

USER GUIDE

VA47 LCD



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User Guide

Dear User, To ensure optimal operation of your electric vehicle, please carefully review the VA47 instrument manual before use. We will guide you through every step of the instrument's operation in the most concise language, covering everything from hardware installation and setup to routine usage. This manual also assists in resolving any potential confusion or obstacles you may encounter.

1. External Dimensions

1.1 Primary Materials and Colors

VA47 products utilize black PC material. The housing material enables normal operation within a temperature range of -20°C to 60°C and ensures excellent mechanical properties.

Actual Product Image and Dimension Drawing (Unit: mm)



2. Function Overview and Button Definitions

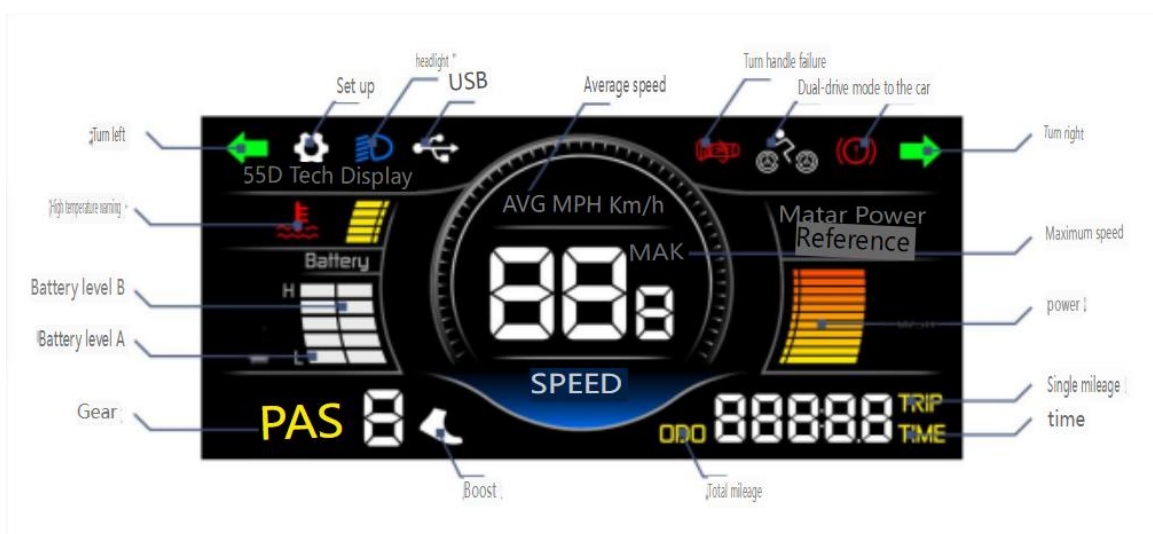
2.1 Feature Overview

VA47 provides multiple functions and displays to meet your cycling needs. The displayed information includes:

- ◆ Battery Level Indicator

- ◆ Speed Display
- ◆ Mileage display (including trip mileage and total mileage)
- ◆ Supporting the implementation of display
- ◆ Backlight Brightness
- ◆ Error code display
- ◆ Multiple configuration parameters

2.2 Normal Display Area



VA47 Normal Display Interface

2.3 Button Definitions

The VA47 instrument panel has six buttons. In subsequent descriptions, the button labeled

【 MODE 】 is referred to as the 【 MODE 】 button. The button labeled 【 Left Turn 】 is referred to as the 【 Left Turn 】 button. The button labeled 【 Right Turn 】 is referred to as the 【 Right Turn 】 button. The button labeled 【 UP 】 is referred to as the 【 UP 】 button. The button labeled 【 DOWN 】 is referred to as the 【 DOWN 】 button. The button labeled 【 Headlights 】 is referred

to as the 【 Headlights 】 button.



3. User Notes

Ensure safe operation during use; do not plug or unplug the instrument while it is powered on.



Avoid bumping or knocking the instrument.



The protective film on the instrument is a waterproof film. Do not remove it, as doing so may compromise the instrument's waterproof performance.



Regarding the backend parameter settings for the instrument panel, please do not alter them arbitrarily, as this may compromise normal operation.



When the instrument fails to operate normally, it should be sent for repair as soon as possible.

4. Installation Instructions

Secure the gauge to the handlebars and adjust it to a comfortable viewing angle. With the electric bicycle powered off, simply plug the gauge's connector into the corresponding connector on the controller to complete the installation.



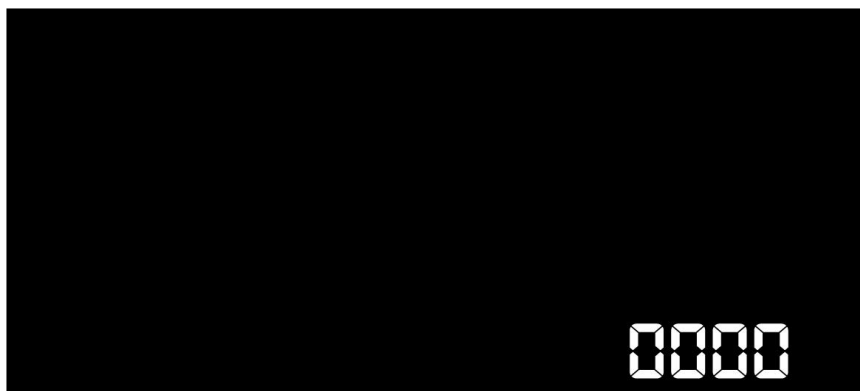
Tighten the screws when securing the instrument.

5. User Settings

5.1 Power On/Off

5.1.1 Power On/Off via Button

With the instrument powered off, press and hold the **【MODE】** key to enter the startup password interface. Enter the startup password 1212 (default 1212, can be modified) to access the main interface. With the instrument powered on, press and hold the **【MODE】** key to turn off the display and enter the shutdown state.



Power-on Password Input Screen

5.1.2 Card-Based Power On/Off

When the meter is powered off, swipe any one of the three cards to power it on and enter the main interface. When the meter is powered on, swipe the card again to turn off the screen and power down the meter.

5.2 Normal Display Interface

The instrument panel will display the normal startup interface upon powering on. This interface shows the electric bike's real-time battery level, current speed (SPEED), total riding distance (ODO), and pedal assist level (PAS). Pressing the **【MODE】** button briefly switches to display trip time (TRIP TIME) and trip distance (TRIP).



Total mileage



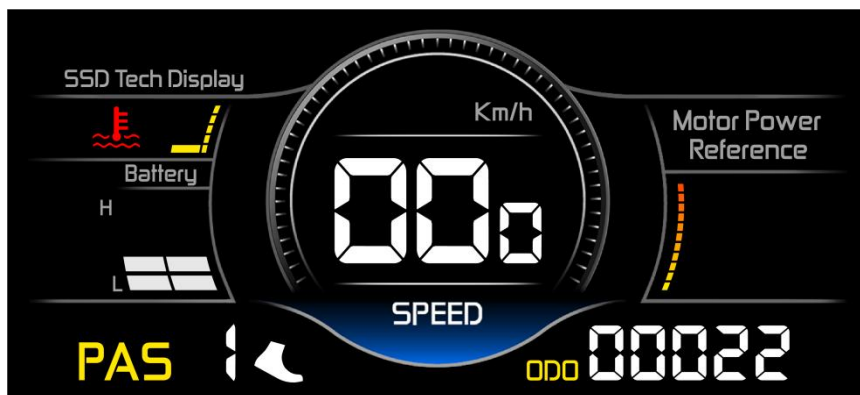
Single ride distance



Single Ride Distance and Time
The

5.3 Promoting Implementation

Press and hold the **【DOWN】** button. After 2 seconds, the electric bike enters electric assist mode.



Assist in the implementation of display



The assist function is only available when the user is pushing the electric bicycle. Do not use it while riding.

5.4 Turn on the headlights

Press the **【Headlights】** button briefly to turn on the instrument panel lights and simultaneously instruct the controller to activate the headlights. Press the **【Headlights】** button briefly again to turn

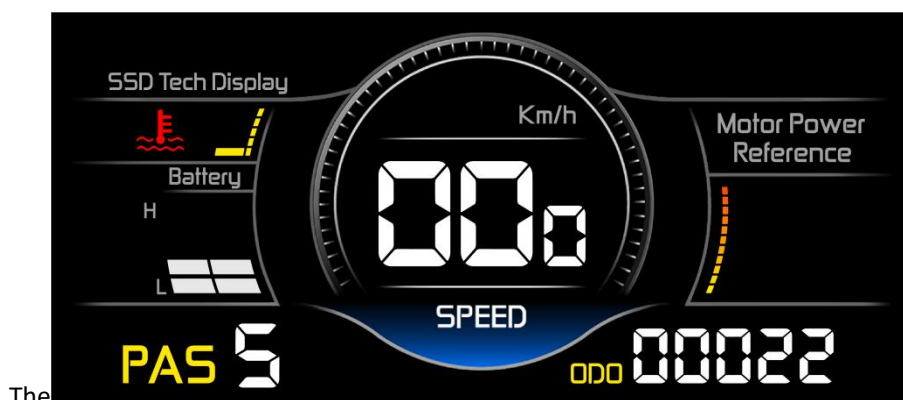
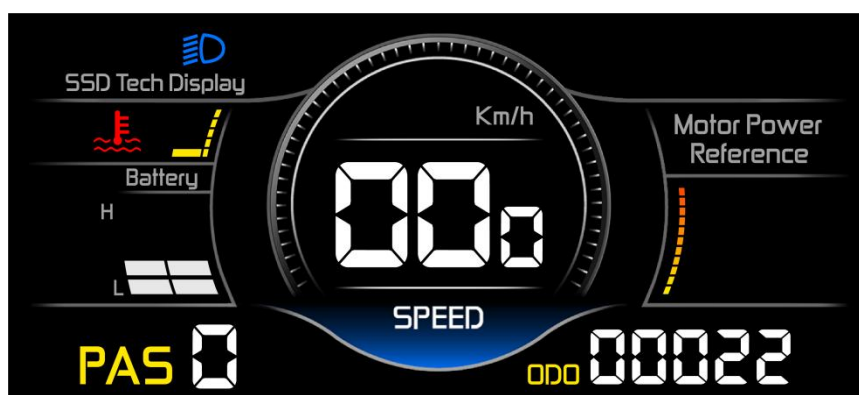
off the instrument panel lights and simultaneously instruct the controller to deactivate the headlights.



Headlight Display

5.5 Assisted Gear Selection

Press and release the **【UP】** or **【DOWN】** button to switch between electric assist levels, adjusting the motor's power output. The instrument panel defaults to a power output range of 0 to 5 levels.



The

Assist Gear Selection Interface

5.6 Battery Level Indicator

Instrument battery level: Five bars total. When fully charged, the indicator displays solid white.



Battery Level Display

5.7 Reset Single Trip Mileage

Each time the instrument is turned on, both the trip mileage and trip time will be reset to zero.

5.8 Reset ODO Total Mileage

On the main screen, when no speed is detected, press and hold the 【MODE】 + 【Left Turn】 buttons simultaneously to reset the total mileage ODO.

5.9 Single-drive/Dual-drive Switching

Press and hold the 【 Left Turn 】 button to switch between dual-drive and single-drive modes. The instrument panel defaults to single-drive mode.



Single/Dual Drive Display Interface

5. 10-way switch

Press and release the 【Left Turn】 or 【Right Turn】 button to activate the left or right turn signal. Press and release the button again to turn off the turn signal.



Left/Right Turn Display Interface

5. 11 Error Code Display

When the electric vehicle's electronic control system malfunctions, the instrument panel will automatically display an error code. Refer to Appendix 1 for detailed definitions of error codes.



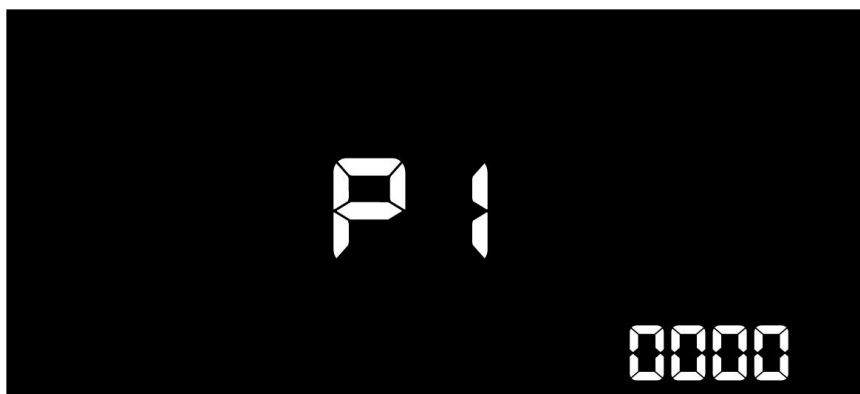
Error code displayed



The fault display interface can only be exited once the fault has been resolved. After a fault occurs, the electric vehicle will be unable to continue driving.

6. General Settings

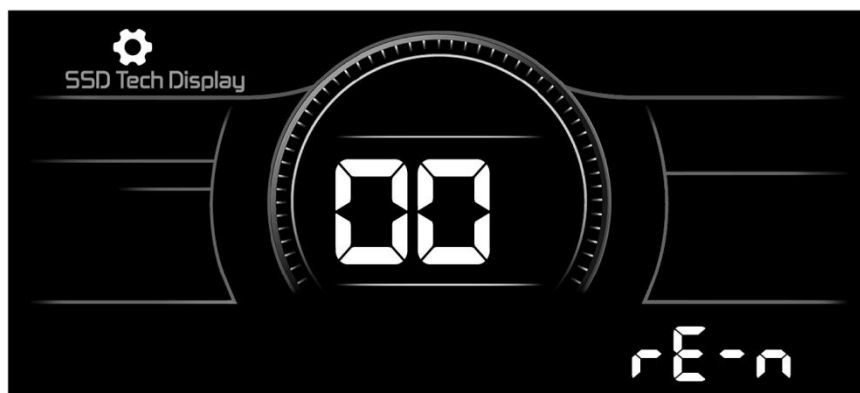
With the device powered on, press and hold the **【UP】** + **【MODE】** keys simultaneously when the speed is zero to enter the password input screen. Enter the password 1313 to access the settings menu. Within the settings menu, press the **【MODE】** key briefly to cycle through settings options. Press and hold the **【MODE】** key to save changes and exit the settings menu.



Enter the password setup interface

6.1 Restore Factory Settings

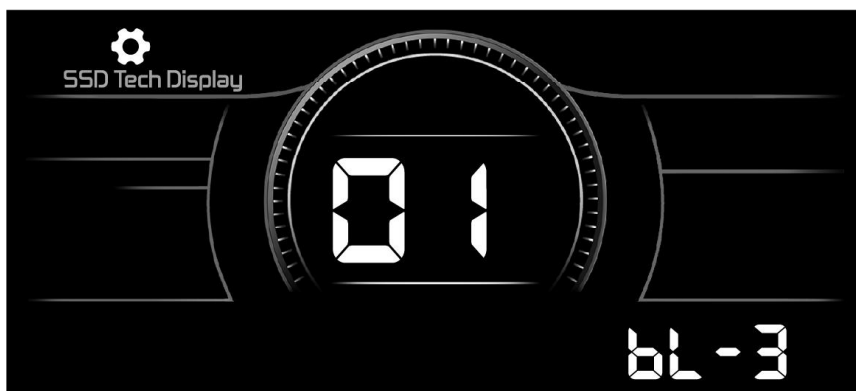
To restore factory settings, select either y or n: y confirms restoration, n cancels. Briefly press the **【UP】** or **【DOWN】** button to adjust settings. Press and hold **【MODE】** to save and exit the settings menu. Briefly press **【MODE】** to advance to the next setting.



Factory Reset Interface

6.2 Backlight Brightness Settings

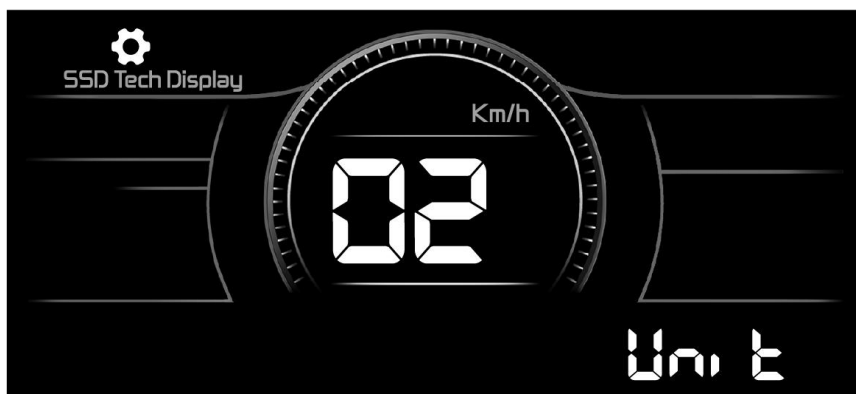
Backlight Brightness Settings Available parameters: 1, 2, 3. Higher numbers indicate brighter instrument display. Press [UP] or [DOWN] briefly to adjust parameter values. Press and hold [MODE] to save and exit the setting. Press [MODE] briefly to switch to the next setting item.



Backlight Brightness Settings Interface

6.3 Metric/Imperial Settings

Metric/Imperial Settings: Selectable units are: km/h (metric), mph (imperial). Press [UP] or [DOWN] briefly to toggle between metric and imperial units. Press and hold [MODE] to save and exit the settings menu. Press [MODE] briefly to advance to the next setting.



Metric/Imperial Settings Interface

6.4 Voltage Settings

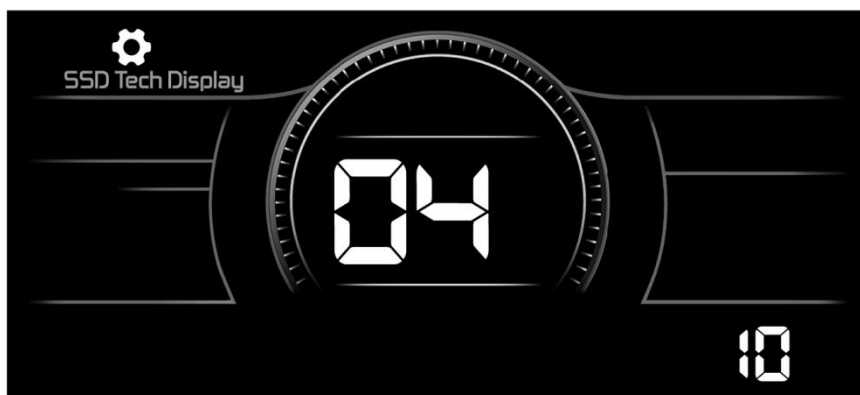
Voltage settings: Selectable parameters are 36, 48, 52, 60. Briefly press the [UP] or [DOWN] key to adjust the parameter value. Press and hold the [MODE] key to save and exit the setting item. Briefly press the [MODE] key to switch to the next setting item.



Voltage Settings Interface

6.5 Sleep Time Settings

Sleep Time Setting Available parameters: 0 min - 60 min 0 indicates no sleep mode; other values represent sleep duration. Briefly press the [UP] or [DOWN] button to adjust the parameter value. Press and hold the [MODE] button to save and exit the setting item. Briefly press the [MODE] button to switch to the next setting item.



Sleep Time Settings Interface

6.6 Gear Range Settings

Gear Range Settings: Selectable ranges are 0-3, 1-3, 0-5, 1-5, 0-9, 1-9. Briefly press the **【UP】** or **【DOWN】** button to select the gear range. Press and hold **【MODE】** to save and exit the setting. Briefly press **【MODE】** to switch to the next setting item.



Gear Range Settings Interface

6.7 Wheel Diameter Setting

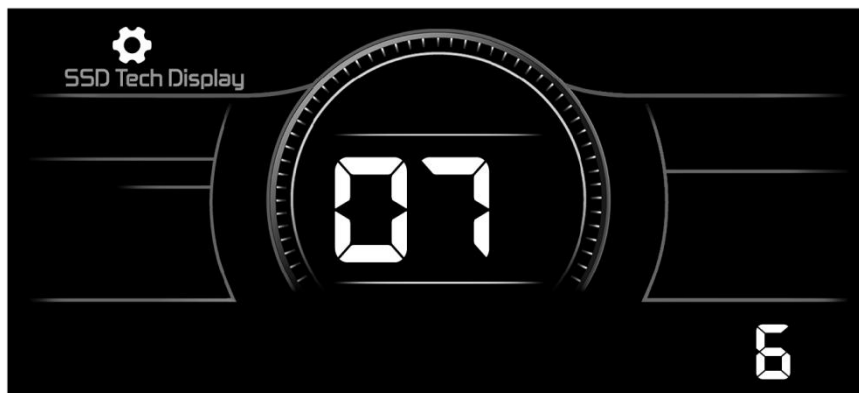
Wheel size settings: Available options include 16-inch, 18-inch, 20-inch, 22-inch, 24-inch, 26-inch, 700C, 27.5-inch, 28-inch, and 29-inch. Press the [UP] or [DOWN] button briefly to cycle through the corresponding wheel size values. Press and hold the [MODE] button to save and exit the settings menu. Press the [MODE] button briefly to advance to the next setting option.



Wheel Diameter Settings Interface

6.8 Speed Measurement Magnet Count Setting

Speed-measuring magnet count settings: Adjustable parameters: 1-6 Short press the [UP] or [DOWN] button to select the corresponding magnet count. Long press [MODE] to save and exit the setting item. Short press [MODE] to switch to the next setting item.

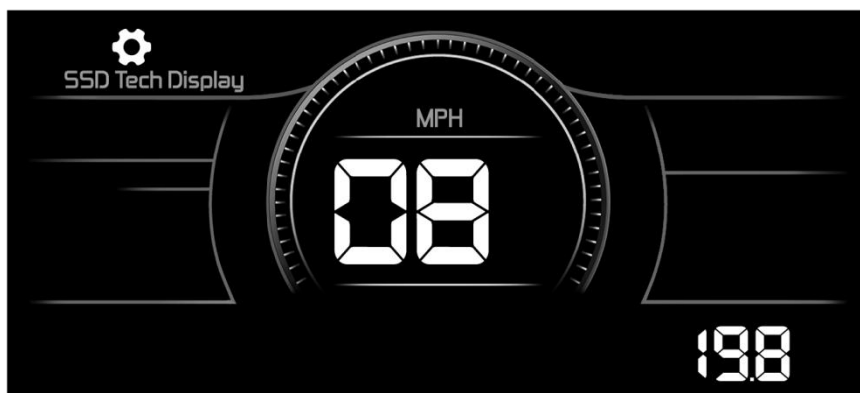


Speed Measurement Magnet Setup Interface

6.9 Speed Limit Settings

Speed Limit Settings Available parameters: Metric: 1-100 km/h Imperial: 0.6-62.1 mph Short press the [UP] or [DOWN] button to select the desired speed limit value. Long press the [MODE] button to save and exit the setting. Short press the [MODE] button to switch to the next setting item.

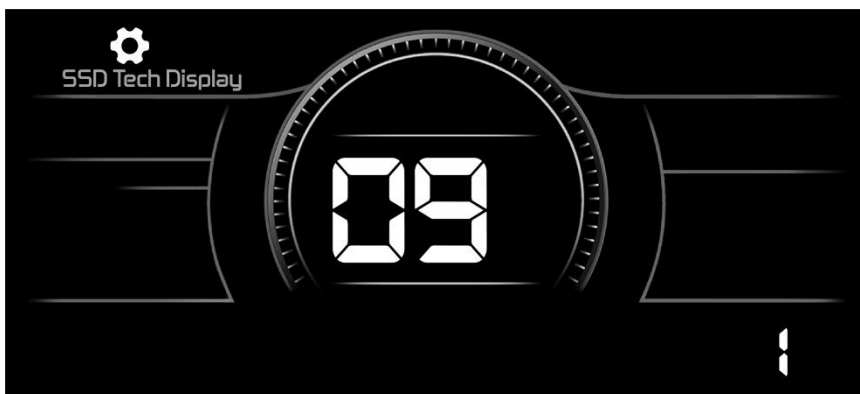
Press and hold the 【Right Turn】 button on the main interface to disable speed limiting. The speed display area on the main unit will flash for 3 seconds. Press and hold the 【Right Turn】 button again to restore the default speed limit. The speed limit resets to default each time the instrument is powered on.



Speed Limit Settings Interface

6. Zero-Start Setup

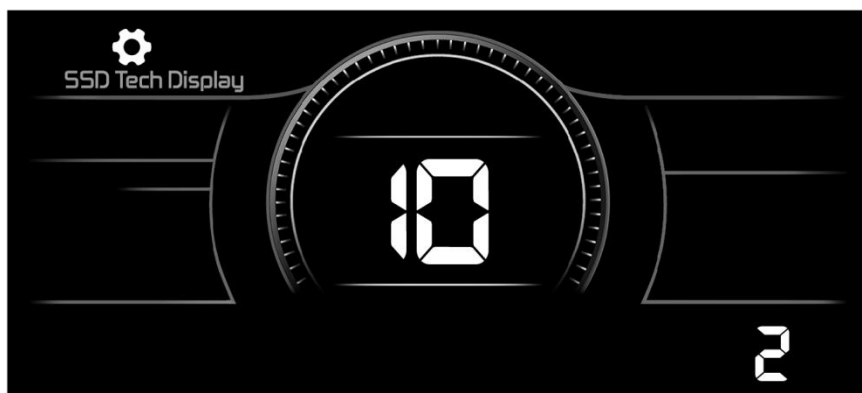
Zero Start Settings Available parameters: 0 and 1 0 indicates zero start 1 indicates non-zero start Press and release the **【UP】** or **【DOWN】** button to toggle options Press and hold the **【MODE】** button to save and exit the setting Press the **【MODE】** button to switch to the next setting item



Zero Start Settings Interface

6.11 Drive Mode Settings

Drive Mode Settings Available options: 0, 1, 2 0 represents assist-only drive 1 represents electric drive 2 represents simultaneous assist and electric drive Short press **【UP】** or **【DOWN】** to select drive mode Long press **【MODE】** to save and exit settings Short press **【MODE】** to switch to the next setting item

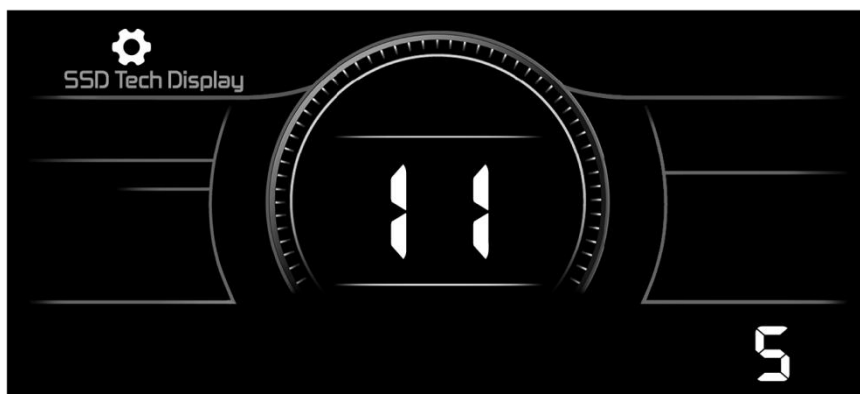


The

Drive Mode Settings Interface

6.12 Assist Sensitivity Settings

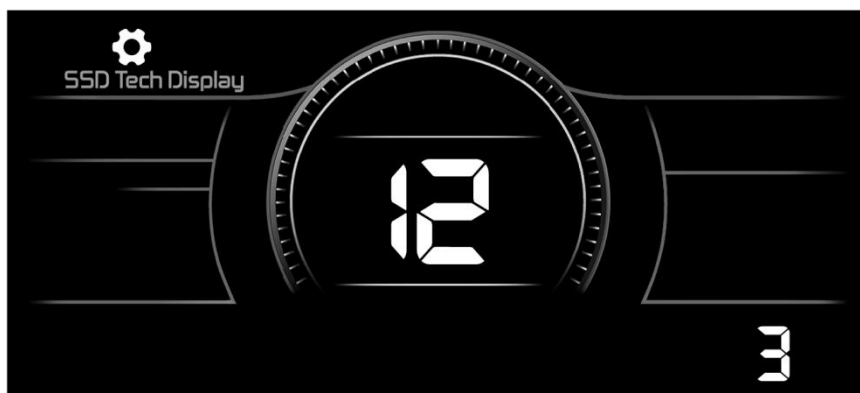
Assist Sensitivity Settings: Adjustable parameters: 1-24 Short press the **【UP】** or **【DOWN】** button to adjust the parameter. Long press **【MODE】** to save and exit the setting item. Short press **【MODE】** to switch to the next setting item.



Assist Sensitivity Settings Interface

6.13 Assisted Start Strength Settings

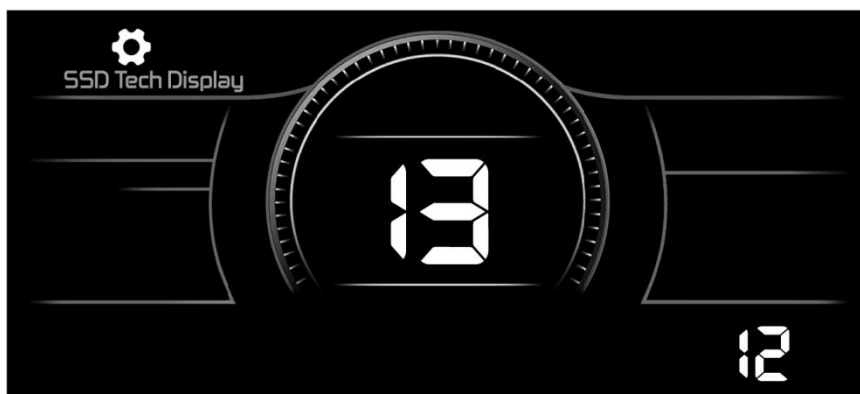
Assist Start Intensity Settings Available parameters: Adjustable from 0 to 5 Press and release the **[UP]** or **[DOWN]** button to adjust the value. Press and hold the **[MODE]** button to save and exit the settings menu. Press and release the **[MODE]** button to switch to the next setting item.



Assist Start Strength Settings Interface

6.14 Assisting with the Number of Magnets on the Drive

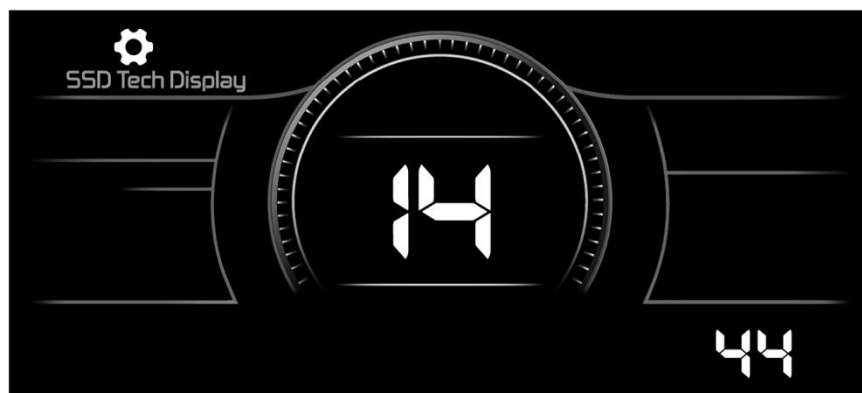
To configure the number of magnets per disk, select from the following options: 5, 8, or 12. Briefly press the [UP] or [DOWN] button to select the desired magnet count. Press and hold the [MODE] button to save and exit the settings menu. Briefly press the [MODE] button to proceed to the next setting.



Assist Disk Magnet Count Settings Interface

6.15 Controller Current Limiting Settings

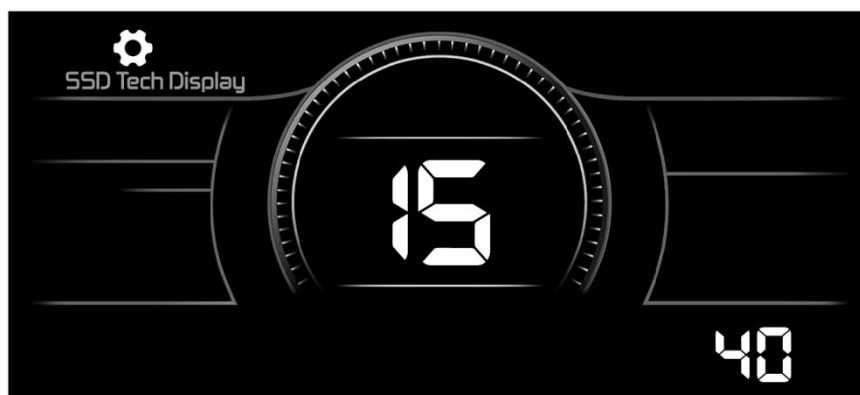
Controller current limit settings, selectable parameters: 1A-50A. Briefly press the [UP] or [DOWN] button to adjust the current limit value. Press and hold the [MODE] button to save and exit the settings menu. Briefly press the [MODE] button to switch to the next setting item.



Controller Current Limiting Settings Interface

6.16 Undervoltage Threshold Setting

Undervoltage threshold setting, selectable parameters: 28-60. Press and release the **【UP】** or **【DOWN】** key to adjust the value. Press and hold the **【MODE】** key to save and exit the setting item. Press and release the **【MODE】** key to switch to the next setting item.



Controller Current Limiting Settings Interface

6.17 Light Sensitivity Settings

Light sensitivity settings, selectable parameters: 20-100. Press and release the [UP] or [DOWN] button to adjust the value. Press and hold the [MODE] button to save and exit the setting. Press and release the [MODE] button to switch to the next setting.



Light Sensitivity Settings

7. Modify Startup Password

With the device powered on, press and hold the 【UP】 + 【MODE】 keys simultaneously when the speed is zero. The instrument will enter the password input interface. Enter the password 1313 to access the settings menu. Within the settings interface, press and hold the 【UP】 + 【MODE】 keys again. The instrument will then enter the power-on password input interface. After entering the power-on password (factory default: 1212), the instrument will proceed to the password modification interface.



The

Power-on Password Input Screen

On the password modification screen, enter the new startup password, then press and hold the 【MODE】 key to save and exit settings. When powering on the instrument again, you will need to enter the new password to access the main interface.



Password Change Interface

8. Program Version Information

On the main interface, press and hold the 【MODE】 + 【DOWN】 keys simultaneously to display the current software version information, facilitating future instrument maintenance.



Version Information Interface

9. Pre-Startup Preparation

Before using the instrument, please carefully read the user manual. Before turning on the power, ensure all connectors are securely mated and activate the electric vehicle's power supply.

10. Question

Q: Why won't it turn on?

Answer: Check whether the battery is powered on or if any external leads are broken.

Q: How should I handle a fault code displayed on the instrument panel?

Answer: Take it to an electric bike repair shop promptly for repairs.

11. Quality Assurance and Warranty Terms

I. Warranty Information:

1. For any malfunctions arising from product quality issues under normal usage conditions, our company will provide limited warranty coverage within the warranty period.
2. The product warranty period is valid for 24 months from the date of manufacture.

II. The following situations are not covered under warranty:

1. The casing has been opened.
2. Connector damaged
3. After the instrument leaves the factory, the casing is scratched or damaged.
4. Instrument lead wires are scratched or broken.
5. Malfunctions or damage caused by force majeure (such as fire, earthquake, etc.) or natural disasters (such as lightning strikes, etc.)
6. Product is out of warranty

1.2. Version Number

This instrument manual is the operating guide for the general software version (Version V1.0) of Tianjin Jinmite Technology Co., Ltd. The software version of the instrument installed in some vehicles may differ slightly from this manual. The actual version in use shall prevail.

Appendix 1: Error Code Definition Table

0x 21	Motor Hall Sensor Failure
0x 22	Throttle lever malfunction
0x 23	Controller failure
0x 24	Motor phase loss
0x 25	Undervoltage Protection
0x 30	Communication failure
0x34	Sticky assist button

The

KING-METER