FEREI HL20AAII

High intensity
LED Headlamp

FEATURES

1 High Intensity LED headlamp.
2 Extra spot beam.
3 Cool or neutral white LED version available.
4 IPX4 Water resistant.
5 1000 lumens for 16 hours.
6 8 Selectable brightness levels from 10% to 80%.
7 4 selectable blinking modes: police blinking, slow blinking, quick blinking, and SOS.
8 Smart IC motherboard provides multiple brightness settings ,and prevents overheat, over discharge or damages caused by polar reversing.
9 The light will emit 10 successive blinks in 8 seconds when Battery level indicating around 20% capacity.
10 Elastic bungee headband capable of length adjustment, providing best fit and comfort for user.
11 Optional Diffuser and USB cable charger available.
12 Optional BP2836B, BP4836B and BP6836B for longest runtime each 9 hours, 18 hours and 27 hours on High.

USAGE INSTRUCTIONS

1 Briefly press the rubber switch to turn the HL20AAII on/off.
2 The HL20AAII provides three lighting options:
- Maximum brightness: 100% output
- Custom brightness: eight selectable modes ranging from 10% to 80% output
- Strobe / SOS: police strobe, slow strobe, rapid strobe and SOS.

3 Operating Instruction:
- i) To turn the HL20AAII on, briefly press the rubber switch. The default setting is maximum brightness (100% output).
- ii) To access custom brightness mode: with the HL20AAII turned on (in either max or custom mode), hold the switch down for more than 2 seconds and the HL20AAII will cycle through 8 levels of output. When a desired output is displayed simply release the button to set the brightness.
- iii) The HL20AAII has 3 hidden strobe modes and 1 SOS mode. To access these modes simply hold down the power button for 2 seconds with the unit turned off and release. To cycle to the next strobe / SOS mode once again hold for 2 seconds and release. To exit strobe / SOS mode simply press the switch once (turns the HL20AAII off).

4 **Low battery warning:** When the battery capacity gets very low (approx. 20%), the HL20AAII will emit 10 successive blinks in 8 seconds. This is a reminder that the battery should be replaced.
5 **Reverse polarity protection:** When a battery is inserted incorrectly, a special protection circuit will activate and automatically prevent operation to ensure the safety of the HL20AAII and its user.
6 The HL20AAII is also designed with intelligent over-discharge detection. If battery voltage reaches a critical lower limit, the HL20AAII will automatically turn off, at which time the battery should be replaced as soon as possible.

WARNING

- Do not use batteries that are banned on this manual.
- Do not mix batteries of different brands, size, capacity or type.
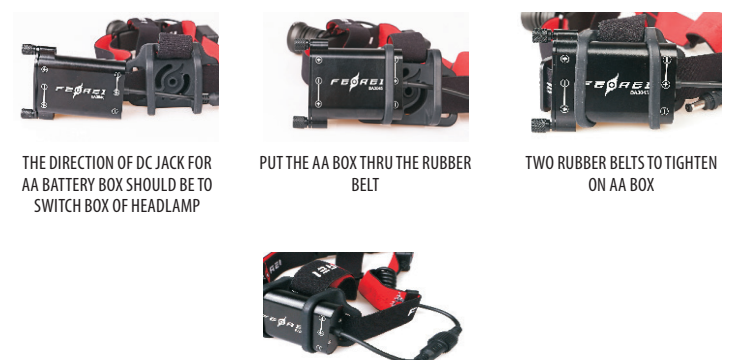- Be sure to operate the battery box as per the correct instructions so to avoid any damage.

DIAGRAM

* PHOTOS ARE FOR REFERENCE ONLY, PRODUCTS IN KIND PREVAIL!

BATTERY BOX (3*AA)
ADJUSTMENT BUCKLE
NYLON ELASTIC BAND
5.5 DC PLUG CABLE
ADJUSTMENT DIRECTION
SWITCH
HEAD
LED

AA BATTERY BOX INSTRUCTIONS

UNSCREW THE NUT

BOTH NUTS ARE UNSCREW

REMOVE THE SCREW CASE FROM BATTERY BOX

INSET 3PCS 1.5V AA BATTERY WITH THE CORRECT POLAR IN AA BATTERY BOX

PUT THE SCREW CASE IN THE RIGHT DIRECTION

SCREW UP BOTH NUTS ON AA BOX

INSTALL AND REMOVE THE BATTERY BOX

THE DIRECTION OF DC JACK FOR AA BATTERY BOX SHOULD BE TO SWITCH BOX OF HEADLAMP

PUT THE AA BOX THRU THE RUBBER BELT

TWO RUBBER BELTS TO TIGHTEN ON AA BOX

CONNECT THE 5.5DC PLUG OF HEADLAMP AND THE 5.5 DC JACK OF AA BOX, AND THEN SCREW UP THE HOLDER

INTELLIGENT TEMPERATURE CONTROL INSTRUCTIONS

This product is designed with a temperature control circuit.

The LED is a heating device that is sensitive to temperatures, especially high levels of power and brightness. High temperatures will easily damage or shorten the life of the LED. Ferei designs its products with an intelligent temperature-control circuit. It measures the temperature within the LED filament. As the structure of the lamp differs, the thermal conductivity of the entire lamp is not the same. In general, the constant surface temperature of the lamp is 50˚C to 60˚C. When it exceeds its programmed temperature, it will automatically reduce its power to cool down , and the brightness decreases by small steps. After cooling-down (provided that battery voltage is sufficient) the power with brightness increases again. The process of improving its brightness is relatively discrete and will not produce a flashing effect.

This stepping goes cyclically to maintain the user's safety and the light's functionality. In conditions of good air-cooling the lamp delivers light without stepping down even in high levels brightness mode. There are no preset timers for stepping, but real-time active temperature measurements, So the actual runtime of the lamp base on active temperature control to faster or slower battery discharge, may be slightly longer or shorter runtime than the lamp of data provided .

BATTERY SPECIFICATIONS

TYPE	DIMENSIONS	NOMINAL VOLTAGE	USABILITY	
ALKALINE BATTERY	AA	1.5V	RECOMMENDED	√
NI-MH BATTERY	AA	1.2V	USABLE	√
NON-RECHARGEABLE BATTERY (LITHIUM)	AA	1.5V	USABLE	√
RECHARGEABLE BATTERY (LI-ION)	14500	3.7V	BANNED	X

WARNING

• Do not use batteries that are banned on this manual.

• DO not mix batteries of different brands, size, capacity or type.

• Be sure to operate the battery box as per the correct instructions so to avoid any damage.

MAINTENANCE

1 Wipe the glass lens with a soft cloth at regular intervals to ensure maximum light transmittance (avoid using corrosive detergents).

2 Ensure the cable plug and inside of the battery box remain free of dirt and debris.

3 Unplug the cable from the battery box when unused for extended periods.

WARNING

• The LED assembly / lamp can become hot when used on high for extended periods. This is a normal.

• Do not dismantle any of the headlamp's components as warranty will be voided.

• Avoid exposing the headlamp to corrosive substances / liquids.

• Avoid storing batteries in the headlamp's battery box for extended periods.

• Do not point the headlight directly into a person or animal's eyes as injury may occur.

• Ferei reserves the right of interpretation of this manual.

HL20AA II - PRODUCT SPECIFICATIONS

LED	CREE XM-L2 (COOL WHITE)												
ANSI/FSC	MAX	CUSTOMIZED SETTING								POLICE STROBE	SLOW STROBE	FAST STROBE	SOS
LIGHT PER	100%	10%	20%	30%	40%	50%	60%	70%	80%	USER-DEFINED			
OUTPUT (LM)	1000	100	200	300	400	500	600	700	800	USER-DEFINED			
RUNTIME (H)	16	160	80	57	40	32	27	23	20	OVER 16 H			
RANGE (M)	OVER 305 METERS												
MAXIMUM INTENSITY	23256 CD												
LED	CREE XM-L2 (NEUTRAL WHITE)												
ANSI/FSC	MAX	CUSTOMIZED SETTING								POLICE STROBE	SLOW STROBE	FAST STROBE	SOS
LIGHT PER	100%	10%	20%	30%	40%	50%	60%	70%	80%	USER-DEFINED			
OUTPUT (LM)	940	94	188	282	376	470	564	658	752	USER-DEFINED			
RUNTIME (H)	16	160	80	53	40	32	27	23	20	OVER 16 H			
RANGE (M)	OVER 208 METERS												
MAXIMUM INTENSITY	10816 CD												
WATERPROOF RATING	IPX4												
ANTI-DROP	1M												
DIMENSION	30 MM (HEAD DIAMETER)												
BATTERY	3 X AA BATTERIES												
WEIGHT	169 G (EXCLUDING BATTERY)												
NOTE: THE ABOVE PARAMETERS WERE TESTED BY USING THE AA LR6 HIGH POWER CAPACITY BATTERY													

Patented product, counterfeiting not allowed.