the AC mains and then reconnect the clamps making sure the RED clamp is on the RED or 'P' or + battery post and the BLACK clamp on the BLACK or 'N' or – battery post. Reconnect the AC power.

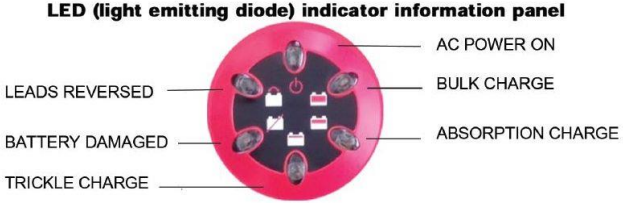
3. No LED indication except either the 12V AC Power's or DAMAGED BATTERY LED: there is mains power to the charger but the battery is too deep-discharged or sulphated to recover it.

4. ABSORPTION CHARGE LED flashing rapidly: this may occur in cases of a deep-discharged (or perhaps slightly sulphated) battery which the charger is trying to recover. This is possible when the battery has an internal defect but the charger is still trying to recover the battery. LEAVE connected until a steady indication is observed, if sooner.

5. ABSORPTION indication: LEAVE connected until a steady TRICKLE CHARGE LED is observed, if sooner. If the amber TRICKLE LED does not illuminate after 48 hours, the battery is probably internally damaged. However, if the battery remains connected to the vehicle wiring system, disconnect it from the vehicle and then reconnect the charger. If after some time the TRICKLE LED now lights, this indicates a loss of current somewhere within the wiring system.

6. Steady TRICKLE LED indication: the battery is fully charged and ready for use. However you may leave it continuously connected to the charger if you wish to maintain it fully charged over a period of non-use, even over a few months.

LED (light emitting diode) indicator information panel



Limited Warranty

Scorpion Automotive Ltd. makes this limited warranty to the original purchaser at retail of this product. This limited warranty is not transferable. SCORPION AUTOMOTIVE (UK) warrants this smart charger for two years from date of retail purchase against defective material or workmanship. If such should occur the unit will be repaired or replaced at the option of the manufacturer. It is the obligation of the purchaser to forward the unit together with proof of purchase, transportation or mailing costs prepaid, to the supplying retailer. This limited warranty is void if the product is misused, subjected to careless handling, or repaired by anyone other than the factory or its authorised representative. Any damage to the unit, its leads or accessory parts resulting from acid or fluid contamination, exposure to damp or humidity or from physical damage is NOT covered by warranty. The manufacturer makes no warranty other than this limited warranty and expressly excludes any implied warranty including any warranty for consequential damages. THIS IS THE ONLY EXPRESS LIMITED WARRANTY AND THE MANUFACTURER NEITHER ASSUMES NOR AUTHORISES ANYONE TO ASSUME OR MAKE ANY OTHER OBLIGATION TOWARDS THE PRODUCT OTHER THAN THIS EXPRESS LIMITED WARRANTY.

IMPORTANT INFORMATION FOR CORRECT DISPOSAL OF THE PRODUCT

At the end of its working life, the product must not be disposed of as urban waste. It must be taken to a special local authority differentiated waste collection centre or to a dealer providing this service. As a reminder of the need to dispose of household appliances separately, the product is marked with a crossed-out wheeled dustbin.

SCORPION

SMART CHARGER

User Guide

Issue 2.0 Feb 2016

IMPORTANT: Read thoroughly before use.

This charger should only be used for 12v lead acid or gel batteries with a capacity range from 2 to 50 amp/hour. Do not use this charger with any other type of battery or with non-rechargeable batteries.

WARNING! Batteries emit EXPLOSIVE GASES - prevent flame or sparks near batteries. Battery acid is highly corrosive. Wear protective clothing and avoid contact. In case of accidental contact, wash immediately with soap and water. Always disconnect the charger from the mains AC power before connecting or disconnecting the charger to the vehicle battery.

Check that the battery posts are not loose; if so, do not charge the battery and have the battery professionally assessed. If the battery posts are corroded, carefully clean with a copper wire brush; if greasy or dirty, clean with a rag damped in detergent. Before charging batteries equipped with filler caps check that the electrolyte level is correct, and top up with distilled water if necessary. Do not use the charger unless all leads and connectors are in good, undamaged condition. If the supply cord is damaged it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

Protect your charger and its leads, connectors, fuse holders, fuses and terminations from contamination by acids and fluids, from exposure to damp and humidity, and from physical and accidental damage.

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

Included Accessories

This charger is delivered with two detachable battery connection lead sets. One connection set has “crocodile” clips for quick connection to the battery; the other set has eyelet lugs for permanent attachment to the battery posts.

IMPORTANT: If intending to charge using the battery clips, it is highly recommended to first disconnect and remove the battery from the vehicle and place in a well ventilated area. If you do decide to leave the battery in the vehicle, the battery terminal not connected to the chassis has to be connected first. The other connection is to be made to the chassis, remote from the battery and fuel line. The battery charger is then to be connected to the supply mains.

To connect the eyelet connection set, fix the eyelets firmly to the battery posts using the original battery connection bolts. Make sure that the eyelet on the lead with the in-line fuse holder is fixed to the positive pole (marked Pos or P or + and often red) and the other eyelet to the negative pole (Neg or N or – and often black). Ensure that the connectors are situated and restrained so as not to come into contact with any moving part of the vehicle. Prevent ingress of grime and dirt to the 2-pin connector. In case of a blown fuse in the in-line fuse holder, check carefully for damage to the connection set cables and replace if required. Replace a blown fuse only with a similar new fuse of identical type and rating of 10A. In order to satisfy emission compliance the low voltage output cable should not be extended; only the supplied ‘Croc’ or ‘Eyelet’ extensions should be used. If you are in any doubt concerning any of the above instructions, consult your local Datatool dealer for assistance.

Charging Procedure

1. Using the inbuilt hanging hook, hang the Datatool smart charger from the motorcycle’s handlebar or place the charger on a hard flat surface, but not on textile, plastic or leather. It is essential to do this before making any battery or AC mains connections. Consult a specialist if unsure.

2. Connect the charger to the battery. If using the crocodile clips ensure the RED clamp goes to POSITIVE (POS, P, +) terminal and the BLACK clamp to NEGATIVE (NEG, N, –) terminal. If the INVERSE POLARITY LED should indicate, your battery connections are inverted. The charger is protected against this error; no damage will result and it will automatically de-activate. Disconnect clamps and reconnect correctly. If using the eyelet connection, simply plug the charger into the 2 pin connection on the eyelet lead.

3. Connect the charger to a mains supply socket providing AC supply of 220 to 240V. The POWER ON LED should illuminate, if not check your AC supply or connections.

4. When connections are correct, the AC POWER ON LED will light and briefly each remaining led will flash until the device detects the battery current status. If the battery is close to full charge when connected, the TRICKLE CHARGE LED will come on almost immediately. Where the battery is not fully charged ABSORPTION CHARGE or BULK CHARGE LED’s will come on and the charging will start immediately.
NOTE: If the initial battery voltage is below about 2 Volts the charger circuit will not engage for safety and technical reasons, as a battery discharged to this degree of sulphation is unlikely to be suitable for use even if it could be recovered.

5. During the charging cycle (ABSORPTION CHARGE and BULK CHARGE LED’s) the battery is charged at the maximum constant current output until the monitored voltage rises to 14.3V. Charging then changes automatically to the absorption mode, with the voltage limited at 14.3V, so that the continuously monitored current will gradually reduce. When the current falls to 200mA, the charging voltage is then limited to 13.6V and the TRICKLE CHARGE LED will indicate the battery is ready for use. For as long as the charger remains connected it will continue to maintain the battery with a charge voltage limited at 13.6V, thus allowing the battery to draw a small current to compensate for any slight discharge, whether self-discharge or due to any alarm system or other current loss in the vehicle or other circuit. Should any factor place a load on the battery such that the battery’s need for charging current rises to 200mA, the circuit will automatically revert to the absorption charging stage until the battery is again charged, or until the current drain is corrected.

6. It is recommended to disconnect the AC power before disconnecting the battery connections, although the circuit will instantly disable the charging output on disconnection of the battery.

Application Hints and LED Status Lights

General hints: the DATATOOL smart charger has been designed to charge 12V lead-acid batteries that have been discharged during normal operation and that have not been damaged through extended non-use, physical misuse or internal defects. Non-use of a battery for an extended period during which the battery is left to self-discharge without being re-charged causes internal chemical change (’sulphation’) which this charger may not be able to reverse. Failure to maintain the correct electrolyte levels within batteries is also likely to result in damage to the battery which may be irrecoverable.

1. Once you have connected the charger to your battery, LEAVE it connected until you observe a steady TRICKLE CHARGE LED indication. When the steady TRICKLE CHARGE LED illuminates, if you wish you can safely leave the battery connected to the charger to maintain the fully charged state.

2. No LED indication except the 12V AC Power ON LED and the reverse polarity LED: there is mains power to the charger but your battery is connected incorrectly to the charger. No damage will result as the charger is electronically protected. Disconnect