



Ex ia IIB Gb IP67

KH3R-Ex integrates a red LED beacon into a cordless caplamp to achieve both normal illumination in front and a flashing warning button in red on the back when worn on the side of the helmet.

The illumination LED operates at either Main level for normal use or Emergency level for conservation of power. The warning beacon utilises 7 red LEDs behind a red scattering cover to enable wide angle viewing. You can use illumination only, beacon only or both for the whole 12-hour work shift.

The features of high light intensity and back warning light make it very suitable for underground mines and other applications where both illumination and warning are required.

OPERATIONS

The front lamp is a high power LED for illumination in two levels - Standard for normal illumination and Auxiliary for low illumination or long operation. The rear red lamp includes 6 low power flashing LEDs for warning.

There are 4 operating Modes:

Auxiliary illumination --> Standard illumination --> Warning --> Standard illumination + Warning.

- ▲ Press the button to go to the next operating mode.
- ▲ Press and hold the button for two seconds to turn off.
- ▲ The lamp starts from the last operating mode when turned on.

FEATURES

- ▲ Free you from the inconvenience of electrical cable and the burden of a battery pack, and also eliminates the possibility of any accident by bumping or snagging cable cord and increase working efficiency;
- ▲ Rear flash warning light in red for your safety;
- ▲ Adjustable angle to point wherever you see, near or far ---- to read and write, repair equipment or check the ceiling, significantly reducing dead corners
- ▲ Multiple operating modes for different applications;
- ▲ Natural LED light for a comfortable light environment;
- ▲ IP67 housing with a fully integrated and sealed structure, and solid light source designed for the harshest underground mining environment;
- ▲ Extraordinary safety - no acid or any toxin to spill, no flammable materials exposed, no heat on lens surface, no danger for personnel at all;
- ▲ Various ways to wear, mount or attach for different applications, used as a caplamp, headlamp, torch or portable lamp;
- ▲ Easy to charge. Strong protection from over voltage, over current, over charge and over discharge;
- ▲ Various models of charging banks and single chargers available in different charging units and power input;
- ▲ Very low maintenance to significantly reduce your lamp room cost. Easy to clean; No cable, bulb and headpiece to check or change; No repairing; No dedicated staff to look after charging.



STRUCTURE



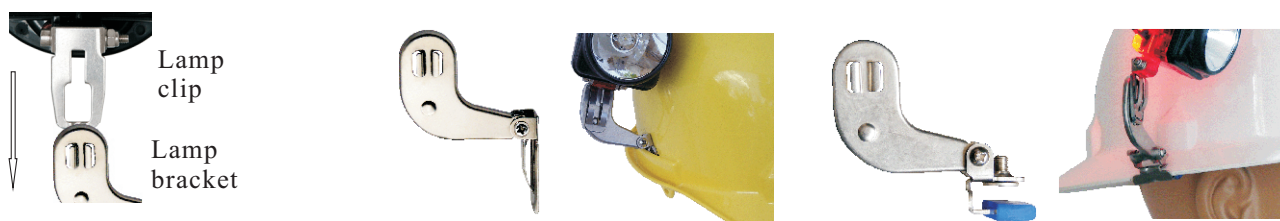
SIDE-WEARING

Fit the lamp to a side lamp bracket

There are two ways to mount the lamp on a helmet and there are two side caplamp brackets in every package. The lamp is fitted in either side lamp bracket in the same way. Simply align the slot of the caplamp clip to the bracket bar and slide the lamp in.

Fit the side lamp bracket to a helmet

Insert model of bracket, SLBI, can be inserted in the slot of a helmet. It is suitable for a miner's helmet. Screw model of bracket, SLBS, can be screwed onto the brim of the helmet. It is suitable for any other helmets.



Adjustable angle

The bracket is adjustable in the left-right direction to set a distance from the helmet so other attachments such as a visor will not block the light. The lamp is also angle adjustable in the forward-back direction to set the light projecting direction. Using the both bracket and lamp adjustments, an all-around angle is achieved.





HOW TO USE

Apart from wearing on a side of the helmet, KH3R-Ex also can be used in various ways for illumination or signalling.

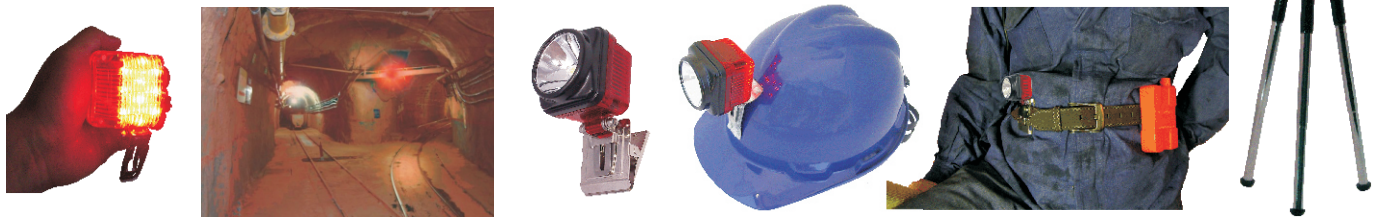
Caplamp: Simply inserted in the lamp bracket on the helmet. The lamp clip is designed to fit in any Australian and American miner's helmet.

Headlamp: Worn on a plain hard cap using our *Cap Strap*, or worn on the head directly by removing 4 *Cap Hooks* on the *Cap Strap*.

Mini-Torch: Just hold in your hand, easily carried in a tool box, pocket or on your belt.

Portable Lamp: Clamped to an object or magnetically attached to a metal using our *Magnetic Lamp Bracket Clamp*, worn on the belt using our *Belt Worn Lamp Bracket*, or fixed to a location using our *Lamp Bracket*.

Others: Various accessories available for other ways to wear or mount the lamp, such as *Bar Bracket*, *Strap Bracket*, *Handle & Pocket Bracket*, *Tripod Bracket*, *Lanyard*, *Wrist Strap* and *Lamp Cluster*. Other accessories include, a handy *Mining Lanyard* to connect the lamp to your belt to prevent the helmet from falling away in such situations as in front of a ventilation machine, *Helmet Chin Strap* to hold your helmet in place in active situations.



CHARGING FACILITIES

Charging Banks: Three models available to charge 8, 36 or 52 lamps together from different powers.

Mains Charger: Charge the lamp from a Mains outlet (*standard accessory in every package*)

Vehicle Charger: Charge the lamp from the cigarette lighter in a car or truck (12/24VDC).

SPECIFICATIONS

Operating time:	14 hours (Main Mode)
Luminous intensity:	2800 cd (Main Mode)
Charging time:	8 hours
Battery:	2.8 AH, 3.7V
Battery lifetime:	80%C after 500 full charging cycles
LED lifetime:	30,000 hours
Weight:	140 g
Enclosure:	IP67
Warranty:	1year replacement

CERTIFICATION

Intrinsically Safe



IP67

Ex Code: Ex ia IIB Gb

Certificate #: IECEX TSA 10.0006X

ANZEx 10.3012X