

User instructions

LEDSystem 3



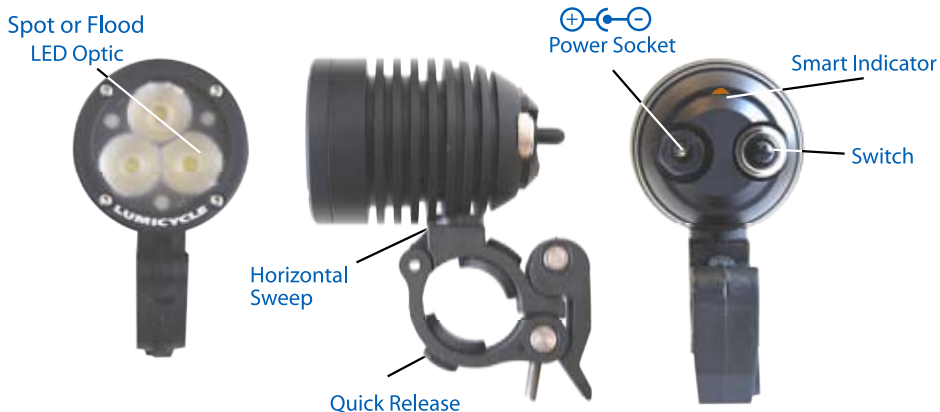
10 years
1997-2007

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Welcome

to your new Lumicycle LEDSystem3. This is a high powered, high performance cycle light using the very latest LED technology available. Designed to offer the ultimate cycling experience, the LEDSystem3 provides 5 power modes and a fuel gauge that can be configured for use with Lumicycle Lithium Ion and NiMH batteries. The unit provides thermal control that monitors running temperatures and Lumicycle's Smart Boost Technology for additional high level control. The lamp head also includes our unique swivel quick release bracket.



Safety and General Information

Please read the information contained within this user guide before operating your Lumicycle LED. When fitting and operating your LED lamp head on your bike, make sure that you set the light so as not to dazzle other road users. The light is very bright and could under some circumstances blind another motorist or road user and cause an accident. Be very aware of your light and its output.

The lamp head can become hot when used for lengthy periods at bright settings. Please be aware of this when handling your LED after rides or when in the company of children.

When not using your LED, always disconnect the battery from the LED lamp head. Do not store your LED and battery connected as this could cause an accident should the LED unit switch on unintentionally. This is especially important when carrying your system in a rucksack or other type of bag. Please be aware that improper use of your battery could lead to a fire, explosion or leakage.

Fit your LED lamp head securely. The LEDSystem3 systems come with an additional link for fitting to the bracket allowing you to accommodate larger handlebars. Push out the split pin from the centre of the bracket and insert the spare link, replacing the split pins afterwards to secure the bracket.

Flashing Lights

Your LED light has a flashing mode. Please be aware that people who suffer from epilepsy could be affected by flashing lights. When stationary and in the company of other people please turn your light off or change the mode to a continuous light if safe to do so.

Use and Care

Weather - The Lumicycle LED and batteries are fully sealed and should provide good service in bad weather. If used in extreme conditions, bring indoors after the ride and allow to dry naturally in a warm room. Do not force dry in front of fire or place in a microwave oven!

Cleaning - use a damp, soft cloth to wipe clean. Should the light become very dirty with mud use a soft brush (toothbrush) to remove dried on mud first before using a cloth.

Don't drop your LED head unit!

European Union Directives Conformance Statement

Lumicycle declares that this product is in compliance with:

the following EU Directives:

EU Low Voltage Directive 2006/95/EC

EU Electromagnetic Compatibility Directive 89/336/EEC + A:2004/108/EC

and further conforms with the following EU Harmonised Standards:

EN 61204:1995

EN 61000-6-3:2007

EN 61000-6-1:2007

You can view your product's Declaration of Conformity (DoC) at www.lumicycle.co.uk/cmsimages/eudoc



Recycling and Caring for the Environment

Disposal of your light, battery or charger

Please do not dispose of your lighting system or accessories (chargers, batteries) with your household waste. These items should be disposed of in accordance with collection and recycling schemes operated by your local authority.

Further information can be found at www.lumicycle.co.uk/cmsimages/recycling

Disposal of Packaging and User Guide

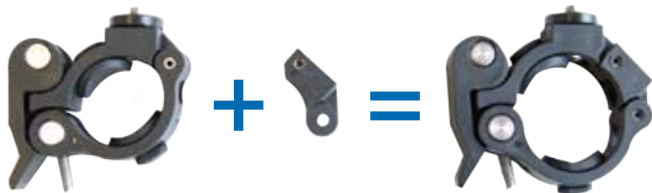
Packaging and user guides should be disposed of in accordance with local or national recycling schemes.

Quick Setup

First, fully charge your Li-Ion battery (See charging instructions) Make sure your quick release bracket is setup for the correct size of handlebars and that it adjusted to fit securely. Fit the battery to your bike frame in a suitable position, thread any cables along your frame and connect to the LED Unit by pushing the cable plug securely home into the lamp housing. Switch on using a firm, upward motion and hold to ignite.

Quick Release Bracket

Your LED unit is fitted with our acclaimed Quick Release Bracket. It can easily be configured by adding or removing the link provided. The link is fitted much in the same way as a link in your cycle chain. Simple push through the pin using a pointed tool like a small screwdriver and then push back afterwards. The picture below shows the two bracket sizes.



Standard Quick Release
22-27mm bars

Link

Large Quick Release
27-32mm bars

Battery Type and Fuel Gauge

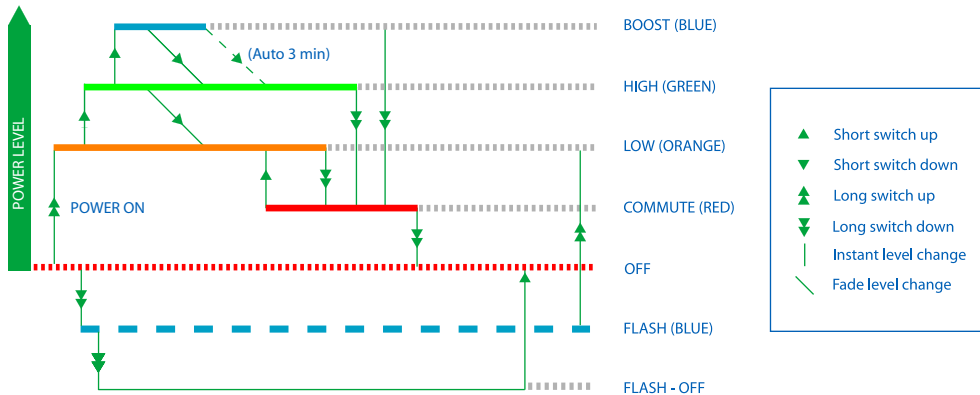
Your LED lamp head is set by default for Lithium-Ion battery use. If you have a NiMH battery you should change the setting to NiMH - see 'Changing the Default Battery Settings'. This setting only affects the way in which the fuel gauge monitors your battery, it does not affect the running of the unit.

On plugging your battery into the LED lamp head, the multi-coloured Smart Indicator, on the rear of the unit, displays the setting of your LED lamp head. The unit will display a four-colour self-test as the system 'wakes'. For Lithium Ion batteries the display will indicate a BLUE, GREEN, ORANGE, RED flashing sequence. For NiMH batteries the sequence is RED, ORANGE, GREEN, BLUE. After this initial self-test, the system will enter standby mode shown by a RED flashing light. The LED lamp head is now ready for use.

The LED lamp unit is very intuitive to use and a little time invested in familiarising yourself with its functionality will soon get you up and running. The main operational switch, located on the back of the LED lamp head, navigates through the different operating modes by using a series of SHORT or LONG held presses either upwards or downwards. A SHORT switch is an immediate press and release. A LONG switch is a press and a count of 1 then release. By familiarising yourself with the switching diagram provided, you should soon find the selection of different modes straight forward.

When switching up through power levels you will get an immediate increase in level. When switching downwards the level gently fades. For your riding safety, you cannot accidentally switch the unit off from the normal operating modes BOOST, HIGH and LOW. In order to power off you have to pass through the COMMUTE mode. Additionally, you cannot accidentally enter FLASH mode from one of the normal operating modes without first selecting the OFF position. Should you be in FLASH mode and suddenly need a working light, a quick LONG UP switch will take you immediately to LOW mode for a good riding light.

Switching Diagram



Changing the Default Battery Setting

Your LED lamp head is factory set so that the fuel gauge operates for a Lithium Ion type battery. Should you be using a NiMH battery you simply need to disconnect your battery from the lamp unit then, whilst holding the switch DOWN, plug in the battery. The rear LED indicator will flash through four colours. If it shows RED, ORANGE, GREEN, BLUE, then you are in NiMH battery mode. To change the mode you simply repeat the process and the mode will toggle to Lithium Ion mode indicated by BLUE, GREEN, ORANGE, RED. Once set, the battery types are held in memory even if you unplug the battery after use, something you should always do for safety.

Smart Indicator

The Smart Indicator provides information about the power mode you are using and the battery condition. The fuel gauge appears as a constant light of either GREEN, ORANGE or RED. The power mode is indicated by a flashing colour. The flashing colour is extended for 1 second when entering a new power mode,



*Fuel Gauge Green in
Boost mode*



*Fuel Gauge Green in
Low mode*



*Fuel Gauge Orange in
High mode*

confirming the mode choice. For example, a constant GREEN light with a BLUE flash indicates a good battery condition and that you are in BOOST mode. If you are in a mode that is identical in colour to the fuel gauge colour, i.e. GREEN mode with a GREEN fuel gauge indication, then the flash will be seen as an OFF interrupting the steady GREEN fuel indication.

Whenever you change between power levels, the Smart Indicator will confirm the selected power level by a long flash of the appropriate colour.

Power Mode - Flashing Colour

The lamp unit has five power modes FLASH, COMMUTE, LOW, HIGH and BOOST. The modes are easily selected by an up or downward switching (please refer to Switch Diagram). Most riders will make best use of the HIGH and LOW modes giving considerable amounts of high definition light. The COMMUTE mode is very suitable for urban riding as well as some off-road work. The FLASH mode provides good visibility to other road users where the ambient light is sufficient to ride by. It also offers extremely long run times.

BOOST mode provides an enhanced light for those occasions you scare yourself and suddenly require an increase in light definition. Entering BOOST mode gives 3 minutes of extreme light before it gently fades back to HIGH. At any point during the 3 minutes, you can reset the time period. For example, if you have been in BOOST mode for 2 minutes and you want to extend the time, you simply SHORT switch up and the time will reset to 3 minutes. You can continue to do this until either you reach the end of the 3 minute period, where it will gently fade back to HIGH, or at any point you can return to HIGH by manually SHORT switching down. HIGH mode is the most efficient power mode offering you the best brightness/battery usage.

Note: The purpose of the BOOST mode and the automatic fade back is to provide enhanced light when you need it most. The human eye adjusts itself to any given brightness by shutting down the iris, much like a camera. If you always cycle with the brightest light, your eyes will adjust and your perception of what is bright will be lost. Then if you suddenly find yourself riding in terrain that becomes more technical or challenging, you will have no extra light to call upon. With BOOST mode you can benefit from increased brightness when you really need it most. This is why we developed Lumicycle Smart Boost Technology. Hint: backdoor cheat for permanently keeping BOOST mode running: hold up for two seconds or more.

Fuel Gauge - Steady Colour

The Smart Indicator provides three battery condition states. The GREEN state for good battery level, ORANGE for caution - you should begin to select either a lower power mode or begin to conserve power, and RED when it is telling you that you have very little power left and that you should think about recharging your battery. As individual batteries will be of a different age and life cycle, we advise everyone to familiarise themselves with their own battery operation and use the fuel gauge levels accordingly. Accuracy will become more apparent with experience as you use the system 2 or 3 times. A new fully charged Lithium Ion 2.6 battery with a single LED unit should provide you with around 4.0 hours in HIGH mode at GREEN battery level, 40 minutes in HIGH mode at ORANGE battery level, 30 minutes in LOW mode at ORANGE LEVEL and about 5-15 minutes in COMMUTE at RED battery level.



GOOD LEVEL



CAUTION



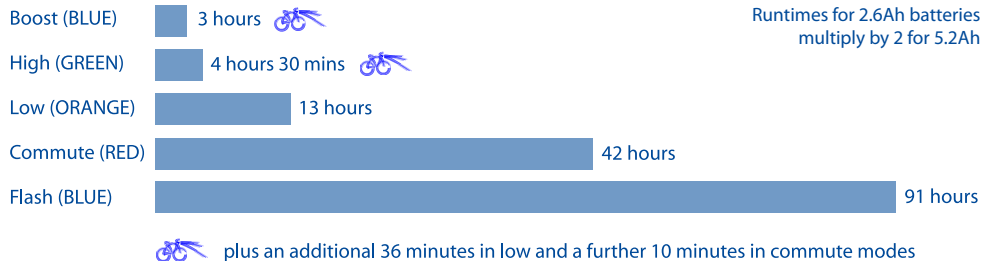
TIME TO RECHARGE

GREEN: The battery is in a healthy state of charge and all power levels (including BOOST) can be selected.

ORANGE: All power levels can be selected. However, you are advised to moderate use of the higher power levels to ensure you have sufficient time to complete your ride safely. Changing to a lower power level (eg LOW) and using HIGH or BOOST sparingly will increase this time. When you see the steady ORANGE light, you need to be thinking about ending the ride and/or running at a lower power level.

RED: You are close to the battery being empty. Once this happens you will no longer be able to select a power level higher than LOW and you are strongly advised to switch to COMMUTE immediately to extract the maximum possible remaining runtime before the battery turns off completely to avoid overdischarging the pack. RED does not indicate a reserve tank; it indicates you are soon to run out of power! When the battery is very close to turning OFF completely, it will automatically reduce to COMMUTE mode if not already selected. Please be aware that by this time, it is no longer safe to ride and you should have a backup light and/or be prepared to complete your ride on foot. Please familiarise yourself with your battery and fuel gauge before setting off riding at night. Riding conditions vary and can affect your runtimes.

Operating Mode Runtimes



Temperature Protection

In situations where insufficient cooling is available, eg at very slow speeds, when stopped, or when using or testing the light indoors, the ambient temperature of the LED lamp head may increase, especially when the higher power levels (HIGH or BOOST) are selected. Your Lumicycle LEDSystem3 continuously monitors its internal temperature, protecting its components. If it reaches its preset safety temperature threshold, the light will automatically reduce its power level to LOW (ORANGE flashing on the Smart Indicator). At this point, no increases in power level above LOW will be possible until the light begins to cool. Once the light has cooled by at least 3°C, normal operation will be resumed and higher power levels can be selected. At normal ambient temperature (25°C) and in still air, your LED lamp head will run continuously at LOW power level remaining below its maximum operating temperature. Selecting HIGH or BOOST under the same conditions will eventually cause the lamp temperature to rise until the temperature protection circuit is triggered.

Lumicycle Li-Ion Battery Charging and Storage Instructions

Your Li-Ion (Lithium Ion) battery is a handmade quality product that should give you many years of service. You are advised to carefully read these instructions, this will help you keep your battery in its best condition and prolong its useful life.

Bottle Batteries

If you have purchased a bottle battery you will find additional cable length coiled in the bottle. This can be released by unscrewing the bottle lid and then pulling the additional cable through carefully.

Bag Batteries

Excess cable may be tucked inside your battery bag by folding the excess inside.

Li-Ion batteries are fitted with a protection circuitry to protect the cells of the battery. The cells have an orientation label indicating how they should be returned to the battery bag, should riders remove the bag for washing. Please make sure when returning the battery cells to the bag, that you orientate the battery correctly. Failure to do so could damage the protection circuitry.

Charging

To charge your battery connect a lead from your battery, to the lead of the charger. Plug the charger into a mains socket and switch on. The charger will display RED if the battery is not fully charged (likely with a new battery). The battery can be left on charge until it displays GREEN, this indicates a fully charged battery. A full charge may take between 2 and 7 hours depending on the size of your battery and how discharged it is. When fully charged we recommend you disconnect the charger from the mains. Do not operate charger if dropped or damaged and do not use outside or in damp conditions.

Storage

When not using and storing your system, you are advised to always disconnect your lamp unit from the battery. During long periods of non-use, you are advised to store your battery fully charged, and in a cool place. You should recharge it fully at least every three months during storage.

Maintenance

There are no serviceable parts inside the LED lamp head, battery or charger. Should you have any operating problems, please contact Lumicycle UK Ltd and we will advise accordingly. Should your LED system not work, please contact Lumicycle immediately. Please do not disassemble the battery or the lamp unit as this will invalidate the warranty.

Warranty

Mechanical parts, batteries and chargers have a 1 year return to base warranty against faulty parts or workmanship. The warranty does not cover any damage which results from accident, abuse, misuse, natural or personal disaster or any unauthorised disassembly, repair or modification. Nor will Lumicycle (UK) Ltd be responsible for any consequential loss arising from failure or malfunction of product.



Trouble shooting:

Q. My light does not work?

A. Check that your battery is charged, plugged fully into the LED and the Smart Indicator is flashing RED

Q. I've done that but it still doesn't work?

A. Check you are holding the switch up for long enough to power on

Q. I have checked everything but still it does not work?

A. Contact your supplier

Q. When I put my battery on charge the charger does not go RED but stays GREEN?

A. Your battery is fully charged

Q. Why do my burn times seem short?

A. Your battery is not fully charged - recharge

A. Your battery is new and needs to be charged and discharged 2 to 3 times

A. Your battery is old and needs to be replaced

A. You have not used the battery for a long period, try charging a few times

At Lumicycle we want you to be confident that you have the full support of our technical team when making a purchase. If any product is faulty we will ensure it is repaired and returned to you with the least disruption.

You should email or call us as soon as you are aware of any problem. Give us as much detail as you can. One of our technicians will then discuss with you the best course of action.

This of course, does not affect your statutory rights.

Steve Young
Managing Director

Further information can be found by visiting our website at www.lumicycle.co.uk/cmsimages/ledsystems



Made in the UK
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Lumicycle (UK) Ltd
Unit K3 Granville Works
46 Robert Louis Stevenson Avenue
Bournemouth
BH4 8EG
UK

Tel: +44(0) 870 757 2229
Email: sales@lumicycle.co.uk

