger will stop charging (red LED turns on) until the battery temperature falls sufficiently.

If the battery is defective or overheated, charging will be interrupted and the red LED remains lit even when the battery is removed from the charging holder. Prior to the next charging cycle, the charging holder must be reset by disconnecting the supply voltage (see legend of LED indications).

BULB CHANGE (1W LED or 2,4W Halogen)

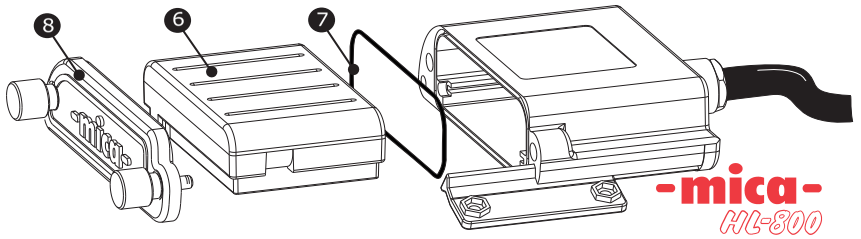
Use only spare parts supplied by MICA as a replacement. First unscrew the locking screw of the lamp collar ring (with a 2.5mm Allen key). Remove the glass lens, rubber seal and reflector. Open the bulb/1W LED locking ring using a 11mm wrench tool. Change the bulb and tighten in place with the locking ring. Adjust the beam angle by turning the locking ring clockwise and check with the reflector until the beam pattern is as desired. When changing the bulb or reflector, avoid scratching them and immediately wipe away any stains using tissue paper and spirits. The secondary LED lamp may be replaced only by an authorized MICA service agent.

Operating times:
With 1W LED bulb is 7h and with 2.4W Halogen 3h 10min.
Using the secondary LED lamp only, the operating time is over 1 day.

Legend of LED indications on HC-41/42 charger

Green LED	Power on (without battery)
Green LED	100% charged (battery inserted)
Yellow LED	Too low input voltage (without battery)
Yellow LED	Fast charging (battery inserted)
Red LED	Charging parameters off limits (battery inserted)
Red LED	Remains lit (even after battery removal) for a defective or excessively heated battery. To reset the control circuit, disconnect supply voltage temporarily.

NOTE!
Servicing of MICA HL-800 by the user is limited to the operations described above and may cover only the change of the spare parts listed under the drawing.



SPARE PARTS FOR HL-800 ATEX LAMP:

1	H0032_1	Halogen Bulb (2.4W)
	H0032_5	1W LED Bulb
2	H0033_1	Bulb locking ring
3	H0035_2	Reflector with oval ring
	H0044_1	Rubber band set (headband)
	H0044_2	Rubber band set (helmetband)
	H0047_1	Plastic hooks for helmetband
	H0046_4	Clamp frame and helmetband
	H0046_5	Clamp frame and headband
	H0046_6	Clamp frame and helmet clip-set
5	H0040_1	Lens and seal
6	H0066_1	HB-800 Spare battery
7	H0061_1	O-ring for battery case
8	H0065_2	Cover assembly
9	H0031_2	Locking ring & locking screw
10	H0036_2	Switch and adjustment assemblies

SPARE PARTS FOR HC-41/42 CHARGER

H0021_1	Casing and adhesive tapes
H0022_1	Cable set with connector
H0023_1	Bottom plate
H0024_1	Printed circuit board (PCB)
H0025_1	PCB mounting posts (8 pcs.)
H0026_1	Set of screws

TECHNICAL SPECIFICATIONS

HL-800 LAMP

Operating temperature:	–20°C ...+40°C
Protection class:	IP 66
Weight:	510g (lamp 375g + battery 135g)
Bulb:	6V / 2.4W halogen (Px13.5) 6V / 1W LED (Px13.5)

HB-800 BATTERY (spare)

Type:	NiMH battery
Capacity:	1350mAh
Voltage:	6V
Weight:	135g

HC-41/42 CHARGING UNIT

Operating temperature:	+5°C ...+40°C
Input voltage:	12...30VDC
Charging current:	650mA automatically controlled
Protection class:	IP 20
Dimensions:	152mm x 115mm x 60mm

NOTE! When ordering spare parts please always tell the model/type and serial number of your lamp and/or charger.