

# KWS-306 User Manual



Model	KWS-306WF	KWS-306L	KWS-306
Voltage Range	AC 85-290V	AC 85-290V	AC 85-290V
Current Range	0-80A	0-80A	0-80A
Power Range	0-23KW	0-23KW	0-23KW
Timing Range	Panel 999 hours / APP 365 days	999 hours	999 hours
Energy Range	0-99999999Kwh	0-99999999Kwh	0-99999999Kwh
Temperature Range	-20 to 150 degrees Celsius	-20 to 150 degrees Celsius	-20 to 150 degrees Celsius
Frequency Range	50-60HZ	50-60HZ	50-60HZ
Power Factor	0.00-1.00PF	0.00-1.00PF	0.00-1.00PF
Power-off Memory	Yes	Yes	Yes
Overvoltage Protection	Yes	Yes	Yes
Undervoltage Protection	Yes	Yes	Yes
Overcurrent Protection	Yes	Yes	Yes

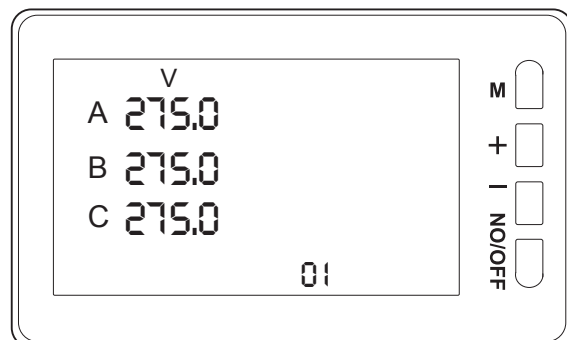
Over Power Protection	Yes	Yes	Yes
Over Energy Protection	Yes	Yes	Yes
Voltage Unbalance Protection	Yes	Yes	Yes
Current Unbalance Protection	Yes	Yes	Yes
Over Temperature Protection	Yes	Yes	Yes
Scheduled Power Off	Yes	Yes	Yes
Cycle Timing	Supported by APP	No	No
Screen Saver Setting	Yes	Yes	Yes
Energy Reset	Yes	Yes	Yes
Timing Reset	Yes	Yes	Yes
Graph Display	Available on APP	Available on PC	No
Wi-Fi	Yes	No	No
485 Communication	No	Yes	No

## Key Instructions

- Press and hold the M key for 3 seconds to enter the setup page.
- For the Wi-Fi version, press and hold the "+" key for 3 seconds until the Wi-Fi icon starts blinking rapidly to initiate Wi-Fi connection.
- Single press the "+" key to switch the display between KW or PF.
- Single press the "-" key to switch between A-phase energy, B-phase energy, C-phase energy, SUM total energy, total power, and timing.

### 1. Overvoltage Setting

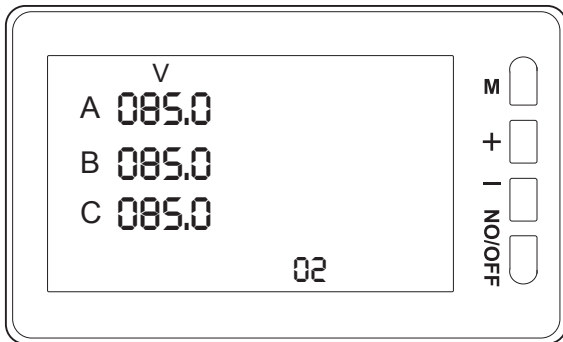
- Enter the settings by pressing the M button until you reach the screen shown below. The display will show the code "01". Use the "+" and "-" keys to adjust to the value you need.
- Press the "+" or "-" key once to adjust by 1V. Hold down the "+" or "-" key for fast increment or decrement.
- Press and hold the M key for 3 seconds to save and return to the main page.
- Press the M key briefly to proceed to the next setting, as shown in (figure 1).



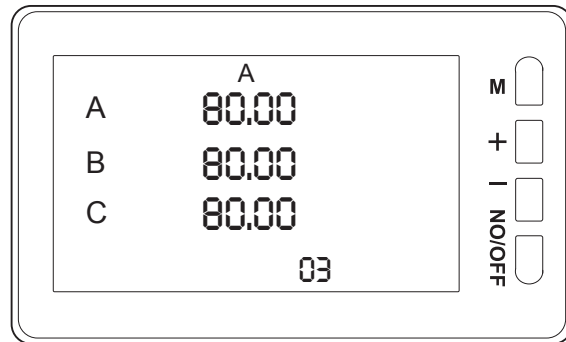
(figure 1)

## 2. Undervoltage Setting

- Enter the settings by pressing the M button until you reach the screen shown below, where the display will show the code "02". Use the "+" and "-" keys to adjust to the value you need.
- Press the "+" or "-" key once to adjust by 1V. Hold down the "+" or "-" key for fast increment or decrement.
- Press and hold the M key for 3 seconds to save and return to the main page.
- Press the M key briefly to proceed to the next setting, as shown in (figure 2).



(figure 2)



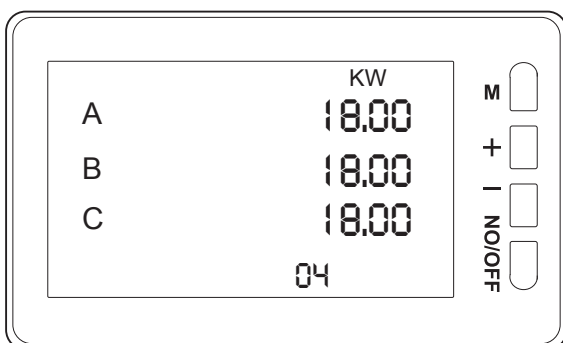
(figure 3)

## 3. Overcurrent Setting

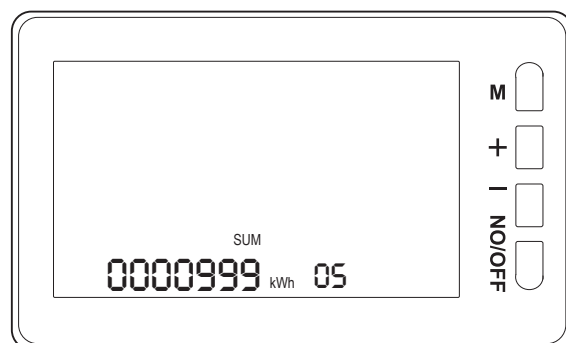
- Enter the settings by pressing the M button until you reach the screen shown above, where the display will show the code "03". Use the "+" and "-" keys to adjust to the value you need.
- Press the "+" or "-" key once to adjust by 1A. Hold down the "+" or "-" key for fast increment or decrement.
- Press and hold the M key for 3 seconds to save and return to the main page.
- Press the M key briefly to proceed to the next setting, as shown in (figure 3).

## 4. Overpower Setting

- Enter the settings by pressing the M button until you reach the screen shown below, where the display will show the code "04". Use the "+" and "-" keys to adjust to the value you need.
- Press the "+" or "-" key once to adjust by 1W. Hold down the "+" or "-" key for fast increment or decrement.
- Press and hold the M key for 3 seconds to save and return to the main page.
- Press the M key briefly to proceed to the next setting, as shown in (figure 4).



(figure 4)



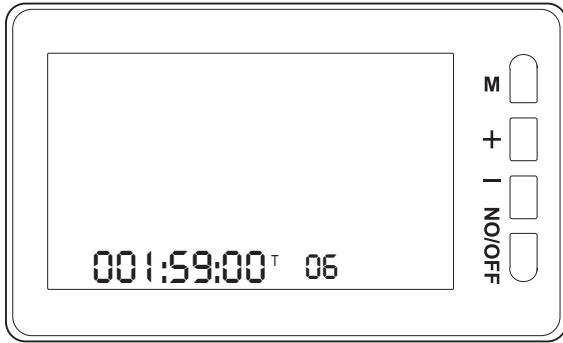
(figure 5)

## 5. Excess Energy Setting

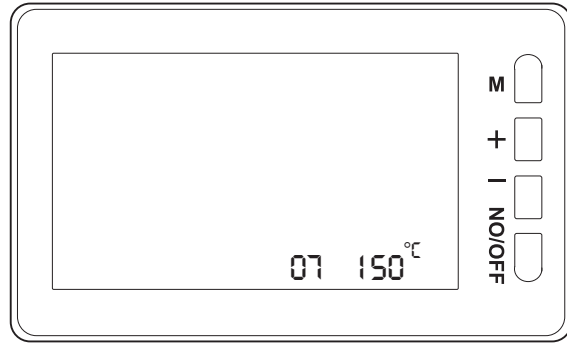
- Enter the settings by pressing the M button until you reach the screen shown above, where the display will show the code "05". Use the "+" and "-" keys to adjust to the value you need.
- Press the "+" or "-" key once to adjust by 1 kWh. Hold down the "+" or "-" key for fast increment or decrement.
- Press and hold the M key for 3 seconds to save and return to the main page.
- Press the M key briefly to proceed to the next setting, as shown in (figure 5).

## 6. Timed Power-Off Setting

- Enter the settings by pressing the M button until you reach the screen shown below, where the display will show the code "06". Use the "+" and "-" keys to adjust to the value you need.
- Press the "+" or "-" key once to adjust by 1 minute. Hold down the "+" or "-" key for fast increment or decrement.
- Press and hold the M key for 3 seconds to save and return to the main page.
- Press the M key briefly to proceed to the next setting, as shown in (figure 6).



(figure 6)



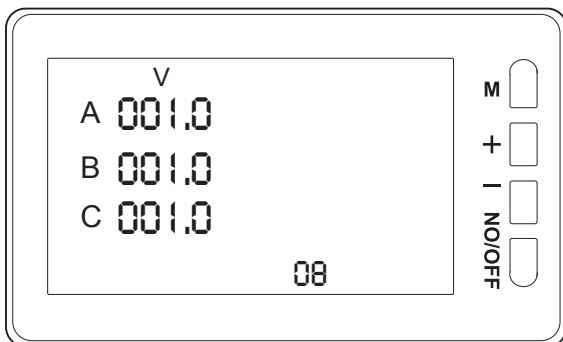
(figure 7)

## 7. Over-Temperature Power-Off Setting

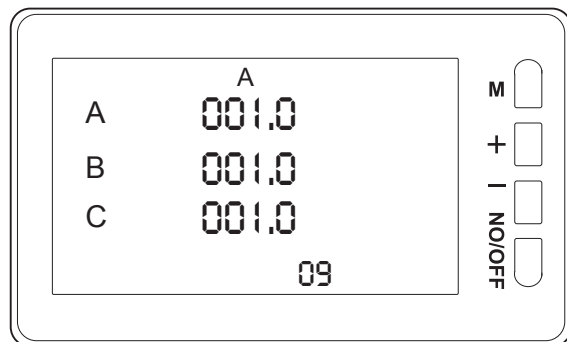
- Enter the settings by pressing the M button until you reach the screen shown above, where the display will show the code "07". Use the "+" and "-" keys to adjust to the value you need.
- Press the "+" or "-" key once to adjust by 1 degree. Hold down the "+" or "-" key for fast increment or decrement.
- Press and hold the M key for 3 seconds to save and return to the main page.
- Press the M key briefly to proceed to the next setting, as shown in (figure 7).

## 8. Voltage Imbalance Power-Off Setting

- Enter the settings by pressing the M button until you reach the screen shown below, where the display will show the code "08". Use the "+" and "-" keys to adjust to the value you need.
- Press the "+" or "-" key once to adjust by 1V. Hold down the "+" or "-" key for fast increment or decrement.
- Press and hold the M key for 3 seconds to save and return to the main page.
- Press the M key briefly to proceed to the next setting, as shown in (figure 8).



(figure 8)



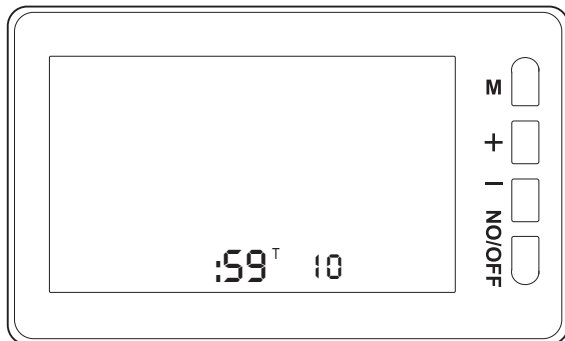
(figure 9)

## 9. Current Imbalance Power-Off Setting

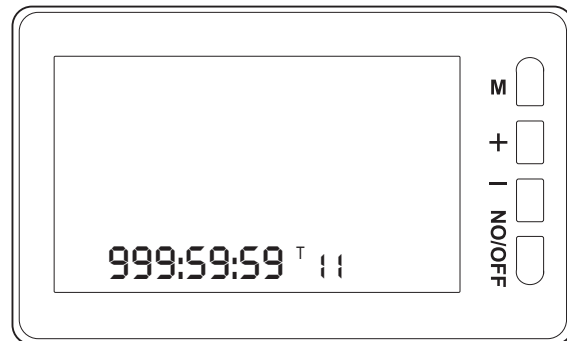
- Enter the settings by pressing the M button until you reach the screen shown above, where the display will show the code "09". Use the "+" and "-" keys to adjust to the value you need.
- Press the "+" or "-" key once to adjust by 0.1A. Hold down the "+" or "-" key for fast increment or decrement.
- Press and hold the M key for 3 seconds to save and return to the main page.
- Press the M key briefly to proceed to the next setting, as shown in (figure 9).

## 10. Screen Saver Setting

- Enter the settings by pressing the M button until you reach the screen shown below, where the display will show the code "10". Use the "+" and "-" keys to adjust to the value you need.
- Press the "+" or "-" key once to adjust by 1 minute. Hold down the "+" or "-" key for fast increment or decrement.
- Press and hold the M key for 3 seconds to save and return to the main page.
- Press the M key briefly to proceed to the next setting. The maximum setting for the screen saver is 59 minutes, As shown in (figure 10).



(figure 10)



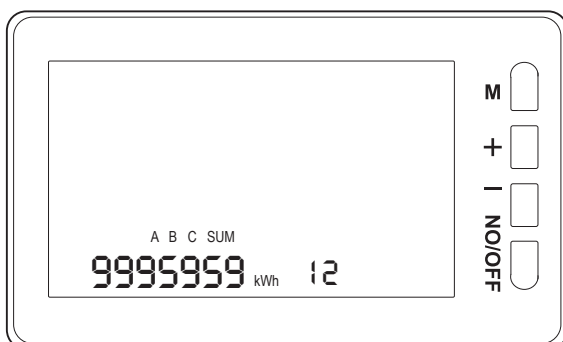
(figure 11)

## 11. Timer Reset

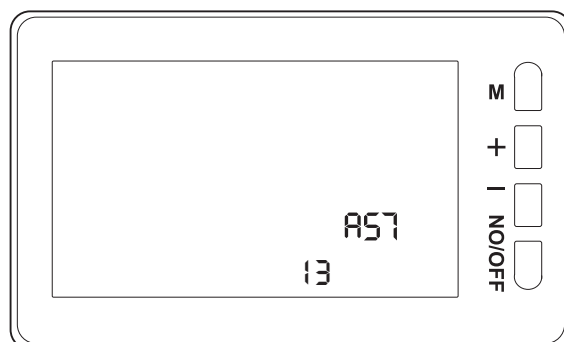
Enter the settings by pressing the M button until you reach the screen shown above, where the display will show the code "11". Then press the "-" key to reset the timer. As shown in (figure 11).

## 12. Power Reset

Enter the settings by pressing the M button until you reach the screen shown below, where the display will show the code "12". Then press the "-" key to simultaneously reset the power for A box, B box, C box, and the total power (SUM). As shown in (figure 12).



(figure 12)



(figure 13)

## 13. Factory Reset

Enter the settings by pressing the M button until you reach the screen shown above, where the display will show the code "13". Then, hold the "-" key for about 5 seconds until "RST" appears on the screen, indicating that the factory reset has been successful. As shown in (figure 13).

## Factory Default Values:

01 Overvoltage: 275.0V

02 Undervoltage: 85.0V

03 Overcurrent: 80.00A

04 Overpower: 18.00 KW

05 Over Energy: 0000000 kWh

06 Timer Power-off Setting: 000:00:00 T

07 Overtemperature Power-off Setting: 150 degrees

14 Communication Address is 001. **This function is only available for versions with RS485.**

08 Voltage Imbalance Setting: 000.0V

09 Current Imbalance Setting: 000.0A

10 Screen Saver Setting: 00T

11 Timer Reset

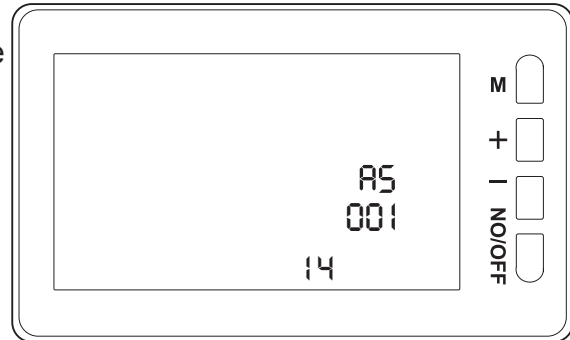
12 Power Reset

## 14. Communication Address Setting (This feature is only available for models with RS485)

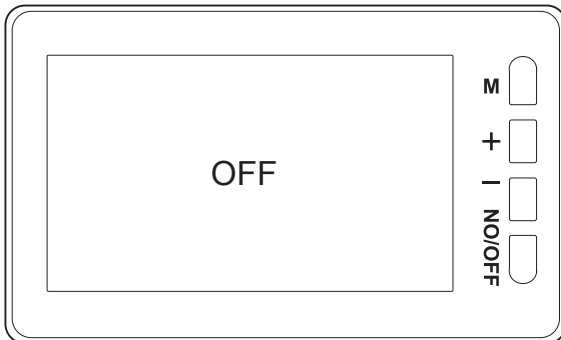
Enter the settings by pressing the M button until you reach the screen shown below, where the display will show the code "14".

Press the "+" or "-" key once to change the address by one unit. Hold down the "+" or "-" key for fast increment or decrement.

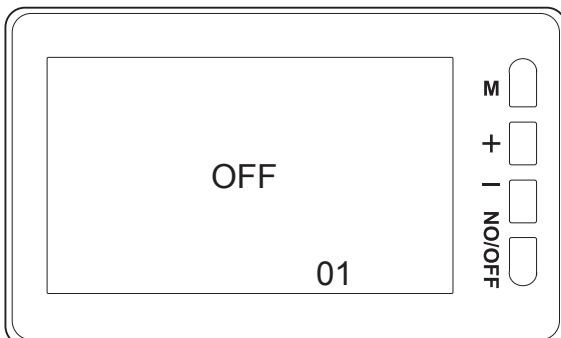
Press and hold the M key for 3 seconds to save and return to the main page.



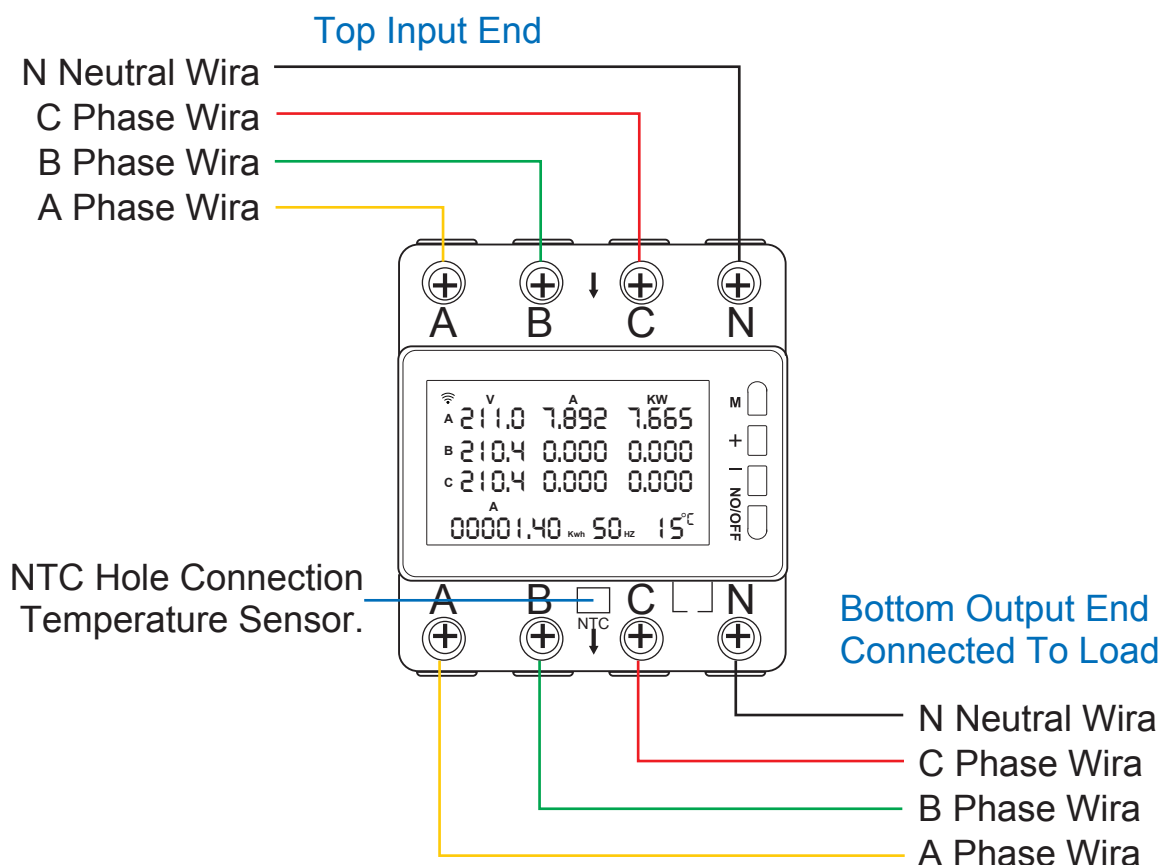
Press the power-off button manually to disconnect the magnetic contactor as shown in the figure below.



If the system automatically shuts down and powers off due to protection, it will be displayed as shown in the figure below. A code will appear in the bottom right corner. Use this code to check above which setting is causing the issue.



# Wiring Diagram



## Precaution

1. Users should read and understand the instruction manual in detail, and use the product according to the requirements of the instruction manual.
2. During installation and use, the power must be disconnected before wiring to avoid the risk of electric shock.
3. The product must be used according to the location and must not exceed the usage parameters specified in the product specifications.
4. If the product malfunctions, stop using it immediately.
5. Non-professionals should not use tools to disassemble electrical appliances or alter internal wiring.

## Three Guarantees Quality Commitment

1. All products are fully warranted. If customers find any quality issues that are attributable to our responsibility, we will provide an unconditional exchange. The warranty period for the products during the service period is one year.
2. The product must not be modified or disassembled privately, nor exceed the scope of its intended use. If the product is damaged due to human actions, we do not provide free exchanges, returns, or repairs. However, we can offer a chargeable repair service, with specific fees based on the extent of the damage.

## Packing List

Test Bench Main Unit \*1 / Temperature Sensor \*1 / User Manual \*1 / (KWS-306L version RS485 Connection Cable) \*1

# KWS-306 Distribution Instruction Manual

## APP

### Step 1

The APP can be downloaded by scanning the code or by searching in the mobile phone software center.(Smart Life APP or Graffiti Smart APP).



Installing Software



Use the Smart Life App  
or Tuya Smart App



Graffiti Smart APP

### Step 2

WIFI Connection or Reset Operation: On the home screen, press and hold the "+" button until the WIFI icon in the top-right corner of the screen starts flashing, then open the mobile APP to connect.



Step One



Step Two

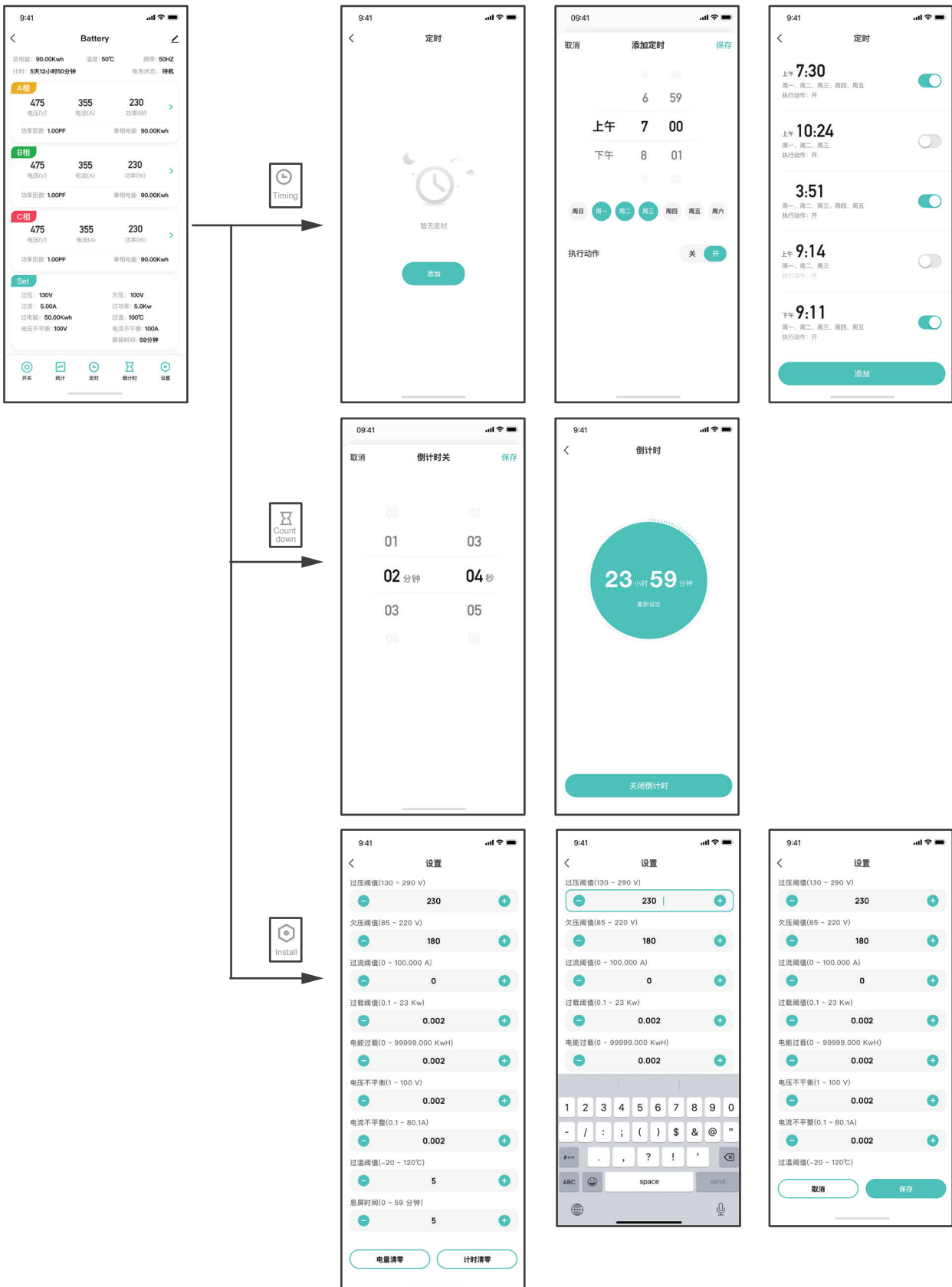


Step Three



Step Four

# Function Display



Click the corresponding input box to enter the editing state, get the focus and pop up the numeric keypad, and click the "+" and "-" icons during the input process to make fine adjustments. Tap the blank space outside the input box, collapse the keypad, and record the changed values. After entering the editing state, you need to "Cancel" or "Save" to restore the normal page, regardless of whether you modify it or not. After modifying the settings, you need to click Save to save the corresponding settings, and the toast prompts "Save Success" after saving.



The statistics of Phase B and Phase C are the same as those of Phase A

