





STALLION USER MANUAL

Please keep the User Manual properly and carefully read it to understand the performance of the E-bike before use.

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INSTRUCTIONS FOR USERS

Dear Users.

Thank you for choosing our products. The User Manual mainly introduces the common sense of use and maintenance of our E-bike. Please carefully read the Manual after purchase to understand the performance, characteristics, precautions and maintenance of the E-bike. For your safety, always ensure that the E-bike is in its best service state.

Please use the genuine spare parts for your riding safety and contact our authorised service station if you have any question.



Need Repairs?



To find an Authorised Service Partner and book a service - scan the QR code or head to: https://service.panmi.com.au



Need Support?



Post-Sales Support Contact Scan the QR code or email below address: support@panmi.com.au

Warranty



Scan the QR code or head to: https://www.panmi.com.au/warranty/



What does "Panmi Authorised Reseller" mean? "Panmi Authorised Reseller" products have been imported under authorisation of the manufacturer and adapted to suit local requirements. You can rest assured knowing your product is certified and covered by all the required consumer assurances.

IMPORTANT NOTES

The figures and text descriptions in this Manual are for illustration of operation only.

The illustrations in this Manual may be inconsistent with the actual product. And the actual product shall prevail.

The Company reserves the right to improve product performance and relevant configurations without prior notice.

The E-bike is for a single rider only. Please don't carry anyone.

Please keep the battery lock key of the E-bike properly.

SPECIAL NOTES FOR RIDING SAFETY

For sake of your safety and prevention of accidents, please read and observe the following precautions:

First: When using electric bicycles, you should abide by traffic laws and pay attention to riding safety.

- 1. Always wear a helmet when riding.
- 2. Since the braking distance will be extended in rainy and snowy days, please slow down. Do not ride in severe weather such as rainstorm.

Second: Pay attention to the riding safety of E-bike.

- 1. Do not park the E-bike in the building lobby, escape stairs, walkways and emergency exits.
- 2. Do not charge and park the E-bike in the residential building. Keep it away from combustibles during charging. The charging time shall not be too long.
- 3. Proper use and maintenance of the battery:
- Do not short-circuit the positive and negative poles of the discharging port and charging port of the battery pack;
- Do not knock or squeeze the battery pack;
- Pay attention to waterproofing and prevent the battery pack from being exposed to water and water immersion:
- Do not throw the battery pack into a fire, and keep it away from children, fire sources and heat sources;
- · Do not charge the battery when using the E-bike. Please power off the instrument before charging;
- It is recommended to charge when the battery state of charge (SOC) is lower than 15%. When the E-bike is not used for a long time, please remove the battery pack for storage and charge it every 3 months;
- · Always use the genuine battery pack of the Company.
- 4. Safe use of charger:
- For charging, first plug the output port of the charger into the charging port of the battery pack, and then insert the AC power plug of the charger into the mains socket;
- · Do not remove or modify the charger;
- Do not plug or unplug the power plug with wet hands:
- Do not use the charger in thunder and lightning weather:
- During charging, the charger indicator is red. Green indicator of the charger indicates that the battery pack is fully charged;
- Always use the genuine charger of the Company to charge the battery pack. Otherwise, the battery pack may overheat, catch fire or even explode;
- Slight heating of the charger and battery during charging is normal.
- 5. Take care not to expose the safety line marks of stem and saddle tubes (if applicable) during adjustment of handlebars or saddle.

PRECAUTIONS BEFORE RIDING

For sake of your safety and prevention of accidents, please check the followings before riding and repair in time or seek for professional maintenance in case of any abnormality.

- 1. Inspection of power circuit and lighting circuit
- Check the power, lighting, motor and other circuits for damage;
- Turn on the instrument power switch, operate the lighting switch, and check whether the front light is on;
- Adjust the instrument buttons and check whether the upshift and downshift work properly; press and hold the "-" button to check whether the walk assist mode works properly; depress the foot pedal hard to see if the bicycle is power-assisted;
- Check the front and rear brake levers respectively for motor power failure.
- 2. Inspection of brake device
- Check whether the front and rear brakes work properly;
- · Check the braking effect of the front and rear brakes to ensure that the brakes are working effectively.
- 3. Inspection of tightening of handlebars and front and rear wheels
- · Shake the handlebars up and down, front and back, left and right to check for looseness or collision;
- · Shake the front and rear wheels to check for looseness; rotate the wheels to check whether they are too tight or stuck
- 4. Inspection of tyres
- Check whether the tyre pressure is normal;
- Check tyres for cracks;
- Check the tyre for sharp objects such as nails;
- Replace the tyres in time when the tread wear indicators are exposed.

ABOUT E-bike

* Please note that this is a general instruction manual. Therefore, the frame style of the e-bike you have may differ from the picture shown in this manual.



Start E-bike

- 1 Press and hold the power button on the instrument until the display screen is turned on to start the bicycle.
 - * For night riding, press and hold the "+" button on the instrument to turn on the front light.
- 2 The instrument displays the speed, total ODO, TRIP distance, power-assisted gear, SOC and other data. The motor can provide power assistance only when the power-assisted gear is gear 1 or above and the E-bike pedal is depressed to move forward. The power-assisted gear (1-5 gears; power-assisted gears on the instrument vary with models) can be adjusted through the instrument gear control button. The electronic control system will output matching power according to the power-assisted gear selected to achieve the desired effect.

Start your first ride

Take care when you are ready to ride, as in the electric power-assisted mode, the E-bike will run faster than an ordinary bicycle. It is recommended to start riding from gear 1.

- * The power-assisted gear 1 is the most power-saving riding mode;
- * The power-assisted gear 2-3 is suitable for off-road and forest riding;
- * The power-assisted gear 4 is suitable for climbing;
- * The power-assisted gear 5 provides the maximum assist regardless of battery consumption.

Factors affecting the riding mileage

Many factors can affect the battery energy performance and riding mileage, including:

- *Riding on rugged roads and hilly terrain will consume more battery energy;
- *Frequent speed changes will consume more battery energy;
- *Carrying more weights on the E-bike will consume more battery energy;
- *Keeping the standard tyre pressure can save battery energy for your riding;
- *Riding in colder weather will consume the battery energy faster;
- *When the E-bike is powered off, it is just like an ordinary bicycle, which can be easily pedaled. In case of a long journey, you can turn off the power on a flat or downhill road and ride the E-bike as an ordinary bicycle, which can save battery energy.

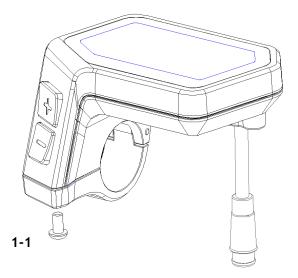
DISPLAY GUIDE

Important Information Regarding Safe Operations:

- 1. Turn OFF the main power of the E-bike <u>before</u> plug / unplug the display, or it may lead to permanent electrical damage to the display.
- 2. Do not over tighten the bolts when installing display to E-bike, a torque of 5-6kgf.cm is sufficient to secure display to the handlebar, over tightening the bolts may cause damage to the display's structure.
- 3. Do not immerse the unit in water or clean it with pressurized water. Clean the unit using a soft cloth dampened only with water. Do not use any detergents.
- Do not dispose display or any other e-bike components into house-hold wastes, follow your local regulations and dispose them in an environmental-friendly manner or recycling.
- 5. Damage / malfunction caused by improper installation or usage are not covered by after-sales service.

■ Installation

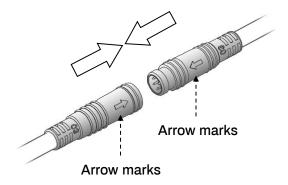
• Installing display unit



1. Use 1pcs M3*6 Hex Socket Screws **1-1** to secure the mounting 22.2mm bracket to the handle bar. Tightening torque: 5-6kgf.cm,

Do Not Over tighten or it may cause damage to the display.

Connecting cables



1. Aligning the arrow marks on the display outlet and Ebike outlet connector, and plug the two cables firmly.

■ System Operation

Initial Operation

Entering cycling interface when boots up

1. Long press "Power" to light up interface, and enter cycling interface.



Button Features

1. "+" key button:

	Short press	Long pr	ess		Long press & Hold
Meter interface	Assist level increases	E-bike	Lights	switch	
		on/off			
Menu interface	Cursor up/increases				

2. "-" key button:

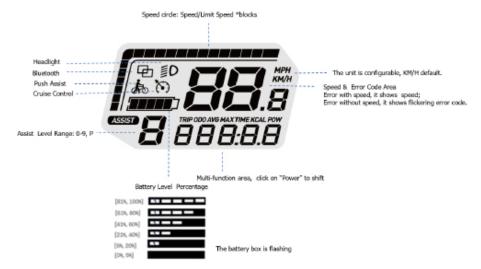
	Short press	Long press	Long press & Hold
Meter interface	Assist level decreases		6km/h push assist
Menu interface	Cursor down/decreases		

3. <u>"Power"</u> key button:

	Short press	Long press	Long press & hold
Meter interface	Shift data display style	Switch on/off	
Menu interface	Confirm/Next		

Note: Long press "+" and "-" simultaneously: Enter or exit menu; Long press "+" "M" simultaneously: Clean Trip data.

Display interface



Multi-function area

Trip function: to display Trip range, the range is 0-9999.9



ODO function: to display mileage, the range is 0-99999.



AVG function: to display average speed, the range is 0-99.9



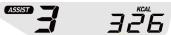
MAX function: to display max speed, the range is 0-99.9



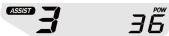
TIME function: to display cycling time, the range is 00:00 ~ 99:59



kcal function: to display calories (in kcal), the range is 0-99999.



POW function: to display current power (in W), the range is 0-999.



Menu Interface

In the display interface, long press "+" and "-" buttons to enter menu interface.

To ensure user safety, the menu interface can only be entered when the E-bike is stationary (speed is 0). The "Power" button enters to selected menu items through pressing "+" and "-" buttons to select menu items.

Setting unit

When selecting the "Unit" item, press the "Power" button to enter and "+" "-"to confirm km/h or MPH.



Setting limited speed

When selecting "Speed" menu item, press "Power" to enter and "+" "-" buttons to confirm limited speed, the valid range is 12-41km/h, which 41km/h means no speed limits.



Setting backlight brightness

When selecting "Light" menu item, press "Power" to enter and "+" "- buttons to confirm backlight brightness, the range is Class 1-5; Press "Power" to confirm and exit.



Setting auto power off time

When selecting "OFF" menu item, press "Power" to enter and "+" "-" buttons to confirm the time, the range is 0-99 min, which 0 means cancel the automatic power off; press the "Power" button again to confirm and exit.



Setting wheel size

When selecting the "Size" item, press "power" to enter, press "+" "-" buttons to select the wheel diameter, the valid range 16-28, in particular, 27.5 inches displays "27.5"; then press "Power" button to confirm and exit.



• Error interface

When there is an error, the error indicator will keep on and real-time speed area will be displayed as error code.

KM5S protocol error code:

Error Code (hexadecimal)	Meaning
,	
0x21	Over current Error or MOS tube
	damages
0x22	Throttle Hall Error
0x23	Motor Phase Error
0x24	Motor Hall Error
0x25	Brake Error
0x26	Under voltage Warning
0x30	Communication Error

Lithium Battery No. 2 Protocol Error Code

Entitle Daties y No. 2 1 Totogot Entit Code		
Error Code	Meaning	
(hexadecimal)		
0x09	Over current Error or MOS tube	
	damages	
0x08	Throttle Error	
0x07	Motor Phase Error	
0x14	Motor Hall Error	
0x02	Brake Error	
0x06	Under voltage	
0x30	Communication Error	

TROUBLESHOOTING

Since malfunction may be caused by one or more faults, find out the real cause and then take corresponding solutions for troubleshooting. In you have any question, please consult professional technicians.

Туре	Fault phenomenon	Analysis and solution
battery	The battery cannot be charged	1. Charger failure: If the green indicator is on when the charger is connected to the battery for charging, use a multimeter to measure whether the voltage at the output port of the battery is 42V (when the green indicator is on after the charger is connected to the power supply and then connected to the battery for charging, pull out the connector between the charger and the battery for measurement). If the voltage is lower than 42V, the charger is damaged and needs to be replaced. 2. Battery failure: a. Use a multimeter to measure the voltage at the battery discharging port, and judge whether the battery pack is damaged or undervoltage protected based on the voltage. b. If the voltage of the battery pack measured by the multimeter is 0-5V, it indicates that the battery pack cannot be charged due to overdischarge. In this case, the low-voltage charger (0-3V) is required to charge for about 3 hours to activate the battery pack that can operate properly after being fully charged. d. If the battery cannot be charged due to damage of its protection board, replace the battery pack.
	The instrument cannot be turned on /The button on the LED screen is pressed without any response	Check whether the outgoing line of instrument button falls off or is damaged. Check whether the instrument outgoing line and the connection with the controller terminal are normal. If the connecting wire is connected properly but the instrument fails to work, replace the instrument.
	2. The instrument cannot save the settings.	Replace the instrument.
Instrument	3. The + and - buttons cannot be pressed simultaneously for LED setting.	Replace the instrument.
	4. The display keeps showing garbled or black screen after riding for a while.	Replace the instrument.
	5. The speed described in the Manual cannot be reached	Adjust the speed according to the instrument manual. If the speed described in the Manual still cannot be reached after adjustment, replace the controller and instrument.
	6. The instrument does not display the speed.	Check whether the motor wire and the controller speed measuring wire are connected well. Check whether the instrument settings are normal. Check whether the rear wheel speed sensor is correctly installed.

Туре	Fault phenomenon	Analysis and solution
controller	Fault occurs during riding, resulting in sudden stop and failure to restart	The controller or motor Hall is burnt out due to current. Restart to check whether there is any error code abnormality reported by the instrument, and determine the fault cause according to the abnormality.
	2. The instrument is suddenly powered off (turned off) when the E-bike is started.	The currents of the controller and battery do not match. The controller current is greater than the battery BMS current, resulting in power failure of battery protection. Replace the controller or battery.
	The engine crashes sudd- enly after long-distance riding	As the motor and controller get hot after long riding, the system stops working. Replace the electronic control system. Long riding leads to the current increase and automatic protection of the system.
Motor	1. The motor does not work.	Check whether the outgoing line of the hub motor is broken or scratched. Check whether the connection between the hub motor and the controller falls off or is loose. If the mid motor does not work, replace it.
	2. The motor is very hot.	Confirm whether the riding is reasonable, and replace the motor if it gets very hot during normal riding.
Front and rear	The front and rear lights do not illuminate.	Check whether the connection between the front and rear lights and the controller is normal.
	The front and rear lights are suddenly powered off during riding.	Check whether the outgoing lines of front and rear lights are broken or damaged. Replace the front and rear lights in case of any damage.

1. What is the difference between servicing an e-bike versus a regular bike?

Since the standard components of an e-bike are just the same as a regular bike, taking care of and maintaining your bike is practically the same. It is possible to take an e-bike to a local repair shop as a regular bike. The cost of those repairs should be the same too.

If something went wrong with the electronic components, please contact your seller for details on authorised service centres.

2. Why are e-bikes heavier than regular bikes?

E-Bikes are heavy because they include a motor and battery, which regular bikes don't have. The entire motor system usually weighs over 8kg.

3. Why would I want a rear motor versus a central motor?

One of the biggest advantages of hub motors is that they require little or no maintenance. They are an entirely independent drive system that retains all of their components inside the motor casing, leaving nothing for you to mess with or maintain. Hub motors are generally heavier than central motors, can have less torque. They can be harder to swap out the rear rims or tyres, as the rim is attached to the hub motor.

Central motors allow an advantage through their gear ratio, which can allow for greater torque and better performance uphills. Central drive motors can often be smaller and lighter in comparison to rear hub motors of the same wattage. Changing a rear tyre or rim on a central drive powered ebike is generally the same process as on a regular bike. This is general advice and will differ on each bike you consider.

4. Should I park my e-bike outside?

You can store your e-bike outside without suffering any damage. Riding and parking your e-bike in the rain is entirely okay. However, you'll want to protect your e-bike, both from the elements and potential thieves. It is suggested to store your ebike inside when parking if possible and avoid heavy rain to extend the longevity of your ebike for years to come – just as you would do with a regular bike.

5. Will aftermarket upgrades to my e-bike/scooter affect my warranty claims?

Please be aware that the product warranty does not cover damage or defects resulting from the use of aftermarket parts or accessories that are not authorised by the manufacturer. Using aftermarket accessories can also potentially make your product more dangerous.

6. Can I make my ebike faster?

We do not recommend making any modifications to your product. To get the most performance out of your product, ensure your battery is fully charge, tyres are at the correct pressure and riding conditions are optimal.

7. Can I still gain fitness on an e-bike?

Just like any bike, the harder and longer you ride, the more exercise you will get. The benefit of an E-bike is that you can select which level of effort you want to exert.

8. Is it harder or easier to ride an e-bike versus a regular bike?

An E-Bike has a motor, a battery, and a control unit to provide power assistance while you are pedalling. Once you are aware of how to operate the different assistance levels, riding an e-bike will be much easier than a regular bike.

9. Can electric bikes go up hills?

Yes, much easier than a regular bike. You will need to consider the terrain you plain on traversing, the steepness of the hill, as well as your own fitness, This will inform you whether you need an ebike with more gear options or power. An ebike with less gears and less power will offer less assistance than an alternate ebike, but will still offer much more assistance than a regular bike.

10. Are there factors that will affect my top speed and maximum mileage?

The speed of your E-bike largely depends on the mode you are riding in. The E-bike motor will assist you until you reach its maximum speed. You can go faster than that, but by law, the motor will no longer provide assistance.

The range of your E-bike is dependent on several factors, including motor type, carried weight, tyre pressure, support mode the rider is using, and, most importantly, battery capacity. Different batteries have different ranges, so you can extend your battery life by purchasing one with generally higher limits if available. If you can carry a second battery, you will increase the total range of your E-bike.

11. What are the recommended safety precautions for riding electric transport?

The best thing any rider can do is put on a helmet whenever you are riding an E-Bike. Riders can take extra precautions to be seen while on the road. Turning on your front and rear lights even during daylight is a brilliant strategy for enhancing your safety while riding an bike. Regular bike safety rules and advice will also apply to ebikes.

12. There was no manual in my box – why is that?

To reduce our carbon footprint we have not printed a full user manual. There will be a card included in the box with a QR code to scan to access your manual. If this has somehow not been included, head to:

https://www.panmi.com.au/get-ready-to-ride/

or alternatively

https://www.panmi.com.au/user-manual/

13. Can I carry multiple people on my ebike if it is under the weight limit?

It is recommended for increased safety to only operate your device with one person. Carrying multiple people could potentially void your warranty and reduce the performance of your ebike. Do so at your own risk.

14. How do I determine the seat height for my e-bike?

One method to find your correct saddle height that requires no math is the heel-toe method.

Start by rotating the crank so the pedal with your heel on is in the down position and the crank arm is almost parallel to the seat tube.

When seated on the saddle if your leg is locked straight at the knee, the saddle is too high. If your leg is bent at the knee with your heel on the pedal, the saddle is too low.

Ideally, You want just a slight bend in your knee, and for your legs to be able to reach the ground while seated.

15. What if my e-bike runs out of battery while riding? Can I use my e-bike manually?

You can easily ride an E-Bike without its battery just as you would a regular bike.

16. Are electric bikes good for the environment?

Electric Bikes generate no exhaust fumes since they are powered by an electric motor. This means you are generating zero air pollution in your city while in use. Also, recharging with energy is more carbon-neutral than petrol or diesel. To increase the benefit to the environment further, you should pursue a power provider with renewable energy. Maintaining your product appropriately will also increase its longevity and product life which can also benefit the environment and minimize waste.

17. Will an electric bike really save me money?

An electric scooter is much cheaper as a form of regular transport compared to driving a car, getting a taxi or even riding the bus. A guide on potential cost-saving areas relate to:

No insurance cost.

No petrol cost (just power).

No parking cost.

No registration cost.

Minimal servicing and repair costs.

Reduce your need for public transport spending.

18. There are many electric bikes available, how do I know what's right for me?

You need to consider your particular circumstances and needs and assess what the product can offer you. Questions to ask yourself can be like the following:

How far do I need to travel? - check range

Do I need to lift the product? (I.e. onto the train or into car)? - Check the weight and the folding/carrying functionality

Do I need more time to allow time to for a longer recharge? - Check charge time, check if removable/swappable battery

Do I need to tackle hills and slopes? - Check torque rating

Do I need to go faster? – Often electric rideable's are capped due to legal reasons unless you are riding on private property Is this for fun or practicality? – Off-road products may go faster and allow more excitement but are generally only allowed on private property.

What terrain will I need to cover? - Consider suspension, tyre type, torque, gears

Will I be riding at night? Check lighting features, indicator features

Do I want still get some exercise? Consider an e-bike instead of an e-scooter

19. Can I recycle my old e-bike battery?

There are often locations which are available to hand in used batteries. We recommend a simple google search focusing on your local area. There are some recycling sites online that can offer information on battery recycling such as: https://recyclingnearyou.com.au/batteries

Recycling batteries keeps toxic materials out of landfill where they can contaminate the soil and groundwater. It also ensures the valuable materials in batteries are recycled into the something new, which reduces the amount of finite natural resources used in the production of new batteries.

20. What are the main reasons for buying an e-bike?

you want to save money.
you want to save time.
you don't like being stuck in traffic.
you want to save energy.
you want a very fun hobby.
you need a convenient transport mode.
you care about the environment.

21. What are general items I should check before riding my e-bike?

- 1. Tyre checks
- 2. Brake checks
- 3. Battery checks
- 4: Exterior checks

Check over? Let's ride!

22. What exactly is an E-Bike?

Our E-bikes are pedal-assist E-bikes. Like a regular bike, it comes with pedals and gears, but they also have a motor, a battery, and a control unit. As you ride, you can select the level of assistance the e-bike provides.

23. What does riding an E-Bike feel like?

Imagine the bike is pushing you forward while you are still working. E-bikes are a great option when it comes to travelling on the road for commuting, fun, or exercise. You can travel faster and farther than you would be able to on a regular bike!

24. How fast can an E-Bike Go?

We design different types of E-bikes to fit the needs of every type of rider. Maximum speed is limited by local regulations. If your product is not designed for public roads, make sure you follow the regulation.

The speed of your E-bike largely depends on the mode you are riding in. The E-bike motor will assist you until you reach its maximum speed. You can go faster than that, but the motor will no longer provide assistance.

25. How to take care of your E-Bike Battery?

It is best to avoid temperature extremes, both while riding and charging. Charging below 0°C or above 40°C can lead to insufficient charging and harm the battery life cycle.

When you remove the battery to store it, make sure it is in a safe, climate-controlled space. If the bike is not used for a longer period, it is best to remove the battery from the bike. Charge when needed, at least every 3 months.

When charging the battery, make sure it is in a dry location and be sure it's in a place where it won't cause a fire.

WARRANTY

DOA:

Complete replacement

12 Month Warranty*:

All returns accepted excluding items that have received physical damage by the owner/end-user

Warranty does not apply to any:

- a) Damage caused by nature or acts of God, for example, lightning strikes, tornadoes and the like;
- b) Negligent or incorrect use of the product;
- c) Commercial use of the product;
- d) Modifications to any part of the product;
- e) Damage caused by use with after-market products;
- f) Damage caused by negligence, accident, abuse, misuse, flood, fire, earthquake or other external causes;
- g) Damage caused by operating the product outside the permitted or intended uses described by the manufacturer's instructions or with improper voltage or power supply;
- h) Damage caused by servicing of the product (including upgrades and expansions) performed by any unauthorised personnel
- i) Damage caused by natural wear and tear



TECHNICAL SUPPORT

Please contact your seller for details on authorised service centers.

For further support email us at support@panmi.com.au