



HIGH PERFORMANCE LIGHTING EQUIPMENT

Speleo Technics Ltd.
OakencloUGH Mill, OakencloUGH
Garstang,
Preston, PR3 1TB
England

phone (44) 0995 600216 fax.(44) 0995 600217

FX5 USER INSTRUCTIONS

The FX5 is a development of the very popular FX2 caving lamp. It is just as easy to use and maintain with increased power and versatility due to its 6 volt output.

BULBS

<u>BULB</u>	<u>OUTPUT</u>	<u>DURATION</u>
10 watt	190 lumens	4 hours
6 watt	90 lumens	7.5 hours
2.4 watt	36 lumens	18 hours

These figures are believed to be representative of a new FX5 but cell capacities and bulb filaments DO vary quite widely and we recommend you test the capacity of your own lamp before caving with it. When used for any hazardous activity (caving etc.) a separate backup lighting system should always be carried.

All of these bulbs are tungsten/halogen and may be used in either the main or pilot bulb position so the lamp can be customised for your own use. Disconnect the cable from the battery when changing bulbs to avoid the possibility of short circuits within the headpiece. Although the cells in the FX5 are closely matched, for capacity, variations can occur after long service so it is advisable to AVOID COMPLETE DISCHARGE. As soon as the lamp starts to dim SWITCH OFF.

CHARGING

A range of Unichargers is available for the FX5 which will also charge the FX2. The output plug on these is coded yellow to match the FX5. Chargers with red or black output plugs will NOT charge the FX5 (but no damage will be done). The rule is:- a yellow output plug may be connected to either a yellow or a red battery but a red or black output plug may only be connected to a red battery (FX2). Charging times are in all cases the same (15 hours for a full charge) but other chargers may be produced in the future so check their individual instructions before use.

TOP-UP CHARGING with an occasional full discharge cycle is the preferred charging regime. The charge duration will depend on the time the lamp has been in use and the bulb which has been chosen.

Bulb	Charge for time in use multiplied by:-
10 watt	3.5
6 watt	2
2.4 watt	0.8

This does not need to be precise and no harm will be done to the battery by occasional moderate overcharging so it is advisable to err on the overcharge side to avoid running out of light in the cave. If the lamp has not been used recently it is better to give a full 15 hour charge to be on the safe side. This particularly applies as your lamp gets older. However consistent heavy overcharging is one of the very few ways in which it is possible to damage ni-cads. DO NOT charge the battery below freezing point without prior consultation with Speleo Technics.

STORAGE

Short-term storage of the FX5 is simple. Just disconnect the cable from the battery, clean the contacts with plain water if dirty, dry and forget!. For longer term storage a full charge is an advantage.

SAFETY VENT

The unique FX5 safety vent (pat. app. for) can be seen as a small red plastic plug in the base of the battery and it should only be replaced with the type supplied by Speleo Technics for this purpose. This seals a petroleum jelly filled vent which is connected to the individual safety valves on each of the cells within the battery. If a cell should vent the plug and petroleum jelly are ejected allowing the gas to escape harmlessly to atmosphere. This may very occasionally happen when charging especially when a battery has been overdischarged or stored for a long period fully discharged. If this occurs simply melt a little petroleum jelly over a pan of hot water, pour into the vent hole and replace the plug to re-seal.