



MINO



MINO-B

# MINO

SERIES

## Owner's Manual

Please read this manual carefully  
before riding and keep it properly.

[www.tromox.com](http://www.tromox.com)

\* The graphic illustrations in this manual may not reflect exact appearance of actual products

\* Specifications subject to change without notice , so as improvement of quality and performance of product.



## Declaration:

1.The pictures, technical information, data, instructions and other information contained in this manual have been checked as necessary before it is printed. However, in order to continuously develop and improve the product, and make this manual meet customers' demands, we reserve the right to make changes as necessary without further notice.

2.Copy, store or transcribe any content in this manual in any text or document without the written authorization and permission of Hangzhou Tromox Technology Co., LTD is forbidden and illegal.

3.The corresponding spare parts and accessories of Hangzhou Tromox Technology Co., Ltd. are independently designed and purchased, which are applicable to your vehicle under any circumstances. Please be sure to use the original genuine parts. Tromox will not guarantee the suitability and safety of the spare parts and accessories that are not produced by our company, and has no obligation to any loss caused by the use of spare parts and accessories that are not produced by our company.

## Foreword

Congratulations and thank you for purchasing TROMOX Mino and related services.

In this manual, the basic operation and maintenance of TROMOX MS1200DQ electric two-wheeled moped are introduced in details. Please read this manual carefully before riding.

The correct operation and maintenance can effectively ensure the safe riding, best performance of moped and prolong its service life.

Our distributors have the technical teams trained by Tromox, who can provide the best maintenance and services for you.

The data, specifications and instructions in this manual are determined according to the current design, and the right of changing and interpretation belongs to Hangzhou Tromox Technology Co., Ltd. For the future technical changes to this moped, please refer to our website:

[www.tromox.com](http://www.tromox.com) or “TROMOX” APP information update.

Wish you a safe journey!

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## User Instructions

1.Before riding, please take your time and carefully read and fully understand all the information in this Manual, but not limited to instructions and warning information; please thoroughly check whether all components are in good conditions. If you find any problem, make sure to contact our distributor or authorized service shop right away.

2.Don't attempt to operate MS1200DQ until you have attained adequate knowledge of its operation features, warnings and cautions.

3.Please thoroughly check the warning labels of MS1200DQ smart electric moped.

4.It is strictly prohibited to refit, disassemble or change the circuit of this moped. If any repairing or replacement is required, only use Tromox approved parts and accessories from our distributors or authorized service shops.

5.Please keep this operation manual properly.

Wish you a safe journey!

## Safety Instructions

**For the safety of yourself and others, please obey the following instructions:**

1.Persons not subjected to formal training or without license are strictly forbidden to drive this moped.

2.Please wear the approved helmet produced by the reliable manufacturers while riding to reduce the risk of potential injury.

3.MS1200DQ is for one person riding only.

4.Please don't ride this moped when you are drunk, tired, feeling unwell or after taking any medicine that may affect your driving ability.

5.Loading capacity includes carriage of passenger, luggage or accessories must be in accordance with the local corresponding laws or regulations, so as to avoid the danger initiatively.

6.In case of rainy and snowy weather or on wet and slippery roads, the braking distance would be longer, please slow down and don't brake suddenly to avoid collapse. In addition, don't ride this moped under bad weather conditions such as storms and typhoons.

# Safety Instructions

7.On the road with poor lighting, please turn on the headlight to ensure the safety of yourself and others; if the moped has to be pushed due to low battery, the emergency flashers must be turned on.

8.To avoid movements caused by non-subjective consciousness, please press the start button to switch the moped to the parking mode during parking.

9.When leaving the moped, please make sure to turn it off and keep it away from the small children.

10.Since this moped is powered with lithium-ion battery, please obey the following safety principles to avoid accident. :

10.1Please don't park the moped in the building entrance hall, emergency escape, corridor or exit.

10.2This moped shall not be parked or charged in the residential buildings, and shall be kept away from combustible materials during charging. Please disconnect the charger as soon as the battery is fully charged.

10.3Please use the battery properly and pay attention to its warning labels. The waste battery must not be disassembled, but sent to the related professional companies for recycling.

10.4Please read and understand the safety and warning terms of the charger. The replaced charger should match the battery model.

10.5Please read and understand the cleaning instructions.

11.Items checked before riding:

11.1Check whether the headlight, turn signal light, tail light, brake light, license plate light and horn are in normal condition.

11.2Check whether the front and rear brakes perform normally, whether the fixing bolts of brake caliper are tightened and whether the power will cut off when user presses the brake.

11.3Check whether the tire pressure is normal.

11.4Check whether the handlebars and front & rear wheels are fastened.

11.5Check whether the reflectors are damaged or contaminated.

11.6Check the rearview mirror: you should be able to clearly see the rear 10 meters range from the rearview mirror by sitting at the driving position.

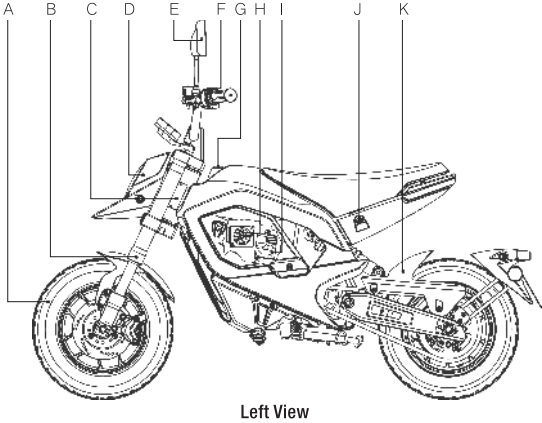
If there is any abnormality, please seek for the professional maintenance in time.

# MS1200DQ Technical Specifications

Item	Technical Specification	Item	Technical Specification
Size (L x W x H)	1500 mm x 725 mm x 925 mm (MINO) <b>1620 mm x 725 mm x 950 mm (MINO-B)</b>	Cell type	18650 cell
Wheel base	<b>1035 mm (MINO) / 1120 mm (MINO-B)</b>	Battery	60V21Ah (60V26Ah, 60V31Ah & 60V38Ah optional)
Curb weight	<b>69 kg (MINO) / 76kg (MINO-B)</b>	Range	60km (30km/h, 75kg load)
Maximum loading capacity	100 kg	Power consumption per 100km	2100 W • h/100km (30km/h, 75kg load)
Maximum speed	45 km/h (Emark standard), 50 km/h (3C standard)	Charging current of charger	6 A
Maximum climbing capacity	15 °	Rated power of motor	1200 W
Tire	<b>Front: 90/90-10 (MINO)</b> <b>Rear: 100/80-10 (MINO)</b>	Rated torque of motor	6.3 N • m
Rim	<b>Front: MT2.15-10 (MINO)</b> <b>Rear: MT2.50-10 (MINO)</b>	Rated speed of motor	1800 rpm
	<b>Front: MT2.15-12 (MINO-B)</b> <b>Rear: MT2.50-12 (MINO-B)</b>	Controller	FOC vector controller
Nominal voltage of system	60 V	Rated power of controller	1200 W
Nominal voltage of lighting	12 V	Under-voltage value of controller	51 V
Battery type	Ternary lithium battery	Current limit of controller	45 A

# Instructions for Use

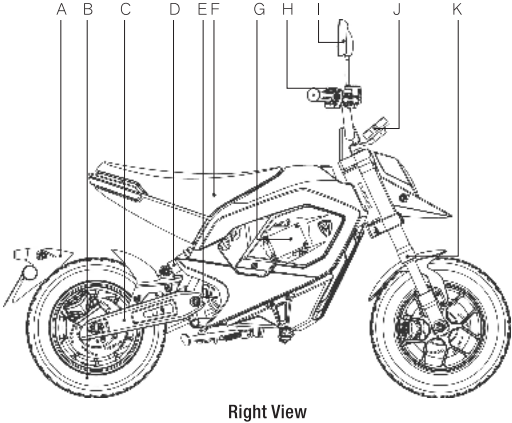
▪ Exploded Views of moped Parts (Left Side View)



- |                           |                         |                     |              |                         |
|---------------------------|-------------------------|---------------------|--------------|-------------------------|
| A. Front wheel            | B. Front shock absorber | C. Nameplate        | D. Headlight | E. Left rearview mirror |
| F. Left handlebar control | G. Power Switch         | H. Anti-theft alarm | I. DC-DC     | J. Seat lock            |
| K. Chain cover            |                         |                     |              |                         |

# Instructions for Use

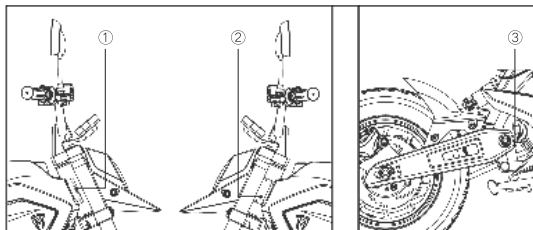
▪ Exploded Views of moped Parts (Right Side View)



- |                |                                 |                          |                        |                               |         |
|----------------|---------------------------------|--------------------------|------------------------|-------------------------------|---------|
| A. Rear fender | B. Rear wheel                   | C. Rear fork             | D. Rear shock absorber | E. Motor                      | F. Seat |
| G. VCU         | H. Right governor handle switch | I. Right rearview mirror | J. Dashboard           | K. Right front shock absorber |         |

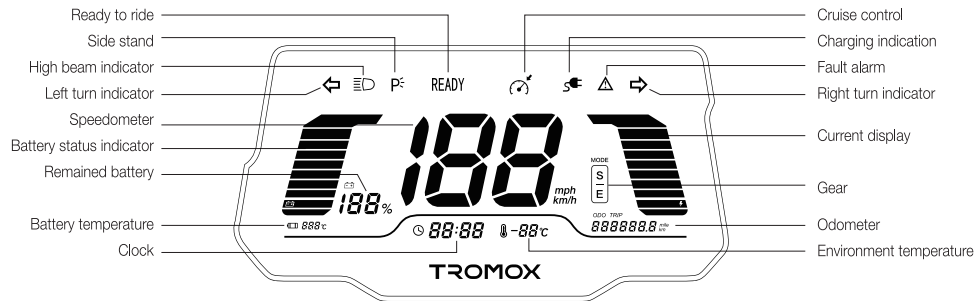
## Instructions for Use

### ▪ Positions of Nameplate and Vehicle Identification Number (VIN)



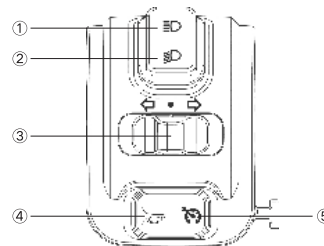
- ① VIN: on the right side of the head tube of the frame
- ② Certification label: on the left side of head tube of the frame
- ③ Motor serial number: is etched on the right hand side of the motor housing and is visible when the moped is fully assembled.

### ▪ Dash settings



## Instructions for Use

### ▪ Left Handlebar Controls



- ① High beam button
- ② Low beam button
- ③ Toggle switch for turn signal light:

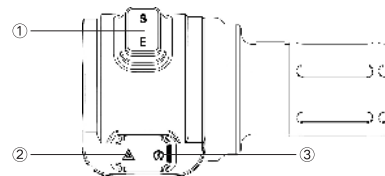
After toggling to the left, the front and rear left turn signal lights will flash; after toggling to the right, the front and rear right turn signal lights will flash; in case of the middle position, all turn signal lights will be switched off.

- ④ Horn button
- ⑤ Cruise control button:

Press cruise control button when the moped is traveling at the desired speed. Then, the moped will cruise at the current speed.

The cruise mode is disabled after braking, rotating the governor handlebar or pressing this button once again.

### ▪ Right Governor Handlebar Controls



- ① Gear select switch:  
S: Sport /high-speed gear;  
E: Electric /low-speed gear
- ② Hazard Warning Flasher Switch
- ③ Start button

## Instructions for Use

### ▪ Tires

Specification of front one: 90/90-10	Specification of rear one: 100/80-10
Pressure: 250 kPa ± 25kPa	Pressure: 250 kPa ± 25kPa

### ▪ Belt pulley, belt, and tightness (Figure 6)

**Belt pulley:** large-sized belt pulley P78-S8M, small-sized belt pulley P22-S8M

**Belt:** 8M-10W-153T

**Tightness:**

- ① put the belt tensiometer probe close to the belt that is at the lower-middle end of the belt pulley
- ② Pluck the belt at this position with your fingers
- ③ Read the value on the tensiometer, the appropriate value of tightness is 100~120Hz.

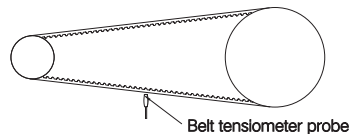


Figure 6

### ▪ Sprockets & Chain

Sprockets: large one: 420-46T, small one: 420-13T

Chain: GB/T14212 420-94

### ▪ Tightness (Figure 5)

- ① Measure the chain at the lower-middle end of the chain wheel
- ② When the tightness is appropriate, the pendulum momentum of the chain at this position is 15~25mm.

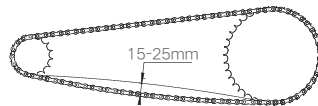


Figure 5

## Instructions for Use

### ▪ Use, Maintenance & Installation of Battery

#### 1.Body charging (Figure 1)

- ①Unlock the seat lock;
- ②Remove the seat;
- ③Plug the AC charging connector into the on-board charger socket - plug the output connector into the vehicle charging port – put the seat back in place. The indicator light is red during charging, and will turn green after the battery is fully charged. While charging is done, disconnect from the AC power source right away.

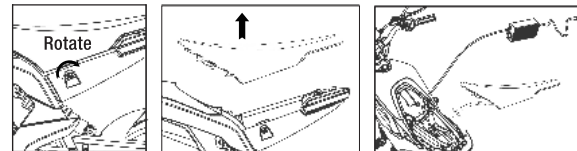


Figure 1

#### 2.External charging

- ①Unlock the seat lock - remove the seat - turn off the air switch. (Figure 2)

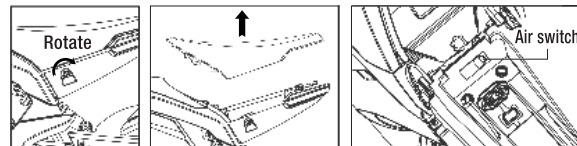


Figure 2

## Instructions for Use

② Screw off the bolt –pull backwards the top cover - pull out the battery cable plug - lift the battery. (Figure 3)

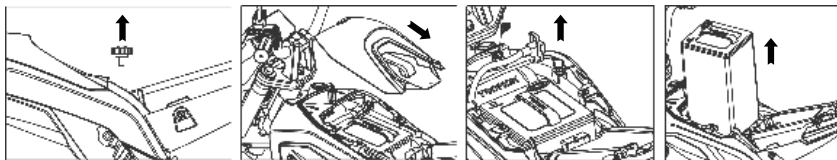


Figure 3

③ Plug the AC charging connector into the on-board charger socket - plug the output connector into the vehicle charging port

The indicator light is red during charging, and will turn green after the battery is fully charged. While charging is done, disconnect from the AC power source right away (Figure 4)

**\*Steps to put back the battery are just the opposite operation as to remove the battery.**

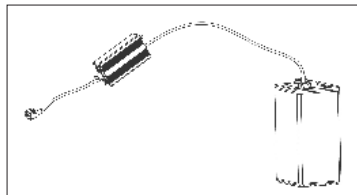


Figure 4

## Instructions for Use

### 3.Attention:

**Before using the battery, please read the operation instructions carefully. Failure to follow the guidelines may damage the battery ,for instance, battery heats up, catches fire, burst or even more serious consequences.**

①Protect the battery pack from being sprayed by water or soaked in water;

②Discharging temperature: -20°C-60°C; charging temperature: 0°C-55°C;

③If the vehicle is left unused for long time, please make sure to remove the battery and keep it properly. The battery shall be charged as it is used. If stored long term, check the state of charge at least monthly and charge it back up to 50% (first, discharge the battery fully; then, charge it for 2-3 hours). The battery should be stored in dry and well-ventilated places, keep it away from combustible materials. The safe storage duration and temperature range are as follows:

1 month: -20°C-60°C;

3 months: -20°C-45°C;

1 year: -20°C-25°C;

Leaving the battery stored more than 1 year could damage the power pack and void the warranty.

④The input and output terminals of battery must not being short circuited; the reverse polarity connection of battery positive and negative terminals on the charger or external device are prohibited;

⑤Don't throw the battery into fire. Store and keep the battery away from children, fire and heat sources. Don't smash or drop the battery, so as to prevent it from being pierced. Don't disassemble the battery or change its external structure; all these incorrect behaviors may cause serious damages.

⑥Before charging, please check whether the charger matches the battery model. If the charger has to be replaced, make sure to visit our distributor or authorized service shop to obtain the approved charger.

⑦If the battery is on fire, please cut off the surrounding power supply promptly and use FE-36 fire extinguisher to extinguish and cool down the battery. In case the right extinguisher is not available, the water base extinguisher can be applied. However, the dry powder extinguisher is not applicable for this case.

⑧If there is any question, please contact our distributor or after-sales service department.



## Instructions for Use

### ▪ Use of Charger

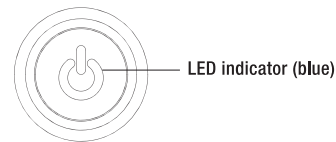
- 1.Before use, check the charger specification firstly. Don't use the charger with undesignated model;
- 2.The charger is waterproof grade IP×1. If you charge your moped outdoors, avoid charging in the rain.
- 3.Don't use the damaged wires for charging.
- 4.It is strictly prohibited to plug/unplug the charger with wet hands.
- 5.Don't use the charger in the place with heat source or under direct sunlight.
- 6.Don't use the charger close to combustibile materials and explosive gas.
- 7.It is strictly prohibited to block the air inlet/outlet. The space of at least 10cm shall be left at both inlet and outlet sides.
- 8.Please check whether the plug at the output end of charger is loose before charging. At the time of charging, plug the charger power terminal into the indoor power supply first; then connect the output terminal to the charging port of battery pack.
- 9.The indicator light is red during charging, and will turn green after the battery is fully charged. While charging is done, disconnect from the AC power source right away.
- 10.Be sure to unplug the charger when the battery is not being charged or after the completion of charging. First, unplug the output end of the charger; then the AC power end of the charger.
- 11.Don't carry the non-vehicle-mounted charger during riding, so as to prevent the electronic components from becoming loose or being damaged due to vibration.
- 12.Please make sure the AC voltage range of AC power supply is consistent with the AC input voltage range of the charger. Please read the instructions carefully before using. All the damages caused by incorrect use shall be attributed to the man-made improper operation, for which the manufacturer is not responsible for.
- 13.Don't open, repair or disassemble the charger by yourself.
- 14.Don't pull the power cord or output cable directly, but using the cable lug.

## Instructions for Use

### ▪ Anti-theft Alarm & Engine Start

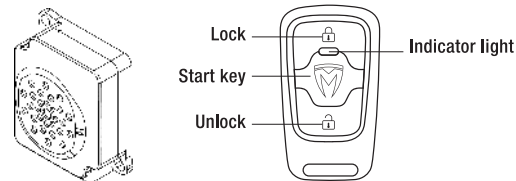
#### 1.Engine start

- ①The LED indicator keeps lighting stands for power-on status;
- ②The LED indicator flashes stands for unlock status;
- ③The LED indicator is off stands for locking status/power-off.



#### 2.Function of anti-theft alarm

- ①General functions: motor locking, phase detection, vehicle locating, anti-theft setting and anti-theft unlocking;
- ②Customized functions: induction control, high-fidelity prompt sound, induction engine start, double flash function, vibration sensitivity adjustment and mute setting.



#### 3.Operation of remote control

- ①Steps to switch between induction and non-induction status: press "Lock" three times and "Unlock" keys three times by one go. One time of prompt sound stands for induction status (2 meters of induction range); twice of prompt sounds stands for non-induction status;
- ②In non-induction status, A, press the "Lock" key once to make the whole vehicle get into locking status. If any wheel movement (phase), vibration or switch signal is detected during this mode, the whole vehicle will get into the alarm status. B, Press the "Unlock" key to release alarm.

## Instructions for Use

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③In induction status, press the “Lock” key once to make the whole vehicle get into locking status. If any wheel movement (phase), vibration or switch signal is detected during this mode, the whole vehicle will get into the alarm status. Within the induction range, there is no prompt sound, the indicator light of remote control will flash and the power on and off can be done by pressing “Engine start” button;

④Press the “Unlock” key once to make the whole vehicle get into unlocking status. In this status, the “Engine start” button is active. Press “Engine start” once to turn the power on, then the light will be on as well. Press it again to turn the power off and then the light will flash about 15 seconds afterwards to completely shut down. Within the 15s, the vehicle can be turn on again by pressing the “Engine Start” button.

⑤Press the start key twice to turn the vehicle on. Then, press the “Unlock” key once to turn the power off;

### 4.Sound level

95dB (A)/m; prompt sound level: 60dB (A) /2m; remote control distance ≤50m;

**5.There are two remote controls, one master control and one spare control. The master remote control is configured with blue indicator light and can be switched between induction status and non-induction status. The spare remote control is configured with red indicator light and only can be used in non-induction status.**

## Instructions for Use

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### ▪ TROMOX APP

#### 1.Download and install APP

Apple IOS

Search “TROMOX” in iPhone APP store; then, download the APP.

Android

Search “TROMOX” in Android APP store; then, download the APP.

#### 2.Registration/Login

##### ▪ Registration:

Enter the registration interface. Then, fill in the mobile phone number, verification code and password. In this way, the registration is complete.

##### ▪ Login:

Log in with the account number (the registered mobile phone number) and password.

##### ▪ Password Forgotten:

If you forget the password, please click "Password Forgotten" and fill in the phone number, verification code, and new password to replace the old one.

##### ▪ Experience Mode:

You can check the functions include, "Vehicle Condition", "Information", "Message", "My" home page and Exit (My - Setup- Exit). If you want to use more functions, please bind the vehicle first.

## Instructions for Use

### 3. Vehicle condition

Click the arrow to view the vehicle list and new added vehicles.

Remaining mileage  
It shows the test data. Since the riding environment, speed and load are different, the actual remaining mileage may be different from the data on the display.

The anti-theft alarm switch can be locked or unlocked.

Click each interface to access to Riding Data, Driving Track, Self-check Manual, Vehicle Setting (electronic fence and alarm sensitivity can be adjusted) and new user Tutorial manual.



Main Interface

The "Engine start" button can be used to turn on or off the vehicle.

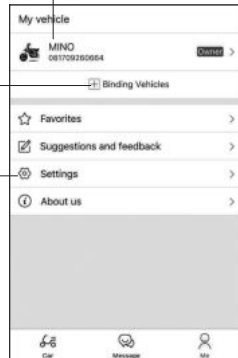
lick here to enter the user and vehicle location map. Click the icon in the upper right corner of map to remotely lock the vehicle.

Click here to enter the message management page and view the vehicle alarm information.

My vehicle list: click one vehicle to enter corresponding vehicle management page.

Click here to enter vehicle binding page.

Click here to enter Set up page, change the password or phone number, and log out.



My Page

## Instructions for Use

### 3.1 Vehicle binding and unbinding

Click "+ Bind vehicle" in the vehicle list:

- ① Find the VN (code of VCU) QR code label on the last page of User's manual; then input the VN code or scan the QR code to bind the vehicle, thus becoming the vehicle owner.
- ② Scan the "Shared QR Code" (My - Select vehicle - Click "Vehicle Identification Number") of vehicle owner to bind the vehicle. Each user can bind 8 vehicles maximum, each vehicle can be bound to 5 accounts (including vehicle owner).
- ③ Click the vehicle binding management page, in which, the vehicle unbinding can be done.

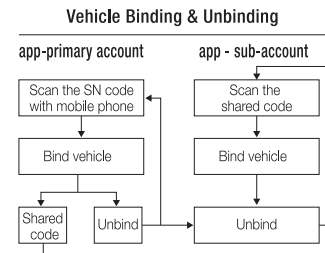
### 3.2 Remote anti-theft lock

This button is used only when the vehicle is stolen. Please use this button in accordance with following instructions:

- ① If this button is pressed when the vehicle is running, the vehicle will be powered off. After the vehicle stops, the motor is locked and the anti-theft alarm is turned on. In this case, the remote control cannot unlock the vehicle;
- ② If this button is pressed when the vehicle is stationary, the vehicle will be powered off, then motor is locked and the anti-theft alarm is turned on. In this case, the remote control cannot unlock the vehicle;
- ③ When the remote anti-theft lock of vehicle is activated, the anti-theft alarm switch and engine start button in "Vehicle Condition" page will become invalid. In this case, only click "Remote anti-theft lock" again to unlock the vehicle.

### 4. Anti-theft alarm

- ① When the network of mobile phone and vehicle is normal, click the "Anti-theft alarm" switch on the left side to turn on or off the alarm. Turn on the anti-theft alarm to activate the alarming device; turn off the anti-theft alarm to deactivate the alarming device.
- ② When the network of mobile phone and vehicle is abnormal, after clicking the "anti-theft alarm" switch, the system will require you to use Bluetooth connection. After the successful connection, user can implement the operation again.



# Instructions for Use

## 5.Replacement of VCU

Only the vehicle owner can replace the VCU. The replacement procedure is as follows: My – Select vehicle – “VCU version” – “Scan QR code to replace the VCU equipment”.

### ▪ Pre-ride Inspection

- 1.Check whether the head lock is opened in place, and whether the head steering is flexible without retardation.
- 2.Check whether the handlebar is firmly fastened, and whether the left and right handlebar switches work normally.
- 3.Check whether the rearview mirrors are fastened, or with improper angle, whether they are clean enough, and assure the people and vehicles within the rear 10 meters can be seen clearly.
- 4.Check whether the tire pressure is within the specified range.
- 5.Check whether the tire surface has crack or damage, and whether the tread depth is greater than 0.8mm.
- 6.Ensure that the instrument and mobile phone App have no fault warning after switching on.
- 7.Check whether the battery is fully charged.
- 8.Check whether the headlight, tail light and front, rear, left & right turn signal lights are normal.
- 9.Check whether the horn works normally.
- 10.Check whether the brake oil is sufficient, and whether the brake handle and brake system work normally.
- 11.If there is any abnormality, please contact our customer service center.

# Instructions for Use

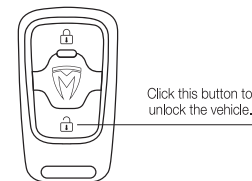
## ▪ Vehicle Operation

### 1. Unlocking method:

① Mobile phone APP:



② Remote control:

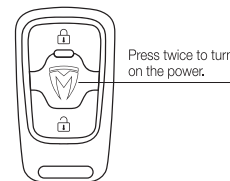


### 2. Power-on method:

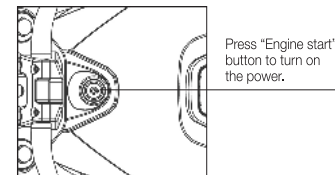
① Mobile phone APP:



② Remote control:



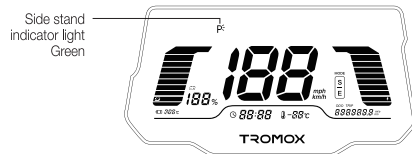
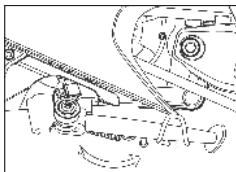
③ Engine start:



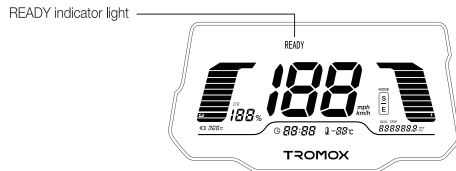
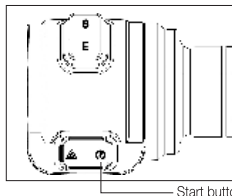
## Instructions for Use

### 3. Preparations before riding:

- ①Wear your helmet and start journey with Tromox.
- ②Fold the side stand. Then, the indicator light (P) of side stand on the dashboard will be off.



- ③Press the start button to unlock the parking status,the indicator light “ready” on the dashboard will be on. At this moment, the vehicle is ready to drive! (Press the start button again. Then, the “Ready” indicator light is off and the vehicle is switched to the parking mode.)



\* Before riding, please fully aware the surrounding traffic and drive safe.

## Maintenance

Regular maintenance can improve the safety of the vehicle, as well as the service life. Please go to the authorized distributor or service provider for regular maintenance and inspection of the vehicle according to the following suggestions.

### 1.Cleaning

- ①Please make sure to turn off the air switch before cleaning;
- ②It is strictly prohibited to flush the vehicle directly with strong water stream. Otherwise, the electrical parts may be damaged or broken down;
- ③Please clean the vehicle with clear water and neutral detergent. Use soft cloth to dry the moped after washing to prevent scratching.
- ④If the electrical system is accidentally affected during cleaning, please dry it with electrical dryer.

### 2.Regular Self-examination check list

No.	Inspection Interval	Inspection Item
01	1 month	Check whether the front and rear wheels are fastened.
02	Half a month	Check whether the brake calipers are fastened.
03	2 months	Check the level of brake oil.
04	Half a month	Check brake pad status and the braking performance of brake system.
05	1 month	Check whether the handlebars are fastened.
06	1 month	Check the tightness of the chain/belt.
07	Half a month	Check the lubrication condition of the chain (make sure to cut off the power before lubricating and chain inspection).
08	1 month	Check whether the cable line is worn out or damaged.
09	1 week	Check whether the vehicle has abnormal sound or the sound caused by loose parts.
10	1 week	Check whether the tire pressure is 250kPa.

# Maintenance

## 3.Long-term Storage

①Storage status: turn off the air switch; disconnect the power supply circuit of battery, so as to prevent the over-discharge of the battery;

②Storage conditions: park the vehicle at dry and cool places, so as to protect it from being exposed to the strong sun light and rain. If the outdoor parking cannot be avoided, make sure to take out the battery, cover the vehicle with waterproof cover and mind the wind conditions.

③In case long storage of the moped, please charge the battery fully before using, and check whether the tire pressure reaches the specified value. If the tire pressure is too low or too high, please restore the tire pressure to the specified value before using.

## 4.Maintenance Precautions

①The maintenance and repairing of parts and components needs to be performed by our after-sales service center, authorized service shops or distributors. Only the parts and components designated by the original factory can be used.

②The fault or part damage caused by the owner that fails to perform the regular maintenance according to Tromox' suggestions is not within the warranty scope;

③Tromox can not be responsible for the results if the owner disassembles vehicle by himself/herself or uses the parts which are not officially approved by Tromox.

# Troubleshooting

Faults	Causes	Solutions
The whole vehicle is powered off; the "Engine start" light is off; the remote control and APP cannot be on.	Battery connection failed	Connect the battery plug correctly.
	Battery management system (BMS) subjected to power-off protection	First, ensure there is no short circuit; after 10 minutes, turn on the power again
	Anti-theft alarm fault	Replace the anti-theft alarm.
	Fuse burned	Replace the main cable fuse.
	Air switch is not on	Turn on the air switch.
The motor doesn't run when you turn the governor handle	Side stand is not folded	Fold the side stand.
	Start button is not pressed, "Ready" indicator light is off	Press the start button.
	Battery is low	Charge the battery.
	Brake handle is not back to the correct position	Lubricate the brake handle joint and turn it to the correct position.
	Handlebar fault	Replace the handlebar.
	Controller plug loose	Re-insert the controller plug.
	Handlebar plug subjected to poor contact	Adjust the handlebar plug pins.
	Motor Hall plug subjected to poor contact	Adjust the motor Hall plug pins.
	Motor failure	Overhaul or replace the motor.
The riding speed is low or the riding range is relatively short.	Controller failure	Replace the controller.
	Battery is low	Charge the battery.
	Tire pressure insufficient	remain the tire pressure at 250kPa.
	Overloaded seriously	Avoid overloading
	Brake pad interfering	Overhaul the brake caliper and adjust its installation position.
The brake failure	Battery aged or normally scrapped	Replace the battery
	Power inverter failure	Replace the power inverter.
	Brake handle switch damaged or subjected to open circuit	Replace the switch and inspect the circuit

# Troubleshooting

Faults	Causes	Solutions
The battery cannot be charged.	The main charging plug subjected to poor contact	Check whether the main plug is correctly inserted.
	Wrong charger	Use the Tromox charger with designated model.
	Battery aging or normal scrap	Replace the battery.
There is metal scraping sound while braking	Brake pad is worn out	Replace the brake pad.
	Brake disc loose	Tighten the bolts of brake disc.
The headlight and tail light cannot be switched on.	Control switch failure	Replace the switch.
	Plug loose or not inserted	Check the plug.
	Power inverter failure	Replace the power inverter.
	Lamp holder burnt out	Replace the lamp.
The turn signal light doesn't work.	Power inverter failure	Replace the power inverter.
	Control switch failure	Replace the switch.
	Flasher failure	Replace the flasher.
	Lamp holder is burnt out	Replace the lamp.
The vehicle can be turned on, but the dashboard light is not on.	dashboard failure	Replace the dashboard.
	Power inverter failure	Replace the power inverter.
There is no battery level, speed, time, temperature or other information displayed on the dashboard.	VCU communication module failure	Replace the VCU.
	Anti-theft alarm communication module failure	Replace the Anti-theft alarm.
	Controller communication module failure	Overhaul the controller communication module.
	Instrument communication module failure	Overhaul the instrument communication module.

# After-sales Service

The user should correctly operate and use the vehicle according to the Owner's Manual.

## ▪ After-sales Service and Limited Warranty

1.The Tromox after-sales service and limited warranty are implemented by distributors or authorized service shops. If there is any problem, please contact the after-sales service department or authorized distributors.

2.The list of after-sales service and limited warranty is as follows.

Part Name	Warranty Standard	Warranty Period
Power pack	After being charged fully under the specified service environment and used normally without the influence of external force, the lithium battery subjected to voltage abnormal, temperature abnormal, capacity less than 60% or unable to be charged (the normal charging environment temperature is 0℃~55℃; the normal service environment temperature is -20℃~70℃; under the low-temperature condition, the capacity of lithium battery will decrease at different extent) is provided with the warranty service. (The warranty period of the new lithium battery is calculated according to the remaining days of the warranty period of original purchased battery.)	3+21 months: provide the replacement service in the first 3 months and the repair or maintenance service in the latter 21 months.
Motor	Subjected to phase loss, demagnetization, parts or debris falling off, abnormal sound and other quality problems which cannot be repaired	24 months
Controller	Subjected to internal damage, no voltage regulation, no DC output and supply voltage too high	12 months
Converter	No DC output & supply voltage abnormal	12 months
Vehicle control unit (VCU)	The internal line or element is damaged, dashboard provides no data or incorrect data and the vehicle cannot be controlled through mobile phone App.	12 months
Anti-theft alarm	a.The remote control cannot apply the normal functions, such as unlock, lock, power on and power off etc. b.The automatic alarm or other specified functions are disabled.	12 months
Main cable	Be subjected to short circuit, open circuit, ablating or other irreparable faults	12 months
Headlight	Cannot work normally due to quality problem	12 months
Tail light	Cannot work normally due to quality problem	12 months
Turn signal light	Cannot work normally due to quality problem	12 months
License plate light	Cannot work normally due to quality problem	12 months

# After-sales Service

Part Name	Warranty Standard	Warranty Period
Charger	Cannot be charged normally; charging indicator light doesn't change	12 months
Horn	Cannot work normally due to quality problem	9 months
Lock	Out of order, subjected to functional failure	9 months
Instrument	Incomplete display, no display or abnormal display	18 months
Brake system	a.The brake caliper is broken or seriously deformed; b.The brake oil leaks and cannot be repaired; Power is not off during brake and cannot be repaired.	9 months
Handle	The speed cannot be adjusted due to structure problem	6 months
Left & right switch assembly	The switch is out of order, cannot be turned on or off to the proper position or cannot be reset; the part is broken or falls off due to quality problem; the internal part is subjected to short circuit, open circuit, poor contact or other failures.	6 months
Air switch	It doesn't automatically disconnect for protection in case of over-voltage or over-current, or cannot be normally used.	6 months
Handlebar	Handlebars at two sides have uneven height and inconsistent length and exceed the normal range; or, subjected to serious deformation, fracture or crack during normal operation.	12 months
Steering column	Subjected to serious deformation, insufficient welding, fracture or crack during normal operation	18 months
Rear fork	Subjected to fracture, crack, serious deformation or insufficient welding	18 months
Shock absorber	Subjected to oil leakage, insufficient welding, piston rod fractured or piston stuck during normal operation	12 months
Wheel rim	Subjected to fracture, crack or serious deformation during normal operation	12 months
Tire	Subjected to crack, bulge or breakage during normal operation	3 months
Main & auxiliary frames	Subjected to serious deformation, insufficient welding, or cracking during normal operation; the license plate cannot be obtained due to the Frame code is not clear.	36 months
Side stand	Subjected to fracture, insufficient welding, spring failure or falling off during normal operation	36 months
Seat	Subjected to split sewing, cracking or serious deformation due to quality problem	6 months
Vehicle appearance & plastic parts	Surface subjected to peeling off due to coating problem; the parts can be replaced if the cracking area is bigger than 1cm².	6 months

# After-sales Service

## ▪ Non-warranty scope:

\*The normal wear and tear of the vehicle will happen when using the vehicle. Such maintenance and repair is not covered by the warranty.

## Limited Warranty

- 1.The part has exceeded the specified warranty period and scope.
  - 2.The product failure or damage is caused by artificial reasons, such as collision, crash, overload, excessive climbing and so on.
  - 3.The product failure or damage which is caused by the user fails to correctly drive, maintain and adjust the product in accordance with the provisions in operation manual.
  - 4.The test result shows that the bike is in normal condition.
  - 5.The user doesn't use or maintain the battery properly which cause battery performance decline or technical failures. For example, the vehicle is left unused or parked for a long time or not charged in time, etc.
- 6.The use of charger or accessories which are not officially approved by Tromox, and results in the vehicle failure or performance problem.
  - 7.The unauthorized part disassembling causes part failure and accessories damage.
  - 8.Damage, malfunctions, or performance problems caused by aftermarket accessories installed on the vehicle which are not approved by Tromox.
  - 9.The improper storage by user results in water logging, fire or chemical corrosion, thus causing failure and excessive consumptions.
  - 10.The failure or damage is caused by force majeure (including but not limited to earthquake, typhoon, flood, fire, social events, mass incidents, violent crimes, and incidental losses of irresponsible traffic accidents).
  - 11.The user alters, tears up or changes the warranty service date of product and components without authorization.



## After-sales Service

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- 12.No valid warranty certificate can be provided; or, the invoice or voucher is inconsistent with product.
- 13.The product has no quality problem. The dissatisfaction with product riding feeling, appearance, color, sound level, sense of touch and other subjective reasons are not within the warranty scope.
- 14.The advertising/promotion products and gifts are not included in the warranty scope.
- 15.The brake pad is worn out.
- 16.The remote control of anti-theft alarm is lost.
- 17.Where the customer is informed of a defect or defect prior to purchase and sells the product to the customer at an irregular selling price.
- 18.The extended damage of the vehicle caused by improper disposal of the user after the quality problem happens.

### Vehicle Resale and Warranty

Within the warranty period of the vehicle, if the user resells the vehicle to others, the remaining warranty of the vehicle will be automatically transferred to the next user. The next user shall provide the relevant documents to enjoy the warranty service.

#### Note:

1. This manual is a part of the vehicle. After the resale of the vehicle, please transfer this manual to the next user to ensure the warranty rights.
2. When the user enjoys the warranty service within the warranty period of the vehicle, user shall provide the warranty card and other relevant certificates at the dealer or service provider authorized by Hangzhou Tromox Technology Co., LTD.



At present, iOS and Android versions are available.  
Please check the operating system version of your smart phone before installation.

iOS system:	Android system:
Support Apple iOS 9.0 and above	Support Android OS 5.0 and above

Scan QR code to download Tromox APP



Bind SN

\* Tromox APP is an optional configuration, for details,  
please consult your local dealer.



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**Welcome to join in Tromox family,  
let's have fun together!**

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[www.tromox.com](http://www.tromox.com)

# Electrical Schematic Diagram

