



# gloworm

OPERATING INSTRUCTIONS



EXPERIENCE THE REVOLUTION

## Congratulations! You are now the owner of a Gloworm X2.

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 light can become hot if left stationary on its higher settings. It is recommended that the light is set to a lower setting when stationary for more than a few minutes.

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

#### Battery Care

- Never leave a battery unattended when charging,
- A battery should never be exposed to direct heat,
- Only use a Li-Ion 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 X2

## Helmet Mounting

The X2 comes mounted to the helmet mount, this can be attached to almost any helmet using the supplied Velcro (or cable ties). Attach the light 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

The bar mount is designed to fit flush with the stem. From this position the X2 can be adjusted to any position around the circumference of the bar.

Pre-stretch the o-ring prior to use then loop it over one side of the bar mount. Place the bar mount flush with the stem then stretch the o-ring around the bar and loop it over the opposite side of the mount.

## Headstrap

The light is attached to the headstrap by threading the headstrap elastic through the slits in the helmet mount. The elastic is then secured to the headstrap backplate. 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 X2 is operated using the remote switch. Operation of the X2 is through 3 types of button presses:

**CLICK** quick press, less than 2 seconds

**PRESS** 2 to 3 seconds

**HOLD** more than 5 seconds to change programmes, more than 3 seconds to turn off

The X2 is pre-loaded with four programmes 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 X2 is ready to be used. The default programme of the X2 is the Trail Programme.

One **CLICK** will start the light 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 cycled using a **CLICK**. The SM is accessed with a **PRESS** of the switch from any NOM. A **CLICK** of the switch will return the X2 to NOM.

To extinguish the X2 **HOLD** the remote switch. The light will cycle through 'Special Mode' then it will turn off.

# Programme Matrix

Special Modes

Normal Operation Modes

<b>Adventure Programme</b> Adventure racing, trail running	Special Mode <b>BEACON</b> 1200 Lumens	<b>DIM</b> 100 Lumens	<b>MED</b> 500 Lumens	<b>HIGH</b> 900 Lumens
<b>Trail Programme</b> Mountain biking	Special Mode <b>DIM</b> 100 Lumens	<b>LOW</b> 300 Lumens	<b>MED</b> 900 Lumens	<b>HIGH</b> 1200 Lumens
<b>Bush Programme</b> Farming, hunting	Special Mode <b>DIM</b> 100 Lumens	<b>HIGH</b> 900 Lumens	<b>BOOST</b> 1300 Lumens	
<b>Commuter Programme</b> Commuting	Special Mode <b>FLASH</b> 700 Lumens	<b>LOW</b> 300 Lumens	<b>MED</b> 700 Lumens	<b>HIGH</b> 1000 Lumens

## IMT and Operation Chart

Intelligent Mode Technology allows the X2 to be refined for your adventure. The X2 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 X2 to NOM. Cycling through NOM is achieved by a CLICK.

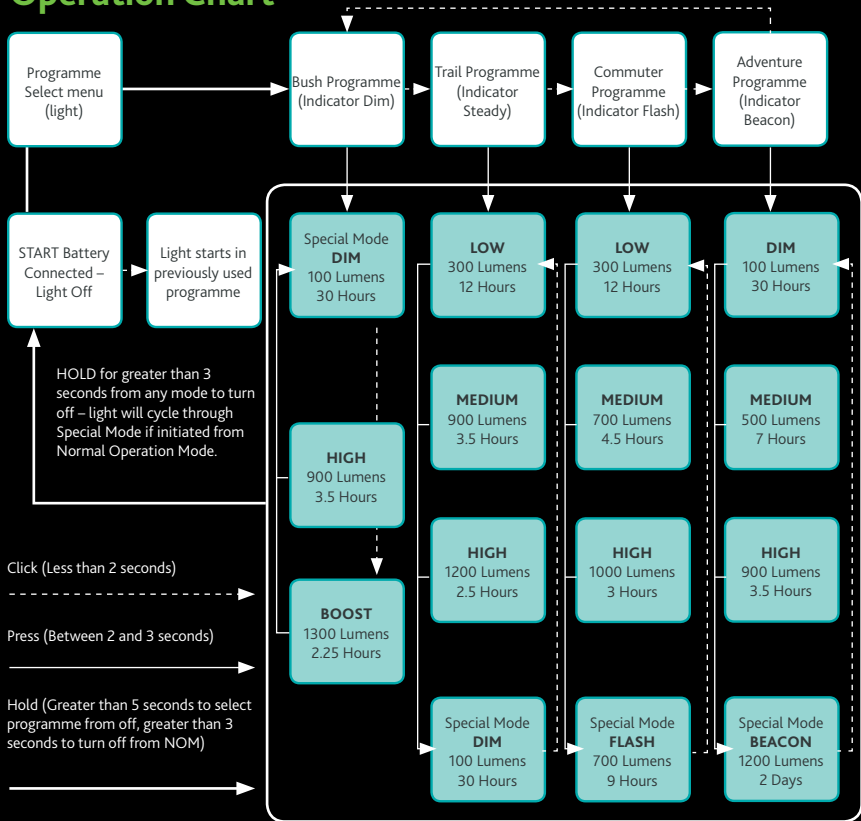
### General Operation

- Use a CLICK (less than 2 seconds) to cycle through 'Normal Operation Modes'
- CLICK to exit the 'Special Mode'. On exiting 'Special Mode' the X2 will return to 'Normal Operation Mode' as indicated by the 'Operation Chart'
- HOLD switch for greater than 3 seconds to turn off

### Changing Programmes

1. From the 'off' state, HOLD the switch for greater than 5 seconds. The X2 will flash, upon flashing release the button. The X2 is now exhibiting a steady dim light. The X2 has now entered the programme change menu.
2. You can now cycle through the programmes by a CLICK of the switch. Each programme has a unique indication as detailed on the 'Operation Chart' (opposite)
3. When the appropriate indication for the desired programme is showing PRESS the switch. The X2 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 X2 is now ready for use in the selected programme.

# 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. Additionally, when voltage reaches a critical level the X2 will alert the user by emitting a flash sequence.

## Charger

The X2 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 lamp for a longer period of time, fully charge the battery and store in a cool and dry place.



## Changing the Optics

The X2 is supplied with 2 installed optic lenses. Additional optics can be purchased from your supplier. To change optics follow to the process below:

1. Remove the X2 from the battery.
2. Remove the two front screws using the supplied 2mm hex tool.
3. Now remove the front plate, the protective lens and the o-ring.
4. Carefully remove the optics; you will now see the LEDs – TAKE CARE: Do not touch the LED or the electronic board/connections, doing so will leave body oils on the surfaces and potentially render the X2 unserviceable.
5. Place the new optic/s into the X2 so the top of the optic is flush with the front of the housing.
6. Replace the o-ring, the protective lens and the front plate.
7. Tighten the front screws until the front plate is flush with the housing. 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 X2 tutorials can be found at [www.youtube.com/glowormproducts](http://www.youtube.com/glowormproducts)

## Tell us what you think!

We would really like to hear what you think about your Gloworm X2. You can provide feedback by posting a review on [www.mtbr.com](http://www.mtbr.com) or by sending an email to [reviews@glowormlites.co.nz](mailto:reviews@glowormlites.co.nz).



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