Balade kits 250W + foldable bike kits
Assembly guide

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Only print the essential pages of this document.

- Print on both sides
- Print several pages on the same sheet of paper

Thank you

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1 Before getting started

1.1 Recommendation

The Goldenmotor kits have been checked and packaged in our workshop in order to make the assembly easier and more reliable.

We recommend to follow the assembly steps.

It is important to check that all accessories are properly fixed to the bike, that the electric connections are fixed and protected from the rain and water spatters and finally and most important : that **the wheel is securely screwed to the fork of your bike**.

Cycloboost is not responsible for a bad assembly or a bad use of our kits. The guarantee does not cover an abnormal or non-conform use of our products.

Please consult the general sales conditions available on our website www.cycloboost.com :
www.cycloboost.com/conditions-generales-de-ventes/

The Balade kits 250W are reserved for **a use on private roads**. The purchase of these items and their use are under your responsibility.

Please read carefully the recommendations of Chapter 9 : **Use of the electric bike**.

1.2 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

1.3 Guarantee, resending and after-sales service

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

- The dysfunction of one of the elements of the kit
- The resending of the products
- The after-sales service

1.4 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 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

1.5 Checklist of the tools necessary for the assembly of your kit

In order to assemble your kit, you need to have the following tools. You can get them in any bicycle or DIY shop.

3 Allen wrenches diameter 2,5mm, 3mm & 6mm 	A spanner **19** and **18 (Foldable bike)** 
A pair of scissors 	A metal file (**optional**) 

1.6 Pre-requisite and duration of the assembly of your kit

The assembly of a Goldenmotor kit prepared by Cycloboost is simple. You just need to know how to use the tools mentioned above.

The « **technical part** » of the assembly is the one where you have to adjust, if need be, the V-brake in order to brake safely.

We consider that replacing a flat tire is moderately difficult C C C.

		Difficulty *(1)*	**Duration**
1	Setting up the motorized wheel	C C	30mn
2	Setting up the controls panel	C C C	60mn
3	Setting up and wiring the controller	C C	45mn
4	Setting up and wiring the battery	C C	45mn
5	Checking the transmission (rear wheel)	C C C	20mn

(1) Here is our scale :

C	Very easy
C C	Easy
C C C	Medium
C C C C	Difficult
C C C C C	Very difficult

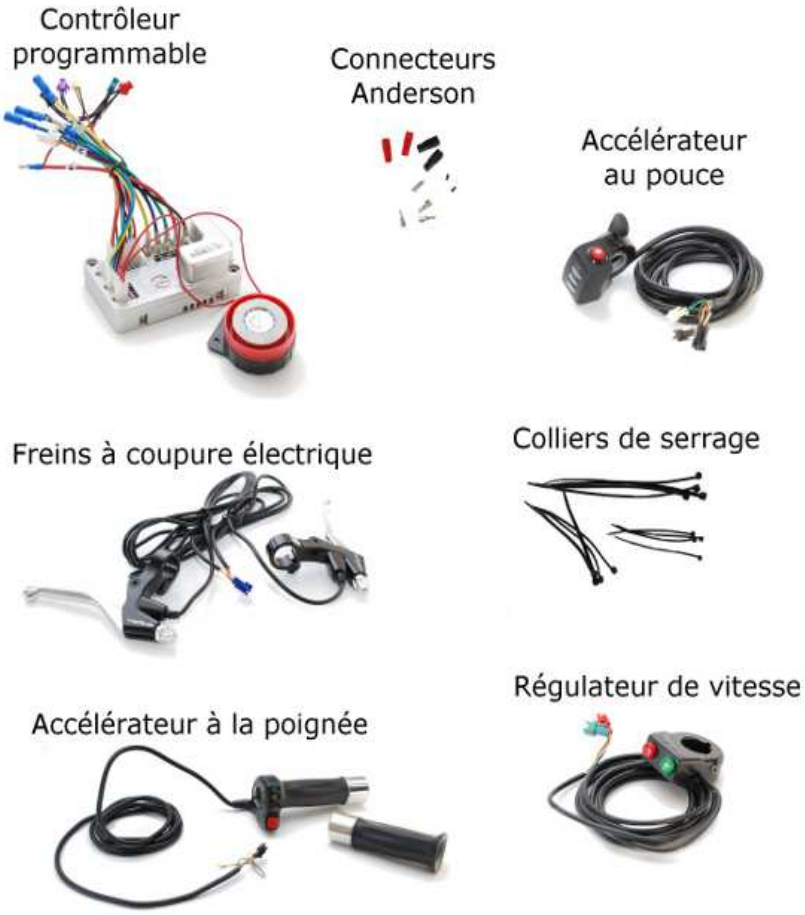
If you have any **difficulty on the mechanical part**, do not hesitate to get in touch with a professional (bicycle shop or big brand, Cycloboost partners – the list is available here http://www.cycloboost.com/revendeur-velo-electrique/) or consult the website http://velo-reparation.fr/.)

2 Opening the parcel

After opening the parcel, you will find the kit's following components :

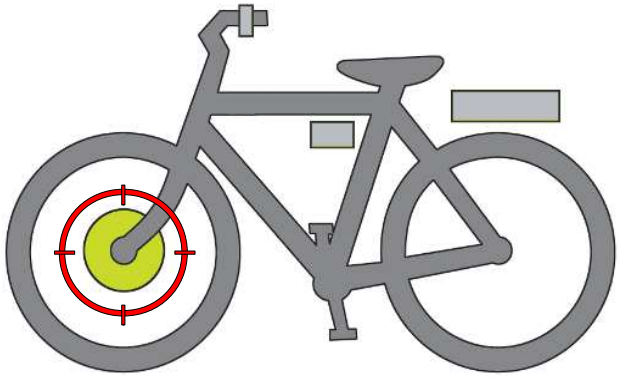
The motor in a wheel with a rim :

The accessories* :



*Non-contractual pictures , setup according to the choice of the user

3 Setting up the motor



3.1 Setting up a Balade motor

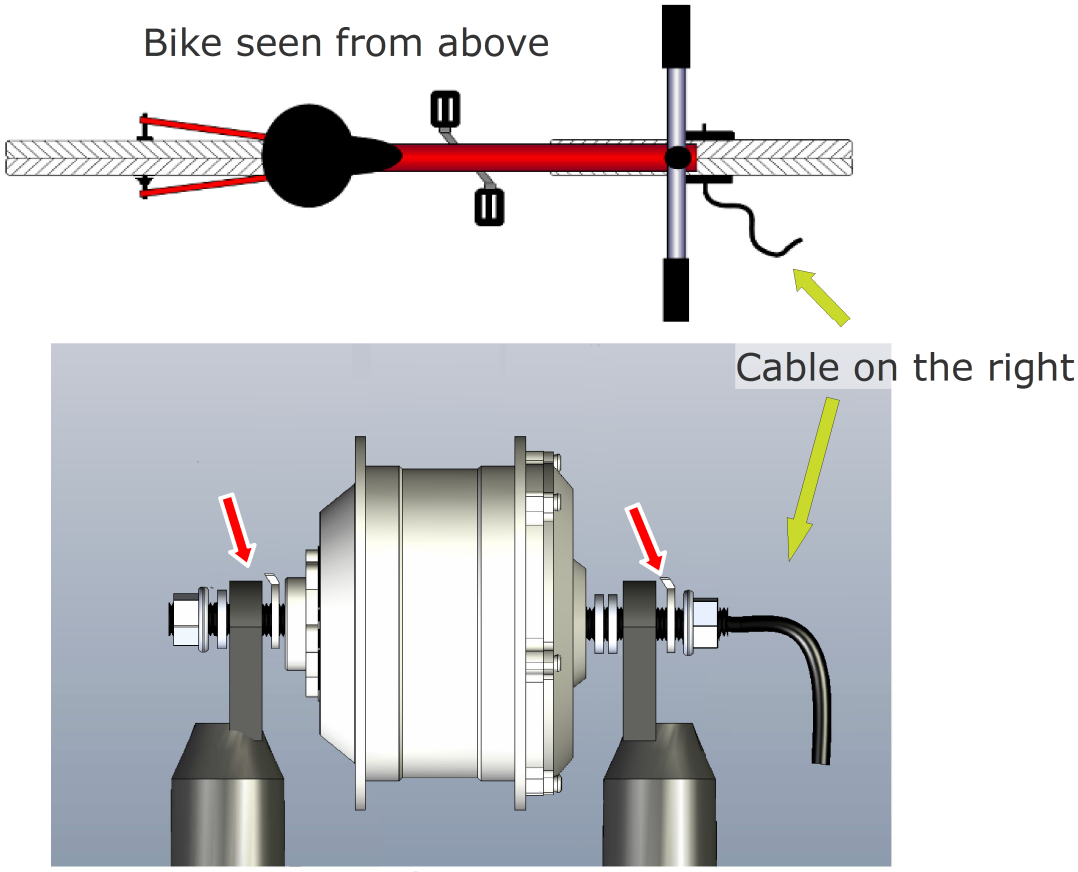


Figure 01

Put some protective cover on the ground and turn the bike upside down to make the job easier.

Put the axis of the wheel in the fork ends. You can spread (without risk) the fork of **2** or **3mm** to fit the motor more easily.

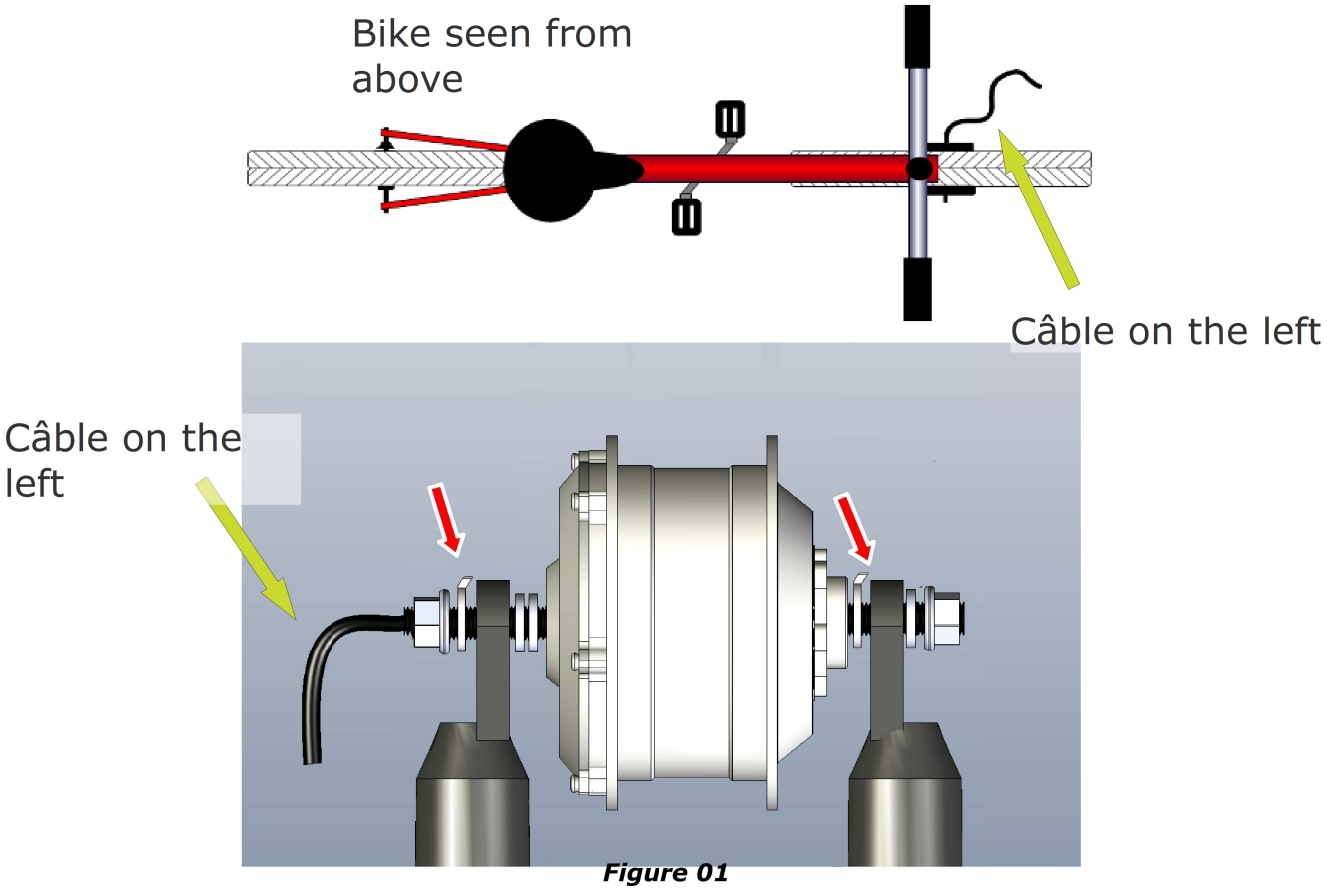
If the axis of the motor does not fit in the fork, you can slightly file the axis on the planes.

Before screwing your wheel, make sure the wheel is centered in the fork ends. Then make sure the torque washers are set in the fork ends (see the red arrows ➤ ***figure 01***).

It may be useful to move the washers to get the best centering.

Screw your wheel **only with a spanner 19** : during the tightening, tighten little by little on both sides of the motor in turns to prevent the motor from moving in the fork ends.

3.2 Setting up a Foldable bike motor



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It may be useful to move the washers to get the best centering.

Screw your wheel **only with a spanner 18** : during the tightening, tighten little by little on both sides of the motor in turns to prevent the motor from moving in the fork ends.

Important : A badly screwed wheel can break your fork and cause a wrenching of the power cable. Cycloboost is not responsible for a bad assembly, carefully check your assembly and tightening.

We recommend the use of **Torque arms (http://www.cycloboost.com/torque-arm-renfort-fourche-velo-electrique.html)** to strenghten the forks.

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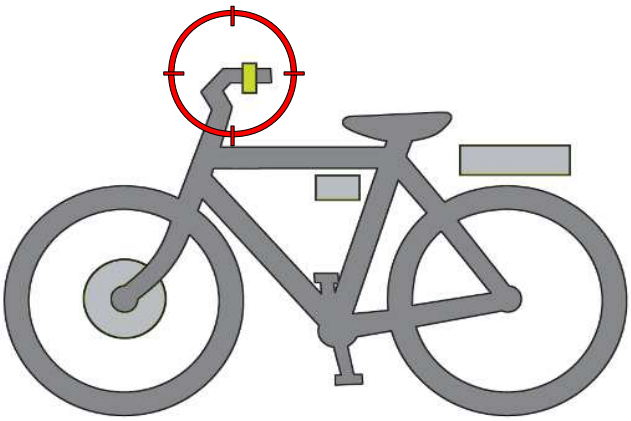
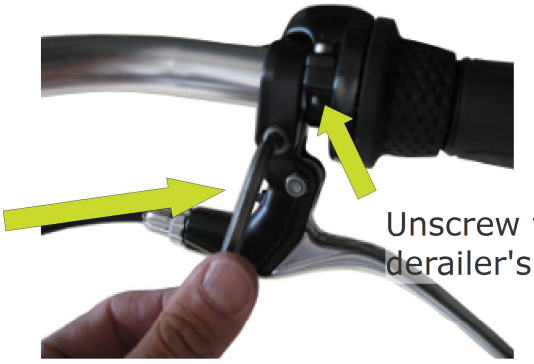
4 Setting up the controls panel



4.1 Disassembly of the original controls panel

Remove the rubber grips, the original brake levers and the front and back derailer's levers with an **Allen wrench** :



Unscrew the lever brake

Unscrew the derailer's lever

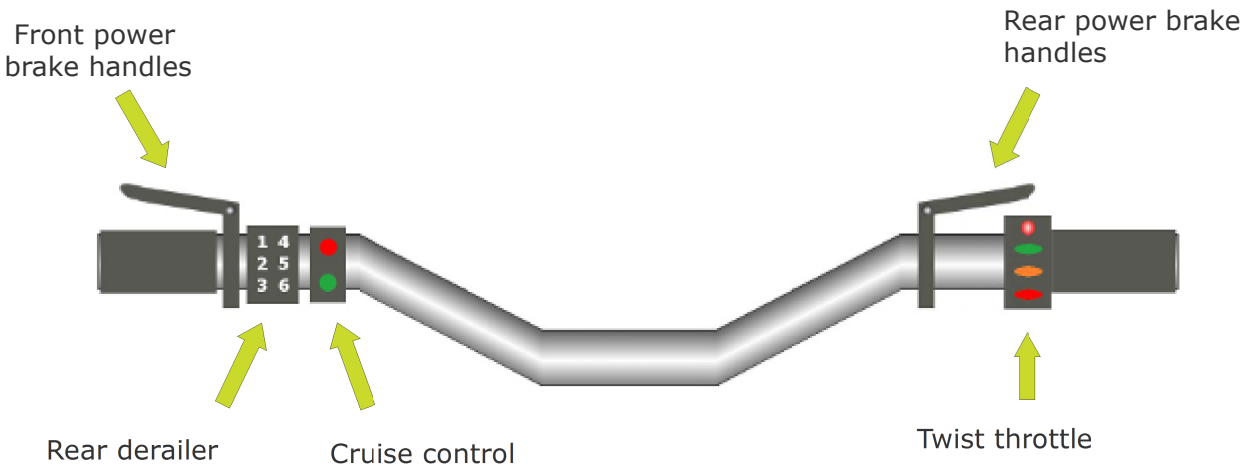
Align the 2 alloy screws to remove the cable

Remove the cable from its compartment

4.2 Setting up the new controls panel

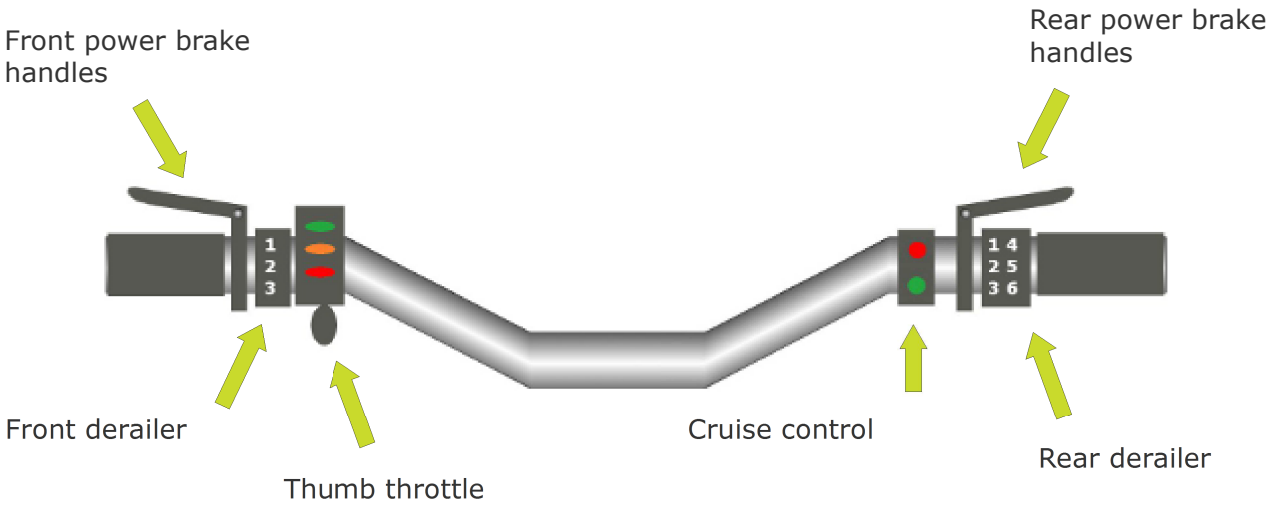
Important : If you set up **a twist throttle**, you may not be able to use the gear lever **AND** the twist throttle with only one hand.

4.2.1 Example of set up with a twist throttle :



In this example, the front derailer's lever has been removed.

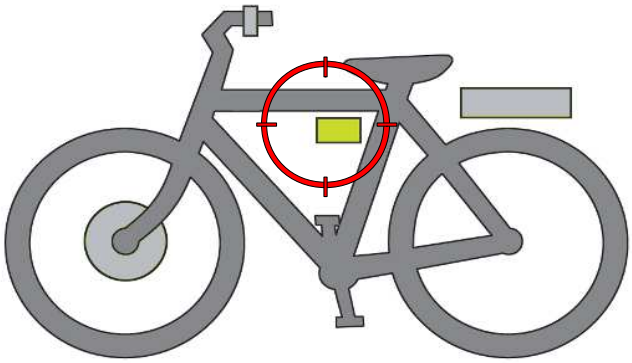
4.2.2 (Recommended) Example of set up with a thumb throttle :



After positioning the different controls, tighten them with an Allen wrench and put the power brake handles **cables** in the new brake levers.

Note : the power brake handles are not necessary for a proper functioning of the kit. It is just an extra security.

5 Setting up the controller



5.1 Choose the right space for the controller

You can put the controller in a **frame** bag, **seat** bag, **handlebar** bag or in a plastic/metal **casing** depending on your vehicle or your needs. You need to be able to get easy access to the cables.
The bag or casing must protect the controller and the cables from rain or water spatters.

In case of rain, think about a waterproof hood for the bag or casing containing the controller, if necessary.

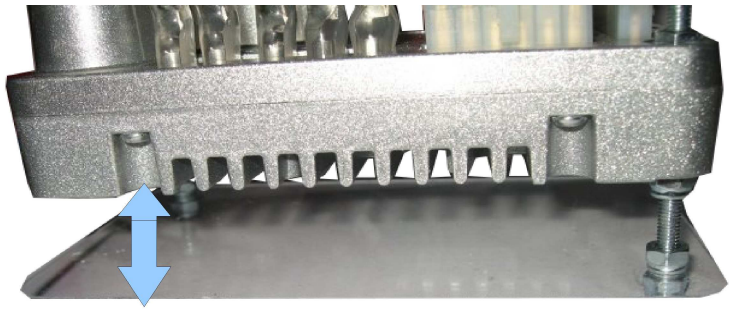
5.2 Recommendation on the space of the controller

In normal use, the controller **heats up** : do not put the controller in a box or bag **too small** and **airtight**. It needs enough space (20x10x10cm minimum) and **openings** to allow for the heat to evaporate.

The controller must be ventilated at all times. The bag containing the controller must be opened enough to create an air flow.

Trick : with a soldering iron, you can make **little holes** in the controller's bag to let the heat evaporate. **No problem in case of rain** if a a few drops go through the holes. **You just must not immerse the controller in water**.

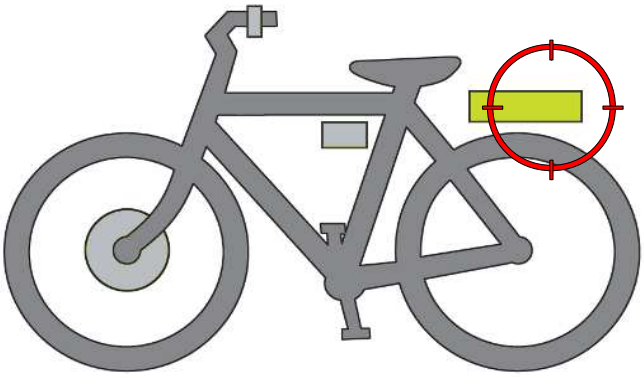
The bottom part of the controller must be ventilated and must not be set against the bag or casing. There must be at least 3cm (see picture above) for the ventilation of the controller's radiator.



3cm for the ventilation

For the controller of the **foldable bike kit,** plan just a little space so the heat can dissipate.

6 Setting up the battery

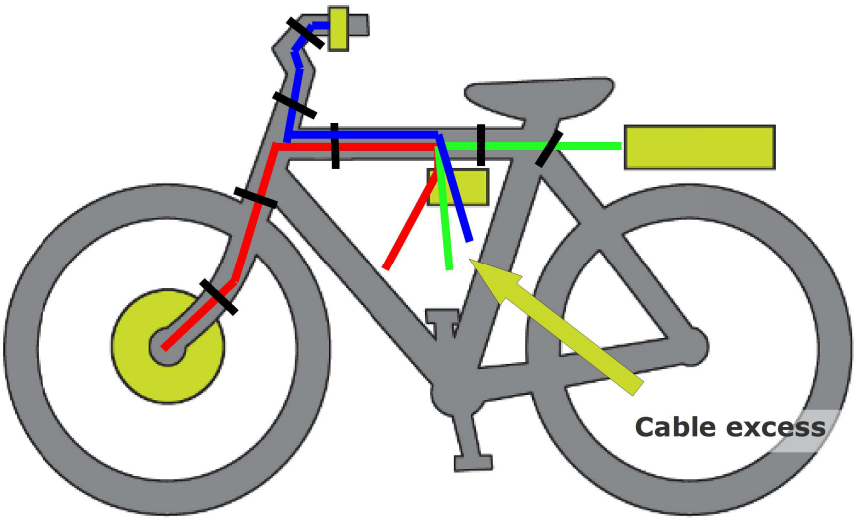


The battery can be fixed on a rack at the back (**alloy battery**), on the frame (**cylindrical battery**), in a bag, a backpack or a top-case (**PVC battery**).

Whatever your choice, **the battery must be protected from bumps** and must be solidly attached to your bike.

At this point, **the battery must simply be fixed to the bike**, it has not been wired to the controller yet. We will describe (chapter 8) how to make the power cable and connect the battery to the controller.

7 Setting up the wiring



Put the cables (represented by **red**, **green** and **blue** lines) along the frame and make sure there is enough 'excess' in order to be able **to turn the handlebar without pulling on the connectors**.

Then fix the cables with black plastic clamps (black lines ▬).

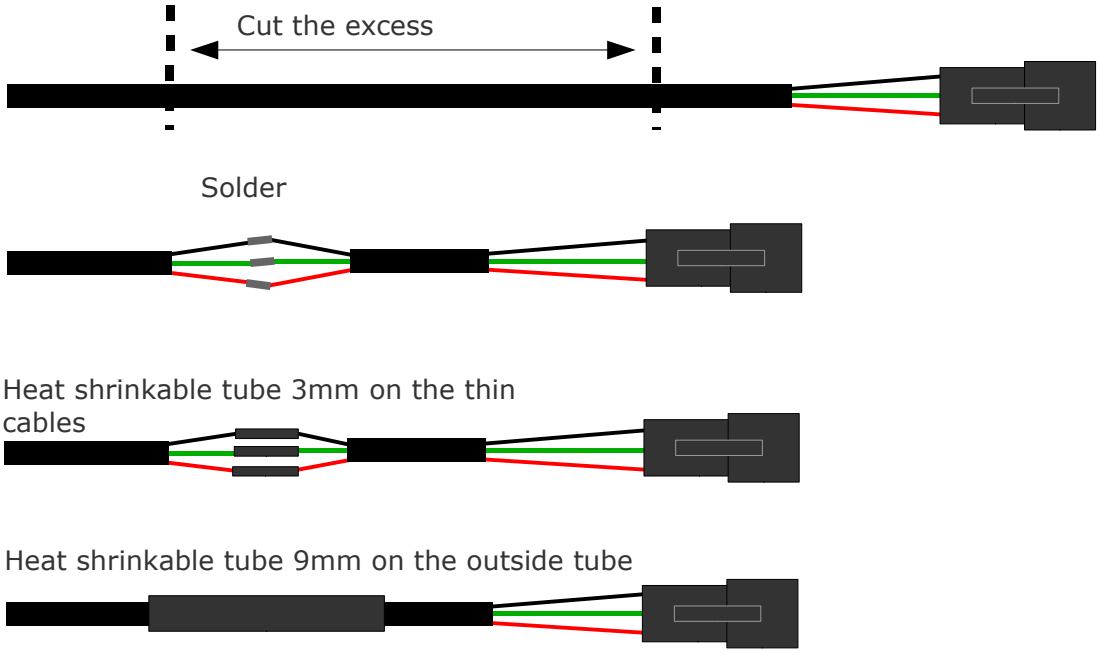
Trick : make sure there is enough excess at the motor's level in order to be able to change the wheel without removing everything.

You can also think about Lineatube air tube for electric bikes.

Be careful : to avoid any short circuit, do not connect the power cable on the battery. We will describe (chapter 8) how to make a power cable and how to connect the battery to the controller.

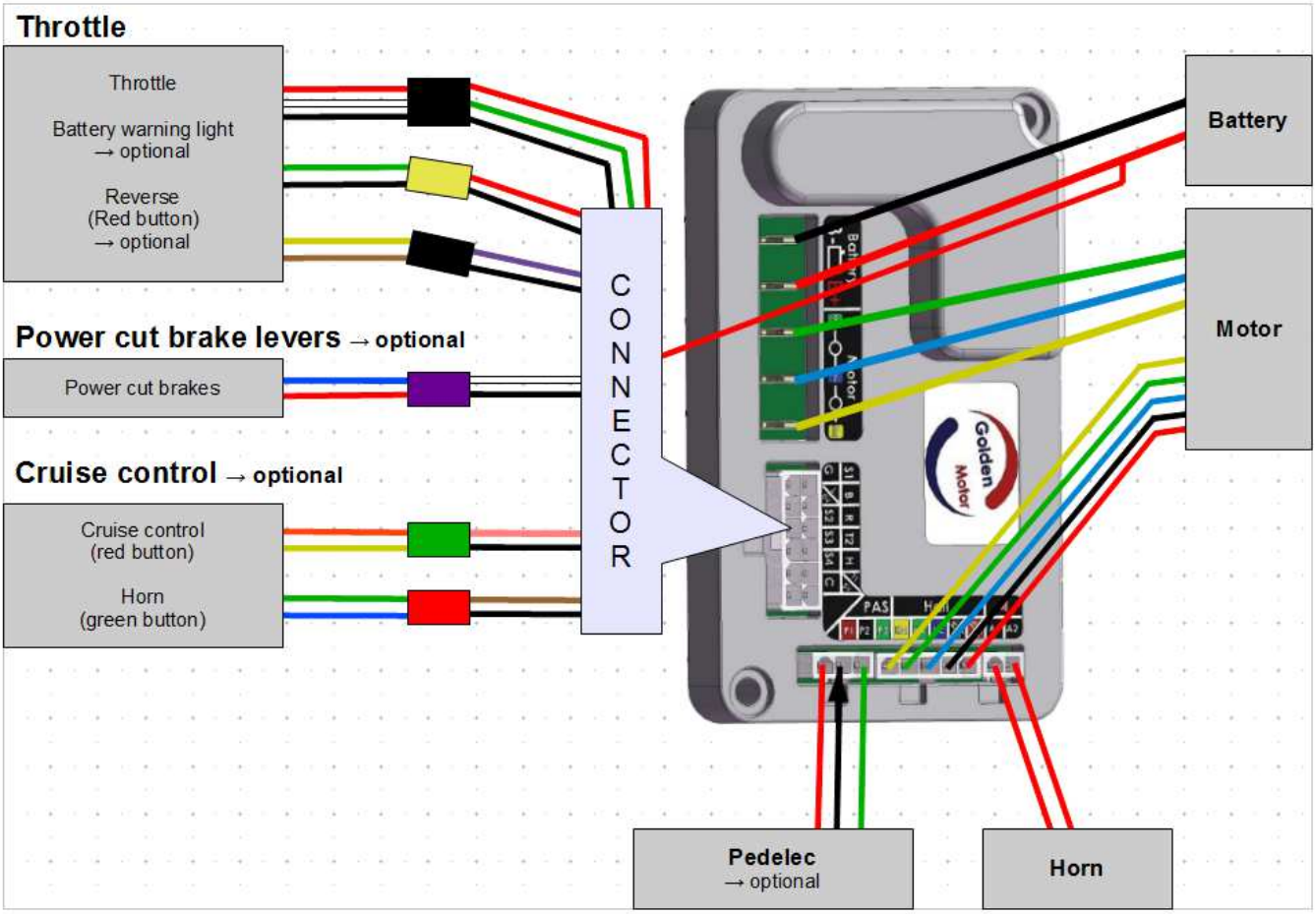
How to use the cable excess :

If you have enough space, you can wind it and put it in the bag with the controller. If you do not have enough space, you must **cut the excess**, **solder** again and put some **heat shrinkable tube** :



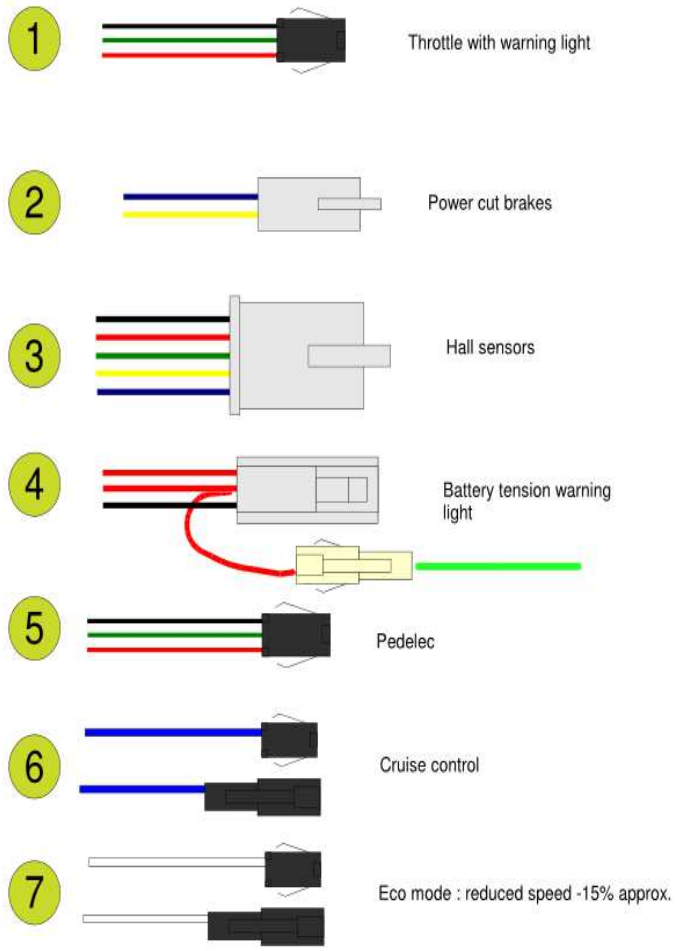
8 Connection of the controller with the accessories, the motor, the battery

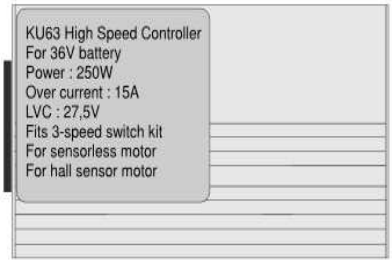
Here are the details and functions of the connectors :

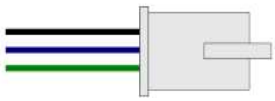


9 Connection of the controller of the foldable kit

Here are the details and functions of the connectors:

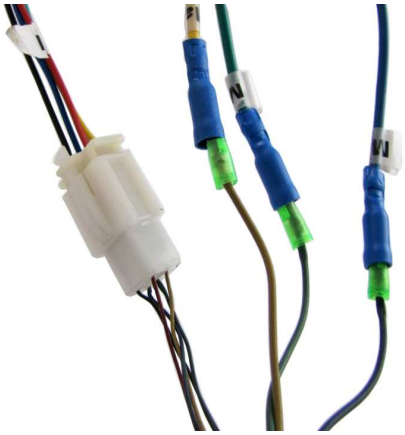






9.1 Connection of the accessories

9.1.1 Connection of the motor on the controller



- connector 6 white plastic pins (hall sensors)
- 3 motor phases threads (yellow, green, blue)

9.1.2 Connection of the throttle on the controller

- black connector 3 threads (throttle)
- yellow connector (battery warning light)*
- black connector 2 threads (red button)*

***** The connection of **these connectors <u>is not compulsory</u>** for a proper functionning of the kit.

9.1.3 (optional) Connection of the brake power handles on the controller

- **blue** connector (**purple** on the controller's side)

Compatible with all power brake handles.
The connection of this accessory **<u>is not compulsory</u>** for a proper functionning of the kit.

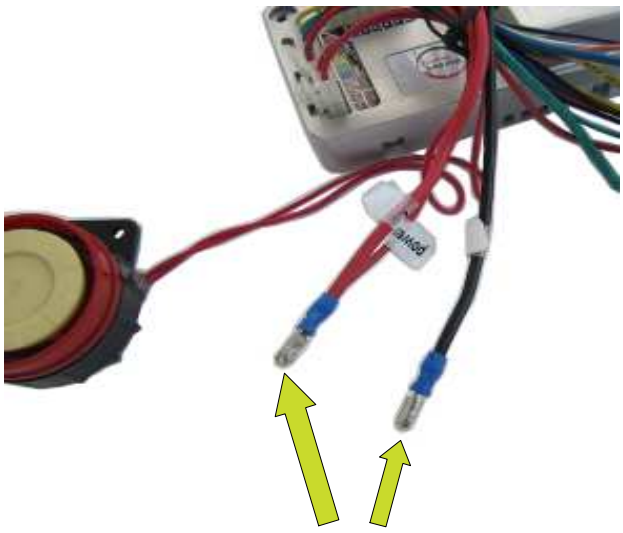
9.1.4 (optional) Connection of the cruise control on the controller

- green connector (cruise control)
- red connector (horn)

The connection of this accessory **is not compulsory** for a proper functionning of the kit.

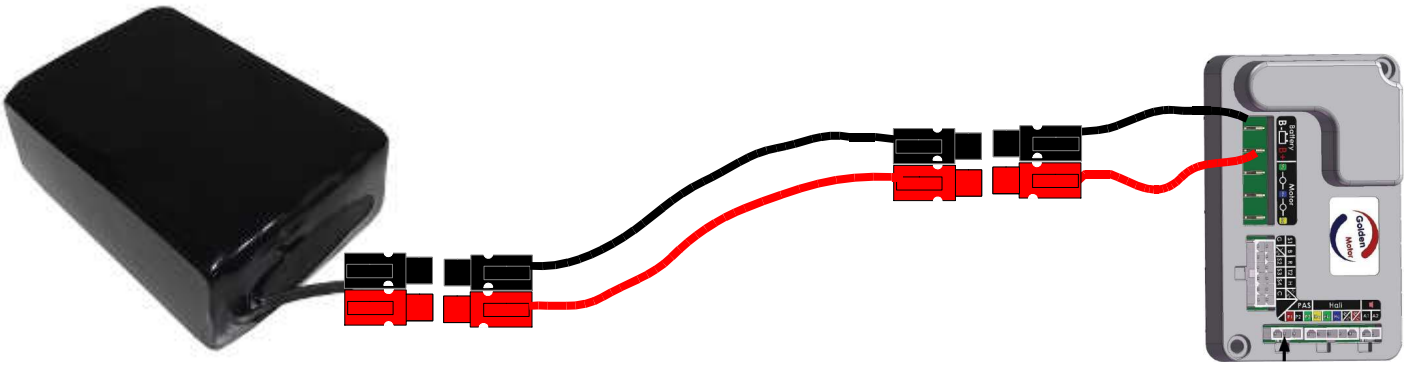
9.2 Connection of the battery and creation of a power cable

Make sure the power cable between controller and battery is long enough for you to be able to remove the battery easily.



- red thread (+)
- black thread (-)

Trick : we recommend to replace the connectors of the controller by **Anderson connectors**. Here is an example :

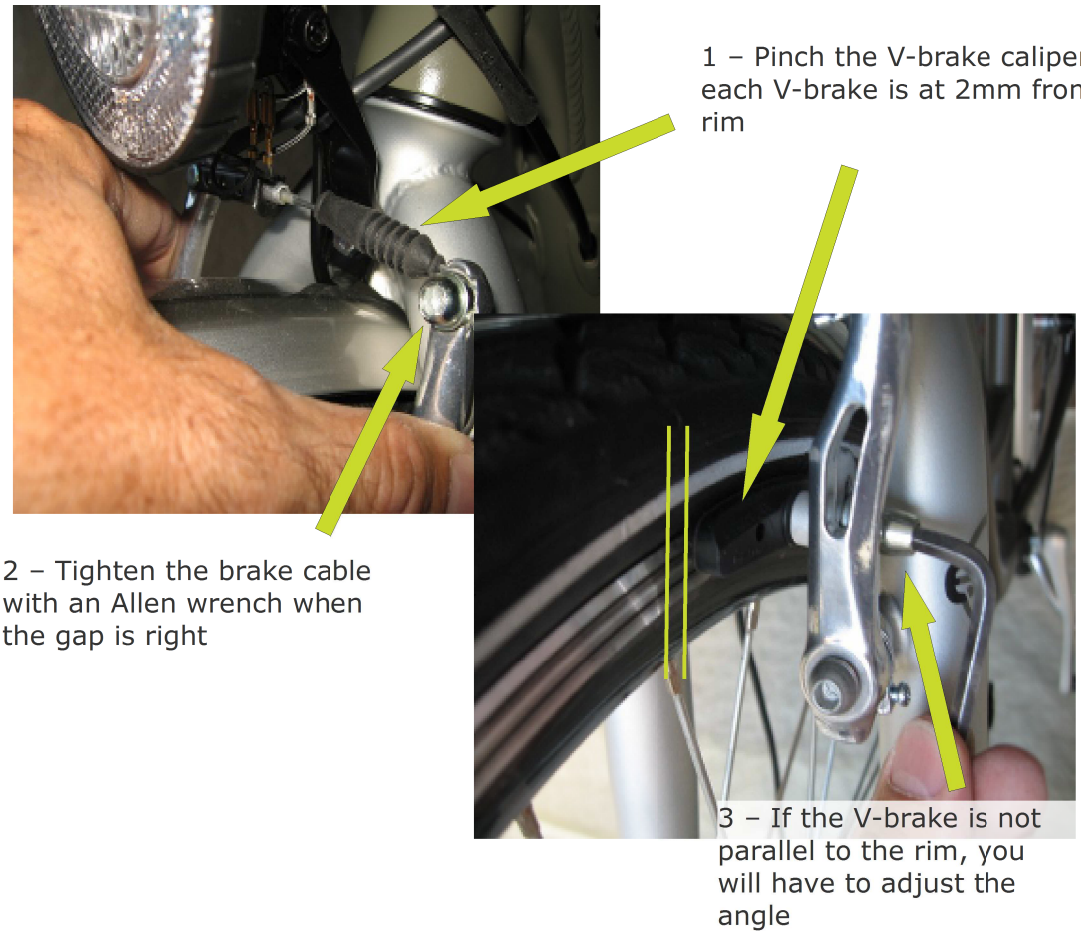


Be careful about the polarity.

Nota : the assembly guide of the Anderson connectors is downloadable on our website : www.cycloboost.com/installation-kit-pour-velo-electrique/

9.3 Adjusting the V-Brake

This step is very important because braking is essential on a bike. You should not meet any problem if the wheel is properly centered.



1 – Pinch the V-brake calipers so each V-brake is at 2mm from the rim

2 – Tighten the brake cable with an Allen wrench when the gap is right

3 – If the V-brake is not parallel to the rim, you will have to adjust the angle

If you meet any problems at this point, do not hesitate to contact a professional (bicycle shop or big brand) and consult the website http://velo-reparation.fr/.

9.4 End of the assembly

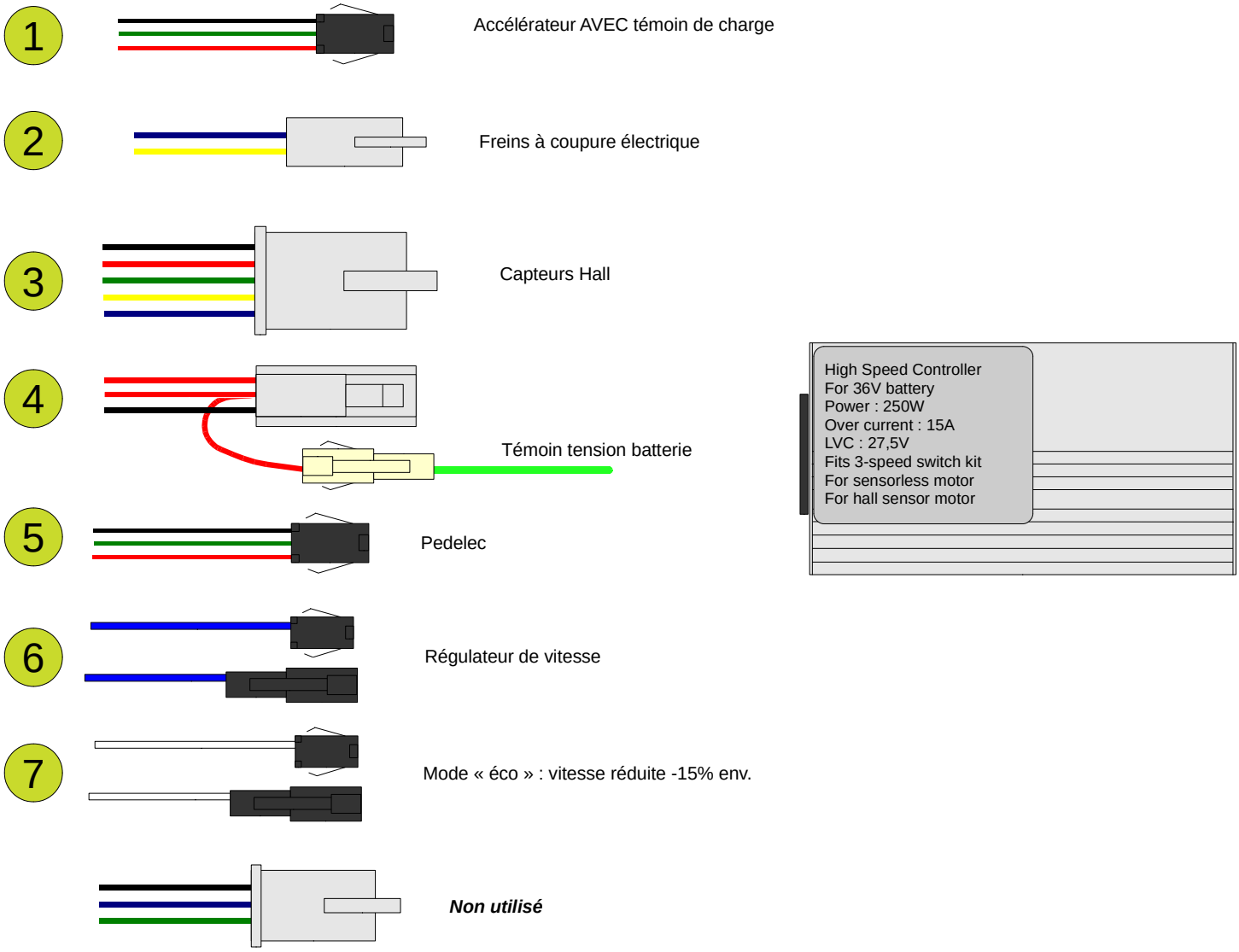
This is the end, **congratulations** ! You just need to connect your battery to the controller in order to try out your electric bike.

Just **push or gently turn the throttle** while **pedalling** and let's go !

Enjoy the ride :-)

10 Raccordement du contrôleur du kit Vélo Pliant

Voici le détail et les fonctions de l'ensemble des connecteurs :



10 Use of the electric bike

10.1 Important recommendation for the kit's use :

Your new electric bike is above all a bike. It is the association of the **muscle power** and **electric power** which will enable you to get a **good output** of your motor and a **good autonomy**.

We strongly recommend **to pedal** when using your bike on flat roads but also and **above all at the start and uphill**. To improve your autonomy, we recommend to :

- regularly pedal when using your kit
- pedal more strongly at the start, uphill, facing the wind ...
- reduce your speed if the motor forces
- adapt the choice of sprocket according to the speed and the difference in height
- disconnect your battery when the bike is at a standstill
- check the tire pressure : under-inflated tires deeply increase the electric consumption and reduce the vehicle's

perfomances

Tricks : we recommend the use of a cycle-analyst (with **partial adding-machine** function). With a few tests, it will enable you to measure your autonomy.

The kits must not be used like a scooter : **pedalling regularly is necessary** for the good functionning of the kit.

Regularly check the temperature of the controller in the following cases **:**

- high speed
- uphill and/or facing the wind
- during frequent starts
- if you pull a trailer

If this kit is too strongly sollicited, you may '**burn out**' the kit's or the battery's electronics. **This kind of use is not covered by the guarantee.**

10.2 Maintenance of the kit

There is no maintenance. At the beginning, you can check from time to time that the connexions have not moved.

Important :

- Regularly check the tightening screws of your motor wheel
- Check the tension at the spokes
- From time to time make sure the wiring has not moved because of the vibrations
- Check the forks' ends if the motor is at the front

10.3 Maintenance and use of the battery

Consult the batteries' '**Use guide**' for **use and run-in process**.

- Disconnect the battery when the bike is at a standstill
- Disconnect the battery during the charge
- Keep the battery protected from dampness, cold and rain
- Charge the battery in a clear and ventilated space (do not cover the battery during the charge)
- Let the battery charge (until the green light is stable)

Trick : To protect your battery, do not discharge it completely : stop at 90% of its capacity, for example 55km if the maximum autonomy is 60km.

10.4 IMPORTANT : what you should never do !

Do not force the motor uselessly : if your bike can not go up a steep hill even if you are pedalling, there is no need to insist. You may overheat the electronics part of **the kit** or **the battery**. In that case, do not hesitate to walk and push your bike.

Do not hose down or use a Karcher© to wash the elements of the electric kit : motor, accessories and battery. Use a damp sponge and use a dry cloth.

Do not leave outside, in damp weather, do not carry at the back of a car on a rack under the rain (risk of seepage).

In case of use under the rain, protect the controls (throttle, cruise control, brakes) into plastic bags. Then let the kit and its components dry in a sheltered place.

The guarantee does not cover an abnormal or non-conform use of the products : competition, research, use with assistance like a motorbike or a scooter, forced use uphill ...

The use of handmade batteries is not covered by the guarantee.

For more information, please consult :

http://www.cycloboost.com/velo-electrique/

11 Analysis of the failures (keep this document with your bike)

11.1 The different failure cases

11.1.1 The bike does not start, the controller is mute, no bip :

- Check the tension of the battery
- Make sure the power really comes to the controller
    - You should hear a little sound coming from the horn
- Check the connections at the level of the controller. Sometimes, some connections are not enough pushed in during the wiring process.
- Check the connections at the level of the battery
- Check the battery fuse and replace it if need be
- Check the connection of the power brake handles

If this did not help you to identify the failure, before contacting the after-sales service, you can use your bike if you disconnect, at the level of the controller : the connector with 6 pins and 3 big phases threads : the yellow, green and blue threads.

11.1.2 The controller utters one or several bips :

- **1 long bip :** the controller **overheats**

When the controller overheats, it cuts the power in order to protect itself.

What you need to do :

- disconnect the battery
- **ventilate** the controller
- wait a few minutes before starting again and **do not force the motor**

- **2 short bips :** check the connection of the connector with 6 pins

When the controller notices a malfunction of the hall sensor of the motor, it utters 2 loud bips, then it enters in 'save mode' (without the hall sensors)
Turn the shifter to start the motor. It may be necessary to pedal to start the motor if it does not start immediately.

- **4 short bips** : check the connection of the power brake handles

- **5 short bips :** the controller is out of order (get in touch with the after-sales service)

11.1.3 Other malfunctions

- Malfunctions of the security while braking :

Disconnect the power brake handles (blue connector), report the anomaly to the after-sales service (see following paragraph §5.2).

- Unknown malfunctions :

If the electric assistance of your bike does not work (unknown reason), you can try to force the controller into save mode :

- Grasp both brake levers
- Push the cruise control's red button 5 times

You will hear a loud bip.

Then, you can use your bike at half its maximum speed if you push the red button of the cruise control.
To put the controller back into normal mode, you have to disconnect and connect again the battery as soon as the problem is solved.