



## Motocaddy Lithium Battery Instruction Manual

### Locating your Serial Number

The Motocaddy Lithium battery serial number is located on the product packaging and underside of the battery casing as shown.

This should be used to register your warranty.

PCM18650ASA Li-ion Battery

Energy: 192Wh

Voltage: 12.8V

Capacity: 15Ah

Cathode Material: LiFePO<sub>4</sub>

Energy Density: 72.45Wh/Kg



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## Important Charging/Care Advice

- Please ensure that the battery is always recharged as soon as possible after each use (no matter how many holes played)
- The battery must be stored on a dry non-carpeted surface and charged at temperatures ranging between 10°C and 30°C
- This charger **MUST NOT** be used to charge any other battery and is designed for use with Motocaddy Lithium batteries only
- The Lithium battery charger should only be opened and maintained by authorised personnel. Unauthorised opening will void warranty
- **The battery should be disconnected from the charger as soon as possible after charging and not left on charge for longer than necessary**
- Try to avoid getting the battery too wet (i.e. do not submerge, avoid deep puddles and remove before cleaning trolley)
- Dropping the battery may cause damage to the internal cells
- Do not lift or carry the battery by the cable

## Charging your Lithium Battery

1. Unplug your lithium battery from your trolley. This should always be done before folding the trolley to avoid damage to the battery and/or trolley
2. Plug the charger into your mains supply
3. Attach the battery cable to the charger matching the black and blue connections
4. When the charging led indicator has turned green, the battery is fully charged and ready to be used

 **RED - Battery Charging**             **GREEN - Battery fully charged and ready to be disconnected**

5. The charging process will take between 3 to 5 hours depending on the depth of discharge (please be aware that this may take longer for the first few charges)
6. Once charging is complete please disconnect the charger from the mains power supply
7. Finally disconnect the charger from the battery



## Recommendations for the hibernation of Lithium Batteries during Winter months

If for any reason your lithium battery is not going to be used for lengthy periods, e.g. 3 months over the winter, it is advised to store the battery half charged. To do this simply use the battery for a round of golf as usual and charge it for 1.5 hours at the end of the round. Before the battery is used again, recharge it (top it up) prior to use. We recognise that extended absences are not always planned in advance, however when it is likely that you will not be using your battery for a period of time it is good practice to follow these steps to extend the life of your lithium battery. Please ensure that the charger is ALWAYS disconnected from the battery after charging.

## Lithium Battery Management System (BMS)

Motocaddy Lithium Batteries are fitted with a comprehensive battery management system (BMS) to protect the battery from excessive abuse, high currents, deep discharge and overcharge. When the battery is delivered there may be no output as the BMS is designed to maximize safety whilst shipping. Please ensure that the battery is fully charged prior to connecting it to your trolley as this will activate the BMS and effectively “switch-on” the battery. From time to time, at deep discharge or long term storage the BMS may switch-off the battery. A full battery charge will rectify this problem.

Motocaddy golf trolleys are designed to work with the BMS system installed in the Lithium batteries and the voltage meter is also synchronised to work in conjunction with the battery. If for any reason the voltage on the battery falls below the low battery warning on the trolley, the BMS may disable the battery to protect it. Again if this occurs please recharge fully. Please be aware that Lithium batteries tend to “drop off” quickly at the end of the cycle so it is not advisable to attempt to play excessive holes as the BMS will activate for protection purposes.