
CHAOS



CHAOS 26"



USER MANUAL

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1. 1. FOREWORD

1.1 Generalities

This manual is an integral and essential part of the CHAOS 26" pedal-assisted bicycle.

Before commissioning, it is essential that users read, understand and follow the following positions scrupulously.

The manufacturer is not liable for damage caused to persons and / or things or to the pedal-assisted bicycle, if it is used incorrectly with respect to the indicated prescriptions.

With a view to continuous technological development, the manufacturer reserves the right to modify the components, including the frame, without notice and without this manual being automatically updated.

1.2 Assistance

For any inconvenience or request for clarification contact the authorized dealer, who has competent and specialized personnel, as well as specific equipment and original spare parts.

1.3 Graphic form of safety warnings

The following graphical signal symbols will be used to identify security messages in this manual. They have the function of attracting the attention of the reader / user for the purpose of a correct and safe use of the pedal-assisted bicycle.



ATTENTION

Highlights behavioral rules to be kept in order to avoid damage to the pedal-assisted bicycle and/or the onset of dangerous situations.



DANGER

Highlights the presence of hazards that cause residual risks to which the user must pay attention in order to avoid accidents or material damage.

2. SAFETY WARNINGS



ATTENTION

USE OF THE PEDAL-ASSISTED BICYCLE

Each user must first have read the instruction manual, in particular the chapter on safety claims.



ATTENTION

RISKS ASSOCIATED WITH THE USE OF THE PEDAL-ASSISTED BICYCLE

- Despite the application of safety devices, for safe use of the pedal-assisted bicycle you should take note of all the accident prevention requirements set out in this manual.
- Always stay focused while driving and DO NOT underestimate the residual risks associated with the use of the pedal-assisted bicycle.

2.1 General safety rules

Even if you are already practical in the use of pedal-assisted bicycles, you must follow the instructions given here, in addition to the general precautions to be observed during the driving a motor vehicle. In particular:

- Acquire full knowledge of the pedal-assisted bicycle.
- Read the manual carefully to know the operation, the safety devices and all the precautions necessary for the safe use of the vehicle. All this to allow safe use.
- Carefully maintain the pedal-assisted bicycle in perfect condition.

For any inconvenience or request for clarification contact without hesitation the authorized dealer, who has competent and specialized personnel, specific equipment and original spare parts.

2.2 Responsibilities

Failure to comply with the operating instructions and safety requirements contained in this manual exempts the manufacturer from any liability.

If the maintenance of the pedal-assisted bicycle is carried out in a manner that does not comply with the instructions provided, with non-original spare parts or in any case in such a way as to compromise its integrity or modify its characteristics, the manufacturer shall will be relieved of any responsibility inherent in the safety of persons and the defective operation of the pedal-assisted bicycle.





ATTENTION

UNAUTHORIZED CHANGES

If you hear unusual noises or feel something strange, stop the pedal-assisted bicycle immediately. Carry out a check afterwards and, if necessary, contact the authorized dealer.

For any data not included or not deductible from this manual it is recommended to consult directly the authorized dealer.

2.3 Warnings for users

1. It can only be used by experienced adults and children.
2. Do not take alcohol or drugs before riding the pedal-assisted bicycle.
3. This model of pedal-assisted bicycle is designed and built to be used outdoors, on roads and private and public environments.
4. Don't ask your pedal-assisted bike for performance that's superior to what it was designed for.
5. Never ride the pedal-assisted bicycle with disassembled parts.
6. Ride with both hands on the handlebars.
7. Replace worn and/or damaged parts and check that the guards are working properly before use

2.4 Maintenance warnings

1. Any maintenance must take place with the battery disconnected.
2. During each maintenance phase, operators must be equipped with the necessary accident prevention equipment.
3. The tools used for maintenance must be suitable and of good quality.
4. Do not use gasoline or flammable solvents as detergents, but always use non-flammable and non-toxic solvents.
5. Limit as much as possible the use of compressed air for cleaning (max 2 bar) and protect yourself with glasses with side guards.
6. Never use open flames as a means of lighting when carrying out verification or maintenance operations.
7. After any maintenance or adjustment, make sure that no tools or foreign bodies remain between the moving parts of the pedal-assisted bicycle.



ATTENTION

ORIGINAL SPARE PARTS

Use only original spare parts supplied by M.B.M. S.r.l. Unipersonal.

Any liability of the Manufacturer for damage or loss of functionality caused as a result of the use of non-original accessories and parts is excluded.



2.5 Other provisions

The first thing to do when starting use is to check the presence and integrity of the protections and the operation of the safety devices. If you find any defects, do not use the pedal-assisted bicycle!



DANGER

GUARDS

It is strictly forbidden, therefore, to modify or remove the guards, controls, labels and indication plates

2.6 Unpacking and tuning

The pedal-assisted bicycle is delivered fully assembled and working.funzionante.

2.6.1 Saddle adjustment

The adjustment of the height of the saddle is an essential prerogative for the correct use of the pedal-assisted bicycle. Incorrect adjustment can generate structural breaks to the frame.

Adjust the height of the saddle by means of the waist placed in the collar (Ref. A – Figure 1). Check that the mechanism is tightened before testing the seat and using the medium. Do not tighten the collar screw (Rif. A – Figure 1) beyond the maximum value

of 8 Nm. Do not lift the saddle beyond the limit switch sign placed in the tube (Ref. B – Figure 1).



FIG. 1



DANGER

IMPORTANT WARNING:

For your safety, the reference mark of the seatpost (B) should never be outside the tube in which the seatpost is inserted.



ATTENTION

ASSEMBLY

In the event that you do not have the appropriate equipment for adjustment or do not have the capabilities, contact the authorized dealer.



2.6.2 Pedal mounting

Right pedal; it is identified by the letter R marked on its pin.
 For pedal mounting, screw by turning the pin clockwise.
 (figure 2)

Left Pedal: it is indicated by the letter L marked on its pin.
 For pedal mounting, screw by turning the pin counter-clockwise.
 (Figure 2)



ATTENTION

ASSEMBLY

For a correct evening of the pedals, it is necessary to use a key of 15



ATTENTION

ASSEMBLY

In the event that you do not have the appropriate equipment for adjustment or do not have capabilities, contact authorized dealer.

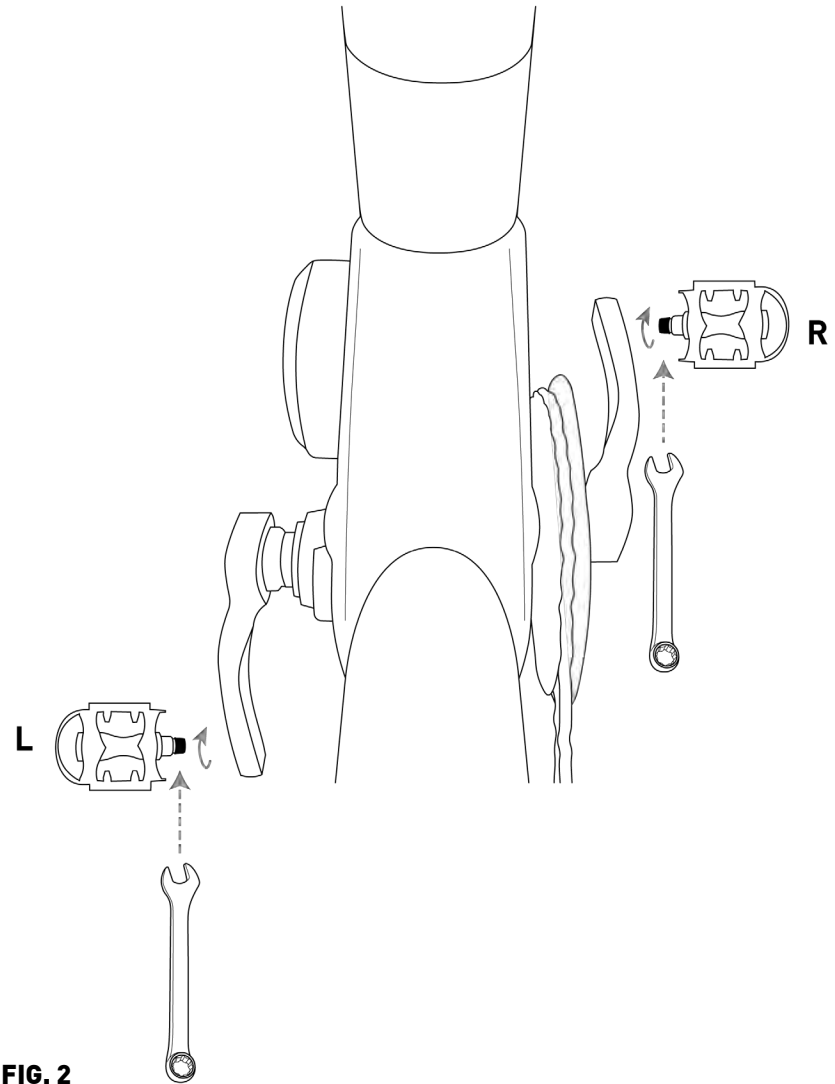


FIG. 2



3. BICYCLE DESCRIPTION

3.1 General description

The pedal-assisted bicycle is designed and built to be used outdoors, on roads and private or public environments. In particular, the components and the type of pedal-assisted bicycle, allow you to face routes with asphalted and unpaved surfaces without particular roughness.



INCORRECT AND UNINTENDED USE

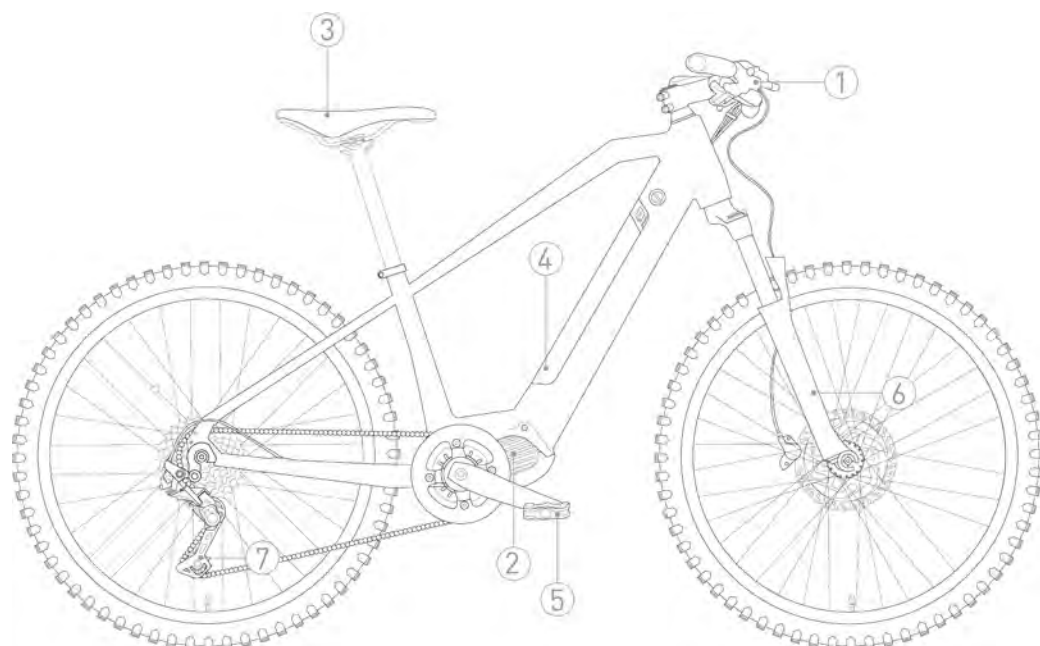
The bicycle has been designed and manufactured for the specified use; a different use and failure to comply with the technical parameters set by the manufacturer may constitute a dangerous condition for users.

The pedal-assisted bicycle is equipped with a rechargeable battery and an electric motor, whose intervention takes place only in conjunction with the pedaling and progressively stops gradually that the speed of the vehicle approaches 25 km/h, and then stops altogether at that speed.

For the management of the assistance system there is a special display located next to the left knob on the handlebar. On the right side of the handlebar there is a control system for gear selection.



3.2 Data sheet



1. HANDLEBARS AND CONTROLS
2. ENGINE
3. SADDLE
4. BATTERY
5. PEDAL
6. FORK
7. REAR DERAILLEUR

CODE	E406
FRAME	HYDROFORMED ALUMINIUM
FORK	SUSPENSION WITH ADJUSTMENT
CRANKSET	36 TEETH
REAR DERAILLEUR	DEORE
SHIFTER	10 SPEEDS
BRAKES	SHIMANO MT200 HYDRAULIC
DISKS	SHIMANO ANT: Ø 180 MM POST: Ø 180 MM
WHEELS	26*2,25
SADDLE	SELLE BASSANO CHAOS
PEDALS	RIGHT AND LEFT STEEL AND POLYMER MATERIAL
MOTOR	CENTRAL OLI SPORT ONE 60 NM
BATTERY	SPARD YT 30207 36V, 10,4Ah, 360WH
SPEED MAX. ASSISTANCE	25 KM/H
DISPLAY	COLOR LCD
WEIGHT	24,3 KG



3.3 Brake levers

The brake levers (Ref.C – Figure 3) are placed on the handlebars of the pedal-assisted bicycle, near the knobs (Ref. D – Figure 3). These systems make it possible to control the brake disc calipers located near the wheel hubs. The right lever controls the rear brake, the left one the front brake. The braking action is proportional to the force applied to the lever.

3.4 Speed change

The pedal-assisted bicycle has a 10-speed gearbox with the sprockets positioned on the rear wheel hub and selectable by means of the opposing levers placed at the base of the right knob.

The indicator (Ref. E – Figure 3) on the bottom of the handlebar allows you to view the selected ratio.

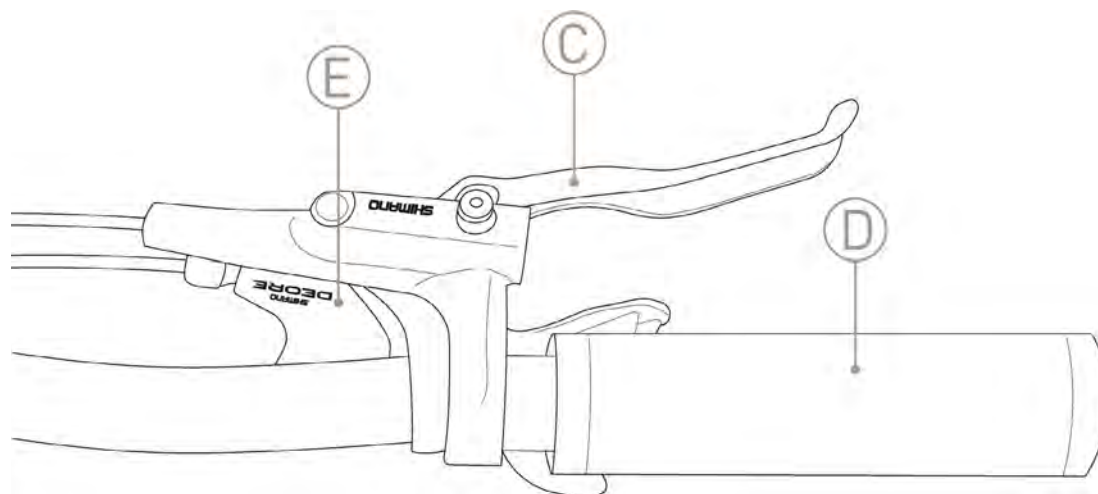


FIG. 3

3.5 Assistance system management

3.5.1 Commands

To manage the assistance system there is a controller on the left side of the handlebar. This device allows you to vary the level of assistance and to view information regarding the path and status of the battery. (Figure 4)

Near the left knob of the handlebar are 3 keys that can be used with a short or prolonged press; thanks to these it is possible to control the functionality of the display. (Figure 5)

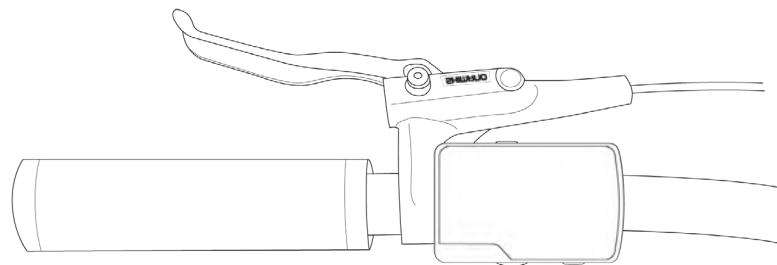


FIG. 4

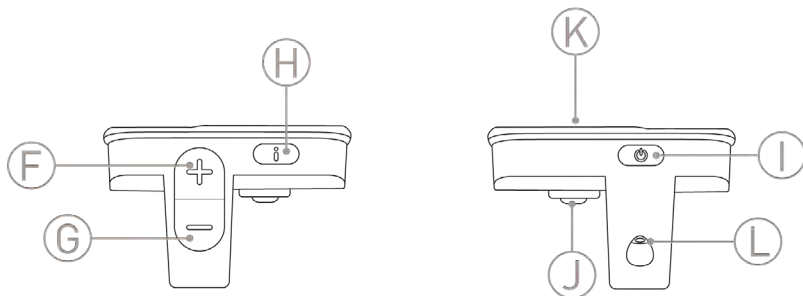


FIG. 5

- F - SHORT PRESSURE: Increases the level of assistance.
- LONG PRESS: Turn the lights on and off, if connected to the battery.
- G - SHORT PRESSURE: Reduces the level of assistance.
- LONG PRESS: Activate the walking assistance mode.
- H - SHORT PRESS: Allows you to scroll through the information related to the route.
- LONG PRESS: Allows you to access the menu.
- I - SHORT PRESS: Turns on the system.
- LONG PRESS: Turns off the system.
- J - Connector input.
- K - Display
- L - 2.5mm clamp screw



3.5.2 Turning the system on/off

To activate the system, press and hold the power button (Ref. I - Figure 5.1) for 2 seconds. The loading page shows the OLI eBike Systems logo. When switched on, the level is preset to level 3 of assistance.

To turn off the assistance system, press and hold the button (Ref. I – Figure 5.1) for 4 seconds.

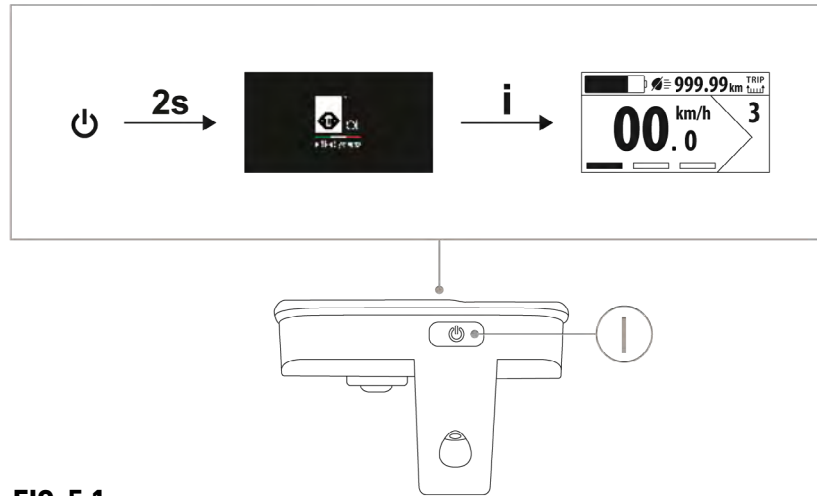


FIG. 5.1

3.5.3. Activate support

The engine is activated and deactivated immediately if the pedaling stops. The power of the engine depends on the force impressed on the pedals according to a multiplicative factor depending on the level of assistance selected.



3.5.4. Setting the level of support

To increase the level of assistance press the + button (Ref. F - Figure 5.2).

To decrease the level of assistance press the button - (Ref. G - Figure 5.2).

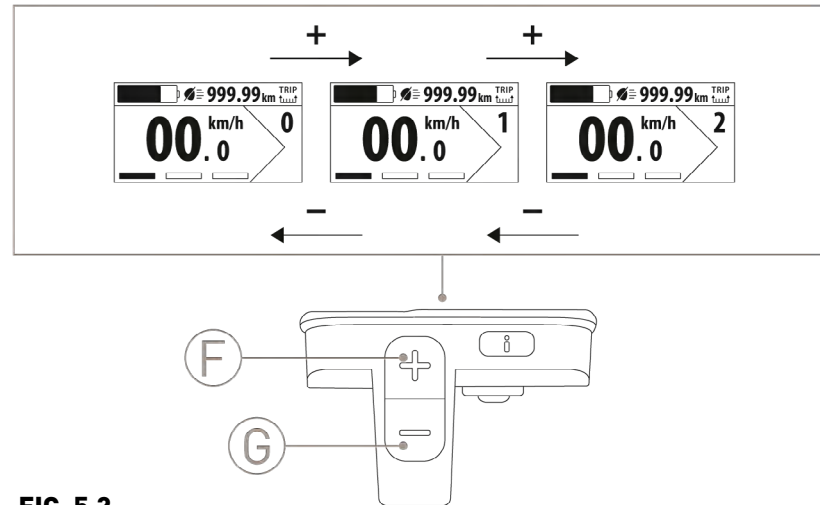


FIG. 5.2

3.5.5. Service levels

LEVEL 0 – NOTHING ASSISTANCE

LEVEL 1 – ASSISTANCE 12,5%

Recommended route: plain – long distances

LEVEL 2 – ASSISTANCE 25%

Recommended route: hilly /medium ascent – medium-long distances

LEVEL 3 – ASSISTANCE 50%

Recommended route: hilly/medium climb – medium distances

LEVEL 4 – ASSISTANCE 75%

Recommended route: ascent – medium-short distances

LEVEL 5 – ASSISTANCE 100%

Recommended route: challenging climb – short distance.



ATTENTION

ATTENTION:

The system has 5 levels of assistance that increase the power provided by the engine. If the level is set to 0 the support is disabled.

3.6 Display graphic interface

After turning on, the device's home screen appears. This screen allows you to view the following information:

- Battery charge status
- Velocity
- Level of assistance

By pressing the i button (Ref. H - Figure 5.3), you can scroll and view the route information in the corner at the top right of the display.

Specifically, you can view the following information:

- Distance traveled along the way.
- Travel time along the way.
- Total distance traveled.

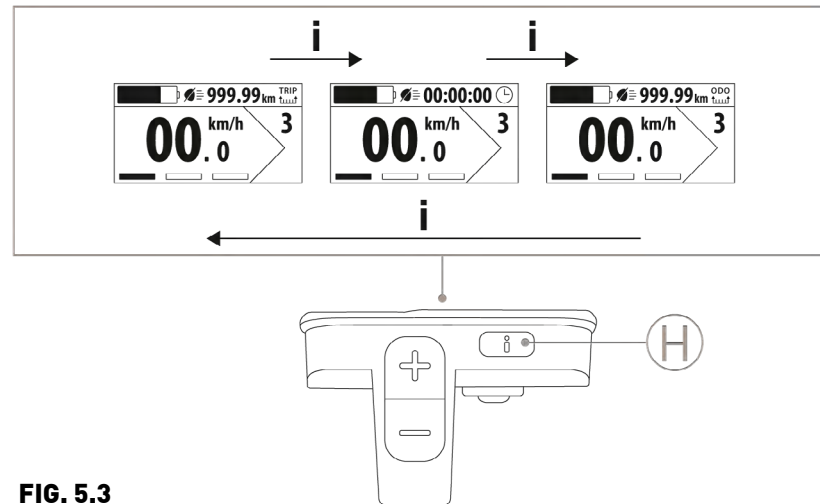


FIG. 5.3



3.7 Walking assistance mode

To help the cyclist push the bike manually along the climbs, the system supports the walking assistance mode, which allows you to push the bike up at a maximum speed of 5 km/h without the need to pedal.

To activate the walking assistance mode, press and hold the button - (Ref. G - Figure 5.4); the walking resistance mode will remain active as long as the button remains pressed. Therefore, to turn off the mode, release the - button.

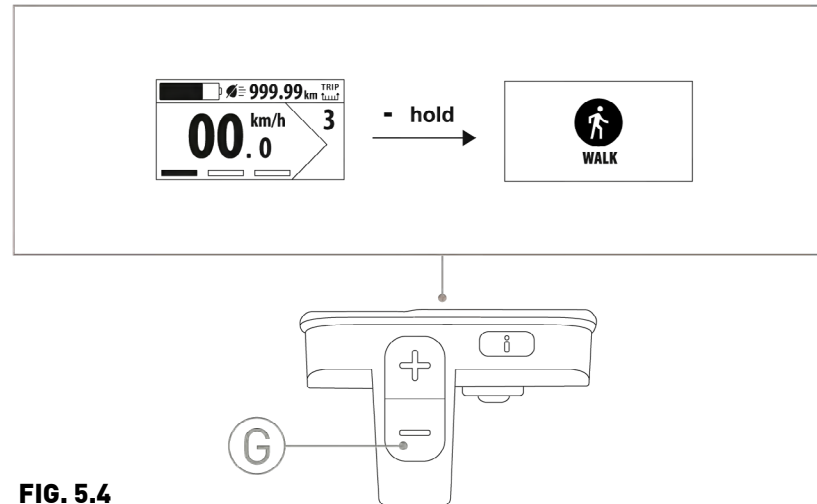


FIG. 5.4



**It is dangerous to activate the cam assistance mode if the wheels are not in contact with the ground.
Do not use the walking assistance mode while riding the bike.**

3.8 Menu

To access the system menu, press and hold the i button (Ref. H - Figure 5.5).
 Within the menu the items can be selected by moving with the + and - buttons (Ref. F and G - Figure 5.5).

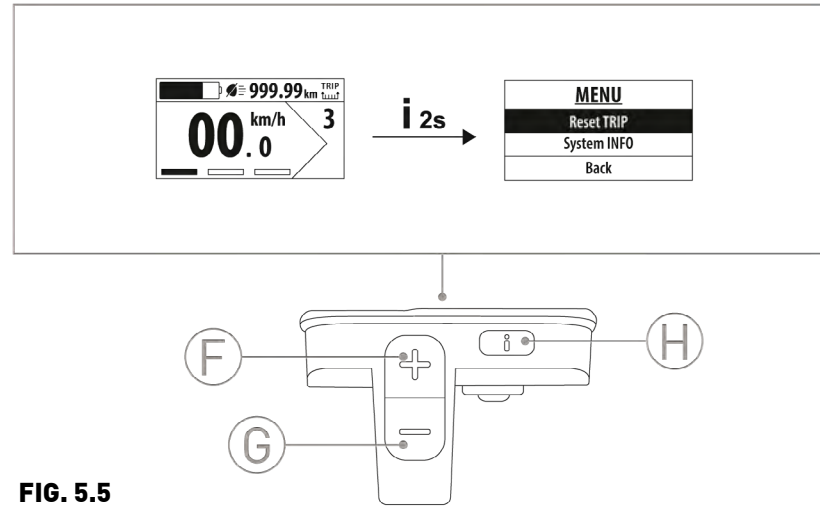


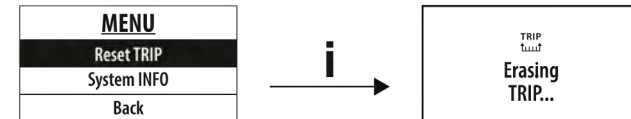
FIG. 5.5

3.8.1 Screens

Reset TRIP: This item allows you to reset the information related to the route. Press the I button (Ref. H – Figure 5.5) to reset.

System INFO: This entry displays the following information:
 - Firmware version of the graphical user interface and engine;
 - Battery voltage;
 - Average consumption in Wh/km.

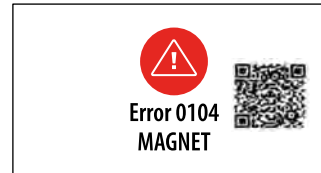
Back: Selecting this item and pressing the i button (Ref. H - Figure 5.5) you exit the menu.



3.9 Error codes

In the event of an anomaly, the system reports the problem to the user by displaying a danger icon combined with a 4-character code that allows you to trace the type of error.

Depending on the type of anomaly, the system may prevent the engine from activating or make it run at reduced power. Where it is indicated "to request assistance", the intervention of a specialized technician OLI eBike Systems is necessary.



ERROR CODE	DESCRIPTION
0001	PROBLEM COMMUNICATING WITH THE BATTERY. BATTERY STATUS DATA MAY BE DISPLAYED INACCURATELY. CHECK THAT THE WIRING AND BATTERY CONTACTS ARE PROPERLY CONNECTED AND INTACT.
0101	COMMUNICATION PROBLEM BETWEEN DRIVE UNIT AND GRAPHICAL USER INTERFACE. CHECK THAT THE WIRING IS CONNECTED CORRECTLY AND INTACT.
0104	SPEED SENSOR NOT DETECTED. CHECK THAT THE ALIGNMENT BETWEEN THE MAGNET AND THE SPEED SENSOR IS CORRECT. CHECK THAT THE SPEED SENSOR IS INSTALLED AND CONNECTED CORRECTLY.
0105	NON-COMPLIANT TORQUE TRANSDUCER SIGNAL. THE TORQUE TRANSDUCER SIGNAL HAS AN ANOMALY. LOW POWER OPERATION.
0106	OFFSET TORQUE TRANSDUCER NOT COMPLIANT. THE TORQUE TRANSDUCER SIGNAL HAS AN ANOMALY.
0801	ANOMALY TO MOTOR ROTATION SENSORS.
0802	PEDAL ROTATION SENSOR ANOMALY.
0804	EXCESSIVE CONTROLLER TEMPERATURE. THE TEMPERATURE SENSOR INSIDE THE CONTROLLER HAS DETECTED A TEMPERATURE ABOVE THE DANGER THRESHOLD.

0805	EXCESSIVE ENGINE TEMPERATURE. THE ENGINE HAS REACHED A TEMPERATURE ABOVE THE DANGER THRESHOLD.
0806	NON-COMPLIANT PERIPHERAL BUS VOLTAGE.
0808	ROTOR LOCKED. THE ENGINE FAILED TO START DUE TO A MECHANICAL BLOCKAGE OR A PROBLEM WITH THE INTERNAL WIRING OF THE DRIVE UNIT.
0809	BATTERY VOLTAGE IS HIGHER THAN THE MAXIMUM ALLOWED.
0810	NON-COMPLIANT CURRENT SENSOR SIGNAL.
0811	THE DRIVE DETECTED AN OVERCURRENT.
1101	COMMUNICATION PROBLEM BETWEEN THE GRAPHICAL USER INTERFACE AND THE DRIVE. CHECK THAT THE WIRING IS CONNECTED CORRECTLY AND INTACT.
1102	A BUTTON PANEL IS LOCKED IN THE PRESSURE POSITION.

3.10

PROBLEM	CAUSE/SOLUTION
The system does not turn on	Check if the battery is plugged and in charge
Support does not activate	Check that the selected service level is greater than 0 and that the battery level is sufficient
The display displays an error messages	The system has detected an anomaly. Depending on the type of anomaly the engine may be deactivated or operate at reduced power. For more information refer to the paragraph "Error codes"



ATTENTION

If following these operations, the problem persists it is necessary to go to an assistance center.



3.11 Battery

The bicycle provides pedaling assistance by means of an electric motor powered by the battery placed in the down tube of the frame structure. (Figure 6)

3.11.1 Battery charge status

You can view the battery charge status directly on the assistance system management display. In the event that the battery is disassembled from the vehicle or you want to see the state of charge without turning on the assistance system, at the top of the battery there is a button (Ref. M – Figure 6) which allows, through a LED light of different colors (Ref. N – Figure 6), to display the status of the charge.

LED CHARGING STATUS:

RED LIGHT 0 – 25%

GREEN LIGHT 25 - 75%

BLUE LIGHT 75 – 100%

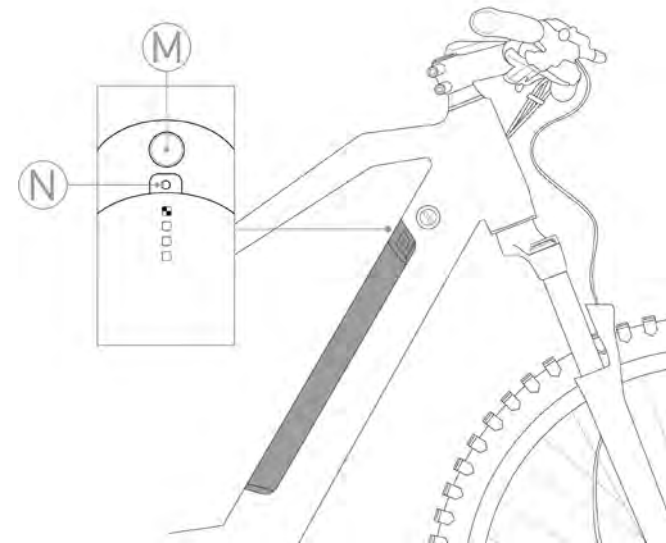


FIG. 6

3.11.2 Battery removal-installation

To remove the battery make sure that both the assistance system and the battery are turned off and proceed as follows:

1. Insert the battery lock/unlock key into the battery lock at the top right of the frame near the handlebar and turn the keys clockwise. (Ref. O – Figure 7)
2. Holding the key rotated, unhook the battery and lift it (Ref. 2 – Figure 7)
3. Take out the battery completely, taking care not to hit the frame.



FIG. 7

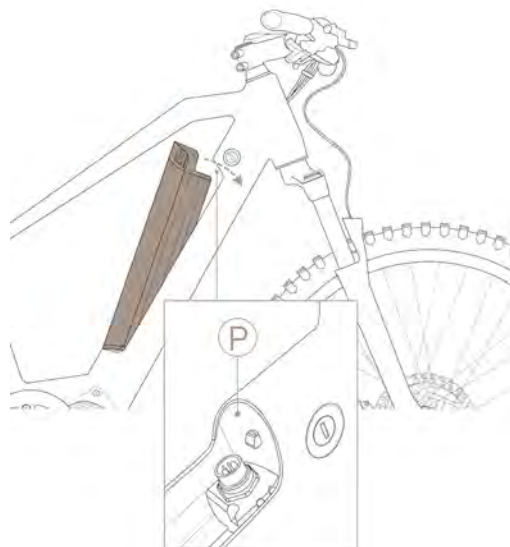
For install the battery proceed What Follows:

1. This procedure must be performed without the unlock key ; remove the key if inserted;
2. Align the battery above the oblique pipe of the frame by matching the electrical connector (Ref. P – Figure 8);
1. Carefully insert the battery into the frame until you hear the closing click of the lock. At this point the battery is already self-locked .

1



2



3

**FIG. 8**

3.11.3 Battery charging

Charging the battery of the pedal-assisted bicycle can be done either with the battery fixed to the frame or with the battery extracted and stored in an environment sheltered.

To charge the battery, do the following:

1. Turn off the assistance system of the pedal-assisted bicycle using the appropriate button on the display (Ref. I – Figure 5);
2. Remove the battery in case you want to charge the battery separately;
3. Lift the rubber stopper at the top right of the battery (Figure 9)
4. Connect the supplied battery charger with the appropriate plug;
5. Connect the battery charger to a power outlet (230 V / 50 Hz) and charge for as long as necessary.

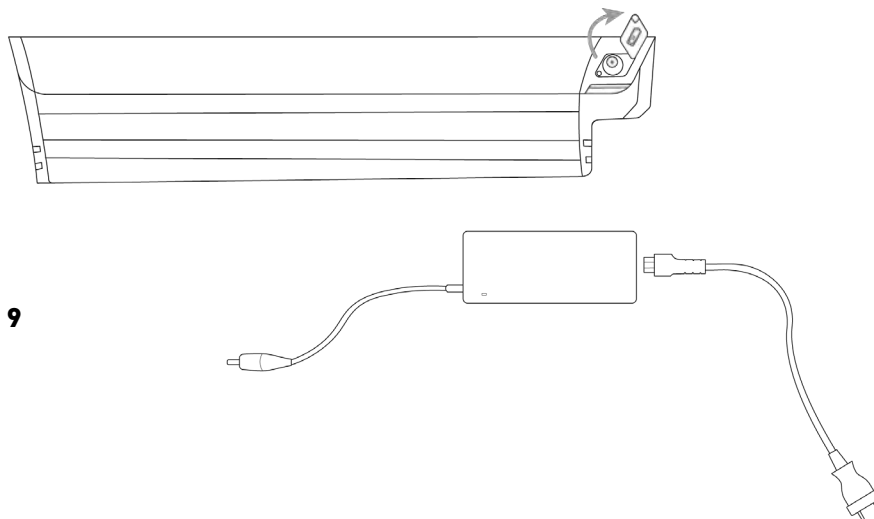


FIG. 9



ATTENTION

BATTERY CHARGER

Always connect the plug to the battery first and then the battery charger to the power outlet.

3.11.4 Troubleshooting

PROBLEM	CAUSE/SOLUTION
The system does not turn on	Check if the battery is full
PROBLEM	CAUSE/SOLUTION
Support does not activate	Check if the level battery is full and sufficient.



ATTENTION

TROUBLESHOOTING

In case the assistance system does not activate even if the battery is charged, contact your authorized dealer.



3.12 Front suspension

The pedal-assisted bicycle is equipped with a front suspension system that allows you to dampen the sollecitations caused by the roughness of the route. The suspension model is adjustable by means of special adjustment controls at the top of the fork. In particular, it is possible to vary the preload of the fork by rotating the manettino (Ref. R – Figure 10) at the top left according to the characteristics of the user and the terrain.

The blue manettino positioned at the top right (Ref. Q – Figure 10), on the other hand, allows you to adjust the hydraulic compression, effectively forming the suspension from cushioned to rigid.

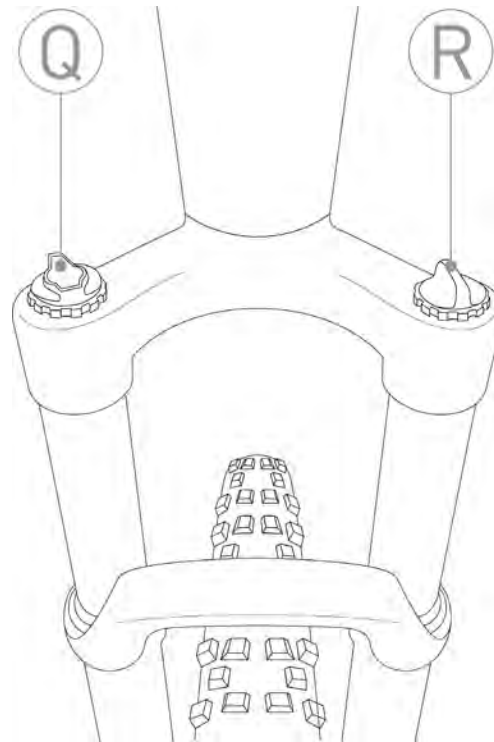


FIG. 10

4. CONDITION OF USE AND INTENDED ENVIRONMENTS

4.1 Intended use

The pedal-assisted bicycle is designed and built to be used outdoors, on roads and private or public environments. In particular, the components and the type of pedal-assisted bicycle, allow you to face routes with asphalted and unpaved surfaces without particular roughness.

Any change in the state of construction can compromise the behaviour, safety and stability of the assisted bicycle and can lead to an accident. Other types of use, or the extension of the use beyond that envisaged, do not correspond to the intended purpose assigned by the manufacturer and, therefore, the same can not assume any responsibility for any resulting damage.

4.2 Environment of use

The pedal-assisted bicycle can be used outdoors in the absence of adverse weather conditions (rain, gran- dine, snow, strong wind, etc.):

- Maximum permissible temperature: +40 °C
- Minimum permissible temperature: 0 °C
- Maximum permissible humidity : 70%

The environment of use may have an asphalt or dirt road without excessively high roughness. In addition, the place of use must be illuminated, by the sun or by artificial lights, in such a way as to ensure the correct vision of the route and the controls of the bicycle to pedal assistance (recommended from 300 to 500 lux).

PROHIBITED USE ENVIRONMENTS

The pedal-assisted bicycle should not be used:

- **In areas subject to risk of fire or explosion;**
- **In environments with corrosive and/or chemically active atmosphere;**
- **In dimly lit environments;**
- **On excessively inaccessible terrain, given the characteristics of the same (frame, wheels, etc.);**
- **In enclosed spaces, if they do not allow safe use;**
- **In dark environments.**



ATTENZIONE



4.3 Improper uses and contraindications

The actions described below, which obviously cannot cover the entire range of potential possibilities of "misuse" of the pedal-assisted bicycle, are to be considered absolutely Prohibited.



ATTENTION

PROHIBITED OPERATIONS

- **The execution of prohibited operations invalidates the warranty;**
- **The manufacturer declines all responsibility for any damage to property and persons resulting from the execution of prohib-**



DANGER

ABSOLUTELY FORBIDDEN

- **Use the pedal-assisted bicycle for uses other than those for which it was built, i.e., the pleasure of a passenger;**
- **Ride the pedal-assisted bicycle in areas where there is a danger of explosions;**
- **Ride the pedal-assisted bicycle in the presence of adverse weather conditions (heavy rain, hail, snow, strong wind, etc.);**
- **Ride the pedal-assisted bicycle under the influence of alcohol or drugs;**
- **Ride the pedal-assisted bicycle if your weight is higher than allowed;**
- **Charge the battery in an environment that is too hot or not sufficiently ventilated;**
- **Cover the battery while charging;**
- **Smoking or using open flame near the charging area;**
- **Perform any maintenance with the battery connected;**
- **Use non-genuine spare parts;**
- **Insert the limbs or fingers between the moving parts of the bicycle;**
- **Use the bicycle on asphalt or dirt terrain with obstacles greater than what is allowed by the vehicle;**



5. LIFTING AND TRANSPORT

5.1 Lifting

The weight of the chaos model pedal-assisted bicycle is such that it can be lifted and transported by a person, also because of the overall dimensions.

The optimal solution to perform the movement is to grab a handlebar knob and the back of the saddle.



DANGER

CRUSHING AND IMPACT

- **During lifting, extreme caution should be exercised to avoid damage to people and property.**
- **This operation must be performed by robust people.**

The manufacturer is not liable for breakages due to lifting and/or transporting the pedal-assisted bicycle after delivery.

5.2 Transport

To ensure the safety of transport on vans it is necessary to prevent the movement of the pedal-assisted bicycle. This is achieved by binding it with bands or anchor cables in good condition.

In this regard, coupling devices must be installed so as not to damage the frame and other parts of the bicycle.



DANGER

RISK OF ACCIDENT

ALWAYS make sure that the adjustment screws of the frame and handlebars are tightly tightened before each use of the bike. Otherwise, accidents, even serious ones, could result.



6. COMMISSIONING

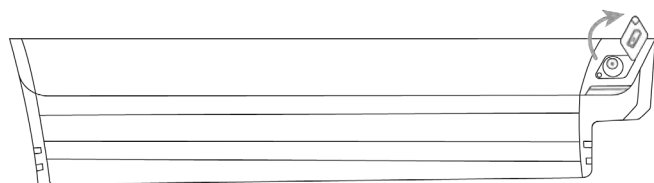
6.1 Battery charge

Before using the bike for the first time you must charge the battery for at least 8 hours, using the appropriate battery charger supplied.

The pedal-assisted bicycle model CHAOS is equipped with an electric motor powered by a 36 V lithium-ion battery. The battery pack is housed in the central part of the frame, inside the oblique pipe.

The average charging time varies from 4 to 6 hours.

The charging operation can be carried out in a well-ventilated box with the battery installed on the bicycle. To charge the battery proceed as in clause 3.11.3.

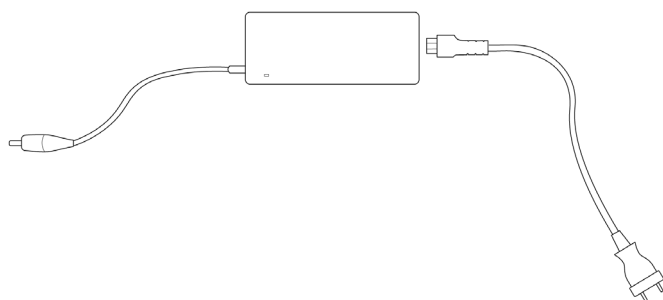


ATTENTION

BATTERY CHARGER

Always connect the plug to the battery first and then the battery charger to the power outlet.

FIG. 9



ATTENTION

BATTERY CHARGE

The battery should not be completely discharged to preserve its life and not run the risk of damaging it. In any case, the same must be recharged at least every 3 months even in case of non-use of the bicycle.



PERICOLO

PRECAUTIONS WHEN CHARGING

- **Always connect the plug to the battery and then the power plug to the mains;**
- **When charging is complete, always disconnect the plug from the mains first and then the plug from the battery;**
- **Always recharge the battery completely;**
- **Always use the original supplied power supply;**
- **Do not leave the battery charging for more than 24 hours;**
- **Always recharge in a ventilated environment;**
- **Do not recharge the battery in too hot environments;**
- **Do not recharge the battery in the vicinity of flammable liquids;**
- **Do not cover the battery in any way while charging;**
- **If the battery smells bad, immediately unplug from the mains and ventilate the room. Do not touch the battery;**



6.2 Preliminary functional check

Before each use, the driver must ensure the safety status of the pedal-assisted bicycle. Therefore, perform the following inspections before riding the pedal-assisted bicycle.

6.2.1 Control devices

Check the efficiency and state of charge of the battery. Use in a very cold environment quickly degrades battery efficiency . Check the tension and lubrication of the chain.

6.2.2 Wheels

Check the tire inflation pressure. Check the state of wear of the tread: there must be no cuts, cracks, foreign bodies, abnormal bulges, visible canvases and other damage.



ATTENTION

Do not inflate tyres beyond the permissible value reported by the manufacturer on the side surface of the tyres .

6.2.3 Braking

Perform a visual inspection of the braking system verifying that there are no damaged cables or lubricants in the braking surfaces of the brake discs. Check the operation of the brakes with a low-speed braking test on flat , obstacle-free terrain, first with the rear brake and then with the front one.



ATTENTION

NEGATIVE VERIFICATION

In the event that, during the preliminary checks, defects of any kind should be found and even a single verification is negative, DO NOT RIDE THE PEDAL-ASSISTED BICYCLE. Immediately activate all measures to carry out a proper repair and, if necessary, contact the authorized dealer or an authorized workshop.



6.2.4 Frame and saddle position

Check that the frame and saddle are fixed correctly and positioned in the most comfortable configuration for the rider for complete control of the bike. Otherwise, before departure, act on the systems for adjusting the position of the saddle. For further information on the regulation please refer to section 2.6.1.

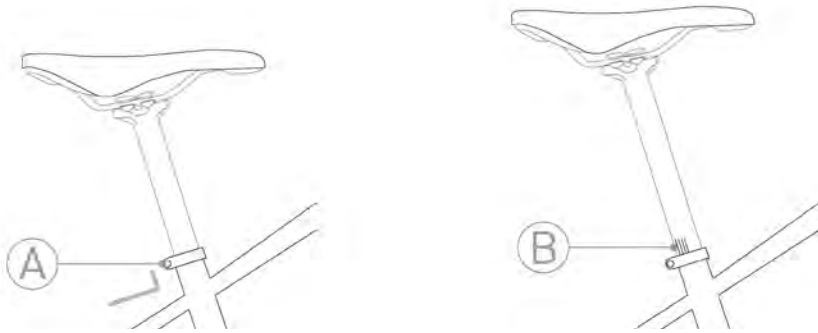


FIG. 1



IMPORTANT NOTICE:
Check that the minimum insertion mark (B) is not visible.



FRAME POSITION

It is strictly forbidden to use the bicycle without having correctly fixed all the parts and used the adjustments to assume a comfortable and safe riding position.

6.2.5 Brake adjustment

Before using the pedal-assisted bicycle, adjust the position of the brake levers on the handlebars to obtain a comfortable and firm grip of lever and knob during braking. Loosen the screw (Ref. S – Figure 11) and turn the brake lever to the desired position. Check that you have tightened the screw correctly before using the pedal-assisted bicycle.

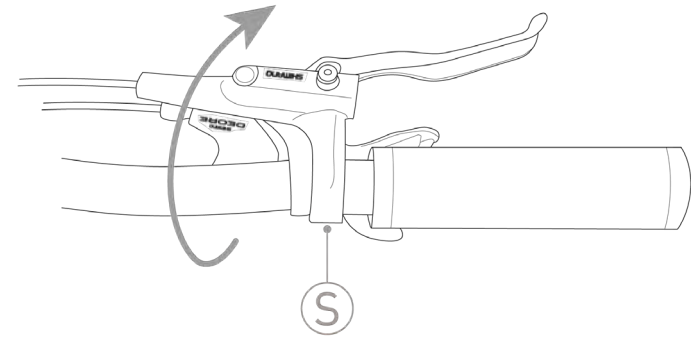


FIG. 11

6.2.6 Suspension adjustment

At this point, adjust the suspension to make the use of the pedal-assisted bicycle more comfortable.

Depending on the route and the load on the vehicle, it is possible, by means of a special manettino placed on the left side of the fork (Ref. R – Figure 10), to vary the stiffness of the same.

The blue manettino positioned at the top right (Ref. Q – Figure 10), on the other hand, allows you to adjust the hydraulic compression, effectively transforming the suspension from cushioned to rigid.

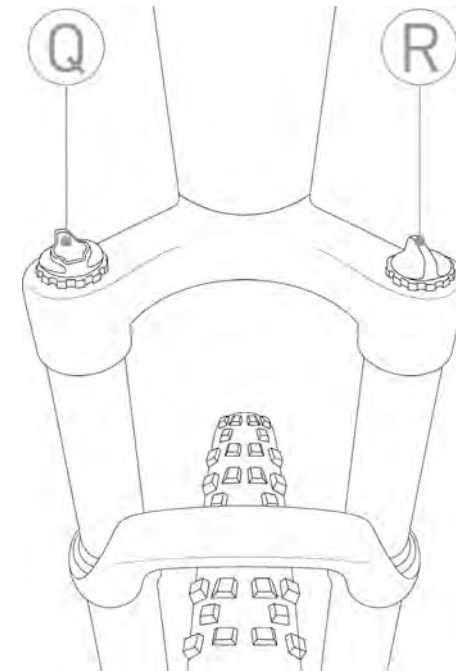


FIG. 10



DANGER

ADJUSTMENTS

It is strictly forbidden to regulate the devices of the bicycle if you are not an experienced and educated person to do so. Incorrect regulation can lead to serious injuries. Therefore, if you are not able to regulate these functions, contact specialized per-

The manufacturer is not liable for accidents resulting from incorrect adjustment of the pedal-assisted bicycle devices.

7. USE OF THE BICYCLE

The pedal-assisted bicycle has been designed and built for use in open places, with asphalt or dirt surface, for amateur uses.

- It can only be used by experienced adults and children;
- The use of the pedal-assisted bicycle is not recommended for pregnant women;
- Do not take alcohol or drugs before riding the pedal-assisted bicycle;
- Don't ask your pedal-assisted bike for performance that's superior to what it was designed for. Use the bicycle only in the manner and intended uses described in this manual;
- Never ride the pedal-assisted bicycle with disassembled parts;
- The pedal-assisted bicycle cannot be used on very wet, icy or slippery surfaces;
- Avoid very uneven surfaces and obstacles;
- Ride with both hands on the handlebars;
- Replace worn and/or damaged parts. Possibly, if necessary, have it checked by authorized personnel.

Before leaving, carry out all the checks reported in the previous chapter and always keep focused while driving, for your own safety and that of others .



RISK OF ACCIDENTS

- **Verify that all commands are fully functional.**
- **Always respect the highway code.**
- **Use the appropriate protective equipment (helmet, etc.).**



7.1 Use of the bicycle

Before using the pedal-assisted bicycle in places open to traffic, it is advisable to familiarize yourself with the behavior of the vehicle.

The first uses must be made in private environments away from traffic, other cyclists or obstacles of any kind.

The driver must adapt the driving speed of the pedal-assisted bicycle to the conditions of the route and the presence of other vehicles or pedestrians. Especially when facing curves you have to keep a moderate speed (the smaller the radius of the curve, the lower the speed). When the driver stops pedaling or the speed reaches 25 km/h, the electric motor no longer provides assistance and the bicycle proceeds completely managed by the Pedals.

It is essential to gain experience in driving the pedal-assisted bicycle, before proceeding at a high speed. In case you do not want to use the motor, simply remove the battery or set the level 0 of assistance.

7.2 Braking

To minimize the stopping distances of the vehicle it is necessary to suddenly stop the pedaling and, subsequently, apply braking force gradually so as not to destabilize the middle.

Encourage the use of the rear brake under braking to stabilize the bicycle.



ATTENTION

DRIVING CONDUCT

Excessive braking force can trigger harmful phenomena such as locking the wheel or overturning the vehicle. It is very dangerous to brake when cornering: you may lose control of the bike.

7.3 Bicycle parking

The bicycle is not equipped with a side support stand, therefore, before abandoning the bicycle check that it is resting on a stable ground and that remains in a stable position.

The bicycle must be parked in the prepared parking areas and, in any case, without obstructing the passage paths, emergency exits, electrical panels and workstations antfire.



8. MAINTENANCE

8.1 Generalities



RISK OF ACCIDENTS

During all maintenance work, follow the appropriate safety measures. All maintenance operations must be carried out with the battery disconnected from the bicycle and the battery charger. The bicycle must be supported in a stable way taking advantage of special support elements.

To maintain the full functionality of your pedal-assisted bicycle for a long time, you must carry out maintenance as prescribed, with correctness and professional skills. After each routine maintenance, a check on the perfect functioning of all the controls is mandatory.

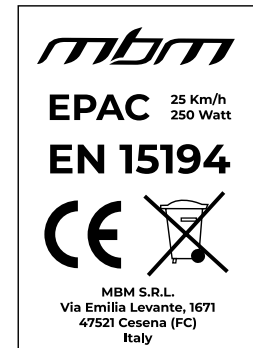
8.2 Daily maintenance and checks

8.2.1 Tag and pictograms check

Check the legibility and presence of the CE plate and warning stickers applied to the body of the bicycle.

8.2.2 Wheel control

Through the special inflation valve on the rims, check the inflation pressure of the tires using a compressor and a gun with pressure gauge, or a pump. Check the status of the tread, the rim and the attachment of the rims to the hubs. In case of tyre replacement, please contact your authorised dealer or a qualified tyre dealer.



ATTENTION

Do not inflate tyres beyond the permissible value reported by the manufacturer on the side surface of the tyres .



8.2.3 Brake functioning check

The brakes must be adjusted in such a way as to ensure effective braking and, at the same time, the control levers must have an adequate stroke to be able to modulate braking: in other words the brakes must not be too slow or too pulled. Check that brake system discs and pads are not contaminated with oils or soaps. Check the effectiveness of the braking system on flat terrain and at low speeds. Check annually the wear of the brake pads by going to authorized personnel.



Brake adjustment should only be carried out by authorized personnel.

ATTENTION

8.3 Maintenance and weekly checks

8.3.1 Washing and cleaning

The cleaning of the pedal-assisted bicycle is not only a matter of decorum, but also allows you to immediately detect a possible defect in the same.

In order not to damage or compromise the operation of the various components, especially the electrical parts, cleaning must be carried out taking some precautions. It is absolutely forbidden to direct jets of pressurized water towards the electrical parts, the motor and the battery, for which washing with a sponge is recommended.

Before starting the pedal-assisted bicycle, dry completely with low-pressure compressed air and check that there is no residual moisture left on the electrical components.

8.3.2 Lubrication and chain tension control

It is important to periodically clean and lubricate the chain to avoid corrosion due to weathering.

1. Wipe the entire length of the meshes with a rag.
2. Spray on all meshes a special grease in spray for transmission chains.

Check the correct tension of the chain by placing the gear-box in the two different extreme positions allowed by the sprocket pack.



CORRECT CHAIN LUBRICATION

Be extremely careful not to let the lubricant go on the brakes or tires of the bicycle. This can lead to the occurrence of serious injuries!!

8.3.3 Frame and bolt control

The load-bearing frame of the pedal-assisted bicycle and the welds must be free of visible defects such as: cracks, deformations, incisions, corrosions, etc.

Make sure all the bolts of the pedal-assisted bicycle are tightly tightened.



8.4 Monthly maintenance and checks

8.4.1 Control of electrical circuits and components

Check the condition and fastening of the battery cables: the sheaths of the electrical cables must be in good condition and the terminals must be tightly tightened, not corroded and, if necessary, covered with protective and insulating grease.

8.4.2 Control and adjustment of the rear derailleur

Adjustment of the lower and upper limit switches of the gearbox: Turn the two screws (Ref. U-T- Figure 12) so that the chain does not come out. The chain displacement device must be in line with both the larger and smaller gear (Ref. Figure 13).

Lower limit adjustment

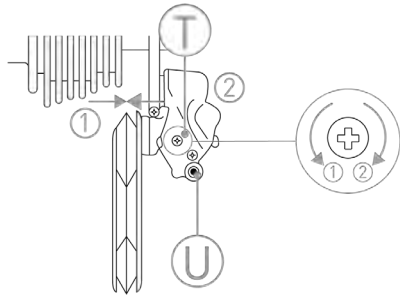


FIG. 12

Upper limit adjustment

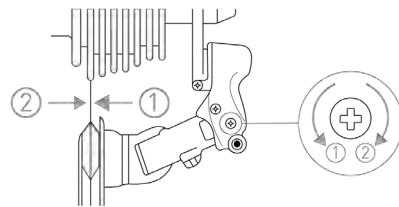


FIG. 13

Adjust the tension of the cable by acting on the appropriate control to ensure the immediate response of the rear derailleur to the control of the handlebar (Ref. Figure 14).

To prevent damage to the gearbox, it is recommended not to exert too much pressure on the pedals while changing gear. So avoid changing when making an effort or driving on a slope.

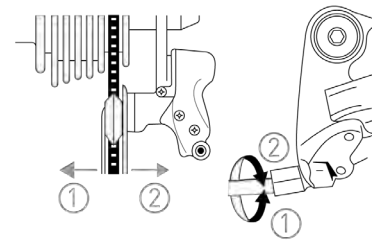


FIG. 14

9. TECHNICAL ASSISTANCE AND SPARE PARTS

If you need technical assistance, please contact your authorized dealer.
In case of assembly of non-original parts the warranty loses validity!



ATTENTION

ORIGINAL SPARE PARTS

The manufacturer is exempt from any liability for damages of any kind generated by the use of non-original spare parts.

10. WAREHOUSE

In the event that the pedal-assisted bicycle should be stored and stored for long periods of inactivity, the following operations must be carried out:

- Repair it in a dry and ventilated place;
- Perform a general cleaning of the pedal-assisted bicycle;
- Remove the battery from the seat and store it in a special storage site (fully charged and recharge it regularly);
- Leave the bike on a special support;
- Protect exposed electrical contacts with antioxidant products;
- Grease all surfaces not protected by paints or anti-corrosion treatments.



11. COMPONENTS AND MATERIALS DISPOSAL



ATTENTION

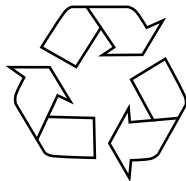
DISPOSAL OF MATERIALS

The disposal of packaging, waste and vacuumed dust, replaced parts and / or the pedal-assisted bicycle as a whole at the end of its expected life must be carried out in compliance with the environment avoiding polluting soil, water and air and in any case respecting the national and local legislation in force on the subject.

Indications for waste treatment:

- Ferrous materials, aluminum, copper: these are recyclable materials to be given to a special authorized collection center.
- Plastic materials, fiberglass, gaskets, tires: these are materials to be sent to landfills or recycling centers .
- Batteries must be taken to authorized disposal centers.

Divide the materials according to their nature by appointing specialized companies authorized to dispose of, in compliance with the provisions of the law.



12. WARRANTY RULES

M.B.M. S.r.l. Unipersonale guarantees that its bicycles are free from any manufacturing or workmanship defects. This warranty covers the repair or replacement of any part recognized to be defective, subject to the following conditions:

TERMS AND CONDITIONS

- Warranty period: the pedal-assisted bicycle is guaranteed for 24 months on mechanical and electrical parts, except for batteries and all components subject to wear. The batteries are covered by a conditional warranty for 24 months and limited to proper use of the same:
 - first 6 months 100% coverage;
 - from the 7th to the 12th month 50% coverage;
 - from the 13th to the 24th month coverage of 25%;
- If the battery has been left to discharge below the allowed, the manufacturer is not responsible for any damage.
- In order to make this warranty effective, you must fill out the online form which is accessed by QR CODE or by connecting directly to the site warranty.mbmbike.it by and no later than 15 days from the date of purchase of the bicycle. The serial number and the photograph of the proof of purchase of the authorized dealer will be required. The serial number is printed on the label on the battery slide and on the battery itself. (Fig. 15)
- Claims must be made through an official retailer by presenting the original tax document (receipt or invoice) and printing of the confirmation of activation of the warranty that you will receive gradually e-mail after filling out the online form;
- The warranty provides for the free replacement of any defective or prematurely worn part provided that all the pre-writings have been respected and the improper use of the bicycle. The manufacturer's obligations are limited to the replacement of defective parts;
- Finally, our Technical Department will decide whether or not the defective part or bicycle falls within the conditions of this warranty;
- This warranty does not cover in any way the replacement of worn parts from normal use of the bicycle;
- +The present guarantee Not Yes Apply in No case To Failures o ravages Caused Of one use improper of bicycle one use of bicycle for Competitions sportswoman from the application of fixings Not Original o Of Improper Interventions of main-

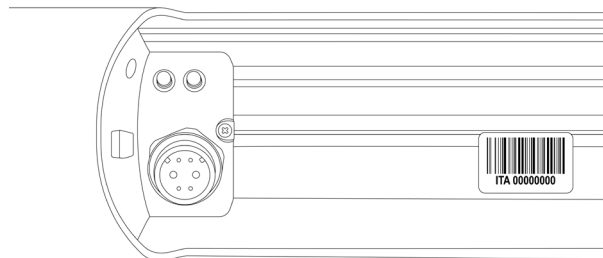


FIG. 15



ACTIVATE HERE

WARRANTY



EXCLUSIONS

- Normal wear on parts subject to it, such as tyres, chains, brake pads, cables, inner tubes and gear wheels in situations where there are no material defects.
- Bicycles assisted by an unauthorized distributor MBM;
- Changes compared to the original packaging;
- Use of the bike for abnormal activities, such as competition and/or commercial activities, or for purposes other than those for which the bike was designed;
- Damage caused by failure to comply with the user manual;
- Damage to paints or decals as a result of having exposed the bike or having used it in harsh conditions and climates;
- Labor costs for the replacement of parts;
- Transport costs.

Except as provided in this warranty and subject to all other warranties, MBM and its employees and agents will not be liable for loss or damage of any kind (including incidental and consequential losses or damage caused by negligence or failure) originated from or related to any MBM bicycle.

The M.B.M. S.r.l. Unipersonale does not assume responsibility for damages to property and people due to the improper use of the vehicle.

13. CONFORMITY

Hybrid-powered bicycles with a maximum support speed of 25km/h meet the requirements:

- 2006/42/EC Machinery Directive
- 2014/30/EU Electromagnetic Compatibility Directive
- 2011/65/EU Rohs Directive

These bicycles also comply with the following non-harmonized standards:

- Electric bicycles: EN 15194

Disclaimer.

It is strongly recommended not to remove or replace any original equipment or to modify the bicycle in any way that may change its design and / or operation. Such modifications could seriously damage the handling, stability and other aspects of the bike, making it unsafe. The removal or modification of parts, or the use of non-original equipment as spare parts, can make the bicycle no longer comply with the rules and laws Applicable. To ensure safety, quality and reliability, use only original parts or MBM authorized spare parts for repair and replacement.





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