

MINAL

M1 PRO

Owner's Manual



Frame Code



About Manual

This manual contains details of the product, and information on its operation and maintenance and other helpful tips for owners. Read it carefully and familiarize yourself with the MINAL M1 Pro before using it to ensure safe use and prevent tragic accidents. Be sure to retain this manual as your convenient MINAL M1 Pro information source.

This manual contains many Warnings and Cautions concerning the safe operation and consequences if safe setup, operation and maintenance are not performed. All information in this manual should be carefully reviewed and if you have any questions you should contact MINAL Bike immediately. The notes, warnings and cautions contained within the manual and marked by this triangular Caution Symbol should also be given special care.

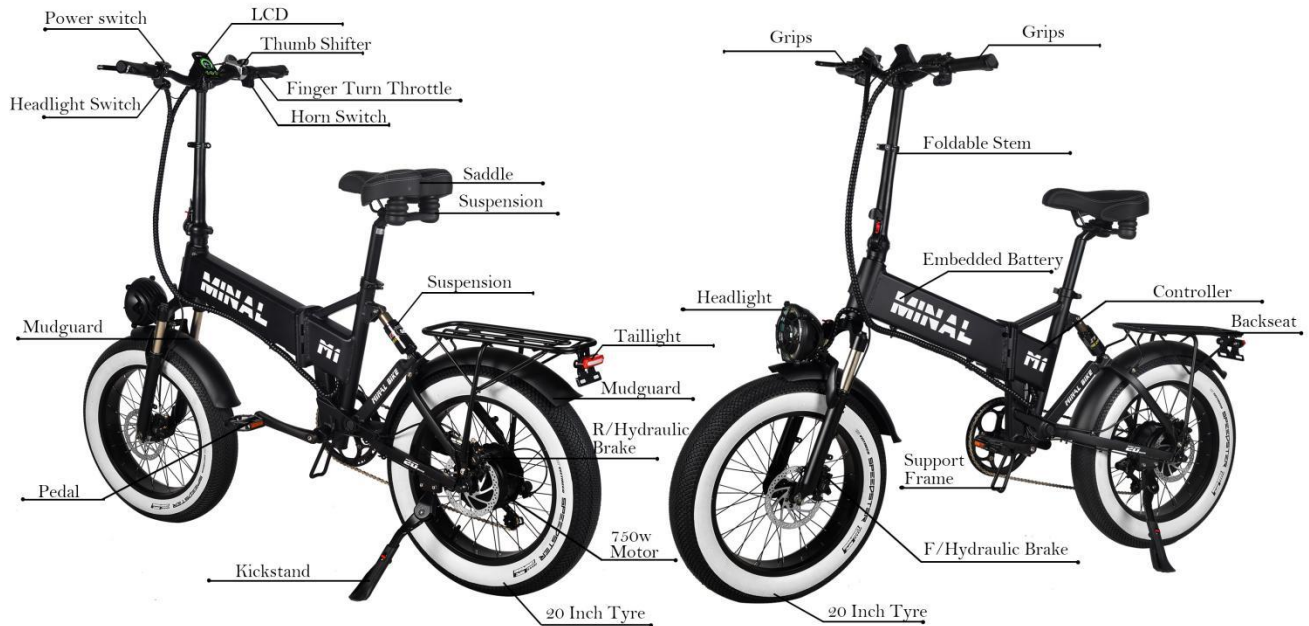
Users should also pay special attention to information marked in this manual beginning with NOTICE.



Because it is impossible to anticipate every situation or condition which can occur while riding, this manual makes no representations about the safe use of bicycles under all conditions. There are risks associated with the use of any bicycle which cannot be predicted or avoided, and which are the sole responsibility of the rider. You should keep this manual, along with any other documents that were included with your bicycle, for future reference, however all content in this manual is subject to change or withdrawal without notice. Visit www.minalbike.com to download the latest version. MINAL Bike makes every effort to ensure accuracy of its documentation and assumes no responsibility of liability if any errors or inaccuracies appear within. Assembly and first adjustment of your MINAL Bike requires special tools and skills and it is recommended that this should be done by a trained bicycle mechanic if possible.

Product Specification

Battery	48V12.8Ah SINCPOWER Lithium Battery	Front Fork	Suspension Fork With Lock
Motor	750W Brushless Gear Hub Motor	Bike Frame	20" AL6061 Aluminium Alloy
Display	Key-Disp+USB LCD Display	Brake	F/R 160 Disc hydraulic Brake
Max Speed	25km	Charger	48V2A /110~240V Smart Charger
Battery Range	50~55km	Saddle	Comfortable Big Saddle
PAS Range	70~75km	Freewheel	7 SPEED 14-28T
Derailleur	Shimano 7 Speed	Rear Derailleur	Shimano/RD-TY21B
Right Thumb Shifter	Shimano/TX50	Tyre	Veetire 20*4.0
Throttle	Finger Throttle	Rim	AL6061 Al Alloy
PAS Num	Integration PAS/ 12 Num Magnet	Net Weight	34kg
Charging Time	6~7Hours	Max Load	200kg



Safety Checklist

NOTICE: Before every ride it is important to carry out the following safety checks.

Safety Check	Basic Steps
Brakes	<ul style="list-style-type: none"> ○ Ensure front and rear brakes work properly. ○ Ensure brake pads are not over worn and are correctly positioned in relation to the rims. ○ Ensure brake control cables are lubricated, correctly adjusted and display no obvious wear. ○ Ensure brake control levers are lubricated and tightly secured to the handlebars.
Wheels and Tires	<ul style="list-style-type: none"> ○ Ensure tires are inflated to within the recommended limits displayed on the tire sidewalls. ○ Ensure tires have tread and have no BULGES OR EXCESSIVE WEAR. ○ Ensure rims run true and have no obvious wobbles or kinks. ○ Ensure all wheel spokes are tight and not broken.
Steering	<ul style="list-style-type: none"> ○ Ensure handlebar and stem are correctly adjusted and tightened, and allow proper steering. ○ Ensure the handlebar is set correctly in relation to the forks and the direction of travel.
Chain	<ul style="list-style-type: none"> ○ Ensure the chain is oiled, clean and runs smoothly. ○ Extra care is required in wet or dusty conditions.
Crank and Pedals	<ul style="list-style-type: none"> ○ Ensure pedals are securely tightened to the cranks. ○ Ensure the cranks are securely tightened and are not bent.
Derailleurs	<ul style="list-style-type: none"> ○ Check that the derailleur(s) are adjusted and functioning properly. ○ Ensure shift and brake levers are attached to the handlebar securely. ○ Ensure all brake and shift cables are properly lubricated.
Motor Drive Assembly and Throttle	<ul style="list-style-type: none"> ○ Ensure hub motor is spinning smoothly and the motor bearings are in good working order. ○ Ensure all power cables running to hub motor are secured and undamaged. ○ Make sure the hub motor axle bolts are secured and all torque arms and torque washers are in place.
Battery Pack	<ul style="list-style-type: none"> ○ Ensure battery is charged before use. ○ Ensure there is no damage to battery pack. ○ Lock battery to frame and check to see that it is secured.

Assembly Instructions

NOTICE: The following assembly steps are only a general guide to assist in the assembly of your MINAL Bike and is not a complete or comprehensive manual of all aspects of assembly, maintenance and repair. We recommend you consult a certified bicycle mechanic to assist in the assembly, repair and maintenance of your bicycle. For detailed instructions please view the MINAL M1 Pro Assembly video and Quick Release Installation video found at www.minalbike.com.

Figure ① shows the folding state of M1PRO

Step 1: Turn rightward the front part of the frame as shown in figure ②, fasten the frame folding buckle. as shown in figure ③.

Step 2: Fold the stem upward as shown in Figure ④, fasten the buckle of the stem as shown in Figure ⑤.

Step 3: Check the brake and tire pressure.



NOTICE: *Ensure all hardware is tightened properly and all safety checks in the following sections are performed before first use. Contact MINAL Bike if you have any questions regarding the assembly of your bike. If you are not able to ensure all the assembly steps in the assembly video are performed properly, or you are unable to view the assembly video please consult a certified local bicycle service provider for assistance in addition to contacting MINAL Bike for help.*

Start-Up Procedure

With all components of the MINAL e-bike installed correctly, you can now proceed to operate your MINAL bike with the proper safety equipment and knowledge of the rider. You can press the pedal to start an electric bike, or you can use the throttle to accelerate and maintain the speed you need.

Routine Operation

◆ Power ON/OFF

After pressing the power button for seconds, the meter starts to work and provides the working power of the controller. In the power-on mode, press and hold the power button to turn off the electric bikes power supply. In the off mode, the meter no longer uses the battery's power supply, and the meter's leakage current is less than 1uA.

If the electric bike is not used for more than 10 minutes, the meter will automatically shut down.

◆ Display Interface

When the meter is turned on, the real-time speed and single mileage (kilometers) are displayed by default. Short press the "i" button, the display information is between single mileage (kilometers), total mileage (kilometers), maximum speed (kilometers/hour), average speed (kilometers/hour), riding time and other information Switch.



◆ Switching the Lighting On/Off

To switch on the headlight, press the "☰" button. The backlight brightness is automatically reduced. Press the "☰" button again, the lighting can be switched off.



◆ Assist Level Selection

Briefly press "+" or "-" button to switch between assistance levels so as to change the motor output power, The default assistance level ranges from level "1" to level "5", . Level "1" is the minimum power. Level "5" is the maximum power. When you reach "5", press the "+" button again, the interface still shows "5", and blinks at "5" to indicate the power highest. After the power downshift reaches "1", press the "-" button again, the interface still shows "1" and blinks at "1" to indicate the power minimum. The default value is level "1", Press the "-" button for a few seconds to enter the cruise control.



◆ Battery SOC Indicator

The five battery bars represent the capacity of the battery. The five battery bars are bright when the battery is in high voltage. When percentage is 0%, the battery needs to be recharged immediately.



Battery SOC Indication Interface

◆ Motor Power Indicator

The power of the motor can be read via below interface



◆ USB connection indication

When the display is inserted into a USB external device, the display interface will show as below.



◆ Error fault detection

Your MINAL e-bike is equipped with an error detection system integrated into the instrument display and controller. When the electronic control system is faulty, the instrument will automatically display the fault. The following error failures are the most common and can help with troubleshooting.



Error fault display	Suggest
Fault with the hall	Repair or replace
Communication fault	Repair or replace
Fault with the brake crank	Repair or replace

When the error code is displayed, please promptly remove the fault. After the fault occurs, the electric bike will not be able to ride normally.

General Settings

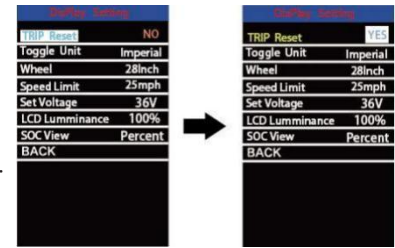
Press and hold the power button to turn it on. In the power-on state, while the vehicle is stationary, press and hold the “+” and “-” buttons simultaneously for more than 2 seconds, and the meter enters the normal setting state.

Each setting item needs to be carried out while the e-bike is stationary.

◆ Trip Distance Clearance

Trip Reset represents trip distance clearance setting.

To clear trip distance, press the “+” button or the “-” button to select Yes or No. Yes represents clearing a single ride distance. No represents not clearing a single ride distance. To store a changed setting, briefly press the “i” button to confirm.

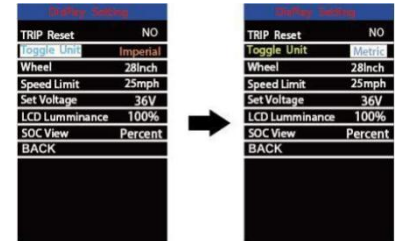


◆ Unit km/mile Conversion

Toggle Unit represents unit settings.

To toggle the unit, press the “+” button or the “-” button to choose the desired unit and press the “i” button to confirm. The default unit is “Metric (km)” .

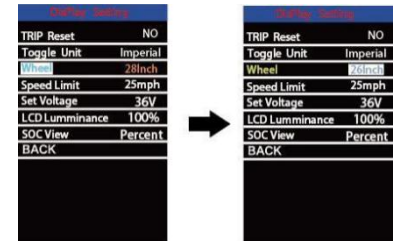
To store a changed setting, briefly press the “i” button to confirm.



◆ Wheel Diameter Settings

Wheel represents wheel diameter settings. To change basic settings, press the “+” or the “-” button to increase or decrease until the desired value is displayed.

To store a changed setting, press the “i” button to confirm.

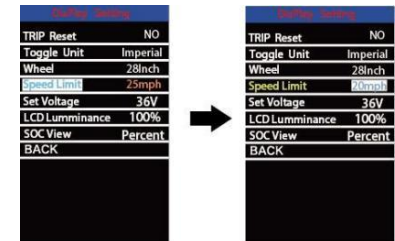


◆ Speed-limit Settings

Speed Limit represents the limited speed settings. When the current speed is faster than speed limit, the E-bike system will be switched off automatically. Speed limit range is 12Km/h to 50Km/h.

To change basic settings, press the “+” or the “-” button to increase or decrease until the desired value is displayed. Press the “i” button to confirm.

To store a changed setting, press the “i” button to confirm.

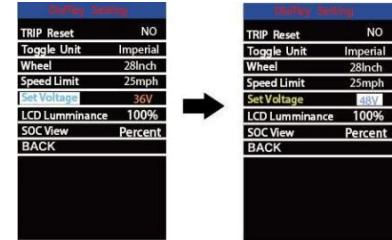


◆ Battery Power Bar Settings

Set Voltage represents voltage settings. 5 bar voltage values must be entered one by one. For example, “1-” is the first bar voltage value.

To set battery power bar, press the “+” or the “-” button to increase or decrease the voltage values.

To store a changed setting and access the next bar voltage setting, press the “i” button. In the same manner, after 5 voltage values are entered completely, press the “i” button to confirm.



◆ Backlight Brightness Settings

LCD Luminance represents backlight brightness. 100% is the highest brightness. The less the percentage, the lower the backlight brightness.

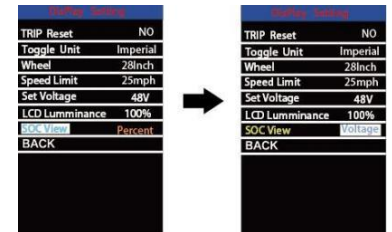
To change the backlight brightness, press the “+” button or the “-” button to choose the desired percentage.

To store a changed setting, briefly press the “i” button to confirm.



◆ SOC View Settings

SOC view represents 2 display methods of remaining battery capacity. One is by the percentage and the other is by the Voltage value. Press the “+” button or the “-” button to choose the desired display method. The default view method is by the percentage. To store a changed setting, briefly press the “i” button to confirm.



Advanced Settings

After Display Setting is done, Press Back to return to Setting page.

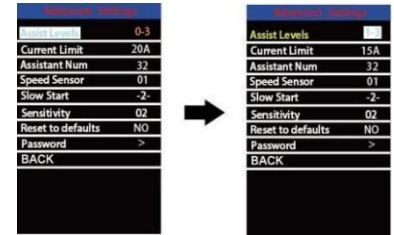
Press UP/DOWN button to choose Advanced Settings and press “i” button to enter Advanced Settings page.

◆ Assist Level Settings

Assist Level Mode Options

Power Set represents assist level settings. In assist level mode settings, there are 8 modes for your choice: 0-3, 1-3, 0-5, 1-5, 0-7, 1-7, 0-9, 1-9.

To change assist level mode, press the “+” or the “-” button to choose the desired mode and press the “i” button to confirm and access assist level ratio settings automatically.

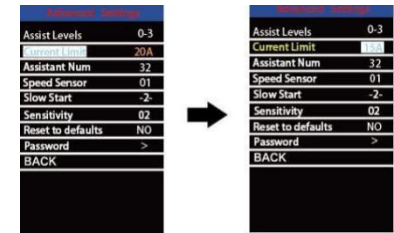


◆ Controller Over-current Cut Settings

Current Limit represents controller over-current cut settings. The current value can be changed from 7A to 25A.

To change basic settings, press the “+” or the “-” button to increase or decrease the value of the current.

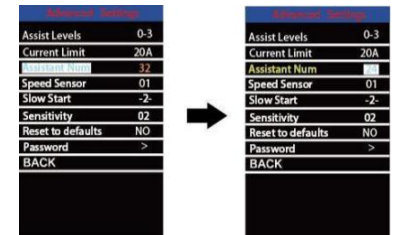
To store a changed setting, press the “i” button to confirm.



◆ Power Assistant Sensor Magnets

Assistant Num represents the number of magnets in the PAS disk.

To change magnet numbers, press “+” or “-” button to choose the desired number. To store a changed setting, press the “i” button to confirm

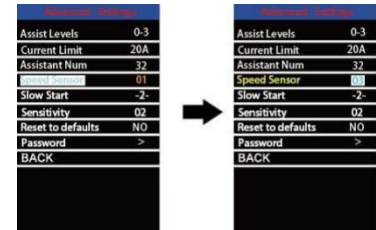


◆ Speed Sensor

Speed Sensor represents speed sensor settings.

To change speed sensor settings, press the “+” or the “-” button to select the quantity of magnet heads on the e-bike spoke (the range is from 1 to 15). The default value is 1.

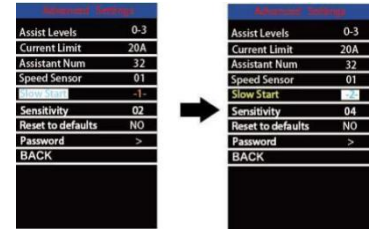
To store a changed setting, press the “i” button to confirm.



◆ Slow start

Slow start represents slow start-up settings. It is a time duration before you get power assistance when applying pedal power. The range is “1-4”. “4” is the slowest.

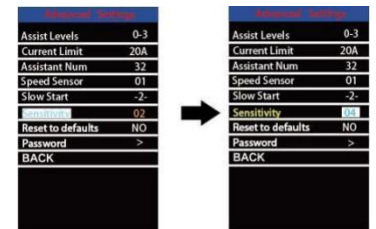
To change slow start up settings, press +/- button to choose the desired value. And press the i button to confirm.



◆ Sensitivity

Sensitivity represents the sensitivity of power assist sensor. It means the motor assist should start after a certain number of magnets are passing on the power assist sensor. To change the value, press the “+” or the “-” button to choose the sensitivity value. The default value can be customized.

To store a changed setting, press the “i” button to confirm.



◆ Reset to defaults

Reset to defaults represents factory settings.

To reset to defaults, press the “+” or the “-” button to choose YES or NO. The default is NO.

To store a changed setting, press the “i” button to confirm.

Advanced Settings	
Assist Level	1-5
Current Limit	20A
Drive	P/T Override
Speed Sensor	1
PAS Delay	3
PAS Power	1
Assistant Num	12
Password	>
Reset to defaults	>
BACK	

DisPlay Setting	
TRIP Reset	NO
Unit	Metric
Wheel Size	24Inch
Speed Limit	25Km/h
Voltage	48V
LCD Luminance	100%
BACK	

Default parameters

Advanced Settings	
Assist Levels	0-3
Current Limit	20A
Assistant Num	32
Speed Sensor	01
Slow Start	-2-
Sensitivity	02
Reset to defaults	NO
Password	>
BACK	



Advanced Settings	
Assist Levels	0-3
Current Limit	20A
Assistant Num	32
Speed Sensor	01
Slow Start	-2-
Sensitivity	02
Reset to defaults	YES
Password	>
BACK	

◆ Power-on Password Settings

To access the power-on password setting page, select ‘Password’ in the menu and press “i” button to confirm.

Password Set means power-on password settings. Power-on password is a 4-digit code.

Advanced Settings	
Assist Levels	0-3
Current Limit	20A
Assistant Num	32
Speed Sensor	01
Slow Start	-2-
Sensitivity	02
Reset to defaults	NO
Password	█
BACK	



PassWord Set	
BACK	
Start PassWord	OFF

1. Power-on Password Disable/Enable

To enable or disable Start PassWord settings, press the “+” or the “-” button to select ON or OFF. ON means enabling a power-on password while OFF means disabling a power-on password. The default value is OFF.

To enable a power-on password, choose ON and press “i” button to confirm and input the current password . Press the “+” or the “-” button to change the number and press the “i” button to confirm digits one by one until the correct password(current password) is completed.

To disable the current password, choose OFF and press “i” button to confirm and input the current password correctly. The screen displays ‘PassWord Canceled Successfully’ .



Password Enable/Disable Settings Interface

2. Power-on Password Reset

From the last interface above, press the “+” or the “-” button to select ‘Reset PassWord’ and press the “i” button to confirm to access power-on password reset interface. There are 3 pages for setting up a new password:

In the first page, please enter the current password or default password ‘1212’ correctly.

Then it moves to the second page for inputting a new password. Press the “+” or the “-” button to increase or decrease the

number and then press the “i” button to confirm digits one by one until a new 4-digit password is completed. Finally, it comes to the third page and reenter the new password again for confirmation. The screen displays ‘ Password Reset Successfully’

When switching on the E-bike system next time, please enter the new password to power on.



Password Change Interface

◆ Exit Settings

In the settings interface,

1. Briefly press the “i” button is to confirm and store a changed setting but stay within current setting menu.
2. Hold the “i” button for 1 second is to store a changed setting and exit current setting menu and return back to display start-up interface.
3. Hold the “-” button for 1 second is to cancel the setting operations without storing a change and return back to display start-up interface.

■ If there is no setting operations in one minute; the display will exit the settings state

Driving Range

The range of your MINAL Bike is the distance the bike will travel on a single full charge of the onboard battery pack. The range values in this manual are estimates based on expected usage characteristics. Some of the factors which effect range include changes in elevation, speed, payload, and acceleration, number of starts and stops and ambient air temperatures. Tire pressure and terrain are also important variables to consider.

We suggest that you select a lower assistance level when you first get your MINAL Bike to get to know your bike and travel routes. Once you become familiar with the range requirements of your travel routes, and the capabilities of your MINAL Bike you can then adjust you riding characteristics if you so desire.

The following table provides general estimates and outlines various factors effecting range and their combined estimated effects on range. This table is meant to help owners understand the factors that can increase or decrease range, but MINAL Bike makes no claims to the range that individual users might obtain.

Best Practices for Extending Range and Battery Life

- ◆ Do not climb hills steeper than 15% in grade.
- ◆ Pedal to assist the motor when climbing hills and accelerating from a stop.
- ◆ Avoid sudden starts and stops.
- ◆ Accelerate slowly.

NOTICE: *It is recommended that users pay close attention and ride within the following limitations to ensure the hub motor does not overheat or become damaged from excessive loading.*

Parking Storage and Transport

Please follow these basic parking, storage and transport tips to ensure your bike is well cared for on and off the road.

- ◆ When pushing the vehicle manually, turn off the power to avoid accidental acceleration from the motor.
- ◆ It is recommended to park indoors.
- ◆ Switch the power off, and any lights to conserve battery. Remove the key from the bike and ensure the battery is locked to the frame or removed and brought with you for security.
- ◆ In public places, your MINAL Bike must be parked in accordance with local rules and regulations.
- ◆ If you must park outdoors in rain, or wet conditions you should only leave your MINAL Bike outside for a few hours and proceed to park the bike in a dry location afterwards to allow all the systems to dry out. Much like a regular bike, use in wet conditions mandates a more regular maintenance schedule to ensure your bike does not become rusty, corroded and to ensure all systems are always working safely.
- ◆ Do not park, store, or transport your MINAL Bike on a rack that is not designed for the size and weight of the bike.
- ◆ Wide tires, as used on MINAL Bike, cannot fit into all bike racks, please select an appropriate rack for the width of tires used on your bike.
- ◆ Locking up your bike is recommended to ensure your bike is secure and the chance of theft is reduced. MINAL Bike makes no claims or recommendations on the proper lock hardware or procedures to secure your bike, but we do recommend you take the appropriate precautions to keep your MINAL Bike safe from theft.
- ◆ When storing your bike or carrying your bike on a rack for transport, you can remove the battery pack to reduce the weight of the bike and make lifting and loading easier.

Carrying Loads

MAXIMUM PAYLOAD FOR MINAL M1 Pro

The total maximum weight limit of the MINAL M1 Pro includes the weight of the rider as well as clothing, riding gear, cargo, etc. The kickstand is not designed to be used for loading cargo. You MUST hold onto the bike whenever loading cargo. Do not assume the bike is stable and balanced when using the kickstand, always hold onto the bike when cargo is being loaded or in place.

Total maximum payload:200kg.

Carrying Cargo

Carrying a cargo load involves additional risks which need to be paid close attention to, users should practice riding on a flat and open area with light cargo before attempting to carry heavier loads. You must become accustomed to the braking, steering, and operational adjustments

required to safely operate the MINAL M1 Pro with cargo. Braking, acceleration, and balancing are all significantly affected by the addition of cargo loaded on the MINAL M1 Pro.

The following bulleted list provides important tips for the safe operation of the MINAL M1 Pro when used for carrying cargo.

- Plan your route accordingly as your hill climbing ability, steering and braking are all impacted when cargo is loaded on the MINAL M1 Pro.
 - Hills that are normally easy to climb and descend without cargo can become challenging and dangerous once cargo is loaded.
- Cargo should be loaded as low as possible to lower the center of gravity and improve stability, but ensure that cargo does not interfere with any moving components or the ground.
- Ensure your loads are properly secured and periodically check that nothing loosens.
- Get a feel for the cargo load in a flat and open area before riding on roads.

Do not use the front brake by itself, always apply the rear brake first followed by the front brake and be sure to use both brakes for all braking operations. Front fork failure or loss of control are plausible when the front brake is operated independently for slowing at high speed with cargo loads.



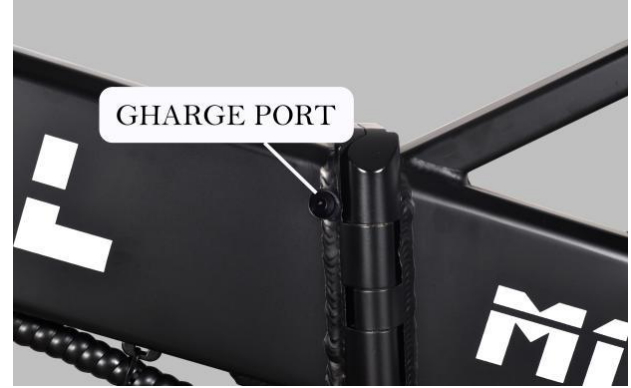
The kickstand is not designed to be used for loading cargo. You MUST hold onto the bike whenever loading cargo. Do not assume the bike is stable and balanced when using the kickstand, always hold onto the bike when cargo is being loaded or in place.



Charging Steps

Follow these steps to recharge your MINAL bike:

1. using the key Turn off the battery power.
2. Place the bike in a flat, safe place and connect the output plug from the charger (barrel connector) to the charging port on the side of the battery.
3. Then connect the power input plug (110/220 volt plug) to the power socket, and the LCD charging status light on the charger turns red during the charging process.
4. When the charging indicator turns green, unplug the charger power input plug from the wall socket first, and then unplug the charger output plug from the bike charging port.



Always charge your battery in temperatures between 10 and 26 degrees Celsius and ensure the battery and charger are not damaged before initiating charge. If you notice anything unusual while charging, please discontinue charging and use of the bike and contact MINAL Bike for help.



Basic Battery Charging Tips

- ◆ The battery should be recharged after each use. There is no memory effect, so you can charge the battery after short rides without damage.
- ◆ The battery can be recharged on or off the bike.
- ◆ Remove the battery by turning the key and then pulling the battery forward and up until the battery detaches from the mating receptacle.
- ◆ The charger will automatically stop charging when the battery pack is full.
- ◆ Always charge in dry locations and indoors away from direct sunlight, dirt or debris.
- ◆ Do not cover up the charger when plugged in or charging, it air cools and needs to be left in an open space. Do not charge with the charger in the inverted position which can inhibit cooling and reduce the charger' s life.
- ◆ Check the charger cables, charger and battery for damage before beginning each charge.
- ◆ The light on the charger will turn green when charge is complete and stay red while the battery charges.
- ◆ Charging normally takes 6~9hours, however it can take longer when you first receive the bike since the battery pack is balancing.

Charging Time

When the input and output plugs of the charger are connected properly, and the battery is not fully charged, the red charging indicator light should illuminate, showing that the battery is charging. The time that the battery takes to fully charge the battery is dependent on various factors including distance traveled, riding characteristics, terrain, payload, and battery age.

NOTICE: *The battery pack can take longer to charge when fully depleted and when the battery is new. As your battery ages you might also experience increased charging times, but this is only expected after 3-5 years of regular use. If your battery does not seem to be charging normally, and taking longer to charge than expected, please discontinue charging and contact MINAL Bike immediately.*

Charger Safety Information

- ◆ Keep charger in a safe place away from children.
- ◆ Fully charge the battery before each use to extend the life of the battery and help to reduce the chance of over- discharging the battery pack.
- ◆ Do not charge the battery with any other chargers than what was originally supplied with your MINAL Bike or a charger purchased directly from MINAL Bike for use with your specific bike serial number, as approved by MINAL Bike.
- ◆ The charger works on 110/220 V 50/60 Hz standard home AC power outlets, do not open the charger to select voltage input, the charger automatically detects and accounts for incoming voltage.
- ◆ Avoid charger contact with liquids, dirt/debris or metal objects.
- ◆ Store the charger in a location where it cannot suffer damage from falls/impact.
- ◆ The charger should only be used indoors in a dry ventilated area.
- ◆ If you notice a strange smell or the charger or battery are overheating, please stop charging immediately and contact MINAL Bike.
- ◆ Do not yank or pull on the cables of the charger. When unplugging carefully remove both the AC and DC cables by way of pulling on the plastic plugs, not pulling on the cables.

Please take special care in charging of your MINAL Bike in accordance with the above procedures and safety information. Failure to follow proper charging procedures can result in damage to your MINAL Bike, charger, personal property and/or serious injury or death.



Bicycle Care

To ensure safe riding conditions you must ensure your bike is properly maintained. You should follow these basic guidelines and see your certified bicycle mechanic at regular intervals to ensure your bike is safe for use.

1. Properly maintain batteries by keeping them fully charged when not in use.
2. Never immerse the bike or any components in water as the electrical system may be damaged.
3. Periodically check wiring and connectors to ensure there is no damage and the connectors are secure.
4. To clean, wipe the frame with a damp cloth soaked in a mild non-corrosive detergent mixture. Dry with a cloth.
5. Store under shelter; avoid leaving it in the rain or exposed to corrosive materials. If exposed to rain, dry your bicycle afterwards and apply anti-rust treatment to chain and other unpainted steel surfaces.
6. Riding on the beach or in coastal areas exposes your bicycle to salt which is very corrosive. Wash your bicycle frequently and wipe or spray all unpainted parts with anti-rust treatment. Damage from corrosion is not covered under warranty so special care should be given to extend the life of your bike when used in coastal areas or areas with salty air or water.
7. If the hub and bottom bracket bearings have been submerged in water, they should be taken out and re-greased. This will prevent accelerated bearing deterioration.
8. If the paint has become scratched or chipped in the metal, use touch up paint to prevent rust. Clear nail polish can also be used as a preventative measure.
9. Regularly clean and lubricate all moving parts, tighten components and adjust as required.

Your cables, spokes and chain will stretch after an initial break in period of 80-160 km, while bolted connections can loosen. Therefore, always have a certified bicycle mechanic perform a tune-up on your MINAL M1 after your initial break-in period of 80- 160 km (depending on total weight, riding characteristics and terrain). Regular inspections and tune-ups are particularly important for ensuring that your bicycle remains safe and problem-free.



Basic Troubleshooting

Symptoms	Possible Causes	Most Common Solutions
It doesn' t work	<ol style="list-style-type: none"> 1. Insufficient battery power 2. Faulty connections 3. Battery not fully seated in tray 4. Improper turn on sequence 5. Brakes are applied 	<ol style="list-style-type: none"> 1. Charge the battery pack 2. Clean and repair connectors 3. Install battery correctly 4. Turn on bike with proper sequence 5. Disengage brakes
Irregular acceleration and/or reduced top speed	<ol style="list-style-type: none"> 1. Insufficient battery power 2. Loose or damaged throttle 	<ol style="list-style-type: none"> 1. Charge or replace battery 2. Replace throttle
When powered on the motor does not respond	<ol style="list-style-type: none"> 1. Loose wiring 2. Loose or damaged throttle 3. Loose or damaged motor plug wire 4. Damaged motor 	<ol style="list-style-type: none"> 1. Repair and or reconnect 2. Tighten or replace 3. Secure or replace 4. Repair or replace
Reduced range	<ol style="list-style-type: none"> 1. Low tire pressure 2. Low or faulty battery 3. Driving with too many hills, headwind, braking, and/or excessive load 4. Battery discharged for long period of time without regular charges, aged or damaged 5. Brakes rubbing 	<ol style="list-style-type: none"> 1. Adjust tire pressure 2. Check connections or charge battery 3. Assist with pedals or adjust route 4. Replace the battery
The battery won' t charge	<ol style="list-style-type: none"> 1. Charger not well connected 2. Charger damaged 3. Battery damaged 4. Wiring damaged 	<ol style="list-style-type: none"> 1. Adjust the connections 2. Replace 3. Replace 4. Repair or replace
Wheel or motor makes strange noises	<ol style="list-style-type: none"> 1. Damaged motor bearings 2. Damaged wheel spokes or rim 3. Damaged motor wiring 	<ol style="list-style-type: none"> 1. Replace 2. Repair or replace 3. Repair or replace motor

As a parent or guardian, you are responsible for the activities and safety of your child. The MINAL M1 Pro is not designed for use by children.

The following safety notes provide additional information on the safe operation of your MINAL Bike and should be closely reviewed. Failure to review these notes can lead to serious injury or death.



- ◆ All users must read and understand this manual before first use. Additional manuals for components used on your bicycle may also be provided and should be read before use in addition to this manual.
- ◆ Ensure that you comprehend all instruction and safety notes/warnings.
- ◆ Ensure the bike fits you properly before first use. You may lose control or fall if your bike is too big or too small.
- ◆ Always wear an approved bicycle helmet whenever using this product and ensure that all helmet manufacturer instructions are used for fit and care of your helmet. Failure to wear a helmet when riding may result in serious injury or death.
- ◆ Ensure correct tightening and setup is performed on your bicycle before first and checked regularly.
- ◆ It is your responsibility to familiarize yourself with the laws and requirements of operation of this product in the area(s) where you ride.
- ◆ Ensure handle bar grips are not damaged and properly installed. Loose or damaged grips can cause you to lose control and fall.
- ◆ Do not use this product with standard bicycle trailers, stands or bicycle racks. Contact MINAL Bike to check if your equipment will work with the bicycle.
- ◆ Off-road riding requires close attention and specific skills and presents variable conditions and hazards which accompany the conditions. Wear appropriate safety gear and do not ride alone in remote areas. Check local rules and regulations if off-road riding is allowed.
- ◆ Engaging in extreme riding is extremely dangerous and should be avoided. Although many articles/advertisements/catalogues depict extreme riding this is not recommended nor permitted, and you can be seriously injured or killed if you perform extreme riding.
- ◆ Bicycles and bicycle parts have strength and integrity limitations and extreme riding should not be performed or you risk damaging the components or becoming seriously injured or killed.

- ◆ Failure to confirm proper installation, compatibility, proper operation or maintenance of any component or accessory can result in serious injury or death.
- ◆ After any incident, you must consider your bike unsafe to ride until you consult with a certified bicycle mechanic for a comprehensive inspection.
- ◆ Failure to properly charge, store or use your battery will void the warranty and may cause a hazardous situation.
- ◆ Extreme care should be taken when using the pedal assistance sensor and throttle on this product. Ensure you understand and are prepared for the power assistance to engage as soon as pedaling is underway.
- ◆ You should check the operation of the brake inhibitor switches before each ride. The brake system is equipped with an inhibitor which shuts down the power to the electric motor whenever the brakes are engaged. Check proper operation of brake switches before riding.
- ◆ User must understand the operation of the twist throttle and pedal assistance sensors before using, and take ample care in their usage in respect to traveling at speeds appropriate for usage area and user experience level. Always use the lowest assist level until you are comfortable with the bike and feel confident in controlling the power.
- ◆ Any aftermarket changes to your MINAL Bike not expressly approved by MINAL Bike could void the warranty and create an unsafe riding experience.
- ◆ Because electric bicycles are heavier and faster than normal bicycles, they require extra caution and care while riding.
- ◆ Take extra care while riding in wet conditions. Feet or hands can slip in wet conditions and lead to death or serious injury from a fall.
- ◆ Do not remove front or rear reflectors, pedal reflectors or bell.

Warranty Info

project	Component types	Guarantee Manual	guarantee time
Bike Parts	Frame/Handlebar	Natural open welding、fracture phenomenon	Twelve Months
	Foldable Stem 、 Fork 、 Front Wheel	Natural deformation, fracture and other quality problems caused by poor manufacturing	Six Months
	Paint Parts, Electroplating Parts	Blistering and cracking of paint removal	Three Months
	Saddle, Kickstand、 Disc Brake	Natural fracture	Three Months
	Appearance Plastic、 Brake Disc、 Inner tube、 Brake Cable Pedal 、 Brake Pad	Quick-wear part	Not in the warranty
Electric Parts	Charger、 Headlight Taillight 、 Combination Switch/ Throttle Handle、 Brake Crank	Performance failure due to poor manufacturing and beyond repair	Three Months
	Controller And Main Cable	Performance failure due to poor manufacturing and beyond repair	Six Months
Motor	Motor	Phase line failure burn demagnetization	Six Months
	Hall Bearing	Hall burns out、 Bearing abnormal sound	Six Months
Battery	DC Charging Plug, USB Charging Component	Quick-wear part	Not in the warranty
	Lithium Battery	Lithium battery charging ambient temperature range 1℃-34℃, use ambient temperature range -10℃-45℃ at low temperature, lithium battery capacity will have different degrees of decline, the specific reference degree is: -10 C available capacity: 68%, 0℃ available capacity: 85%, 25℃ available capacity: 100%. No impact from external forces, abnormal voltage cannot be charged, and the discharging capacity is less than 60%, etc., Providing guarantee services (The battery is not maintained according to the user's manual, and the	Twelve Months

		battery voltage is too low when it is stored without regular charging, which is not within the warranty scope)	
--	--	--	--

Wear and tear is not covered under warranty. MINAL Bike lithium ion batteries are warranted to be free from manufacturing defects in materials and/or workmanship for a 2-year period from the date of original purchase. The battery warranty does not include damage from power surges, use of improper charger, improper maintenance or other such misuse, normal wear or water damage.

The Following are Also Excluded from the Warranty:

- Liability for material defects does not cover normal wear which occurs from the manufacturers intended use of the product. Components such as the battery pack, motor system, braking system, drivetrain system, saddle, grips and pedals are all subject to intended use-related wear and are not covered under the warranty from normal wear.
- Damage arising from the use of the bike in a competition or other applications outside of normal intended use.
- Damage arising by improper tools or inadequate maintenance performed on the bike.
- Damage resulting from adding non-standard equipment, parts or technical modifications.

Additional Warranty Terms

This warranty does not cover any damage or defects resulting from failure to follow instructions in the owner’s manual, acts of God, accident, misuse, neglect, abuse, commercial use, alterations, modification, improper assembly, wear and tear, installation of parts or accessories not originally intended or compatible with the bicycle as sold, operator error, water damage, extreme riding, stunt riding, or improper follow-up maintenance. This warranty does not include consumables or normal wear and tear parts (tires, tubes, brake pads, cables and housing, grips). MINAL Bike will not be liable and/or responsible for any damage, failure or loss caused by any unauthorized service or use of unauthorized parts. In no event shall MINAL Bike be responsible for any direct, indirect or consequential damages, including without limitation, damages for personal injury, property damage, or economic losses, whether based on contract, warranty, negligence, or product liability in connection with their products. All claims to this warranty must be made through MINAL Bike. Proof of purchase may be required with any warranty request.

Additional Information on Wear

Components of the MINAL M1 Pro are subject to higher wear when compared to bicycles without power assistance. This is because the MINAL M1 Pro can travel at higher average speeds than regular cycles and has a greater weight. Higher wear is not a defect in the product and is not subject to warranty. Typical components affected are the tires, brake pads, suspension forks, spokes/wheels and battery pack.

When the useful life of a component is surpassed it can cause unexpected loss of function. This can result in serious injuries or even death. Therefore, pay attention to wear characteristics such as cracks, scratches or changes in the color or operation of components which could indicate useful life has been exceeded. Worn components should be immediately replaced.



Thanks for Riding MINAL Bike!

MINAL
MINAL

www.minalbike.com