

Quick Guide

Model: KM-F Series



Quick Guide

KM-F Series Coulomb Meter (Shunt Sampling)

Before using the product, please carefully read this quick start guide and the user manual. This guide introduces the essential knowledge and basic operations needed when starting to use this product. For detailed instructions, please refer to the "User Manual" (electronic version). Please note that the product images in this quick start guide are for reference only, and the actual product may differ.



"User Manual" (electronic version)

http://68.168.132.244/km/manual_en_zx.pdf



APP (Android Download)

<http://68.168.132.244/JunceHome/JunceHome.apk>



(iOS Download)

Search for "Junce Home" in the Apple App Store

I Appearance introduction

1.Panel Description



Figure 1-1-1: KM-F Series Display Diagram

Table 1-1-1: KM-F Series Display Diagram Explanation

Label	Description	Label	Description
1	LCD Screen	4	【▼】 Button
2	【SET】 Button	5	【OK】 Button
3	【▲】 Button	6	Communication Interface



Figure 1-1-2: KM-F Series Sampler Diagram (Example: 50A Sampler)

Table 1-1-2: KM-F Series Sampler Diagram Explanation (Example: 50A Sampler)

Label	Description	Label	Description
1	Battery Negative Terminal Screw	3	Charger and Load Negative Terminal Screw
2	V+ Terminal Screw	4	Data Cable Connection Interface



Figure 1-1-3: KM-F Series Sampler Diagram (Example: 100A Sampler)

Table 1-1-3: KM-F Series Sampler Diagram Explanation (Example: 100A Sampler)

Label	Description	Label	Description
1	Data Cable Connection Interface	3	Battery Negative Terminal Screw
2	V+ Interface	4	Charger and Load Negative Terminal Screw

2.Display Interface Description



Figure 1-2-1: KM-F Series Display Interface Diagram

Table 1-2-1: KM-F Series Display Interface Diagram Explanation

Label	Description	Label	Description
1	Button Lock Status	7	Remaining Capacity Percentage
2	Voltage	8	Charge/Discharge Status
3	Current	9	WiFi Remote Connection Status
4	Power	10	WiFi Local Area Network Connection Status
5	Estimated Time	11	Bluetooth Connection Status
6	Remaining Capacity	12	Actual Time

3.APP Interface Description



Figure 1-3-1: KM-F Series APP Interface Diagram

Table 1-3-1: KM-F Series APP Interface Diagram Explanation

Label	Description	Label	Description
1	Instrument Model	9	Charging Power Consumption
2	Connection Method Icon	10	Power
3	Main Interface	11	Estimated Time
4	Bluetooth ID	12	Remaining Battery Capacity
5	Current Capacity Percentage	13	Discharge Power Consumption
6	Charging Dynamic Bubble	14	Charge/Discharge Status
7	Measured Voltage Value	15	System Settings
8	Measured Current Value	16	Connection Switch



1. Main Interface Settings

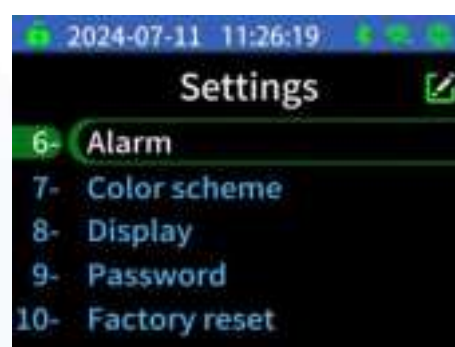
In the main interface, press and hold the **【OK】** button for 5 seconds to lock the buttons. To unlock them, press and hold again for 5 seconds. In remote connection mode, press and hold the **【SET】** button for 10 seconds to enter firmware upgrade mode. Short press the **【OK】** button to view the coulomb meter's information and access the QR code for connecting with the mobile app.

2. System Settings

In the main interface, users can enter the system settings interface by short-pressing the **【SET】** button. In the system settings interface, users can easily switch between different function options using the **【▲】** and **【▼】** buttons. When needing to confirm or view detailed settings for a specific function, users can simply short-press the **【OK】** button, and the system will immediately display the corresponding settings popup. Please refer to Figures 2-2-1 to 2-2-2 for specific operation interfaces to ensure efficient and accurate completion of relevant settings.



Figures 2-2-1



Figures 2-2-2

(1) Language & Time Zone

In the system settings interface, users can quickly locate the language & time zone settings options using the **【▲】** and **【▼】** buttons. After short-pressing the **【OK】** button, the system will display the language selection popup as shown in Figure 2-2-3. Users can visually see the currently selected language (e.g., Chinese) and can easily switch between Chinese and English using the **【▲】** and **【▼】** buttons. After selecting the language, short-press the **【OK】** button again, and the system will automatically jump to the time zone settings popup (see Figure 2-2-4). The cursor will automatically select the current time zone. Users can browse and select time zones

from around the world using the **【▲】** and **【▼】** buttons. Once the selection is confirmed, pressing the **【OK】** button again will complete the time zone setting and save all changes.



Figure 2-2-3



Figure 2-2-4

(2) Network Reset

In the system settings interface, users can quickly switch to network reset settings using the **【▲】** and **【▼】** buttons. Short press the **【OK】** button, and the system will quickly pop up the network reset dialog box as shown in Figure 2-2-5. Users can select "Yes" or "No" in the network reset options using the **【▲】** and **【▼】** buttons. Once the cursor selects "Yes," short-press the **【OK】** button again, and the device will immediately reset the connected network. Please note that after completing the network reset, you need to reconfigure the network on the JUNCE HOME mobile app to ensure the device connects properly to your network environment. When the network around the KM-F changes, a network reset and connection to the new network are required for normal use.



Figure 2-2-5

(3) System Reboot

In the system settings interface, users can easily navigate to the system reboot setting by pressing the **【▲】** and **【▼】** buttons, as shown in Figure 2-2-6. Once the system reboot option is selected, simply short-press the **【OK】** button, and the system will immediately execute the

restart operation, ensuring the device quickly returns to its optimal state.



Figure 2-2-6

(4) Battery Level

In the system settings interface, users can quickly switch to the battery level setting option using the 【▲】 and 【▼】 buttons. After a short press of the 【OK】 button, the battery level setting popup will appear, as shown in Figure 2-2-7. In this interface, users can continue to adjust the tens digit value using the 【▲】 and 【▼】 buttons. Once the tens digit is set, press the 【OK】 button again, and the cursor will automatically move to the units digit. Users can then adjust the units digit using the 【▲】 and 【▼】 buttons. After setting the values, press the 【OK】 button again to confirm and apply the battery level setting.

The battery level is an intuitive indicator of the current battery's remaining capacity, representing the current capacity as a percentage of the total battery capacity. Users can set the current battery capacity percentage according to their actual usage and needs, allowing for continuous adjustment between 0% and 100% for better battery management and utilization. For first-time use, it is recommended to fully charge the battery and set the battery level to 100%.



Figure 2-2-7

(5) Battery Capacity

In the system settings interface, users can easily switch to the battery capacity setting option using the 【▲】 and 【▼】 buttons. Once the cursor selects the battery capacity, a short press of the 【OK】 button will bring up the battery capacity setting popup, as shown in Figure 2-2-8. In this popup, users can increase or decrease the value by pressing the 【▲】 and 【▼】 buttons continuously. Whenever different digit values need adjustment, simply short-press the 【OK】 button again to easily switch to the next digit, starting from the highest digit and progressing to the lowest digit. After adjusting the lowest digit, press the 【OK】 button again to confirm and save the set battery capacity value.

For first-time use, you can set according to the battery's nominal capacity. After fully charging the battery, set the battery level to 100%, then discharge it. The capacity released during discharge will be the actual battery capacity, which can then be reset as the battery capacity.



Figure 2-2-8

(6) Alarm

In the system settings interface, users can conveniently switch to the alarm setting option using the 【▲】 and 【▼】 buttons. Then, a short press of the 【OK】 button will trigger the display of the alarm setting popup, with the cursor defaulting to the low capacity alarm setting, as shown in Figure 2-2-9. Users can continue to use the 【▲】 and 【▼】 buttons to adjust the threshold for the low capacity alarm, which ranges from 01% to 99%. Setting it to "OFF" will disable this alarm. After setting the low capacity alarm, a short press of the 【OK】 button again will save the current settings and automatically switch to the low voltage alarm setting interface, as shown in Figure 2-2-10. Similarly, users can set the threshold for the low voltage alarm using the 【▲】 and 【▼】 buttons, ranging from 10.0V to 99.9V. As before, setting it to "OFF" will disable this alarm. Finally, after confirming all alarm settings, the user can complete the entire alarm setting process by pressing the 【OK】 button once more.

When the battery voltage or capacity falls below the preset alarm threshold, a prominent alarm window will immediately appear on the main interface, and the buzzer will sound continuously for 10 seconds. Once the 10 seconds have passed, the buzzer will automatically stop, but the alarm window will remain displayed, prompting the user to acknowledge the alarm. At this point, the user needs to briefly press the **【OK】** button to acknowledge receipt of the alarm. If, after pressing the **【OK】** button, the coulomb meter still indicates that the device is in a discharge state and the voltage or capacity remains below the alarm threshold, the alarm system will reactivate, and the popup and buzzer will repeat the previous alarm process. However, if the user confirms and the coulomb meter shows the device has entered a charging state, the low voltage alarm will not be dismissed if the voltage remains below the set low voltage alarm value, while the low capacity alarm will be dismissed in the charging state. During this operation, the system will provide two types of alarm popups to assist the user: the low capacity alarm popup shown in Figure 2-2-11 and the low voltage alarm popup shown in Figure 2-2-12. These intuitive popups will provide users with clear prompts to assist in performing corresponding operations and settings.



Figure 2-2-9



Figure 2-2-10



Figure 2-2-11



Figure 2-2-12

(7) Color Scheme

In the system settings interface, users can easily switch to the color scheme by gently pressing the **【▲】** or **【▼】** button. Once the **【OK】** button is pressed, the system will quickly respond

and display a color scheme selection popup. In this popup, users can continue to use the **【▲】** and **【▼】** buttons to choose between the "Light" and "Dark" color scheme options. If the cursor remains on the "Light" option, users need only press the **【OK】** button again, and the device will immediately switch to the light scheme mode, providing a fresh visual experience. Figures 2-2-13 and 2-2-14 show the light and dark displays in the color scheme selection interface, while Figures 2-2-15 and 2-2-16 demonstrate the interface display effects after enabling the light scheme.



Figures 2-2-13



Figures 2-2-14



Figures 2-2-15



Figures 2-2-16

(8) Display

In the system settings interface, users can conveniently switch to the display option using the **【▲】** and **【▼】** buttons. Then, lightly press the **【OK】** button, which will trigger the display of the display popup, with the cursor defaulting to the brightness setting, as shown in Figure 2-2-17. Users can continue to use the **【▲】** and **【▼】** buttons to adjust the brightness percentage between 01% and 100%. After adjusting the brightness, if the user proceeds to set the auto-off feature, lightly press the **【OK】** button again to save the current settings and automatically transition to the auto-off settings interface, as shown in Figure 2-2-18. In the auto-off settings, users can also use the **【▲】** and **【▼】** buttons to select the screen-off time and mode.

The following options are available for auto-off settings:

- Auto-off (OFF): Selecting this option will keep the screen continuously lit.

- Auto-off (10s/20s/30s/40s/50s/60s): This option indicates that the screen will automatically turn off when there has been no operation for a specified period (10 to 60 seconds).
- Auto-off (Auto): This function automatically adjusts screen brightness based on the device's discharge current. Specifically, for the KM105F model coulomb meter, when the discharge current I is greater than or equal to 15mA for a period, the screen will automatically light up; if the discharge current I is less than 15mA and exceeds 20 seconds, the screen will automatically turn off. For KM110F, KM140F, and KM160F models, the operation is similar, with 30mA as the current threshold.



Figure 2-2-17



Figure 2-2-18

(9) Password

In the system settings interface, users can easily switch to the password option using the 【▲】 and 【▼】 buttons. Once selected, a short press of the 【OK】 button will bring up the password popup, as shown in Figure 2-2-19. In this popup, users can increase or decrease the value by continuously pressing the 【▲】 and 【▼】 buttons. Whenever different digit values need adjustment, simply short-press the 【OK】 button again to easily switch to the next digit, starting from the highest digit and progressing to the lowest digit. After adjusting the lowest digit, press the 【OK】 button again to confirm and save the set password.

The initial password for the KM-F Series Coulomb Meter is set to **11223344**. It's important to note that, in its initial state, this password does not allow you to use the device-sharing code feature in the mobile app. If you wish to share the device with others, you must first change the initial password. After completing the password change, the mobile app will require you to enter the new password when connecting to the device for the first time to ensure security and accuracy.



Figure 2-2-19

(10) Factory Reset

In the system settings interface, users can easily switch to the factory reset option using the **【▲】** and **【▼】** buttons. Once the option is selected, short-press the **【OK】** button, and the system will immediately display a factory reset popup, as shown in Figure 2-2-20. At this point, users can use the **【▲】** and **【▼】** buttons to choose between "Yes" and "No" in the factory reset option. If the cursor selects "Yes," short-press the **【OK】** button again, and the device will immediately execute the restore factory settings operation. Please note that after completing this operation, all settings of the coulomb meter will be reset, and users will need to configure settings again according to their needs.



Figure 2-2-20



3. Wiring Method

KM105F Wiring Steps:

- ① Use a negative wire to connect the battery's negative terminal to the screw on the sampler marked with "B-".
- ② Use a negative wire to connect both the charger's negative terminal and the load's negative terminal to the screw on the sampler marked with "P-".
- ③ Use a positive wire to connect the battery's positive terminal to the small screw on the sampler marked with "V+".

KM110F, KM140F, KM160F Wiring Steps:

- ① Use a negative wire to connect the battery's negative terminal to the screw on the sampler marked with "BATT-".
- ② Use a negative wire to connect both the charger's negative terminal and the load's negative terminal to the screw on the sampler marked with "LOAD-".
- ③ Use a positive wire to connect the battery's positive terminal to the small screw on the sampler marked with "V+".

Precautions:

- ◆ The wire from the battery positive to the sampler's "V+" does not need to be particularly thick; a 13-16AWG wire is sufficient.
- ◆ The negative wires on the sampler's B-, P- (BATT-, LOAD-) terminals must not be connected incorrectly; otherwise, the charging and discharging directions will be reversed, leading to inaccurate measurement data.
- ◆ It is recommended to use copper terminals for connections as they are relatively more secure.
- ◆ The wire diameter from the battery negative to the sampler's negative must be equal to or greater than the total diameter of all load wires.
- ◆ During the wiring process, it is imperative to follow safety protocols and ensure that the wiring is done in a power-off state. It is particularly important to ensure that the battery's positive connection is completely disconnected to avoid any potential risk of electric shock. The recommended procedure is to first connect the sampler section and, after completing this critical step, then safely connect the battery's positive terminal. This sequence ensures

the safety and effectiveness of the entire wiring process.

Meanings of the Display Interface After Wiring Completion:

During charging, the current direction symbol is green "+" and displays charging; the remaining capacity value increases. During discharging, the current direction symbol is sky blue "-" and displays discharging; the remaining capacity value decreases.

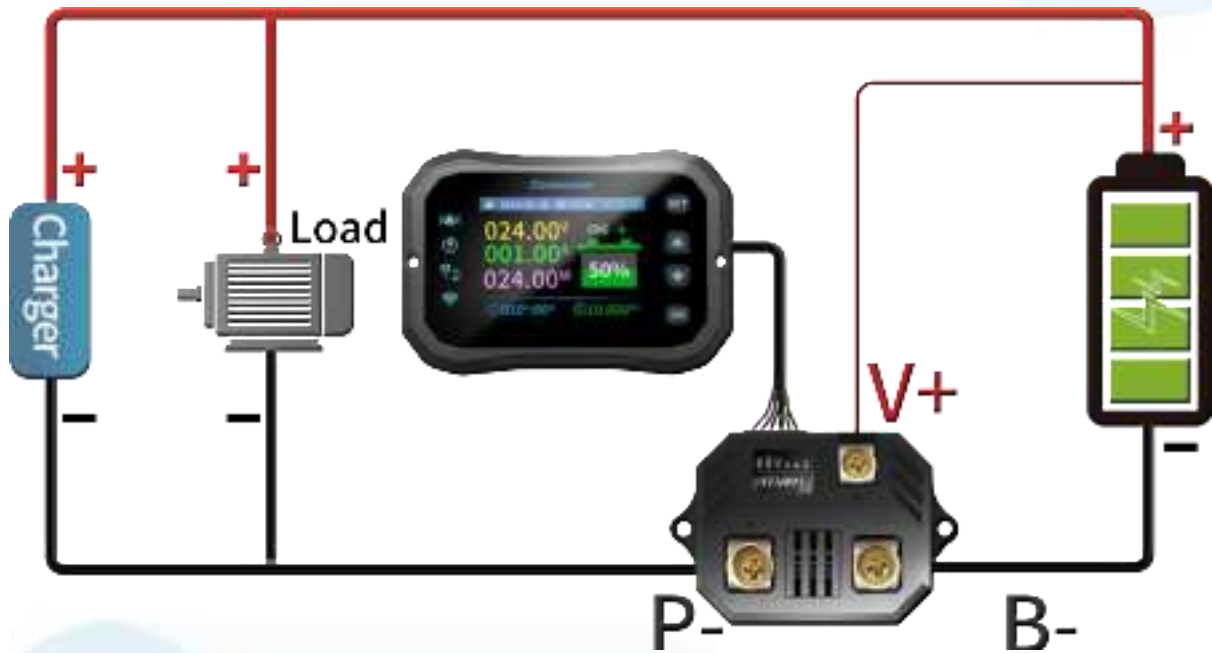


Figure 2-3-1: 50A Sampler Wiring Diagram



Figure 2-3-2: 100A/400A/600A Sampler Wiring Diagram (illustrated with 400A)



4. Getting Started with the Android Mobile App

(1) App Download (For installation and operation demonstration videos, please scan the QR code on the right)

Server Download Link:

<http://68.168.132.244/JunceHome/JunceHome.apk>

If you are unable to download or have trouble downloading, you can contact customer service to obtain the software.

(2) Mobile App Installation and Device Connection

This software only supports Android 9.0 and above. The software requires permission to allow "Junce Home" to access location information and to search for and connect to nearby devices.

Note: Due to limitations of the Android system, please first enable the built-in GPS location service on your phone to search for and connect to Bluetooth devices in the app. **Disclaimer:** This app does not have location-tracking functionality.



Mobile App Installation and Device Connection

(3) Software Update

Click on the app icon. After the app starts, the system will automatically check for updates in the background. If a new version is available, a popup will remind you to update.

(4) App Interface Display

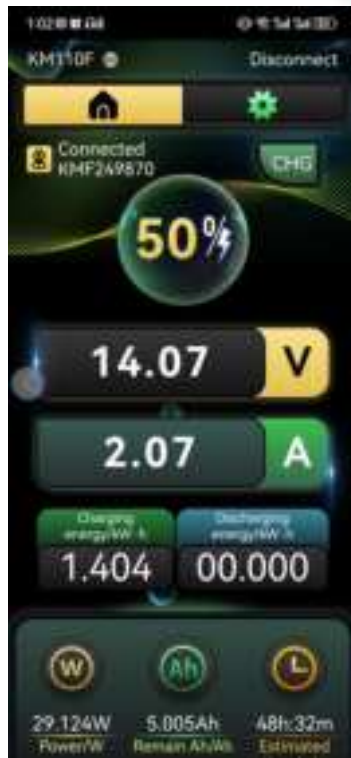


Figure 2-4-1: Main Interface Figure 2-4-2: Settings Interface



5. Getting Started with the iPhone Mobile App

(1) App Download (For installation and operation demonstration videos, please scan the QR code on the right)

Search for "Junce Home" in the Apple App Store to download.

(2) Mobile App Installation and Device Connection

The software only supports iOS 9.0 and above. When connecting Bluetooth for the first time, the software will request access to Bluetooth. Please allow access.

The device connection method is the same as for Android.

(3) Software Update

You can get the latest software from the Apple App Store. Different versions may vary slightly; it is recommended to upgrade to the latest version for a better experience.

(4) App Interface Display

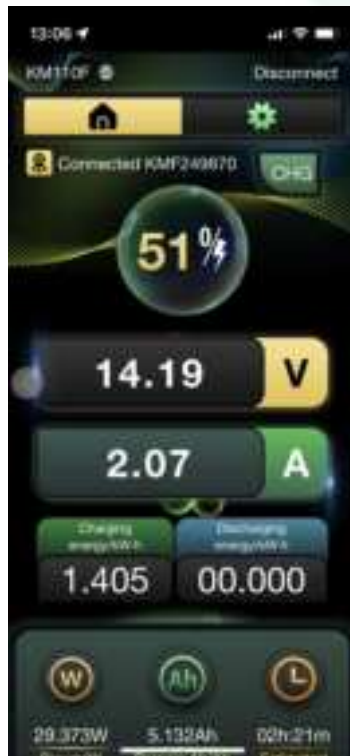


Figure 2-5-1: Main Interface Figure 2-5-2: Settings Interface

III Interface English Names and Abbreviations

English Name	Abbreviation
Charge	CHG
Discharge	DIS
Language and Time Zone	Language & Time zone
Network reset	Network reset
System settings	System reboot
Power percentage	Battery level
Battery capacity	Battery capacity
Alarm function	Alarm
Color scheme	Color scheme
Screen settings	Display
Password settings	Password
Restore factory settings	Factory reset
Low volume alarm	Low cap.
Voltage alarm	Low volt.
Bright colors	Light
Dark	Dark
Brightness	Brightness
Automatic screen shutdown	BL.OFF

