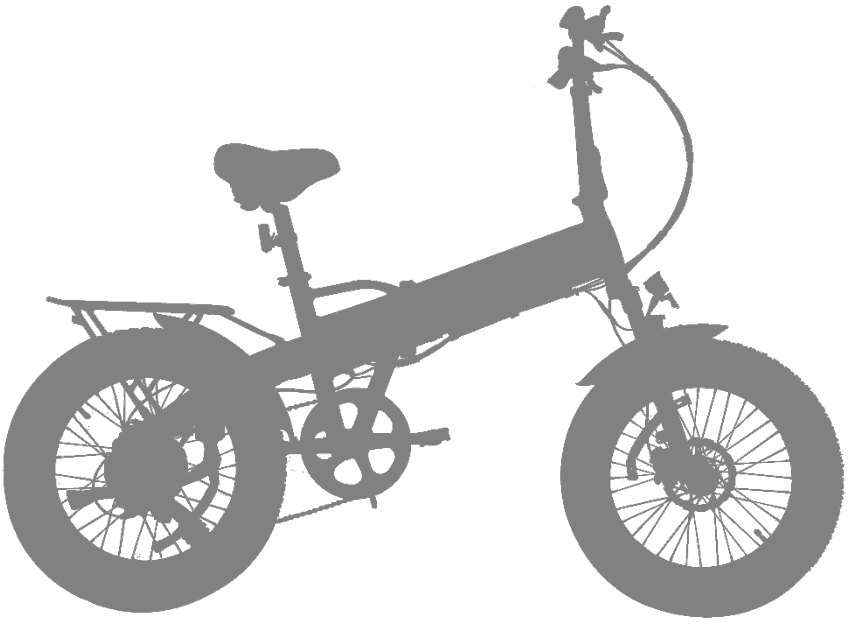
UNIVERCYCLE

USER MANUAL

E-BIKE



SATURNO

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SAFETY NOTICE

Before using the product, it is essential that users carefully read and understand the instructions provided in the manual.

Even if you are already experienced in using an e-bike, it is crucial to follow the instructions in this manual and fully comply with the regulations outlined in the Highway Code.

If you have never used similar products, keep in mind that you should learn how to use it and get comfortable with it in familiar roads or areas, free from people or obstacles.

Please be aware that, even when strictly following the instructions in this manual, there is no immunity from injury or damage to property or people resulting from inappropriate behaviour. Therefore, it is always recommended to use the utmost caution.

The company is not responsible for damage to property or people caused by improper use or modifications made by the user after purchase, if these do not fall within the uses and modifications specified in this manual.

If you notice any manufacturing defects during assembly, or if you have any doubts or need clarification, please do not hesitate to contact Customer Service.

Important Safety Notes

1. Before riding, check the weather conditions that may make using the e-bike dangerous.
2. Keep in mind that, like any vehicle, the higher the speed, the longer the braking distance. It is recommended to maintain an appropriate speed to allow for safe braking.
3. On wet, muddy, or icy roads, the bike's grip significantly decreases, and the braking distance increases, with a higher risk of slipping or falling compared to dry roads. Therefore, ride with caution.
4. When riding on new, unfamiliar, or particularly busy roads, or those with obstacles, pay extra attention.
5. For your safety and well-being, it is recommended to wear protective gear such as a helmet, elbow pads, and knee pads when using the e-bike.
6. Do not exceed the maximum allowable weight capacity as indicated in the technical specifications.
7. The e-bike should only be used by adults or experienced teenagers.
8. Keep the product out of the reach of children.
9. Do not use the e-bike if you have consumed alcohol, drugs, or medications that may cause drowsiness, or in any case, if you are in a state of mental or physical impairment.
10. Before riding, check that the e-bike does not have any loose, disassembled, worn, or damaged parts.
11. Make sure you have carefully followed the assembly instructions in this manual before using the e-bike.

Operating Guide

1. The e-bike is a type of bicycle that combines pedalling with the assistance of an electric motor. The motor automatically activates when pedalling and provides additional support, making it easier to tackle climbs, long distances, or simply reducing effort during pedalling.
2. The motor is powered by a battery and is controlled by a controller that adjusts the intensity of the electric assistance based on the settings chosen by the rider through the display on the handlebars.
3. In accordance with European Directive 2002/24/EC, the motor only activates to assist muscle pedalling and automatically deactivates when the speed reaches 25 km/h.
4. The battery's range and the estimated distance (in km) can vary significantly depending on several factors, including: the load being carried, the rider's muscle contribution, the level of electric assistance selected, the number of starts and stops, as well as the condition of the terrain, the slope, and the weather conditions.

Prohibited Behaviours

It is strictly forbidden to:

1. Use the e-bike for purposes other than those for which it was designed.
2. Exceed the allowed weight limit.
3. Use the e-bike while in an altered mental or physical state.
4. Use the e-bike in adverse conditions.
5. Use the e-bike in poorly lit environments.
6. Perform maintenance with the battery connected.
7. Modify or remove the battery protections.

Product Overview

1. Rear Brake (right)
2. Handlebar Stem
3. Handlebar post
4. Handlebar stem lock/unlock lever
5. Front LED light and front reflector
6. Front mudguard
7. Front wheel
8. Front rim
9. Front disc brake
10. Front suspension
11. Crank set
12. Pedal
13. Chain
14. Kickstand
15. Rear disc brake
16. Motor
17. Rear wheel
18. Rear reflector
19. Rear rack
20. Rear mudguard
21. Seat post clamp
22. Rear LED light
23. Saddle
24. Clamping hinge
25. Battery
26. Front brake (left)
27. Display
28. Gear shift

Technical Specifications

MODEL	SATURNO
FRAME	6061 Aluminium, foldable
FORK	Suspension
MOTOR	48V 250W, rear
BATTERY	48V 12.5Ah 600Wh
DISPLAY/CONTROLLER	LCD Display with PAS indicator Battery level indicator ON/OFF light
SEAT	Soft city seat
MAX SPEED	25km/h
RANGE*	80 km, depends on weight, slope, tire pressure, number of stop-and-go
REAR RACK	Aluminium (max load 15kg)
TIRES	20"X4.0" Chaoyang
GEAR SHIFT	Shimano 7 speeds with rear derailleur
BRAKES	Front and rear hydraulic disc brake
LIGHTS	Front light: LED, 48V DC Rear light: LED with integrated battery
BATTERY CHARGER	54.6V 2.0A
CHARGING TIME	6h
MAX LOAD	100kg
MUDGUARDS	Aluminium, black color, front and rear
WEIGHT WITH BATTERY	29kg
WEIGHT WITHOUT BATTERY	25kg

Assembly

Remove the product from the packaging, taking care not to damage or compromise any parts.
It is advised not to use sharp objects such as scissors or utility knives to open the packaging and remove the protective materials to avoid damaging the product.

The package contains only two keys, each associated with the lock present on the product's battery. These keys allow you to lock and/or unlock the battery for removal and activation.

Handlebar Assembly
Lift the handlebar post until it is vertical and secure it using the locking system.

Next, insert the handlebar into the post, ensuring it is correctly oriented.

Figure 1

Seat Assembly

Insert the seat post into the frame's seat tube. Once the seat is in the correct position, secure it using the clamping device.

CAUTION

When assembling the seat, take care not to pull it out beyond the limit indicated on the seat post as shown in figure.

Figure 2

Pedal Assembly

When assembling the pedals, take care to distinguish the right pedal (marked with R) from the left pedal (marked with L).

Insert the threaded pedal spindle into the corresponding crank arm and tighten it. Do the same with the pedal on the opposite side.

CAUTION

Before riding, after assembling all parts, check that they are properly tightened to avoid falls or accidents.
Self-locking fasteners and nuts may loosen and wear over time, so check them periodically and tighten them if necessary. If they lose their effectiveness, replace them.

Folding the E-Bike

To fold the e-bike, first fold the pedals using the unlocking mechanism.

Then, unlock the handlebar post clamping mechanism and fold it downward.
Unlock the clamping lever on the frame and fold the bike.

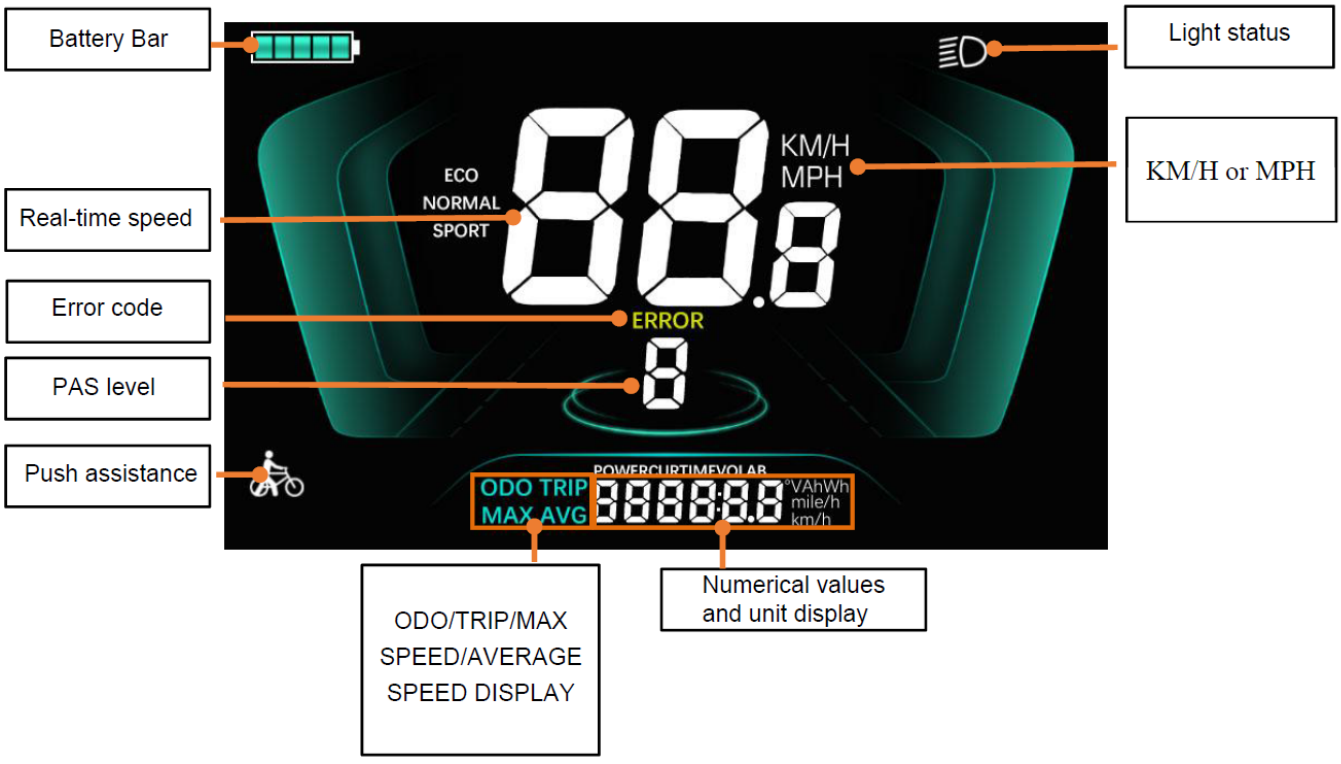
Figure 3

Figure 4

Figure 5

To open the e-bike, perform the reverse sequence.

Display



Error code:

Error code	Definition
E001	Controller failure
E002	Communication failure
E003	Motor hall sensor signal abnormality

E004	Throttle failure
E005	Brake failure
E006	Motor phase failure

Battery

The e-bike is started by activating the internal, removable lithium-ion battery.

Figure 6

Battery Removal

To remove the battery, ensure that the frame is partially closed. The battery can be removed from the bike for recharging or storage.

1. Insert the provided key into the battery lock.
2. Turn the key counterclockwise until it reaches the unlock position.
3. Slide the battery out of its housing.

Battery Reinsertion

1. Position the battery back into its housing.
2. Turn the key clockwise to lock the battery into place.
3. Ensure the battery is fully secured and anchored to the frame before using the e-bike.

Battery Charging

- Before using the e-bike for the first time, a full battery charge is required using the provided charger.
- Charging time varies depending on the remaining battery charge level.
  To maintain the battery in good condition, it is recommended to recharge it every time the e-bike is used.
- Connect the charger plug to the battery's charging port and then plug it into a mains power socket.
- During the charging cycle, a red LED indicator light will illuminate on the charger. Once the charging is complete, the LED light will turn green.
- Disconnect the charger plug first from the battery charging port, then from the mains power socket.

CAUTION

Using a charger other than the one provided, unsuitable, or unapproved for battery charging may cause damage to the battery or present potential risks.

Do not charge the battery in the presence of children unless supervision can be guaranteed.

Keep the charger away from children.

Avoid contact between the charger and liquids.

If the charger is damaged, do not use it.

Do not charge the battery immediately after use; allow it to cool down before recharging.

Avoid discharging the battery completely to prevent damage and preserve its efficiency.

Never allow the battery to fully discharge, even if the e-bike is not being used. Recharge the battery every 3-4 weeks.

Charge the battery in a dry environment, away from flammable materials (the battery and charger get hot during charging and could cause damage).

Do not expose the battery to direct sunlight, excessive heat or cold, or environments at risk (containing gases or flames).

Do not store the battery with metallic objects, as short circuits may occur.

If substances leak from the battery, do not use it and dispose of it at the nearest collection point.

Battery Range

The range of the battery provided with the e-bike can vary considerably based on several factors, such as usage mode, product conditions, and external conditions.

Over time, the actual range decreases due to the natural wear of the battery.

To extend the life of the battery, it is recommended to follow a few simple rules:

- Store the battery in a dry environment, away from direct sunlight, at a temperature between 15°C and 25°C.
- Charge the battery at room temperature.
- Recharge the battery at regular intervals, even if the bike is not used for extended periods.

Brakes

- The e-bike is equipped with hydraulic disc brakes, both front and rear, which are operated by the corresponding levers on the handlebars.
- The front brake is activated by the lever on the left side of the handlebars. The rear brake is activated by the lever on the right side of the handlebars.
- Adjust the brake levers on the handlebars to an optimal position for easy access.
- It is recommended to check the proper functioning of the brakes before each use.

Gear System

- The gear system allows you to change the gear ratio and the pedalling development. It can be adjusted using the gear shifter located on the handlebars.
- It is recommended to check the proper functioning of the gear system and ensure that the chain moves freely and smoothly, also checking the correct operation of the derailleur.

- Press and hold the gear shift button for “walking mode 6km/h” or “assisted push” (see button 1 or 2 on the display on page 8).

Wheels

- Always check the condition of the tires before using the vehicle.
- Ensure that the wheels are centered and that the spokes have the correct tension.
- Carefully check that the axles and fastenings are tight.
- Check the tire pressure by referring to the pressure range indicated on the tire itself.

User Guide

Before using the electric pedal-assist bicycle, it is essential to perform a complete vehicle check to ensure safe use. Inspect each part carefully, paying attention to adjusting any mechanical components.
The parts to be checked include:

- Saddle and seat post and related fastenings
- Handlebar and related fastenings
- Checking and, if necessary, adjusting the brakes and gears
- Lubricating the gears and chain if necessary
- Checking the tire pressure
- General inspection of all fastenings, screws, and quick releases to ensure everything is properly tightened.

Adjusting the Electric Pedal-Assist Bicycle
Before riding the electric pedal-assist bicycle, make sure to adjust the saddle and handlebar position to ensure comfortable and safe riding.

To adjust the saddle height, loosen the clamp that tightens the seat post into the frame, avoiding going beyond the indicated limit on the post (see Figure 2)
Once the ideal position is found, retighten the clamp.

The recommended ideal height is when your foot is on the pedal at the lowest point of the rotation. Your leg should be almost fully extended. This ensures correct posture and a more efficient pedalling motion.

The handlebar can be adjusted both in height and tilt. To do this, simply adjust the relevant fastening systems on the handlebar stem and post.

Once the ideal position is found, make sure to retighten the fastenings.

Cleaning, Maintenance, and Storage

To maintain a good level of safety and functionality over time, it is necessary to perform regular checks and maintenance.

Some tasks can be performed by the user, while others require the expertise of a qualified technician.

Maintenance operations should always be carried out with the battery disconnected and the bicycle placed on a stand to ensure personal safety during operation.

Cleaning

- The electric pedal-assist bicycle should be cleaned regularly to also monitor for any potential damage.
- Before cleaning, remove the battery.
- Use a soft sponge or cloth with water and a neutral detergent specifically designed for cleaning.
- Do not use aggressive detergents that could damage the paint and other materials.
- Avoid using high-pressure water.
- To clean electrical components and the battery, use only a dry cloth.
- After cleaning, dry every part of the bicycle with a soft cloth.
- You may use low-pressure compressed air to remove residual moisture.

Maintenance

- Regularly check the correct air pressure in the tires and inspect them for any signs of wear or damage.
- The wheels should be periodically centered, and the spokes should have uniform tension.
- Ensure that the hub bearings are clean and lubricated and replace them if necessary.
- Carefully check that the rims are not dented or showing signs of corrosion.
- Periodically check the wear state of the brake discs and pads.
- For hydraulic disc brakes, if efficiency decreases, perform a system bleed or replace the mineral oil.
- Regularly check the gear system and derailleur.
- Ensure that the chain and all gears are clean and lubricated.
- Check that there is no play in the suspension.
- Regularly inspect the frame and all fastening systems.

After maintenance, check that all controls are functioning correctly.
If extraordinary maintenance is needed, do not attempt to perform it yourself but contact an authorized service or reach out to customer service.

ATTENTION
Perform all maintenance operations with the utmost attention and care. If in doubt, consult a professional or contact the dedicated Customer Service.

Storage
To properly store the electric bike and preserve its integrity, it is essential to follow some specific guidelines.

- Before storing the bike, perform a thorough cleaning, removing any dirt that could damage delicate parts.
- Remove the battery and store it in a dry environment, away from flammable materials, and at a temperature between 15°C and 25°C.
- Even if the electric bike is not used, periodically perform complete charging cycles. It is recommended to recharge it before the charge level drops below 20%.
- Protect the exposed electrical contacts of the bike with antioxidant products.
- Use anti-corrosion products on surfaces that are not protected by paint.
- Store the bike in a closed, dry, and well-ventilated area.

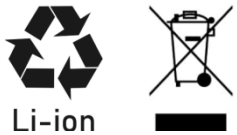
- Avoid storing the bike under direct sunlight or in an excessively cold environment.
- Do not expose the bike or any components to rain or water.

By following these guidelines, you will ensure a long lifespan for the electric bike and all its components.

Disposal Information

To ensure environmental safety and proper disposal of the electric bike, it is essential to follow local regulations regarding the recycling of components.

- It is strictly forbidden to dispose of the product and/or the battery with household waste. Never throw the battery in regular trash.
- The end user is responsible for disposing of electrical and electronic equipment and batteries in accordance with current regulations.
- It is recommended to contact your local municipality or designated disposal agencies for more information.



Problem Solving

Problem	Possible Causes	Resolution
The electric bicycle does not turn on.	Battery drained	Ensure the battery is charged. If necessary, connect it to the charger.
	Battery not properly inserted	Check that the battery is properly inserted into its housing. Remove and reinsert it to ensure it's well connected.
	Display turned off	Press the ON/OFF button on the display to turn it on.
The display does not turn on or is not working correctly.	Battery drained	Ensure the battery is charged. If necessary, connect it to the charger.
	Connection issue	Check the cables connecting the display to the battery.
	Damaged display	If the display is visibly damaged (broken screen, signs of moisture), it may need to be replaced. Contact an authorized dealer or customer service.
The brakes are not working properly.	Worn-out brakes	The brake pads may be excessively worn and require replacement.
	Brakes need adjustment	The brakes may need adjustment for better effectiveness.

The motor makes strange noises.	Foreign object in the motor	There could be a foreign object stuck. If visible, remove it carefully without damaging the motor; otherwise, contact an authorized dealer or customer service.
	Internal mechanical issue	There may be parts of the motor or cables that require maintenance. Contact an authorized dealer or customer service
The battery is not charging correctly.	Faulty charging cable	The charging cable could be damaged or not functioning.
	Faulty contact	Check the battery connector, it could be dirty or damaged
The pedal assist system is not working.	Malfunctioning sensor	The sensor that detects pedalling force might not be working correctly. Contact an authorized dealer or customer service.
	Problem with the motor or battery	A malfunction of the motor or battery could prevent the assist system from activating correctly. In these cases, contact an authorized dealer or customer service.

Contact us for assistance: If none of the proposed solutions resolve the issue or if the problem is not listed, please contact an authorized service centre or reach out to our customer service for a detailed assessment.

Email: **support@univercycle-italia.com**

Toll-free number: **800-912-886** (available Monday to Friday, from 9:00 AM to 5:00 PM)

Warranty and Support

This manual also serves as the warranty card. Within two years from the date of purchase, free repairs will be provided only if the purchase invoice is presented along with this card at an authorized service centre, in case of quality issues caused by the manufacturer. Malfunctions caused by improper use by the user, or the absence of the purchase invoice, will not be covered by free repairs.
For any technical questions, please contact us: **support@univercycle-italia.com** or call the toll-free number: **800-912-886**.

Product Name:		Product Type:		
Purchase of shop store:		Purchase Date:		
Customer Name:				
Customer Address:				
Customer Tel:				
Repair date	Fault situation	Repair results	Repair personnel	remarks

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