



Simple r02 – Operation Guide



Simple Overview

The Simple has two main LEDs. A focused **spot LED** and a wide angle **flood LED** with optic. The Simple has **3 light settings**.

The Simple also has a low output 'moon' setting (flood LED operating at very low output) for maximum run time, and battery charge level indication (spot LED blinks 1-5 times).

Operation

To switch between the settings, use the down switch on the Petzl Duo. Switch **on-off-on-off** etc, to move between settings 1-2-3 ... 1-2-3 etc, in a forward looping sequence. Setting 1 will blink momentarily whenever selected to make it very easy to determine where you are in the sequence, and which setting has been selected. The Simple has zero battery consumption when switched off.

The **light settings** are;

1. **low (flood 100mA)** – smaller passages
2. **medium (flood 350mA)** – general progression
3. **high (flood 35mA and spot 350mA)** - larger cave and route finding

Moon Mode and Battery Charge Level Indication

Moon mode is provided by the main flood LED 20mA, offering a very low light (approx. 8 lumen) for maximum run time. Operating the switch **very quickly, on-off-on ('double switch')** will select **moon mode**. The spot LED will also blink 1-5 times so battery charge level can be determined without removing helmet.

Moon mode will continue to operate until the lamp is next switched off. This low level light is well suited to underground camp, expedition, small passage caving, long prusiks and emergency.

The battery charge level indicator is set for the Duo standard arrangement of 4xAA cells (Ni-mh or alkaline). The Simple module will operate very well from 3.7v li-ion conversion, but the battery charge indicator will not be accurate.

3 second mode memory

The Simple features a 3 second 'first' mode memory. When lamp has been on for more than 3 seconds in any setting and is switched off, then it will automatically restart at the first setting when next switched on.

Fitting Guidance

CustomDUO LED upgrade modules will work with all variants of the original pre 2018 Petzl Duo. Modules are not available for the 2018 DuoZ and DuoS, which are factory sealed and not designed to be upgradeable.

Prior to fitting it is of course necessary to remove original reflector, bulbs, LED modules, etc. Unscrewing the grey bezel in order to remove the front window can sometimes prove challenging if Duo has been left to rot, but inevitably they do come off. *(Hint, if you can't do it then find someone with strong hands. The trick is to squeeze and turn at the same time !!!)*

CustomDUO Omni modules are a simple push fit into the Petzl Duo lamp housing. Electronic connection is via the 2 pins on reverse of module which locate in the Duo bi-pin bulb / LED connection socket. Orientate Omni module in the body of your Duo, aligning the contact pins, and push fit module into place. Ensure the module is sat down fully in Duo body. Test operation of module. If module does not work immediately, then read about battery **polarity** below.

To conclude, refit the Duo front window. Some silicone grease on the seal and threads is always a good idea. Holding window in position with thumb, refit the grey plastic bezel until the Petzl correct fitting alignment marks (on top of the lamp) are correctly orientated. The marker formed on the grey screw bezel should be somewhere in between the two markers formed on the top of the yellow lamp body.

Polarity

Very occasionally we come across an early (pre 2004) Petzl Duo which has been wired up back to front, and the polarity is wrong for the Customduo LED modules. This affected some, but not all early Duos, and these Duos are now extremely rare. Polarity conscious LEDs hadn't been considered at this time so it wasn't important which way around the positive and negative were wired at manufacture. If you fit your CustomDUO module and it does not immediately work, chances are that your Duo is wired up back to front. The solution is simple. **Reverse the polarity of the batteries in the holder, i.e. positive to negative, and vice versa.** The module will then work. CustomDUO modules are polarity protected, so you will not have damaged the module by finding this out. If this does not work then please contact us. There is invariably a solution.

Batteries, power and light output

As standard, the Petzl Duo uses 4xAA batteries (some use 4x C cells). Module will also operate from 3.7v li-ion battery configurations.

The regulated power settings levels for modules are given in mA. To determine the approximate regulated duration of light on your battery arrangement at a given power setting, simply divide the mAh capacity of your cell pack by the mA power draw at a given setting. For example, using 2100mAh NiMh low self discharge AA batteries at a power setting of 350mA will give a regulated duration in the region of 5-6 hours.

The Simple has zero battery consumption when switched off, so there is no requirement to disconnect batteries. However it is probably best practice to do so when not in use for more than a few days, to reduce any stress on battery contacts in Duo box.

High Power LEDs

The Simple uses high power LEDs and is fairly bright. Do not look at LEDs in operation. Eye injury can result. Be especially careful of this when programming light settings. Do not shine your light into other people's eyes, particularly at close range. For more information, see Cree website.

Warranty

The Simple has a standard 1 year warranty against defects in material and manufacture. If your product or accessories fails to operate to specification during the Warranty period we will arrange for your product to be repaired or at our discretion replaced. This warranty is subject to reasonable wear and tear (in our opinion) and correct use and maintenance of the product as applicable. We will not provide warranty repair / replacement if the problem, in our opinion, resulted from use outside the product specification, modifications or alterations, incorrect connection, operation or fitting where applicable, external damage due to accident, impact/ abrasion, leak, poor storage, etc. We will always endeavour to keep any costs due to damage to an absolute minimum.

Disclaimer

Caving is not without risks. We would not presume to tell you how to kit up and use your equipment. What we will say is that the Simple is not, and should not be considered as, Personal Protective Equipment (PPE). How you interpret any guidance that we give on the use of our products and how you use our equipment is entirely at your own risk. Lights can fail without warning, and we take no responsibility for any consequence of this. Always carry a reliable and accessible independent backup light source for any light crucial activity / function. Good caving practice is your own responsibility. We do not take responsibility for any accident, injury, liability or cost, to yourself or that you may cause to anyone else, or to any property. This applies to caving or any other function for which you choose to use and place reliance upon our product.

Please note that you personally assume full responsibility for the risk of property damage, bodily injury or death which may occur from the use of this product in any manner whatsoever. If you are not able, or not in a position to, assume this responsibility, or take the risk, then do not use this product. We are not responsible for the consequences (direct, indirect or accidental) or any other type of damage befalling or resulting from the use of this product. If you are not entirely comfortable with the above, then do not purchase or use any of our products.

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