LUPINE®
LIGHTING SYSTEMS

Lithium-Ionen inside

WILMA 10

Instruction Manual

(Read before use!)

Content of package:

17 W Power-LED Lamp with PCS V8
Li-Ion battery bottle 10 Ah / 7.2V,
Lupine Charger Micro-Charger V1 2A
12V input adaptor, Velcro straps, O - ring for handlebars
Helmet Mount with 1.2m extension cord
Instruction Manual (this document)
Technical Information PCS V8

1.) READ BEFORE USE!

General:

Congratulations! You have just bought the one and only Lupine LED Lamp – no other will give you more light!

The light and charger are ready to use immediately. Please read this instruction manual carefully and completely to familiarise yourself with all the functions. For hitting the trails, try the system at home first to prevent any surprises while riding. For further details about individual settings of the Wilma 10 please read "*Technical Informations PCS V8*".

As with any other electrical device, there is a slight chance of failure at any time. Please be aware and use with caution.

Lupine accepts no liability for any injuries or other damages arising from the use of this product.

Rechargeable Battery:

The battery is supplied with a very small amount of charge. Before use **it must be fully charged** (see chapter 4 "Charging"). The rechargeable Li-Ion battery will reach its full power after 1 charge cycle.

It might become hot!

The Wilma 10 is not a simple torch. The lamp housing can become very hot if used without airflow. Do not touch the lamp during or immediately after use.

If lamp is used without any airflow temperature control will reduce light power stepless up to 6 W after some minutes automatically.

Dazzling:

The Wilma 10 is a powerful lighting system. Always use it with care and with respect for others (especially when mounted to a helmet). Do not look directly into the light.

Waterproof?

All components of the Wilma 10 are waterproof and will withstand even the most extreme conditions. However, it is not a diving lamp and therefore not suitable for use under water.

Warranty:

The two year warranty covers defects in materials or workmanship only. Batteries are not covered by this warranty. Modifications to the light or improper use also voids this warranty.

2.) MOUNTING

Lamp:

Mounting the lamp with the O - ring :

If you are feeling strong, use the finger hook method (see fig.1). For others, who prefer the less strenuous method, hold the O-ring with one finger, and push the lamp back until the O-ring can be secured on the hook of the lamp. (fig.2)

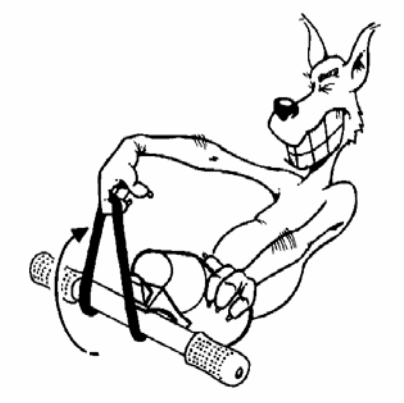

fig.1

fig.2

Lamp Left-Right adjustment:

The mount can be moved by 7° on each side. This helps to adjust the lamp to freeride or downhill bars.

Note:

In order to make sure that the left-right adjustment is still possible while riding, please fix the screw only with a midrange torque.

Battery

Slide the battery bottle into the cage and loop the Velcro strap around the cage and bottle. Make sure that the battery cables are routed in such a way that they will not become tangled in any moving parts.

Now plug the rechargeable battery to the lamp and your Wilma 10 is ready to go.

Adjusting the cable length:

Some spare length of cable is retained in the top of the battery bottle. Open the bottle (see "Opening the bottle" in chapter "Care and storage"), unscrew the cable inlet and adjust the cable length. Close the bottle and tighten the cable screw again.

Caution! Adjusting the length of the cable with the bottle closed might damage the cable connections at the battery!

3.) USING THE LIGHT

Initialising:

After connecting the lamp to the rechargeable battery, the software will start a self-test (the 4 LEDs of the PCS will flash) The Power LEDs will flash once. The batteries voltage will be indicated with the blue and green LED. Now the Wilma 10 is ready for use. (Please read also "*Technical Information PCS V8*")

Switch on:

By pressing the PCS switch for the first time, the beam starts running on maximum power. The blue and green LED will glow.

Dimming:

Pressing the button once, after the light has stablised, will switch the light to low beam (the blue LED is off). By pressing the button again the light will return to high beam mode.

Switch off:

You can switch off the Wilma 10 by pressing the PCS button longer than 2 seconds.
After you have turned off the lamp (but battery is still connected) , PCS will show the gone battery capacity, blue LED flashes for every full ampere hour, every 1/10 ampere hour is shown with the green LED flashing. 4 blue and 3 green flashes means 4,3 Ah consumed power. **Hint:** This works always if the battery is still connected. But if the battery is disconnected, the PCS will start counting newly

Controlling the remaining light time:

The electronics of the PCS V8 not only control the high and low beam; they also protect the rechargeable battery against over-discharge and include a low battery indicator.

Low battery is signalled by the yellow and the red LEDs.

When the yellow LED lights:	Significant amount of the capacity is gone!
Red / yellow LEDs and Power LED's blinks:	Light will automatically switch off in a few minutes!

It is a matter of experience to interpret exactly how much time is left after the LEDs light up. Remaining burn time depends on the battery's age and capacity, the operating temperature and the capacity gauge program (Low, Middle, High; see "*Technical Information PCS V8*").

Hint: When the yellow and the red LEDs light up you can increase the remaining burn time with economical use of the high beam.

Reserve tank:

When the battery is almost empty (yellow **and** red LEDs have been lit for several minutes already) the lamp switches off automatically. By double clicking the switch the reserve tank is activated, which provides some additonal hours of emergency light. A flashing red LED indicates the reserve tank has been activated. The performance of the reserve tank also depends on the battery condition.

When the reserve tank is empty, the light will switch off and must not be restarted.

Caution! Switching on is not possible at this point. If you unplug the battery and then re-attach it, you will have only unreliable light for some seconds!
Never store a discharged battery. Recharge your battery as soon as possible!

Explanation of the LEDs:

Blue LED lights:	High beam (Maximum Power)
Green LED lights:	Low beam
Yellow LED lights:	Significant amount of burn time consumed
Yellow + Red LED blinks:	Rechargeable battery almost empty **Caution!** Light will switch off very soon without further notice – Stop!
Red LED flashes:	Reserve tank activated

Programming :

You can adapt the PCS of the switch to your needs. This programming is explained in detail in the "*Technical Information PCS v8*" and is done exclusively using the switch and LEDs.

4.) CHARGING THE RECHARGEABLE BATTERY

Components:

The charging system of the Wilma 10 consists of two components:

- AC/DC adaptor
- Micro-Charger

The Micro-Charger was developed for use with Lupine's high current Li-Ion rechargeable batteries from AC/DC adaptor or with additional available 12 V car adaptor.

Connection:

Plug the AC/DC adaptor into the mains. Plug the adaptor into the socket of the Micro-Charger. After a short green flash the Micro-Charger flashes orange and will be now ready to charge.

Charging:

Plug the rechargeable battery into the Micro-Charger's connector and charging will start automatically. The orange LED and the blue LED light.

Keep the rechargeable battery plugged into the Micro-Charger until the green LED lights.

Charging is now complete; the battery is full and is now ready for use.

Reading the charged capacity:

After disconnecting the battery the Micro-Charger will indicate the charged capacity as follows:

First, the orange LED will blink 1 time per complete ampere hour,
then the green LED will blink 1 time per 1/10 ampere hour.

Example: The orange LED blinks 3 times and the green LED 5 times = the charged capacity is around 3,5 Ah. This information will help you to judge the actual condition of your rechargeable battery before use.

Hint: You don't have to wait for the whole voltage information to be shown in order to use your charger again. You can stop the charge information at any time by connecting the battery.

Caution!!

Micro-Charger is designed to charge only Li-Ion batteries!

You must not use this charger with Ni-MH batteries or unrechargeable batteries!! They will explode!!

Micro-Charger should not be opened by the user as this will invalidate the warranty.

Explanation of the LEDs:

Orange:	Charging
Green:	Rechargeable battery full

5.) CARE AND STORAGE

Lamp:

All components should be cleaned with warm soapy water, but do not use a high pressure spray or hose to clean the system. To get all water out of the housing etc. turn the light on for a few minutes.

The bottle battery is water resistant. Unlike other lighting systems, it is easy to open. If used in very wet conditions, please open the bottle over night by squeezing and turning the top cap (snap mount).

If necessary, pull the battery out of the foam to remove all water. If you want to adjust the cable length, please open the bottle first.

Exchanging the lens:

Open the casing. Please open the screw-on lid on the front of the casing: Hold the back part of the casing with one hand, with the other hand, turn the srew-on lid counter-clockwise. Having removed the lid, you can see the lens.

Inserting the new lens: Please open the 4 Hex screws with a suitable screwdriver. Before inserting the new lens, make shure to find the right position. The logo in the middle have to look in the same direction as the logo on the backside. Please screw in the 4 Hex screws very smoothly over cross (as a wheel on your car).

Make sure the O-ring of the back part of the casing is in its correct position. Otherwise the casing will not be waterproof. Then, screw the lid onto the thread. Important: **The lid must be screwed onto the thread in the correct position. If the thread runs smooth, the lid is in the right position. Otherwise, please stop, re-screw the lid and try again or you might damage the thread. Please be cautious!**

Connectors:

In normal conditions, the connectors do not need special attention. However if you use the light in very humid and/or corrosive conditions they should be greased with the included Dutch grease. **Do not** use contact-sprays or contact-greases! They contain corrosive ingredients that will damage the connectors.

Transport:

In case you transport your light in a bag or a box so that the PCS button might accidentally be pressed: **Always unplug the battery from the lamp unit.**

Storage:

For short periods of time, store the battery fully charged. **Disconnect it from the lamp unit.** Before using the system again, re-charge the battery fully. If you intend not to use it for a longer period (over 3 months), **we strongly recommend to store the battery in a cold place.** This will prevent the battery from over-discharging.

Battery bottle:

The water bottle battery is water resistant. Unlike other lighting systems, it is easy to open. If used in very wet conditions, please open the bottle over night by squeezing and turning the top cap (snap mount).

If necessary, pull the battery out of the foam to remove all water. If you want to adjust the cable length, please open the bottle first.

6.) TROUBLESHOOTING

Failure	Caused by	Solution
Lamp does not light and the LEDs on the PCS do not flash during initialisation.	Over discharged battery.	Charge!
	Battery is not or not correctly plugged into the light.	Check all connections
Lamp does not light, LEDs of the PCS do flash during initialisation.	Power LED are faulty	Replace LED insert
Burn times are too short.	Battery was not in use for a long time	Please charge the battery
	Battery is new.	
	Battery is very old	Replace with new battery
	Cold temperatures	Keep the battery warm
	Charger is defective	Replace charger

7.) TECHNICAL DATA

Lamp:

Weight complete with rechargeable battery:	610g
Capacity of rechargeable battery / Voltage:	10 Ah 7.2 V Li-Ion
Burn time 15 W:	5 hours 30 min.
Burn time 1 W:	88 hours
Temperature range:	- 25°C - +70°C
Beam angle LED:	15°

Burn times may vary depending on battery's age, condition and temperature.

Charger:

Input:	100 – 240 V~, 50-60 Hz
Output	12V=, 2A
Charging current:	2 A max.
Suitable batteries:	Li-Ion 2 cells 7,2 V
Display:	Control of charging by green and orange LED
Charge Time:	6 hr

IMPORTANT NOTES:

Use of this lighting system might be limited differently from country to country depending on the purpose you use it for. Please do inform yourself about possible restrictions in your country.

The mounting device and the design of the Wilma 10 as well as of the PCS are protected by worldwide patents.

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