

OLDHAM



CAP LAMP SYSTEM SINGLE LAMP CHARGER

The Powerful Choice

INSTRUCTION MANUAL

WARNING

This manual, including the warnings and cautions inside, must be read and followed carefully by all persons who use or maintain this product, including those who have any responsibility involving its selection, application, service, or repair. This cap lamp system will perform as designed only if used and maintained according to the instructions, otherwise it could fail to perform as designed and persons who rely on this product could sustain serious personal injury or death.

PART NO. M656201
115 / 230 V AC,
SINGLE PHASE
50 / 60 Hz
SINGLE LAMP CHARGER

CAUTIONS AND WARNINGS

IMPORTANT

Pay close attention to Warnings and Cautions in this manual. A Warning describes a condition that may cause serious personal injury or death if allowed to happen. A Caution describes a condition that may cause the cap lamp or other property to be damaged if allowed to happen.

DESCRIPTION / INSTALLATION

DESCRIPTION

The single lamp charger is designed to recharge all type T-type batteries. The charger is equipped with a variable rate, factory-set program controlled by a micro-processor that maximizes recharge capacity in the shortest amount of time. The charge indicator is an easy-to-read LED display; with red and green lights show the charge status.

The single lamp battery charger is also a "float" charger, which means that the battery will not be overcharged if left in charge mode over long periods of time.

Technical Data	
Charging Method	Automatic constant current / constant potential
Initial Charging Current	2.5 A max.
Charging Voltage	5.3 VDC switching to 5.1 VDC (float mode 4.6 VDC)
Charging Time	Approximately 8 hrs. (after 8 hour discharge)
Supply Voltage	115 / 230 VAC +/- 10%, single phase, 50/60 Hz
Power Consumption	70 WATTS, 500mA fuse 1A for 115 V AC operation
Dimensions	
Length:	190mm (7.68 in.)
Width:	120mm (3.94 in.)
Height:	100mm (2.87 in.)
Weight:	1.65 kg (3.6 lbs.)



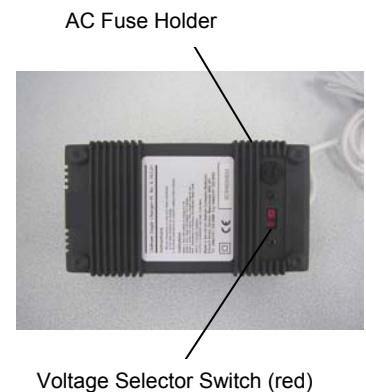
INSTALLATION

The charger is double insulated and has a standard two conductor cable for connection to the main power supply.

The charger is set for 230 V AC operation. For operation from 115 V AC the following steps must be taken before charging:

- The voltage selector switch underneath the charger must be set for 115 VAC.
- The 500 mA fuse located adjacent to the voltage selector switch must be replaced by the 1A. fuse supplied for operation at 115v VAC.

- The plug (not supplied) must be changed (or adapted for International usage) to match the mating outlet.
- For clarification of plug type and AC circuit requirements, please consult with qualified electrical power personnel or standards.



CAUTION

Operating the charger from 230 VAC while switched for 115 VAC will permanently damage the charger transformer and the charger will need to be replaced.

OPERATION / MAINTENANCE

OPERATION

1. Any battery must be recharged - regardless of how long it has been used - before next use in order to maintain the battery's rated capacity and cycle life. Typically, the approximate recharge time is 8 hours after an 8-10 hour discharge. Longer recharge times can be expected if longer discharge times are used.
2. Plug the charger into an appropriate power supply. The yellow LED on the front panel indicates that the input power supply is "on".
3. To charge the cap lamp, the headpiece should be fitted over the projecting key on the front of the charger and rotated clockwise until it is in the full stop position. To remove the lamp from charge – reverse the procedure.

After connection of the cap lamp, the red LED will illuminate after a short time, the circuitry will wait 5 seconds then start the constant current charge (stage 1) while monitoring the charger voltage. When the charging voltage reaches 5.3 VDC the charger switches to a constant potential of 5.1 volts (stages 2 & 3) for a set period of time (full charge is reached when the green LED is on only), the charger then switches to a "float" mode voltage of 4.6 volts (stage 4) until the battery is removed. The battery state of charge is indicated by the Charge Indicator Guide.

Note:

If the battery is removed or input power is interrupted, the charger will reset to stage 1 when reconnected. The charger will quickly read the level of charge in the battery then go on to the appropriate stage where it left off before the interruption. It is not advisable to leave a battery partially discharged for any extended length of time. Doing so will reduce the cycle life and capacity of the battery.



Charge Indicator Guide		
Stage	LED Display	Charge Status
1. Constant Current Mode	RED light on	charging
2. Constant Potential Mode	RED and GREEN light on	75% charged
3. Fully Charged	GREEN light on	fully charged, ready for use
4. Float Mode	GREEN light on, RED light flashing	float charge mode; ready for use

MAINTENANCE AND ORDERING INFORMATION

THERE ARE NO USER REPLACEABLE PARTS OTHER THAN THE FUSE. THE CHARGER IS A SEALED UNIT AND SHOULD THEREFORE NOT BE DISMANTLED FOR ANY PURPOSE.

The fuse holder is located on the under side of the charger, adjacent to the voltage selector switch. To replace a blown fuse, unscrew the fuse holder cover anti-clockwise. Remove the blown fuse, place the new fuse in the fuse holder, replace the cover and screw clockwise back into the holder.

1. Each charger is supplied with an extra fuse for 115 V AC operation. Replace any blown fuses with the following types which are readily available through most electrical supply sources:
 - 115 V AC – Fuse type – 1A, T1AL
 - 230 V AC – Fuse type – 500mA, T500mAL
2. Refer to the troubleshooting guide if the charger is not working properly, or see the cap lamp user manual for lamp and battery operating instructions.

TROUBLESHOOTING GUIDE

FAULT FINDING

