ZEN

URBAN MOBILITY. ENJOY FREELY.

OWNER'S MANUAL

IT IS IMPORTANT TO READ THE WARNINGS AND INSTRUCTIONS
IN THIS MANUAL BEFORE RIDING YOUR NEW BICYCLE

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CONGRATULATIONS ON THE PURCHASE OF YOUR BZEN BIKE!

We hope that this is a beginning of a new, exciting adventure for you.

Here is some important information about your new bike, along with step-by-step instructions to complete the assembly of it, and get you out safely on the road.

Some components were removed or adjusted for shipping. However, they can be easily re-assembled or re-adjusted in just a few simple steps.

Please also mind the manuals of the component manufacturers. The manuals are either included in your purchase documents or available online.

If you need any guidance for the maintenance of the bike please ask your trusted dealer.

List of Service Partners can be found under:
https://bzenbikes.com/service-centre/

Please take the time to read this manual carefully.
The sections marked with the symbols require your special attention:

"DANGER" This symbol indicates possible danger to your life and your health, if a given guidance is not properly followed.

"WARNING" This symbol is a warning against incorrect actions that may cause environmental or property damage.

"INFO" Indicates additional information about the product or directs you to sites where extra information can be obtained.

BASIC INFORMATION

- EPAC (Electrically Power Assisted Cycles) is treated as normal bike.
- The assistance runs by pressure on the pedals and stops when a cyclist reaches the velocity 25km/h or stops pedalling.
- Rated continuous motor power does not exceed 250 W and supply voltage does not exceed 48 V.

- Use your bike in road traffic only if the equipment corresponds to the country-specific road traffic regulations.
- Take note of and follow the country-specific and regional road traffic regulations.
- When riding, wear a bike helmet which corresponds to the country-specific and regional regulations and which has been inspected according to the DIN EN 1078 standard and which bears the CE test mark.
- Attaching child seats to the handlebar or to the handlebar extension is NOT PERMITTED.
- Mounting child seats on the luggage racks on our bicycles is also NOT PERMITTED.
- Attaching child seats to seat tubes is PERMITTED.

PARTS DESCRIPTION
Amsterdam

1. Saddle
2. Seat Post
3. Seat post binder
4. Stem
5. Handlebar
6. Fork
7. Frame
8. Battery location
9. Pedal
10. Belt
11. Motor
12. Front disc brake
13. Rear disc brake
14. Crankset and chainring
15. Front light
16. Rear light
17. Fender
18. Rack
19. Kickstand

PARTS DESCRIPTION

Brussels

1. Saddle
2. Seat Post
3. Seat post binder
4. Stem
5. Handlebar
6. Fork
7. Frame
8. Battery location
9. Pedal
10. Rear derailleur
11. Chain
12. Cassette
13. Motor
14. Front disc brake
15. Rear disc brake
16. Crankset and chainring
17. Front light
18. Rear light
19. Fender
20. Rack
21. Kickstand

PARTS DESCRIPTION
Milano

1. Saddle
2. Seat Post
3. Seat post binder
4. Stem
5. Handlebar
6. Fork
7. Frame
8. Battery location
9. Pedal
10. Belt
11. Motor
12. Front disc brake
13. Rear disc brake
14. Crankset and chainring
15. Front light
16. Rear light
17. Fender
18. Rack
19. Kickstand

PARTS DESCRIPTION

All bikes

1. Front disc brake lever
2. Rear disc brake lever
3. Gear lever
4. Display
5. Bell

INTENDED USE

EPAC's (Electrically Power Assisted Cycles) are bicycles equipped with an electric pedal assist drive system.

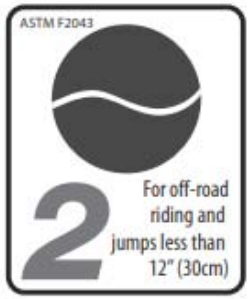
An EPAC IS NOT a moped or motorcycle.

The drive-assist system consists of a drive unit, a battery, a computer control, and various electronic components (wires, sensors, and control units).
This model bike does share components common with pedal-only bikes. May only be operated on plain to lightly unpaved surfaces (e.g. forest tracks) and only with the required tire pressure.

The manufacturer and the dealer may not be held responsible for any injuries, claims or damage that arose due to failing to meet these limitations or violations of any safety suggestions stated within this manual.

The manufacturer and the dealer may also not be held responsible for damage or injury caused during races or indeed any other competitive use.

Also, the manufacturer and dealer are not liable for any dam-age or injury caused by poor maintenance and care.



INTENDED:

For paved roads, gravel or dirt roads that are in good condition, and bike paths.

NOT INTENDED:

For off-road or mountain bike use, or for any kind of jumping.

WEIGHT LIMIT

BZEN bikes are designed for a maximum weight of 140 kg. The maximum weight is derived from the weight of rider, bicycle, gear (helmet, panniers, shoes, clothes) and luggage.

CHILD SEAT (SEAT TUBE MOUNTED)

The basic seats generally have a weight limit of 15kg. In real terms this is the equivalent of an average 3 to 3 1/2 year old. Some seats do offer an increased weight carrying capacity of 18kg. Do not exceed the weight limit specified by seat manufacturer.

If there are coil springs underneath your saddle, cover them up. A child sitting in a child seat can get their fingers caught between them.

UNPACKING AND ASSEMBLY

The following points must be carried out with utmost care and all screws have to be fastened with the necessary torque.
Danger of accident!

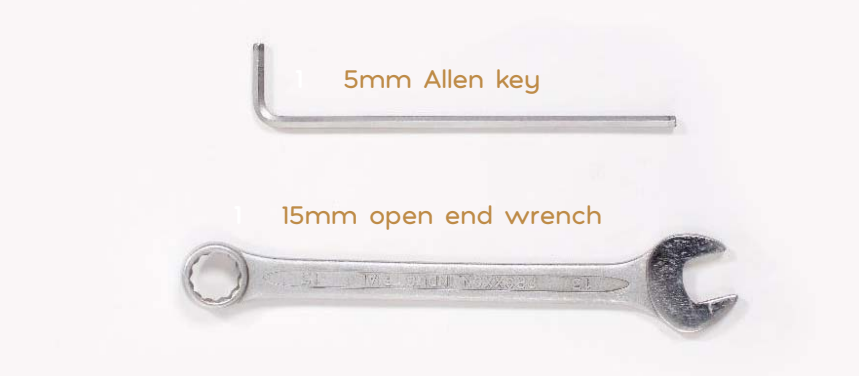
1. Unpack the bike box and carefully set aside any extra accessories. (**Note:** Keep the box! You might need it to return the bike for servicing or repair.)

2. Remove the e-bike from the box, clipping the ties from the front wheel and handlebar.
Next, remove the foam padding attached to the frame.

If you use a knife to cut the tape careful to not damage the frame or other components and any cables.

UNPACKING AND ASSEMBLY

3 Prepare tools. You will find them inside the box with charger.



4 Undo all four bolts from the handelbar stem face plate and set the bolts aside.

5 Place the knurled part of the handlebar into the stem faceplate and tighten the screws with an Allen key.

6 Make sure that the bolts are all evenly tightened, and that there is an even gap on the top and the bottom of the stem faceplate. Ensure that the handlebar is perfectly centred and set to the desired angle .

7 Insert pedals into the crank arms. Ensure that you have the correct left pedal going into the left crank, and vice versa.

Pedals are marked with an 'L' and 'R' accordingly. The left pedal tightens anti–clockwise, and the right pedal tightens clockwise.

8 Set the saddle height for your needs.

The seat post must be placed into the frame deeper than the MINIMUM INSERT safety line indicated on the post.

BRAKE SYSTEM

The rear brake is located on the right-hand side of the handlebar, and the front brake is on the left hand side. If the positioning of the brake levers on your bike is new and unfamiliar, you will have to be careful on your first rides. Make yourself familiar with the functioning and power of the brakes while riding at reduced speed.

Risk of accident due to reduced braking performance caused by brake pads that are not broken in!
Disc brakes can only achieve full braking power when the brake pads are broken in.
Choose a place off public roads to break in the pads:

- Brake 20 to 30 times with the front or rear brake from a speed of 30 km/h down to 5 km/h and repeat the process for the second brake. You should brake as hard as possible without locking one of the wheels.
- Please also note the instructions of the brake manufacturer (see enclosed manual). In case of any deviations, the component manufacturer's instructions apply.

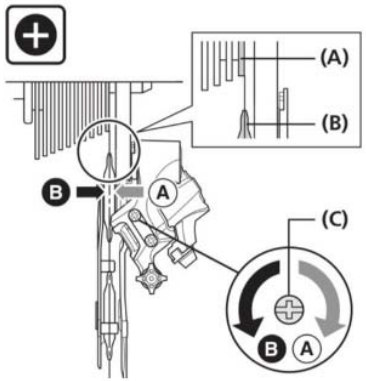
TRANSMISSION SYSTEM

BZEN e-bikes may be equipped with either traditional derralieur/chain system or modern Gates Carbon DriveTM power transmission.

Do not modify this bicycle drive system in any way for any reason. Doing so can result in severe damage, faulty or dangerous operating conditions, or violation of local laws.

Traditional gearing adjustment:

TOP ADJUSTMENT



Turn the top adjustment bolt to adjust so that the guide pulley is below the outer line of the smallest sprocket when viewed from the rear.

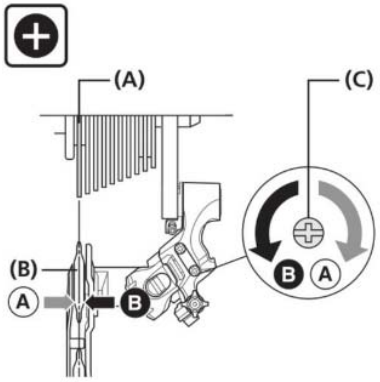
(A) Outer line of smallest sprocket

(B) Guide pulley

(C) Top adjustment bolt

TRANSMISSION SYSTEM

BOTTOM ADJUSTMENT



Turn the low adjustment bolt so that the guide pulley moves to a position directly in line with the largest sprocket.

(A) Largest sprocket

(B) Guide pulley

(C) Low adjustment bolt

GATES DRIVE

Gates Carbon Drive™ Belts are extremely durable and offer long life when properly handled. However, caution must be used before and during installation to avoid damaging the carbon tensile cords that make up the backbone of the belt's strength. Excessive bending and twisting creates crimps which can lead to belt breakage under high load.

Drive belt and sprockets do not need lubrication of any sort. For cleaning, use only water and a soft brush. Please do not use any type of detergent.

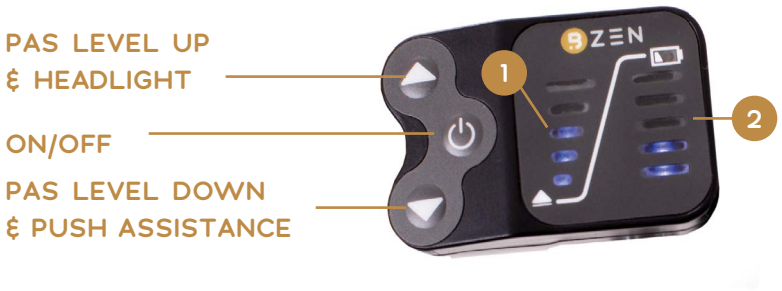
Do not crimp, twist, backbend, invert, bundle or zip tie the belt. Do not use the belt as a strap wrench or chainwhip. Do not roll on or pry on the belt.

Lack of belt tension can lead to tooth jump or "skip–ping", when the teeth of the belt slide over the teeth of the rear sprocket. Too much tension can damage bearings, can cause the system to drag, and can increase the wear of your drive system. The method for checking the adjustment of the belt can be found on manufacturer's website. We strongly recommend to contact your nearest dealer in case the adjust–ment is needed.

INFORMATION ON THE ASSIST SYSTEM

BZEN bike is equipped with electric support system.
On the handlebar you can find the control panel with:

1. **PAS (Pedal assistance) level indicator**
2. **SOC (State Of Charge) indicator**



PAS (PEDAL ASSISTANCE) level indicator:

Indicate current PAS level 0–5;
0 no LED display;
1–5 LED indicate in accordance the level of assistance.
In the mode of Push Assistance, LED loop light one by one from bottom up with 0.5s time interval.

SOC (STATE OF CHARGE) indicator:

5 LED indicate the state of battery charge.
If the lowest LED flickers, it means the time to charge the battery.

OPERATION SEQUENCE:

POWER ON/OFF:

- press the ON/OFF button for 2s, the display will turn ON;
- press the ON/OFF button for 2s, the display will turn OFF.;
- it will automatically turn OFF when standby in 5 minutes.

PAS level selection:

- press arrow UP or DOWN to switch between the different support levels (0/1/2/3/4/5);
- lowest level and the default level is 1;
- highest level is 5;
- when no LED light, it is level 0 (means park level).

LAMP/LED DISPLAY LUMINANCE:

- press arrow UP for 2s, LED display will turn dim, then turn on the front lamp and rear lamp at the same time. Again press arrow UP for 2s, LED display highlight, meanwhile turn off front light and rear light (if fail to manipulate the lamps manually, need to restart the LED HMI and then lamps can restore automatically);

PUSH–ASSISTANCE SELECTION:

- press arrow DOWN for 2s, the push assistance will be turned ON, and level LED flicker, if you move your finger away from this button, the push–assistance will be turned OFF.

ERROR CODE DEFINITION

This system can indicate all errors occurring on the Pedelec. In certain modes, the LEDs will flicker when an error code occurs.

ERROR CODE	ERROR DEFINITION	SOLUTION
The second LED flickers 7 times in rapid succession	High voltage protection	Check the battery voltage
The second LED flickers 8 times in rapid succession	Fault with motor hall sensor inside	Have your dealer check the motor stator
The first LED flickers once	The motor temperature reaches to the max protection value	Stop riding and wait until the LED stop flickering
The first LED flickers once then the second LED flickers twice	Fault with current sensor inside controller	Have your dealer check the controller
The first LED flickers once then the second LED flickers 3 times	Fault with temperature sensor inside battery	Check the battery
The first LED flickers twice then the second LED flickers once	Fault with wheel speed detecting sensor	Check the motor stator
The first LED flickers twice then the second LED flickers twice	BMS communication fault	Replace the battery

BEFORE THE RIDE

- Make sure the battery is fully charged
- Check that the wheels are straight. Lift the wheels one after the other and spin them. The wheels must spin smoothly. The wheels must run true, without moving up and down or from side to side. The tyres must not rub against the frame.
- Check the tyre pressure. The best way to check the pressure of the tyres is to use a floor pump with a pressure gauge. The tyre pressure must not fall below or exceed the minimum or maximum value
- Check the tyres for damages and wear. The tyres must not be damaged. The tyres must not be worn so that the puncture protection belt or the carcass threads can be seen through the tread.
- Make sure wheel quick releases are firmly closed.
- Check the bite point of the brakes: Pull one brake lever after the other while standing. The bite point must be felt around half way down the brake lever travel.
- Check the braking performance. Pull one brake lever after the other while standing and push the bike backwards and forwards. Front and rear wheel must lock when the brake lever is pulled.
- Check the brake pads for wear. The thickness of each brake pad must be 0,5 mm or more.
- Check the brake discs for wear. Minimum thickness of Shimano brake rotors: 1,5 mm.

BEFORE THE RIDE

- Check whether the brake cables and connections are losing brake fluid and check them for defects. Brake fluid must not escape at the connections.
- Verify the tight fit of the stem. Stand in front of the bike with the front wheel between your knees. Tryto turn han–dlebar left and right. It should not be possible to turn the handlebar with normal force.
- Check the headset fore–aft play. Stand next to your bike with both hands on the handlebar. Pull the front brake and try to push the bike gently backwards and forwards. You should not notice any play.
- Verify the tight fit of the seat post. Stand behind your bike, hold the saddle with one hand and try to turn it left and right. It should not be possible to turn the saddle or seat post.
- Make sure that all parts are tight. Loose parts must be tight–ened to the proper torque
- Check the drive chain condition. Make sure it is clean and well–lubricated. Chain wear is greater compared with pedal only bikes. This requires frequent inspection and replacement.
- Check the belt tension (if bike is equipped with belt drive)
- Check the bicycle front and rear lighting to make sure it works properly.
- Inspect condition of electrical cables (i.e. kinks free, no signs of abrasive wear)
- Test the drive–assist system, make sure the drive system functions normally.
- Check the frame for damages and deformation. There must be no damages.

SERVICE/MAINTENANCE INTERVALS

When neglecting maintenance and servicing, worn components may cause accidents. The service works and intervals mentioned in this manual must be observed. Service and maintenance works must be carried out by a qualified bicycle mechanic.
If any parts must be raplaced, please use only original parts specified by manufacturer.

SERVICE INTERVALS

1. after 500 to 1000 km or six months after purchase date at the latest
2. after 3000 to 4000 km or two years after purchase date
3. after 5000 to 7000 km or three years after purchase date

MANY BICYCLE SERVICE AND REPAIR TASKS REQUIRE SPECIAL KNOWLEDGE AND TOOLS.

Do not begin any adjustments or service on your bicycle until you have learned from your dealer how to properly complete them. Improper adjustment or service may result in damage to the bicycle or in an accident which can cause serious injury or death.

TIRE WIDTH AND PRESSURE

On bicycles with originally fitted tyres, the maximum tyre pressure can be determined from the marking on the sidewall of the tyre.

The maximum allowed tire width for BZEN bikes is 45 mm (measured width). The nominal width stated on the sidewall of the tire and the actual measured width may differ depending on the manufacturer.

TIGHTENING TORQUES

Too much torque can cause damage or the failure of a part. Too little torque can cause the part to come loose or break from fatigue failure. Use a torque wrench to correctly tighten a part, or transport the bicycle to your bike shop for service.

PART	BOLT SIZE	TORQUE
Hub nut	M5	8Nm
Hub axle	M6	8Nm
Stem fork clamp	M5	7Nm
Stem handlebar clamp	M5	7Nm
A-Head cap	M5	3Nm
Seat post clamp	M5	10Nm
Pedals	15mm	35Nm

CARE INSTRUCTIONS

Do not immerse the e-bike system or any individual e-bike component in water, and do not wash any e-bike component with high pressure washing equipment. The system is designed to operate in rain and other adverse weather conditions. Damage due to pressure washing or other heavy cleaning may void the system warranty. Keep all components of the e-bike clean, especially the electric contacts on the battery pack and frame. Use a soft, damp cloth to clean them thoroughly

BATTERY CARE

When not using the battery for a longer period, charge it to approximately 80%. When not in use to optimize battery life span, charge your bike every 2 months. Note: Storing an empty battery pack for a longer period may damage the battery despite its low self-discharge and reduce the battery capacity. It is not recommended to have the battery pack permanently connected to the charger.

- Do not dismantle the battery pack; doing so may result in short-circuiting the battery system. Dismantling of the battery pack will void all warranties.
- Keep the battery pack far away from heat sources and open flames. The battery pack should not be exposed to temperatures above 140˚F (60˚C). Do not keep the battery close to fire sources or immerse it in water, otherwise it might result in the danger of explosions.
- Do not place the charger or battery pack close to flammable substances and make sure that the battery pack is stored in dry and fireproof environments. The heat generated during the charging process has the risk of causing fires.
- Always closely monitor the battery during charging.
- The leaking of battery fluids may cause burns or irritations to the skin. If the battery fluid leaks due to improper usage, avoid touching the leaked battery fluid. If you accidentally touch the battery fluid, clean with large amounts of water immediately. If the battery fluid comes in contact with your eyes, seek medical attention immediately
- Do not use or store the battery charger in locations that are easily accessible to children.

LIST OF WEAR PARTS

Some parts in your bike may require periodical exchange. Several mentioned in this manual have a significant influence on your safety. Please refer to pre-ride checklist for details.

- Brake pads/rotors
- Tires and tubes
- Front and rear sprocket
- Tooth belt/chain
- Rims
- Bearings
- Saddle

WARRANTY NOTES

Every BZEN bike has a guarantee of 2 years.

The warranty covers our frames and all original components.

BZEN Company guarantees each new BZEN bicycle frame against defects in workmanship and materials for 2 years. All original components have a guarantee for a period of 2 years from the date of invoice.

This warranty is explicitly limited to the replacement of a defective frame, or defective parts and is the sole remedy of the warranty. This warranty applies only to original owners and is not transferable. Claims under this warranty must be made directly to our website under support/warranty or via e-mail at support@bzenbikes.com. If you registered on the BZEN website, then your name and e-mail address will serve as proof of purchase. In case you did not register on our website, please provide a copy of your invoice.

This warranty does not cover normal wear and tear, improper assembly or follow-up maintenance, or installation of parts or accessories. The warranty does not apply to damage or failure due to accident, misuse, abuse, or neglect. Warranty does not cover paint damage. Modification of the frame or components shall void this warranty. BZEN SPRL is not responsible for incidental or consequential damages. Labor charges associated with parts changeovers are covered by the warranty as long as the decision on whom and where the reparation will take place as been agreed with BZEN.

This warranty does not affect the statutory rights of the consumer.