



# **CAVET E-BIKE**

USER GUIDE PO-1703

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#### **GENERAL**

READ CAREFULLY BEFORE USE.

#### SYMBOL EXPLANATION

The A-weight emission sound pressure level at the driver's ears is less than 70 dB(A)

For indoor use only
This unit is double insulated



Wear personal protective equipment



Read manual before operating the product



Class III protection against electric shock.



The center (tip) of the output plug is positive (+) and the barrel of the output plug is negative (-).



For safe and proper use, follow these instructions. Keep this user manual for future reference.

#### **BEFORE YOU START**

Before you use the e-bike for the first time, please read the USER MANUAL thoroughly and follow the instructions and warnings to ensure your safety and the safety of others. It is recommended to keep the instruction manual for future reference.

For further information, visit www.vayabike.com

#### WARNING

Failure to follow the basic instructions and safety precautions listed in the USER MANUAL can lead to damage to your scooter, other property damage, serious personal injuries, and even death.

The e-bike is designed for "city and trekking", so use the bike only on roads and even pathways. Using the bike on other surfaces or in other ways can result in system failure and loss of control, leading to serious personal injuries or death.

As with all mechanical components, the bike is subject to normal wear and tear. Different materials and components can behave differently due to wear and tear. If components' lifetime is exceeded, they can suddenly fail or break, resulting in injuries to the user. Any form of crack, scratch or change in colour of components is a sign that the component is worn out and is in need of replacement.

#### IMPORTANT SAFETY INSTRUCTIONS

#### **Warning - Danger**

- Children should be supervised to ensure that they do not play with the appliance. Cleaning and user maintenance should not be done by children.
- The battery charger may be used by children aged 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge provided that they have been given supervision or instruction regarding the use of the appliance in a safe way and provided they understand the hazards involved
- 3. Do not attempt to modify, change or open your battery.
- 4. Do not place the battery near any heat sources such as heaters. The battery must not be heated or exposed to open flames.
- 5. Do not subject the battery to heavy impact or throw it.
- 6. Do not submerge the battery in water or let the battery connector become wet.
- 7. Do not insert the battery if the battery connector on the e-bike is wet. Place the e-bike inside and make sure that the connector on the e-bike is completely dry before inserting the battery.
- 8. Do not leave the battery in direct sunlight. Do not leave the battery in a vehicle during high temperatures or in other warm locations. This can cause battery leakage.
- 9. Only use the charger included in the box. The e-bike must only be supplied with safety extra low voltage corresponding to the marking on the e-bike's battery.
- 10. Do not exceed the maximum weight limit (150 kg).

#### Warning

- Do not charge the battery outside or in areas with high humidity.
- Do not use the battery if it is visibly damaged.
- 3. Ensure that the wheels are mounted correctly before riding the bike.
- 4. Learn how to ride and use all functions of the e-bike before using it in traffic.
- 5. Check that the front light works before riding the e-bike in darkness.
- Always remove the battery before performing any maintenance or installation work on the e-bike.
- If the charger supply cord is damaged, it must be scrapped, and the charger must be replaced by the manufacturer or its service agent - please contact the service line.
- 8. The included charger is only to be used for this e-bike and not for any other electronic equipment. Do not use the charger to charge any non-rechargeable batteries.
- Do not abuse your e-bike; doing so can damage your unit and cause failure to the operating system which can lead to injuries.
- 10. Do not ride the e-bike using loose or torn clothing.
- 11. Safety-critical components should be replaced using genuine replacement parts.
- 12. Please be aware of the specific risk of entrapment during normal use and maintenance on the front/rear wheel, chain and sprocket.

#### Caution

- 1. Please wear all appropriate safety and protective gear while operating the e-bike. See the operating principles section for more information.
- Do not operate the e-bike while under the influence of drugs and/or alcohol.
- 3. Brakes can get hot after use: do not touch them after braking.

- 4. If the handlebar grips become damaged and expose the metal ends of the handlebar, these must be capped using internally fitted "bar end plugs".
- 5. Do not ride in extreme weather, such as heavy snow, rain, hail, sleet, on icy surfaces or in extreme heat.
- The fording depth should not exceDo not immerse this bike in water. The fording depth should not exceed 80 mm.
- 8. Do not ride this bike up and down steps.
- 9. Do not operate the e-bike while talking, texting, or looking at your phone.
- 10. At high speeds, always take into consideration longer stopping distances.
- 11. Please note possible increased braking distance in wet weather.
- 12. Do not clean your bike with a pressure washer. High-pressure cleaning may remove lubricant and/or grease from bike parts.
- 13. When lubricating the moving parts of the e-bike, take care not to get any lubricant on the brake discs or brake pads.

#### Note

- 1. Disassembling the e-bike will void your warranty.
- 2. PAY ATTENTION look where you are riding and be aware of the surface conditions, people, places, property, and objects around you.
- 3. When operating the e-bike in the dark, be sure to follow the laws regarding rear and front lights and correct reflectors. Supplied light is for additional lighting only.
- 4. Do not ride the e-bike where it is not permitted. Check the limitations of use according to road safety regulations.
- 5. These instructions are available from the service address at the bottom of the page.

The instructions must be read and understood by each rider before use. Retain them for future reference and pass them on to any new owner or rider of the e-bike. It is recommended to keep the original box in the unlikely event that you need to return the product to us or send it in for repair.

### Warning

The warranty does not cover improper use of the product or the failure of users to follow the warnings and operating instructions in this user manual. There is a limited warranty on wearable parts, such as tyres, battery, motor, chain, cassette, brakes, and handle grips. These parts as considered wear parts and can be ordered at www.vavabike.com See the service folder for more information.

#### **BOX CONTENT**



#### **LCD DISPLAY**





#### **OPERATING PRINCIPLES**

- · Press and hold the power button to power the e-bike on or off.
- Short press the + button to increase the pedal assist gear.
- Short press the button to decrease the pedal assist gear.
- Quick press 'M' button, the signal of 'USB' will be activated on display. Open the USB port, connect with your smart-phone.

#### **SETTINGS**

Press and hold the M button for 2 seconds to enter the display settings.

Press the M button to enter/confirm settings. Press the + / - buttons to switch between settings or to change settings.

Press and hold the M button to save the selected setting and exit the settings menu.

#### **P01: Unit Setting**

Press '+' or '-' to switch unit between km/h and mph.



**P02: Wheel Diameter Value** 



**P03: Rated Battery Voltage Value** 



**P04: Speed-Limiting Setting**Press '+' or '-' to change maximum speed.



## **P05: Cruising Setting**

Press '+' or '-' to turn on/off cruising model.



P06: Start-up Model Setting

Press'+' or '-' to switch start-up model. 'O' stands for zero start-up; '1' stands for non-zero start-up.



#### **P07: Bluetooth Reset**

Press '+' or '-' to reset the Bluetooth function.

- Press 'no' to cancel reset
- Press 'yes' to reset the Bluetooth function.



**P08: Software Version** 

To display the current version of software



#### **P09: Display Version**

To display the current version of display.



#### **DRIVING MODES**

The e-bike has two driving modes: pedal-assist mode, and walk-assist mode.

#### **Pedal-assist mode**

Step on one of the two pedals in any PAS gear, and the motor will start according to your setting to provide you with power output. Once you stop pedalling, the pedal assist will stop automatically.

#### Walk-assist mode

The bike will drive at a speed of 6 km/h. This mode can be used to push the bike up a steep hill or to drive slowly without pedalling.

#### **USING THE E-BIKE**

Before using the e-bike, you should be aware of several dangers. Please read the following section carefully if you are a beginner or riding the e-bike for the first time.

#### **Hand brakes**

The right hand brake is for braking the rear wheel.

The left hand brake is for braking the front wheel.

#### **Precautions before driving**

Check that the components of the e-bike are firmly installed and not damaged.

Check that the brakes work correctly.

Check that the tyres are in good condition and inflated.

Check that the handlebar is securely fastened. If there are loose parts, please tighten them.

**WARNING:** Perform a brake check every time before using the bike. Incorrectly installed, worn, damaged, or dirty brakes can greatly affect the brake distance and result in serious personal injuries and even death.

#### **WEIGHT AND SPEED LIMITS**

**WARNING:** Speed and weight limits are set for your safety. Please do not exceed the limits listed in the user manual.

#### **Weight restrictions**

E-bike maximum total weight: 150 kg

#### **OPERATING RANGE**

Please note that the e-bike has a 80 km range with a fully charged battery under ideal conditions. Following are some major factors that will affect the operating range of the bike.

**Terrain:** A smooth flat surface will increase your driving distance, whereas driving uphill or on rough or uneven terrain will reduce your distance significantly.

**Weight:** The weight of the user can affect the driving distance; a lighter user will have a farther range than a heavier user.

**Ambient temperature:** Please ride and store the bike within the recommended temperature range. This will increase the driving distance, battery life, and overall performance of your e-bike.

Maintenance: Correct battery charging and maintenance will prolong the battery life.

**Speed and driving style:** Maintaining a moderate speed will increase your distance; while travelling at high speeds for extended periods, frequent starts, stops, idling, along with frequent acceleration and deceleration will reduce your overall distance.

#### **BATTERY INFORMATION AND SPECIFICATIONS**

This section is intended to provide you with basic information about your battery and charger. Please read this section carefully to ensure your safety. For user safety and to prolong the life of your battery, as well as to improve battery performance, follow the instructions as stated.

#### **Lock/Unlock Battery**

You can lock the battery to the E-Bike by inserting the provided key and turning it clockwise.

If you need to unlock the battery to remove it from the E-Bike, insert the key and turn it anticlockwise.

It is recommended to always lock the battery during use.

When the battery is removed, you can hold down the indicator button on the battery to display an estimate of the remaining battery power.













## **Battery specifications**

48 V Battery
Battery: Rechargeable Li-ion battery pack
Model: TH-YW4820
Charging time: 7-8 hours
Voltage: 48 Volt
Battery cells: 52 cells
Initial capacity: 20 Ah
Operating temperature: -20 to +60 °C
Charging temperature: 10 - 45 °C
Storage time: 3 months
Storage temperature: 15 - 27 °C
Storage humidity: 50 (+/- 25) %

The charger and battery supplied must only be used together and are not suitable for other equipment.

## **Battery storage**

Do not charge the battery if the ambient temperature is below 10  $^{\circ}\text{C}.$  The battery needs to be placed in a warmer environment before being charged.

Store the battery inside in a dry place and correct temperature.

Do not store the battery in direct sunlight or in a car. High temperatures can damage the battery and decrease its lifetime.



Step 1: Check that the charging port is clean and dry.

- Step 2: Connect the charger to the bike's charging port.
- Step 3: Connect the charger to the mains power.
- **Step 4:** The charger indicator light should now turn red to show that the bike is charging. The bike is fully charged when the charger indicator light turns green. The charger automatically stops charging when the charging light turns green.
- **Step 5:** Disconnect the charger from the mains power. Disconnect the charger from the bike.

**Note:** If the charging indicator light does not turn red when the bike is connected for charging, then check that all plugs are properly connected, or check if the battery is already fully charged.

**Note:** The battery can also be removed from the bike for charging. Follow the same steps as above.

#### Safety tips for charging

Charge the battery fully before using it for the first time.

To extend the battery life, charge the battery at least every 2 months, and not more than two days after usage. Charge it within the correct temperature range.

Do not charge the battery longer than necessary. Turn off the charger when the battery is fully charged.

Do not store the battery without charging it. Charge the battery at least every 2 months. Only use the supplied charger to charge the battery.

Do not use the charger if the charger or the charger cable is damaged. Contact support for a replacement.

#### **Charger specifications**

Standard charger 48 V	
Model number: MGT4803A	
Input: 110 - 240 V, 3A, 50/60 Hz	
Output: 54.6.0V == 3.0 A	

## INSPECTION, MAINTENANCE, AND STORAGE

Your e-bike requires routine inspection and maintenance. This chapter describes maintenance steps and important operating tips. Before you perform the following operations, ensure the power and charging cable is disconnected.

The bicycle (e.g. non-electrical) parts of the e-bike are standard components that can be obtained from your local bike shop. Ensure that replacement parts are genuine parts. Contact customer support if in doubt.

Use of non-genuine or non-compatible parts, or modification of the bicycle outside its specifications is considered tampering. Tampering may result in increased risks to the user, and the user bears responsibility for any resulting issues.

#### Inspecting your e-bike

Routinely check the frame and tyres of the e-bike for damage or excessive wear and for correct tyre pressure, check all bolts and screws and tighten them if needed. Check that the handlebar screws are secure. Check that the handlebar cannot be moved up and down.

Check the side of the front and rear wheels for correct tyre pressure. See markings on tyres for correct tyre pressure.

The rims are subject to wear, which must be checked to ensure safety.

Check the brake pads for wear. If they are worn (approx. 1 mm left), replace the brake pads immediately.

See service folder for more information.

See the photo below, where screws must be checked and secured after each ride.



#### Cleaning your e-bike

Disconnect the charger and turn your e-bike off. Remove the battery.

Use a moist cloth to clean the e-bike. Do not use oil on the brakes.

Clean the brakes using a cloth dipped in isopropyl alcohol.

Do not use a high-pressure cleaner. Cleaning under running water is not recommended.

Do not spray water on the electrical components.

After cleaning, make sure to test the brakes before using the e-bike again.

#### **Chain maintenance**

Clean and lubricate the chain and chainrings regularly to extend their lifetime. Clean no less than once a month with daily use, more in poor conditions or if the chain becomes noticeably dirty.

Regularly clean the chain with a suitable chain cleaner.

Clean the chainrings using a neutral cleaning agent.

Use suitable lubrication on the chain and chainrings.

#### Storing your e-bike

If the ambient temperature of the storage location is below 10 °C, please do not charge. Bring the battery into a warmer environment before charging. Check under the section "Battery information and specifications" for more details.

To prevent dust from getting into your e-bike and battery, try wrapping or sealing it with its original packaging materials.

Store your e-bike indoors. If the bike is wet, dry it before storage.

Store your battery indoors in a dry place and suitable temperature range.

Do not store the battery in direct sunlight or in a car. High temperatures can cause damage and decrease the life of the battery.

#### **Hydraulic brakes**

The brake pads are worn over time. The hydraulic brake will auto-adjust to compensate as the brake pads are wearing down.

Noise from brakes

- The brake disc needs cleaning.
- You need to clean or sand the brake pads to remove impurities.
- The brake pads are worn and must be replaced.

The brakes are not working

- The bike has been turned upside down. Solve this by placing the bike down on both wheels. Press the brake levers several times until the brakes work again normally.
- The brake system has lost fluid, or air has entered the brake system. We recommend taking your bike to a bike repair shop. At own risk there are guides and equipment to repair at home.

#### Inspecting the trueness of the wheels

Over the lifetime of the bike, the wheels may begin to run out of true.

To check the trueness of a wheel, lift the e-bike and spin the wheel. If the wheel wobbles from side to side, then the wheel is out of true and will need repairing.

Special tools are required for repair. We recommend that the wheels be trued by a qualified repair technician. Contact your local retailer for more information on wheel repairs.

#### Inspecting the wheel bearings

Over the lifetime of the bike, the wheel bearings may become worn and will need servicing. To check, grab the tyre of either the front or rear wheel while holding the bike securely. Vigorously move the tyre from side to side. If the wheel moves at the wheel hub (the centre of the wheel), the bearing may be worn.

Special tools are required for repair. We recommend that the bearings be replaced by a qualified repair technician. Contact your local retailer for more information on wheel repairs.

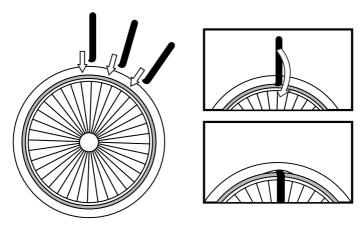
#### Removing a wheel

Release the wheel bolts on each side of the wheel.

Note: Pay attention to the position of the washers when you remove them.

Mount the wheel and washers in the same order and orientation as you remove them.

#### **Changing an inner tube**



If you have a puncture, you will need to remove and patch or replace the inner tube.

**NOTE:** A set of tyre levers is needed to remove the inner tube. This is not included in the box.

Remove the dust cap from the tube valve. Deflate the tyre fully.

Push both sides of the tyre towards the centre, away from the rim, to loosen the tyre. Insert a tyre lever anywhere between the tyre and the rim but not close to the tube valve. Insert the second tyre lever close to the first one and press it down on the tyre lever. Continue this process all around until you can remove the tyre.

After the tyre is removed, carefully remove the inner tube, starting with the valve.

Check the inner surface of the tyre for signs of damage or foreign matter.

After the tube has been repaired, partially inflate the inner tube using a bicycle pump. Carefully feed the inner tube into the tyre, starting with the valve. The valve must be aligned with the hole in the rim.

Replace the tyre in the rim, one small section at a time. For the last part, use the tyre levers to refit the last section.

#### Replacing the brake pads

See our webpage on how to replace brake pads: www.vayabike.com



## **E-bike specifications**

Net weight: 37 kg Max load: 150 kg Wheel size: 20 x 4 inch

Max compatible wheel size: 20 x 4 inch

Protection rating: IP67

Number of bike gears: Single Number of assist mode gears: 5 Max pedal assist speed: 0 - 25 km/h Operating range: Up to 80 km

## **RECOMMENDED TORQUES**

PART	TORQUE (NM)
Front wheel bolt	9 - 13 Nm
Rear wheel bolt	35 - 40 Nm
Handlebar screws	M8: 12 - 15 Nm
Brake cable bolt	6 - 8 Nm
Brake mounting bolt	7 - 9 Nm
Crank	30 - 35 Nm
Sprocket holder screw	30 - 35 Nm
Gear change holder screw M5	5 - 9 Nm
Brake disc screw M5	20 - 22 Nm
Brake cable bolt	6 - 8 Nm
Support base	6 - 8 Nm
Battery connecting screw	0.4 - 0.5 Nm
Handbrake	6 - 8 Nm

## **DISPLAY ERROR MESSAGE**

If an error occurs in the electrical system, the display will show an error code.

CODE	FAULT	MEASURE
01	Controller communication	Check whether the meter cable is properly connected

02	Controller internal protection	Check whether the three-phase power line is short-circuited
03	Three-Phase power abnormal	Check whether the three-phase power line is disconnected
04	Battery under-voltage protection	Check if battery is charged
05	Brake fault	Check connection of brake level. If ok, replace the brake level
06	Motor hall signal abnormal	Check if the connection of motor wire is short-circuited or loose
07	Throttle abnormal	Check connection of throttle. If normal, please replace thethrottle



Declaration of Conformity: (See provided document).

Products marked with this symbol comply with all applicable community regulations of the European Economic Area

#### **DISPOSAL**



Electrical and electronic equipment (EEE) contain materials, parts and substances, which can be dangerous to the environment and harmful to human health if waste of electrical and electronic equipment (WEEE) are not disposed of correctly.

Electrical and electronic equipment, which are marked with the WEEE logo (as shown on the left), should not be thrown away with your household waste. Contact your Local Authority Waste Disposal Department, as they will be able to provide details of the recycling options available in your area.



This symbol on the battery or on the packaging indicates that the battery provided with this product shall not be treated as household waste. The recycling of the materials will help to conserve natural resources. Contact your Local Authority Waste Disposal Department, as they will be able to provide details of the recycling options available in your area.

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## E-BIKE

In the event of a malfunction, please contact our customer service here:

## **VAYA NORDIC**



**Warning:** Does not cover improper use of the product or failure to follow the warnings and operating instructions in this instruction manual. There is also limited coverage on wearing parts such as wheels, battery, brakes and grips.

These parts are considered wear parts and can subsequently be ordered at www.envivo.nu