LUXOR
DIGITAL FOCUS SYSTEM

User Manual

PLX DEVICES INC.

Contents

1 Introduction

Patents

PLX Devices Inc. currently has patents pending on the LED digital focus and intelligent battery metering hardware, firmware, and algorithms.

Warnings

CAUTION: Luxor can become hot when operated at or near maximum output for extended periods of time.

Luxor's head piece in particular can reach extremely high temperatures during such operation and can become a burn hazard. Always observe caution when Luxor is operated near maximum output. Never leave Luxor unattended when running at or near maximum output.

Luxor uses high power LEDs that are capable of producing intense light. Never look directly into the light or shine into another person's eyes.

Luxor is not a toy. Do not allow children to operate or handle Luxor unsupervised.

Each Luxor contains a Lithium Polymer (LiPo) battery. LiPo batteries are volatile. Improper handling of LiPo batteries can result in fire. Read ALL instructions before use.

Do not use this product and its accessories in any way other than specified by PLX Devices Inc. PLX Devices Inc. is not liable for accidents or damage caused by misuse of this product.

Do not tamper, disassemble, or modify this product. This may cause an accident, fire, electric shock, or product malfunction.

Luxor is water resistant but not waterproof. Avoid contact with water.

Key Features

1. Beam, Flood, and Lantern Light All in One
2. Digital Focus System (DFS)
3. 7 Cree LEDs delivering up to 710 Lumens
4. 5000 mAh Rechargeable Lithium Polymer Battery
5. 10,000:1 Contrast Ratio OLED Display

Package Contents

1. Luxor Intelligent Digital Focusing Flashlight
2. USB Male A to Micro USB Cable
3. Quick Start Guide

2 Overview

5000mAh Rechargable
Lithium Polymer Battery

Micro USB
Recharge Port

Computer Processor
PLX Proprietary LED Digital Focus

Aluminum Head & Body
High Efficiency Heatsink

OLED Screen
10,000:1 Contrast Ratio

4 Digital Soft Touch
Interface Buttons

High Impact Resistant
Polycarbonate

7 Ultra Bright Cree LEDs
XTE LUXdrive™ / 710 Lumens / Dimmable

Accessories

Included Accessories

Charging Cable

Intelligent OLED Display

99%
4995mAh

Shows the percent charge remaining and the actual capacity remaining in mAh.

9d 23h 59m
TIME TO DISCHARGE
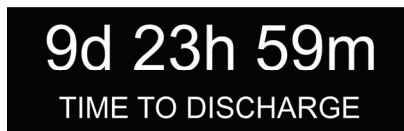
Shows the amount of time (days:hours:minutes) remaining until Luxor becomes empty.

0d 3h 29m
TIME TO CHARGE
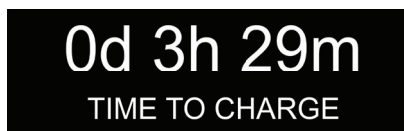
Shows the amount of time (days:hours:minutes) remaining until Luxor becomes fully charged.

320
LUMENS   B F L

Shows the amount of light emitted in lumens and graphically shows what percentage of maximum light output is being emitted from each set of LEDs' (beam, flood, lantern).

61°
FOCUS   B F L

Shows the angle of the light being emitted in DFS mode and graphically shows what percentage of maximum light output is being emitted from each set of LEDs' (beam, flood, lantern).

◀ **130 M**
THROW
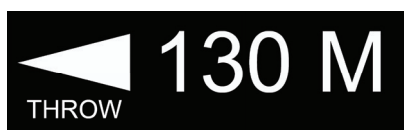
Shows the beam projecting performance in meters.

ELECTRICAL
VOLTAGE: 4.22V
CURRENT: 0.02A OUT
POWER: 0.08W OUT
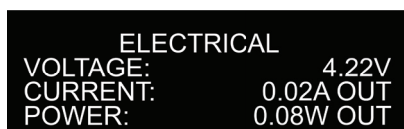
Shows the battery's voltage, the amount of current in Amps being charged into or being consumed by Luxor, and the amount of power in Watts Luxor is currently using.

BATTERY   NEW
CONDITION: ♥♥♥♥♥

TEMP: 73°F   22°C
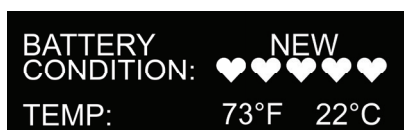
Shows the health and temperature of your battery. Luxor keeps track of your battery's wear and tear.

3 General Operation

Button Function

- **Turn On/Off:**   Press & Release Power Button
- **Change Light Mode:**   Press & Release Mode Button
- **Decrease or Increase Intensity:**   Press [<] or [>] Button
- **Adjust Focus (DFS Mode Only):**   Hold Mode & Press [<] or [>] Button (DFS Mode Only)
- **Change Screen:**   Hold Mode & Press Power Button
- **Lock/Unlock Buttons:**   Press & Hold Mode and Power Buttons simultaneously for 3 seconds
- **Full Intensity Shortcut:**   Double Tap [>] Button

Decrease   Increase

Power
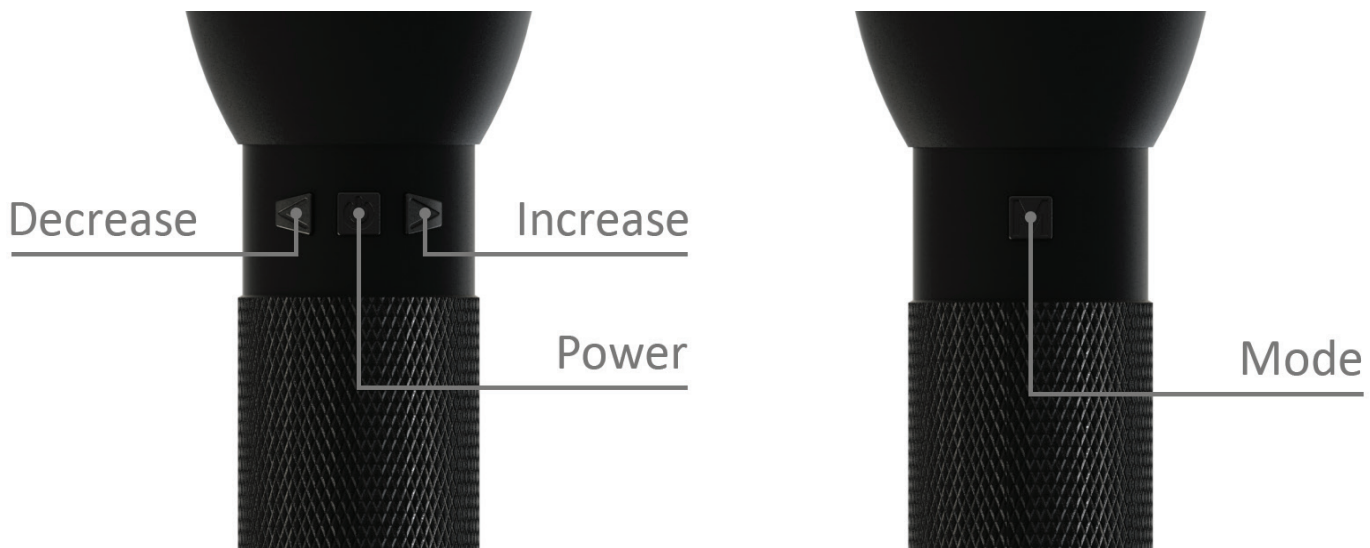
Mode

Light Modes

Luxor has three light modes: Digital Focus (DFS), Beam+Flood+Lantern (BFL), and Beam+Flood (BF).

Digital Focus Mode (DFS)
DFS mode allows you to control the beam pattern of your Luxor easily with one hand. While in DFS mode, hold the Mode button down and press the Increase button to narrow the beam pattern or press the Decrease button to widen the beam pattern. Once the desired beam pattern has been selected, the intensity may be adjusted by pressing the Increase or Decrease button.

Beam+Flood+Lantern (BFL)
In BFL mode, all seven LEDs are on, allowing you to get a maximum light output of 710 lumens. Adjust intensity by pressing the Increase or Decrease button.

Beam+Flood (BF)
With all four front facing LEDs on, BF mode is the most efficient way to light up what lies ahead. Adjust intensity by pressing the Increase or Decrease button.

About Luxor Menus

Six different menus may be selected by the user on Luxor's Organic LED Display. These menus include Battery Percentage, Time Remaining, Electrical, Health, Throw, and Lumens.

Battery Percentage
The Battery Percentage menu will display the remaining battery capacity as a percentage of Luxor's maximum battery capacity numerically and graphically. The remaining battery capacity will also be displayed in mAh.

Time Remaining
When the Time Remaining menu is selected, either the Time to Discharge or the Time to Charge will be displayed. During normal operation, the Time to Discharge will be displayed. This simply tells the user how much time is left before Luxor needs to be charged. If Luxor is being charged, Time to Charge will be displayed. This tells the user how much longer Luxor needs to be charged for it to reach full capacity.

Electrical
The Electrical menu contains the voltage, current, and power readings of Luxor's battery.

NOTE: If your screen is on but the LEDs are off, you should expect to see a low current (0.05A or less).

Health
The Health menu displays the condition (New, Good, Ok, Poor, Bad, or Replace) and temperature of Luxor's battery in degrees Fahrenheit and degrees Celsius.

NOTE: Please note that LiPo batteries operate better at lower temperatures.

Throw
The Throw menu contains the distance in meters that the beam light is emitting.

Lumens
The Lumens menu shows the total amount of light emitted in lumens. Additionally, the Lumens menu graphically shows what percentage of maximum light output is being emitted from each set of LEDs' (beam, flood, lantern).

Sleep Mode

Luxor automatically turns off the Organic LED Display after 30 seconds of inactivity. Simply press and release the power button to turn the display back on.

Charging Your Luxor

1. Insert the USB Male A end of your charging cable into a USB power source.
2. Unscrew the tail cap seal and remove the tail cap.
3. Connect the Micro USB end of your charging cable into Luxor's Micro USB port.

   NOTE: Luxor will still charge if it is off or locked.

Changing Your Battery

1. Before changing your Luxor battery, always make sure that there is no moisture present on or around your Luxor unit.
2. Unscrew the tail cap seal and remove the tail cap.
3. Disconnect the battery connector and remove the battery.
4. Slide your new Luxor battery into the battery compartment and connect the battery.

   NOTE: Be sure that your battery connector is inserted with the correct orientation.

5. Place the tail cap back into position, making sure that it is correctly oriented by aligning the micro USB opening with the micro USB port.
6. While applying pressure on the tail cap, screw the tail cap seal back on. Be sure that the tail cap seal is completely screwed onto the body of your Luxor.

   NOTE: If your Luxor will not charge after replacing the battery, confirm that the tail cap is aligned properly and the tail cap seal is completely screwed onto the body of your Luxor. If the tail cap is misaligned or the tail cap seal is not screwed on completely, your micro USB cable will be unable to be inserted completely, preventing your Luxor from registering a charge.

Tail Cap

Tail Cap Seal

Battery Connector

Slide this end in first

Slide battery under this connector

4   Product Care and Maintenance

Your Luxor is a product of superior design and should be treated with care. The guidelines below will allow you to enjoy this product for years to come.

Storage

Luxor should be stored at room temperature in cool or shaded areas, ideally between 10°C (50°F) to 25°C (77°F). For long term storage (over 3 months), the voltage should ideally rest between 3.6 V to 3.9 V.

Battery Use and Safety

Evidence of physical damage or swelling of Luxor's battery indicates that there is a dangerous problem with the battery that could lead to bodily injury, property damage, and product failure. If you believe the battery is damaged or needs to be replaced, contact technical support at www.plxdevices.com for inspection and replacement information.

Exposure to Heat
Do not operate or store this product in or near a heat source, or under direct sunlight for extended periods of time. Excessive heat can damage the battery, and may even cause the battery to explode.

Never allow your Luxor battery to overheat at any time. Temperatures exceeding 45°C (113°F) for greater than one hour can cause damage to the battery and may result in fire. Always inspect the battery if it has overheated, and do not reuse if you suspect it has been damaged in any way.

Exposure to Liquid or Moisture
Avoid exposure of this product to liquid or moisture. Liquids can get into and affect the internal components of the product, and moisture can lead to corrosion. This may result in product malfunction, fire, and/or electric shock.

Crash Damage
If a battery is damaged or punctured due to external force(s), quickly place the battery in a safe, open area away from flammable materials for at least 15 minutes.

If a battery leaks electrolyte or gas vapors, do not inhale the leaked material. Leave the area and allow the vapors to dissipate. Remove spilled liquid with an absorbent cloth and dispose the cloth.

If electrolyte from the damaged battery comes into contact with skin, wash the affected area(s) with soap and water immediately. If electrolyte comes into contact with your eye(s), flush out with generous amounts of water for 15 minutes and seek medical attention.

A battery that is physically damaged or punctured must be removed from service immediately with special care. See Crash Damage under the Disposal section for the proper disposal process.

Disposal

Proper disposal of your Luxor battery is an important aspect of product care and safety. To properly dispose the product, follow your municipal battery disposal guidelines. Visit your local electronics/hardware store for general instructions on proper disposal of mobile electronic devices with LiPo batteries.

For those in the United States, visit the following government website for more information on proper disposal procedures:
http://www.epa.gov/epawaste/conserve/materials/ecycling/donate.htm
Be aware that different states might have different laws regarding proper disposal of electronics and rechargeable batteries.

Crash Damage

Extreme care must be taken when handling or transporting a damaged battery for disposal. It is best to place the damaged battery inside a fireproof container until it can be properly disposed.

PLX Devices, Inc. DOES NOT recommend disassembling the product and disposing/replacing the battery on your own accord. Disassembly of the product or battery can be dangerous if improperly handled.

5   Troubleshooting

Resetting Luxor

If Luxor stops functioning properly, you may need to reset Luxor to regain functionality.

Reset Procedure
To reset the product:

1. With Luxor's OLED on, press the decrease button [<], increase button [>], and mode button simultaneously. The following display should appear.

> LUXOR HARD RESET
>
> RESETTING IN: 3

2. Continue holding the buttons (about 3 seconds) until the following screen is displayed.

> RESET COMPLETE
>
> FULLY CHARGE LUXOR
> BEFORE USE

3. Press the power button to restart your Luxor.

Problem Turning Your Luxor On

If you are unable to turn your Luxor on:

1. Charge your battery. Your Luxor may not turn on if the battery power is too low.
2. If your screen does not turn on when you plug it in to charge, remove the tail cap and check to make sure the battery connector is completely clipped into place.
3. If you find that the battery connector was connected, reset your Luxor (follow the "Reset Procedure" above).

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Problem Charging Your Luxor

If you are unable to charge Luxor:

1. Check to see if the charging cable is working properly by using the same charging cable to charge a different device, using the same power source. If the other device is not charging, the charging cable or power source may be the problem.

   NOTE: Make sure the power source provides constant voltage and constant current and the charging cable is designed to charge LiPo batteries. Using an inappropriate charging cable can be dangerous, and may result in product malfunction and fire.

2. Once you have confirmed that you have a working cable and power source, try charging your Luxor again.
3. If your Luxor will still not charge, reset your unit (follow the "Reset Procedure" above).

Additional Support

If your Luxor unit is still not functioning properly after attempting the troubleshooting procedures outlined in this manual, please contact Technical Support through our website. Visit www.plxdevices.com and click the "Contact Us" link in the upper right hand corner. Complete and send the form and someone from our Technical Support Team will get back to you as soon as possible.

6 Technical Specifications

Luxor LX710

Light Output	0-710 Lumens (Linearly Proportional Dimmable 0-100%)
Light Source	1 LED Cree XTE, 6 LED Cree MLC
Light Temperature	5500K (Cool White)
Light Angle Focus	12-270 Degrees
Modes	Digital Focus; Beam + Flood + Lantern; Beam + Flood
Construction	Anodized 6061 Aircraft Grade Aluminum and High Impact Polycarbonate
Physical Dimensions	8" Long, 2 3/8" Lens Diameter, 1 1/2" Body Diameter (20.3 cm Long, 6.0 cm Lens Diameter, 3.8 cm Body Diameter)
Weight	14.1oz
Battery	5000mAh Rechargeable Lithium Polymer
Battery Life	67 Hours @ 50 Lumens, 15 Hours @ 100 Lumens, 8.3 Hours @ 200 Lumens, 2.8 Hours @ 400 Lumens, 1.5 Hours @ 710 Lumens
Power Consumption	8.88 Watts @ 710 Lumens
Battery Recharge Interface	5V Micro USB
Operating Temperature	-40 - 85 Degrees Celsius
Human Interface	Single Hand Operated 4 Button Soft Touch Digital (3 Thumb, 1 Index Finger)
Display	High Contrast OLED 128 x 32 Pixels (10,000:1 Contrast Ratio)
Meters	Light Output, Mode, Voltage, Current (in/out), Power, Actual Capacity, Charge Status, Temperature, Age, Time to Empty, Time to Charge, Health
LED Controller	Microprocessor Controlled High Efficiency Solid State PWM
Fail Safe	Temperature Monitoring, Overcharge Protection, Short Circuit and Current Over-draw Protection, Automatic Consistent Brightness, Ultra Low Current Standby
Intellectual Properties	PLX Proprietary LED Digital Focus and Intelligent Battery Monitoring and Metering

TERMS OF USE – PLX Devices Inc. does not guarantee product functionality with any third party device. Implementation and integration of the PLX products with any other device(s) must be done at your own risk.

LIMITED WARRANTY – PLX Devices Inc. warrants this product to be free from defects for 1 year from the date of purchase. If applicable, non-serviceable items are excluded from stated warranty. Serviceable goods must be determined by PLX Devices to be defective before any warranty or replacement is issued. PLX Devices' obligation under warranty shall be limited to repairing or replacing, under the discretion of PLX Devices, any part proven defective. This warranty is limited to the repair or replacement of parts in the manufactured good and the necessary labor done to affect its repair or replacement.

SERVICE UNDER WARRANTY – In the unlikely event that your PLX Devices hardware should fail during the warranty period, a Return Material Authorization number (RMA) must be first retrieved from PLX Devices Customer Support. Support can be contacted through email: rma@plxdevices.com or by phone: 408-745-7591. All serviceable goods must be packaged securely with proof of purchase, RMA number, with all shipping charges prepaid and shipped to PLX Devices Inc. Goods returned under warranty must be received by PLX Devices Inc. within (10) business days after the RMA number has been issued. Goods received after this period is subject to fees for the service of repair or replacement. All repaired or replaced items shall be warranted for the remainder of the original product warranty.

RETURNS AND RESTOCKING FEE – All returns must be within 30 days of receipt. A 15% restocking fee will apply to applicable PLX Devices products returned for refund. All returns are to be packed in original condition including packaging, documentation, manuals, and accessories. Returns that do not include all the accessories and components may be returned to the customer or charged on a per item basis. The customer assumes responsibility for product until receipt at PLX Devices Inc. Shipping via an insurable carrier is recommended. Any unauthorized shipping charges will be billed to the customer or shipment will be refused.

DISCLAIMER – PLX Devices Inc. shall not be liable for direct, special, incidental, or consequential damages resulting from any legal theory including, but not limited to, lost profits, downtime, goodwill, damage, injury to persons, or replacement of equipment and property due to improper installation, integration and/or misuse of any PLX Devices Inc.'s product(s). This warranty applies to the original purchaser of product and is non-transferable. All implied warranties shall be limited in duration to the said 1 year warranty period.