



# Guide for the connection of several batteries

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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](mailto: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 @ [support@cycloboost.com](mailto:support@cycloboost.com) 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 . Presentation

There are **2 basic techniques** to assemble batteries :

- The **parallel technique** which enables to increase the **capacity** (Ah) of the final battery
- The **serie technique** which enables to increase the **tension** (V) of the final battery

### Recommendations :

- the connections described in this manual must be made by qualified people
- Cycloboost is not responsible for any manipulation or connection that you might make
- For performances issues, we recommend to assemble identical batteries : same tension (V) and same capacity (Ah)

## 3 . Mode of operation

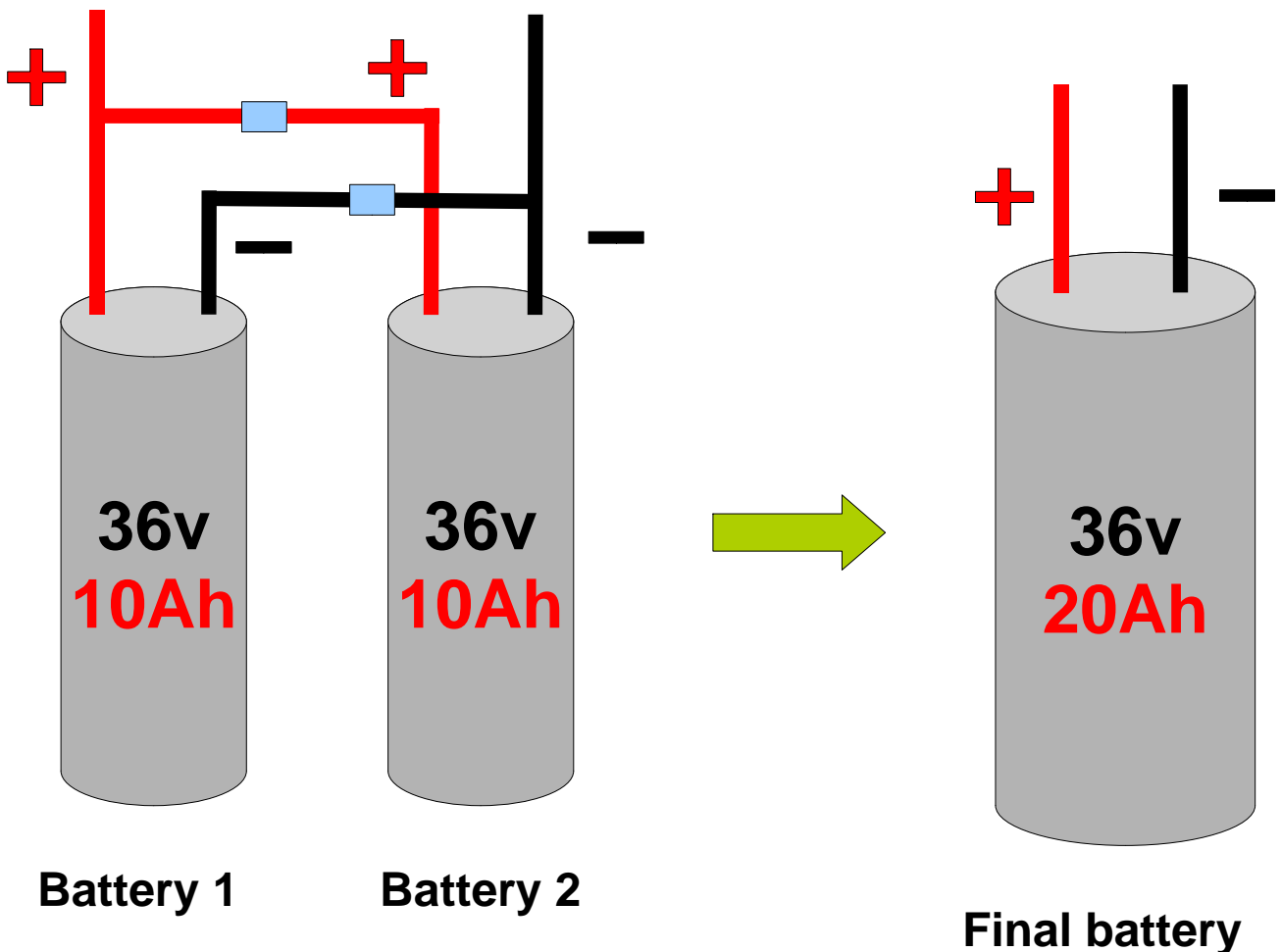
### 3.1. Parallel assembly

This kind of connection needs to be made with 2 batteries (or more) with the **same tension** (V) and the **same capacity** (Ah) : this inables to increase the **autonomy** of your vehicle.

Example : you have **2 Lifepo4 batteries 36v10Ah**.

**The parallel assembly** will give you a Lifepo4 **36V20Ah** battery with **twice the autonomy** of a 36V10Ah.

In order to do this, you just need to connect, as you can see on the drawing below : the **plus pole** (+) of the battery 1 on the **plus pole** (+) of battery 2, then the **minus pole** (-) of battery 1 on the **minus pole** (-) of battery 2.



**Note** : To make your connections, you can use **Anderson connectors**.

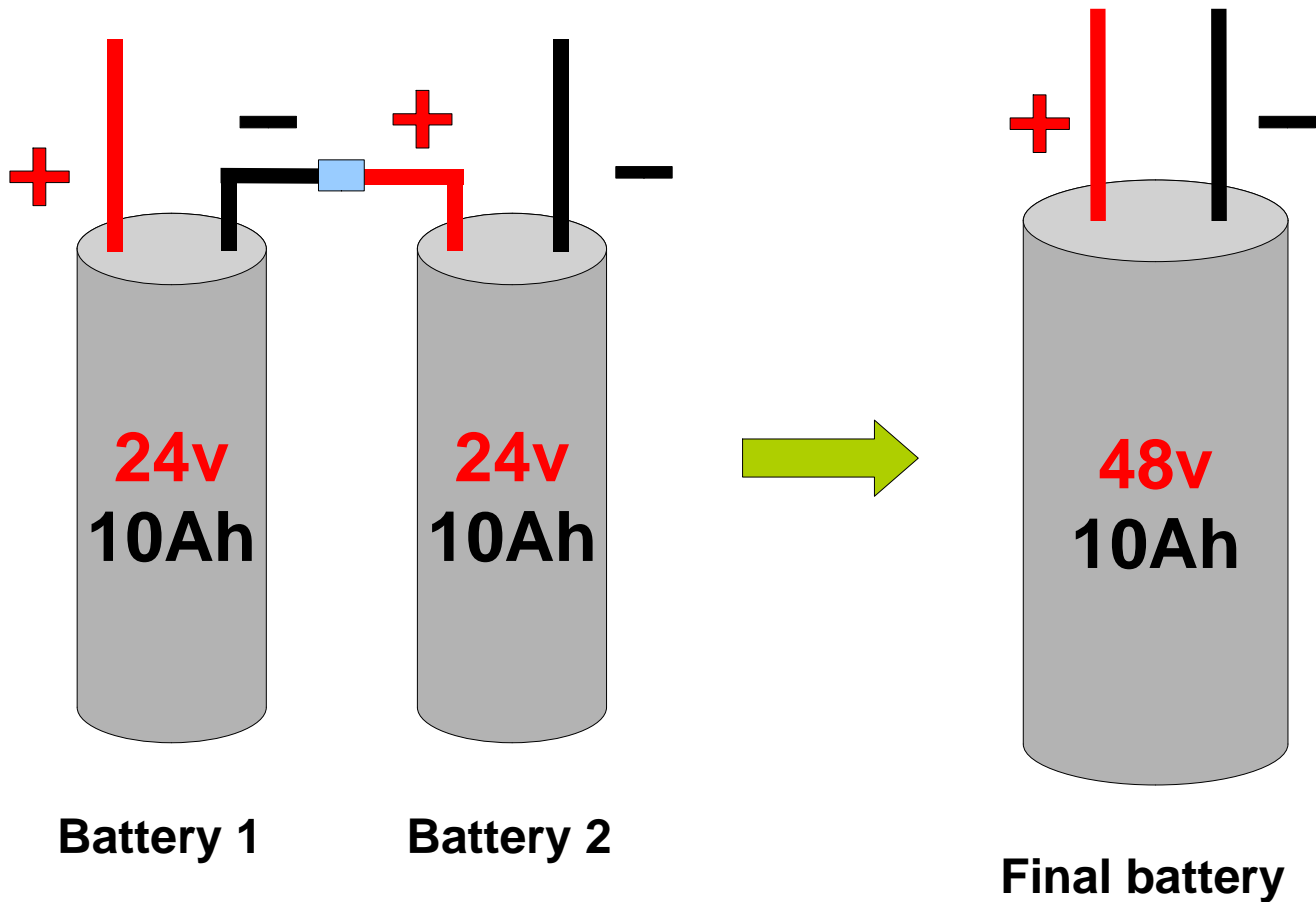
### 3.2. Serie assembly

This kind of connection needs to be made with 2 batteries (or more) with the **same tension** (V) and the **same capacity** (Ah) : this enables to increase the **power** of your vehicle.

Example : you have **2** Lifepo4 **batteries 24v10Ah**.

**The serie assembly** will give you a **48v10Ah** battery with **twice the power** of the 24v10Ah battery

In order to do this, you just need to connect, as you can see on the drawing below : the **minus pole** (-) of the battery 1 on the **plus pole** (+) of battery 2.



**Note** : To make your connections, you can use **Anderson connectors**.

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