

Dragon D1200 Caving and Mining Lamp.

Thank you for purchasing the D1200 caving and mining lamp. It is strongly recommended that you familiarise yourself with the operation of the lamp before using it underground. Please read these instructions carefully.

DON'T'S

DO NOT attempt any dismantling of the headset or power pack under any circumstances. The power pack disconnects by the yellow xt60 plug, and the silver nut is a cable gland

DO NOT attempt any dismantling of the power pack. The power packs contain batteries. Interference with the cable gland such as an attempt to increase or decrease the length of the cable can cause a short circuit inside. Shorting batteries can cause fire and injury.

DO NOT carry the lamp with cable connected. If carrying in a rucksack, please carry the battery cell disconnected. If the lamp comes on it can become damaged due to overheating. This consideration applies to all high power led lamps.

DO NOT deliberately and unnecessarily fully discharge and recharge the power packs. The life of the cells is not time related but relates to the number of charge/discharge cycles.

Description

This lamp utilises the latest Cree XP-G2 technology to provide a lamp with a total light output of about 1175 lumens from a combination of four emitters. The beam power has a maximum of over 1000 lumens, and this is supplemented by two bare emitters running at low power mounted in the top of the reflector to give foot level lighting.

The headset switch has 2 positions; down position will drive the supplemented beams at 3 settings, low, medium and high. Movement up and down is achieved by quickly flicking the lamp on and off. The upper position will drive the bare emitters only and is suitable for talking in company or bolting or whatever. If in company tilting the lamp downwards will cut off the light completely below the eye level of your companions making the lamp very sociable.

For normal use the low beam setting is optimum and is capable of giving remarkable economy of use while outputting about 250 lumens, the 2 cell power pack has been duration tested to 15 hours at this setting with a virtual full output. If on a high setting when the power pack runs low, the lamp will automatically power down, this is a warning of low battery.

All the circuits in this lamp are independent giving a degree of reliability not enjoyed by most other lamps. Also there is a back up circuit incorporated into the beams, if main electronic fail beams will continue to function on a reduced standard mode only.

Expected burn times, 'red band' power pack. (Estimated) NOTE Higher settings will be about 10% less due to voltage drop causing protection circuits to disconnect.

Lumens	SETTING	Burn Time (Hrs)
100	Flood	17
250	Beam L	15+
525	Beam M	6+
1175	Beam H	2.5

The 2 cell helmet battery pack is a 3.5 ampere hour Lithium Ion pack that delivers a nominal voltage of 7.4 volts, however off the charger it will deliver just under 8.2 volts. It uses genuine Sanyo cells. It attaches to the headset cable by means of a high quality XT60 connector that is securely attached to the cable and shrink wrapped. The battery pack attaches to the helmet by means of a short loop of the 4mm shock cord supplied.

The power pack is filled with silicone and sealed to prevent ingress of water.

Recharging.

The power pack can be recharged or top up charged from the supplied mains adaptor charger anytime. Li Ions batteries do NOT suffer from memory effect

Simply plug in, connect the yellow connectors, and switch on. Red LED indicates charging, green is charged. Recharging can be done from a vehicle using a now commonly available voltage inverter or obtain one of our Pro Model twin pack chargers.

Expected Performance from Discharged Power Pack

The power packs are fitted with circuitry that prevents over discharge of the Lithium Ion cells and the subsequent damage. As the power packs become discharged, towards the end of the use cycle the lamp will be noticeably dimmer, it will continue to burn on a diminishing rate for more than 24 hours.

Guarantee.

All lamps carry a 12 month guarantee, subject to reasonable use. The Dragon headset is waterproof to IP67 standard. (1 metre immersion for 30 minutes). The Li Ion battery pack is suitable for extended full immersion as it is filled with silicone and should therefore be considered fully waterproof, explosion proof and reasonably shockproof.

Maintenance

Basically, none required except keeping the yellow connectors clean and lubricated with Vaseline. This is important to ensure good contact and prevent corrosion. The use of contact cleaner or WD 40 is highly recommended.

The Li Ion batteries have protection circuits that will disconnect them at an 'on charge' voltage of just under 8.2 volts, and an 'on discharge' voltage of 5.4 volts. Obviously, if the lamp is used to the extent that the voltage dropped to near minimum, and then the lamp is put into storage, there is risk of the voltage dropping to below the minimum and thereby causing damage to the cells.

Fitting the battery pack to a helmet

Cut off about 250mm or 10 inches of the 4mm shock cord supplied. Remove the rear tie cord and pass a length of the shock cord through, knot it into a loop of about 130 to 140 mm or 5 to 5.5 inches so as to firmly grip a battery cell. Trim off any loose ends. Keep the rest of your shock cord as spare for the future.



Above picture shows a battery pack securely mounted to a helmet. The beauty of this system is that it does not require the drilling of any extra holes.