



HALDISP7 LCD Display Instruction Manual

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1. Product Features

1. 7 -inch LCD screen with 1024 × 600 resolution
2. Graphical menu design with rich display content
3. Adjustable screen brightness & backlight time, featuring one-touch screen-off
4. Dark mode for comfortable reading
5. Supports multi-screen cascading with HALDISP4 displays
6. Controls HALCOMMHUB switch operations
7. Customizable shortcut keys for frequent functions
8. Industrial-grade design with strong anti-interference capability

2. Device Connection Introduction

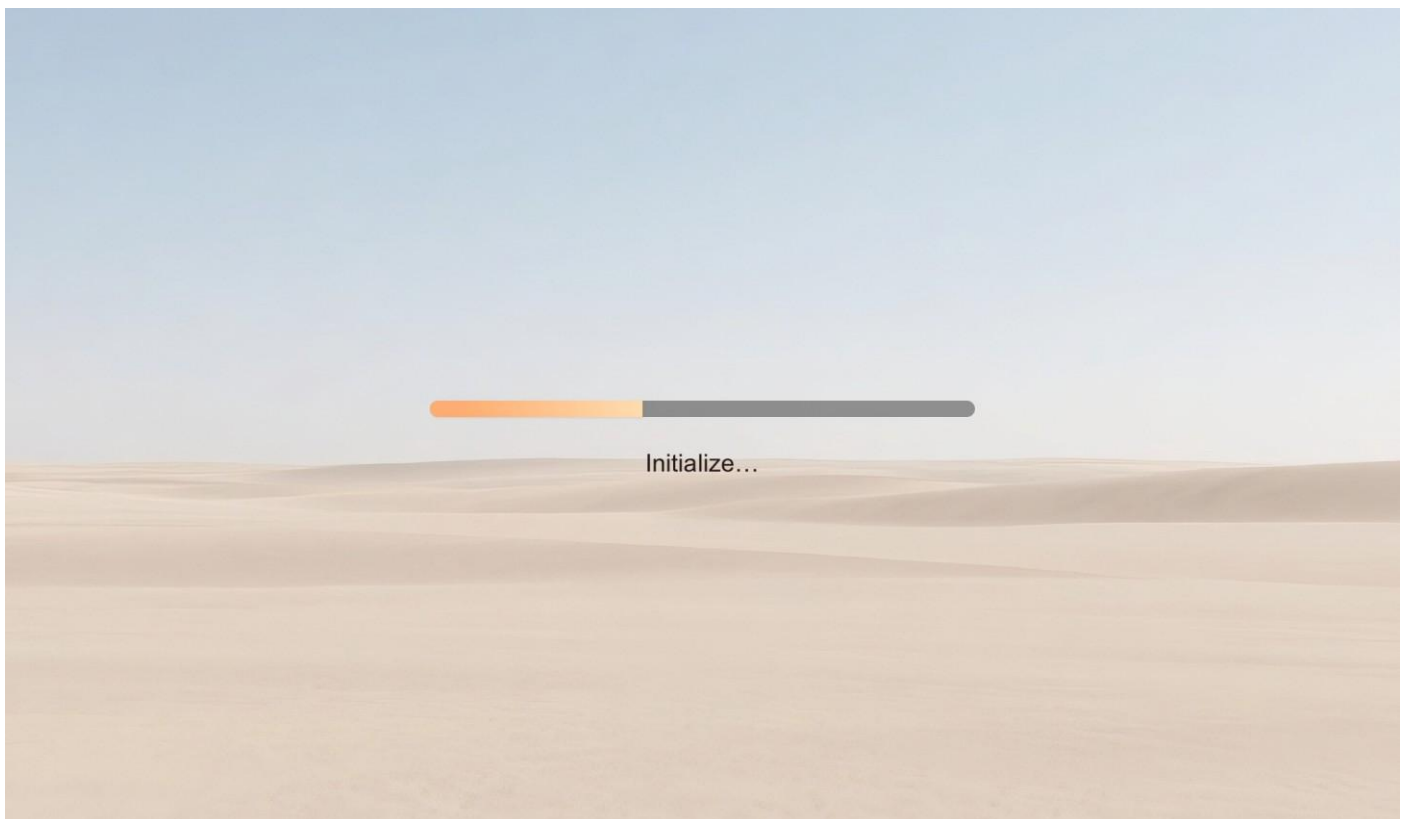
HALCOMMHUB can be connected as a standalone device.

3. HALDISP7 Interface Display

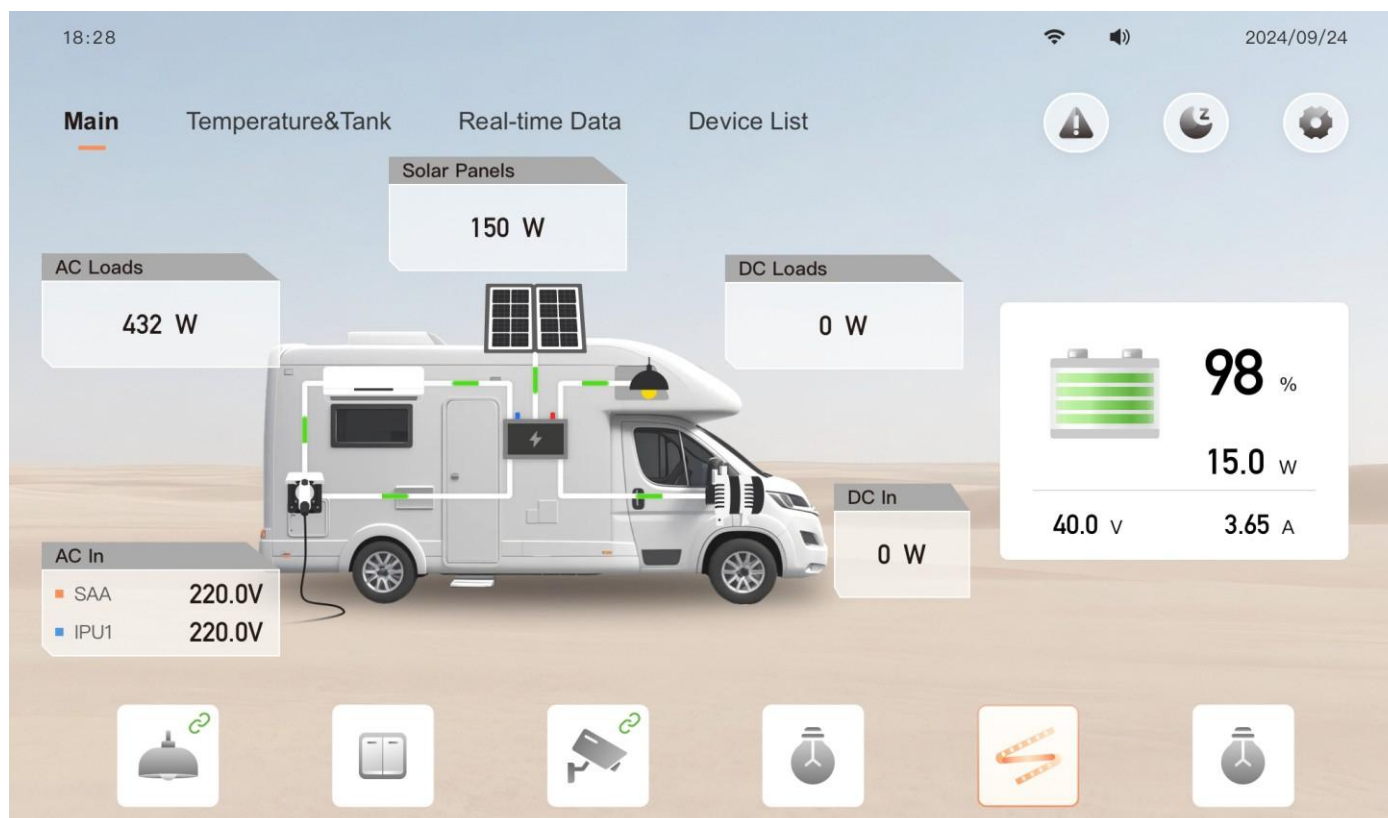
3.1 Main Interface Display

3.1.1 Loading Interface & Main Interface

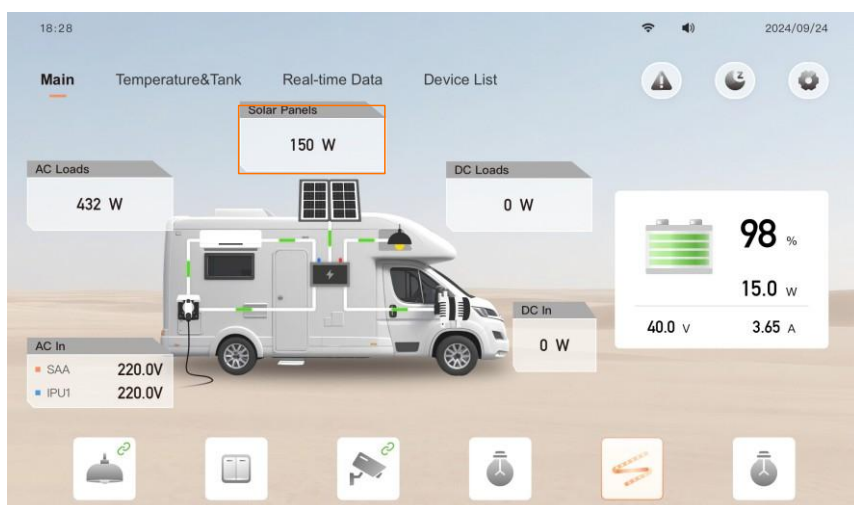
When the HALCOMMHUB main controller is connected, the HALDISP7 loading screen and main interface are displayed as shown below:



The main interface allows switching between “House Mode” and “RV Mode” in Settings (see section 4.2.1 Screen Settings). The display mode can be changed according to your usage scenario. All subsequent examples in this manual will use RV Mode for demonstration. The House Mode offers equivalent features and functionality. Display examples are shown below:

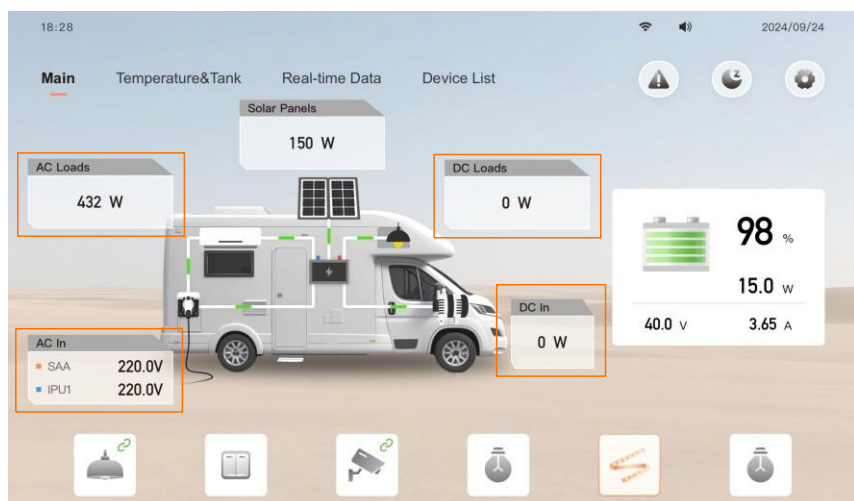


3.1.2 Photovoltaic Parameter Display



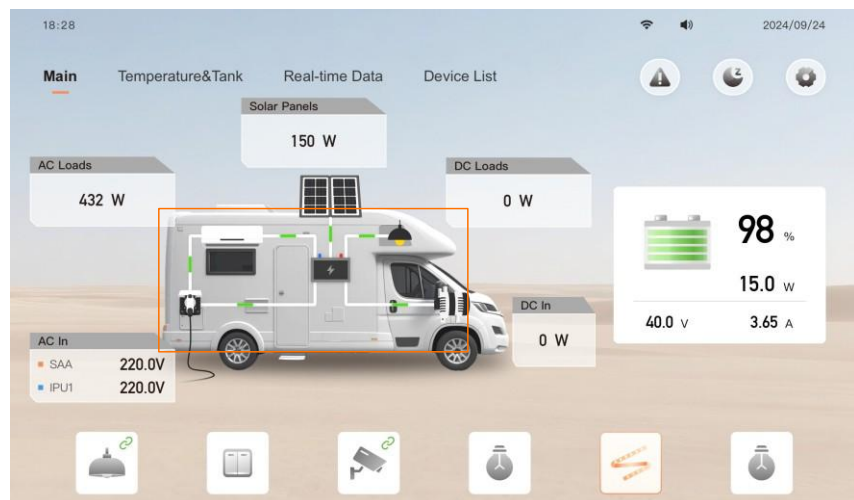
Press and hold the parameter display button for approximately 2 seconds to toggle between voltage, current, and power readings.

3.1.3 Input & Output Parameter Display

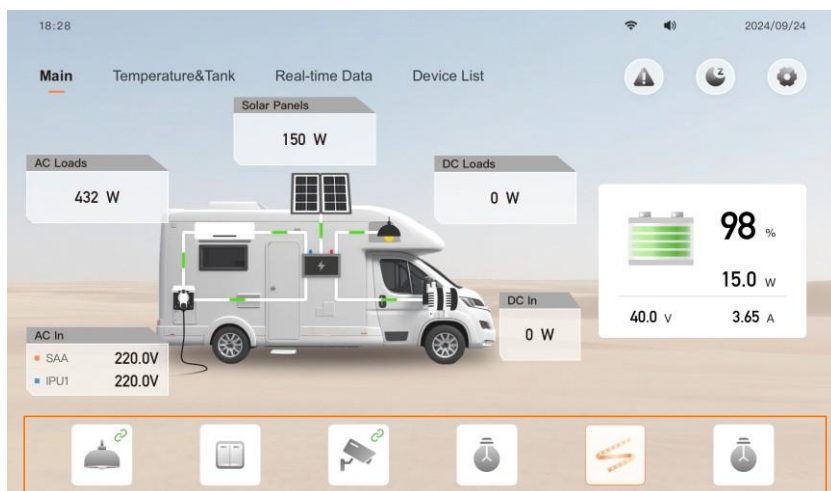


Press and hold the parameter display button for approximately 2 seconds to toggle between voltage, current, and power readings.

3.1.4 Device Data and Status

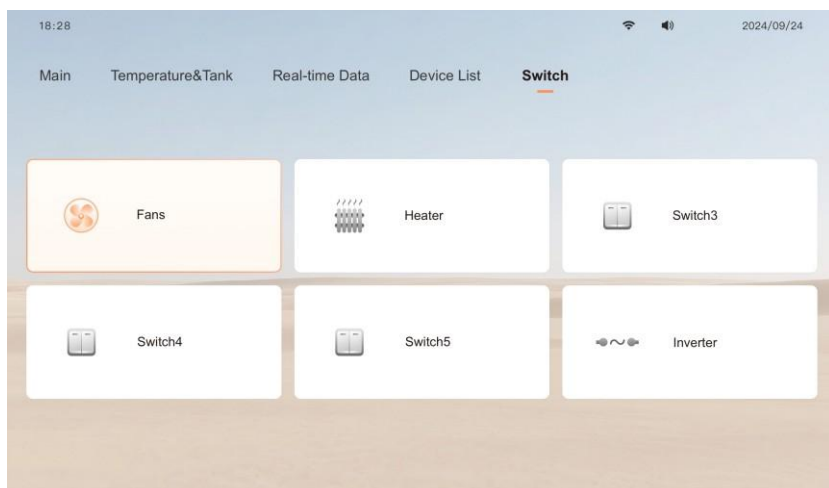


3.1.5 Switch Function

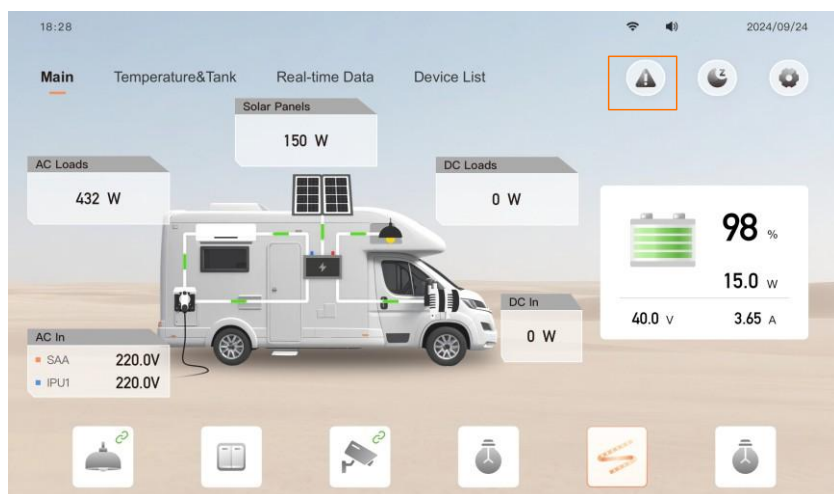


The load switch can be controlled by clicking the corresponding icon to enable/ disable its function.

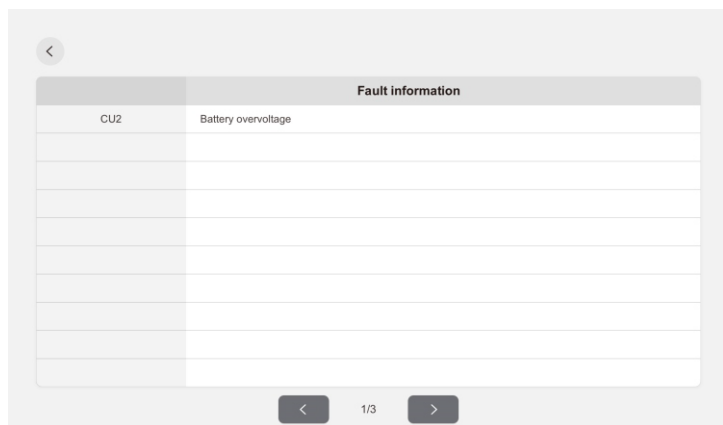
The connection of the HALCOMMHUB device switch is shown below:



3.1.6 Fault Indication

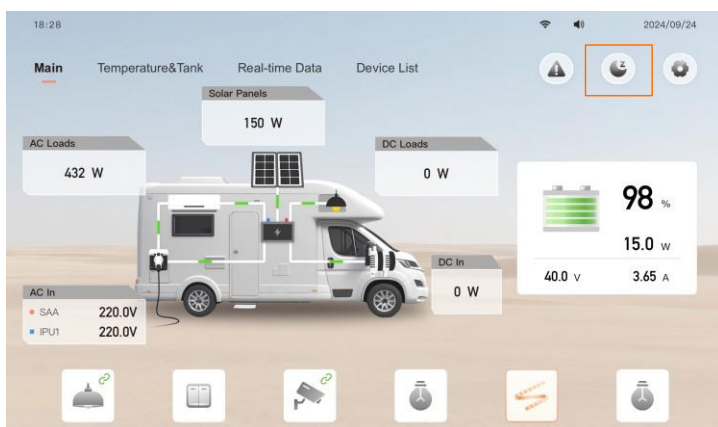


Fault Indication: The icon will flash when a fault is detected.



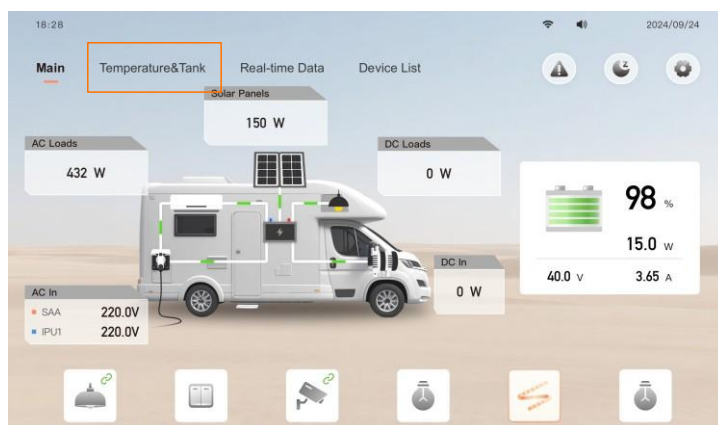
Tap to view fault list.

3.1.7 Screen-Off Function



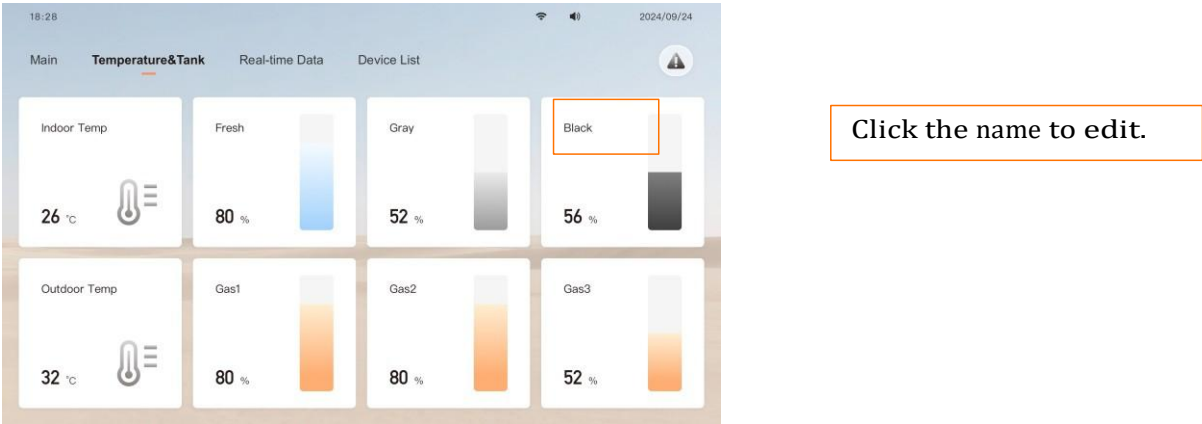
Screen-Off Button: Tap to turn off the display when not in use. While the screen is off, touch any area to wake the device.

3.1.8 Temperature & Liquid Level Display



To view temperature and liquid level readings, press this button to toggle between displays.

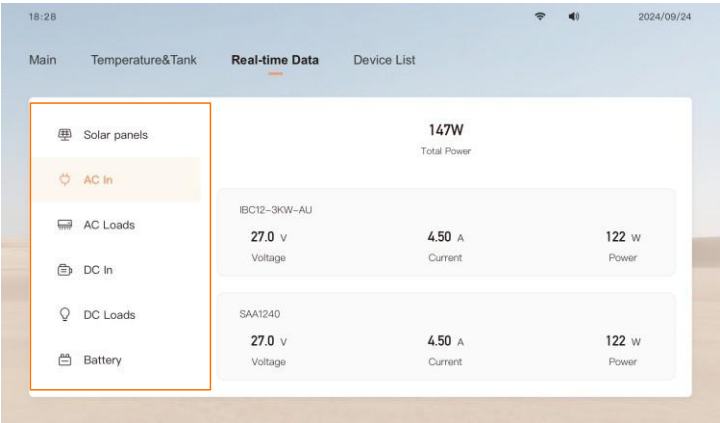
Temperature and Liquid Level Interface Diagram:
For example, CH1 port displays temperature readings, while other ports can be connected and configured according to user requirements.



3.1.9 Real-Time Data Display

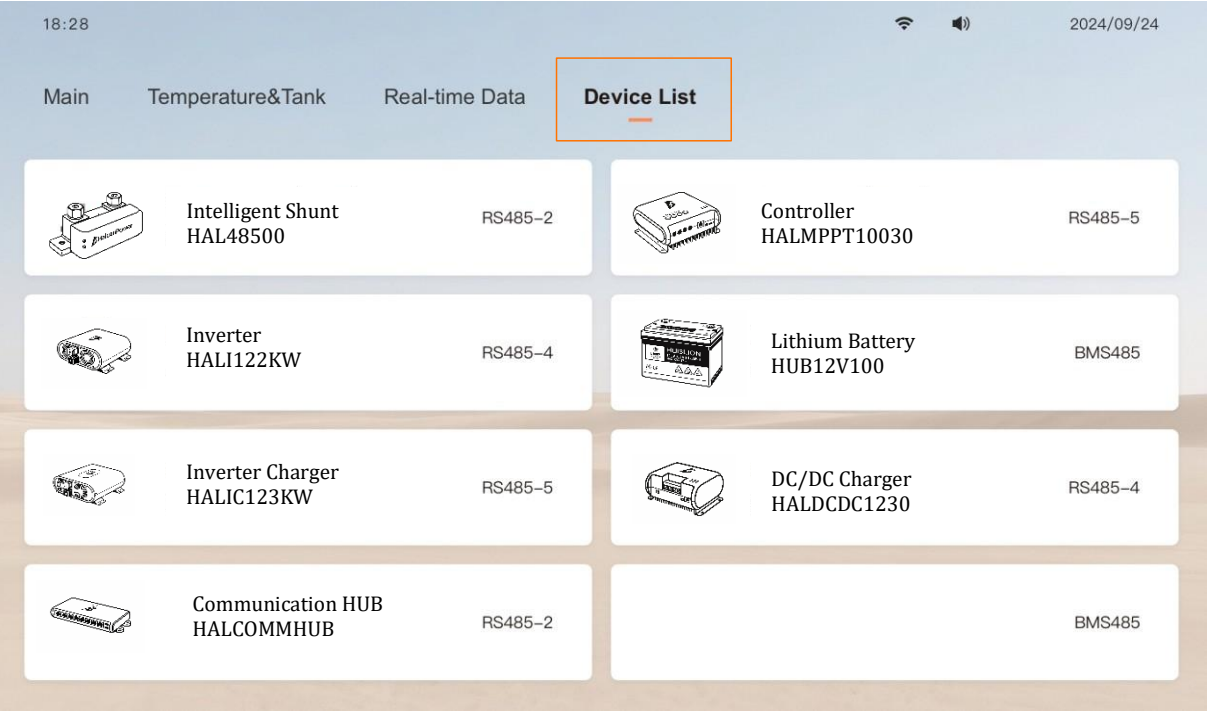
Real-time data display includes: PV (photovoltaic) voltage, current, and power; AC input/output voltage, current, and power; Battery information SOC%, power, voltage and current.

Example battery data readings are shown below:



3.1.10 Device Listing

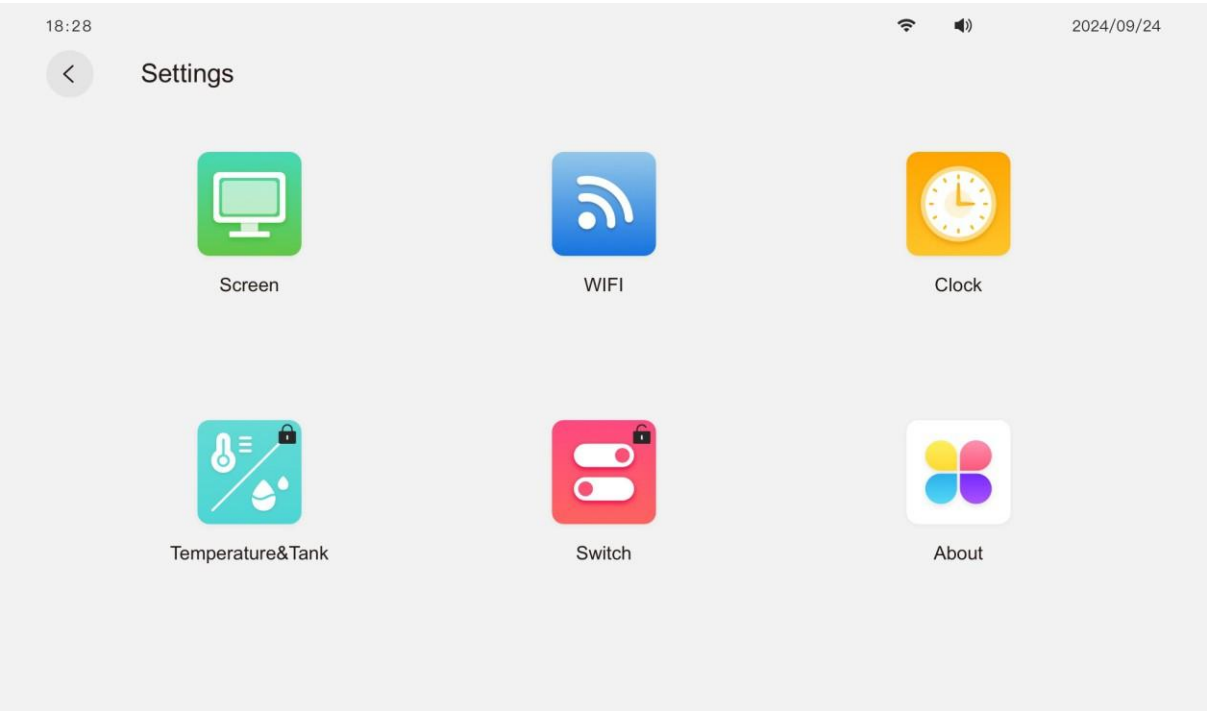
Connected device information can be viewed.



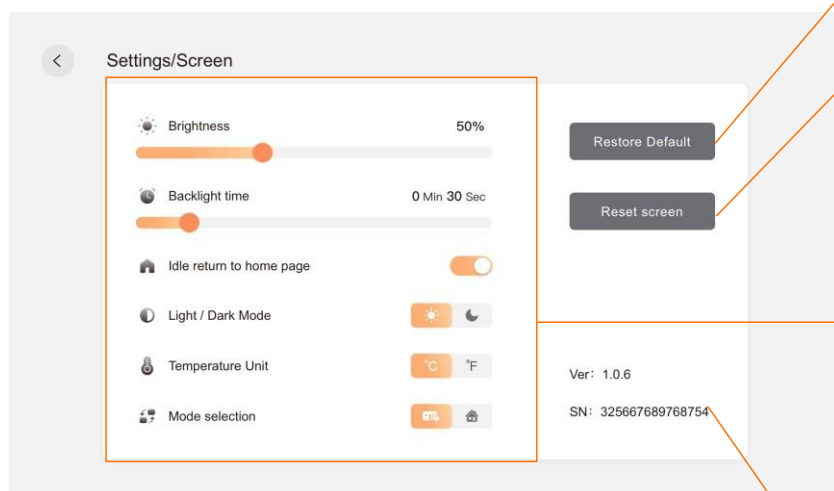
3.2 Interface Settings

Settings includes: screen settings; WIFI connection; clock settings; temperature & liquid level settings (password-protected, default: "123456"); switch controls (password-protected, default:"123456"); device Information.

The settings interface is displayed as follows:



3.2.1 Screen Settings



Restore default screen Settings

Restart Screen button. Click to restart the screen immediately

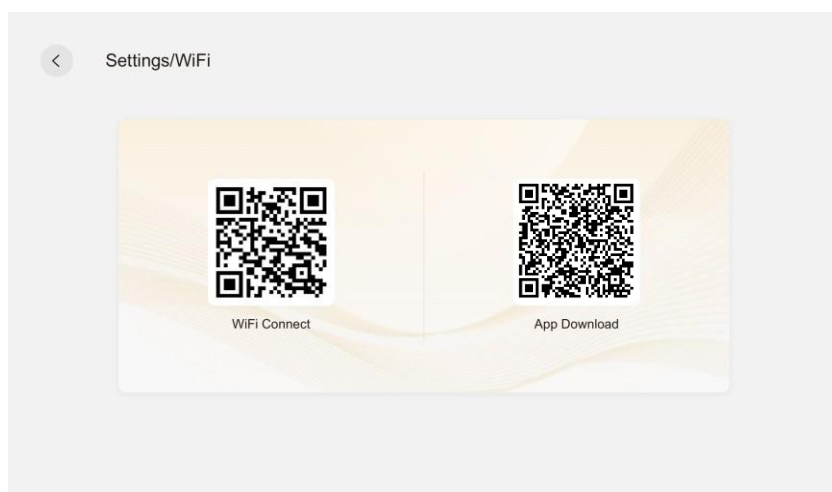
From top to bottom:

- Screen brightness is customizable
- The return-to-home delay time is adjustable
- Return-to-Home Toggle (When the delay ends, the system automatically returns to the home screen)
- Day/Night Mode Toggle
- To change temperature units: Press the °C or °F button to select your preferred unit
- Home/RV Mode Switch

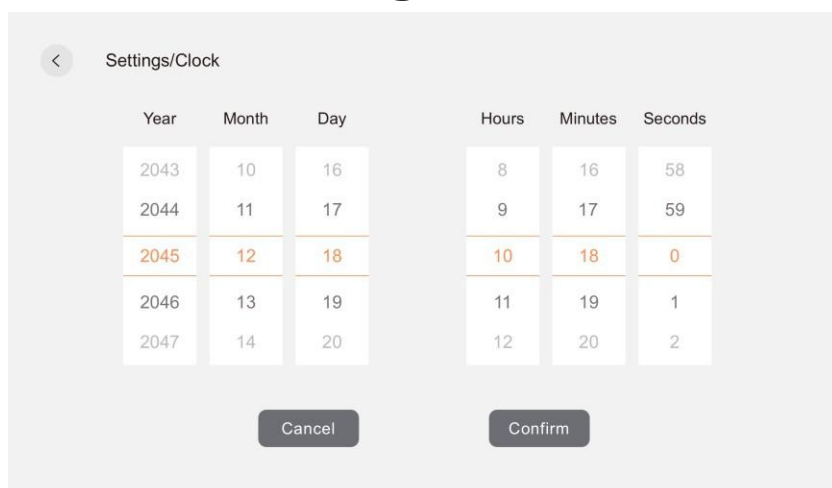
Version number and Serial Number

3.2.2 WIFI Connection Setting

Users can scan and connect to download the corresponding app. The WIFI connection setup interface is shown below:



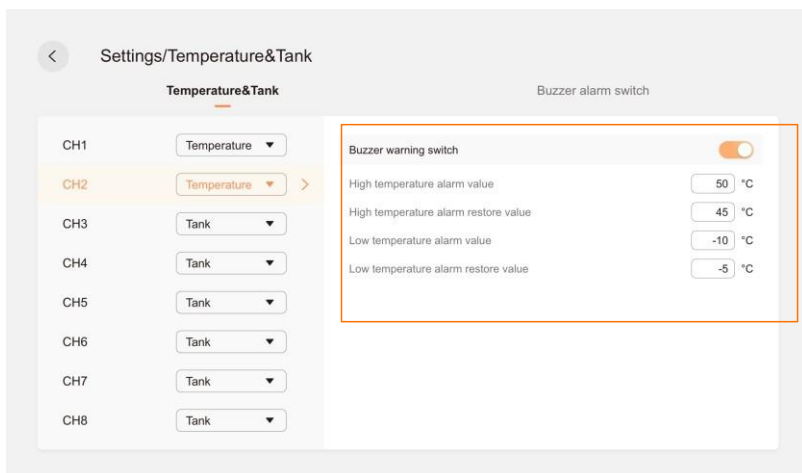
3.2.3 Clock Setting



Users can customize the time settings according to their preferences.

3.2.4 Temperature & Liquid Level Settings

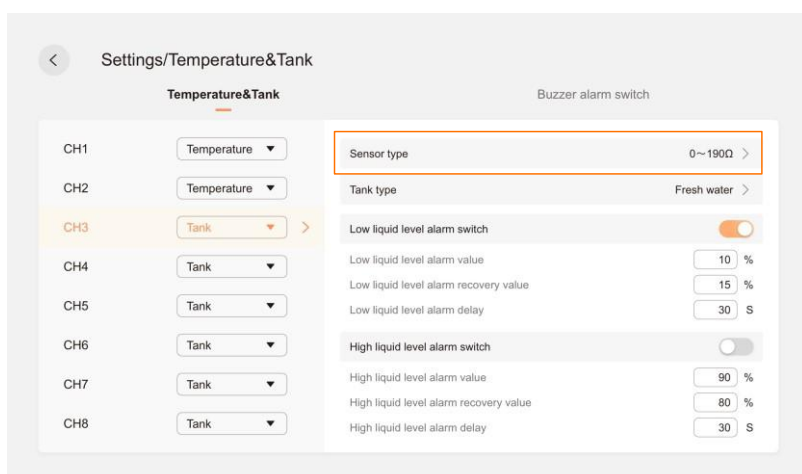
(1) Temperature settings is shown as follows :



From top to bottom:

- Temperature Buzzer Alarm Switch – Can be manually turned on/off.
- Upper Temperature Limit Setting – If the temperature exceeds this value, the screen will display a fault warning.
- High-Temperature Recovery Threshold – If the temperature drops below this value, the screen will no longer show a fault warning.
- Lower Temperature Limit Setting – If the temperature falls below this value, the screen will display a fault warning.
- Low-Temperature Recovery Threshold – If the temperature rises above this value, the screen will no longer show a fault warning.

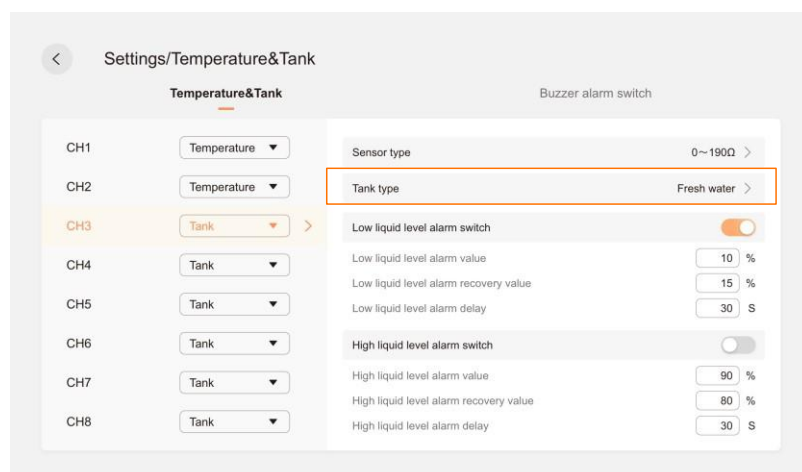
(2) Tank settings is shown as follows :



The sensor types can be classified as :

- (1) 0-190 Ω
- (2) 240-33 Ω
- (3) Voltage type
- (4) User-defined

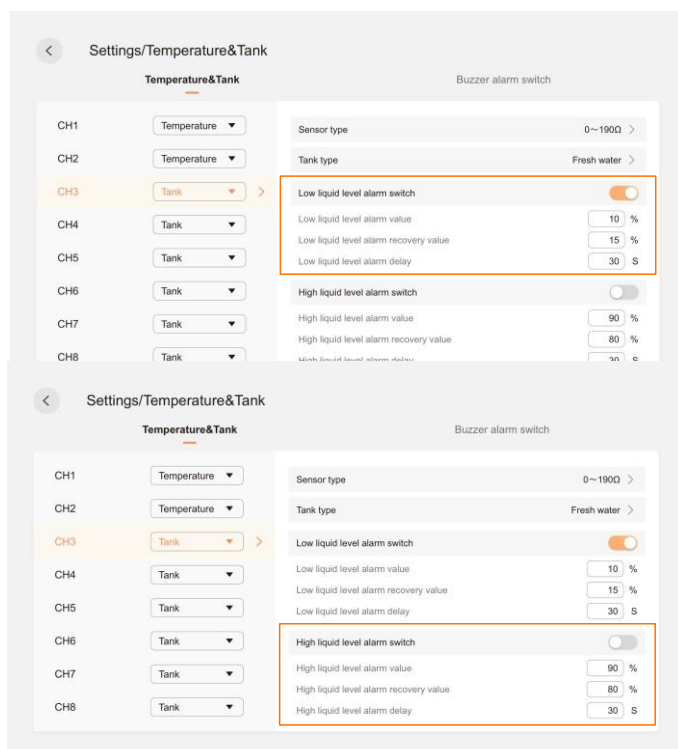
Sensor types are user-selectable.



Liquid Type Selection:

Fresh Water, Gray Water, Black Water, Unboiled Water, Hot Water, Gasoline, Diesel Oils, Other Oils, Hydraulic Fluid Oils, Fuel.

User-selectable with one-touch switching.

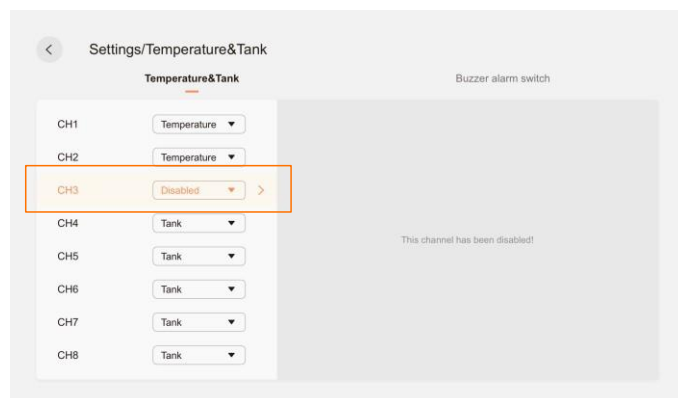


From top to bottom:

- Liquid Level Low Alarm Switch - Can be manually enabled/disabled
- Liquid Level Lower Limit Setting - When level falls below this value, the screen will display a fault warning
- Liquid Level Lower Limit Recovery Setting - When level rises above this value, the screen will clear the fault warning
- Liquid Level Low Alarm Duration Setting

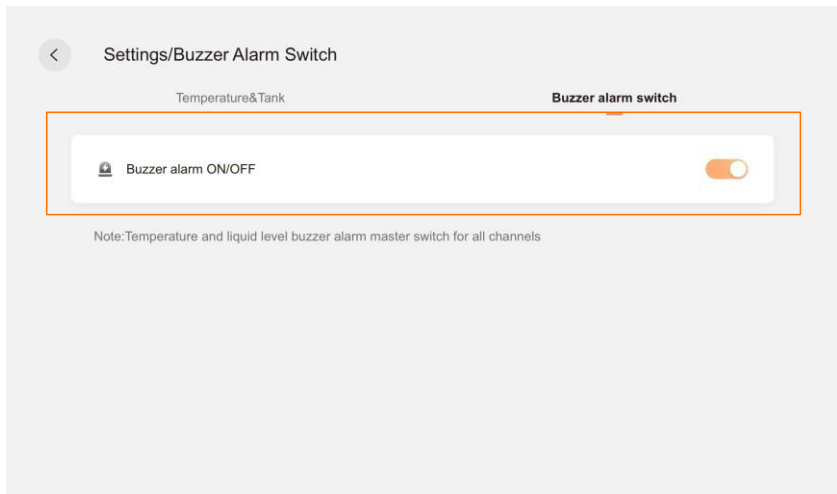
Click the preset value option you wish to modify and adjust the numerical value.

(3) No status shown



When switched to “Disabled”, the page does not show whether the port actually has a device or not

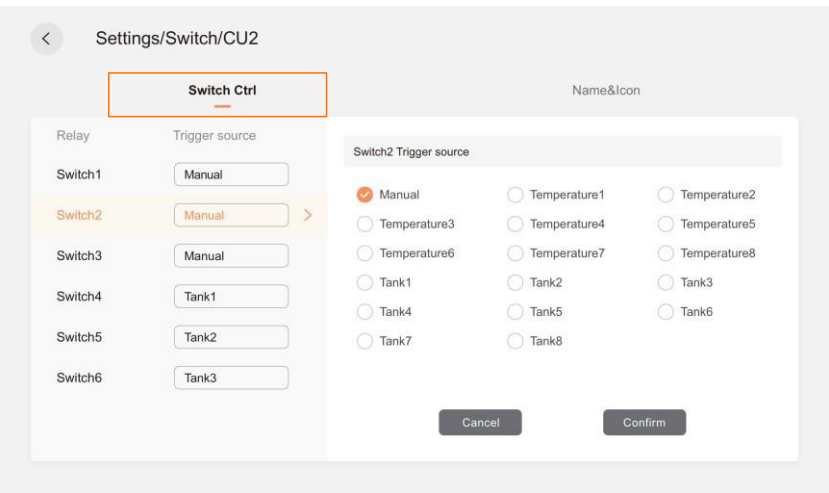
(4) Buzzer alarm switch Settings



The buzzer alarm switch can be opened or closed by clicking.

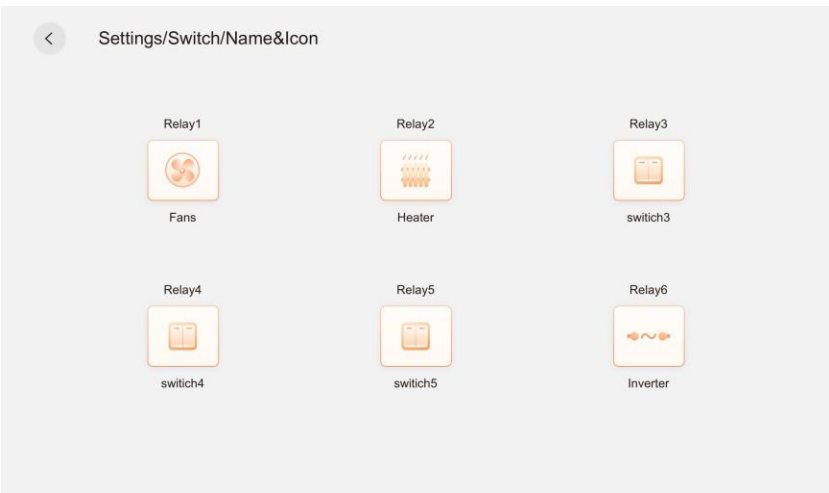
3.2.5 Switch Settings

Navigate to Settings > Switch to access the switch configuration interface. This menu allows functional assignment for all switches.



Select the corresponding function switch

Tap Name & Icon to enter the switch label/icon settings interface. Select any switch to modify its settings.



Settings/Switch/Edit Switch

Button Name:  Button Enable/Disable: ☒

Select an icon for the button:



q w e r t y u i o p

a s d f g h j k l

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Click the switch to customize its name. The right-side switch can be toggled between enabled and disabled states.

Click the icon you wish to modify to edit the corresponding switch settings.

Customize Switch Name

Settings/Switch/Edit Switch

Button Name:  Button Enable/Disable: ☒

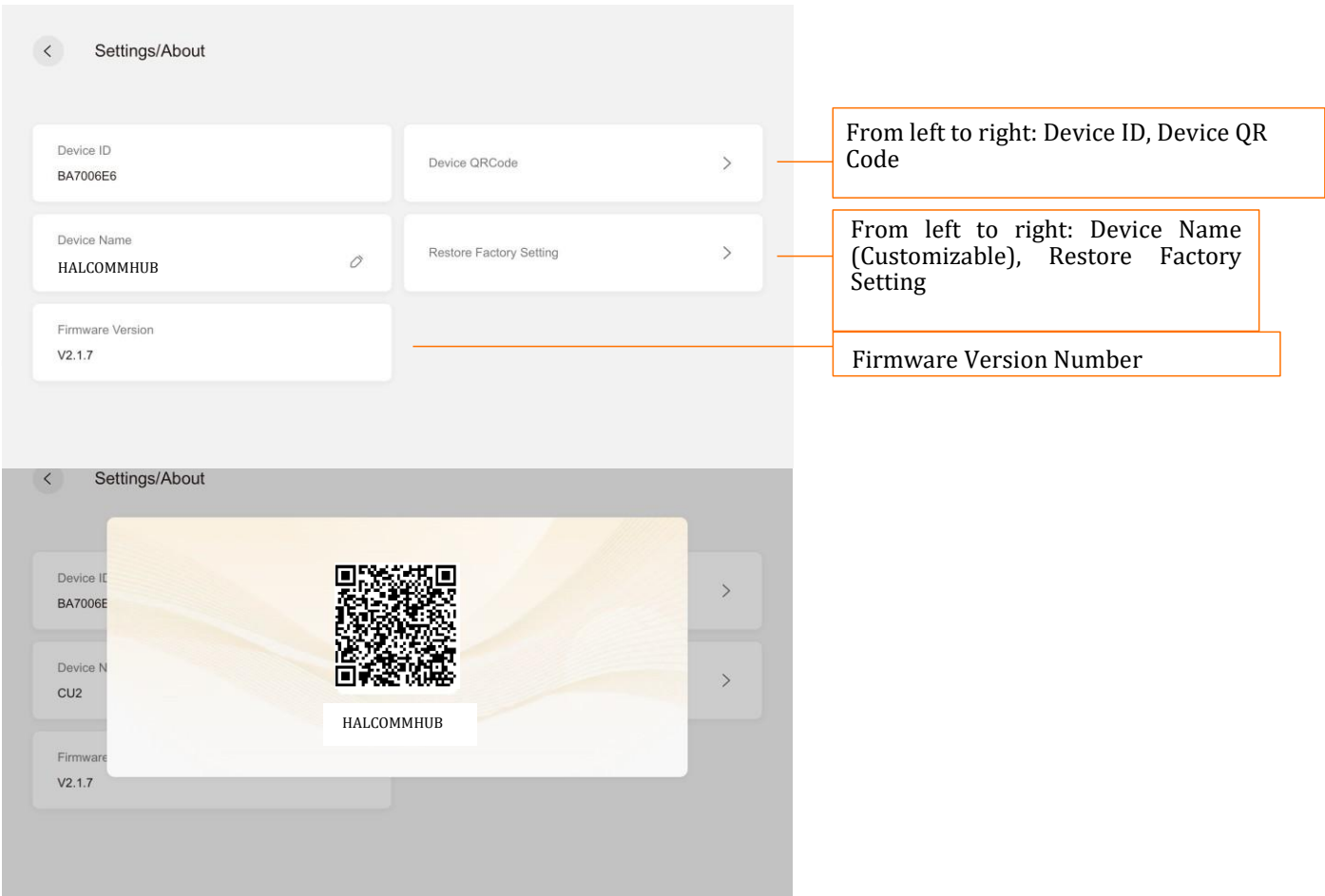
Select an icon for the button:

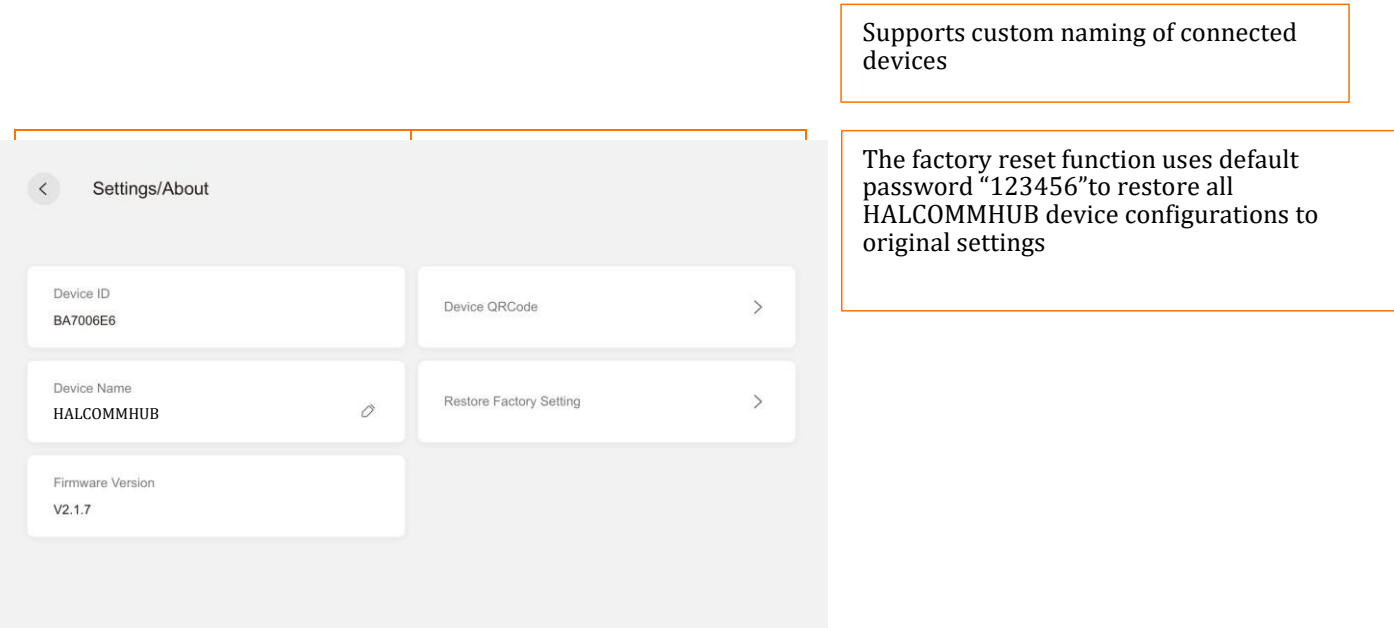
After completing the settings, click "Confirm" to apply the changes successfully.

3.3 About the Device

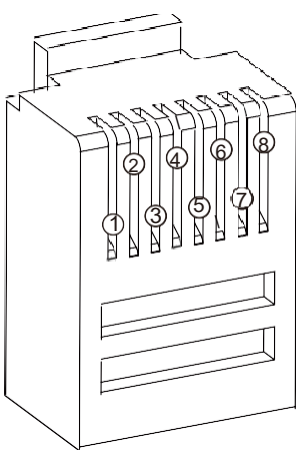
The interface is as follows:



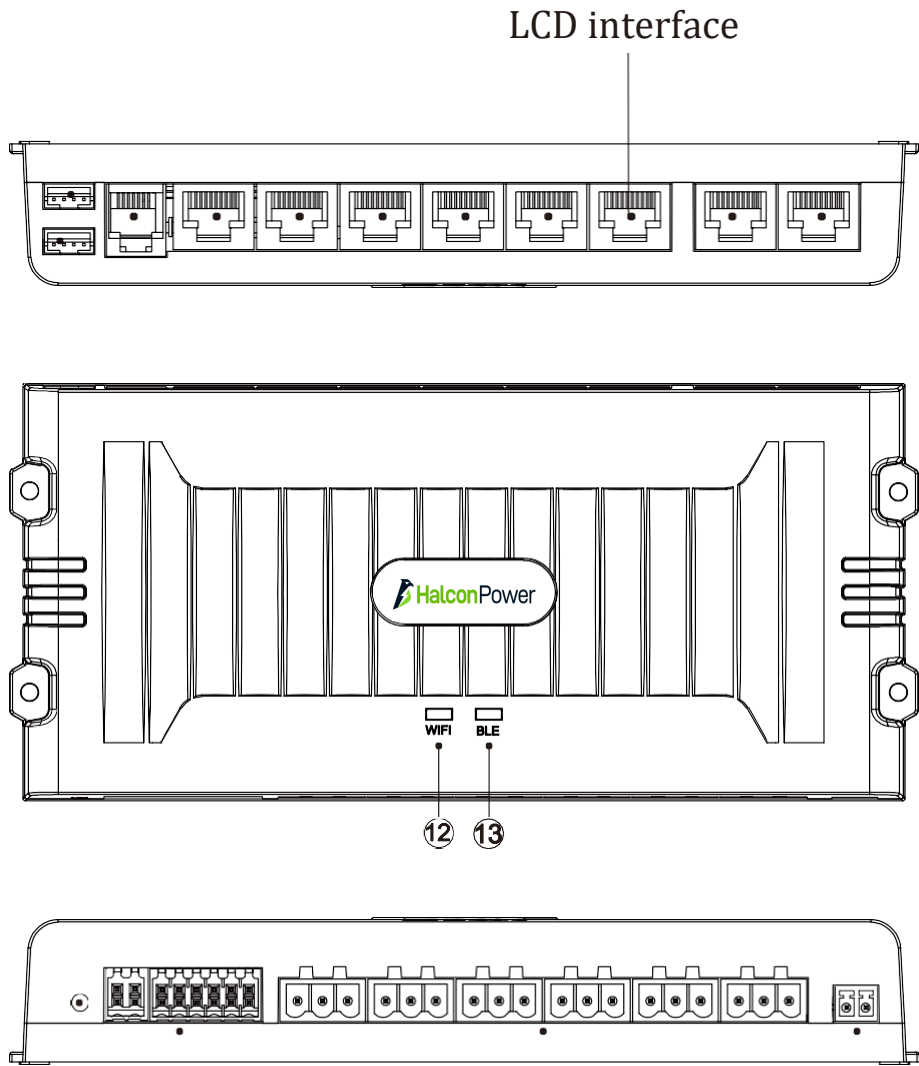
Device name customization setting :



4. Communication Interface Description

	Order number	Definition
	①	NC
	②	NC
	③	+5V
	④	Power groud / signal groud
	⑤	Power groud / signal groud
	⑥	B/D-
	⑦	A/D+
	⑧	+5V

Note: ③⑧ The screen power supply is obtained from HALCOMMHUB through the communication cable.



Note: This diagram shows the connection to the main controller. Refer to the main controller manual for wiring details.

5. Warning Listing

Warning Device	Warning Description
HALCOMMHUB	CHx low liquid level action(x= 1 ~ 8)
	CHx high liquid level action(x= 1 ~ 8)
	CHx temper upper limit alarm(x= 1 ~ 8)
	CHx temper lower limit alarm(x= 1 ~ 8)
BMS	Cell overpressure
	Cell low pressure
	Overpressure of the Pack
	Low pressure packing
	Charging with reverse polarity
	Discharge short circuit
	Short circuit during charging and discharging
	Overcharge pressure protection
	High-temperature protection during charging
	High-temperature protection for charging and discharging
	Low-temperature charging protection
	Discharge low-temperature protection
	MOS High Temperature Protection
	Environmental high-temperature protection
	Environmental low-temperature protection
	Terminal high-temperature protection
	Overcurrent charging
	Overcurrent discharge
HALDCDC	Quick overpressure protection
	Output overpressure
	Output low pressure
	Input low pressure
	Input overpressure
	High-temperature current limiting
	High-temperature protection
	Battery over discharge
	BAT undervoltage warning
	Battery overvoltage
	Generator overvoltage
	Output overload protection
	Output short circuit
	Reaching the stopped charging SOC/voltage level
	About to reach the point of stopping the output of SOC
	Not connected to battery

Warning Device	Warning Description
HALSH	SOC low alarm
	Equipment low temperature alarm
	Equipment overheating
	Starting battery low voltage alarm
	Starting battery high voltage
	Discharge overcurrent
	Charging overcurrent
	Environmental overheating
	Main battery low voltage alarm
	Main battery high voltage alarm
	Battery over discharge
	Battery overvoltage
	Bus low voltage
	Bus overvoltage
	Bus overcurrent
	Inverter undervoltage
	Inverter overvoltage
	Inverter overcurrent
	Load overcurrent
HALIC and HALC	Load short circuit
	Power grid input overcurrent
	Power grid input overvoltage
	Low voltage input to the power grid
	High voltage input to the power grid
	Low frequency input to the power grid
	High frequency input to the power grid
	A~D overheating
	Model malfunction
	Fan malfunction
	Output low voltage
	Output high voltage
	Discharge over temperature
	Low temperature discharge
	Charging over temperature
	Charging at low temperature
	Reverse connection of battery
	Charging overcurrent
	Overcurrent at the L2 input of the power grid
	Common machine communication failure

Warning Device	Warning Description
Not Applicable	BAT undervoltage warning
	Battery over discharge
	Not connected to battery
	High temperature
	Low temperature
	Battery overvoltage
	Charging overvoltage
	Reverse connection of battery
	Battery short circuit
	Starting battery reverse
	Generator overvoltage
	Generator charging overcurrent
	Abnormal AC-DC voltage
	Abnormal AC input voltage
	Controlled by remote switch OFF
	Communication error
	Equipment overheating
	Solar panel overpressure
	Reverse connection of solar
	Excessive charging power
HALMPPT	Battery over discharge
	Battery overvoltage
	BAT undervoltage warning
	Load short circuit
	Overload current
	Equipment overheating
	High temperature of the battery
	Excessive charging power
	Solar input overpressure
	Reverse connection of solar
	System alarm(self-recovery)
	Battery short circuit
	Solar energy input at low pressure
	Fan malfunction
	Not connected to battery
	Battery at low temperature
	Charging overvoltage
	Reverse connection of battery

Warning Device	Warning Description
BP Battery Protector	Battery over discharge
	Battery overvoltage
	Internal temperature is too high
	Loss of control