USER GUIDE

EBIKE CONVERSION KIT
MOD. BEST
Summary

Section 1 .................................................................................................................. 4
  ACKNOWLEDGMENTS....................................................................................... 5
  DEFINITIONS ...................................................................................................... 5
  DECLARATIONS OF CONFORMITY................................................................. 6
  MANUFACTURER’S DATA.................................................................................. 6
  AUTHORIZED SERVICE..................................................................................... 6
  MANUAL OVERVIEW .......................................................................................... 7

Section 2 .................................................................................................................. 8
  WARRANTY .......................................................................................................... 9
  WARNINGS ......................................................................................................... 10
    Safety regulations.............................................................................................. 10
  GENERAL DESCRIPTION................................................................................... 11
    Technical data.................................................................................................. 11
    Internal Interventions....................................................................................... 12
  PICTOGRAMS ..................................................................................................... 12
  INTENDED AND UNINTENDED USE ............................................................... 13
    Intended use and compatibility....................................................................... 13
    Unintended use................................................................................................. 14
  RESIDUAL RISKS ................................................................................................. 14
    Operations that involve risks for the operator............................................... 15

Section 3 .................................................................................................................. 16
  HANDLING ......................................................................................................... 17
    Warnings.......................................................................................................... 17
    Manual handling............................................................................................... 17
  ENVIRONMENTAL CONDITIONS AND SUPPORTED ....................................... 18
    Temperature..................................................................................................... 18
    Relative humidity (non-condensing)............................................................. 18
  CHARGING THE BATTERY ............................................................................... 18
    Recharge.......................................................................................................... 18
  INSTALLING EBike KIT ................................................................................... 18
    Standard installation procedure................................................................. 19
    Procedure for inserting shims between the motor and control unit............. 26

Section 4 .................................................................................................................. 30
  USE ....................................................................................................................... 31
    Kit’s actuation (Applies to software revisions from 128_rev94 to 128_rev108)..... 31
    Control devices (Referred to the 1.0.0 version of "BEST ebike Control Pad Kit")... 33
    Install "BEST ebike kits Control Pad" version 1.0............................................ 33
    Switch on and connection with smartphones............................................... 34
    BEST ebike CONTROL PAD KIT - First installation........................................ 34
    BEST ebike CONTROL PAD KIT - Overview................................................ 38
    Operating modes description........................................................................ 44
  TROUBLESHOOTING ....................................................................................... 48
  ERROR CODES DISPLAYED BY THE APPLICATION ........................................ 50
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>STORAGE</td>
<td>51</td>
</tr>
<tr>
<td>Section 5</td>
<td>52</td>
</tr>
<tr>
<td>MAINTENANCE</td>
<td>53</td>
</tr>
<tr>
<td>Safety</td>
<td>53</td>
</tr>
<tr>
<td>Periodic maintenance</td>
<td>53</td>
</tr>
<tr>
<td>Extraordinary maintenance</td>
<td>55</td>
</tr>
<tr>
<td>Chainrings replacement</td>
<td>55</td>
</tr>
<tr>
<td>DISABLING</td>
<td>58</td>
</tr>
<tr>
<td>Deactivation</td>
<td>58</td>
</tr>
<tr>
<td>Deactivation Procedure</td>
<td>58</td>
</tr>
<tr>
<td>Disposal</td>
<td>59</td>
</tr>
</tbody>
</table>
Section 1

Definitions
Compliance Statement
Data producer
Manual overview
ACKNOWLEDGMENTS

Dear Customer,

First we want to congratulate you for your choice and thank you very much for your trust. It is a well-founded trust, because the high technological level and quality of materials ensure perfect operation of the BEST ebike conversion kit you have purchased.

Our organization also allows us to guarantee customers a continuous and accurate service and maintenance. Read the manual carefully, should adhere to the statements made in these in order to get the best results in safety and durability of the system over time.

All procedures are also listed here to meet any reasonably emergency situations that may occur during use.

DEFINITIONS

**CE Marking**: The technical file preparation process, in which collects the documentation of all that the producer / manufacturer / importer / agent has performed or occurred has been performed, to produce a safe product and complies with the directives and European standards.

**CE Marking**: Apposition with various methods and media.

**Free circulation**: Making available to a third party, in any form, a product (sale, rental, free loan, gift, sale, etc.).

**Edit / adjustment**: Activities that change the situation of the product than the original, defined by the manufacturer, this activity determines the need to re-mark the product in compliance with existing laws.

**Producer**: Any person placing a product for free circulation only stating your name on the documents that accompany it.

**Directive**: Document released by the central European authority to govern the safety of a product category. It must be transposed by each EU country to have the force of law in that state.

**Regulations**: Document released by the central European authority that has the force of law throughout the territory of the European Union, without the need for transposition by the individual states.

**Norma**: Document released by a private institution, and that is indicative of a good way to operate, has the force of law only if supported by a special government decree.

**Harmonized**: Document released by a private organization, which applies to the whole of Europe and has the force of law if it is subject to a regulation. Compliance with a standard is always just "presumption" of compliance with the Directive or Regulation which is harmonized.

**Compliance Statement**: Document that must be issued and signed by the manufacturer which must accompany each product or batch of products.

**EC Label**: Information which must be present on the product or its packaging, which indicates briefly that the manufacturer has complied with the safety requirements established by law.

**CE Certificate**: Document released by a private organization, stating that only one sample exceeded certain tests. The certificate may be imposed by law or voluntary, but never replaces the CE marking, as it does not make any reference to production, may therefore be complementary, not substitute the CE mark.

**Machine**: Set of mechanical elements and not including at least one movable thanks to the non-human or animal power, even if devoid of applied energy source, but which is destined to be coupled with a source of energy. The combination of several machines, which then become “quasi-machinery”, becomes in turn a machine. Fall in the Machinery Directive also lifting systems, although manual. They define “machines” also systems or systems in which are present machines, operating as pumps or electric motors, or other components within the scope of the Machinery Directive.
DECLARATIONS OF CONFORMITY

The machine is accompanied by the declaration of conformity drawn up in accordance with the laws on the European territory.

NOTE

BEFORE USING IN ANY FORM THE MACHINE, CHECK FOR THE PRESENCE OF THE DECLARATION OF CONFORMITY.

NOTE

IF THE MACHINE IS SOLD TO THIRD PARTIES, ALL DOCUMENTS MUST BE DELIVERED TO IT TOGETHER.

MANUFACTURER’S DATA

<table>
<thead>
<tr>
<th>Name Legal Representative</th>
<th>Matthew</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name Legal Representative</td>
<td>Spaggiari</td>
</tr>
<tr>
<td>Enterprise</td>
<td>Bikee Bike Srl</td>
</tr>
<tr>
<td>Legal office</td>
<td>Via Zeni, 8-38068 - Rovereto (TN)</td>
</tr>
<tr>
<td>Headquarters</td>
<td>Via Maestri del Lavoro 7/a (MN)</td>
</tr>
<tr>
<td>VAT</td>
<td>02334050222</td>
</tr>
<tr>
<td>Tel. Office</td>
<td>+39 0376 390846</td>
</tr>
<tr>
<td>E-mail</td>
<td><a href="mailto:info@bikeebike.com">info@bikeebike.com</a></td>
</tr>
<tr>
<td>Website</td>
<td><a href="http://www.bikeebike.com">www.bikeebike.com</a></td>
</tr>
</tbody>
</table>

AUTHORIZED SERVICE

The assistance and extraordinary maintenance on the ebike kits can be done by a technician in charge of the company and enabled Bikee Bike Srl.
MANUAL OVERVIEW

NOTE

AT THE MOMENT OF THE DELIVERY, BEFORE MAKING ANY OPERATION, CAREFULLY READ THIS DOCUMENTATION.

This manual contains instructions for installation, use and maintenance of the ebike BEST kit.

The manual consists of several sections, each of which addresses a number of topics, divided into chapters and paragraphs. The general index lists all the topics of the entire manual.

The page numbering is progressive and on each page shows the number of the same. This manual is created for the user who is responsible of the installation, use and maintenance of the ebike, and it is related to the technical life after its production, use and an eventual sale.

In case of sale to any third parties (sale, loan for use, or any other reason), the product must be delivered complete with all the documentation.

The information contained in this manual can not replace the knowledge and experience possessed by the user, which is responsible anyway for the use planned for this product.

Before starting any operation on any drive, you must have at least read the entire manual and then examined the subject related to operations envisaged.

This manual contains proprietary information and cannot be even partially provided to third parties for any purpose and in any form without the prior written consent of the manufacturer.

The manufacturer declares that the information contained in this document are in accordance with the technical and safety specifications about ebike kits.

A certified copy of this manual is deposited in the technical file, stored at the company Bikee Bike Srl.

The manufacturer does not accept any documentation that has not been produced, released or distributed by itself or by his authorized representative.

This manual as all the technical file will be kept by the manufacturer for the period provided by law (10 years).

During this period, copies of this documentation may be requested at the time of sale.

The entire technical documentation remains available for that period only for the supervisory authorities, who will be able to request a copy.

After this period, it is mandatory for who manage the product, to make sure that both the product and the documentation, comply with the laws in force at the time of control.

This that manual can be updated at any time by Bikee Bike without notice. To make sure to have the latest version, check in the download www.bikeebike.com
Section 2

Warranty
General safety
General description
Technical features
Intended use and not expected
Residual risks
**WARRANTY**

Warranty terms, fully listed in the purchase contract, are valid only if the bike kit is used in the expected conditions of use.

Excluding the ordinary and extraordinary maintenance operations described in Section "MAINTENANCE" (P. 52) (executed with the procedures indicated), any repair or modification to the product by the user or companies not authorized will void the warranty.

The guarantee is not extended to damage caused by incompetence or negligence in the use of the product, or by poor maintenance or failure.

---

The products we sell are warranted with regard to the following conditions:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The warranty is valid for a period of twenty-four (24) months on the product and 500 cycles on the battery.</td>
</tr>
<tr>
<td>2</td>
<td>The manufacturing company assumes the commitment to replace at its discretion sides malfunctioning or incorrect manufacturing, only after careful quality control and detection of poor construction.</td>
</tr>
<tr>
<td>3</td>
<td>They are always charged to the buyer the cost of transport and / or delivery in case of incorrect use of the guarantee. The shipping costs are the responsibility of the manufacturer for the first six months of the product, after which will be charged to the customer.</td>
</tr>
<tr>
<td>4</td>
<td>During the warranty period for the replaced products become property of the manufacturer.</td>
</tr>
<tr>
<td>5</td>
<td>Of this guarantee, can only benefit the original purchaser who has complied with the normal maintenance instructions in the manual. Our responsibility expires when: the original owner gives up ownership of the product, or alterations have been made to it.</td>
</tr>
<tr>
<td>6</td>
<td>The guarantee does not include damage resulting from excessive stress such as the use of the product after the finding of an anomaly, extreme off-road use, violent knocks or falls, the use of operating methods are not adequate as well as from failure to observe the operating and maintenance instructions.</td>
</tr>
<tr>
<td>7</td>
<td>The producer responsibility for any problems that may arise cannot accept the resale or use abroad due to provisions in force in the country where the product was sold.</td>
</tr>
<tr>
<td>8</td>
<td>The product or part of the defective must be delivered to the manufacturing company or an authorized service center for replacement; otherwise the replaced part will be charged to the purchaser.</td>
</tr>
<tr>
<td>9</td>
<td>The guarantee is canceled in case of the product opening (removal of the seal).</td>
</tr>
<tr>
<td>10</td>
<td>Let them use only original parts and components</td>
</tr>
<tr>
<td>11</td>
<td>The battery is maintained at greater than zero charge</td>
</tr>
</tbody>
</table>

**Notice:** If you decide to benefit of the warranty, you should indicate the information below:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Type</td>
</tr>
<tr>
<td>2</td>
<td>Date of purchase (presentation of the purchase document)</td>
</tr>
<tr>
<td>3</td>
<td>Detailed Description of the problem</td>
</tr>
</tbody>
</table>

---

**NOTE**

**NON-COMPLIANCE WITH METHODS OF INTERVENTION AND USE DESCRIBED IN THIS DOCUMENT, WILL CAUSE THE DECAY OF THE WARRANTY.**
WARNINGs

If part of the documentation is also partially missing or illegible, see the technical assistance before performing any further operation.

The personnel assigned to the installation, use and maintenance of the ebike kit, must read the user manual and maintenance, paying particular attention to the general safety rules and the implementing rules contained in the sections relating to the operations of its competence.

This chapter describes the basic safety rules to observe during any operation carried out with the kit. The intervention procedures, which are described in the following chapters must be performed respecting both the mode of execution shown, both the general safety rules of this chapter.

Different countries may have different regulations. It should be underlined, therefore, that in all cases in which the rules of the manuals were in conflict or reductive compared to standards of the nation in which the ebike kit is used, the nation’s rules will have priority value on those of the manuals.

NOTE

THE MANUFACTURER CANNOT BE RESPONSIBLE IN ANY CASE, OF INJURY OR DAMAGE CAUSED BY THE USE OF THE PRODUCT BY NOT PROPERLY TRAINED PERSONNEL OR WHO HAVE MADE AN INAPPROPRIATE USE, AS WELL AS THE NON-COMPLIANCE WITH SAFETY STANDARDS AND INTERVENTION PROCEDURES DESCRIBED IN THE MANUALS.

Safety regulations

Using the ebike kit, after its installation on bicycle that supports it, there may be situations of incorrect operation not established in the manuals. These situations, totally abnormal, can sometimes be caused by environmental factors or unforeseen accidental failures by the manufacturer.

In case there is not provided any anomaly (also electromagnetic in nature) after giving power to the kit it is necessary to:

• Turn it off (see section 5 "USE" (p. 17))
• Check for errors using the app "BEST ebike Control Pad" kit.
• Immediately contact the technical support and communicate any errors.

In case there is any abnormality not provided after connecting the kit to the battery charging system:

• Switch off the power grid of the place to which it is connected.
• Pull out the charger plug from the socket.
• Immediately contact technical support.

If you decide to do an operation or an intervention not expected or by following a procedure different from those indicated by the documents, before proceeding consult the manufacturer to verify the feasibility (the data of the manufacturer are you back to the section 2 "MANUFACTURER’S DATA "(p. 11)).

The manual must be kept by the user who is responsible of the installation, use and maintenance of the kit. In case of deterioration or loss you may be requested by the customer to the manufacturer a copy, suggest that you keep a backup copy in a place where it can not be damaged or lost.

To prevent dangerous situations, is required that all users of the kit in question carefully read the operating and maintenance manuals, making sure to understand how it works before start using it.

CAUTION

IT WOULD BE IMPOSSIBLE TO DESCRIBE ALL OPERATIONS THAT SHOULD NOT OR CAN NOT BE DONE, PLEASE REMEMBER THAT ALL THE OPERATIONS (OTHER THAN NORMAL) THAT ARE NOT EXPRESSLY DESCRIBED IN THIS DOCUMENT SHALL BE DEEMED TO BE INFEASIBLE.
GENERAL DESCRIPTION
The product described in this manual is a kit to convert normal bicycles into powerful electric bicycles, in few minutes.

The motor uses the mid-drive technology, which places the motor in the bottom bracket of the bicycle, between the pedals. The new-patented technology reduces the size of the motor by increasing the motor torque.

The motor transfers the motion through the bike chain, thus being able to exploit all the gears of the rear wheel, combining them with two front crowns, the small one for climbs and big one for speed. These two characteristics, transform each bicycle into an electric bicycle capable of dealing easily with climbs up to 58% of inclination.

BEST Bikee Bike is available in four power versions: 250W suitable for European legislation, 500W for Switzerland and Canada, 749W and 999W for the American market.

DANGER
DO NOT CHANGE THE OPERATING SYSTEM OF THE PRODUCT. BIKEE BIKE SRL IS NOT RESPONSIBLE FOR INAPPROPRIATE UNAUTHORIZED USE OF THE PRODUCT OR AFTER A

Technical data

Motor
Width: 230 mm
Length: 200 mm
Height: 250 mm
Power: 250, 500 or 749/999 W
**Battery**
Width: 340 mm  
Length: 120 mm  
Height: 80 mm  
Electrical data: LIITHIUM - DC 48V that converted into a three-phase variable frequency from 0 to 200Hz  
Charger data: 220V AC - 48 V DC  
Battery operating temperature from -15 °C to 50 °C  
Battery charging temperature from 0 °C to 40 °C

<table>
<thead>
<tr>
<th>Battery of 317Wh (6,6Ah)</th>
<th>Battery of 422Wh (8,8Ah)</th>
<th>Battery of 557Wh (11,6Ah)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charge time of 5 hours and a half</td>
<td>Charge time of 6 hours and a half</td>
<td>Charging time of 7 hours and a half</td>
</tr>
<tr>
<td>Battery weight of 3.2kg</td>
<td>Battery weight of 3.2kg</td>
<td>Battery weight of 2.6kg</td>
</tr>
</tbody>
</table>

**Weight**
Weight: 9 to 11kg depending on power version selected.

**Other data**
Maximum speed: Section 4 "of the kit power adjustment through the Nations" (Pg. 46).  
Degree of protection IP55

**Internal interventions**
All moving parts (motor and its parts) are protected by a plastic structure, that to be baypassed requires specific equipment. This shelter must never be removed except for specific maintenance. At the end of the work it must be reassembled correctly and must be checked for its stability.

**PICTOGRAMS**
The ebike kit contains the following pictograms:

- Danger of crushing with moving parts
- Voltage Danger
- Prohibition of shelters removal
- Obligation to read the use and maintenance manual

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**CAUTION**

THE WARNING PLATES WITH SAFETY FUNCTION MUST NOT BE REMOVED, COVERED OR DAMAGED.
**INTENDED AND UNINTENDED USE**

*Intended use and compatibility*

Best has been designed and built exclusively to be used as a kit to convert a normal bicycle into an electric type (assisted pedaling). The bicycles are compatible kit are:

- Mountain Bike
- City Bike
- Fat Bike
- Racing bike

Compatibility Table:

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Depth</th>
<th>Diameter</th>
<th>Compatibility</th>
<th>Bushing Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSA (English)</td>
<td>With thread</td>
<td>68mm</td>
<td>34,8mm</td>
<td>Standard</td>
<td>-</td>
</tr>
<tr>
<td>Italian</td>
<td>With thread</td>
<td>70mm</td>
<td>36mm</td>
<td>Standard + Adapting cups</td>
<td>Adapter*</td>
</tr>
<tr>
<td>BB30</td>
<td>Without thread</td>
<td>68mm</td>
<td>42mm</td>
<td>Standard + Adapting cups</td>
<td>Adapter*</td>
</tr>
<tr>
<td>PressFit 30</td>
<td>Without thread</td>
<td>68mm</td>
<td>46mm</td>
<td>Standard + Adapting cups</td>
<td>Adapter*</td>
</tr>
<tr>
<td>OSBB</td>
<td>Without thread</td>
<td>68mm</td>
<td>46mm (carbon)</td>
<td>Standard + Adapting cups</td>
<td>Adapter*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>42mm (metal)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BB86</td>
<td>Without thread</td>
<td>86,5mm</td>
<td>41mm</td>
<td>Standard + Adapting cups</td>
<td>Adapter*</td>
</tr>
<tr>
<td>BB90</td>
<td>Without thread</td>
<td>90,5mm</td>
<td>37mm</td>
<td>Standard + Adapting cups</td>
<td>Adapter*</td>
</tr>
<tr>
<td>BBright Direct</td>
<td>Without thread</td>
<td>79mm</td>
<td>42mm</td>
<td>Standard + Adapting cups</td>
<td>Adapter*</td>
</tr>
<tr>
<td>BBright - PressFit</td>
<td>Without thread</td>
<td>79mm</td>
<td>46mm</td>
<td>Standard + Adapting cups</td>
<td>Adapter*</td>
</tr>
<tr>
<td>BB386EVO</td>
<td>Without thread</td>
<td>86,5mm</td>
<td>46mm</td>
<td>Standard + Adapting cups</td>
<td>Adapter*</td>
</tr>
<tr>
<td>PressFit GXP</td>
<td>With thread</td>
<td>90mm</td>
<td>42mm</td>
<td>Standard + Adapting cups</td>
<td>ADGXP4189</td>
</tr>
<tr>
<td>Fat</td>
<td>With thread</td>
<td>100mm</td>
<td>34,8mm</td>
<td>Standard</td>
<td>-</td>
</tr>
<tr>
<td>PressFit 41 (Fat)</td>
<td>Without thread</td>
<td>121mm</td>
<td>41mm</td>
<td>Standard + Adapting cups</td>
<td>Adapter*</td>
</tr>
<tr>
<td>PRESSFIT-30 (Fat)</td>
<td>Without thread</td>
<td>100mm</td>
<td>46mm</td>
<td>Standard + Adapting cups</td>
<td>Adapter*</td>
</tr>
</tbody>
</table>

* Check the website www.bikeebike.com the correct adapter.
**Unintended use**

There will be no different use from those described in section 2 "**INTENDED USE**" (P. 13).

It is also prohibited to:

- Use of the ebike kit for other purposes than those intended.
- Tamper / modify the product.
- Failure to comply with the kit’s power supply specifications indicated in the Technical data.
- The replacement of parts and components of the machine with other non-recognized by Bikee Bike Srl.

The re-use of any part of the kit after the decommissioning, raises the company Bikee Bike Srl from any liability arising from its use.

---

**NOTE**

BIKE BIKEE SRL IS NOT RESPONSIBLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR AN INAPPROPRIATE USE OF THE PRODUCT.

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**RESIDUAL RISKS**

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**CAUTION**

THE MAINTENANCE MUST BE DONE FOLLOWING THE INSTRUCTIONS OF THIS MANUAL. MAINTENANCE OPERATIONS THAT ARE DIFFERENT FROM THOSE INDICATED IN THIS MANUAL, RAISE BIKE BIKEE SRL FROM ANY LIABILITY.

---

On components of the kit are applied pictograms (see PICTOGRAMS). They must be kept clean and replaced each time they are removed or are damaged.

During maintenance operation of the product, is necessary to provide for the use of personal protective equipment (PPE) such as:

- Gloves: is necessary to use gloves (class 1a) while operating in areas with moving mechanical parts.

---

**DANGER**

ACCESS TO CLOSED PARTS AND PROTECTED INTERNAL PARTS MUST BE DONE ONLY FOR MAINTENANCE, ONLY BY QUALIFIED PERSONNEL WHO HAVE PREVIOUSLY READ THE MANUAL.

---

**DANGER**

- **DO NOT PUT YOUR HANDS, OR OBJECTS KEPT BY HANDS WHERE THERE ARE MOVING PARTS.**
- **DO NOT WET WITH WATER OR OTHER LIQUIDS THE ELECTRICAL CONNECTIONS.**
- **MAKE SURE THE AREA WHERE THE MAINTENANCE OPERATIONS TAKE PLACE HAS AN ILLUMINATION OF AT LEAST 200LUX.**
- **IT IS NECESSARY TO DO THE MAINTENANCE DESCRIBED IN THE MANUAL.**
• IN SECTION 5 “MAINTENANCE” (P. 52) ARE INDICATED THE OPERATIONS THAT CAN BE DONE WITHOUT DISCONNECTING THE SYSTEM FROM CHARGING OR DISCONNECT THE BATTERY.
• THE REMOVABLE CARTERS HAVE INSTRUCTIONS ON THE CRANKCASE ITSELF.

Operations that involve risks for the operator

You should respect the general safety standards while putting the system into service.
In particular:
• If you intervene on electrical parts, make sure that they are not under power.

Already in the design phase, we have adopted solutions in order to make the use of the product safe at all stages of use: transport, and maintenance activities. However not all the possible risks for users and the environment have been eliminated, both for technological reasons (reliability of the devices) and managerial (excessive difficulties elimination), so the residual present risks are reported, eg: shearing, electrocution, etc. ..

Warning: Never move your bike or do maintenance with the kit switched on.

CAUTION

THE BEST KIT INCLUDES A LITHIUM-ION BATTERY.

• Not short-circuit positive and negative pole of the battery.
• Do not disassemble or dent the battery.
• Do not expose the battery to high temperatures, in the proximity of open flames or corrosive agents such as alkali or acids frozen water.
• If stored for a long time, keep the battery in a cool, dry place and charge the battery for two hours every 3 months of non-use.
• Never store a completely discharged battery, charge it to 40/60% before a period of inactivity.
• Use only the original chargers.
• Charge the battery away from flammable objects or liquids.
Section 3

Handling
Recharge
Installation
**HANDLING**

Please check integrity of the ebike kit and its parts right after the delivery. If you find out any damage, failure, or deformation trace of shock due to transport, report it to the company Bikee Bike Srl before proceeding with the following operations.

In particular, check the integrity of:
- Electric Power Cables
- Body Motor
- On / off switch of the battery
- Body of the Battery
- Signal connectors, power stages.

**Warnings**

The kit components should be handled on a single unit at a time.

**Manual handling**

The weight of the kit is shown on the tag glued to it and on this manual.

The kit and its assembled components can be moved manually. The shape and size of components allow you to grasp comfortably and safely in different ways.

<table>
<thead>
<tr>
<th>Age</th>
<th>Men Occasional</th>
<th>Men Frequent</th>
<th>Women Occasional</th>
<th>Women Frequent</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-18</td>
<td>19</td>
<td>14</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>18-20</td>
<td>23</td>
<td>17</td>
<td>14</td>
<td>10</td>
</tr>
<tr>
<td>20-35</td>
<td>25</td>
<td>19</td>
<td>15</td>
<td>11</td>
</tr>
<tr>
<td>35-50</td>
<td>21</td>
<td>16</td>
<td>13</td>
<td>10</td>
</tr>
<tr>
<td>more than 50</td>
<td>16</td>
<td>12</td>
<td>10</td>
<td>7</td>
</tr>
</tbody>
</table>

**pregnant Women**

<table>
<thead>
<tr>
<th>First 6 months of pregnancy</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>As of 7 months</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**CAUTION**

PAY PARTICULAR ATTENTION TO THE POSITION OF YOUR BACK DURING THE PHASE OF MOVEMENT (SEE FIGURE BELOW).

incorrect position: red - correct position: green
ENVIRONMENTAL CONDITIONS AND SUPPORTED

Temperature
- In operation: from -15 °C to 40 °C.
- Non-operating: -15 °C to 50 °C.
- During storage and prior to use: from -15 °C to 40 °C.

Relative humidity (non-condensing)
- In function: from 30% to 95% ± 5%.
- Not running: from 30% to 95% ± 5%.
- During storage and prior to use: from 30% to 80% ± 5%.

CHARGING THE BATTERY
The low battery level is signaled by the green LEDs switching off on the battery. You can also check the charge level of the battery from the app for smartphones and the LED indicators installed in it.

The lighting system (natural and / or artificial) of the kit charging area must ensure the following minimum values of illuminance: 200 lux.

Recharge
The battery charging area must meet the following requirements:
- The connection with the power supply line must be arranged in such a way as not to create interference with the maneuvering space of users who use the space in which it is connected.
- The position must allow an easy connection of the plug to the supply line.
- The cables should not be placed on the floor.
- The location must be chosen so that it can not be hit by jets of steam, water or other liquids.
- Make sure the connector and plug are not wet.

To recharge the battery you need to follow the following guidelines:
- Open the rubber cover that contains the connector, positioned on the bottom of the battery
- Connect the charger plug supplied with the kit to a power source, and then insert the charging connector in the dedicated input. A red light indicates that the charging operation is in progress.
- When the red light turns green, it indicates that the charging process is complete.

INSTALLING EBIKE KIT
During the installation operations, it is necessary to provide personal protective equipment (PPE) such as:

- Gloves: While operating in areas with mechanical parts is also necessary to use gloves of class Ia.

Is possible to see the video of the installation of the link kit [https://www.youtube.com/watch?v=aE3YVf88Su0](https://www.youtube.com/watch?v=aE3YVf88Su0)

How to read the manual:
[1] Between square brackets there are references to the components in the first image.
MC Abbreviation for "Bottom Bracket"
KB Abbreviation for "Bike Bikee" Kit
Standard installation procedure

Right after the delivery of the kit, please check that the box contains the following components:

1. **Battery support. They can be:**
   - Bottle type (with rubber)
   - Backpack
   - Rear Rack (with rack)
   - Slim (with rubber)
2. 8 small clamps
3. A large clamp
4. Left Crank
5. Right Crank
6. Cranks screws
7. Throttle, with the left knob
8. Wheel sensor magnet
9. Wheel sensor magnet
10. Brakes sensors with magnets and stickers
11. Motor Controller Box with pre-assembled.
12. 4 shims (1mm) already inserted in the motor
13. 2 shims (2mm) already inserted in the motor
14. A steel plate screwed on the left side of the motor
15. An anti-unscrewing ring with 13 teeth.
16. An anti-unscrewing ring with Teflon inner ring
17. 4 M6 fixing screws for the steel plate
18. A total of 10 washers for M7 screws already tightened.
20. 48 Volt Battery

**Step 1**
Photo of bicycle without KB installed.
The BB procedure of the extraction depends on the bicycle.

**Step 2**
Photo of bicycle without BB. In case of problems during the extraction, contact your dealer or bicycle mechanic.
Step 3
Remove parts from KB.
The KB inside the box has all its essential components already mounted in order to show the user how they have to be inserted in the bicycle.
Proceed with the removal of the two rings [15-16], of 2 M6 screws and the left plate [17].

Step 4
Slightly bend the tip of the large clamp to help to get in easily under the plastic protection (bumper).

Step 5
Gently push the clamp until it gets out from the opposite hole.

Step 6
Insert the KB within the BB until the hole in the motor steel plate does not completely touches the bike frame.

Step 7
Check that the lives (the motor outgoing red cables) are not touching the small crown of the motor, not stapled or too tight from the frame.

Step 8
Lift the controller box (or control unit) and verify that it is in the center of the frame.

**WARNING!**

*IF THE BB HOLE IS LARGER THAN THE “HUB DIAMETER” OF KB, CHECK THAT THE BICYCLE IS NOT INTO THE LIST OF THOSE WHICH REQUIRE ADAPTATION BUSHINGS FOR THE KIT. DESCRIPTION IN THE SECTION 2 “INTENDED USE” (P. 13)*
If the Controller Box (ECU) is too decentralized, (moved the left side of the rider) shims can be added [12-13] from the motor side. The same shims should be added in case the motor chain ring touches the frame.

**WARNING!**

VERIFY THAT THE BIKE CABLES ARE ABLE TO PASS INTO THE APPROPRIATE SLOTS OF THE PLASTIC (BUFFER) ON THE CONTROLLER BOX, SO THEY WON'T BE CRUSHED DURING PEDALING.

After inserting the shims and washers in an adequate way to center the Controller Box, you can proceed with the insertion of the last steel plate [14]. This must not be tilted, but it has to touch the frame and the controller box without leaving slots. To fill any "gaps" you can add washers [17] or shims [12-13].

Tighten the large clamp so that the Controller Box does not rotate. Pull the strap with a maximum of 5Kg shot. Once tied the M6 screws [17] you can proceed with the insertion of a 13T ring [15].
Tighten with a torque of 40Nm last ring [16] with the help of the wrench not included in the "Sector with hake framework from 45/50" kit.

Exploiting the teeth of the thin ring to lock the rotation of the outer ring. The teeth are bent into a recess of the ring and into a recess of the steel plate.

Proceed with the installation of the crank arms. The left crank is the one without "Bikee Bike" and goes to the opposite side the motor. Tighten with a torque of 20Nm.

Proceed with the installation of the crank arms. The left crank is the one without "Bikee Bike" and goes to the opposite side the motor. Tighten with a torque of 20Nm.

Installation of the throttle (only if ordered). Remove your knobs using a compressor or soap or using the equipment provided for the knobs of your bikes.

You have the possibility to install only the throttle leaving their left knob or also install that present in KB.

Fully insert the knob at the handle and then using an Allen wrench (not in kit). Tighten the screw on the cap of the throttle in order to expand the blocking internal device. Stop tightening as soon as the throttle is well fixed when it is used. Tightening torque: 4Nm. **Attention:** An excessive force can break the internal device and it won’t be possible to use the throttle anymore.

Using the special stickers install the brake sensor on the brake body or on the handlebar. Install the magnet of the brake on the brake lever. Make sure that it is firmly fixed. You can also use the glue or straps. The magnet must move away when the brake lever is pressed.
In these four pictures you can see the recommended placement of the magnet and sensor. Place the "cut" magnet with respect to the sensor (picture right) makes reading less sensitive and stopping the motor.

Step 21
To be sure that the brake is well installed check through the App Bikee Bike that the assistance goes to zero when the lever is pressed.

Step 22
By releasing the lever, the assistance must return to the previously set value. In case this does not happen, you should bring the sensor closer to the magnet.

Step 23
The Controller Box (Controller) presents a cable that ends up with the "Splitter". It includes a USB plug in order to maintain the charge of the phone (250mA) and 4 waterproof connectors. Fix the "Splitter" to the handlebar with ties. Make sure that while turning the handlebar, cables won’t be pulled.

Step 24
Connect the various sensors of the handlebar to the Splitter, respecting the colors and the typologies:
- Throttle with yellow female connector to yellow male Connector of the Splitter.
- Two brakes with yellow male connector with the yellow connector female Splitter.
- The blue connector to the display (if purchased).
Step 25
Install the wheel sensor at the rear wheel of the bicycle with clamps and through double-sided tape on the sensor.

Step 26
Connect the wheel sensor cable to the yellow cable that exits at the back of the Controller Box (Controller). Attention: This cable must be adherent to the frame using clamps and paying attention that it does not touch or flick the wheel.

Step 27
Install the magnet on a spoke of the bicycle and carefully tighten the screw so as to firmly fix the magnet. While rotating, the magnet should make the wheel sensor light blink when it passes. If the magnet and the sensor are too far, you can adjust the inclination of the wheel sensor. Then fix the tilt with the screw on the sensor.

Step 28
Connect the two signal wires (with black sheath) coming from the motor, respecting the colors (usually they are already connected inside of the shipping box).

Step 29
To fix the battery (for Bottle type and Slim type) inside the frame Remove the bottle holder of the bicycle

Step 30
Prepare the rubber of the battery support, the battery support and mounting screws.
The screws, passing through the holes of the rubber must fix the battery support to frame. The rubber part must be positioned in such a way that the battery support will adhere to it without touch and then scratching the frame. Connect the magnetic cable from the Controller Box (Controller) to the cable of the battery support. If it is necessary, fix this cable with clamps to the frame to prevent it from moving and get disconnected.

Check that the keys enter and rotate inside the battery support. Check that the battery has enough space to enter in the frame without strain excessively. Check also that further suspensions of the bicycle do not strike the battery once you come aboard.

Push the battery into the support until the closing mechanism clicks. Also check that the battery is not moving together with the support. Just in case they move tighten more mounting screws.

Now proceed with the verification of the annex 'Assembly kit control on bike' on the next page.

Once you have checked that all the cables do not touch moving parts and that the installation is strong enough, you can proceed switching on the battery.

---

**CAUTION**

*BEFORE PROCEEDING WITH THE TRIAL OF THE KIT AFTER INSTALLATION, PLEASE TAKE A LOOK AT THE CHECK LIST PROVIDED ON PAGE 29.*
**Procedure for inserting shims between motor and control unit.**

You should follow this procedure just in the case the controller box results positioned excessively to the right, compromising the distribution of torque dispensed by the motor (as described in step 10 of p. 21).

**Step 1**
In order to separate the control unit from the motor and add the shims, put the motor on a non-metallic surface free from any object that can spoil or scratch the shield.

**Step 2**
Disconnect the two signal connectors with a black sheath, paying attention not to pinch the internal pins and not pulling the cable excessively.

**Step 3**
**Remove with extreme delicacy** the connectors with red sheath of the phases. Extend them without pulling or twisting them to facilitate the following procedures.

**Step 4**
Using the appropriate 2mm allen key (or screwdriver) unscrew all 6 M3X16mm screws that fix the plate. Carefully stow them without getting them dirty or damage them. If you have difficulties in unscrewing these screws (screwed during the production with weak threaded latches) ask to a specialized center.
The presence of bluish matter around the screwthread is the threadlocker.

**Step 5**
Once all the screws are removed, gently separate the plate from the motor.

**Step 6**
Lift up the controller box close to the connectors heads. Move them into the appropriate hole on the plate to avoid scratching or damaging them.
Step 7
Keep the motor in a clean place, without the presence of objects that can scratch it, until it is reused in following procedures.

Step 8
Using the special key or 4mm allen screwdriver, unscrew vigorously M6 screws (around 4Nm). The effort is due to the presence of threadlocker.

Step 9
Add the necessary washers or shims to bring the Controller Box to the center of the frame.

Step 10
Take the M6 screws used before. Add the weak threadlocker on the screw thread to prevent unscrewing.

Step 11
Replace the screws with a tightening torque of 4Nm.

Step 12
Once the screws are tight, check that the plate is solid with the Controller Box.

Step 13
Insert the Controller Box into the motor hub, paying attention to the cable insertion, in order to avoid scratching or pulling them.

Step 14
Be careful not to pinch the cables under the plate during closing.
**Step 15**
Re-use the previous M3X16mm screws only if they are intact and not worn, in that case replace them with new ones. Add the weak threadlocker on the threads of the screw to prevent unscrewing.

**Step 16**
Screw the M3X16mm with a maximum tightening torque of 0.5Nm. The result (as in the photo) must be that the motor hex is aligned with the plate.

**Step 17**
Reconnect signal cables with black sheath respecting the colors (purple with purple and green with green). Be careful not to distort the connectors’ internal pins.

**Step 18**
Insert the red phase connectors into the holes on the control unit, paying attention to the insertion order.

**Step 19**
During the insertion of the golden Bullet inside the slots, you should check that the upper plastics are fully inserted and with the seals (O-Ring) well inserted in the holes.
### BENCH CONTROLS

**Mechanical:**

- The 44-crown crown does not touch the bike frame.
- The control unit is centrally located in relation to the frame and does not pinch the brake tubes or the metal cables of the gearbox.
- The chain does not touch the laser cut.
- The laser cut does not friction with the small crown and the pedalling is sliding.
- The anti-screw washer is bent in the two grooves.
- All rear ratios work on both front crowns.
- The 1mm and 2mm shims together with the washers, are used to hold all the straight plates.

**Wiring:**

- The contacts of the magnetic connector (battery) must be clean.
- Wiring must not touch the wheels or other moving parts.
- The handlebars rotate completely without pulling the cables.
- The throttle is tight and does not move when you accelerate.
- The brakes stop the motor in the first centimeter of their run.

**Brake magnets and sensors are firmly attached to the bike:**

- For backpack battery: The tension allows the entire saddle stroke. The customer is advised that the connection of the extensions should be done with the battery off.
- The plastic bumpers do not pinch the cables.
- The black outer cable sheaths must be inside the box without showing the internal poles.
- The speed sensor screw is tight.
- The phases cable are not stapled, they do not touch the crowns and the CRing is fully inserted in the box. The order of insertion is respected.
- The tag: Passes inside the bumper and wraps the frame holding the box against the chassis.

**Software:**

- The pin is accepted by the app (the keys remain pressed by the user).
- The icons in the settings match the actual ones.

<table>
<thead>
<tr>
<th>Set the country depending on power:</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOTOR 999W -&gt; USA99</td>
</tr>
<tr>
<td>MOTOR 750W -&gt; USA750</td>
</tr>
<tr>
<td>MOTOR 500W -&gt; SWITZERLAND</td>
</tr>
<tr>
<td>MOTOR 250W -&gt; EUROPE</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Leave the bike in this configuration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJUSTMENT: 100%</td>
</tr>
<tr>
<td>TAMING: 15%</td>
</tr>
<tr>
<td>MODE: PAS</td>
</tr>
<tr>
<td>THROTTLE OVERRIDE: activated</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery labels are attached:</td>
</tr>
<tr>
<td>The battery is suitable for the motor: power versions:</td>
</tr>
<tr>
<td>MOTOR 999W -&gt; 420Wh or higher</td>
</tr>
<tr>
<td>ENGINE 750W -&gt; 420Wh or higher</td>
</tr>
<tr>
<td>ENGINE 500W -&gt; 420Wh or higher</td>
</tr>
<tr>
<td>ENGINE 250W -&gt; all types are fine</td>
</tr>
</tbody>
</table>

**TEST ON ROAD:**

- Do the following test for each power version installed:
  - MOTOR 999W -> the bike exceeds 40 km/h with long ratio only accelerating with "RACE" mode. (for wheels with 26 inches and more)
  - MOTOR 750W -> the bike exceeds 40 km/h with long ratio only accelerating with "RACE" mode. (for wheels with 26 inches and more)
  - MOTOR 500W -> the bike exceeds 30 km/h with long ratio only accelerating with "RACE" mode. (for wheels with 26 inches and more)
  - 250W OFFROAD MOTOR -> the bike exceeds 30 km/h with long ratio only accelerating with "RACE" mode. (for wheels with 26 inches and more)
  - MOTOR 250W STREET LEGAL -> the bike stops the motor when it reaches 25km/h and the RACE mode not activate.

<table>
<thead>
<tr>
<th>ASSISTANCE</th>
<th>MODE</th>
<th>CONTROL</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td>No noise from inside the motor</td>
</tr>
<tr>
<td>0</td>
<td></td>
<td>Pedaling without friction</td>
</tr>
<tr>
<td>0</td>
<td></td>
<td>All ratio work</td>
</tr>
<tr>
<td>20</td>
<td>PAS</td>
<td>The motor is silent</td>
</tr>
<tr>
<td>20</td>
<td>PAS</td>
<td>The output power does not exceed 10% of the rated power of the motor</td>
</tr>
<tr>
<td>100</td>
<td>THROTTLE</td>
<td>With the heaviest ratio and full throttle acceleration, the battery does not go into protection (LED flashing).</td>
</tr>
</tbody>
</table>
Section 4

Use
USE

CAUTION

THE BIKEE BIKE KIT, NO MATTER WHAT IS THE VERSION SELECTED, CAN BE CONFIGURED FOR EXTREMELY HIGHLY PERFORMANCE. THE USER MUST VERIFY THE SETTINGS BEFORE ANY USE AND SYNTHESIS THAT ARE ADJUSTED TO YOUR PSYCHO-PHYSICAL CONDITIONS.

NOTE

THE USER MUST WEAR A COMFORTABLE CLOTHING, WHICH DOES NOT LIMIT THE MOVEMENTS BEFORE USING THE BICYCLES IN WHICH THE EBike KIT IS INSTALLED.

CAUTION

WHILE CYCLING WITH BIKEE’S MOTOR, YOU SHOULD WEAR PROTECTION LIKE HELMET, KNEEPADS AND ELBOWPADS.

Kit’s actuation (Applies to software revisions from 128_rev94 to 128_rev108)

The BEST Bikee Bike system can be operated in various ways to meet most of the customer’s needs.

The kit comes with a variable regulator called “throttle”, available in two configurations: "half grip", so the half-knob and full grip, so the full knob. This physical control allows an immediate system response. However, you can customize the system settings to suit your preferences with the app "BEST ebike kits Control Pad" available for Android phones.

Once powered, the motor will assist the cyclist according to the cadence of his pedal. At any time you can use the throttle (if purchased) in order to have a greater readiness in the system response.

It is strongly recommended to adjust the assistance settings, taming and operating mode according to your preferences and depending on the terrain where you will be using the bicycle.

Activation through throttle (THR or Throttle Override)

Activation through Assisted Pedaling (TSN or PAS)
CAUTION

YOU MUST:
- CHECK AND SET THE CORRECT COUNTRY ACCORDING TO THE RULES IN FORCE IN THE PLACE WHERE YOU USE THE BIKE BEFORE USING THE BICYCLE.
- SET THE DIAMETER OF THE WHEEL IN WHICH THE SPEED SENSOR IS INSTALLED WITH BIKEE BIKE APPLICATION, AT A HIGHER VALUE OR EQUAL TO THE ONE AVAILABLE IN THE PRESETS OF THE APPLICATION.

CAUTION

OFFROAD KITS CANNOT BE USED FOR CYCLING IN AREAS SUBJECT TO ROAD CODES. JUST IN CASE THE DIAMETER OF THE BICYCLE WHEEL IS HIGHER THAN 29”, YOU MAY NOT USE THE KIT ON ROADS WHERE THERE’S THE TRAFFIC LAW, DUE TO THE INCONSISTENCY BETWEEN MEASURED SPEED FROM THE KIT AND ACTUAL SPEED. ALL THESE SETTINGS ARE DESCRIBED IN THE EBIKE BEST CONTROL PAD KIT - BEFORE INSTALLATION (PAGE 35) BEST EBike KIT CONTROL PAD - OVERVIEW (PAGE 39).

Please remember that the user is responsible for the compliance of the electric bicycle with the local law.
**Control devices (Referred to the 1.0.0 version of "BEST ebike Control Pad Kit")**
The BEST system by Bikee Bike includes a Bluetooth connection that allows you to check and set its parameters. The app is available on Play Store for all Android devices that present the following features:

<table>
<thead>
<tr>
<th>Feature</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Android Version</td>
<td>5.1 or more</td>
</tr>
<tr>
<td>Bluetooth Version</td>
<td>4.0.0 or more</td>
</tr>
<tr>
<td>Screen</td>
<td>FWVGA 854 x 480 pixel or more</td>
</tr>
<tr>
<td>Ram features</td>
<td>1GB or more</td>
</tr>
</tbody>
</table>


**NOTE**

SOME SMARTPHONES THAT MEET THE SPECIFIED RESOLUTION MAY OVERLAP THE ELEMENTS THAT MAKE UP THE APPLICATION. THIS IS DUE TO A SYSTEM FONT SETTING TOO LARGE. YOU CAN CHANGE THIS PARAMETER IN SETTINGS (FOR THE ANDROID DEVICE) → DISPLAY → FONT SIZE → SMALL OR NORMAL DEPENDING ON THE SCREEN.

**Installing the "BEST ebike Kit Control Pad" application version 1.0.0**

To install the application follow the instructions below:

1. Connect the device using a network *
2. Select the application "Google Play Store TM"
3. Search for the Application by typing the name "BEST ebike kit Control Pad"
4. Select the "BEST ebike Kit Control Pad" application and install it on your device.

**WARNING!**

1. YOUR SERVICE PROVIDER MAY CHARGE WITH UNEXPECTED COSTS FOR THE NETWORK SERVICES.

**NOTE**

1. THE FOLLOWING PROCEDURE IS VALID FOR BIKEE BIKE APP VERSION 1.0.0, 06.28.2017.
2. THERE MAY BE SOME SLIGHT DIFFERENCES DUE TO THE BRAND OF THE ANDROID DEVICE USED.
Switch on and connection to smartphones.

Before connecting to the kit, make sure to:
- Install the kit correctly and follow the instructions in the manual.
- Make sure that the battery is charged.

After checking the points above, you can start the test procedure and the first setting of the kit. The kit is activated with the button on the battery. After pressing the key, the system is operating.

Below are illustrations of the point where you’ll find the battery activation key in the 3 different batteries.

WARNING!
- YOU SHOULD NEVER WORK ON THE KIT COMPONENTS WITH THE BATTERY INSERTED AND THE SYSTEM SWITCHED ON.
- THE BATTERY MUST BE PROPERLY INSERTED INTO THE DEVICE THAT IS CONNECTED TO THE KIT AND NOT BE DISCHARGED.

WARNING!
BIKEE BIKE’S ELECTRONICS IS DESIGNED TO OPERATE EXCLUSIVELY WITH CERTIFIED BIKEE BIKE BATTERIES. ANY OTHER KIND OF ALIMENTATION MAY DAMAGE THE DEVICE, EVEN PERMANENTLY, AND CAUSE DAMAGE TO PEOPLE OR OBJECTS NEARBY. BIKEE BIKE DECLINES ANY RESPONSIBILITY FROM THESE INCORRECT PROCEDURES.

BEST EBIKE KIT CONTROL PAD – First installation
After installing the application, you will activate a wizard setup procedure that will allow you to adjust and display the basic parameters of the kit.

WARNING!
USING YOUR PHONE WHILE DRIVING ANY VEHICLE IS DANGEROUS. NEVER DISTRACT FROM ANY KIND OF STREET OR PATH, PUBLIC OR PRIVATE, TO AVOID DAMAGING THINGS OR PEOPLE.

CAUTION!
PLEASE SET THE SYSTEM WHILE YOU’RE NOT PEDALLING, SITTING ON CORRECTLY ON YOUR SADDLE.
Once opened, the application will request permission to geo location services. In order to continue, you will need to press on "ALLOW". If you haven’t already done this operation, the phone will also require you to enable geo location in the device settings.

*Selection of the country in which you are going to use your converted ebike.*

![Selection of the country in which you are going to use your converted ebike.](image)

Scroll down with your finger the voices present the center of the screen. Once you have positioned the desired location in the center, press the down arrow to move to the next screen.

In the menu, you can set up **10 different locations** that has defined certain powers and maximum speeds to comply with the regulations of each selected location. For a detailed description of these settings read the section 4 "of the kit power adjustment through the Countries" (P. 47).
Adjustment of the wheel diameter

By sliding your finger over the cursor, you can set the size of your wheel to a value higher than or equal to that available in the presets of the application. If the wheel diameter of your bicycle is above 29" you will not be able to use the kit on roads where the road code is due to the inconsistency between the speed measured by the kit and the actual speed. To continue, press the bottom right arrow.

Selection of the unit of measurement

At the center of the screen, you can choose between imperial or metric units of measurement. Once the desired item is selected, press the bottom right arrow.
Connection with the Bikee Bike motor

After scanning for 10 seconds, the available devices will be displayed at the center of the screen. Use your finger to scroll through these items looking for your kit code. After the selection of your device, press the right arrow.

**NOTE**
The Bluetooth name of your Bikee Bike Best kit is wrote on a label inside the package.

Calibration of the internal gyroscope

In some versions of the kit an gyroscope is installed to control the bicycle inclination. Keep the bike straight during this procedure and press the down arrow to the right to continue through the screens. If there is a "SUCCESSFUL CALIBRATION" message, ignore it and continue the procedure. The App will use the default data.

**WARNING!**
After this last setup you will be redirected to the main screen. At this point the App is only reading datas. This because you have to insert the pin of your device. The following errors may appear:
- Authentication error. Pin needed to proceed
- Authentication error. Check the pin
To insert the pin, press the settings icon at the top right (point 15 of the "Main Screen" on p. 39) and scroll down to "PIN" (item 10 of the "settings screen" on p. 43). Then you should remove the 0000 pin and insert the one of your kits that you’ll find on the inner label of the box.

**BEST EBIKE KIT CONTROL PAD - Overview**

**Main Screen**

1) **Level of Assistance**
   This slider is used to adjust the motor’s power during pedaling. For a detailed description of this feature read section 4 “Adjusting assistance are in the kit through to the sliders” (p. 46).

2) **Taming**
   This slider is used to adjust the motor’s reaction times. For a detailed description of this setting read the section 4 "Adjusting assistance are in the kit through to the sliders" (p. 46).

3) **Operating mode**
   There are three possible operating modes:
   - THR: Throttle only
   - TSN: Torque sensor emulator
   - PAS: Pedal assisted with speed sensor
   For a detailed description of these settings read the section 4 “of the kit adjustment assistance through the mode” (p. 44).

4) **Throttle Override**
   Literally, "throttle overwrite": allows the throttle to be used when activated. Detailed description of this function. in the section 4 “of the kit adjustment assistance through the” mode (pg. 44).

5) **Race**
   This button (available only for OFFROAD versions) allows you to unlock the speed limits provided by the law of the selected state. For a detailed description of this setting read the section 4 “Support of the kit through the adjustment” mode (pg. 44).

6) **CNS (Consumption)**
   Value expressed in Wh / Km indicating the instantaneous consumption of the motor.

7) **RNG (Autonomy)**
   Value expressed in km indicating the residual distance of the bicycle before the battery drains completely.

8) **BTR (Battery Charging Level)**
   Value expressed as a percentage indicating battery charge.
9) AMP (Current)  
Value expressed in Ampere indicating to the current absorbed by the battery.

10) PWR (Power)  
Value expressed in Watts indicating the Power absorbed by the battery.

11) TRQ (Torque)  
Value expressed in Newton Meters indicating the instantaneous torque delivered by the motor.

12) Speed  
Bicycle speed.

13) About Bluetooth connection  
These data indicate:
- BLE EXCHANGED DATA: indicates the number of data packet the phone sends to the bicycle. The speed with which these data increases increase the Bluetooth connectivity.
- BLE DEVICE MAC: Indicates the Bluetooth MAC address of the bicycle.

14) Icon for access to the statistics screen  
By clicking this icon, the statistics will appear on the screen. For a detailed description of this screen, read the section 4 "screen of statistics" (p. 41).

15) Icon for access to the settings screen  
By clicking this icon, the list of bicycle settings will appear on the screen. For a detailed description of this screen, read the section 4 "Setting Screen" (p. 42).

16) Icon for access to the Bluetooth Search screen  
By pressing this icon, you can scan for Bluetooth devices. For a detailed description of this screen, read the section 4 "Search screen Bluetooth devices" (p. 44)  
The color of this icon indicates the connection status:
- RED: Missing Bluetooth Connection
- BLUE: Active connection.

17) Menu bar Android  
To exit the application, you can act on both of the three menus.
- Hold down the arrow back (bottom in the photo). A confirmation window will then appear to exit.
- Pressing the Home key. The application will go in the background.
- Pressing the key of A recent pp (top photo). From here you can finish the application.

NOTA

ANDROID IS AVAILABLE FOR MULTIPLE DEVICES: THAT BAR (POINTED BY THE HAND) CAN BE DIFFERENT IN THE FORM AND POSITION. CAREFULLY READ THE INSTRUCTIONS OF YOUR SMARTPHONE REGARDING THE FUNCTION OF THIS BAR.

ANDROID DEVICES WITHOUT PHYSICAL KEYS WILL HIDE THE MENU BAR. YOU CAN DISPLAY IT SCROLLING WITH YOUR FINGER FROM THE LOWER PART OF THE RIGHT SIDE OF YOUR SMARTPHONE, TO THE CENTER OF THE SCREEN.
Statistics screen

1) **Average Speed**
   Value indicating the average speed from last reset.

2) **Total odometer**
   This value indicates the total distance covered since the purchase of the kit.

3) **Partial odometer**
   This value corresponds to the distance covered since the last reset. In the earlier versions of the odometer indicates the mileage

4) **Average Consumption**
   Value that indicates the average consumption of the bicycle since the last reset.

5) **Reset statistics**
   Pushing this key, the average speed (1), odometer (3) and average consumption (4) will be reset.
   The reset button works only when the bike is connected to the smartphone. Statistics entries are stored in the Application even if the connection is lost.

6) **Closing statistics’ section**
   Pushing the X on the top right, you will close this screen by displaying the main one.
Settings’ screen

- Options
  - Country: Europe
  - Wheel diameter: 29"
  - Unit of measurement: KM, ML
  - Bluetooth device: BIKEE BIKE 0000
  - Gyroscope calibration: Calibrate
  - Assistance level: 100%
  - Throttle override: On
  - Throttle tamer: 0%
  - PIN: 0000
  - Device firmware: 128_REV106_UNLOCK
1 Closing Setting’s section
Pressing the X on the top right, you will close this screen by displaying the main one.

2 Country
In this submenu, you can set up 10 different locations that set specific powers and maximum speeds to comply with the regulations of each country. Set it up by pressing the right arrow on the edge of the screen. For a detailed description of these settings read the section 4 "Description of the mode of operation" (p. 44).

3 Wheel Diameter
In this submenu you can set the wheel diameter (where the speed sensor will be installed) using the cursor. The available values are: 12", 14", 18", 20", 22", 24", 26", 27.5", 29", 700, 650 (" -> inches).

---

**WARNING!**

IF THE DIAMETER OF THE YOUR BIKE’S WHEEL IS DIFFERENT FROM THE PRESELECTIONS USE THE HIGHER VALUE THAN YOUR OF YOUR WHEEL THAT FITS MORE, SO AS TO REMAIN IN ACCORDANCE WITH THE LOCAL LAW FOR SPEED MEASUREMENT.

IF THE WHEEL DIAMETER OF YOUR CYCLE IS GREATER THAN 29 "YOU WON’T BE ABLE TO USE THE KIT ON ROADS WHERE THE TRAFFIC LAW HAS VALIDITY, DUE TO THE INCONSISTENCY BETWEEN THE SPEED MEASURED BY THE KIT AND THE ACTUAL SPEED.

---

4 Unit of measurement
In this submenu, you can choose the parameter’s measurement system within the application.

5 Bluetooth device
This submenu shows the name of the Bluetooth devices that the application stored at the last connection. By pushing the right arrow on the edge of the screen you can make a new scanning.

6 Gyroscope Calibration
In this submenu, you can calibrate the gyroscope installed on certain versions of the Bike Bike Kit.

7 Assistance Level
In this submenu, you can set the assistance (also on the main screen) of the kit using the cursor. This value will be then transmitted to the kit when you get out the settings menu. For a detailed description of this setting read the section 4 "of the kit adjustment assistance through to the sliders" (p. 46).

8 Throttle Override
Il tasto presente in questo sottomenù imposta il Throttle Override (l’abilitazione dell’throttlee). Questo tasto è presente anche nella schermata principale. Descrizione dettagliata di questo pulsante alla sezione 4 “Regolazione assistenza del kit attraverso alle modalità” (pag. 44).

9 Throttle Tamer (Taming)
This button sets the Throttle Override (the throttle enabling). This key is also present on the main screen. Detailed description of this button to section 4 "of the kit adjustment assistance through the" mode (pg. 44).

10 Pin immission
Pushing this key, the keyboard will be opened and you’ll insert the 4-digit unlocking pin, wrote on the label inside your Bike Bike Kit. If this pin is not inserted, the App won’t be able to make adjustments with the sliders and buttons, but it will be in "read only mode".

11 Firmware of the Bikee Kit:
This entry refers to the software version installed on your Bike Bike Kit. The presence of UNLOCK indicates that your bicycle has the option to set the RACE mode on the main screen.
Bluetooth device’s searching screen

1. Closing of the Bluetooth connection screen
   Pushing the “X” at the bottom left, this section will be closed, displaying the previous one.

2. New scan
   Pushing this button, the phone will repeat the Bluetooth scan. The scanning lasts 10 seconds and then the new and previous devices will be displayed.

3. Device confirmation
   Pushing the lower right arrow, you will connect to the device located in the center of the screen. After this selection, you will automatically return to the previous section.

4. Choosing your device
   At the center of the screen, you can swipe your finger across all Bluetooth devices detected. The connection will then established (by pressing the right arrow). Remember that the name of your kit is on a label inside the box.

NOTES

1. ONCE YOU HAVE COMPLETED THE CONFIGURATION OF YOUR BICYCLE, YOU WILL NO LONGER NEED TO SET THE PIN AND ALL THE OTHER PARAMETERS PREVIOUSLY DESCRIBED ON YOUR ANDROID DEVICE. THE APPLICATION WILL MEMORIZE THEM BY INVITING THEM TO EACH CONNECTION.

2. AFTER MAKING THE FIRST CONNECTION MANUALLY, THE FOLLOWING ONES WILL BE AUTOMATIC. THE APPLICATION MAKES 10 ATTEMPTS TO AUTO-CONNECT TO THE KIT, EVEN AFTER YOU EXIT THE OPTIONS SCREEN. FOR THIS REASON, IT IS RECOMMENDED TO TURN ON THE BIKE FIRST AND THEN START THE APPLICATION TO OPTIMIZE THE TIMING.

3. THE KIT DOES NOT NEED THE PHONE TO WORK, BUT IT ALWAYS KEEPS THE LATEST SETTINGS IN MEMORY, EVEN AFTER THE BATTERY IS TURNED OFF. IT HAS A PARAMETER RESCUE CYCLE (15-SECOND INTERVALS). NEVERTHELESS, IT IS RECOMMENDED TO CHECK THAT THE SETTINGS RESPECT THE RULES OF THE COUNTRY WHERE THE KIT WILL BE USED.
**Operating mode description**

This section describes the **three modes**, with useful tips for setting them up. We will describe the settings available with the two sliders assistance, the taming and advanced settings through the selected country.

**Kit’s assistance adjustment with the modalities:**

![Diagram of bike modes](image)

The modes highlighted in the red boxes are::

- **PAS**: when the cranks are rotating, the motor gives power in function of the assistance level set. In this mode, the throttle can be used as a starting aid (up to 6km / h) without the need to pedal. In order to be compatible with EN15194 for assisted pedaling bicycles, you need to pedal for more than 6 km / h. As additional security, to have the power regulation through the throttle you need to release and accelerate again. PAS mode is ideal for city trips, pedaling like a regular bike, and the motor provides assistance based on the selected assistance level, gear ratio, and bicycle speed.

- **THR**: (Throttle: device for assistance regulation located on the knob): In this mode it is possible to adjust the power supplied using the throttle.

- **TSN**: It is a torque sensor simulator. It gives an immediate response so at the minimum turn of the crank arms, the motor starts giving assistance. Only available on some models. This mode is ideal for sports use.

**WARNING!**

TSN MODE IS FORBIDDEN IF YOU ARE NOT ABOARD OF THE BICYCLE, SO YOU HAVE TO SELECT ANOTHER MODE BEFORE YOU CAN GET OFF THE BIKE OR TURN OFF THE SYSTEM.

- **THROTTLE OVERRIDE**: The Throttle Override allows the increase assistance up to 100% by simply pressing the knob, regardless of the level of preset service. When the throttle will be released, the value of the assistance will return to the previous one.

- **PAS + Throttle Override or TSN + Throttle Override**: It’s like the PAS mode or TSN, but when you deserve (for example to deal with sudden climbs where greater demand services), the “throttle” knob increases the level of assistance. When released, you return to the set level of PAS or TSN mode. In this mode, you can use the great power of the motor when you need to restart the system after a stop. In fact, the law states that is possible to have assistance without pedaling up ton 6km/h.
NOTE
ONCE OVER 6KM / H THE THROTTLE OVERRIDE WILL TURN OFF AND IN ORDER TO CONTINUE TO USE THE THROTTLE, YOU WILL HAVE TO COMPLETELY RELEASE THE THROTTLE AND ROTATE IT AGAIN WITHOUT STOPPING.

- **RACE:** This button is only available on “Offroad” versions. By pressing this button five times repeatedly, the race mode is activated. In this mode, legal restrictions are disabled.

**WARNING!**
THESE VERSIONS ARE NOT COMPATIBLE WITH THE EPAC EN15194 STANDARD, SO TRAFFIC ON AREAS SUBJECT TO TRAFFIC LAW IN EUROPE, AND IN OTHER COUNTRIES THAT ADOPT THESE STANDARDS OR SIMILAR, IS NOT PERMITTED.

Assistance adjustment with the sliders

In the red boxes you can see the two cursors assistance and taming, that allow to:

- **Assistance Level:** it allows you to adjust the assistance supplied by the motor with 100 levels (from 0% when the motor is turned off, to 100% with the maximum assistance). Battery consumption varies greatly depending on the assistance level set.

**WARNING!**
RECOMMENDED ASSISTANCE VALUES ARE BETWEEN 40 AND 60%. VALUES ABOVE 60% ARE ONLY RECOMMENDED TO PEOPLE IN GOOD PHYSICAL CONDITION OR WHO ARE ALREADY FAMILIAR WITH THE POWER OF THE BEST SYSTEM.

The level of assistance is also useful as a motor lock. Setting this cursor to zero after you have finished using the bicycle will make it impossible to use the kit. Without the unique pin of the kit, it is impossible to change the assistance setting and therefore the kit will be inoperable.
- Taming: From English "to tame" or "tame". It sets the system's response: to a high value of taming, corresponds a vigorous and immediate response. At 100% the system gives a progressive acceleration ramp of 5 seconds to reach the desired assistance. The taming recommended values are between 10% and 20%. To a higher value of taming, corresponds a higher autonomy of the battery.

**WARNING!**


**Power adjustment with “Country”**

The available nations are 10. The selectable entries for your kit are listed in the following table:

<table>
<thead>
<tr>
<th>Nominal Power of the kit</th>
<th>Available Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>250W</td>
<td>Europe</td>
</tr>
<tr>
<td></td>
<td>YES</td>
</tr>
<tr>
<td>500W</td>
<td>YES</td>
</tr>
<tr>
<td>749W</td>
<td>YES</td>
</tr>
<tr>
<td>999W</td>
<td>YES</td>
</tr>
</tbody>
</table>

The limitations refer to the maximum speed that the bike can reach before the motor is forced to stop providing assistance and at maximum power (calculated as the thermal dissipation in time). Speed limitations are divided into maximum speed without pedal (with throttle) and maximum speed during pedaling.

The two power and speed values are listed in the table and vary depending on the location where the kit is used.

The user can set the desired country from the app settings, paying attention to the power version purchased (first column of the table). For each power, certain countries are already coupled. The choice of a country not suitable for your version will be ignored, setting "Europe" instead.

The throttle speed limit switches off the motor when it exceeds the set speed and then turns it back on with a gentle ramp as soon as it slows down.
WARNING!
TO ASSURE THE CORRECT SPEED LIMITS, YOU SHOULD SET THE CORRECT WHEEL DIAMETER DIMENSION. FOR A DETAILED DESCRIPTION OF THIS SETTING READ THE SECTION 4 "SETTINGS’ SCREEN" (P. 41).

If you start your ride with the help of the throttle, the assistance through the crank arm sensor will only start after the full throttle release. Unlocked versions (which include "UNLOCK" in the firmware version of the app) have the option of freeing up any speed limit of any place by pressing 5 times on the "RACE" key on the main app screen. The RACE mode also gives a slight increase in power delivered by the motor.

WARNING!
THESE VERSIONS ARE NOT COMPATIBLE WITH THE EPAC EN15194 STANDARD, SO RIDING ON AREAS THAT ARE SUBJECT TO EUROPEAN TRAFFIC LAW, AND IN OTHER COUNTRIES THAT ADOPT THESE STANDARDS OR SIMILAR, IS NOT PERMITTED. THIS IS WHY YOU MUST CHECK AND SET THE CORRECT COUNTRY ACCORDING TO THE CURRENT RULES IN THE PLACE WHERE YOU USE THE BIKE BEFORE OPERATING THE BICYCLE.

Please note that the user is fully responsible for the compliance of the new electric bicycle with the local law.

CAUTION!
YOU SHOULD PRACTICE WITH YOUR KIT IN AN AREA NOT SO CROWDED AND WITHOUT OBSTACLES: THE RISK IS DEMAGING YOU AND OTHER PEOPLE AND OBJECTS.
## TROUBLESHOOTING

<table>
<thead>
<tr>
<th>#</th>
<th>Problem</th>
<th>Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Once I connect, I can’t set any data on the App.</td>
<td>C11. The entered PIN is incorrect or has not been inserted.</td>
<td>S11. Enter the 4-digit pin number (wrote inside the box) in the &quot;Settings&quot; section.</td>
</tr>
<tr>
<td>2</td>
<td>The wheel speed remains at zero.</td>
<td>C 21. The wheel sensor does not correctly read the magnet.</td>
<td>S 2 1. The wheel sensor is too distant from the magnet or the magnet is not installed correctly.  (See step 25 and step 26 p. 24).</td>
</tr>
<tr>
<td>3</td>
<td>The speed of the wheel is different from the actual one.</td>
<td>C 3 1. The wheel size inserted in the application are incorrect.</td>
<td>S 3 1. Set a wheel size that’s suitable in the App.</td>
</tr>
<tr>
<td>4</td>
<td>The App shows a consumption of a few watts even though the motor is off.</td>
<td>C 4 1. It is not a defect.</td>
<td>S 4 1. It is the no-load consumption of the controller unit (typically 1 or 2 Watts).</td>
</tr>
<tr>
<td>5</td>
<td>The kit’s autonomy is low.</td>
<td>C51. The settings of the performances are too high and they consume the battery prematurely (especially with the 320 and 420Wh) C52. The ratio used is too heavy for the terrain.</td>
<td>S51. Try lowering assistance, using less throttle, or set a country with lower power output. (See &quot;Operation Mode Description&quot; on page 45). S52. Try to keep a shorter ratio to deal with the roughness of the ground with a lower number of motor revolutions.</td>
</tr>
<tr>
<td>6</td>
<td>The motor gives too much power and is difficult to control.</td>
<td>C61. The assistance is set too high for your riding style.</td>
<td>S61. Set up proper assistance in the application.</td>
</tr>
<tr>
<td>7</td>
<td>The motor runs too slow or little assistance.</td>
<td>C71. The assistance is set too low for your driving style.</td>
<td>S71. Set up proper assistance in the application.</td>
</tr>
<tr>
<td>8</td>
<td>There is too much time from the start of the ride to the activation of the motor.</td>
<td>C81. The taming is set too high or PAS mode is not quite responsive to your needs.</td>
<td>S81. Try to bring the taming at a lower or zero value. If that is not enough, use TSN mode. (See&quot; Adjusting assistance are in the kit through the sliders&quot; on p. 45).</td>
</tr>
<tr>
<td>9</td>
<td>The motor does not work.</td>
<td>C91. The THR mode is selected.</td>
<td>S91. If you don’t have the throttle, you must use the TSN mode or PAS. S92. Verify that all connectors coming out of the motor are not dirty. S93. The brakes are not installed correctly. S94. It was set 0% assistance. S95. The battery is not giving voltage.</td>
</tr>
<tr>
<td>10</td>
<td>The motor stops passing 25Km / h.</td>
<td>C101. The selected country does not match the power version purchased.</td>
<td>S101. Choose the appropriate country's power version.(See &quot;Adjusting the power of the kit through Country&quot; on p. 46). S102. If you have a 250W, it is a normal behavior due to the selected country - EUROPE. (See table on p. 46).</td>
</tr>
<tr>
<td>11</td>
<td>The motor stops passing 6km / h.</td>
<td>C111. The selected country does not match the power version purchased.</td>
<td>S111. Choose the appropriate country's power version. (See &quot;Adjusting the power of the kit through Country&quot; on p. 46). S112. If you have a 250W, it is normal behavior due to the selected nation. (See table on p. 46).</td>
</tr>
<tr>
<td>12</td>
<td>The motor goes intermittently switching on and off all the time.</td>
<td>C121. The selected country does not match the power version purchased or/and the throttle has the speed limitation to 6 km/h. C122. The brakes are not well connected and make unreliable readings. C123. The wheel sensor does not correctly read the magnet and then after five seconds the bike goes into protection switching off the motor.</td>
<td>S121. Choose the nation that is right for your power version. With 250W kit is a behavior due to legal limitations. (See &quot;Kit Power Adjustment Through Nations&quot; on page 46). S122. Check that the magnet is still read by the sensor checking the value of assistance. (See step 20, step 21 and step 22 to p. 22 and 24). S123. The wheel sensor is too far away from the magnet, the magnet is not installed properly, the connector is not well connected or has pinched pins badly connected. (See step 25 and step 26 p. 24).</td>
</tr>
<tr>
<td>13</td>
<td>The motor activates late or after too many meters.</td>
<td>C131. Taming is too high.</td>
<td>S131. Set an appropriate taming value.</td>
</tr>
<tr>
<td>14</td>
<td>The motor works when I pedal backwards.</td>
<td>C141. It is a sensor problem.</td>
<td>S141. Contact your dealer.</td>
</tr>
<tr>
<td>No.</td>
<td>Description</td>
<td>Code</td>
<td>Notes</td>
</tr>
<tr>
<td>-----</td>
<td>-----------------------------------------------------------------------------</td>
<td>------------</td>
<td>-----------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>15</td>
<td>The motor stops when I touch the brakes.</td>
<td>C151.</td>
<td>It is not a defect.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$151.</td>
<td>This is a safety behavior. You can avoid this behavior disconnecting the brakes (not to be recommended).</td>
</tr>
<tr>
<td>16</td>
<td>The throttle does not work.</td>
<td>C161.</td>
<td>The Throttle override is disabled.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C162.</td>
<td>The cable is unplugged.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C163.</td>
<td>Assistance is at 0%.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C164.</td>
<td>The brakes are not well connected and make false readings.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$161.</td>
<td>It can be activated through the application.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$162.</td>
<td>Check the connections. (See step 23 and step 24 p. 23).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$163.</td>
<td>Set up proper support in the application.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$164.</td>
<td>Check that the magnet is still read by the sensor checking the value of assistance.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(See step 20, step 21 and step 22 to p. 22 and 24).</td>
</tr>
<tr>
<td>17</td>
<td>I cannot connect with the Bluetooth.</td>
<td>C171.</td>
<td>The bicycle is turned off.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C172.</td>
<td>Some connectors are not connected or are dirty.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C173.</td>
<td>The phone is too far away from the bike.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C174.</td>
<td>The bike is already connected to another device.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C175.</td>
<td>The bike came into update mode by changing its name to &quot;DFU mode&quot;.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$171.</td>
<td>Check that the battery is turned on.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$172.</td>
<td>Verify that all the connectors outgoing from the motor are connected to the controller unit and check that in the magnetic cable of the battery there aren't debris that prevent a proper connection.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$173.</td>
<td>Bring the phone near to the controller unit.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$174.</td>
<td>Disconnect the other phone or restart the battery.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$175.</td>
<td>Complete the upgrade or contact your dealer.</td>
</tr>
<tr>
<td>18</td>
<td>I can't update data with Bluetooth.</td>
<td>C181.</td>
<td>You are moving too far from the bike and you are going to lose the Bluetooth connection.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C182.</td>
<td>It has lost the Bluetooth connection.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$181.</td>
<td>Bring the phone near to the controller unit.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$182.</td>
<td>Bring the phone near the kit and reconnect.</td>
</tr>
<tr>
<td>19</td>
<td>The phone disconnects constantly.</td>
<td>C191.</td>
<td>The phone is too far from the controller unit.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$191.</td>
<td>Bring the phone near to the controller unit.</td>
</tr>
<tr>
<td>20</td>
<td>The elements and the inscriptions in the application are overlapping or cut.</td>
<td>C201.</td>
<td>The phone has a lower resolution.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$201.</td>
<td>You can correct the problem by going to &quot;Settings&gt; Display&gt; Font size&quot; and choosing the &quot;Small&quot;.</td>
</tr>
<tr>
<td>21</td>
<td>When I reset the odometer is also reset the statistics.</td>
<td>C211.</td>
<td>It is not a defect.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$211.</td>
<td>The reset button resets statistics and trip odometer.</td>
</tr>
<tr>
<td>22</td>
<td>The time displayed on the phone is very low even when the battery is charged.</td>
<td>C221.</td>
<td>It is not a defect.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$221.</td>
<td>Autonomy is calculated on the basis of your consumption: excessive consumption consume the battery faster. It happens even right after purchasing your kit, because the bicycle is not so familiar with your riding style.</td>
</tr>
<tr>
<td>23</td>
<td>The battery lights do not light up.</td>
<td>C231.</td>
<td>You did not press the red button (for Slim battery 320Wh).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C232.</td>
<td>The battery is too low.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C233.</td>
<td>The battery is defective.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$231.</td>
<td>In Slim battery is a red button underneath the rubber cover in next to the USB jack.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$232.</td>
<td>Charge the battery</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$233.</td>
<td>Contact your dealer</td>
</tr>
<tr>
<td>24</td>
<td>The battery lights are flashing</td>
<td>C241.</td>
<td>The battery is charging.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C242.</td>
<td>The battery has a high consumption.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$241.</td>
<td>Wait until charging is complete.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$242.</td>
<td>It is an indication and not a faulty battery, that can be solved by restarting it.</td>
</tr>
<tr>
<td>25</td>
<td>The battery lights do not come on all four despite the charge is complete.</td>
<td>C251.</td>
<td>It is not a defect.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$251.</td>
<td>It happens with a few years of life of the battery or due to improper use; the battery health has increased.</td>
</tr>
<tr>
<td>26</td>
<td>The cranks make a clicking sound when turning the motor off.</td>
<td>C261.</td>
<td>It is not a defect.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$261.</td>
<td>It is a noise due to the high efficiency of the transmission system that drives the motion of the cranks to the crown. You can enter assistance less than 10% to eliminate it. With this value, consumption is insignificant and noise disappears.</td>
</tr>
<tr>
<td>27</td>
<td>The motor trembles without running or it stays braked while accelerating and pedaling.</td>
<td>C271.</td>
<td>Connectors are not well connected or are reversed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$271.</td>
<td>Check if you respected the order of the colors of the connector, if there aren't folded pin and that the phases (red outgoing cables from the motor) are firmly connected and listed in the control unit. (See step 18 and step 19 p. 28).</td>
</tr>
<tr>
<td>28</td>
<td>The motor is grippy when I'm pedaling with no load.</td>
<td>C281.</td>
<td>It is not a defect.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$281.</td>
<td>It happens when the bike had just lefted the factory and needs a few kilometers of break-in on the road.</td>
</tr>
<tr>
<td>29</td>
<td>From the inside of the motor, comes a persistent noise repeating at the same point during the motor's rotation.</td>
<td>C291.</td>
<td>The motor suffered damage or other impact.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$291.</td>
<td>Contact your dealer for further consideration.</td>
</tr>
<tr>
<td>30</td>
<td>The motor rotates, but the chain rings aren't moving.</td>
<td>C301.</td>
<td>The motor is new and the grease in the gears is not yet well distributed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C302.</td>
<td>Very low temperatures can harden the grease and damaging the internal gears.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C303.</td>
<td>The latch (an internal gear that transmits the motion to the chain rings) has undergone a strong stress that has ruined its teeth.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$301.</td>
<td>The kit needs some kilometers of break-in. By pedaling and letting the motor rotate the grease will automatically redistribute itself.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$303.</td>
<td>This component should be inspected and, if necessary, replaced by a specialized technician. (See &quot;Authorized Service&quot; on page 6).</td>
</tr>
<tr>
<td>31</td>
<td>When I move to the front small chain ring, the chain comes out between the motor and the plate.</td>
<td>C311.</td>
<td>The derailleur is not well adjusted and pushes the chain off.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$311.</td>
<td>Properly align the derailleur, if necessary ask to a specialized technician.</td>
</tr>
</tbody>
</table>
### ERROR CODES DISPLAYED BY THE APP

<table>
<thead>
<tr>
<th>#</th>
<th>App’s message</th>
<th>Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>SYSTEM OVERHEATING! The system will shut off</td>
<td>CE11. Excessive consumption for a long period of time causes overheating.</td>
<td>SE1.1. Wait a few minutes with the motor stopped to get the system cool.</td>
</tr>
<tr>
<td>1</td>
<td>MOTOR OVERHEATING! The system will shut off</td>
<td>EC4.1. Long period of use causes overheating.</td>
<td>SE14. You can still use the bicycle with limited output from the system to avoid damage. Alternatively, wait a few minutes and stop the motor to cool down.</td>
</tr>
<tr>
<td>2</td>
<td>CONTROLLER OVERHEATING! The system will shut off</td>
<td>CE101. A connector is badly connected or damaged.</td>
<td>SE10.1. Check if the color's order of the connector is respected, if there are not folded pin and if the phases (red outgoing cables from the motor) are firmly connected in the controller unit. (See step 18 to 19 on page 23).</td>
</tr>
<tr>
<td>3</td>
<td>BATTERY OVERHEATING! The system will shut off</td>
<td>CE102. There was an abnormal motor consumption. (For example, maximum acceleration under braking and without brake sensors installed.)</td>
<td>SE10.2. Restart the battery and install the brake sensor, if the problem persists check the cause EC21.</td>
</tr>
<tr>
<td>4</td>
<td>SYSTEM OVERHEATING! Reduced power output</td>
<td>CE111. The magnetic connector is poorly connected or dirty.</td>
<td>SE11.1. Check that the magnetic battery cable for debris that prevent a proper connection.</td>
</tr>
<tr>
<td>5</td>
<td>MOTOR OVERHEATING! Reduced power output</td>
<td>CE112. The battery went into protection. (Signaled by four LEDs flashing).</td>
<td>SE11.2. Restart the battery.</td>
</tr>
<tr>
<td>6</td>
<td>CONTROLLER OVERHEATING! Reduced power output</td>
<td>CE112. The battery went into protection. (Signaled by four LEDs flashing).</td>
<td>SE11.2. Restart the battery.</td>
</tr>
<tr>
<td>7</td>
<td>BATTERY OVERHEATING! Reduced power output</td>
<td>CE111. The magnetic connector is poorly connected or dirty.</td>
<td>SE11.1. Check that the magnetic battery cable for debris that prevent a proper connection.</td>
</tr>
<tr>
<td>8</td>
<td>UNREADABLE SYSTEM TEMPERATURE: Contact Service</td>
<td>CE91. The black signal cables coming out of the engine are disconnected or damaged.</td>
<td>SE91. Check connections. (See step 17 on page 23).</td>
</tr>
<tr>
<td>9</td>
<td>UNREADABLE MOTOR TEMPERATURE: Contact Service</td>
<td>CE91. The black signal cables coming out of the engine are disconnected or damaged.</td>
<td>SE91. Check connections. (See step 17 on page 23).</td>
</tr>
<tr>
<td>10</td>
<td>UNREADABLE TEMPERATURE CONTROLLER: Contact Service</td>
<td>CE101. A connector is badly connected or damaged.</td>
<td>SE10.1. Check if the color's order of the connector is respected, if there are not folded pin and if the phases (red outgoing cables from the motor) are firmly connected in the controller unit. (See step 18 to 19 on page 23).</td>
</tr>
<tr>
<td>11</td>
<td>UNREADABLE BATTERY TEMPERATURE: Contact Service</td>
<td>CE111. The magnetic connector is poorly connected or dirty.</td>
<td>SE11.1. Check that the magnetic battery cable for debris that prevent a proper connection.</td>
</tr>
<tr>
<td>12</td>
<td>UNREADABLE MEMORY. Restart Battery or Contact Service</td>
<td>EC1.2.1. Time-out error. With the first versions it may be after several hours of operation.</td>
<td>SE1.2.1. Restart the battery or check for available software updates.</td>
</tr>
<tr>
<td>13</td>
<td>ERROR # 5: TURN OFF THE SYSTEM AND CONTACT SERVICE</td>
<td>1. EC 13. you’re not using an original battery Bikee Bike.</td>
<td>SE131. Replace it with an original or compatible battery.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EC 132. The battery is dead.</td>
<td>SE132.1. Put the battery under charge.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EC 133. An original Bikee Battery was not inserted.</td>
<td>SE133. Replace with original battery or compatible.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EC 134. The motor is held bent while accelerating.</td>
<td>EC 134. Avoid forcing the motor stopped for long periods to avoid unnecessary overheating.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EC 135. Connectors are not well connected or inverted.</td>
<td>SE 135. Check that it complied with the order of the colors of the connector, not having crooked pin and that the phases (red outgoing cables from the motor) are lined up and well connected in the controller unit.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EC 136. It is caused by error 1, 2, 3 or 4.</td>
<td>SE136. See the relevant points.</td>
</tr>
<tr>
<td>14</td>
<td>Bluetooth service ERROR. Restart Battery or Contact Service</td>
<td>CE141. It may be due to an incompatibility between the bicycle and smartphone software.</td>
<td>SE14.1. Check for updates to the application of the smartphone.</td>
</tr>
<tr>
<td>15</td>
<td>Torque sensor ERROR. Restart Battery or Contact Service</td>
<td>EC 151. Time-out error. With the first versions it may be after several hours of operation.</td>
<td>SE15.1. Restart the battery or check for available software updates.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EC 152. The control unit is defective, due to a strong shock or it has been overheated.</td>
<td>SE15.2. Restart the battery and wait a few minutes, if the problem persists please contact your dealer.</td>
</tr>
</tbody>
</table>
### STORAGE

- To preserve the ebike kits when you will not use it for a long period of time, make sure the battery is charged to 40/60% and check their status monthly. If the charge falls below the 2 bars, charge the battery until it gets minimum 2 bars.
- Remove the battery of the system when it is expected to not use it for more than one month.
- Cover the kit’s components to improve the storage conditions during the period of non-use.
- Store in an indoor environment, dry, away from sources of heat, free flames and atmospheric agents.
Section 5

Maintenance
Deactivation
MAINTENANCE

Safety

Maintenance operations must be done by qualified and authorized personnel. Please observe the warnings about the specific security rules applicable to the maintenance of the ebike kits in chapter **GENERAL SECURITY STANDARDS**.

Any type of intervention, even maintenance, must always be done with the ebike kit switched off. In performing these operations, always adhere to the instructions reported on the user manual.

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DANGER

**DISCONNECT THE MACHINE FROM THE ELECTRIC POWER PLANT BEFORE USING ANY CLEANING OR MAINTENANCE OPERATION.**

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For any maintenance, tuning, disassembly, replacement, etc. In addition to the information contained in this manual, the general safety standards for the place where these operation are done, must be respected.

Periodic Maintenance

- Periodically clean the components of the kit using a damp soft cloth with not aggressive detergents.
- **NEVER** use high-pressure water to clean the components of the kit.
- **NEVER** put the kit components under water.
## Check List

<table>
<thead>
<tr>
<th>Weight of the rider under 80kg</th>
<th>Use the frequency shown in the table</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight of the rider between 80 and 120kg</td>
<td>Do frequency checks twice as shown in the table</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>RESPONSIBLE</th>
<th>Frequency of control</th>
</tr>
</thead>
<tbody>
<tr>
<td>INSPECTION</td>
<td>USER</td>
<td>before each ride</td>
</tr>
<tr>
<td>INSPECTION</td>
<td>USER</td>
<td>Verify that the two outer shafts are well positioned and effective in holding</td>
</tr>
<tr>
<td>INSPECTION</td>
<td>USER</td>
<td>Check that the brake sensors cut the motor during the first 10 mm</td>
</tr>
<tr>
<td>INSPECTION</td>
<td>USER</td>
<td>Check the rear derailleur (the chain is within 20° of its horizontal position)</td>
</tr>
<tr>
<td>INSPECTION</td>
<td>USER</td>
<td>Check that the rear rack unit has not suffered any damaged and all its parts are present and secure</td>
</tr>
<tr>
<td>INSPECTION</td>
<td>USER</td>
<td>Check that the brake bike unit does not produce abnormal noise</td>
</tr>
<tr>
<td>INSPECTION</td>
<td>USER</td>
<td>Check that there are no grease leaks from the unit</td>
</tr>
<tr>
<td>INSPECTION</td>
<td>USER</td>
<td>Verify that the control shafts are securely connected to the shaft</td>
</tr>
<tr>
<td>INSPECTION</td>
<td>USER</td>
<td>Verify that all connectors are well inserted, closed and undamaged to ensure the plug of the magnetic connector is present</td>
</tr>
<tr>
<td>INSPECTION</td>
<td>USER</td>
<td>Check that the battery fixing device is functioning properly</td>
</tr>
<tr>
<td>INSPECTION</td>
<td>USER</td>
<td>Make sure that the battery holder is firmly attached to the bike frame</td>
</tr>
<tr>
<td>INSPECTION</td>
<td>USER</td>
<td>Verify that there are no abnormal noises made by the battery in the event of a fault</td>
</tr>
<tr>
<td>INSPECTION</td>
<td>USER</td>
<td>Check that the consumption is in the standard (Average consumption 12Wh / km)</td>
</tr>
<tr>
<td>MAINTENANCE</td>
<td>USER EXPERTS OR SERVICE CENTER</td>
<td>CHANGING REPLACEMENT 2B AND 4K DISC</td>
</tr>
<tr>
<td>MAINTENANCE</td>
<td>AUTHORIZED SERVICE CENTER</td>
<td>MAINTENANCE INTERVENTION 1 : GEARS REPLACEMENT</td>
</tr>
<tr>
<td>MAINTENANCE</td>
<td>AUTHORIZED SERVICE CENTER</td>
<td>MAINTENANCE INTERVENTION 2: REPLACING DEVICES, CLAMPING, FASTENING, AXLES SPHERES REPLACEMENT</td>
</tr>
</tbody>
</table>
Extraordinary Maintenance

Extraordinary maintenance is required in case of failure or breakage due to intense use, unpredictable accidents or inappropriate use of the ebike kit.

All the different situations that may arise from time to time are completely unpredictable and therefore it is not possible to describe appropriate intervention procedures.

If necessary, consult the Technical Department to receive appropriate instructions.

However, extraordinary maintenance requires a good experience in the electrical, electronic and mechanical sectors. In any case, before you start an extraordinary intervention, always consult the manufacturer to confirm the correctness of the intended intervention.

Any mechanical or electrical work, ordinary or extraordinary, must, however, be done by qualified personnel (see AUTHORIZED ASSISTANCE page 6).

Chainrings replacement

The maintenance of the chain rings is recommended every 1000Km of use or if these are seriously damaged or consumed by intense use.

To remove the chain rings, you will need to disconnect the controller box from the motor, so you’ll need tools and a certain experiences. These are maneuvers that should be done exclusively by experienced personnel (see AUTHORIZED ASSISTANCE page 6).

The necessary tools are:

a. 2.5 mm Allen key or screwdriver for chairing screws.

b. Wrench or 2mm Allen screwdriver for plate fastening screws.

Step 1
Place the motor on a non-metallic surface free from any object that can damage or scratch the shield.

Step 2
Disconnect the two signal connectors with a black sheath, paying attention not to pinch the internal pins and without pulling the cable excessively.

Step 3
Remove with extreme delicacy connectors with red sheath of the phases. Extend them without pulling or twisting them to facilitate further procedures.

Step 4
With the appropriate 2mm Allen key (or screwdriver) unscrew all the 6 M3X16mm screws that secure the plate. Carefully store it, avoiding to damage it for a second time. If you encounter difficulties in unscrewing these screws screwed into production with weak threadlocker ask to a specialized center.
The presence of the material of bluish color around the screwthread is the threadlocker.

Step 5
Once all the screws are removed, gently separate the plate from the motor.

Step 6
Lift the controller box up close to the connectors heads. Move them into the appropriate hole on the plate to avoid scratching or damaging them.

Step 7
Store the controller box in a clean place that does not present anything that can scratch it until it is re-used during this procedure.

Step 8
Using the appropriate 2.5 mm Allen key or screwdriver, unscrew the M4X6mm screws. If you are having problems in pulling in, contact a specialized center.

Step 9
For the small chainring, pay attention not to ruin the O-Ring (black plastic gasket), which ensures the waterproofness of the motor.

Step 10
Add the lithium bearing grease with higher dropping point 200 °C (recommended System GC300 Arexons) along the O-ring.
**Step 11**
In replacing the screws, after the replacement of the chainring, add the threadlocker on the thread of the screws to prevent the unscrewing of the same.

**Step 12**
Screw the old screw M4X6mm (reuse it only if it is in perfect conditions and not worn and if it is so replace it with a new one) with a maximum torque of 0.8Nm.

**Step 13**
Replace the control unit and insert it into the motor hub, paying attention to the order of 5-wire insertion and avoid scratching or pulling the cable sheath.

**Step 14**
Be careful to not pinch the cables under the plate during closing.

**Step 15**
Re-use the previous M3X16mm screw only if it is in perfect conditions and not worn, but if it is so replace it with a new one. Add the weak threadlocker on the threads of the screws to prevent loosening.

**Step 16**
Screw the M3X16mm screw with a maximum tightening torque of 0.5Nm. The result (as in the photo) must be that the motor hex is aligned with the plate.

**Step 17**
Reinsert the signal cables with black sheath respecting the colors (purple with purple and green with green). Be careful not to distort the connectors’ internal pins.

**Step 18**
Insert the red phase connectors into the holes on the control unit, paying attention to the insertion order.
During the insertion of the golden bullets inside the slots, check that the upper plastics are fully inserted and with the seals (O-Ring) well positioned in the holes.

**DISABLING**

**Deactivation**

The product in question is manufactured and built according to the criteria of robustness, durability and flexibility that allow a prolonged use for many years. Once the end of its technical and operational life has been reached, it must be deactivated or put out of service in such way that it cannot be used any more for the purposes for which it had been designed and constructed at the time, making it possible to reuse the raw materials that make up it.

- Decommissioning of the kit service for a long period of inactivity;
- Decommissioning of the kit and storage in the warehouse;
- Definitive Kit dismantling and disposal.

**NOTE**

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**Deactivation Procedure**

To permanently deactivate your ebike kit, you can proceed in this way:

- Make sure that the battery main switch is in the "OFF" position.
- Disconnect the connection from the power supply (in case of charge) and / or disconnect the battery.
- Uninstall the product from the bicycle by making the installation in the opposite direction.
- Protect parts of the machine that have no treatment (eg. grease on painted metal parts) - do not run in case of decommissioning for disposal.
- Handle the machine following the directions in the section 3 "Handling" (p. 17).
**Disposal**

The ebike kit construction materials do not require special disposal procedures. In case of disposal, refer to the local regulations for the scrap of the components. The possibility of reusing some parts of the kit, both as mechanical units and as raw materials for other constructions, is subject to the total responsibility of the user.

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**NOTE**

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