Tempesta Series - Electric Bicycles | User Manual

ETTRONE

Tempesta

Tempesta ST

Tempesta 1000

www.ettrone.com

ETTRONE

Tempesta - User Manual

Thank you for choosing your new ETTRONE electric bicycle. The Tempesta Series is in a class of its own powered by 750W and 1000W motors, all terrain capabilities due to its massive fat tires and front suspension to tackle any obstacle.

Cruise around town or off the beaten path with pedal assist or throttle modes and forget about range anxiety thanks to massive lithium ion batteries.

Enjoy your ride!

*This user manual will guide you through important safety and performance information.
Read it before you take the first ride on your new ETTRONE e-bike, and keep it for future reference.

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1. Safety Reminder

Introduction

Riding any bike or other vehicle always involves some risk of serious injury or death.

The TEMPESTA SERIES is a recreational vehicle which requires practice before riding it to its full potential.

ETTRONE and/or its subsidiaries and affiliates are not responsible for any property damage, personal injury/death, accidents, or legal disputes caused by violations of the safety instructions presented in this User Manual.

IMPORTANT

The combination of the safety alert symbols and the word ⚠ WARNING in this manual indicates a potentially hazardous situation which may result in injury, or is an alert against unsafe practices.

Please read this manual carefully and follow the recommendations.

To reduce the risk of injury, adult supervision is required. Observe local regulations, always wear shoes and protective gear including a helmet, and never allow more than 1 rider on board.

When riding in public spaces always follow and comply with the laws and regulations. Always allow enough distance while braking; higher speeds require a longer distance to come to a stop. Always apply the brakes gradually as sudden braking on low traction surfaces can cause the wheels to slip and potentially fall. Always maintain a safe distance between you and other vehicles or pedestrians.

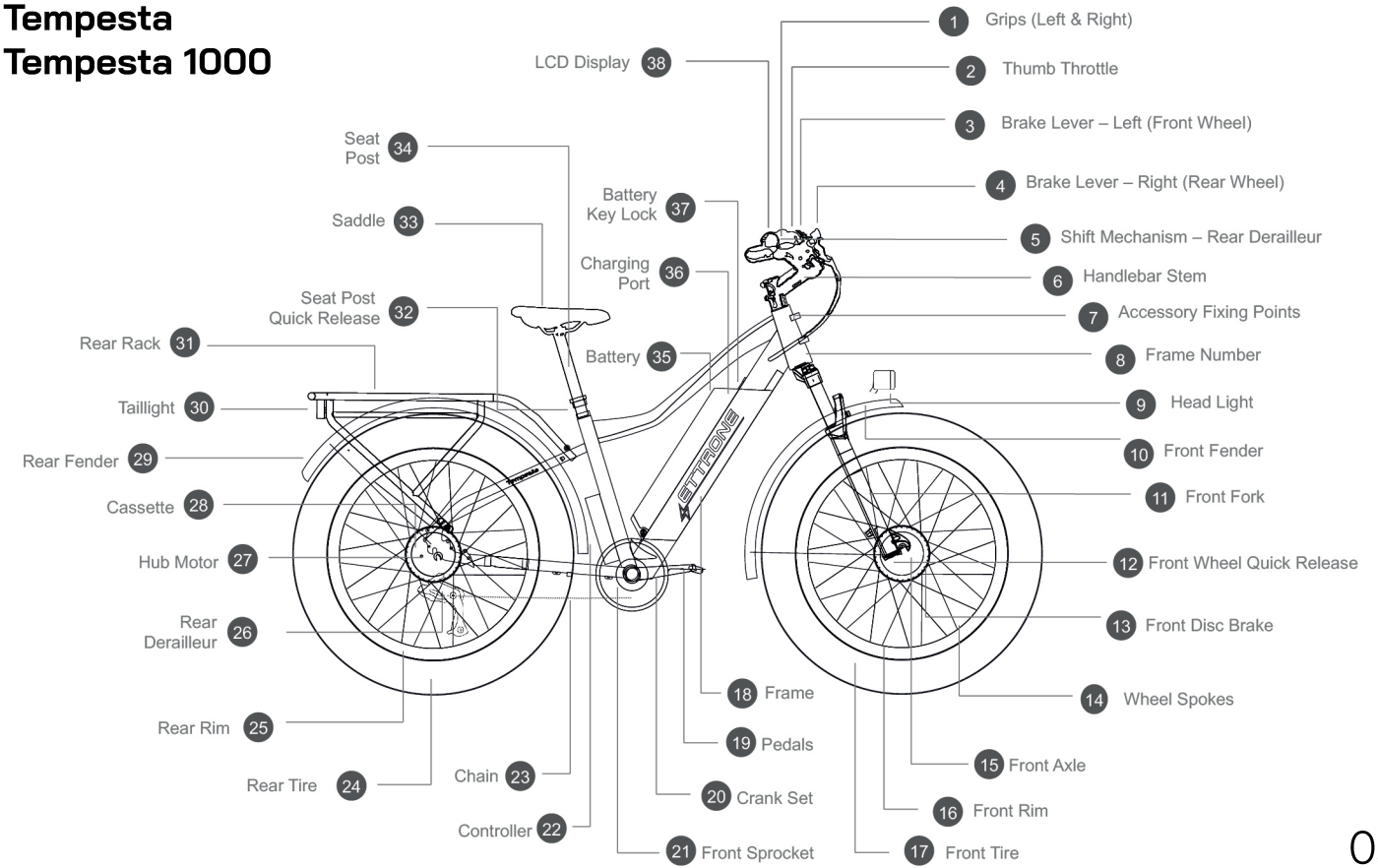
Always wear an approved helmet which fits properly while riding. Always slow down and yield the right of way to pedestrians and overpass on the left if possible. Check for loose fasteners or hardware and/or any damaged component. If the e-bike is making an abnormal noise stop the vehicle immediately and contact ETTRONE for assistance.

ETTRONE recommends riders to be 16 years of age or older to ride this electric bicycle.

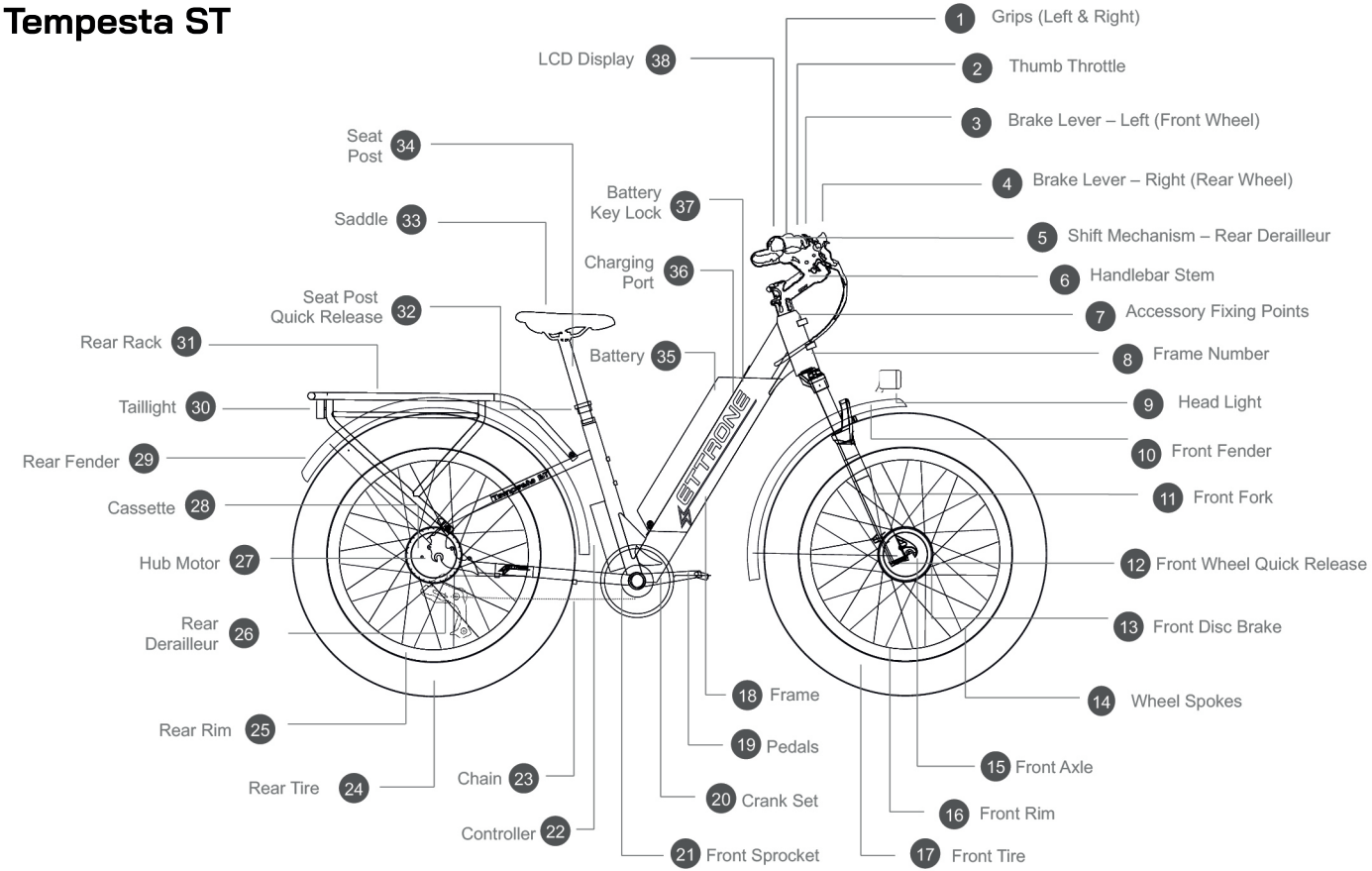
Riders below 18 years old should be accompanied by an adult.

2. Product Overview

Tempesta
Tempesta 1000



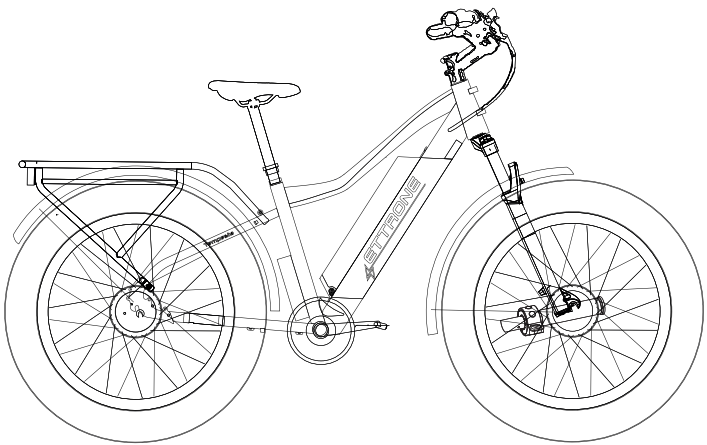
Tempesta ST


1 Grips (Left & Right)
2 Thumb Throttle
3 Brake Lever – Left (Front Wheel)
4 Brake Lever – Right (Rear Wheel)
5 Shift Mechanism – Rear Derailleur
6 Handlebar Stem
7 Accessory Fixing Points
8 Frame Number
9 Head Light
10 Front Fender
11 Front Fork
12 Front Wheel Quick Release
13 Front Disc Brake
14 Wheel Spokes
15 Front Axle
16 Front Rim
17 Front Tire
18 Frame
19 Pedals
20 Crank Set
21 Front Sprocket
22 Controller
23 Chain
24 Rear Tire
25 Rear Rim
26 Rear Derailleur
27 Hub Motor
28 Cassette
29 Rear Fender
30 Taillight
31 Rear Rack
32 Seat Post Quick Release
33 Saddle
34 Seat Post
35 Battery
36 Charging Port
37 Battery Key Lock
38 LCD Display

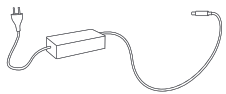
3. Packing List

Verify that all items listed are included and in good condition when unboxing your e-bike. Retain all packaging materials and original box, in case you need to ship it in the future.

Electric Bicycle
Qty: 1

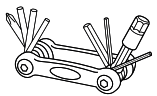


Pedal Set (L&R)
Qty: 1



Charger
Qty: 1

Battery Lock Keys
Qty: 1



Multi-Tool
Qty: 1

User Manual
Qty: 1

4. Assembly Instructions

Read carefully and follow these steps to assemble your e-bike:

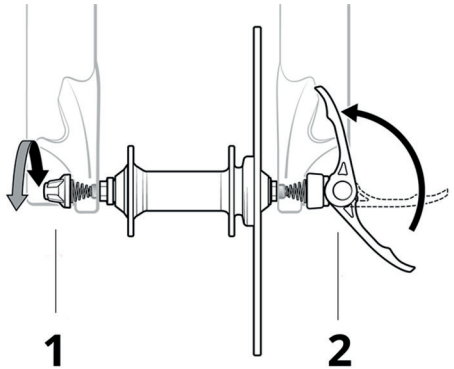
1. Open the carton box. Remove all the inside cardboard protection, foam inserts.

2. Carefully remove your bike from the carton and **gently rest the front fork** on the floor with a protective cover to avoid scratches and damages.

3. Carefully remove all other parts from the box and have them available for the assembly.

4. Grab the front wheel and **lift the front fork** of the e-bike.

5. Let the **front fork rest on the axle.** Tighten firmly as shown in the following diagram.



6. Prop the bike on the **side stand.**

7. Inflate the tires:

Check that the tire beads and tires are evenly seated around the rims. Use a pump with a Schrader valve and pressure gauge to inflate each tire to the recommended PSI indicated on the tire sidewall. Do not overinflate or underinflate.

8. Locate the front fender and headlight mounting hardware in the front fork arch.

9. Pass the fender from the back of the front wheel, under the fork arch.

10. Install the fender/headlight mounting hardware through the headlight bracket, fender, and fork (5 mm Allen wrench and 10 mm wrench).

11. Adjust the headlight angle slightly downward so it will not blind oncoming traffic.

12. Secure the front fender mounting arms. Use an Allen wrench to remove the clamp bolt from the P-clamp, keeping the backing nut in place. Ensure the fender mounting arm runs on the outside of the brake housing and place the P-clamp around the front fork. Reinsert the clamp bolt and tighten partway until snug. The two sides of the P-clamp should be parallel but with a small gap between them. Repeat on the other side of the fender. Check that the fender is centered over the wheel and that there's good clearance between the wheel and fender.

13. If you hear or feel a rubbing noise in the front or rear tires check for proper clearance between the **tire and fenders** and adjust fenders accordingly.

14. Bring the handlebar to the stem and align the (rough engraved area) of the handlebar in the middle of the stem.

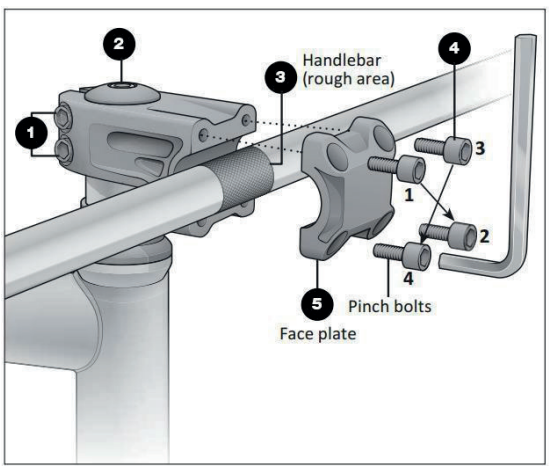
15. Ensure the handlebar is in the proper direction and that no cables are tangled or twisted.

16. Once the handlebar is aligned and in place, tighten the top bolt slightly.

17. Then firmly tighten the 2 side bolts on the stem.

18. Check if the tire is aligned with the handlebar and correct if necessary.

19. After tightening the 2 side bolts, firmly tighten the top bolt. After all 3 bolts have been securely fastened, make sure there is no play in the headset. (See picture below)

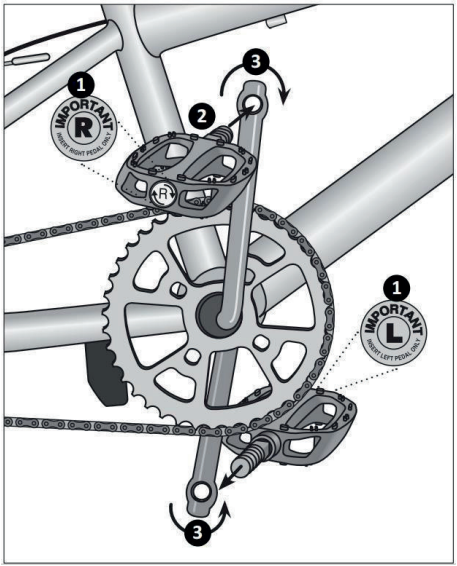


20. Inflate the tires to the recommended tire pressure from 5 to 30 PSI according to riding conditions. You will find detailed tire pressure recommendation engraved in the sidewall of the tire.

21. Using the 15 mm wrench provided in the tool kit, attach and tighten the pedals. **PLEASE NOTE – The pedals are marked "L" for Left and "R" for Right.**

22. The left pedal is installed by turning it counterclockwise.

23. The right pedal is installed by turning it clockwise. Make sure the pedals are tightly attached to the crank arms to prevent stripping. (See picture on next page).

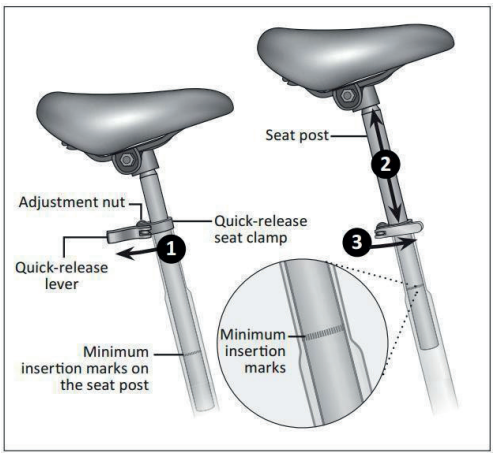


24. Adjust the seat to your desired height as follows:

25. Pull the seat clamp handle away from the seat post and slide the seat up or down to adjust it.

26. Move the clamp handle inward toward the seat post so it is held tight by the clamp.

27. Make sure the seat is tight enough so that you can't twist it out of alignment.



IMPORTANT!

Ensure the minimum insertion marks do not go past the top of the seat clamp and are not visible.

5. Battery Information

This section contains battery care, safety and charging instructions. Follow them to ensure the life and performance of your e-bike.

Included with your new ETTRONE e-bike is a lithium ion battery, along with a charger, which plugs into a standard household electric receptacle. A lithium ion battery requires specially designed chargers. You should never charge your battery with a substitute charger that is not designed for this use.

Battery Safety & Precautions

Lithium Ion batteries can be hazardous and cause fires if not used properly. Batteries contain chemicals which can be altered and destabilized if they are exposed to very low or high temperatures causing explosions and fire.

Batteries can also explode if they are opened, modified, punctured, dropped or crashed severely.

Please follow these instructions and recommendations to ensure your safety and those around you:

Where to Charge: DO NOT charge the battery in a corridor or location that serves as a fire exit. The battery may explode and cause fire and it should not be blocking any exit. **NEVER** charge the battery near combustible materials.

Temperature: It is extremely important to charge, operate and store your battery under the recommended temperature range **32 - 86°F (0 - 35°C).** Charging, using or storing the battery above the recommended temperature range may

cause battery failure and/or explosion and fire.

Unattended Charging: NEVER leave the battery charging unattended. **NEVER** leave the battery connected once the battery is fully charged. Unplug the charger once charging is complete.

Battery Integrity: NEVER use the battery if you see any visual damage, identify a particular odor or if you see any leakage. **DO NOT** use it if you have accidentally dropped or smashed the battery. **NEVER** attempt to open or repair the battery. Visit your local dealer if you suspect anything unusual with your battery.

Transportation and Disposal: Lithium batteries are considered dangerous and hazardous. Please follow local regulations for transportation and/or disposal.

Original Charger: Use only the ETTRONE original charger that is applicable to your e-bike. Using unapproved chargers may result in battery failure, overheating, explosion or fire.

Avoid Water: The battery may damage, explode and catch fire if water enters the battery circuit. Do not leave the battery exposed to the rain, do not clean with a water hose or submerge the battery in any liquid.

6. Charging

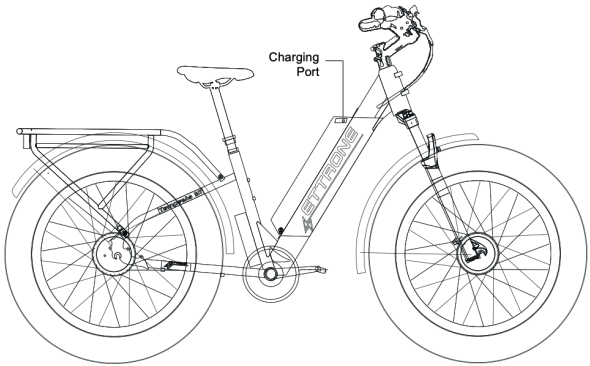
Charging the Battery

It is recommended that you fully charge the battery before your first use. The battery may be charged while on the bike or removed and charged at a location away from the bike. To charge the battery please follow the steps below:

- Locate the charging port on the left side of your e-bike. Open the rubber cover on the charging socket.

- Place the charger in a flat, secure place, and connect the DC output plug from the charger (round barrel connector) to the charging port on the side of the battery pack.

- Connect the AC plug of the charger to the AC power (100-240V,50/60Hz) socket.



- The indicator light on the charger will show red/orange light while charging and will turn green when the battery is fully charged.

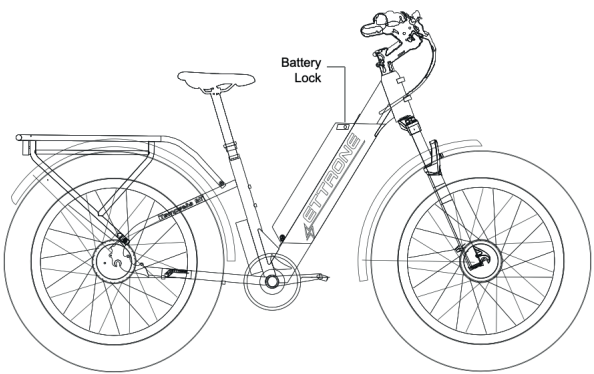
The battery will charge a fully depleted battery in 3 - 4 hours. If the battery will not be used fo ran extended period of time, charge it fully and

recharge it every 2 months. Store it in a cool, dry place.

Locking the Battery

Your e-bike is equipped with an integrated keyed lock which allows you to lock the battery to avoid theft of the battery while leaving the bike parked unattended.

Locate the key hole on the right side of your e-bike and using the keys lock or unlock the battery as required.



Battery Care Tips

- Fully charge battery after every use . This will improve the life of the battery over the long run.
- Do not allow any liquids near or inside the battery charger.
- Only charge the battery with the original ETTRONE charger that was supplied.
- Do not place the battery near fire or corrosive substances.
- Charge the battery at least once every 60 days. The battery will fully discharge over a period of 60-90 days without use. This may cause damage to the battery due to excessive discharge. This damage is permanent and not covered under the warranty.

7. Onboard Computer & Controls

Your e-bike is equipped with an TFT screen that displays all the functions and conditions, including pedal assist level, speed, odometer, trip distance, riding time, clock and battery charging level. To turn on the display ensure the battery is fully inserted and charged.

Onboard Computer ET850C. Unit

Operating

Technical Specifications

On-board Computer		ET 850C
Product code		C14
Screen Size IPS	in	3.2
Max. USB port charging current	mA	500
USB port charging voltage	V	5
Operating temperature	°F	+23 to +104
Storage temperature	°F	+50 to +104
Charging temperature	°F	+32 to +104
Rated Operating Current	mA	40
Max Operating Current	mA	100
Max Output Current to Controller	mA	100
Dimensions (L x W x H)	in	3.6 x 2.3 x 0.5
Protection Rating	°F	IP65

Display Readings

Your display will show important information before, during and after riding. Ensure you adjust the display to an adequate angle where you can read it while riding.

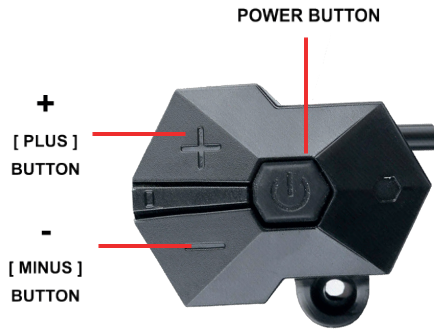
The home screen of the display will show as follows:

Main Features of the Onboard Computer

Feature / Reading	Options
Speed Readings	Current Speed Max Speed Average Speed
Distance Readings	Odometer Trip Meter
Speed and Distance Units	Kilometers Miles

Feature / Reading	Options
Battery Level Indicator	Voltage Percentage
Power/Current Indicator	Digital Analog
Other Readings	Clock Riding Time
USB Charging Port	Yes
Headlight / Tail Light Controls and Reading	Yes
Speed Limit – Derestrict	Yes
Screen Brightness	Adjustable
Password Protection	Yes
Software Upgrade	Yes via UART
Error Code Indicator	Yes

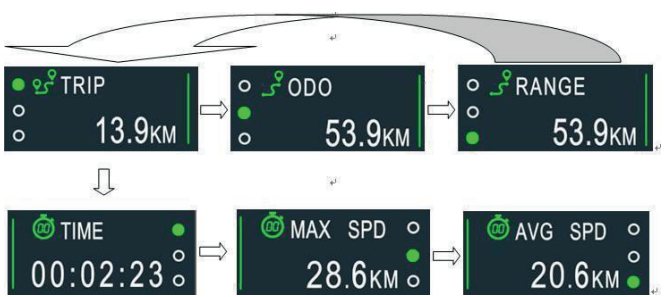
Functions & Electrical Controls



FUNCTION	WHAT	HOW
POWER	Power ON / OFF	Press and release the power button.
	Power ON / OFF	Display will automatically power off after 5 minutes of no use.
LIGHTS	Turn ON / OFF	Press and release the **+** button.
PEDAL ASSISTANCE SYSTEM (PAS)	Increase pedal assist one level	Press and release the plus **[+]** button once.
	Decrease pedal assist one level	Press and release the minus **[-]** button once.
WALKING MODE	Walk mode definition	Provides rider with a small amount of motor assistance to propel the bike forward at 3 mph (6 km/h), while walking beside the bike.

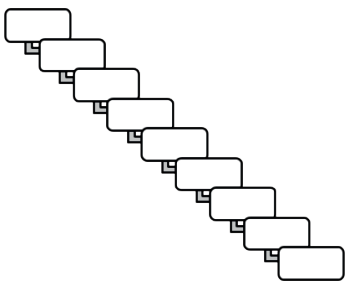
FUNCTION	WHAT	HOW
	Turn walk mode ON	Press and hold the minus **[-]** button for at least 2 seconds Power mode will propel the bike forward at 3 mph.
	Turn walk mode OFF	Release the minus **[-]** button.
CLOCK & ODOMETER	Reset Average & Max Speed, Trip and Timers	Press and hold the plus **[+]** and minus **[-]** simultaneously for 1 second.
SPEED & TIME READINGS	Toggle between Time, Speed and Distance Readings	**Short press the power button [⏻]** to switch between different readings. See image below.

Switch between speed, time and distance readings:



Settings Menu

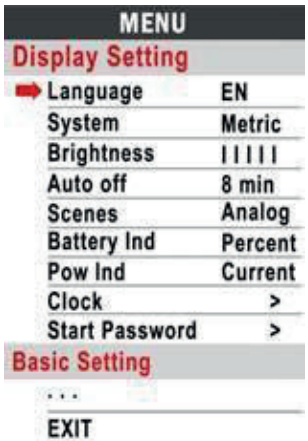
Access the settings menu to change system parameters and preferences. The sequence of the menu is shown as follows:



- Double press the power button **[⏻]** quickly to enter the settings menu.
- Press the power button **[⏻]** to scroll through the different settings as shown in the diagram above.
- Press the **plus [+] and minus [-]** buttons to change the setting.

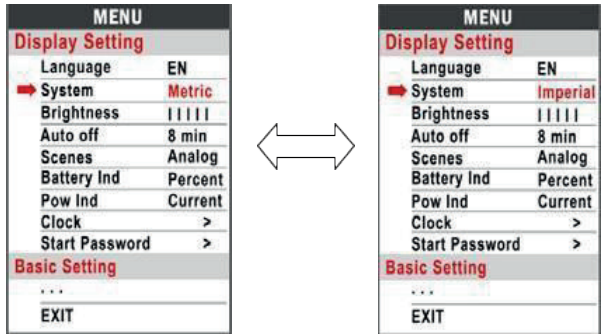
- Double press the **power button [⏻]** to exit the settings menu.

Language



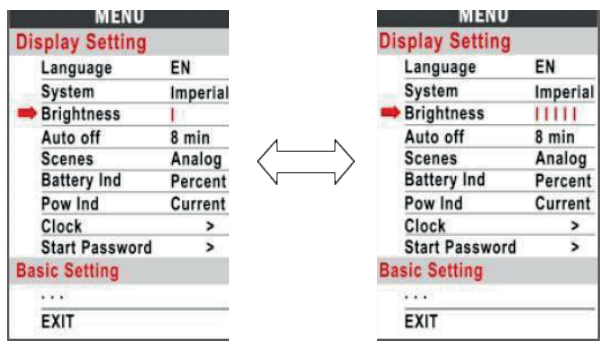
The preset language is English and cannot be changed.

System (Units of Measurement)



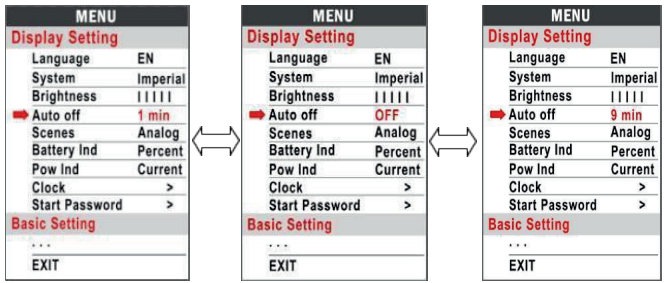
Choose between **Metric** or **Imperial** system.

Brightness



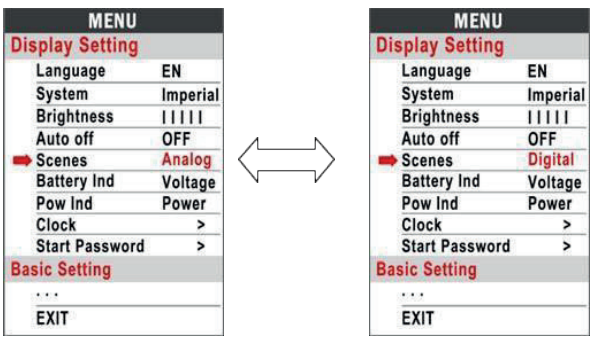
Choose from five different display brightness levels.

Auto off



Choose the auto/off time, from 1 to 9 minutes. The system default value is 5 minutes.

Scenes: Display Digital or Analogue View



Choose between **Digital** or **Analogue** display views.

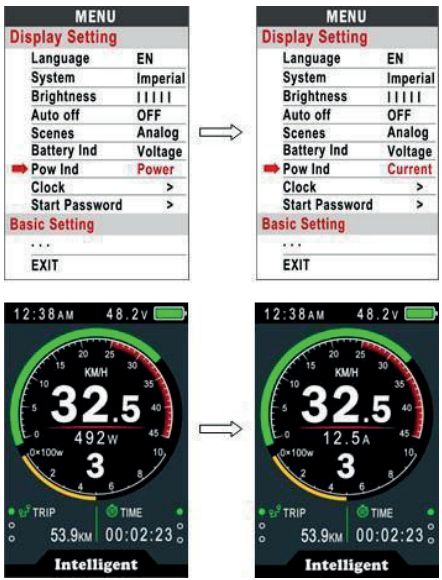
Battery Charge Level Display

Select your preferred accompanying reading for battery charge level indicator. You can choose between **Voltage** or **Percentage**. The OFF option

will only show the icon of the battery with the remaining charge displayed.

*Accurate percentage needs communication with the battery.

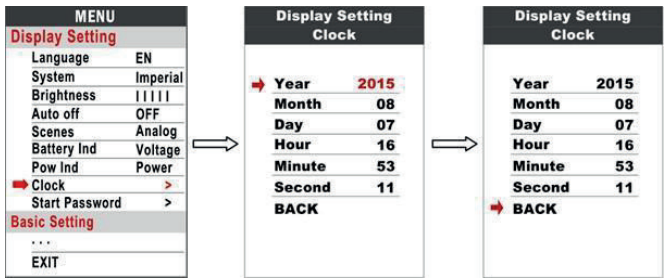
Battery Power Output Indicator



Choose between **Watts** or **Amperes** to view the current power level of the battery.

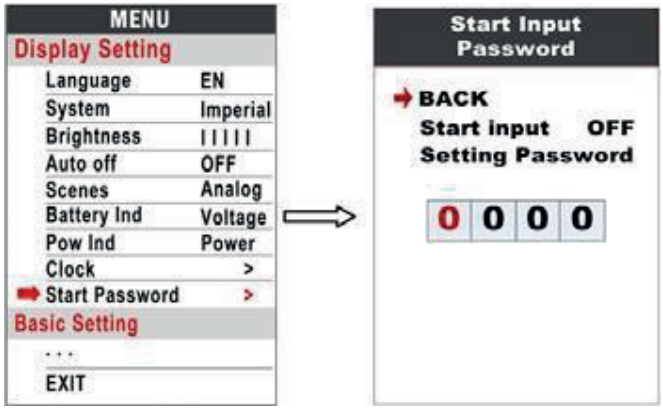
* This represents battery power output, not to be confused with Motor Power.

Clock



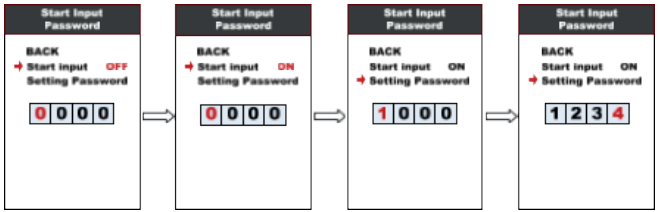
Use this menu to set/adjust clock settings.
Set Year/Month/Day/Hour/Minutes/Seconds.

Setting a Password



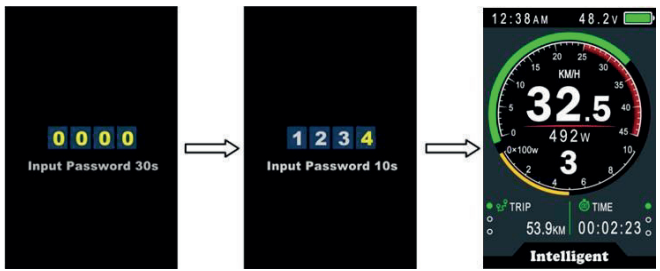
Once you set a password it will be required every time to turn on your e-bike.

Make sure you remember your password to avoid being locked out from your e-bike.



Select the **{Start Input}** option and turn it to ON position. Now begin setting your password one digit at a time.

Unlocking Your E-bike



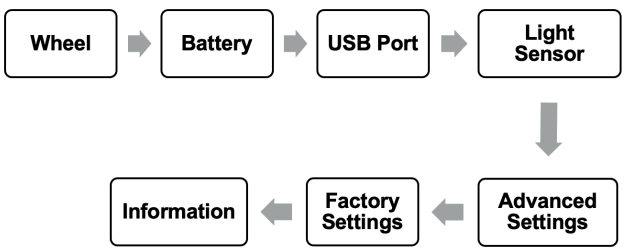
If you have activated the password feature, the above screen will show in the display every time you power on your e-bike.

Enter your password one digit at a time using the **plus [+] and minus [-]** buttons and confirm your selection by pressing the **power button [⏻].**

The display will power off automatically if you enter the wrong password.

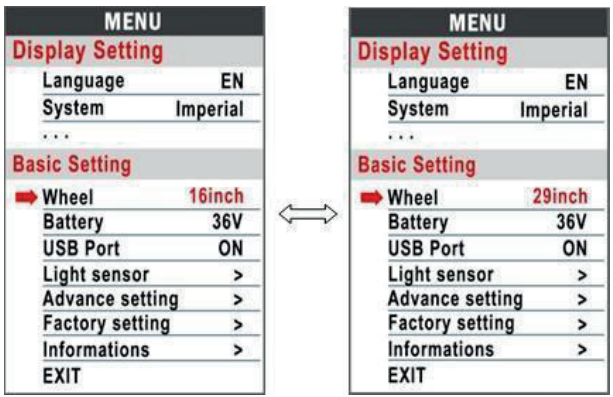
Basic Settings Menu

Some of the settings within this menu should not be changed by the user. If you are in doubt, contact your local dealer before making any changes.



Press the **minus [-]** button to scroll down with the red arrow in the display down to **{Wheel}** option. Pressing the **power button [⏻]** will open all the options available under this menu as shown in the previous diagram.

WHEEL SIZE



This option is used to accommodate the different wheel sizes of various ETTRONE models. It will be set to the factory setting according to your model and should not be changed.

Modifying this option will display incorrect speed/distance values in your display and may affect the normal functioning of your e-bike.

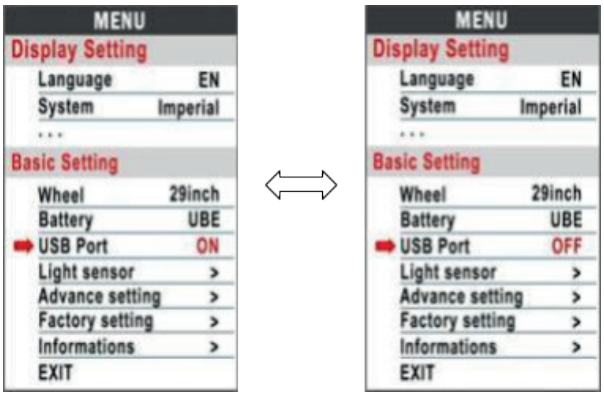
Available wheel size options are:
16 / 18 / 20 / 22 / 24 / 26 / 27 / 27.5 / 28 / 29 inch.

BATTERY

This option is used to accommodate the different Voltage levels for various ETTRONE models. It will be set to the factory setting according to your model.

Caution: DO NOT modify this option as it may cause damage to the electrical system.

USB PORT POWER OUT



This option enables or disables available power on the USB outlet port once the display is powered off.

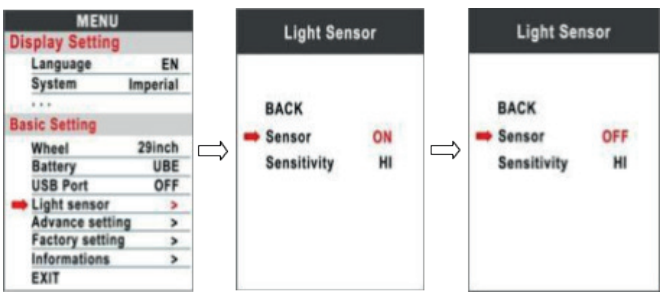
Select OFF if you want the display to cut power to the USB port while the e-bike is OFF.

Select ON if you want the USB power outlet to continue providing power even if the display of your e-bike is OFF.

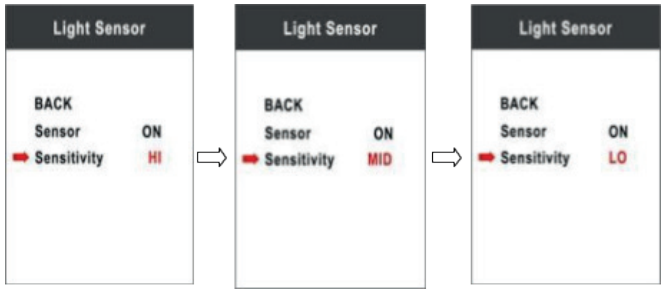
LIGHT SENSOR

Your e-bike may be equipped with a light sensor which automatically turns on the headlight and tail light once the sensor detects low light conditions.

To turn on the sensor enter the menu and choose ON or OFF.



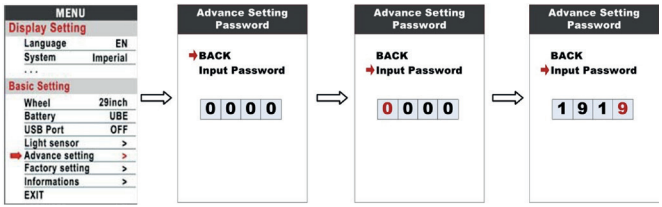
You can also adjust the light sensitivity of the sensor. Choose between LO / MID / HI



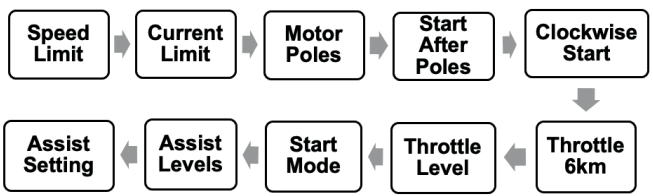
Advanced Settings Menu

Enter this menu to modify advanced settings of your e-bike. Scroll down to the **{Advanced Setting}** option and press the **power button [⏻].**

To enter the menu you will be prompted to enter a password. The factory default password is 1919.



The **Advanced Settings Menu** contains the following options and follows the sequence shown in the diagram below:

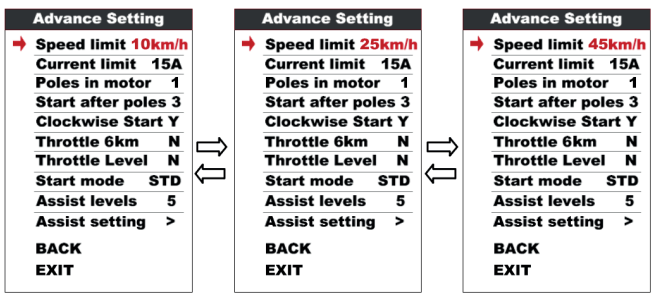


- The display will exit the settings menu after 30 seconds of no activity.
- Settings menu can only be accessed while the bike is stationary and will close once you begin riding.

SPEED LIMIT

Caution: Your e-bike is factory limited to 20 mph (32 km/h) to comply with most state and federal laws and regulations. It is your responsibility to observe and comply with speed and use regulations wherever you will ride your bike.

You can modify the speed limit of your e-bike by accessing the **{Speed Limit}** menu.



Press the **plus [+] and minus [-]** buttons to change the speed limit setting. You can choose

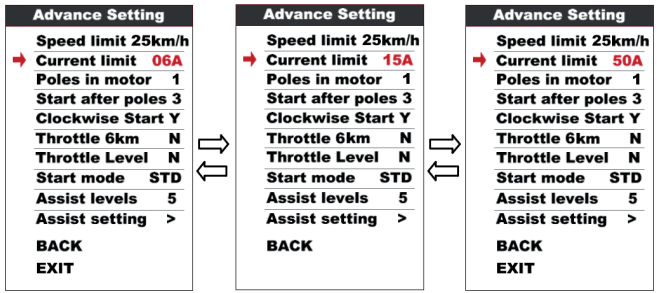
between 10km/h(6mph); 25km/h(16mph) or 40km/h(25mph).

The default factory setting is 25km/h(16mph).
* Speed limit may be restricted by the motor and controller of your e-bike may not be modifiable.

Obey local speed limit regulations. E-bike may be equipped with a light sensor which automatically turns on the headlight and tail light once the sensor detects low light conditions.

CURRENT LIMIT

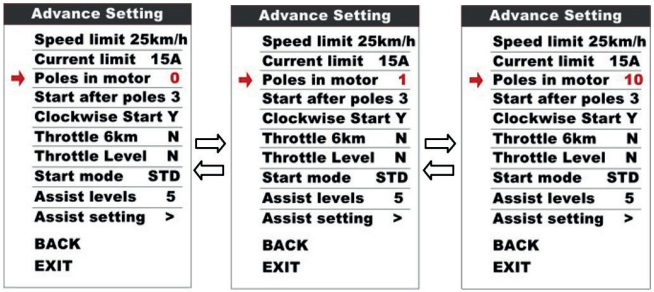
This option is restricted and controlled by the motor and controller of your e-bike and does not require adjustments.



Press the **plus [+] and minus [-]** buttons to change the speed limit setting. You can choose between 10km/h(6mph); 25km/h(16mph) or 40km/h(25mph).

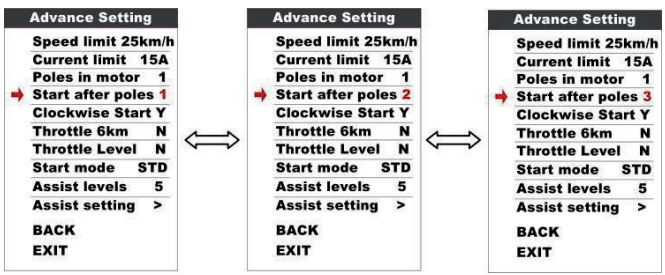
POLES IN MOTOR

This option is restricted and controlled by the motor and controller of your e-bike and does not require any adjustment.



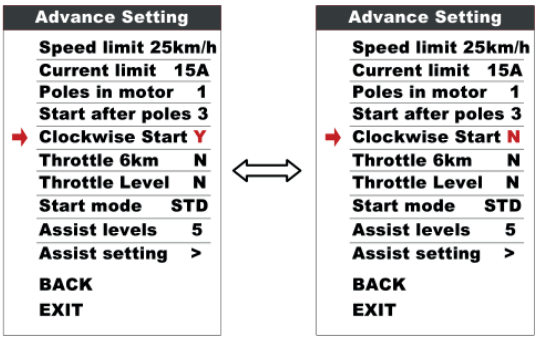
START AFTER POLES

This option is restricted and controlled by the motor and controller of your e-bike and does not require any adjustment.



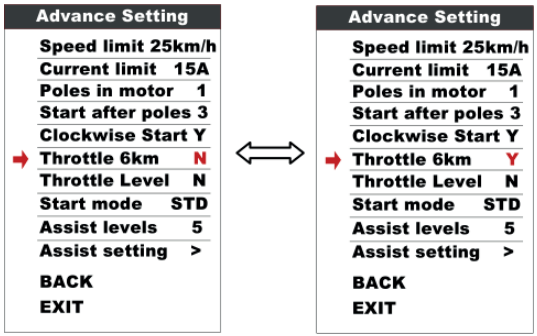
CLOCKWISE START

This option is restricted and controlled by the motor and controller of your e-bike and does not require any adjustment.



THROTTLE 6KM

This option can restrict the max speed achieved via the throttle. **N** represents setting the throttle for maximum speed. **Y** represents limiting the throttle maximum speed to 6km/h(4mph).



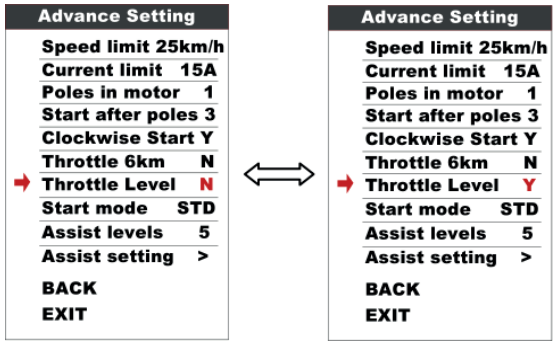
THROTTLE LEVEL

This option will work only if the **{THROTTLE 6KM}** option above is activated.

Press the **plus [+] and minus [-]** buttons to choose between **{ Y }** or **{ N }.**

{ Y } represents the throttle speed is limited to the pedal assist level chosen.

{ N } the speed limit setting. You can choose between 10km/h(6mph); 25km/h(16mph) or 40km/h(25mph).

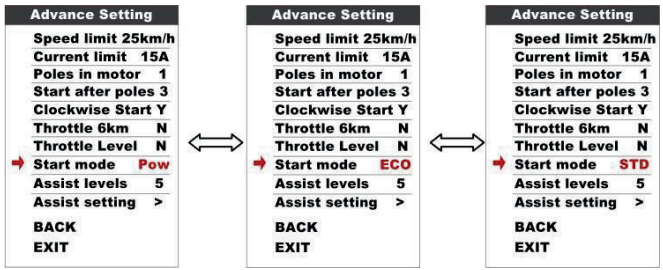


START MODE

This option adjusts the amount of current the motor uses while accelerating.

{ Pow } mode uses the maximum current and delivers the full power of the motor. **{ ECO }** uses the minimum current and **{ STD }** is an in-between setting.

* This function is not available in all models/ versions.

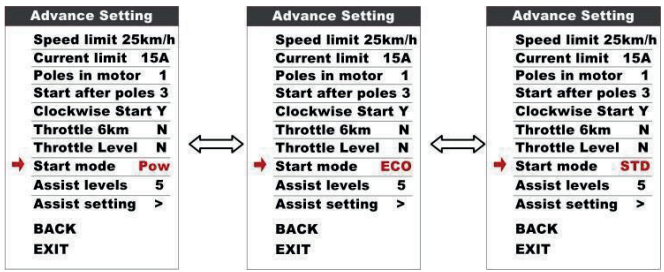


ASSIST LEVELS

PAS (Pedal Assist System). PAS provides assistance with the motor while you pedal, reducing the effort required to turn the crank.

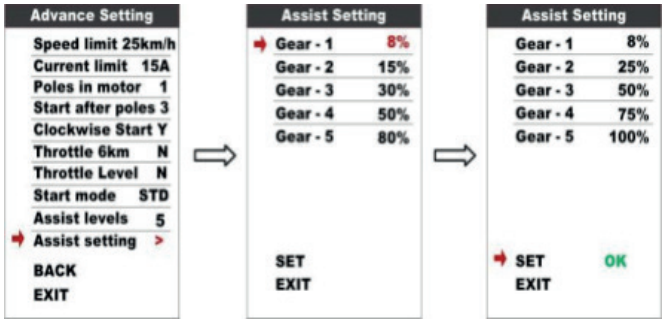
Your e-bike is equipped with a **PAS** with up to 9 levels of assistance. Choosing a higher number with the control unit will give you more assistance from the motor. 0 (zero) means no assistance.

This option adjusts the number of **PAS** levels that will be available while you ride. The available settings are 3/5/9/UBE. UBE is the factory default setting.



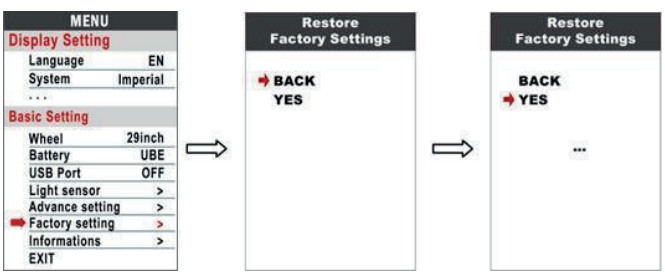
ASSIST SETTING

You can also customize the assist ratio of each **{Assist Level}** mentioned in the previous option. Assist levels will be displayed as {gears}. You can choose the percentage of assistance that you want to have on each gear up to 100%.



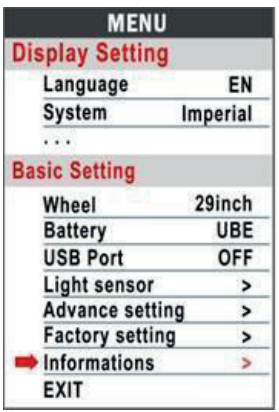
Factory Settings Menu

You can restore the system to factory settings by accessing the **{Factory Setting}** option. Select YES to reset all your custom settings.



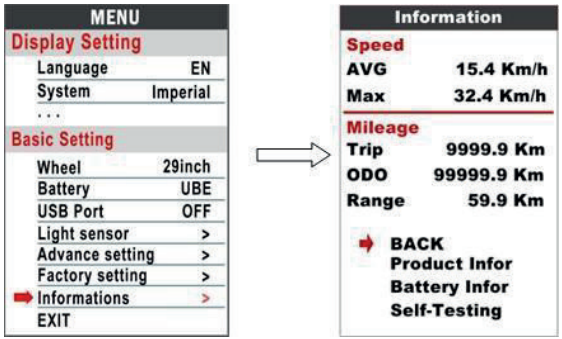
Information Menu

This menu will show riding and vehicle information. The default menu will show **Speed** and **Mileage** information.



PRODUCT INFORMATION

The **{Product Info}** option will show the hardware and software version.



BATTERY INFORMATION

The **{Battery Info}** option will show important information of the battery including Voltage, Capacity, Cycle Times, Health, Temperature, Remaining Capacity, Full Charge Capacity, Initial Capacity and Max Charging Times.

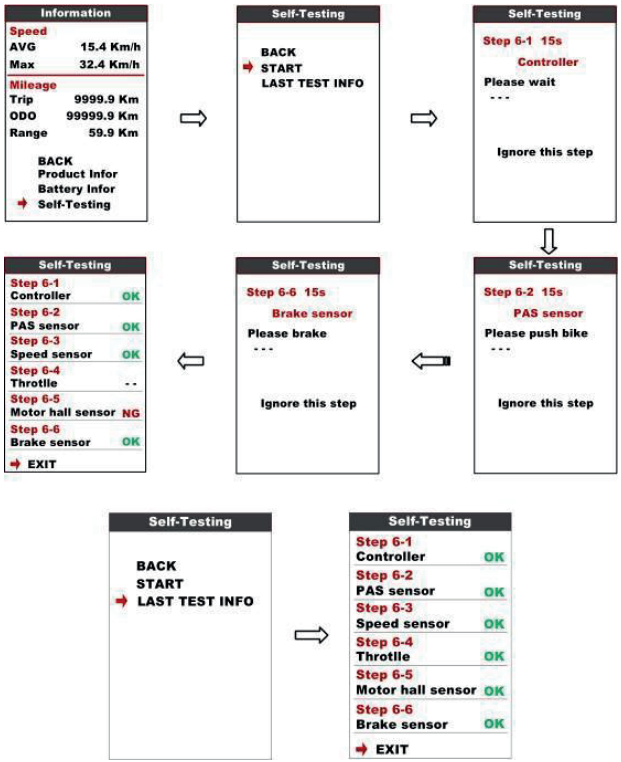
* This option is not available on all ETTRONE models.

SELF TESTING

With this option you can perform a self-test to all the electronic components of your e-bike including Controller, PAS Sensor, Speed Sensor, Throttle, Motor Sensor and Brake Sensor.

Select {Start} and follow the prompts on the screen to perform the test.

[OK] indicates the component is working correctly.
[NG] indicates the component is malfunctioning.



Visit your local ETTRONE Dealer or Authorized Service center to receive technical support and service on your e-bike.

ERROR CODES

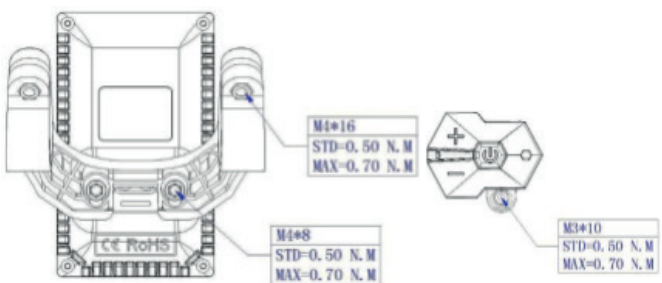
Your e-bike may be equipped with an **Error Code** indicator in the display. When there is a malfunction the display will show the following **error symbol [⚠]** and a number next to the symbol.

See the list error codes below:

ERROR CODE	ERROR DESCRIPTION	ERROR MESSAGE DISPLAYED
0x01	Normal	No error
0x03	Brake signal	No error
0x04	Throttle on high position	**04H** on LOGO position
0x05	Throttle error	**05H** on LOGO position
0x06	Low voltage protection	**06H** on LOGO position
0x07	High voltage protection	**07H** on LOGO position
0x08	Motor's hall sensor error	**08H** on LOGO position
0x09	Phase line of motor error	**09H** on LOGO position
0x10	Controller high temperature	**10H** on LOGO position
0x11	Motor high temperature	**11H** on LOGO position
0x12	Current sensor error	**12H** on LOGO position
0x13	Battery temperature sensor error	**13H** on LOGO position
0x14	Motor temperature sensor error	**14H** on LOGO position
0x15	Controller temperature sensor error	**15H** on LOGO position
0x21	Speed sensor error	**21H** on LOGO position
0x22	BMS communication error	**22H** on LOGO position
0x23	Headlight error	**23H** on LOGO position
0x24	Headlight sensor error	**24H** on LOGO position
0x25	Torque sensor error - Torque	**25H** on LOGO position
0x26	Torque sensor error - Speed	**26H** on LOGO position
0x30	Communication error	**30H** on LOGO position

Display Mounting Instructions

TORQUE VALUES



Observe the torque values shown above while mounting the display and control unit to your e-bike.

HANDLEBAR CLAMPING

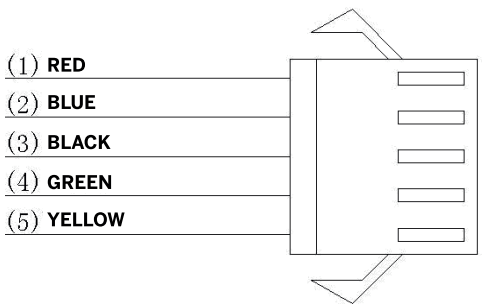
The display can be mounted by placing the handlebar clamp in two different directions to best suit each model.

The clamp can accommodate 3 different handlebar diameters: 31.8, 25.4 and 22.2 mm.

Optional rubber spacers are available to accommodate 25.4 and 22.2 mm handlebars.

When using rubber spacers pay attention to the direction indicated by the green arrow below.

WIRE COLOR CODES



(1) RED WIRE: Anode (24V / 36V / 48V)

(2) BLUE WIRE: Power to controller

(3) BLACK WIRE: Ground

(4) GREEN WIRE: RxD (Controller -> Display)

(5) YELLOW WIRE: TxD (Display -> Controller)

PEDAL ASSISTANCE LEVELS

The number of pedal assistance levels can be customized. This should not be confused by the amount of assistance that the motor will provide in each level.

Depending on your riding preference you may want to have less number of assistance levels allowing you to change faster between them. You can set the percentage of assistance of each level via the **Display** as explained in this manual.

The highest level is 9, commonly used assistance levels are shown below.

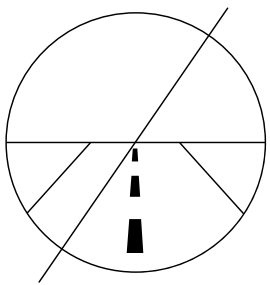
3 Levels	5 Levels	9 Levels	
0	0	0	No power assist
	1	1	
		2	
1	2	3	
		4	
	3	5	
2		6	
	4	7	
		8	
3	5	9	

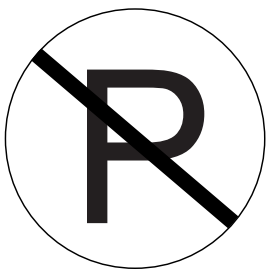
8. Warnings

⚠ ATTENTION

Not following the following instructions can lead to serious injury/death and damage.

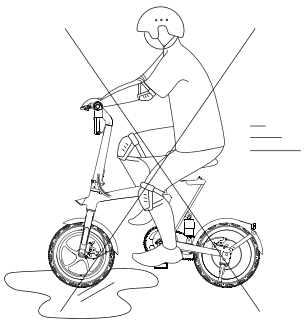
⚠ DO NOT make calls and/or listen to music while riding.



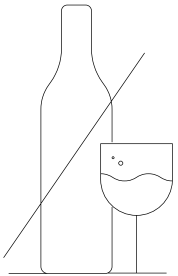


⚠ Please follow the traffic laws and regulations when using electric bikes. It is forbidden to ride electric bikes into the motorway.

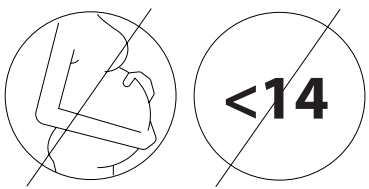
⚠ Electric bikes should not be parked in the building foyer, evacuation corridor or safety exit.



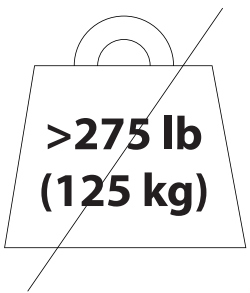
It is prohibited to ride on the road with severe water accumulation. The road condition of the water accumulation is unknown, which may easily cause danger.



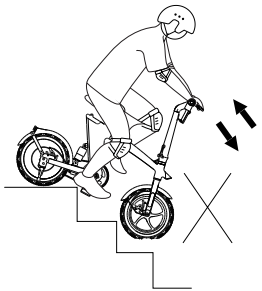
Do not ride if you are under the influence of alcohol or any other drug.



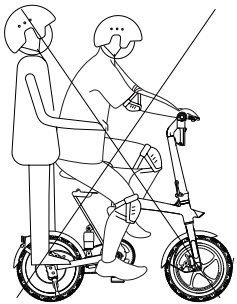
Pregnant women and users under the age of 14 are prohibited to ride.



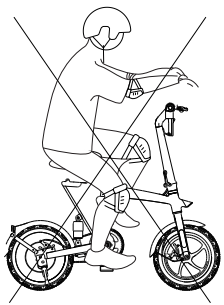
Do not exceed the maximum rated load of 275 lb (125 kg).



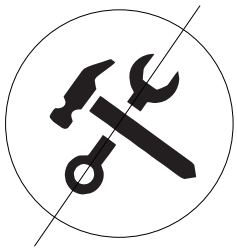
⚠ DO NOT engage in extreme riding.
DO NOT ride up or down stairs.



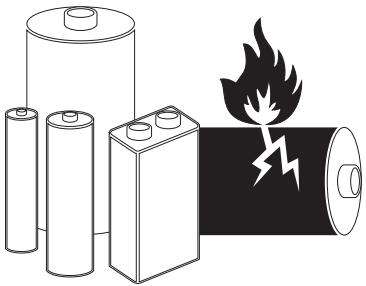
⚠ Only one person is allowed to ride the e-bike at the same time. Do not carry children on arms.



⚠ Hold the handlebar securely at all times with both hands.



⚠ DO NOT modify the electric bicycle by yourself. It may cause unstable operation of the electronic system and cause danger when riding.



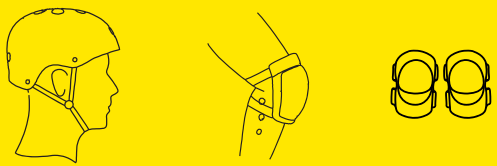
⚠ DO NOT modify the battery of an electric bicycle without permission. Modification of the battery is dangerous, and improper operation may cause the battery to explode or catch fire.

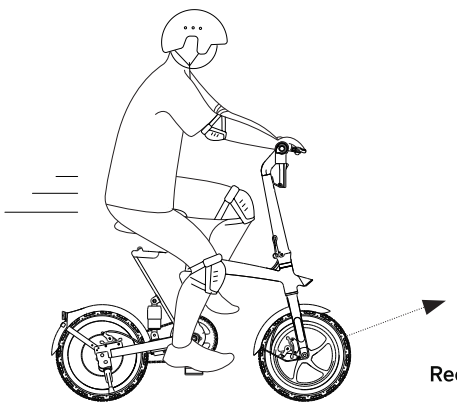
⚠ Please try to avoid riding in rain or snow. If you need to ride, slow down and avoid emergency braking.

9. Go Riding

⚠ WARNING

Always wear a helmet, knee pads, elbow pads and other protective gear to avoid injury.





Recommended tire pressure:
40-210 kPa | 5-30 PSI

⚠ Before riding carefully inspect the bike to ensure there is no damage or loose parts.

ATTENTION!
Inflate tires to:
5 - 30 PSI /
40 - 210 kPa

10. Daily Care & Maintenance

Cleaning

- Before cleaning, disconnect the e-bike from the charger. Ensure the power is off, and the charging port cap is covering the charging port completely.

- Use a soft, damp cloth to wipe the frame and body parts clean. You can use a toothbrush to remove hardened dirt or clean hard to reach areas.

⚠ WARNING

- **DO NOT** soak/spray/ pour water onto the e-bike to clean.
- **DO NOT** wash your e-bike with a hose or pressure cleaner.
- **DO NOT** use corrosive/volatile solvents including but not limited to gasoline, alcohol, acetone, etc.

Failure to follow any of the above recommendations may lead to permanent damage of the electronic components.

Tires Maintenance

- This e-bike is equipped with tubed tires. When the tire is deflated 20-30% from the recommended tire pressure it needs to inflated to avoid tube and tire damage and improve battery range.
  Adjust the tire pressure to to 5-30 PSI (40-210 kPa).

Chain Maintenance

- Lubricate your chain periodically to extend chain life. Use bicycle approved lubricants available at your dealership.

- Inspect chain tension periodically and adjust to ensure a 1/4 to 1/2 inch play in both directions.

Storage

- Store your e-bike in a cool, dry place indoors. Exposing your e-bike to extreme temperatures and direct sunlight for extended periods of time will accelerate the normal aging of the body parts and may also reduce the battery life.

- Charge the battery after each ride and avoid draining the battery completely.

- **DO NOT** charge the e-bike in temperatures outside the recommended limits [see specifications).

- If you plan to store your e-bike for extended periods of time, charge the battery before storing to avoid the battery from being fully discharged for long periods. Charge your e-bike at least once every three months.

> ⚠ **WARNING**
>
> Do not attempt to disassemble the e-bike, battery or any electrical component as this will void the manufacturer's warranty. Contact ETTRONE for support if required.

11. Technical Specs

MODEL NAME	TEMPESTA	TEMPESTA ST	TEMPESTA 1000
Type	Hard Tail	Hard Tail / Step Through	Hard Tail
Motor	48V 750W [1500 Peak] BAFANG Rear Hub Brushless Motor 80 N.m. Torque	48V 750W [1500 Peak] BAFANG Rear Hub Brushless Motor 80 N.m. Torque	52V 1000W BAFANG Rear Hub Brushless Motor 85 N.m. Torque
Battery	48V, 16 Ah (768 Wh) Panasonic Removable Lithium Ion Battery, 800 Charge Cycles, Keyed Lock.	48V, 16 Ah (768 Wh) Panasonic Removable Lithium Ion Battery, 800 Charge Cycles, Keyed Lock.	52V, 20 Ah (1040 Wh) Panasonic Removable Lithium Ion Battery, 800 Charge Cycles, Keyed Lock.
Charger	100~240V, 50-60Hz, Fast Charger charger, Plug in local market standard.	100~240V, 50-60Hz, Fast Charger charger, Plug in local market standard.	100~240V, 50-60Hz, Fast Charger charger, Plug in local market standard.
Charge Time	3-5 hours	3-5 hours	4-6 hours
Operation Modes	1. Pedal Only 2. Pedal Assist (9 levels) 3. Throttle	1. Pedal Only 2. Pedal Assist (9 levels) 3. Throttle	1. Pedal Only 2. Pedal Assist (9 levels) 3. Throttle
Top Speed - Limited	20 mph	20 mph	20 mph
Top Speed - Unlimited	25 mph	25 mph	25 mph

Estimated Range (All Electric / Assisted)	40 to 50 miles	40 to 50 miles	50 to 60 miles
Frame	6061 Aluminum Alloy	6061 Aluminum Alloy, Step Through	6061 Aluminum Alloy
Front Fork	MOZO Fatman, 80-120 mm travel air shocks with lockout and preload adjustment.	MOZO Fatman, 80-120 mm travel air shocks with lockout and preload adjustment.	MOZO Fatman, 80-120 mm travel air shocks with lockout and preload adjustment.
Display	BacklitColor, LCD Display ET 850C Shows Pedal Assist Level, Battery Level, Speed, Distance & Time Readings, Power, Clock, Password Protection.	Backlit Color, LCD Display ET 850C Shows Pedal Assist Level, Battery Level, Speed, Distance & Time Readings, Power, Clock, Password Protection.	Backlit Color, LCD Display ET 850C Shows Pedal Assist Level, Battery Level, Speed, Distance & Time Readings, Power, Clock, Password Protection.
Throttle Type	Left Hand Thumb Throttle. Unplug Option.	Left Hand Thumb Throttle. Unplug Option.	Left Hand Thumb Throttle. Unplug Option.
Crankset	Prowheel 170mm square taper/ 44T one-piece chainring	Prowheel 170mm square taper/ 44T one-piece chainring	Prowheel 170mm square taper/ 44T one-piece chainring
Chain	KMC Rust Buster	KMC Rust Buster	KMC Rust Buster
Derailleur	Shimano ACERA, 7 Speed with Rapid Shifter	Shimano ACERA, 7 Speed with Rapid Shifter	Shimano ACERA, 7 Speed with Rapid Shifter

Brakes (F/R)	TEKTRO Auriga 350 Hydraulic Disc Brakes (180mm Rotors) with Power cut-off.	TEKTRO Auriga 350 Hydraulic Disc Brakes (180mm Rotors) with Power cut-off.	TEKTRO Auriga 350 Hydraulic Disc Brakes (180mm Rotors) with Power cut-off.
Rims	Alloy Aluminum, Double Wall, 26"	Alloy Aluminum, Double Wall, 26"	Alloy Aluminum, Double Wall, 26"
Spokes	Stainless Steel, Front 255mm 12G, Rear 220mm 13G.	Stainless Steel, Front 255mm 12G, Rear 220mm 13G.	Stainless Steel, Front 255mm 12G, Rear 220mm 13G.
Tires	KENDA 26 x 4.0C Fat Tires with Inner Tube.	KENDA 26 x 4.0C Fat Tires with Inner Tube.	KENDA 26 x 4.0C Fat Tires with Inner Tube.
Front Hub	MODUS Quick Release Hub	MODUS Quick Release Hub	MODUS Quick Release Hub
Stem	Promax MA-596 w/adjustable angle 35°-145°. 105mm extension, bar bore 31.8mm.	Promax MA-596 w/adjustable angle 35°-145°. 105mm extension, bar bore 31.8mm.	Promax MA-596 w/adjustable angle 35°-145°. 105mm extension, bar bore 31.8mm.
Handlebar	PROMAX Aluminum Alloy 31.8mm*22.2mm*680mm, 9 degree	PROMAX Aluminum Alloy 31.8mm*22.2mm*680mm, 9 degree	PROMAX Aluminum Alloy 31.8mm*22.2mm*680mm, 9 degree
Seat Post & Seat Clamp	Promax Aluminum Alloy 6061, Quick Release	Promax Aluminum Alloy 6061, Quick Release	Promax Aluminum Alloy 6061, Quick Release
Saddle	SR Selle Royal Padded Gel	SR Selle Royal Padded Gel	SR Selle Royal Padded Gel
Kickstand	Aluminum Alloy with Adjustment	Aluminum Alloy with Adjustment	Aluminum Alloy with Adjustment

Fenders	Long Profile , Matt Black Aluminum	Long Profile , Matt Black Aluminum	Long Profile , Matt Black Aluminum
Rear Rack	Aluminum Alloy	Aluminum Alloy	Aluminum Alloy
Headlight and Tail Light	Spanninga Kendo + LED 30 Lux. Battery Powered, Thumb Control.	Spanninga Kendo + LED 30 Lux. Battery Powered, Thumb Control.	Spanninga Kendo + LED 30 Lux. Battery Powered, Thumb Control.
Dimensions (LxWxH)	75" x 27.5" x 46.5"	75" x 27.5" x 46.5"	75" x 27.5" x 46.5"
Dimensions Folded (LxWxH)	N/A	N/A	N/A
Net Weight	75 lbs	75 lbs	85 lbs
Payload Capacity	275 lbs	275 lbs	275 lbs
Frame Sizes	Medium 17" or Large 20"	Medium 17"	Large 20"
Front Rack Ready	Yes	Yes	Yes
Colors	Mat Forest Green, Gloss Storm Gray, Gloss Tasman Blue.	Gloss Chalk White, Metallic Atomic Silver, Metallic Frozen Blue.	Satin Copper Brown.

12. Contact

Enjoy your ride!

Contact **ETTRONE** for customer service and/or technical assistance.

Have your **serial number** available when contacting us.

info@ettrone.com | www.ettrone.com