



gloworm

OPERATING INSTRUCTIONS



EXPERIENCE THE REVOLUTION

Congratulations! You are now the owner of a Gloworm X1.

Prepare to Experience the Revolution in LED Adventure Lighting!

Safety Instructions

An alternative light source should be carried at all times.

Heat Generation

The aluminium light-head is designed to draw heat away from the LED. The process works effectively when air is flowing over the light. However, the X1 can become hot if left stationary on its higher settings. It is recommended that the X1 is set to a lower setting when stationary for more than a few minutes.

Important! If the X1 is being used in a stationary state and it begins to become hot it will automatically reduce current as a measure to reduce the X1's temperature and protect the electronic components. Constant operation at high is only possible with continuous air flow.

Battery Safety

- Never leave a battery unattended when charging,
- A battery should never be exposed to direct heat,
- Only use a Li-Ion battery charger when charging the battery,
- Batteries do not need to be discharged before charging, frequent charging will not cause harm to your battery.

Mounting the X1

Helmet Mounting

The X1 comes mounted to the helmet mount, this can be attached to almost any helmet using the supplied Velcro (or cable ties). Attach the X1 by looping the velcro through the vents of the helmet. **Tip:** Many helmet vents slope toward the front of the helmet. Mounting the helmet toward the front of the helmet helps prevent the light slipping forward during use.

Bar Mounting (optional accessory)

The bar mount (Quick Release or O-Ring style) is designed to fit flush with the stem. From this position the X1 can be adjusted to any position around the circumference of the bar.

Headstrap (optional accessory)

Attach the X1 to the headstrap by threading the headstrap elastic through the slots in the helmet mount, then attaching the 'overhead' strap to the mount. Adjust the straps to your preference.

Battery

The battery can be attached to/placed in any location that suits the user, i.e. top tube, back pack shoulder strap, in back pack, in riding jersey etc. To ensure there is enough cable to reach your desired battery location use the provided extension lead. A protective adhesive foam strip is supplied.

Quick Start and Operation

Overview

The X1 is operated using the remote switch.

The X1 is pre-programmed with four programme options that are refined for your specific adventure. Programmes feature 'Normal Operation Modes' (NOM) and one 'Special Mode' (SM).

Start

Once the battery is connected, the X1 is ready to be used. The default programme of the X1 is the Trail Programme.

Simply CLICK the button and the light will turn on in the start up mode of the selected programme. On first start up this is Low Mode (300 Lumens) of the Trail Programme.

NOMs (High, Low, etc) are selected by using a quick CLICK of the switch. The SM is accessed with a 2 second PRESS of the switch from any NOM. A CLICK of the switch will return the X1 to NOM.

To extinguish the X1 HOLD the remote switch. The light will cycle through Special Mode' then it will turn off (5 seconds appx).

Programme Matrix (2 Cell Battery)

Special Modes

Normal Operation Modes

Adventure Programme
Adventure racing,
trail running

BEACON
850 Lumens
2 Days

DIM
50 Lumens
2 Days

MED
300 Lumens
8.5 Hours

HIGH
700 Lumens
3 Hours

Trail Programme
Mountain biking

DIM
50 Lumens
2 Days

LOW
300 Lumens
8.5 Hours

MED
600 Lumens
3.5 Hours

HIGH
850 Lumens
2.25 Hours

Commuter Programme
Commuting

FLASH
700/300 Lumens
5 Hours

LOW
100 Lumens
30 Hours

MED
500 Lumens
4.5 Hours

HIGH
700 Lumens
3 Hours

Bush Programme
Hiking

DIM
50 Lumens
2 Days

MED
600 Lumens
3.5 Hours

HIGH
850 Lumens
2.25 Hours

Intelligent Mode Technology (IMT)

Intelligent Mode Technology allows the X1 to be refined for your adventure. The X1 comes with four programmes that the user can select on the fly.

Each programme features 'Normal Operation Modes' (NOM) and one 'Special Mode' (SM). The SM is accessed with a PRESS of the remote switch from any NOM. A simple CLICK of the remote switch will return the X1 to NOM. Cycling through NOM is achieved by a CLICK.

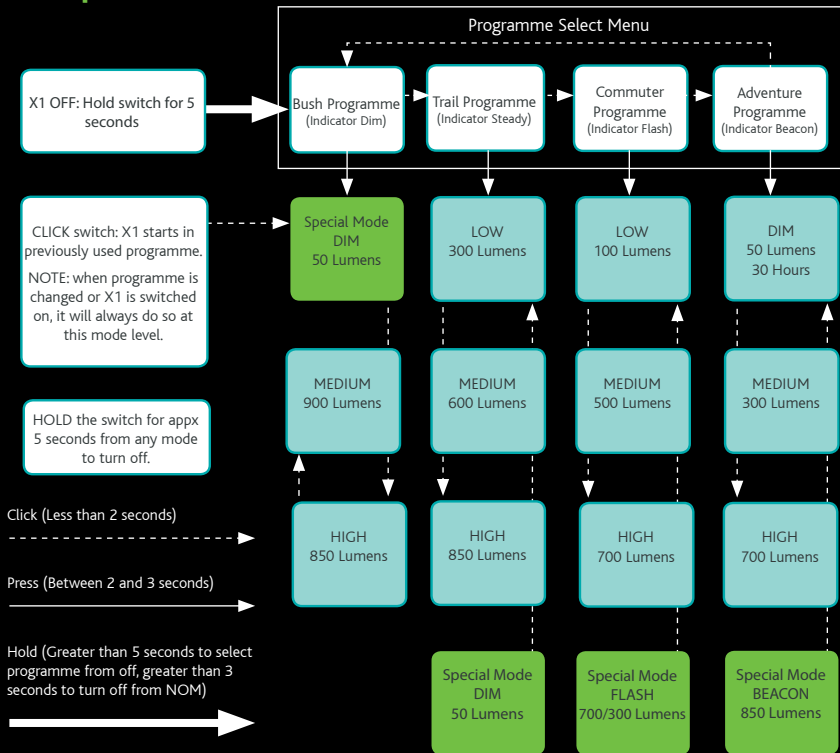
General Operation

- CLICK the switch to cycle through 'Normal Operation Modes'
- PRESS the switch for about 2 seconds to enter the special mode. CLICK the switch to return to the NOM.
- HOLD switch for more than 3 seconds to turn off

Changing Programmes

1. From 'off', HOLD the switch for more than 5 seconds. The X1 will flash, upon flashing release the button. The X1 is now exhibiting a steady dim light. The X1 is now ready to be programmed.
2. Cycle through the programmes using a CLICK of the switch. Each programme has a unique indication as detailed on the 'Operation Chart' (opposite)
3. To select your desired programme PRESS the switch for about 2 seconds. The X1 will flash to indicate it has entered the desired programme. Upon flashing release the button (if the button is not released the light will turn off and revert to the previous programme).
4. The X1 is now ready for use in the selected programme.

X1 Operation Chart



Battery

Voltage Indication

The battery's fuel gauge allows the user to monitor the battery capacity at a glance. There are four LED indicators (20%, 40%, 80%, 100%) located on the battery that will glow independently as the voltage decreases. When the voltage reaches a critical level the X1 will alert the user by emitting a flash sequence. There is approximately 5 minutes of runtime following this indication.

Charger

The X1 is supplied with a Li-Ion Smart Charger. The charger has an LED indicator to let the user know when the battery has completed the charging process. Simply plug the charger into the wall socket (power off) and then connect the battery to the charger – the LED indicator will glow GREEN.

Turn the power on at the wall socket and the indicator will glow RED and the charging process will commence. When charging is complete the indicator will glow GREEN.

Important! Always disconnect the battery from the light when not in use. The small amount of power used by the electronics will discharge the battery, additionally the lamp may be switched on accidentally and consequently cause an uncontrolled heat build-up.

If you intend not to use the X1 for a longer period of time, fully charge the battery and store in a cool and dry place.

Battery Care

The following steps should be taken to conserve the life of your battery.

- Always store your battery in a cool dry location
- Prior to storage, ensure your battery is charged to 50-70% (not full)
- Your battery will not develop a memory, you can charge and discharge as you like
- Keep your battery away from direct heat sources
- Only charge using a smart charger, an addition to the batteries protective circuit, this will prevent over charging
- Optimal battery use is between 15% and 85%. Our batteries are designed not to exceed these limits. Feel free to charge and discharge as needed
- A battery should be able to complete 500 cycles prior to losing capacity.
- Part charges and discharges are not equal to a full cycle. Several part cycles are better for the battery than 1 'full' cycle.

For more information on your battery go to www.batteryuniversity.com

POOR BATTERY CARE WILL VOID WARRANTY

Changing the Optics

The X1 is supplied with 1 installed optic lens and 2 spares. Additional optics can be purchased from your supplier. To change optics follow to the process below:

1. Remove the X1 from the battery.
2. Remove the bezel using the supplied tool.
3. Remove the protective lens and the o-ring.
4. Carefully remove the optics; you will now see the LED – TAKE CARE: Do not touch the LED or the electronic board/connections, doing so will leave oils on the surfaces and potentially render the X1 unserviceable.
5. Place the new optic into the X1 so the top of the optic sits over the LED and on the electronic board.
6. Replace the o-ring, the protective lens and the bezel.
7. Tighten the bezel but do not over tighten.

ANY OTHER DISASSEMBLY OR MODIFICATION OF THE LIGHTHEAD/BATTERY/CHARGER
WILL RESULT IN VOIDING THE MANUFACTURER'S WARRANTY.

Video Tutorials

Gloworm X1 tutorials can be found at www.youtube.com/glowormproducts

Tell us what you think!

We would really like to hear what you think about your Gloworm X1. You can provide feedback by posting a review on www.mtbr.com or by sending an email to reviews@glowormlites.co.nz.



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