

# M1 PRO DHC Electric Trolley Instruction Manual



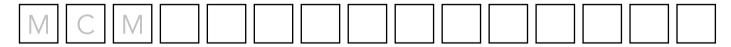
## Locating your Serial Number

#### **Locating your Serial Number**

The serial number for your M1 PRO DHC trolley is located on the inside of the Device cradle compartment. This number is required when registering your warranty online and should be kept handy for future use.

The same number should also be on the box received with your trolley. Please ensure you keep hold of the packaging in case you need to return your trolley for any reason. A proof of purchase must also be kept in case your trolley requires servicing during its warranty period.

## Please keep a record of your trolley serial number here for future reference



#### **Battery Care and Advice**

All batteries must be charged as soon as possible after each use. Leaving batteries discharged for long periods of time will affect the battery life.

Please ensure that only batteries supplied by Motocaddy are charged with Motocaddy chargers. Cyclic battery chargers are designed specifically in accordance with the battery manufacturer's requirements. The Lithium battery charger MUST NOT be used to charge any other battery and is designed for use with Motocaddy Lithium batteries only.

The charger should only be connected to an earthed socket outlet; the battery charger should only be opened and maintained by authorised personnel. Unauthorised opening will invalidate your warranty.

The battery must be stored and charged on a dry non-carpeted surface and charged at temperatures ranging between 10°C and 30°C. Charging above or below these temperatures is not recommended as it can reduce the battery capacity.

When connecting your battery to the trolley, please ensure that the connections match up black to black and blue/red to blue depending on your battery type.

## Charging your Lithium Battery / Caring for your Lithium Battery

#### **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
- 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

#### Caring for your Lithium Battery

- Try to avoid getting the battery too wet (i.e. do not submerse the battery, try to avoid deep puddles and do not clean your trolley whilst battery is still in the battery tray)
- Dropping the battery may cause damage to the internal cells
- Do not lift or carry the battery by the cable
- Use a damp cloth to clean off any dirt

#### 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 reaches that below the low battery warning on the trolley, then 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.

## **Unfolding your Trolley**

#### **Unfolding your Trolley**

- 1. Place trolley in upright position (fig. 1)
- 2. Release CLIP 1 (fig. 2) and push front wheel away from trolley until it is fully extended and trolley is flat
- 3. Ensure CLIP 1 clicks into place to lock front wheel in extended position
- 4. Pull CLIP 2 outwards to release (fig. 3)
- 5. Unfold handle towards front wheel and re-secure CLIP 2 to lock
- 6. Pull out CLIP 3 and rotate anti-clockwise to unlock (fig. 4)
- 7. Unfold wishbone into upright position
- 8. Pull bag supports upwards to release CLIP 4 (fig. 5), lift frame and unfold fully
- 9. Connect frame to wishbone (fig. 6) and click CLIP 5 into position to lock
- 10. Adjust upper bag supports ready for use











Fig 5



Fig 1 Fig 2

Fig 3

Fig 4

Fig 6

#### **Folding your Trolley**

- 1. Fold back upper bag supports (fig. 1)
- 2. Pull CLIP 5 upwards to release (fig. 2) and move wishbone towards ground
- 3. Fold frame in half and push handle towards front wheel
- 4. Lift bag supports slightly and lock CLIP 4 into position
- 5. Pull out CLIP 3 and rotate clockwise to lock hinge into place (fig. 3)
- 6. Fold wishbone towards front wheel
- 7. Pull CLIP 2 outwards to release (fig. 4)

Fig 2

- 8. Fold handle towards battery tray and re-secure CLIP 2 to lock
- 9. Release CLIP 1 (fig. 5) and use carry handle to lift the trolley into the upright position (fig. 6)
- 10. Push front wheel towards battery tray and click CLIP 1 into place to secure











Fig 5



Fig 1

Fig 4

## Using the Lower Bag Supports

#### **Using the Lower Bag Supports**

This Motocaddy trolley is fitted with the new EASILOCK™ bag attachment system.

If you are using an EASILOCK™ compatible cart bag please follow these simple instructions:

- 1. Remove the two pre-fitted lower bag straps by depressing the rear button and sliding (fig. 1)
- 2. Match up the indicating line on your cart bag with the line on the lower bag support
- 3. Lower bag until the pins lock in position

If you are using a non-EASILOCK™ bag, please use the following instructions:

- 1. Stretch the elasticated strap around the bag
- 2. Loop the rounded bar underneath the hook (fig. 2)
- 3. Position the two placement straps centrally on your cart bag (fig. 3)

Please ensure the straps are hooked in place securely before releasing. Failure to do so could result in injury to the user.



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## Using the Upper Bag Supports / Adjusting the Bag Supports

#### **Using the Upper Bag Supports**

The upper bag support straps can be secured using the same steps as the non-EASILOCK instructions overleaf:

- 1. Stretch the elasticated strap around the bag
- 2. Loop the rounded bar underneath the hook (fig. 2 left)
- 3. Position the two placement straps centrally on your cart bag (fig. 3 left)

#### Adjusting the Bag Supports

The bag support straps are manufactured from elasticated material to allow your golf bag to be held tightly in place.

The strap should be adjusted to be reasonably tight around the golf bag:

- 1. Unclip the elasticated straps from the housing by pulling outwards in the direction shown by the arrows (fig. 1)
- 2. Move the bar as required to tighten or loosen the strap fitting. Pulling the bar downwards will tighten, pushing it upwards will loosen (fig. 2)
- 3. Ensure that the straps are clipped back in to the housing before use (fig. 3)



Fig 1



Fig 2



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## Attaching the Wheels

#### Attaching the Wheels

There is a left and a right wheel and it is important that you don't put them on the wrong way round, otherwise the trolley will not move. You will find there is an "L" and "R" on the inside of the wheel on the central hub. Left and Right sides are determined when stood behind the trolley at the handle.

To attach the wheels follow these simple steps:

- 1. Push the guick release in towards the centre of the wheel
- 2. Slide the wheel on to the axle as far as it will go
- 3. Release the button and pull the wheel outwards slightly to lock
- 4. A small click will confirm they are in the correct position

The outer groove can be used as a "free-wheel" option if you run out of battery power during a round of golf.

**IMPORTANT:** Motocaddy PRO DHC trolleys are not designed to be freewheeled whilst the wheels are engaged. If you need to push your trolley, please use the 'free-wheel groove' to prevent damage.



## Adjusting the Front Wheel Alignment

#### Adjusting the Front Wheel Alignment if your trolley is veering

In the unlikely event that your trolley is not tracking in a straight line, the alignment of the front wheel can be adjusted to rectify the fault. This problem can be caused by a number of factors including a slightly loose bag support or an unevenly packed golf bag. Should you wish to alter the alignment of the front wheel, follow these simple steps:

- 1. Lift the quick release lever positioned on the front wheel housing and loosen the wheel nut (fig. 1)
- 2. There are two small metal dials on either side of the housing that are used to realign the wheel (fig. 2)
- 3. If your trolley is veering to the right, you will need to turn the left hand dial clockwise and the right hand dial anti-clockwise
- 4. If your trolley is veering to the left, you will need to turn the right hand dial clockwise and the left hand dial anti-clockwise
- 5. Tighten the wheel nut and push down the lever to lock the wheel back into place (fig. 3)

This procedure can be carried out until you are happy the trolley is moving in a straight line (please note you may only need to adjust one dial at a time).

PLEASE NOTE: These instructions are based on being in front of the trolley looking at the wheel.



fig 1



fig 2



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## Safety Cut-out / Safe use of your Trolley

#### **Safety Cut-out**

Your Motocaddy trolley is fitted with a safety cut out feature which will help prevent damage to your trolley in the event of it being inadvertently switched on and in a position where it is not able to move for 30 seconds. If this should occur, the trolley will automatically cut the power to the motor.

If your trolley has cut out for this reason you will see the following on the display:

• The M1 PRO DHC LED panel will display an "L" where the speed setting would usually be shown and the left hand LED will still be lit (fig. 1)

Pressing the on/off button will reset your trolley.

#### Safe use of your Trolley

- Your Motocaddy trolley is designed for the transportation of golf bags and clubs contained within.

  Using the trolley for any other reason may cause damage to the trolley and cause harm to the user
- Do not attempt to transport any other equipment
- The trolley is not designed for the transportation of people
- Do not use the trolley to assist you when going up hills



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## Safe use of your Trolley / Caring for your Trolley

- Submerging the trolley in water (eg a lake) is likely to cause damage to the trolley
- Do not operate the trolley whilst under the influence of drugs or excessive amounts of alcohol
- All batteries must be disconnected from the trolley before transporting
- Lead acid batteries must be removed from the battery tray before transporting your trolley
- Always use the carry strap when moving and transporting lead acid batteries

#### **Caring for your Trolley**

Although your Motocaddy Trolley has been weatherproofed, please follow these simple guidelines to help protect your trolley:

- Do not store your trolley outside
- Try to minimise exposure to rain as much as possible with an umbrella during heavy rainfall
- Wipe excess water from the trolley prior to storage
- Never use a pressure washer to clean your trolley. To prevent water damage, wipe it down with a damp cloth
- Avoid using high pressure air hoses near moving components

Your Motocaddy trolley is designed to require very little maintenance; we do however recommend giving your trolley regular checks to ensure:

- There is no build up of excess mud and dirt
- The front wheel nut is on tightly and quick release lever is clamped down
- The front wheel is not clogged up and turns freely
- The battery bag and strap are intact and not damaged (lead acid batteries only)

Only original Motocaddy parts should be used when repairing your trolley.

## Using the Device Cradle / USB Charging Port

#### Using your Device Cradle

- 1. Lift the cover of the device cradle compartment to expose the cradle (fig.1-1)
- 2. Press the button on the top of the cradle to increase the width of the arms (fig.1-2)
- 3. Push arms together to clamp tight on to the device (fig.1-3)

#### Using the USB Charging Port

To use the USB charging port simply lift the cover on the device cradle compartment and plug a USB cable in to the charging socket.

The device will continue charging for the duration of time that the cable is attached and the battery is connected.



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It is important to note that the speed of charge will be slower than that of a mains AC charger and similar to plugging the device into a PC.

The USB charger takes power from the main trolley battery and continuous charging will reduce the battery capacity between charges. The trolley is designed to disable the USB port when the battery capacity reaches a preset level.

#### M1 PRO DHC Equipment Overview

- 1. Digital Control Panel
- 2. Upper Bag Support
- 3. Rear Wheels
- 4. Rear Wheel quick release button
- 5. Lower Bag Support
- 6. Battery
- 7. Battery Tray
- 8. DHC Motor (located under Battery Tray)
- 9. Front Wheel
- 10. Front wheel alignment adjusters
- 11. Battery Connector
- 12. USB Charging Port / Device Cradle
- 13. Electronic Parking Brake



## Using your M1 PRO DHC / Power and Battery Level

#### Using your M1 PRO DHC

The M1 PRO DHC is extremely simple to control. There is one main button that is used to turn the trolley on and off, whilst also controlling the speed of the trolley. The speed can be adjusted while the trolley is stationary or in motion. The trolley has 9 speed settings (1 to 9) with 1 being the slowest setting and 9 the fastest. To increase the speed, rotate the speed dial clockwise, or anti-clockwise to decrease the speed.

To start the trolley, simply select your required speed setting and press the button. The trolley will smoothly accelerate until it reaches the selected speed. To stop the trolley, simply press the button again - there is no need to reduce the speed setting.

#### **Power and Battery Level**

There are two indicating LEDs below the speed display. The right hand LED displays the battery capacity (green, amber & red) and will illuminate as soon as the battery is plugged in. The left hand LED will illuminate when the power is on.

The trolley is designed to protect your battery from being fully discharged, should your battery capacity drop too low the trolley will cut the power to the motor. If this should happen you will see "b" flashing on screen.



## M1 PRO DHC - Using the Adjustable Distance Control

#### Using the Adjustable Distance Control

The M1 PRO DHC features a basic, easy to use adjustable distance control which will allow you to send you trolley ahead of you from 15-45 meters.

- 1. Whilst stationary select the speed that you wish to set your trolley off at
- 2. Hold down the on/off button for a couple of seconds, you will see the outer digits of the LED display rotate once clockwise (fig. 1) and "1" will then flash on the display (fig. 2). There are three settings for the distance, 1 = 15 meters, 2 = 30 meters and 3 = 45 meters
- 3. Turn the button clockwise to increase and anti-clockwise to decrease to your preferred distance
- 4. Press the on/off button to set the trolley off in motion. Whilst the trolley is powered using ADC, the left hand indicating LED will flash
- 5. The trolley can be stopped manually by pressing the button again

In the unlikely event that your trolley fails to register distance whilst in ADC mode, the trolley will cut power to the motor to prevent the trolley from travelling too far. The trolley screen will flash "E" to indicate that this safety feature has been instigated (fig. 3).

The trolley can be reset by pressing the on/off button once, thereby allowing you to continue to use the trolley with ADC disabled until you are able to contact our technical support team.



Fia 1



Fig 2



Fia 3

## Introduction to DHC / Using the Parking Brake

#### Introduction to DHC

The letters DHC stand for 'Downhill Control' and means that your trolley will maintain a perfect speed whilst travelling down hills.

Whenever you are looking to move the trolley, even if just to reposition it ready to use, always put it on a low speed setting to make it really easy to steer.

## **Using the Parking Brake**

The M1 PRO DHC is fitted with an electronic parking brake. To use this feature, the trolley must be in a stationary position. The parking brake is initiated by pressing the park button on the top of the handle.

Once activated, the screen will toggle between "P" and the current speed that is set (fig.1). The speed setting can be adjusted whilst the parking brake is activated by turning the speed dial.

To release the parking brake, press the on/off button to start the trolley. Pressing the park button whilst the parking brake is active will not release the brake.



Fig 1



# **DECLARATION OF CONFORMITY**

| ORIGINAL Business Name and Full Address of Manufacturer                 |   |
|---|---|
|   |   |
| Hertfordshire<br>CM22 7DG   |   |
| Name and Address of Authorised  | Representative  |
| Name and Address of the Person (If different to above)                  | in Community Authorised to compile the Technical File   |
| - Description of product (Commerci                                      | ial Name)   |
| Motocaddy Electric Trolley  |   |
| Function, Model, Type, Serial Num                                       | nber  |
| Function: Electric Trolley  | Model: S1/S1 PRO/S3 PRO/M1 PRO/M3 PRO<br>S1 PRO DHC/S3 PRO DHC/M1 PRO DHC<br>S7 REMOTE                      |
| Type: Motocaddy Digital Range   |   |
| Standards Used  |   |
| BS EN ISO 12100 2010  |   |
| Place of Declaration  |   |
| Units 15-18 Stansted Distribution Ce<br>Start Hill<br>Great Hallingbury | entre,  |
| Hertfordshire<br>CM22 7DG   |   |
| Date of Declaration Thursday, Ja  | nuary 01, 2015  |
| Declaration   |   |
|   | I the relevant provisions of the following Directives:- Low romagnetic Compatibility Directive 2004/108/EC. |
| Person Empowered to Draw Up Do  | eclaration  |
| Name: Tany Wahh   | Λ Ι   |

Position: Managing Director Signature:



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