

# INSTALLATION MANUAL



**Battery for electric bike**

**EVBAT36V16A-R-G**

**EVBAT48V13A-R-G**

Thank you for purchasing the EVBIKE product and we hope that you will be very happy with its use. Before installation and first use, please read the entire manual carefully!

If you have found a fact in the owner's manual that would prevent you from using the product, please contact your dealer for further agreement and retain the original packaging. The vendor will advise you on how to proceed.



### **CAUTION**

EVBIKE SET IS SOLD AS THE CONVERSION KIT. SAFETY AND COMPLIANCE WITH THE LEGISLATIVE REQUIREMENTS OF THE FINAL PRODUCT IS FULLY GUARANTEED BY THE OPERATOR OF A BIKE OR WHOEVER BUILT THAT HAS SOLD THE CONVERTED BIKE. WE RECOMMEND THAT YOU ENTRUST CONVERSION OF THE BIKE TO AN AUTHORIZED SERVICE CENTER. PLEASE READ CAREFULLY THIS INSTALLATION MANUAL BEFORE YOU WILL START EVBIKE CONVERSION.



# CONTENT

- Product specification
- Instalation
- Battery USE
- Warning on potential hazards and end-user instruction

## SPECIFICATION

EVBIKE batteries use traction cells 18650, thanks to which the battery delivers excellent long-lasting driving performance. Further technical parameters of the product are shown in the table below.

<b>SPECIFICATION</b>	<b>EVBAT36V16A-R-G</b>	<b>EVBAT48V13A-R-S</b>
Nominal voltage:	36 V	48 V
Nominal capacity:	15,6 Ah/562 Wh	13 Ah/624Wh
Basic capacity: *	15 Ah	12,35 Ah
Constant discharge current:	15A	30 A
Peak discharge current:	20A	35 A
Minimal voltage (protect):	29V	41 V
Charging Voltage:	42,0 V	54,6 V
Charging current:	2A/5A	2A/5A
Time to charge (95 %):	8 h/ 4,5h	6h/3,5h
Number of cycles: *	<800	<800
Without memory efect:	Yes	yes
Cells type:	18650	18650
Number of cells	60(6P10S)	65 (5P16S)
Battery dimension :	460 x 155 x 55 mm	460 x 155 x 55 mm
Weight	6,1 kg	6,3 kg
Battery cover type:	rack	rack
USB output 5V 1A	yes	yes
Reset switch	yes	yes

*\*Typical capacity under aggressive discharging*



## INSTALLATION (BEFORE FIRST START)

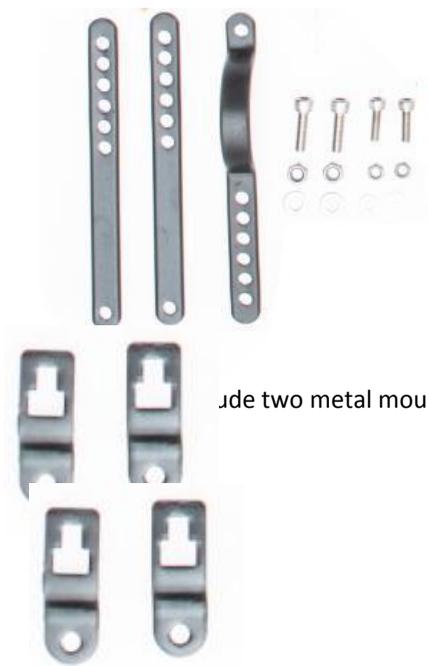
Make sure the battery is fully charged before starting it for the first time. The first charge may take a longer time to balance voltages on individual cells. Do not disconnect the battery until the indicator light of the charger lights up with green light. For rack batteries, the green diode may not light up (lit red) when the battery is charged, so that the charger fan stops.

## BATTERY INSTALLATION

### Suitable place to install:

The battery is usually installed in the rear of the wheel structure and the additional stabilizing bars in the holes in the frame under the saddle.

There are three telescopic sticks in the package to align the carrier to the plane, so choose a suitable hole in the rod so that the battery carrier is in the plane. One of the bars has an atypical shape, you only use it if the disc brake is blocked.



Use two metal mounts that can be used to mount a bicycle bag on a



## WARNING - Warning !!!

Make sure that the connector is properly installed during installation !! If the connectors are rotated, replace the polarity and cause a short circuit and damage to the battery and motor. Connect the battery cable to the engine control unit and ensure the polarity is correct.



XT60 (male nad female)

## Checking the charge status

To check the charge status of the battery, press the button with the symbol. Ⓞ

Depending on the current discharge status, the corresponding number of LEDs will light up. The number of LEDs illuminated indicates the discharge status. If only the red LED is lit, the battery must be recharged.

Illustrative image (battery in the carrier has 5 signaling diodes):



discharged



25%-50%



50%-75%



75%-100%

## Remove and insert the battery into the holder

To unlock the battery lock, turn the key anti-clockwise. In unlocked position, it is not possible to remove the key from the lock. Turn the lock clockwise to lock the battery out of the holder (the key can be removed in this position). Always remove the key when driving and handling the wheel.

### To remove the battery from the bracket, proceed as follows:

In the unlocked position, grasp the battery at the rear (at the light) and pull it out of the wheel to disengage it now that the battery is released and can be removed from the holder.

CAUTION: The battery must always be locked and the key off the lock while driving.

# BATTERY USE

## 1. Correct charging

To properly connect the battery to the charger, you must first connect the charger to the mains and then connect the battery to the charger. Lithium cells that contain EVBIKE batteries can be recharged in any discharge state and have no memory effect. For this reason, we recommend that you recharge the battery after a long break. This will allow you to enjoy full performance and long drive. Always disconnect the battery from the charger after charging. Only charge the battery at room temperature (25 ° C). Use only the charger supplied with the battery, and be careful not to mix it with another charger. Never use a charger that carries signs of damage to the cover or the power cord - there is a risk of electric shock. Do not charge at temperatures below freezing or battery exposed to excessive sunlight. The charging status is indicated by the LED on the charger:

- Red light - Charging process.
- Red / green light - the charger may flash to the end of charging. It's about balancing individual articles. Leave the battery connected until the charging process is complete (green light).
- Green light – charging is complete (charger is automatically disconnected from battery)

## 2. Correct discharging

After the first power off, do not switch the battery on again, connect it to the charger and charge it to full capacity. Never try to reuse the discharged battery. Not only will you not go any further, but some cells may be deeply discharged and cause their irreversible damage. This behavior also results in "unbalancing" tensions of individual cells and your battery will have a reduced capacity. In extreme cases, the battery can no longer be recharged. Disturbances resulting from such behavior are not subject to warranty conditions.

## 3. Storage

If you do not use the bike for more than 48 hours, remove the battery, recharge and store in a dry and safe place at room temperature. Be careful not to short-circuit the battery terminals during storage or handling. For long-term storage, the battery needs to be connected to the charger every 30 days and recharged at least 70%. If you store the battery in a low battery, it may cause a deep discharge of the cells and their irreversible damage. Such warranty does not apply to warranty conditions.

# NOTICE TO POSSIBLE HAZARDS AND END USER TRAINING

## 1. Warranty

The quality guarantee covers the manufacturing defects that the battery demonstrably showed at the time of delivery and the rated battery capacity at delivery. The warranty applies to the normal operating functionality within the specifications specified by the manufacturer. Guaranteed nominal battery capacity is achieved when discharging the recommended discharge current depending on battery type and temperature 25 °C.

The warranty does not cover the decrease in the capacity of the cells in the tolerance given by the manufacturer in the form of the number of charging and discharging cycles. The warranty does not apply to defects resulting from mechanical damage, use outside the permitted range of discharge and charging current and voltage, unintentional short-circuit, unintentional discharges, if the battery is left unattended for more than 14 days, or is damaged due to fluid ingress or use and storage in a damp environment. One of the conditions for recognizing any warranty is to adhere to all the recommendations in these operating instructions. The warranty period is stated on the seller's delivery note.

## 2. Battery using – possible danger

### Danger of short circuit and subsequent fire

Charged and uncharged cells contain a large amount of electrical energy that can cause electrical sparks or an electric arc in the event of short circuits. There may be ignition of other flammable substances from ignited contacts.

### Danger of direct current

When connecting multiple cells and batteries in series, there is a risk of direct current jamming. In any case, do not touch the electrical wires or other live components.

### Danger of chemicals.

Lithium cells and batteries do not contain any corrosives or acids. However, they contain chemicals that act on the human organism. For this reason, the following guidelines must be observed when handling cells and batteries:

- a) Eye protection: protect eyes with eyeglasses against the penetration of chemicals into the eye.
- b) Skin protection: Use protective clothing and gloves. Avoid skin contact with chemicals.
- c) Inhalation protection: Use batteries only in well-ventilated areas. In confined spaces, forced ventilation must be provided.

### Danger of fire by article damage

Damage to battery cells may result in chemical reaction and battery fire. Take extra care when using the battery to avoid mechanical damage.

### 3 General rules for the use and storage of batteries

- Protect from improper handling.
- Do not insert the opposite polarity. When inserting, keep the markings. If the batteries are reversed, a short circuit or charging may occur.
- Prevent short circuit. If the positive (+) and negative (-) battery terminals are connected together, a short circuit occurs.
- Clean the battery terminals and the pole terminals of the device before installation.
- Do not overheat - store the batteries at the specified temperature.
- Do not cook or splice articles.
- Do not disassemble. When removing the cover, contact with individual parts of the battery may be harmful.
- Do not deform. Batteries should not be compressed, punctured or otherwise damaged.
- Do not dispose of in a fire.
- Keep out of the reach of children. Outside of their reach, it is essential to keep batteries that can be swallowed. In addition, children must not be allowed to change batteries without adult supervision.
- Do not encapsulate or otherwise modify. Encapsulation or other battery modifications may cause the safety ventilator to lock. Any modifications should be consulted with the seller.
- Unused batteries need to be stored charged and kept out of reach of metal objects that could short-circuit them. Do not mix and unpack the already unpacked pieces.
- Avoid extreme humidity (above 95%). High temperature or humidity can cause a battery deterioration or corrosion of the surface.
- Do not expose the batteries to direct sunlight, rain, excessive heat or radiators.
- Store batteries in a well-ventilated and dry environment, ideally enclosed in a protective package.
- Do not stack cartons with batteries. Stacking can result in deformation of the batteries in the lower layers and subsequent electrolyte flow.
- When handling, select the packing material and packing method to prevent unintentional electrical contact and corrosion of outlets to protect against environmental influences and mechanical damage.
- Thorough handling of boxes. Rough handling can cause a short circuit or damage.
- Ensure the correct supply of supplies, follow the FIFO system.
- Store the batteries charged and measure their voltages each month. If the voltage is close to the minimum, charge the battery.
- Operate the battery under supervision or constant monitoring by the protection and control system. Protect against overcharging and against complete discharge.

## 4 Recycling of batteries and cells - statutory mandatory information

(a) the method of securing the take-back or separate collection; for this purpose, the manufacturer publishes, in a manner accessible to the end-user, the current list of take-back and separate collection points containing at least the name of the place and his address:

Instead of take-back and separate collection: Gevizo s.r.o., Českosbrodská 34/7, Prague 9, 190 00

(b) the potential negative effects of substances used in batteries or accumulators on the environment and on human health:

Batteries and cells contain chemicals that may have negative effects on the environment and human health.

(c) the meaning of the graphic symbol for separate collection or take-back and the meaning of labeling



### WARNING

THIS IS A GRAPHIC SYMBOL FOR SEPARATE COLLECTION OR BACKGROUND. DO NOT EXPAND THE BATTERY TO WASTE, RETURN TO RETURN AND SEPARATE COLLECTION.



### WARNING

BEFORE THE FIRST RIDE CHECK THE TIGHTNESS OF ALL BOLTS AND FUNCTIONALITY OF ALL SYSTEMS INCLUDING WHEEL BRAKES

### Declarations of conformity:

PHOYLO LTD., EU-VAT ID: CZ684609501, as an entity authorized by the producer for EU, thus proclaims that the device conforms to basic requirements and any other relevant provisions of Decree-Law No 117/2016 and 118/2016 Coll., as well as the device conforms to basic requirements and any other relevant provisions of Decree-Law No 176/2008 Coll., establishing technical requirements for machinery (MACHINERY DIRECTIVE 2006/42/EC, 2009/127/EC). This statement is issued on the basis of documents presented by the producer.

