

# TEVERUN FIGHTER MANUAL



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## Before Reading the Manual

This manual contains important information to help you to use your product more safely. For your safety, there are warnings of 'Danger', 'Warning', and 'Caution' depending on the degree of danger and the meanings are below.



**DANGER** Indicates a hazardous situation that will result in serious injury.



**WARNING** Indicates a hazardous situation that could result in serious injury.



**CAUTION** Indicates a hazardous situation that could result in minor or moderate injury.

## Before Reading Manual **CAUTION**

✓ Please read this manual carefully before using this product

### 1) General safety guidelines and restrictions

\* Even if it is within the warranty period, you may be liable for any accident caused by any of the following causes.

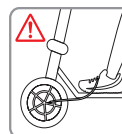


#### 1. Be careful of water!

This product and components are not waterproof. Don't let the water get into the product and components.

\*Never use it, if the road is wet due to the rain, snow, hailstone.

\*If you wash or spread water to electric devices, it can result in malfunction or fire.



#### 2. Beware of folding and spinning parts!

If parts of the body, as a finger or hair, get caught in the spinning or folding parts of the product, this may lead to severe injuries. Please be careful.



#### 3. No acrobatics

Stunts and jumps such as jumping and dropping are prohibited as they can cause a great impact on the product and can cause of malfunction and accidents.



#### 4. No companion boarding

This product is intended for one adult only, so children, infants, or two people are prohibited from boarding.



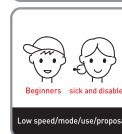
#### 5. Don't tune by yourself

Do not open or tune the electric parts (battery, controller or motor system).



#### 6. No companion boarding

Unlicensed, driving after drinking, loading cargo on the scooter is prohibited. (More than bike or bicycle license is required) Please comply with the Road Traffic Act and related laws and regulations according to the place of use.



#### 7. Beginners and seniors are encouraged to use at low speed

Beginners who are not accustomed to use the product, seniors and others should avoid high speed mode driving and recommend low speed driving. In addition, please use after practice how to ride safely in a wide place.



#### 8. Do not sudden brake with front brake

If there is a risk of overturning, sudden deceleration should be done safely. Do not apply any unusual behaviors or artificial forces, such as stopping with your feet.



### 10. Do not drive on steep slopes

Acceptable gradeability is different for each product. Excessive hill roads exceeding the specification may cause damage to the product (parts) due to temperature cut, overcurrent, or low voltage cut, which may cause the product to malfunction.



### 11. Safety warning when lifting the product

Please always lift the product with at least one other person. When lifting the product, please be careful not to damage your back or knees.

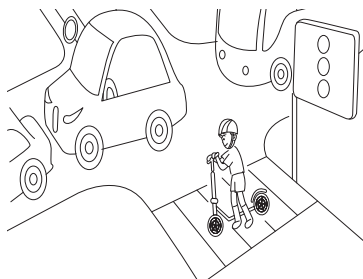


### 12. Be sure to wear safety equipment

For the safety of passengers, be sure to wear a full face helmet and the other protective gear (for knees, elbows, hands, upper body) and do not wear shoes such as slippers or high heels that can interfere with driving.

## 2) Precaution before driving

1. Night driving should be avoided at all times. Always wear helmets and other body guards and drive safely.
2. Select the mode that suits you and drive. In order to cope with sudden situations, be prepared to slow down by holding the brake at all times.
3. When turning left / right, slow down to avoid the danger of overturning or slipping, then slowly turn safely.
4. To go backwards safely, get off the product only after coming to a complete stop.
5. It is prohibited to use in any places that are slippery, crowded, have a steep slope, or are uneven.
6. When crossing a pedestrian crossing, get off from the product for pedestrian safety.
7. Do not drive in a way that threatens any other means of transport, such as animals, pedestrians, bicycles, motorcycles, cars, etc.
8. When passing speed bumps and road obstacles, be sure to slow down.
9. When decelerating or braking, do not stop with your foot, but by using the brake appropriately.
10. Be careful as there is a risk of burns due to heat from the motor and brake (especially disk rotor) after driving.
11. It is prohibited to drive by holding the handle with one hand; please use both hands at all times.
12. Do not ride or drive when the kick stand is down.

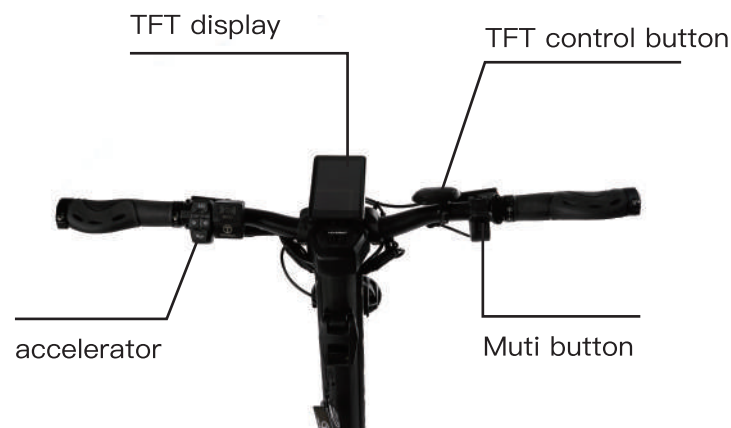


## Product structure

### Scooter size



### Handle bar



## Name of Parts

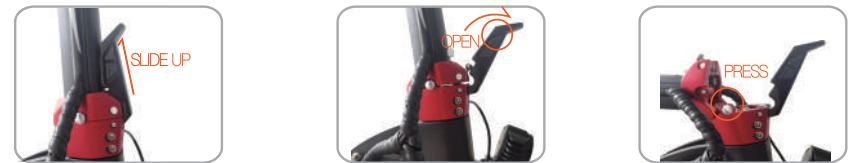


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## Product unfolding



## Product folding

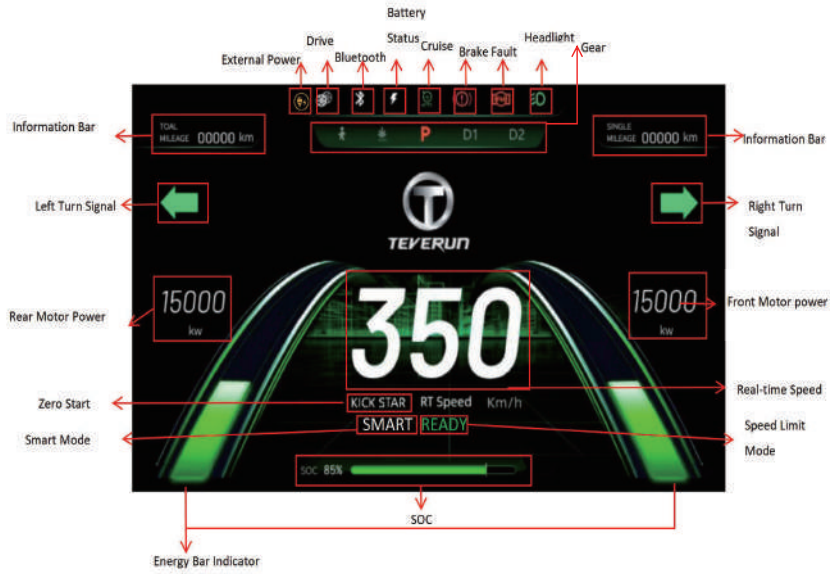


## Lock handle bar



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## TFT display instruction







## Main Interface Icon Definitions




Function Icon	Function Name	Function Description
	Left Turn Signal	Icon lights up when the left light is on
	Right Turn Signal	Icon lights up when the right light is on
	Headlight	Icon lights up when the front light is on.
	Bluetooth	When Bluetooth is not connected, the icon blinks; When Bluetooth is connected, the icon remains steady.
	Single/Double Drive	Long press "M" key to switch between single and double drive
	External Power	Long press "+" key to open/close external power; icon lights up when activated;
	Zero Start	Icon lights up when zero start mode is enabled
	Cruise	Icon lights up when automatic/manual cruise mode is enabled;
	Brake	Icon lights up when braking

## Fault Definitions

Fault Icon	Fault Name	Fault Description
	Front Controller Fault	When there is a Front Controller Fault, the icon lights up.
	Rear Controller Fault	When there is a Rear Controller Fault, the icon lights up.
	Front Motor Phase Loss Fault	When there is a Front Motor Phase Loss Fault, the icon lights up.
	Rear Motor Phase Loss Fault	When there is a Rear Motor Phase Loss Fault, the icon lights up.
	Front Motor Hall Sensor Fault	When there is a Front Motor Hall Sensor Fault, the icon lights up.
	Rear Motor Hall Sensor Fault	When there is a Rear Motor Hall Sensor Fault, the icon lights up.
	Battery Fault	When there is a Battery Fault, the icon lights up.
	Throttle Fault	When there is a Throttle Fault, the icon lights up.
	System Low Voltage Fault	When there is a System Low Voltage Fault, the icon lights up.
	Display Fault	When there is a Display Fault, the icon lights up.
	System Over temperature	When there is a System Over temperature, the icon lights up.

## Gear Definitions

Gear Icon	Gear Name
	P Gear
	Reverse Gear
	Low-speed Gear
	Pedestrian Gear

	D1 Gear
	D2 Gear
	D3 Gear
	High-speed Gear

## Operating instructions

### 1 Gear

There are a total of 6 gears, with speeds increasing sequentially from ECON, Pedestrian, D1, D2, D3 to S. Single-click the "+" key to adjust from ECON to S, and single-click the "-" key to adjust from S to ECON.

### 2 P Gear

The instrument panel will return to P Gear after being stationary for a certain period (the time is set within the P Gear mode in the functional parameters). It can be set within the range of 0 to 300 seconds, where setting it to 0 means that P Gear will not be restored during stationary periods. When in P Gear, braking can release the P Gear.

### 3 Single/Double Drive Switching

Long-press the mode key to switch between single and double drive modes.

### 4 Information Bar Switching

The information bar can be toggled to display different data by pressing the "M" key once. You can view single trip distance, total mileage, front/rear motor current, front/rear motor temperature, average speed, and maximum speed.

## User settings

### 1 Entry Method

Press the "M" mode key twice consecutively to enter the password setting interface. **password:2112**

## 2 Brightness

Press the "M" key once, and when you see the word "Brightness" flashing, it indicates that it has been selected. You can adjust the screen brightness up with the "+" key or down with the "-" key, with a total of 10 levels. After adjusting to the desired level, press the "M" key once to confirm, and wait for the word "Brightness" to stop flashing, indicating that it is no longer in the selected state.

(The specific operations for selecting, switching, and confirming options are the same as in 8.2)

## 3 Unit

After selection, you can toggle between miles (Imperial) and kilometers (Metric) by pressing the "+" key to go up or the "-" key to go down. At the same time, the main interface units will also switch between Km/h and MPH. (You can also switch units in the app.)

## 4 Auto off

After selection, you can choose between automatic shutdown with no activity (adjustable between 1-60 minutes) or Never (no automatic shutdown).

## 5 Wheel Diameter

After selection, you can adjust the wheel diameter up or down within the range of 8 to 25 inches.

## 6 System Voltage

After selection, you can adjust the system voltage up or down within the range of 36V/48V/60V/72V.

## 7 PACK Info

After selection, you can enter and view various information about the battery pack:

- (1) Battery Capacity (PACK SOC)
- (2) Voltage
- (3) Temperature
- (4) Cycle Count (Ah counter)
- (5) Faults (Error Code)

## 8 Function Para Set

### (1) Limit Speed

After selection, you can adjust the speed limit value up or down within the range of 1% to 100%.

### (2) Mag Steel Number

After selection, you can adjust the number of motor magnetic steel sheets up or down within the range of 1 to 88.

### (3) Cruise Mode

After selection, you can choose between Close/AUTO/MANUAL to determine whether to activate the automatic/manual cruise control function.

### (4) ABS control

After selection, you can choose between OFF/ON to determine whether to activate the Anti-lock Braking System (ABS) control function.

### (5) Kick Start

After selection, you can choose between OFF/ON to determine whether to activate the zero start function.

### (6) Over Temp

After selection, you can adjust the over-temperature protection value up or down within the range of 80 to 130°C.

### (7) Smart mode

After selection, you can choose between OFF/ON to determine whether to activate the smart mode.

### (8) Gear P Mode

After selection, you can adjust the time for the P Gear to recover after being released, within the range of 0 to 300 seconds..

### (9) Back

After selection, exit the functional parameter setting interface.

## 9 Gear para Set

After selection, you can control the gear parameters for D1, D2, and D3.

### (1) Gear Limit Speed

After selection, you can adjust the speed limit values for each gear up or down within the range of 1% to 100%.

(2) EABS Level

After selection, you can adjust the EABS (Electronic Anti-lock Braking System) intensity up or down within the range of 1 to 5.

(3) Start Level

After selection, you can adjust the relative strength of the controller's output PWM signal during power-assisted startup up or down within the range of 1 to 5.

(4) Limit Current

After selection, you can adjust the controller current limit value up or down within the range of 1 to 80A.

(5) Back

After selection, exit the gear parameter setting interface.

10 Make Card

After selection, enter the card creation interface. Place a blank card in the specified NFC area to create a sub-card for the display

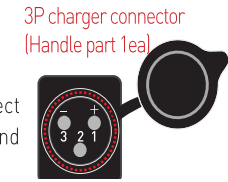
11 Exit Method

You can either scroll down and select "Exit" or press the "M" key twice consecutively to directly exit the settings page.

## How to use the charger correctly







### 1) Basic charging method

1. Open the charger port cap and connect it to the connector of the charger and connect it to the household outlet.
2. Charging status indicator
  - (Red) Charging
  - (Green) Charging complete
3. Be sure to close the charger port cap when driving or storing except when charging.
4. When connecting the connector to the charger port, there may be metallic sparks due to voltage difference, but this is normal.



### 2) Basic charging method

**\* Failure of the charger and abnormal conditions can cause electric shock and fire. Learn the correct usage and prevent safety accidents in advance.**

<p>1. Manufacturers and sellers are not responsible for any problems arising from any disassembly, modification, or mixing with other chargers.</p> 	<p>2. The charger is forbidden to be used in places subject to high humidity, heat, flammable materials, confined spaces, or where there is no ventilation such as in a car.</p> 
<p>3. The charger is not waterproof. It is thoroughly controlled to prevent moisture from entering the charger.</p> 	<p>4. Children and pets should not be allowed to approach the charger when they come into contact with them, as they may cause an electric shock.</p> 
<p>5. If the charger lamp does not light, charger fall down, strong external shock, long time charge, or cable cover damage, discontinue use immediately and contact the service center</p> 	<p>6. Unplug the charger when you are away from the home for long periods.</p> 

7. Use only genuine charger.
8. Do not insert conductors into the charging port.
9. Do not touch the plug for about 10 seconds after unplugging the charger. There is a risk of electric shock from instantaneous discharge.
10. Do not remove the terminal during charging. Otherwise you may charge the internal circuit of the charger and cause malfunction.
11. Do not operate the product during charging.
12. Charging terminals should be firmly contacted during charging and should not be used if terminals are corroded or damaged.
13. When disconnecting the charger from the product, it is safe to hold the terminal without holding the wire.
14. Be sure to keep the charger disconnected from the product after the charging is complete. The charger must be disconnected if it is not used for longer than a few days, as there is a risk of overcharging when charging more than the time indicated on the product specifications.





## Safety precautions for Lithium battery

- 1) Care** Lithium batteries should be protected from direct exposure to children and pets.
- 2) Performance**
- Lithium battery is affected by external temperature. In the winter, when the temperatures are low, the performance of the battery may be temporarily deteriorated and the mileage and power output is reduced.
  - Lithium battery has a characteristic that discharge performance is reduced by more than 15% when charging / discharging 300 times or more. If usage time is shortened due to long usage, it should be replaced with a genuine one through the nearest point.
- 3) Charging**
- Lithium battery should be used only with genuine battery and charger supplied from the manufacturer. Any problems caused by use of battery made by the manufacturer, mixed use, or using the charger are not covered by the manufacturer.
  - Charging the lithium battery with a non-genuine charger may cause malfunction or fire.
  - The lithium battery should be charged in a well-ventilated, dry place and around the charger in a place where there is no flammable material.
  - Lithium battery should be charged at 0 ~ 45°C and discharged within -10 ~ 60°C . The sub-battery must be charged at 0 to 50°C and discharged within -20 to 75°C. Charging or discharging at a temperature outside this range may cause malfunction, fire or explosion.
  - In case of moving from cold outside to warm indoor, please charge it after 1 ~ 2 hours. This is to prevent condensation from occurring inside the product due to the temperature difference.
- 4) Storage**
- Lithium batteries should be kept away from snow, rain and direct sunlight. Do not store or charge them in a trunk or hot room. Select a dry place and store at room temperature (10 ~ 20 °C).
  - When storing for more than 3 months, charge the remaining battery level to 70 ~ 80% (do not store full charge).
- 5) Trouble symptom, safety**
- Lithium battery should be discontinued immediately if it is damaged or there is leakage of battery, sour odor, appearance deformation, etc. Please contact the place of purchase to get technical support and service.
  - If overheat, smoke, or ignition is detected in a product with lithium battery, immediately stop charging and use, move the product outdoors as soon as possible, and then use a fire extinguisher to extinguish flames. Do not spray water or immerse the product in any situation, which can lead to more danger.
  - Lithium battery pack has very high energy density, so if you charge the battery for a long time and there is a case of short-circuit, leakage, bad battery, etc., it can lead to ignition. Therefore, you should avoid charging for a long time without a person being present to avoid the risk of unexpected fire.
- 6) Misuse** If the lithium battery is short-circuited, the polarity is changed, or if the battery is impacted, malfunction or fire may result. If you think that the battery has been impacted, you should stop charging and using it and visit the nearest service center for inspection.
- 7) Water inflow** It should be controlled to prevent water inflow into the lithium battery. There is a risk of fire or electric shock if the charger is connected while moisture is present.
- 8) Caution** Disconnect the battery from the main unit except when recharging and reinstalling. Do not use for any other purpose.
- 9) Disposal** When disposing of the lithium battery, the battery should be separated from the product at the point of purchase or near the service center and the charge and discharge terminals are not short-circuited. Dispose of it as industrial waste.



## Safety guidelines before driving

### 1) Required checking before use

#### 1. Check throttle and handle

- Operate the accelerator throttle lever about 2 ~ 3 times to check whether it returns to the home position.
- Be careful that excessive throttle leaning and manipulation of the throttle can cause malfunction due to internal parts damage.
- Check for free gap in the handlebars before using.



#### 2. Check brake and cable

- The brake braking force is sufficient to check the operating condition. If the braking force is significantly lowered, use it immediately after inspection and action.
- Check that the brake pad is not worn, that the cable is not loose, that the cable is not damaged, and that there is no leakage in the case of hydraulic brakes.
- If there is an unusual feeling or noise during operation, check for breakage, wear, and deformation of the inner wire of the brake cable.
- Check that the bolts and nuts of the brake fixing parts are not loose and that the disc is not deformed or damaged.



#### 3. Check tire pressure and abnormal tread wear

- Check the front and rear tires for wear and punctures and check the value marked on the surface of the tire. When the air pressure is shortened, the possibility of puncture increases, so check always.
- It is necessary to judge the replacement time by observing the appearance of the tire such as tire damage, uneven wear.



#### 4. Tightening check such as folding part and handle part

- Make sure that the bolts and nuts of all parts of the product are tight and safe from loosening. Check the fastening condition and clearance of the folding and fixing parts of the handle (folding knob, swing arm, etc. folding related parts, suspension arm bolt, swing arm bolt).



#### \* In these cases, stop driving immediately.

If you encounter any of the following situations while driving, stop driving immediately and contact your nearest branch or service center for proper measures.



If you provide pictures and videos to get an accurate diagnosis, professional counseling is available.

- Unusual heating of the motor
- Abnormal noise is generated
- Brake braking status error
- Product smoke, ignition, sour odor
- Error messages on the instrument panel
- When rain or wet with water or in a similar situation
- When the throttle is not returned to its original position
- When other driving is judged to be unreasonable
- When the battery doesn't fully charge and shorter riding distance after a full charge (Battery explosion may cause due to faulty battery cell or battery cell breakdown)

**⚠ DANGER Battery disassembly prohibited**  
Battery disassembly, modification, and repair are not covered under warranty.

## Check and Maintenance

### Maintenance and self-maintenance

Electric products can be damaged by various factors.

The life span of each part varies depending on driving habits and driving environment.

Parts that exceed the service life may cause accidents. Let's manage various parts and prevent safety accidents in advance.

### Check the replacement timing of consumable parts

The components and suspension parts of the swing arm, tires, wheels, bearings, discs, brakepads, cables and folding parts, various brackets and other consumable parts require periodic inspection and must always be checked.

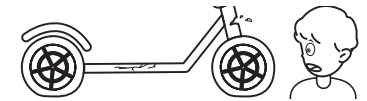


## 2. External damage inspection by driving environment



- ① Replace parts that may be damaged by the external driving environment, such as deformation of parts or tiny cracks due to pressure.
- ② If the product is exposed to strong sunlight for a long time, discoloration may occur.
- ③ In case of jumps, slight impacts such as turning, collision, etc., when driving frequently or for a long time in a poor road condition or driving for thousands of kilometers or more, fatigue breakdown phenomena may happen so please check the parts replacement schedule for each product and replace accordingly for safety.
- ④ Fatigue breakdown and maintenance parts may differ from the example conditions depending on the driving environment and the operating conditions.

Also check parts other than the replacement cycle (maintenance parts) at all times to check for any signs of abnormality.



## Important check list

\* Metal vibration may occur due to motor vibration and the vibration of the brake disc and pad during the load section that accelerates during driving. (About 15 ~ 30Km, different for each product)

This is a phenomenon in which all rotations (fans, automobiles, ships, etc.) are vibrating at a specific rotational frequency (rpm) rather than the product.

However, if the continuous noise or metal noise is large, there is a possibility that the disk will become bent and deformed.

\* Please note that after running, there is a risk of burns due to the heat on the motor and brake (especially disk rotor) side.

\* Be careful that the bolts of the motor, rim, and motor shaft may become loosened due to the ABS function.

\* For inspection and repair, remove the side cover, attach the power switch, and attach it with the product's standard bolt. When tightening, carefully remove the cover of the wiring. Bolts other than the rule bolts (long bolts) can cause serious damage to the battery casing (battery cells), which can cause fire or safety accidents.

※ Folding parts and joints where movement occurs due to product characteristics can naturally damage the surface or paint surface during use, especially when operating in incorrect operation and form.

※ When inspecting the product, keep two wheels away from the ground and work on a safe workstation

**MEMO**

## PKE Instruction

### 1. Arm Key


In the normal state, press the horn button once to sound the horn once and simultaneously lock the motor. After 3 seconds, enter the arming state.

### 2. Arming Alarm

A. In the arming state, upon detecting a vibration signal, the horn sounds for 2 seconds, simultaneously locking the motor. If there is another vibration within 15 seconds, the horn will sound continuously for 15 seconds, and the motor remains locked.

B. In the arming state, gently push the vehicle continuously for 2 seconds; the horn sounds for 2 seconds, simultaneously locking the motor. If the vehicle is pushed again within 15 seconds, the horn will sound continuously for 15 seconds, and the motor remains locked.


C. In the arming state, opening the mechanical lock allows direct riding of the vehicle.

D. After an alarm is triggered by vibration or motion, press the arming key  once to pause the alarm. The anti-theft device remains in the arming state.


### 3. Disarm Key Function


In the arming state, press the key once; the horn sounds twice, the motor unlocks, and the arming state is deactivated.

### 4. Remote Start

While in the arming or disarming state, press the mute key  twice within 2 seconds. The horn sounds a power-on prompt, and the anti-theft device powers the ignition.

### 5. Induction Function (Ineffective when the mechanical key is in use)



A. When the remote control is near the vehicle and there is no activity for 3 minutes, the anti-theft device enters the silent arming state. It can be reactivated through rotation, vibration, or remote control disarming , returning to a 3-minute pre-activation state.



B. In the unpowered state, with the remote control within 1 to 2 meters of the vehicle, the vehicle powers on automatically. The vehicle can be powered off using the one-key start button or remote disarming  button. Once the remote control is 4 to 8 meters away, the vehicle enters the automatic arming state.

C. After the vehicle is powered off, if it needs to be powered on again, it can be done through the

mechanical key, remote start, or by moving away and then approaching the vehicle.

### 6. Enable/Disable Anti-theft Device Induction Function (Perform after keyless start)

A. Within the main machine induction range, simultaneously press and hold the remote control arming  and disarming keys  for 3 seconds. The main machine emits a "beep" prompt, and the red indicator on the remote control flashes once, indicating that the induction function is enabled.

B. Simultaneously press and hold the arming  and disarming keys  for 3 seconds again. The main machine emits a "beep beep beep" prompt, and the red indicator on the remote control flashes twice, indicating that the induction function is disabled.



C. After the operation, press any key on the remote control twice to confirm whether the induction function is enabled. If you hear "beep beep beep" or "beep beep beep beep" prompts, no further action is needed.

D. The induction function is factory-defaulted to the disabled state. Customers need to enable it themselves if they want to use the induction function.





### 7. Power-off Memory

After the anti-theft device loses power and is re-powered, the arming and induction functions remain in the state they were in before power loss.

### 8. Vibration Sensitivity Setting

Simultaneously press and hold the arming key  and mute key  for 3 seconds. There are 5 sensitivity levels, with level 1 being the highest. The number of times the anti-theft device beeps indicates the sensitivity level. The default is level 1.

### 9. Remote Control Learning Code Setting

After keyless start, long-press the remote control mute key  for 5 seconds. The horn sounds a prompt, and within 3 seconds, press the arming key  to enter learning code mode. Press any two buttons on the remote control one after another (ensure that the last two prompt sounds are from pressing your own two remote control buttons). Press the mute key  and disarming key  simultaneously to exit learning code mode and resume normal operation.