

# Use guide for cylindrical batteries 24v

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#### Cycloboost

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## 1. Before beginning

## 1.1. Technical support

In spite of all our efforts, there may still be some technical information difficult to understand. Cycloboost is at your disposal to make it clearer and to guide you if you need it :

You can contact us @ support@cycloboost.com

### 1.2. Guarantee, sending back and after-sales service

Cycloboost's technical service is at your disposal to answer all questions related to :

- the dysfunctionning of one of the elements of the kit or battery
- the return of the material
- the after-sales service

## 1.3. How to report an anomaly

Before reporting to the after-sales service, please check the wiring as well as the charging state of the battery.

If the anomaly remains, send an e-mail to the after-sales service @ <u>support@cycloboost.com</u> with the following information :

- Your name
- Your invoice number
- The serial number of your motor, controller of battery
- The precise description of the failure : how it happened (while cycling, at a standstill, at the start, while charging the battery, while braking, while speeding up ...)
- The tests or handlings you made

## 2. Getting started with your battery

The batteries must be **manipulated with caution.** The batteries with no case must be protected and fixed during the use on your vehicle.

#### 2.1. Presentation of the battery

The battery is delivered with a **set of numbered keys** (it is important to know the number in case you lose it), a **sliding rack** and a **charger**.

To remove the battery from the rack, you just need to turn the key a quarter. Then you can remove the key when you are cycling.

To insert the battery on its rack, you need to hear a **CLIC**, meaning it has been put in the right place.



Chargeur 24v







#### 2.2. Charging the battery

Before the first use, it is very important to charge the battery completely. The battery you receive is charged up to 80%.

You need to plan an initial charge of 2 hours approximately.

The 24v charger gets connected on the waterproof plug located on the side of the battery.



During the charge the light of the charger is **RED** then gets **GRREN** once charged.

You need **about <u>8h00</u>** to completely charge your battery.

Do not disconnect the charger if the light is still red.

Remember to **switch off the battery** thanks to the switch located underneath **when you charge it**.

### 2.3. The charge warning lights

On the battery, you also have a gauge equipped with  ${\bf charge\ warning\ light}: {\bf 1\ red}$  and  ${\bf 4\ green}$  .

During the discharge, the green lights will switch off until there is only the red one left.



Témoins de charge

On the contrary, during the charge of the battery, the green lights switch on until they are all on.

## 2.4. Duration of the charge

The charge duration can be calculated as follows :

Charge duration = Capacity of the battery AH / Intensity of the charger A

Example : Charger 1,5A and battery 11,5Ah Duration of the charge = 11,5 / 1,5 = 7,66 hours

This is an idea of the duration as it also depends on the **level of discharge** of the battery. You also need to add a <u>balancing phase of the cells</u> which may take **30mn more**.

Advice : to improve the lifetime and performances of the battery, it is better to use only up to 90% of the battery's capacity.

If you get an autonomy of 50km on your itinerary, it is recommended to only cycle for 45km before each charge.

## 3. Connecting the battery to the bike

## 3.1. Preparation pf the power cable

ou can use the Anderson connectors to <u>solder</u>, to prepare your power cable.



Anderson connectors to put **at the end of the power cable** of your battery.

<u>Do not pinch</u> the Anderson connectors without special pliers as you could damage them for good. Prefer to <u>solder them</u>.

## **IMPORTANT : unplug the cable BEFORE any manipulation.**

- BROWN cable : positive pole, RED Anderson connector
- BLUE cable : negative pole, BLACK Anderson connector

Here is what you should get on the power cable of the battery :



Be careful to respect the polarity. Use a voltmeter to check the tension before disconnecting the controller.

#### 3.2. Fixing the battery to the bike frame

You just need to **screw the sliding rack** in the space of the flask of water with the original screws of your bike.



### 3.3. Connecting the battery to the electric kit

On your controller, **we also advise to put Anderson connectors,** you can check the following guides :

<u>Use guide of the Anderson connectors</u> <u>Balade Kit 250w/500w</u> <u>Xtrême Kit 750w/1000w</u> <u>Magic Pie Kit</u>

Now you just need to connect the battery to the controller :

#### Battery





## 4. Functionning of the warning light of the throttle

Twist or thumb throttles are equipped with a **warning light** with 3 lights :



: battery full : battery half discharged : battery empty or almost empty

This warning light enables <u>to get an idea</u> of the charge of your battery : it is the same light whatever the battery type (Lead, Nimh, Nicd, Li-ion, Lifepo4).

Every type of battery has a **proper functionning range** which is not the same as the <u>others</u>. This charge warning light is not a reliable element in terms of charge level of the battery, **it just gives an idea**.

For more **precision**, **a simple meter** with **kilometers tote** will enable you to know your autonomy in km.

The warning lights of the throttle are calibrated according to the battery you connect. A 36v throttle will have a functionning range corresponding to a 36v battery, same thing for a 24v throttle or 48v throttle.

It is possible to connect a **36v** battery with a **48v throttle**, the functionning of the kit will not be affected because the **functionning range of the warning light will not be adapted**.

In concrete terms, with a 48v throttle and a 24v battery, the **RED** light will always be on, even if the battery is full.

On the contrary, with a 24v throttle and a 48v battery, you will have all lights on, even with an empty battery.

## 5. Running in of the battery

#### **IMPORTANT**

- make 5 cycles of complete charge/discharge when cycling
  - completely empty the battery
  - completely charge the battery (a whole night for example)
- during the 5 cycles of running in, do not overdo it with the bike because you would use 1000W. This can damage the future performances of the battery.

## 6. Use advice

- Do not interrupt the charge of the battery
- After the running in, to improve the lifespan and performances of the battery, it is better to use only 90% of the battery's capacity
- Do not store the battery in a damp or cold environment (<10°C)
- Do not store the battery discharged (put the battery in charge every 3 months in case of long storage)
- Protect the battery and connectors from the rain and from shocks
- Plan a long enough cable to avoid tearing it
- Disconnect the battery from the controller or cut the power when you do not use the bike more than half a day

## 7. Important recommendations

- Do not cover the battery during the charge
- Do not store nor charge the battery next to inflammable products
- Do not immerse the battery
- Respect the running in of the batteries
- Do not clean with chemical products
- Do not open the battery (guarantee not valid if opened)
- Do not remove the guarantee labels (guarantee not valid)
- Do not leave the battery in the sun
- Do not store outside or in a damp environment

#### END OF DOCUMENT